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## 2014 Annual Monitoring Report Olympic View Sanitary Landfill

### Presented To:

### Olympic View Sanitary Landfill, Inc. 10015 SW Barney White Road

Bremerton, Washington 98366 (925) 456-5369





### SCS ENGINEERS

2405 140<sup>th</sup> Avenue NE, Suite 107 Bellevue, Washington 98005 (425) 746-4600

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Offices Nationwide www.scsengineers.com

Elena Ramirez, LG Project Professional SCS ENGINEERS Dan A. Venchiarutti, LG, LHG Project Director

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### 1.0 INTRODUCTION

This report summarizes the results of the 2014 quarterly post-closure environmental monitoring conducted at the Olympic View Sanitary Landfill (OVSL), located in Bremerton, Washington. Monitoring events for the current compliance period were performed during March, June, September, November, and December of 2014. Quarterly environmental monitoring at the OVSL includes sampling and analysis of groundwater and leachate pond leak detection liquid, and monitoring landfill gas. Leachate influent monitoring is also conducted at the OVSL, but on an annual basis.

The current OVSL monitoring program meets the regulatory requirements for both corrective action and post-closure detection and assessment monitoring. Quarterly groundwater and landfill gas monitoring was performed at the facility in accordance with the OVSL Environmental Monitoring Plan (EMP, Engineering Management Support, Inc. 2010) and the updated site-specific Sampling and Analysis Plan (SCS Engineers 2013). The plans were developed in consultation with the Washington Department of Ecology (Ecology) and reflect a refined understanding of the site conditions based on the results of a Remedial Investigation/Feasibility Study (RI/FS) per WAC 173-340 (Model Toxics Control Act, MTCA). The OVSL monitoring program also meets the requirements of the Criteria for Municipal Solid Waste Landfills (WAC 173-351-430) which is administered by the Kitsap County Health District (KCHD).

SCS Engineers (SCS) and SCS Field Services (Field Services) performed quarterly environmental monitoring at the OVSL during March through December 2014. The following information describes the quarterly monitoring activities included in this report:

- Quarterly measurement of depth-to-water in groundwater monitoring wells within the monitoring well network
- Quarterly collection and analysis of groundwater samples at select monitoring wells within the monitoring network
- Quarterly collection and analysis of a leachate pond/leak detection system sample
- Collection and analysis of a leachate influent sample (during the fourth quarter monitoring event)
- Quarterly measurement of landfill gas concentrations at perimeter soil gas monitoring probes and building monitoring locations

### This report includes:

- A site location description and background section
- A discussion of monitoring activities including a summary of sampling techniques and locations within the groundwater and landfill gas monitoring network
- Construction details for groundwater monitoring wells
- A discussion of groundwater including groundwater elevations, flow direction, and flow velocity for the reporting year
- A summary of the monitoring analytical program and presentation of the analytical results and findings for the reporting year

- A summary of the landfill gas monitoring results for the reporting year
- A geochemical evaluation of water quality samples collected in November 2014
- A statistical trend analysis and concentration time series plots of groundwater monitoring results
- A statistical evaluation and comparison of groundwater results to background prediction limits
- A comparison of groundwater monitoring results to site-specific cleanup levels and other applicable criteria
- Field documentation from the 2014 monitoring events
- The Fourth Quarter 2014 data validation report and associated analytical laboratory reports
- A summary of historical landfill gas monitoring measurements

Previously issued analytical laboratory data reports for the first three quarters of the 2014 will not be reissued with this report and can be found in the respective quarterly monitoring reports. Similarly, landfill gas migration monitoring results for the first three quarters of the 2014 reporting year are reported separately in respective quarterly monitoring reports.

In order to conserve paper resources, the complete 2014 annual report is presented on an enclosed data CD attached to the rear cover of the document. However, for the convenience of the reviewer, hard copies of select material are included in this report.

### 2.0 SITE DESCRIPTION

### 2.1 LOCATION

The closed OVSL facility is located on approximately 436 acres in Sections 3 and 10, Township 23N, Range 1W of the Willamette Meridian, in Kitsap County, Washington. The facility is situated on an upland area approximately 10 miles southwest of the city of Bremerton. The facility address is 10015 SW Barney White Road, Bremerton, Washington. A site location map is shown on Figure 1. The closed refuse fill area covers approximately 65 acres of the site. A site plan is presented on Figure 2.

### 2.2 BACKGROUND

The OVSL facility accepted municipal solid waste between 1967 and 2003. Landfill closure was completed in 2004, in accordance with Washington Administrative Code (WAC) 173-351. Landfill closure included construction of a landfill gas monitoring system, an active landfill gas collection and treatment system, a leachate collection and treatment system, a storm water drainage control system, and a final landfill cover.

The final landfill cover consists of (top to bottom):

- 12-inches of vegetative topsoil and cover soil
- geotextile fabric
- 12-inch drainage layer
- Geonet composite 60-mil flexible membrane liner
- 6-inch thick, low permeability soil

The active landfill gas collection system consists of a total of 81 well heads (69 vertical wells, 4 horizontal wells, and 8 interconnections to the leachate collection system) connected to a gas treatment flare station. The leachate collection system consists of subgrade collection piping and a leachate collection lagoon. A storm water drainage control system controls storm water erosion and minimizes off-site migration of sediment-laden water (WMW 2008). Drainage and erosion protection improvements include vegetation, a landfill toe under drain, down chutes, culverts, and drainage ditches.

### 2.3 TOPOGRAPHY AND CLIMATE

The site is located in the Southern Upland of the Kitsap Peninsula adjacent to the Union River-Gorst Creek trough. The site topography ranges from approximately 150 to 360 feet above mean sea level (MSL). The land surface generally slopes to the west-southwest towards the Union River, which is located approximately a half mile west of the site.

Kitsap County's climate is characterized as maritime, with long, mild, wet winters and short, cool, dry summers. Climatically, and due to the local relief, there can be significant variations in total annual precipitation and average temperatures over short distances.

### 2.4 LOCAL AND REGIONAL HYDROGEOLOGY

The regional near-surface geology in the vicinity of the OVSL is dominated by glacio-fluvial and glacio-lacustrine deposits associated with the Vashon glaciation. The Remedial Investigation Report (Parametrix 2007) identified the following main stratigraphic units at the Site:

- Organic Soils and Peat (Qw)
- Alluvium (Qal)
- Vashon Recessional Outwash (Qvr)
- Vashon Lacustrine Recessional Outwash (Qvrl)
- Vashon Till (Qvt), Vashon Advance Outwash (Qva)
- Vashon Advance Lacustrine Deposits (Qval)
- Pre-Vashon Deposits (Qpvu)

With the exception of the Vashon Till (which has not been confirmed to be present at the site), all of these units appear to be present beneath the OVSL.

Information provided in the site conceptual model indicates that organic soils/peat, alluvium, outwash, glacio-fluvial, glacio-lacustrine, and flood plain deposits outcrop along the west-central portions of the OVSL facility. Groundwater is present beneath the site at elevations ranging between approximately 140 and 260 feet above MSL (depths-to-water ranging between near-surface and approximately 80 feet below ground surface). The groundwater flow direction beneath the landfill is generally toward the west.

### 3.0 2014 MONITORING ACTIVITIES

### 3.1 GROUNDWATER

### 3.1.1 Groundwater Monitoring Network

Quarterly groundwater monitoring is conducted at the OVSL in accordance with the January 2001 Agreed Order, EMP as modified through subsequent technical discussions with Ecology, and the site-specific Sampling and Analysis Plan (SAP). The monitoring also meets the post-closure landfill monitoring requirements under WAC 173-351-430.

The groundwater monitoring network at the OVSL includes four categories of monitoring wells that are sampled either quarterly or semi-annually, as well as those that are only used for water level measurements. The four well categories designated at the Site include the following:

- Upgradient (background) monitoring wells are used to assess the quality of groundwater upgradient of the landfill Site.
- Performance monitoring wells are used to assess groundwater quality at the edge of the waste management unit.
- Compliance monitoring wells are used to assess groundwater quality at the MTCA Point-of-Compliance (POC).
- Downgradient monitoring wells are used to assess groundwater quality leaving the Site.

A summary of well and type are listed below. The locations of these groundwater monitoring wells are illustrated on Figure 2.

Monitoring Wells at the OVSL by Type						
Upgradient	Performance	Compliance	Downgradient			
MW-13A	MW-2B1	MW-15R	MW-29A (S)			
MW-13B	MW-4	MW-34A	MW-32			
MW-16	MW-19C	MW-34C	MW-33A (S)			
MW-35	MW-20	MW-39	MW-33C			
	MW-23A	MW-42	MW-36A			
	MW-24	MW-43				

S = semiannual monitoring

Well completion depths range from approximately 9 to 230 feet below ground surface. Screen lengths vary from 5 to 20 feet, with a 10-foot average well screen length. Completion depth differences are differentiated using the following letter indicators: "A" is a shallower monitoring well completion, "B" indicates an intermediate well completion, and "C" indicates a deeper

A indicates a shallower well completion

B indicates an intermediate well completion

C indicates a deeper well completion

monitoring well completion. Construction details for the monitoring wells are provided on Table 1.

Each of the groundwater monitoring wells designated for routine sampling is outfitted with a dedicated sampling pump (QED Well Wizard) suitable for low-flow purging and sampling. Low-flow sampling with dedicated pumps minimizes pump-introduced artifacts as well as eliminating cross contamination between wells. Each dedicated bladder pump is positioned with its inlet located within the screened interval of the well. Well construction, development, and pump installation are reported in detail in the *Report of 2005 Gas Probe and Monitoring Well Installations at OVSL* (SCS Engineers 2006), the *Remedial Investigation Report, OVSL, Kitsap County* (Parametrix 2007) and the *Groundwater Monitoring Well Installation Report, OVSL* (SCS Engineers. 2009).

### 3.1.2 Monitoring Schedule

Groundwater monitoring was conducted on a quarterly basis in 2014. The quarterly events were completed in March, June, September, and November 2014. Beginning with the fourth quarter 2014 monitoring event, Ecology granted a requested modification to the quarterly water quality sampling schedule that will shift future events to the months of February, June, August, and November. A letter amendment has been attached to the current SAP to document this change. In accordance with the SAP, monitoring wells MW-29A and MW-33A were sampled on a semiannual basis during June and November 2014.

### 3.1.3 Parameters and Analytical Methods

The analytical program for groundwater quality monitoring in during the 2014 reporting period included the following Appendix I and II parameters:

Analytical Program	Parameter
Field Measurements	temperature, specific conductivity, pH, dissolved oxygen, turbidity, and static water level
Geochemical Indicator and General Parameters	chloride, sulfate, nitrate, calcium, sodium, bicarbonate, alkalinity, magnesium, potassium, iron, and manganese, and total suspended solids (as of Sept. 2013)
Dissolved and Totals Metals	antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, nickel, selenium, silver, thallium, vanadium, and zinc (Totals Metals as of Sept. 2013)
Volatile Organic Compounds	as listed in WAC 173-351 Appendix I
Leachate Indicator Parameters	ammonia, total organic carbon (TOC), and total dissolved solids (TDS)

Laboratory methods used are derived from several industry-standard publications. Methods for Chemical Analysis of Water and Wastes (MCAWW, EPA 1983) describe methods used for nitrate, nitrite, chloride, sulfate, and ammonia analyses. *Standard Methods for the Examination of Water and Wastewater* (APHA 1999, revised 2014) describe the methods used for analysis of alkalinity (total and bicarbonate, TDS, total suspended solids (TSS), and TOC. Metals and VOC analyses are described in EPA publication number SW-846, Test Methods for Evaluating Solid Wastes, Physical and Chemical Methods (EPA revised 2007). The method for measuring arsenic is described in Method 200.8, Determination of Trace Elements in Waters and Wastes by Inductively Coupled Plasma-Mass Spectrometry (EPA 1994).

All laboratory analyses were completed by TestAmerica labs in Denver, Colorado and Buffalo, New York; and by Analytical Resources Incorporated in Tukwila, Washington. The laboratories are accredited in accordance with WAC 173-50, Accreditation of Environmental Laboratories.

### 3.1.4 Field Monitoring and Sampling Procedures

Field activities conducted at the Site consist of surveying well conditions, obtaining field measurements (depth-to-water, pH, specific conductivity, turbidity, temperature, and dissolved oxygen), collecting groundwater samples for laboratory analysis, and packaging and shipping the samples to the laboratories. These activities are conducted as described in the revised 2013 site-specific SAP.

As part of the routine groundwater monitoring program, static water levels were measured and recorded each quarter in monitoring wells within the groundwater monitoring network prior to initializing sampling procedures. Static water levels are collected from both monitoring wells where water quality samples are collected and additional monitoring wells used only for determining the potentiometric groundwater surface. Depth-to-water measurements (measured to the nearest 0.01 ft.) were obtained using an electronic water level indicator. Static water level measurements were recorded and documented on field sampling and measurement forms included in Appendix A (for November 2014).

Prior to sample collection, groundwater monitoring wells were purged in order to ensure representative groundwater conditions at each location. Both purging and sampling of the monitoring wells were conducted using low-flow/low-volume well sampling techniques. Once the pumping was initiated, flow rates were confirmed by volumetric discharge measurements (by measuring the total volume discharged per cycle using a graduated cylinder and verifying the number of pump cycles per minute specified by the controller). Field measurements for pH, temperature, specific conductivity, dissolved oxygen, and turbidity were conducted using a closed, in-line flow-through cell and a portable turbidity meter. When water quality parameters stabilized and there had been no change in the pumping water level, sample collection would begin. Field-measured were measured as described in *Standard Methods for the Examination of Water and Wastewater* (APAH 2014). Prior to initiating the purge process, multiparameter field meters were calibrated in accordance with manufacturer's guidelines. Field data obtained during the well purging procedure was recorded on field sampling and measurement forms included in Appendix A (for November 2014).

Non-disposable sampling equipment that was exposed to well water (e.g., electronic water level tape) was decontaminated between wells as outlined in the SAP. Decontamination of equipment was completed before leaving each well, therefore minimizing potential cross contamination. Disposable sampling equipment and disposable personal protective equipment (PPE) were removed and disposed of after each use and prior to leaving each well.

### 3.2 LEACHATE

Leachate generated from three separate closed municipal waste storage cells is collected and pumped to an arterial force main that discharges to a one-acre leachate pond located near the western end of the landfill (refer to Figure 2). The force main outfall is located on the north end of the leachate lagoon. Accumulated leachate is treated by aeration. When the leachate elevation in the pond approaches the elevation of the former pond outlet, leachate is removed via pumping and hauled to nearby wastewater treatment plants.

### 3.2.1 Leachate Monitoring Locations

Per the EMP and SAP, leachate monitoring is performed at three locations at the facility. Influent leachate sampling station L-INF is situated immediately downstream of the force main outfall on the north end of the leachate collection pond. The OBWL-TD sampling station is located at the Old Barney White Landfill Toe Drain collection sump, which subsequently connects to the leachate pond. Sampling station LP-LCD is located at the pump discharge outlet which periodically returns any accumulated liquids that collect beneath the leachate pond liner system back into the main lagoon. The locations of the leachate monitoring stations are illustrated on Figure 2.

### 3.2.2 Monitoring Schedule

The current SAP provides for annual monitoring of the L-INF and OBWL-TD stations and quarterly monitoring of the LP-LCD station. Leachate influent was sampled at L-INF during the fourth quarter of 2014. The OBWL-TD station did not contain adequate sample volume for sample collection, as determined during the fourth quarter 2014 monitoring event. The LP-LCD was sampled quarterly in 2014.

### 3.2.3 Parameters and Analytical Methods

A summary of the analytical parameters tested for the leachate samples collected at the OVSL is presented in the table below.

Quarterly LP-LCD Analytical	Parameter
Field Measurements	temperature, specific conductivity, pH, dissolved oxygen, and turbidity
Geochemical Indicator Parameters	chloride, sulfate, nitrate/nitrite, calcium, sodium, bicarbonate, alkalinity, magnesium, potassium, iron, and manganese
Leachate Indicator Parameters	ammonia, TOC, and TDS

Annual L-INF Analytical Program	Parameter
Field Measurements	temperature, specific conductivity, pH, dissolved oxygen, and turbidity
Geochemical Indicator Parameters	chloride, sulfate, nitrate/nitrite, calcium, sodium, bicarbonate, alkalinity, magnesium, potassium, iron, and manganese
Dissolved Metals	Antimony, barium, beryllium, cadmium, chromium, cobalt, copper, lead, nickel, selenium, silver, thallium, vanadium, and zinc
Volatile Organic Compounds	as listed in WAC 173-351 Appendix I
Leachate Indicator Parameters	ammonia, total organic carbon (TOC), and total dissolved solids (TDS)

Laboratory methods are the same methods used for groundwater samples. All laboratory analyses were completed by TestAmerica labs in Denver, Colorado and Buffalo, New York.

### 3.2.4 Leachate Monitoring Field Procedures

Field activities consisted of obtaining field parameter measurements, collecting leachate samples for laboratory analysis, and packaging and shipping the sample to the laboratory.

The leachate influent sample, L-INF, consisted of an individual grab sample. The L-INF monitoring station was dry in 2014 so the L-INF sample was collected directly from the leachate pond. Field personnel immersed sample bottles to collect the leachate influent sample. The LP-LCD sample was obtained from an inline sampling port attached to the liquid return line that drains back into the leachate pond. All the leachate samples were collected directly into prelabeled laboratory containers suitable for the chemical parameters being analyzed. Field instruments were calibrated in accordance with manufacturer's guidelines.

Field-measured parameters including temperature, specific conductivity, pH, and dissolved oxygen were measured as described in *Standard Methods for the Examination of Water and Wastewater* (APAH 2014). Field information obtained during leachate sampling was recorded on Field Information Forms included in Appendix A (for November 2014).

### 3.3 LANDFILL GAS

Landfill gas monitoring activities at the OVSL consist of obtaining field measurements of primary gas composition (methane, carbon dioxide, and oxygen) at 10 subsurface soil gas detection probes (several with multiple screened intervals) and four locations inside two onsite structures on or immediately adjacent to the landfill.

Landfill gas monitoring is conducted to provide an assessment of the subsurface soil gas conditions at the OVSL and monitor compliance with regulatory criteria for subsurface methane concentrations. At the subsurface gas detection probes (gas probes) relative soil gas pressure was also measured in the field. Landfill gas monitoring procedures are detailed in the 2013 SAP.

### 3.3.1 Landfill Gas Monitoring Network

Landfill gas monitoring was conducted at 10 perimeter gas probes (GP-7 through GP-16) and two onsite structures as illustrated on Figure 3. Five of the gas probes (GP-9 through GP-13) consist of multiple, vertically discrete monitoring zones. Gas probes with dual monitoring zones are designated with an "S" for the shallow zone, and a "D" for the deep zone. Gas probes with three monitoring zones are designated with an "S" for the shallow zone, "M" for the middle zone, and "D" for the deep zone. Data are not reported for probes where the screened interval is found to be submerged by groundwater. Details of all the gas probes and boring logs can be found in *Report of 2005 Gas Probe and Monitoring Well Installations at OVSL* (SCS Engineers 2006).

### 3.3.2 Monitoring Schedule

Monitoring at the gas probes and facility structures was conducted during February, May, July, and December 2014. Landfill gas monitoring results are reported in Section 4.

### 3.3.3 Monitored Parameters

Field measurements of methane, carbon dioxide, and oxygen were obtained from each of the gas probes and within the facility structures. In addition, subsurface soil gas pressure and groundwater levels were measured in the gas probes during the monitoring events.

### 3.3.4 Landfill Gas Monitoring Field Procedures and Instrumentation

Field monitoring was conducted in accordance with 2013 SAP. The landfill gas probes and building locations were monitored in the field (for all parameters) using a GEM-2000 portable multi-gas analyzer. This portable gas analyzer measures methane and carbon dioxide with a dual wavelength infrared cell with a reference channel. Oxygen is measured with an electro-chemical cell. Pressure was measured with a transducer

The gas analyzer was calibrated prior to each monitoring event. Landfill gas monitoring activities are documented in the Field and Calibration Logs included in Appendix A.

### 3.3.5 Field Conditions

General weather conditions were noted during and preceding each quarterly landfill gas monitoring event. Atmospheric pressure fluctuations can influence gas concentrations and pressure in gas probes. To assist in interpreting data, barometric conditions were recorded during and prior to monitoring. The barometric trends for December 2014 are included in this report.

### 4.0 2014 MONITORING RESULTS

### 4.1 GROUNDWATER

### 4.1.1 Groundwater Elevation and Flow

Seven wells (MW-1, MW-14, MW-23A, MW-29A, MW-43, MW-40A, and MW-41A) could not be accessed, were obstructed, had low conductivity groundwater, or were dry for at least one quarter of 2014. Recorded depth-to-water levels are summarized in field documentation included in Appendix A.

Depth-to-water measurements collected through 2014 were used to calculate groundwater elevations in feet relative to MSL. The 2014 records have been compiled and are presented on Table 3. Groundwater elevation surface maps (derived from static depth-to-water measurements collected at the OVSL monitoring wells) for each quarter during the reporting period are presented in Figures 4A through 4D. A hydrograph of the groundwater elevations over time is presented on Figure 5. Groundwater elevations ranged from approximately 140 to 260 ft. MSL over the 2014 reporting period. Groundwater elevations remained relatively stable over the entire reporting period. The potentiometric groundwater elevation surface across the OVSL does not show significant seasonal fluctuations. These results remain consistent with data reported during previous compliance years.

The groundwater flow direction during the reporting period remained consistent with that previously reported. Locally, the groundwater flow direction is to the west/northwest. The average hydraulic gradient across the site remained fairly consistent from quarter to quarter.

Calculated 2014 Hydraulic Gradient and Flow Velocities – East Side				
	Q1	Q2	Q3	Q4
Well Pair	MW-35/MW-	24		
Hydraulic Gradient (ft./ft.)	0.0343	0.0330	0.0337	0.0338
Flow Velocity (ft./day)	2.97	2.86	2.92	2.93
Calculated 2014 Hydraulic C	Fradient and Flo	w Velocities – W	est Side	
	Q1	Q2	Q3	Q4
Well Pair	MW-20/MW-38			
Hydraulic Gradient (ft./ft.)	0.0120	0.0136	0.0136	0.0127
Flow Velocity (ft./day)	6.17	6.99	6.99	6.50

Eastern Hydraulic Conductivity = 26 ft/day (Parametrix 2007) Western Hydraulic Conductivity = 154 ft/day (Parametrix 2007) Porosity = 30% (Parametrix 2007)

### 4.1.2 Groundwater Quality

### 4.1.2.1 Chemical Analysis

Water quality data for the OVSL are summarized in Tables 4A through 4E. These tables present the data results of detected analytes and measured field parameters from all four quarters of

2014. Each table presents the data for a monitoring well category (Compliance, Performance, Downgradient, and Upgradient). A table summarizing the detected analytes and field parameters for the annual L-INF and quarterly LP-LCD leachate and leak detection monitoring stations is also provided. In addition, a summary table of VOC detections in groundwater and leachate is presented on Table 5.

### 4.1.2.2 Data QA/QC

All analytical data from TestAmerica and ARI were subjected to a quality assurance/quality control (QA/QC) program and evaluation. The program included field and in-house components. The field portion consisted of the collection and analysis of trip blanks, field replicates, and a matrix spike/matrix spike duplicates. The in-house evaluation provided a detailed review of laboratory data which included sample handling, analysis hold times, and laboratory performance analyses (duplicates, blanks, matrix spikes, matrix spike duplicates and surrogate recoveries). The 2014 data set was determined to be acceptable for the intended purposes.

Appendix B contains the data validation report and the analytical laboratory data reports for the November 2014 monitoring event.

### 4.1.3 Spatial Distribution and Temporal Trends

### 4.1.3.1 Parameter Distribution

As noted in previous site monitoring reports, the influence of past waste disposal activities on groundwater quality at the OVSL is observed in the groundwater VOC detections, general chemistry, inorganics, and field parameter results. The elevated concentrations of parameters adjacent to the landfill are typically characteristic of influence from either landfill leaching, transport from landfill gas, or increased mobilization of naturally occurring constituents as a result of the landfill's presence.

At the OVSL, several key parameters (dissolved arsenic, dissolved iron, dissolved manganese, and vinyl chloride) are routinely monitored for their spatial distribution each quarter by plotting concentrations on the landfill base map. The spatial distributions for these four parameters for the fourth quarter November 2014 monitoring event are presented in Figures 6A through 6D and summarized in the tables below.

Dissolved Arsenic (mg/L) - November 2014 (Figure 6A)					
Concentration Upgradient Performance Complian			Compliance	Downgradient	
Low	0.00011	0.00009	0.00004	0.0002	
Locations	MW-35	MW-23A	MW-43	MW-33A	
High	0.00029	0.00307	0.0016	0.0092	
Locations	MW-13B, MW-16	MW-19C	MW-42	MW-32	

Dissolved Iron (mg/L) – November 2014 (Figure 6B)					
Concentration	Upgradient	Performance	Compliance	Downgradient	
Low		<0.06	<0.06	0.066	
Locations	All less than <0.06	MW-2B1, MW-4, MW-20, MW-24	MW-15R, MW-34A	MW-36A	
High		0.46	29	5.1	
Location		MW-23A	MW-39	MW-33A	

Dissolved Manganese (mg/L) – November 2014 (Figure 6C)					
Concentration	Upgradient	Performance	Compliance	Downgradient	
Low	<0.001	0.16	<0.001	<0.001	
Locations	MW-13A, MW-13B, MW-35	MW-20	MW-34A	MW-36A	
High	0.012	2.1	5.0	2.4	
Locations	MW-16	MW-23A	MW-42	MW-32	

Vinyl Chloride (μg/L) – November 2014 (Figure 6D)					
Concentration	Upgradient	Performance	Compliance	Downgradient	
Low		<0.02	<0.02	<0.02	
Locations	All less than <0.02	MW-2B1, MW-24	MW-34A, MW-39, MW-43	MW-29A, MW-33A, MW-33C, MW-36A	
High		0.09	0.12	0.39	
Locations		MW-19C	MW-34C	MW-32	

Groundwater impacts are seen in each category of monitoring wells at the Site. The highest detected concentrations of arsenic and manganese in Upgradient (background) monitoring wells were observed at MW-13B (arsenic, 0.00029~mg/L) and MW-16 (arsenic, 0.00029~mg/L and manganese, 0.012~mg/L). The highest concentrations of these parameters noted in Performance monitoring wells were observed at wells MW-19C (arsenic, 0.00307~mg/L; vinyl chloride,  $0.09~\text{\mug/L}$ ) and MW-23A (iron, 0.46~mg/L and manganese, 2.1~mg/L). The highest detected concentrations of these parameters in Compliance monitoring wells were observed in wells MW-34C (vinyl chloride,  $0.12~\text{\mug/L}$ ), MW-39 (iron, 29~mg/L), and MW-42 (arsenic, 0.0016~mg/L and manganese, 5.0~mg/L).

### 4.1.3.2 Temporal Trends

Time series graphs and a statistical trend analysis were produced for all Upgradient, Performance, Compliance, and Downgradient monitoring wells using the DUMPStat software package. The data used for the statistical analyses includes data from 2005 through the present reporting year, 2014. This evaluation was conducted for parameters listed in Appendices I and II of WAC 173-351-990 -- organized into two groups: "Trend Test A" and "Trend Test B". The "Trend Test A" time series include all organic parameters in Appendices I and II that have been detected above the practical quantification limit (PQL) during at least one sampling event in any of the wells since 2005 (currently 25 VOCs). The "Trend Test B" time series include Appendix I and II inorganic and ground water quality parameters (currently 32 parameters). To facilitate review of the statistically significant trends, time series sets were developed to just show those well/parameter combinations exhibiting either increasing or decreasing trends. These time series graphs are presented in Appendix C along with the other statistical evaluation results. A summary of those parameters showing significant increasing or decreasing concentration trends grouped by well type is provided on Table 6A and a more detailed summary of parameter trends in specific wells can be found in Table 6B.

The dominant data trend seen for many parameters throughout the Site remains that of decreasing concentrations. This is observed primarily in Performance, Compliance, and Downgradient monitoring wells with significant decreases noted in all well groups for as many as 15 inorganic parameters and two VOCs. However, significant increasing trends for some inorganic parameters are also seen in all well groups, although the number of parameters increasing remains low.

Significant parameters trends for the Compliance monitoring wells are summarized below.

Significant Trends in Compliance Wells (2005 - 2014)				
Incred	asing	Decre	,	
Parameter Wells		Parameter	Wells	
Chromium, Dissolved	MW-34A	Alkalinity, Total	MW-15R	
рН	MW-42	Arsenic, Dissolved	MW-34C	
Potassium, Dissolved	MW-42	Barium, Dissolved	MW-15R	
Temperature	MW-34A, MW-34C	Bicarbonate Alkalinity	MW-15R	
		Calcium, Dissolved	MW-15R, MW-34C	
		Chila vi al a	MW-15R, MW-34A,	
		Chloride	MW-34C	
		Iron, Dissolved	MW-34C	
		. ,	MW-15R, MW-34A,	
		Magnesioni, Dissolved	MW-34C	
		Manganese, Dissolved	MW-15R	
		Sodium, Dissolved	MW-15R, MW-34A,	
		Socioni, Dissolved	MW-34C	
		Specific Conductivity	MW-15R, MW-34A,	
		Specific Conductivity	MW-34C	
		Sulfate	MW-34A	
		Total Dissolved Solids	MW-15R, MW-34C	
		Vinyl Chloride	MW-34C	

### 4.1.4 Groundwater Geochemistry

The geochemical character of groundwater, LP-LCD, and L-INF samples was evaluated by plotting and comparing geochemical parameters using a Piper diagram for the November 2014 analytical results. Groundwater samples collected during November 2014 were of similar geochemical water type with clear differences seen between the groundwater, L-INF, and LP-LCD samples. As noted for past compliance years, the positions of samples on the diagram indicate that the dominant anion in groundwater samples continues to be bicarbonate, while the cations are still dominated by calcium and magnesium. The LP-LCD and L-INF samples have higher sodium and potassium levels than groundwater, as well as higher chloride levels. The Piper diagram for November 2014 can be found in Appendix D. Previous Piper diagrams for the first, second, and third quarters can be found in the corresponding quarterly monitoring reports.

In addition to the Piper diagram, groundwater cation/anion balance calculations were also used to assess geochemical character. Ideally, after the major anions and cations present in a sample are determined, the sum of the positive cations (in milliequivalents per liter [meq/L]) should approximately equal the sum of the negative anions (Hem 1986). All natural waters should be electroneutral, however, differences can arise between dissolved cations and anions in groundwater as measured by an analytical laboratory due to a number of factors including: presence of colloidal fractions, systematic error in preparation and analysis of samples, malfunction of/poorly calibrated equipment, major species omitted from analysis, the presence of unusually high concentrations of cations/anions, and not all ions present in water are included in the balance calculation. Due to these potential issues, differences in the ion balance can be difficult to assess for imbalances due to groundwater impacts.

The range of the sum of ions and balance of ions observed at the Site for the November 2014 monitoring event are summarized in the table below. Positive values indicate that the sum of the cations is greater than the sum of the anions

Well Group	Upgradient	Performance	Compliance	Downgradient
Sum of Ions (meq/L)	2.10-3.43	1.68-5.60	3.74-9.96	1.03-6.92
Balance (%)	2.9-3.5	-0.2-8.2	-18.1-9.6	-6.5-10.0

As stated in WAC 173-351-430-5(a), a relative percent difference (RPD) in the charge-balance (ion balance) of greater than five to ten percent (depending on the concentrations of ions in solution) could potentially indicate impacted groundwater conditions. Ion balances observed at the Site during the November 2014 event are largely within or very close to this threshold. It's likely that results greater than the 5 to 10% ion balance threshold are due to possible errors associated with analytical limitations in the measurements (as previously discussed) or potential low level impact from human activities at the Site.

### 4.1.5 Statistical Prediction Limit Evaluation

Statistical prediction limits using data from the upgradient monitoring wells are calculated at the end of each monitoring year to provide updated background concentrations for all Appendix I and II inorganic detection monitoring and ground water quality parameters (a total of 32

parameters). These updated background prediction limit concentrations are used for comparison purposes for compliance and downgradient monitoring wells.

Prediction limits for inorganic parameters were exceeded at least once during the fourth quarter of 2014 in eleven of the Downgradient and Compliance groundwater monitoring wells (MW-15R, MW-29A, MW-32, MW-33A, MW-33C, MW-34A, MW-34C, MW-36A, MW-39, MW-42, and MW-43). Well MW-42 reported the largest number of prediction limit exceedances (18 in total). A summary of the latest prediction limit exceedances for the November 2014 results for Compliance and Downgradient wells is presented on Table 7. Prediction limit calculations are presented in Appendix C.

As previously noted (and as shown on Tables 6A and 6B), the following upgradient monitoring wells exhibited statistically significant increasing or decreasing trends over the period for which background prediction limits are calculated: MW-13A (bicarbonate/total alkalinity and sulfate), MW-13B (bicarbonate/total alkalinity and sulfate), MW-16 (pH and arsenic), and MW-35 (bicarbonate/total alkalinity and nitrate). Trends in upgradient monitoring wells are noted because they can impart a bias on the calculated prediction limit for the affected monitoring parameters which, in turn, can affect the number of exceedances identified for those monitoring parameters in compliance and downgradient wells.

For bicarbonate and total alkalinity, the appaarent increasing trend could impart a positive bias on the calculated prediction limit. However, examination of the time series graphs presented in Appendix C indicates that the noted increasing trends for these parameters in these wells is relatively slight. Therefore, any bias to the prediction limit would be expected to be nominal and not significantly change the number of bicarbonate and total alkalinity exceedances.

### 4.1.6 Point of Compliance and Cleanup Level Exceedances

### 4.1.6.1 Point of Compliance (POC)

The solid waste regulations (WAC 173-351-300[6]), specify that groundwater quality compliance must be established at a POC located on the landfill property no more than one hundred fifty meters (four hundred ninety two feet) from the waste management unit boundary. At the OVSL, the POC is established as a line of wells located within 150 meters of the landfill waste management unit boundary. As illustrated on Figure 2, the Compliance monitoring wells are colored red and lie west/northwest of the downslope boundary of the landfill.

### 4.1.6.2 Cleanup Level Exceedances

### **Site-Specific MTCA Cleanup Levels**

Ten organic and inorganic parameters are regulated under the OVSL Cleanup Action Plan (CAP, Ecology 2010) and have site-specific MTCA cleanup levels. Analytical results are used to calculate an upper confidence limit (UCL) of the mean concentration for each parameter for each well for Compliance and Downgradient monitoring wells to assess compliance with their respective cleanup level.

The UCLs are calculated using a three-year moving data window (per MTCAStat guidance) for the ten site-specific chemicals of concern (COC). The UCLs are calculated using MTCAStat;

calculation details are presented in Appendix C. The following in-text table and Table 8 summarize the COCs and their 2014 exceedances.

Chemicals of Concern	Units	Site-specific MTCA Cleanup Level	Exceedances in 2014
1,1-Dichloroethane	μg/L	50	No
1,4-Dichlorobenzene	μg/L	2	No
Ammonia	mg/L	0.19	Yes
Arsenic	mg/L	0.000462	Yes
Cis-1,2-Dichloroethene	μg/L	35	No
Ethyl ether	μg/L	50	No
Iron	mg/L	0.3	Yes
Manganese	mg/L	0.05	Yes
Trichloroethene	μg/L	1	Yes
Vinyl Chloride	µg/L	0.2	Yes

Blue indicates COC in 2014 exceeded site-specific MTCA Cleanup Levels

Several indications of improving groundwater quality or groundwater continuing to remain stable were observed in 2014. For example, the 95% UCL for vinyl chloride remained below the cleanup level in all Compliance wells and all Downgradient wells except MW-32. Much of the minor variation in concentrations observed from year to year can cause exceedances to arise or vanish between reporting periods. This is largely a result of the UCLs hovering very near cleanup levels and not a result of larges changes to the groundwater conditions.

Statistically significant trends are also noted on Table 8 in order to provide additional information regarding the status of the UCL relative to the cleanup standard. Trend information may be particularly useful if the calculated UCL value is very close to the cleanup standard (e.g., within 10%). In such cases, trend information may be useful in predicting a change in status of the UCL versus the cleanup level in the relative near term.

Exceedances of the site-specific MTCA cleanup levels were reported in five of six Compliance well locations (refer to Table 8): MW-34A (arsenic); MW-34C (arsenic, iron, manganese); MW-39 (ammonia, arsenic, iron, and manganese); MW-42 (ammonia, arsenic, iron, manganese); and MW-43 (iron and manganese). In 2014, as in 2013, a significant decreasing trend was reported for manganese in MW-15R, and was reported for arsenic and iron in MW-34C. The 95% UCLs for select VOCs were below the site-specific MTCA cleanup levels in all of the Compliance monitoring wells.

Exceedances of the site-specific MTCA cleanup levels were reported in all five Downgradient well locations (refer to Table 8): MW-29A (arsenic, iron, and manganese); MW-32 (arsenic, iron, manganese, and vinyl chloride); MW-33A (ammonia, iron, and manganese,); MW-33C (arsenic, iron, and manganese); and MW-36A (arsenic). Significant decreasing trends were identified in the following wells: MW-29A (ammonia) MW-32 (arsenic and iron), MW-33C (arsenic), and MW-36A (arsenic). Other than vinyl chloride in MW-32, all of the 95% UCLs for

the select VOCs were below the site-specific MTCA cleanup levels in all of the Downgradient monitoring wells.

### Other Criteria Comparison (Federal MCLs, WAC 173-200, and MTCA)

In addition to the site-specific MTCA cleanup levels, groundwater at the OVSL is also compared to WAC 173-200 Groundwater Quality Protection Standards and State/Federal Primary and Secondary Maximum Contaminant Levels (MCLs). For comparison purposes, site-specific MTCA cleanup levels are also included.

The WAC 173-200 and MCL exceedances for the 2014 reporting period by parameter and well are summarized on Table 9. Criteria for the seven analytes were exceeded:

- pH
- Ammonia
- Arsenic, Total and Dissolved
- Iron, Total and Dissolved
- Manganese, Total and Dissolved
- Trichloroethene
- Vinyl chloride

### 4.2 LEACHATE MONITORING RESULTS

### 4.2.1 Leachate Quality

The results of the fourth quarter 2014 leachate influent sample (L-INF) analysis are presented alongside the groundwater sampling results on Table 4E. No volatile organic compounds were detected in the L-INF sample. Samples were also obtained from the LP-LCD monitoring station and submitted for selected Appendix II parameter and total metals analysis during all four quarters of 2014 (refer to Table 4E).

### 4.2.2 Leachate Generation Rates

Leachate volumes generated at the OVSL have been recorded on a weekly basis by SCS Engineers Field Services since 2008. During the 2014 reporting period, approximately 1,106,803 gallons of leachate were reported to have been pumped into the leachate collection pond. As noted in the previous annual report 2014 Annual Monitoring Report, Olympic View Sanitary Landfill (SCS 2014), a decrease in leachate volume (550,000 gallons less than 2012 or 1,102,482 total gallons for the year) had been observed during the 2013 monitoring year relative to the volume observed in 2012. Although, leachate volumes were not further reduced in 2014, there was a significant increase in annual rainfall over the previous year. Approximately 63.24 inches of precipitation were reported for the area during 2014 compared to 28 inches in 2013. These data indicate that ongoing improvements to site maintenance and existing infrastructure have significantly reduced leachate generation rates (per inch precipitation) at the OVSL. The amount of leachate produced on a quarterly and annual basis over the last five years is presented on Figure 7.

In addition, the liner leak collection/detection system is checked regularly for the presence of any accumulated liquids beneath the OVSL leachate pond. If liquids are present, they are pumped out of the collection system, pass through the LP-LCD monitoring station, and are returned to the leachate pond. The volumes of liquid pumped out of the liner leakage collection system during 2014 are presented on Table 10. Approximately 2,230 gallons of liquid were removed from the collection system during 2014 which is a reduction of more than 20 percent.

### 4.3 LANDFILL GAS MONITORING RESULTS

The presence of landfill gas is discussed in terms of detected methane and/or carbon dioxide (at concentrations of both gases at levels greater than 0.3 percent by volume) and depressed oxygen (less than 20.3 percent by volume). The detection of these gases, as well as, and elevated gas pressures within the perimeter probes indicate the potential presence of landfill gas. The reported values represent measurements from stabilized conditions (after purging at least one probe volume from each sampling zone). It should also be noted that the monitoring results are discussed in terms of probe locations, not sampling zones (by depth). For example, if methane is detected in the shallow or deep monitoring zone (or both) of one gas probe, the reference is to the location. The screened interval in Middle- and Deep-monitoring zones is sometimes submerged by the shallow groundwater table. When this occurs, gas results are not representative of the screened interval, and as a result are not reported.

Perimeter landfill gas probes and surface structure locations were monitored for the presence of landfill gases. The December 2014 results are summarized in Table 11.

Gas concentrations and pressures are also influenced by fluctuating barometric pressure. To assist in interpreting data, barometric conditions were recorded prior to and during monitoring. Barometric trends for December 2014 are presented on Figure 8.

### 4.3.1 Perimeter Gas Probe

Methane was not detected above the regulatory standards in any of the gas monitoring probes (the LEL which is equal to 5% methane by volume for soil gas probes) or in any of the landfill buildings (25% of the LEL for methane in any structures). Methane was only detected at one location (GP-15 at 0.4 percent by volume) at a level slightly higher than the instrument detection limit of 0.3 percent by volume. Carbon dioxide was measured at all gas probes ranging from 0.1 (GP-13D) to 8.3 percent by volume (GP-7). The reading from GP-13D is below the level of quantification for the instrument and is considered to be a zero value. Depressed oxygen levels (less than 20.3 percent by volume) were reported at the majority of gas probes, ranging from 0.0 (GP-15) to 20.10 percent by volume (GP-12S). Two probe locations had oxygen levels that were not depressed: GP-10S (20.5 percent by volume) and GP-13D (20.7 percent by volume). Representative relative (static) pressure readings in the perimeter gas probes ranged from -1.19 to 0.45 inches of water column.

As noted in past monitoring years, the observed declines in methane and carbon dioxide levels in the various gas probes (as well as the increases in oxygen levels) likely reflect changes in the landfill gas extraction system components (e.g., replacement of landfill gas flare and blower station and the installation of six new gas wells in October of 2011 in the Barney White area) and

changes to landfill gas extraction system operations implemented by Waste Management. Appendix E includes tables of historical concentrations of methane, carbon dioxide, and oxygen in the currently monitored gas probes, from March 2007 through the end of the 2014 monitoring year.

Groundwater seepage during the rainy season can submerge the perforated portion of the soil gas probe casing and inhibit collection of soil gas in the vadose zone. To determine whether the perforated portion of the gas probes were blocked by water, water level measurements are taken at each gas probe location. The percentage of exposed perforated casing for each gas probe is shown on Table 11.

### 4.3.2 Structure Monitoring

In December 2014, monitoring showed no presence of methane in either the South Slope Well House or the Scale House. Carbon dioxide was detected at 0.1 percent by volume in onsite structures. Oxygen concentrations at both structures were not depressed.

### 4.3.3 Barometric Pressure Conditions

Gas concentrations and pressures are influenced by fluctuating barometric pressure. Relative to time, the highest landfill gas concentrations and depressed oxygen concentrations tend to occur shortly after a significantly falling barometric trend. This is due to the effects of the landfill pressures trying to stabilize with the fluctuation in atmospheric (barometric) pressure and the associated lag time for stabilization.

To assist in interpreting data, barometric conditions were recorded prior to and during landfill gas monitoring. The trends for December 2014 are presented on Figure 8. On December 29, landfill gas monitoring was conducted during a period of slightly rising barometric pressure conditions.

### 5.0 SUMMARY AND CONCLUSIONS

Landfill gas and leachate generation rates and groundwater quality results at the OVSL generally remain consistent with an overall improvement of environmental site conditions and the ongoing stabilization of the closed landfill. Groundwater quality data indicate that from 2005 through 2014 that contaminants in groundwater continue to decline with fewer exceedances in site-specific MTCA cleanup levels in groundwater reported at POC monitoring wells and downgradient of the site overtime. The 2014 reporting year saw a further reduction in leachate production, which is consistent with recent trends, and the previous implementation of improved site engineering controls. The facility will continue to explore opportunities to minimize any remaining above ground contribution to leachate volumes to ensure that the trend of diminishing leachate generation continues.

Similarly, landfill gas production at the OVSL continues to decline with flow rates decreasing rapidly to several orders of magnitude below their model production high as the depletion of methane and other landfill gases continues at the site. It is anticipated that on-going monitoring efforts in 2015 will continue to show improving environmental conditions and increased landfill stability.

### 5.1 GROUNDWATER

### 5.1.1 Groundwater Quality

Elevated concentrations of certain volatile organic compounds (VOCs), general chemistry parameters, inorganic analytes, and field parameters continue to be detected in the monitoring wells adjacent to the OVSL during the 2014 reporting period.

Water quality standards were exceeded for seven analytes: pH, dissolved arsenic, dissolved iron, dissolved manganese, ammonia, trichloroethene, and vinyl chloride. The results from the 2014 monitoring year are generally consistent with those reported for previous years although overall trends show concentrations decreasing.

The only primary federal MCL exceedances at the OVSL for the 2014 reporting period were for arsenic in wells MW-32 (0.0142 mg/L and 0.0266 mg/L) and MW-34C (0.0628 mg/L). Samples were from unfiltered groundwater collected during either the March or June monitoring events. The primary MCL for vinyl chloride was not exceeded during the reporting period and has not been exceeded since 2006.

MTCA corrective action monitoring during 2014 reported 95% UCL groundwater cleanup goal exceedances at ten of eleven compliance and downgradient wells at the OVSL. Compliance well MW-15R did not report any exceedances. With the exception of vinyl chloride in MW-32, the only parameters to report exceedances of the site specific MTCA cleanup levels were ammonia, arsenic, iron, and manganese. The most parameter exceedances were reported in Compliance wells MW-39 and MW-42 and downgradient well MW-32. However, an analysis of the 95% UCL for the ten COCs relative to their respective cleanup levels indicates improving

groundwater quality during 2014. Furthermore, Downgradient and Compliance wells exhibited only decreasing significant trends in site-specific COCs in 2014.

Prediction limits for inorganic parameters were exceeded in eleven groundwater monitoring wells. Significantly increasing concentrations trends (using Sen's Non-Parametric Test for Trend) were reported for at least one inorganic parameter at thirteen well locations, and significantly decreasing trends also occurred at sixteen well locations. Significantly decreasing concentration trends were reported for trichloroethene (MW-19C) and vinyl chloride in performance wells MW-19C, MW-24, and MW-34C.

The groundwater analytical data, statistical and graphical analyses, and comparison to water quality standards continue to indicate similar, but improving conditions (in 2014) to those previously documented from 2005 through 2013, with on-going evidence that natural attenuation continues to be affecting the groundwater quality at the site.

### 5.1.2 Evidence for Natural Attenuation

Natural attention includes a variety of physical, chemical and biological processes that act without human intervention to reduce mass, toxicity, mobility, volume, or concentration of contaminants. Examples of these processes can include biodegradation, dispersion, dilution, sorption, volatilization, chemical transformation, and contaminant destruction. At solid waste landfills, natural attenuation processes are largely controlled by and associated with changes in groundwater chemistry. Typically, for landfills, pathways for aerating subsurface soils and groundwater is impeded resulting in increasingly anaerobic and reducing conditions (or in the case of unlined landfills, there is potential for highly reduced liquids to enter the groundwater system). These conditions promote microbial communities that can degrade organic compounds resulting in the dechlorination of solvents and their daughter products.

The on-going improvement observed in water quality throughout 2014 is illustrated by the overall stability and decreasing trends observed in the 95% UCLs calculated and compared to cleanup levels for the site-specific MTCA cleanup levels. These data continue to support the conclusion that natural attention is occurring as expected at the OVSL.

Significant areas across and immediately downgradient of the waste cells exhibit an anaerobic and/or reducing geochemistry, especially at those wells showing most elevated contaminant concentration (e.g., MW-20 and MW-19C with elevated dissolved iron, vinyl chloride and other redox sensitive parameters). The presence of vinyl chloride beneath the west-central portions of the site is consistent with the ongoing reductive dechlorination of parent compounds (PCE, TCE and DCE isomers). However, further downgradient, along the far western margins of the site, groundwater geochemistry becomes increasingly less reductive and more oxidative which may still continue to support the degradation of vinyl chloride. This is demonstrated by the general absence of VOCs, including vinyl chloride, in downgradient wells MW-33A, MW-33C and MW-36A.

The increasing number of decreasing parameter trends provides additional evidence supporting the ongoing and expected natural attention at the OVSL. Given the current data and historical

trends, natural attenuation at the OVSL can be anticipated to continue throughout the post-closure period.

### 5.2 LEACHATE

Comparison of the 2014 groundwater and L-INF field and laboratory results confirm that parameters measured and analyzed in the L-INF are elevated relative to groundwater. These parameters include specific conductivity, alkalinity, ammonia, total calcium, total magnesium, total potassium, total sodium, chloride, sulfate, total dissolved solids, total organic carbon, and barium. Vinyl chloride was not reported in the 2014 L-INF sample, and has not been since 2011.

The LP-LCD monitoring station was sampled in all four quarters of 2014. These samples continue to report elevated specific conductivity, alkalinity, ammonia, calcium, chloride, iron, manganese, sodium, sulfate, TDS and TOC compared to the groundwater results.

A reduction in leachate volume generated per inch of rain was again realized in 2014. Despite increase rainfall, infrastructure improvements at the site have continued to contribute to a decrease in leachate generation rate. Liquid volumes recorded at the LP-LCD monitoring station for the leachate pond leakage collection system indicate that approximately 2,230 gallons of liquid were returned to the pond in 2014, a 20 percent reduction over 2013. The relatively low LP-LCD volumes reported during 2014 continue to suggest that leakage through the leachate pond liner system is minimal and well controlled. Previously reported metered volume readings (prior to late-2012) from the pump at the LP-LCD station had been considered to be unreliable. The re-engineered of the LP-LCD system in late 2012 has improved accuracy of reported liquid volume entering the leak detection system.

### 5.3 LANDFILL GAS

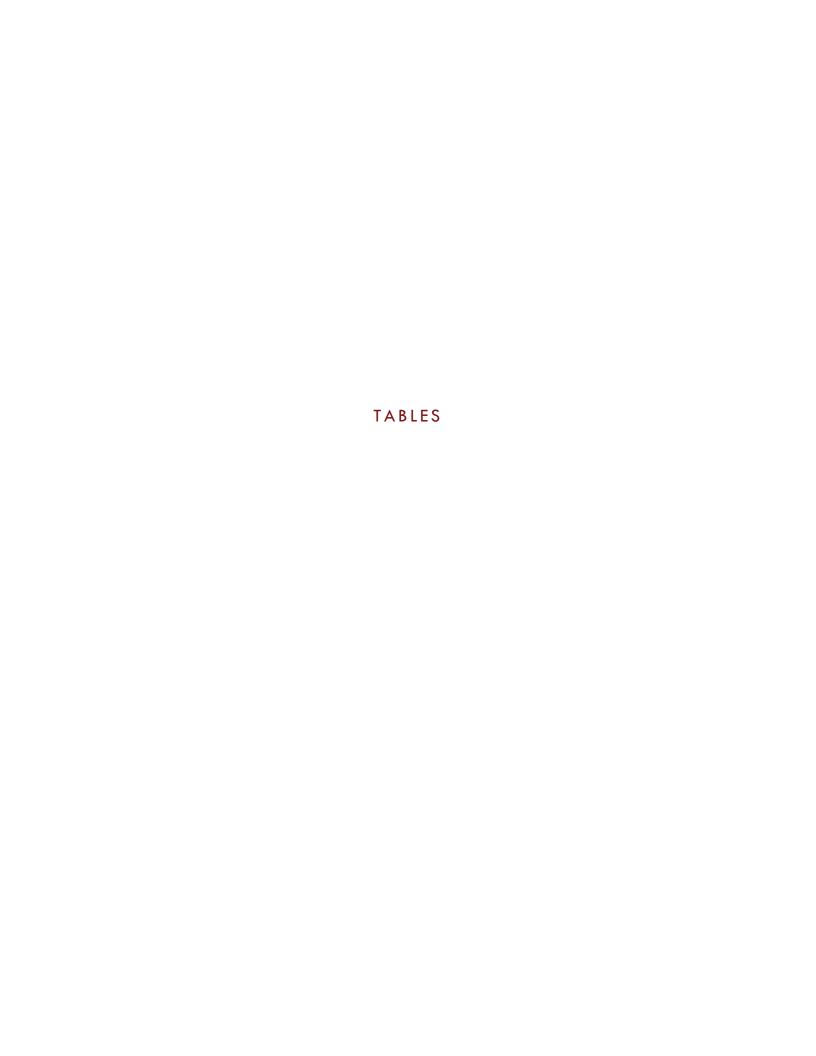
Methane was not detected above state regulatory standards in any of the gas monitoring probes or in any of the landfill structures during 2014. The perimeter soil gas probe monitoring results indicate that the facility is in compliance with respect to subsurface landfill soil gas migration criteria (less than 5% by volume of methane in soil at the property boundary). During recent years, both carbon dioxide and depressed oxygen concentrations in the perimeter probes have been declining or stabilizing to low levels, which is consistent with attenuating landfill gas levels at these locations.

Methane was not detected at any of the structural gas monitoring locations during the 2014 reporting period. It should be noted that due to the demolition of on-site buildings during the latter half of 2009, only the South Slope Well House and the Scale House remain present at the OVSL. Going forward, structural landfill gas monitoring will continue for these buildings.

Ongoing improvements (discussed above and in previous reports) to the OVSL landfill gas extraction system and associated infrastructure, which commenced in 2007, have reduced landfill gas levels (as measured by methane, carbon dioxide and depressed oxygen levels) at both perimeter soil gas probe and structural monitoring locations. The gas collection system will continue to be monitored and optimized to enhance its performance.

### 6.0 REFERENCES

- American Public Health Association (APHA), American Water Works Association, Water Environment Federation, revised 2014. *Standard Methods for the Examination of Water and Wastewater*.
- Engineering Management Support, December 2010, Environmental Monitoring Plan, Olympic View Sanitary Landfill, Port Orchard, WA.
- Gibbons, Robert D., and Discerning Systems, Inc. Copyright 1994-2005. *DUMPStat Version* 2.1.8.
- Parametrix, Inc. 2007 Draft Final Remedial Investigation Report, Olympic View Sanitary Landfill.
- SCS Engineers. June 2006. Report of the 2005 Gas Probe and Groundwater Monitoring Well Installation at the Olympic View Sanitary Landfill.
- SCS Engineers. April 2009. *Groundwater Monitoring Well Installation Report, Olympic View Sanitary Landfill.*
- SCS Engineers. March 2013. 2012 Annual Monitoring Report, Olympic View Sanitary Landfill.
- SCS Engineers. March 2014. 2013 Annual Monitoring Report, Olympic View Sanitary Landfill.
- SCS Engineers. 2013. Olympic View Sanitary Landfill, (OVSL) Sampling and Analysis Plan. April.
- USEPA 1994. Method 200.8, Determination of Trace Elements in Waters and Wastes by Inductively Coupled Plasma-Mass Spectrometry, Revision 5.4 EMMC Version. Environmental Monitoring Systems Laboratory, Office of Research and Development.
- USEPA revised 2007. *Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods,* Third Ed., Environmental Monitoring Systems Laboratory, Office of Research and Development.
- Washington Department of Ecology (Ecology) October 2010. Cleanup Action Plan, Olympic View Sanitary Landfill, Kitsap County, Washington.
- Washington, Attorney General. January 31, 2001. Agreed Order No. DE 00SWFAPNR-1729.
- Waste Management of Washington (WMW). Modification 8, October 15, 2008. *Storm Water Pollution Prevention Plan*.



## Table 1. Groundwater Well Construction Details 2014 Annual Monitoring Report Olympic View Sanitary Landfill, Kitsap County, Washington

Well ID	Northing	Easting	Measuring Point Elevation (ft. MSL)	Well Depth (ft. bgs)	Top of Screen Elevation (ft. MSL)	Bottom of Screen Elevation (ft. MSL)	Screen Length (ft.)
Water Quality Monit	toring Wells						
MW-2B1	189232.23	1157544.63	172.94	18	163	153	10
MW-4	188298.52	1156887.57	175.78	34	149	139	10
MW-13A	188233.33	1159346.53	288.74	155	141	131	10
MW-13B	188223.33	1159346.53	288.66	260	36	26	10
MW-15R	189905.03	11 <i>577</i> 11.29	180.66	33	157	147	10
MW-16	190804.53	1159350.37	240.01	70	178	168	10
MW-19C	188520.03	1157025.96	196.96	90	111	106	5
MW-20	188850.01	1157062.68	198.41	49	165	150	15
MW-23A	189485.84	1158085.12	182.28	23	172	1 <i>57</i>	15
MW-24	189795.14	1158383.22	208.24	42	176	161	15
MW-29A	188570.27	1156121.60	160.21	25	140	135	5
MW-32	188908.88	1156388.52	152.36	21	135	130	5
MW-33A	189304.18	1155636.34	147.68	20	140	125	15
MW-33C	189284.18	1155636.34	147.59	65	89	79	10
MW-34A	189391.16	1156929.63	197.95	48	168	148	20
MW-34C	189391.16	1156943.77	199.89	98	114	99	15
MW-35	188917.42	1159762.03	302.69	149	161	151	10
MW-36A	189754.10	1156935.20	192.68	50	147	142	5
MW-39	190362.60	1158325.32	189.92	25	174	164	10
MW-42	188690.50	1156617.90	187.43	33	159	154	5
MW-43	188407.60	1156636.60	186.42	30	161	156	5
Water Level Measur	ement Only Wells						
MW-1	188267.80	1158593.35	273.63	180	NA	NA	NA
MW-2A1	189242.23	11 <i>5</i> 7 <i>5</i> 44.63	174.22	38	143	133	10
MW-5	188840.50	1156959.90	164.37	14	159.5	149.5	10
MW-10	188737.81	1156265.18	155.12	17.5	142	137	5
MW-11	188424.54	1156062.42	155.04	22	137	132	5
MW-12	187614.62	1158267.67	233.09	70	183	163	20
MW-13	188243.33	1159346.53	288.94	40	256	246	10
MW-14	190169.37	1159300.21	228.22	80	151	146	5
MW-17	187977.80	1158110.35	208.01	54	163	153	10
MW-18	187322.70	1158398.81	258.34	75	199	184	15
MW-19A	188540.03	1157025.96	195.74	45.5	165	150	15
MW-19B	188530.03	11 <i>5</i> 7025.96	195.82	59.5	146	136	10
MW-19D	188510.03	1157025.96	196.83	143	61	51	10
MW-21	188737.81	1156245.18	156.03	15	150	140	10
MW-23B	189475.84	1158085.12	182.42	60	130	120	10
MW-23C	189465.84	1158085.12	182.41	114	76	66	10
MW-26	191159.90	1158911.65	189.73	25.5	178	163	15
MW-27	190934.05	1158891.56	200.65	32.5	182	167	15
MW-28	191379.07	1158948.49	181.05	15	174.5	164.5	10
MW-29B	188580.27	1156121.60	161.69	65	110	95	15
MW-29C	188479.36	1156072.97	156.92	50	111	106	5
MW-30A	188623.50	1155612.45	166.74	35	136	131	5
MW-30B	188613.50	1155612.45	166.6	86	84	79	5
MW-31	189001.26	1155843.17	148.28	20	136	126	10
MW-33B	189294.18	1155636.34	147.55	40	114	104	10
MW-34B	189308.15	1156936.77	198.93	208	-1	-11	10
MW-36	189751.87	1156955.77	189.39	100	99	89	10
MW-37	189012.89	1155477.10	145.93	9	139	134	5
MW-38	188892.50	1155905.23	149.93	47	110	101	10
MW-40A	187885.89	1156779.45	180.16	24.4	160	155	5
MW-40B	187882.31	1156784.38	180.24	67	118	113	5
MW-40C	187875.42	1156785.79	181.16	103.7	82	77	5
MW-41A	188106.83	1157522.05	199.43	35.7	168	163	5
MW-41B	188104.34	11 <i>575</i> 30.68	200.64	79	126	121	5
MW-41C	188101.13	1157541.93	199.67	11 <i>7</i>	87	82	5

### Notes:

NA: screened interval information was not available for well MW-1.

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Olympic View Sanitary Landfill, Kitsap County, Washington Table 2. Summary of Analytical Parameters 2014 Annual Monitoring Report

	Volatile Organic Compounds	olatile Organic Compounds	Geochemical Indicator Parameters	Leachate Indicator Parameters	ndicator	Field Parameters	Metals* and Nitrate	at
Well	WAC 173- 351 Appendix I	Vinyl Chloride (SIM)	Cl, Fe, Mn, SO <sub>4</sub> , Ca, Mg, Na, K, Alkalinity	Ammonia	TOC, TDS	Dissolved Oxygen, ORP, pH, Specific Conductivity, Temperature, Turbidity	As, Sb, Ba, Be, Cd, Cr, Co, Cu, Pb, Ni, Se, Ag, Tl, V, Zn, NO <sub>3</sub>	TSS
Compliance	Compliance Monitoring Locations	cations						
MW-15R								
MW-34A								
MW-54C	>	>	>	>	>	>	>	>
MW-37								
MW-43								
Performanc	Performance Monitoring Locations	ocations						
MW-2B1								
MW-4								
MW-19C	>	>	>	>	>	>	>	>
WW-20								
MW-24								
Downgradi	Downgradient Monitoring Locations	Locations						
MW-294°								
MW-32	,	,	,	,	,	,	,	
MW-334°	>	>	>	>	>	>	>	`
WW-33C								•
MW-36A								
Upgradient	Upgradient Monitoring Locations	cations						
MW-13A								
MW-13B	>	>	>	>	>	>	>	>
WW-16	•	•					•	
MW-35								
Leachate M	Leachate Monitoring Locations	ions						
L-INF	^	>	<i>&gt;</i>	^	<i>^</i>	<i>^</i>	<i>^</i>	
LP-LCD			<i>&gt;</i>	^	^	<i>^</i>		
OBWL-TD								

## Notes

Indicates wells were sampled for selected parameters

OBWL-TD did not contain adequate volume to sample in 2014.

<sup>\*</sup> Groundwater samples were analyzed for both total and dissolved metals fractions (commencing 3Q13), except As which commenced monitoring for the 4Q13 event.

 $<sup>^{\</sup>rm a}$  Sampled semi-annually in June and December 2014.

## Table 3. Groundwater Elevations 2014 Annual Monitoring Report Olympic View Sanitary Landfill, Kitsap County, Washington

	Measuring	Q1 Ma	rch 2014	Q2 Jui	ne 2014	Q3 Septe	mber 2014	Q4 Nove	mber 2014
Location ID	Point Elevation (ft. MSL)	DTW	WLE	DTW	WLE	DTW	WLE	DTW	WLE
Water Quality Mon									
MW-2B1	172.94	6.95	165.99	6.80	166.14	8.43	164.51	7.79	165.15
MW-4	175.78	13.02	162.76	14.63	161.15	16.40	159.38	15.65	160.13
MW-13A	288.74	46.62	242.12	58.27	230.47	47.50	241.24	58.43	230.31
MW-13B	288.66	60.94	227.72	59.90	228.76	60.91	227.75	61.70	226.96
MW-15R MW-16	180.66	18.66	162.00	18.76	161.90	19.71	160.95	19.30	161.36
MW-19C	240.01 196.96	61.48	178.53	57.33	182.68	60.00	180.01 161.41	61.07 34.94	178.94
MW-20	198.41	34.59 35.90	162.37 162.51	33.65 35.81	163.31 162.60	35.55 37.48	160.93	36.92	162.02 161.49
MW-23A	182.28	13.02	169.26	12.02	170.26	37.46 Dry		13.62	168.66
MW-24	208.25	33.81	174.44	31.85	176.40	34.11	174.14	34.25	174.00
MW-29A	160.21	11.65	148.56	13.67	146.54	16.21	144.00	NM	
MW-32	152.36	1.25	151.11	2.15	150.21	3.15	149.21	1.76	150.60
MW-33A	147.68	3.51	144.17	7.00	140.68	6.84	140.84	8.62	139.06
MW-33C	147.59	1.05	146.54	2.32	145.27	4.00	143.59	2.50	145.09
MW-34A	197.95	39.31	158.64	39.52	158.43	40.87	157.08	40.28	157.67
MW-34C	199.89	41.12	158.77	41.32	158.57	42.69	157.20	42.10	157.79
MW-35	302.69	71.68	231.01	71.79	230.90	72.95	229.74	72.87	229.82
MW-36A	193.15	30.81	162.34	31.18	161.97	32.15	161.00	31.73	161.42
MW-39	189.92	18.61	171.31	19.88	170.04	23.00	166.92	19.13	170.79
MW-42	187.76	26.70	161.06	27.81	159.95	30.00	157.76	28.33	159.43
MW-43	186.57	22.11	164.46	24.81	161.76	26.84	159.73	NM	
Water Level Measu	rement Only Wells	1	1	•			'	•	
MW-1	273.63	NM		NM		NM		NM	
MW-2A1	174.22	8.21	166.01	9.08	165.14	10.98	163.24	8.94	165.28
MW-5	164.37	2.93	161.44	3.25	161.12	4.67	159.70	3.60	160.77
MW-9	160.34	2.81	157.53	3.13	157.21	4.02	156.32	3.50	156.84
MW-10	155.12	2.99	152.13	4.08	151.04	5.69	149.43	4.97	150.15
MW-11	155.04	3.69	151.35	5.12	149.92	6.73	148.31	5.10	149.94
MW-12	233.09	49.11	183.98	45.87	187.22	49.58	183.51	67.03	166.06
MW-13	288.94	28.46	260.48	29.97	258.97	29.99	258.95	49.40	239.54
MW-14	228.22	NM		NM		NM		NM	
MW-17	208.01	34.18	173.83	32.05	175.96	35.05	172.96	33.61	174.40
MW-18	258.34	65.65	192.69	62.76	195.58	65.50	192.84	51.12	207.22
MW-19A	195.74	33.50	162.24	32.43	163.31	34.27	161.47	33.62	162.12
MW-19B	195.82	33.60	162.22	32.49	163.33	36.38	159.44	35.74	160.08
MW-19D	196.83	33.91	162.92	32.51	164.32	34.25	162.58	33.64	163.19
MW-21	156.03	4.17	151.86	5.10	150.93	6.92	149.11	7.00	149.03
MW-23B	182.42	13.46	168.96	12.36	170.06	14.41	168.01	14.00	168.42
MW-23C	182.41	13.86	168.55	12.47	169.94	14.97	167.44	14.52	167.89
MW-26	189.73	13.68	176.05	11.13	178.60	13.07	176.66	13.62	176.11
MW-27 MW-28	200.65 181.05	24.31 6.72	176.34 174.33	21.48 5.53	179.17 175.52	23.78 6.88	176.87 174.17	24.34 6.81	176.31 174.24
MW-29B	161.69	16.62	174.33	17.22	1/5.52	18.95	1/4.1/	18.90	142.79
MW-29C	156.92	11.07	145.85	11.92	145.00	13.75	143.17	13.74	143.18
MW-30A	166.74	23.58	143.16	24.11	143.63	25.79	140.95	24.75	141.99
MW-30B	166.60	23.42	143.18	23.86	142.74	25.78	140.93	24.73	142.01
MW-31	148.28	1.86	146.42	2.70	145.58	4.37	143.91	2.63	145.65
MW-33B	147.55	1.15	146.40	2.38	145.17	3.64	143.91	2.52	145.03
MW-34B	198.93	39.22	159.71	39.44	159.49	41.00	157.93	40.04	158.89
MW-36	189.39	30.90	158.49	31.20	158.19	32.20	157.19	31.79	157.60
MW-37	145.93	3.11	142.82	4.00	141.93	6.19	139.74	4.53	141.40
MW-38	149.93	18.61	131.32	4.08	145.85	5.81	144.12	4.83	145.10
MW-40A	176.63	14.79	161.84	15.23	161.40	Dry		16.71	159.92
MW-40B	176.72	14.83	161.89	15.05	161.67	17.25	159.47	16.66	160.06
MW-40C	176.78	16.43	160.35	15.62	161.16	17.55	159.23	17.29	159.49
MW-41A	195.91	25.53	170.38	23.89	172.02	Dry		26.43	169.48
			-						-
MW-41B	196.24	26.13	170.11	24.28	171.96	26.75	169.49	26.92	169.32

### Notes:

 $\mathsf{Dry} = \mathsf{Well} \; \mathsf{did} \; \mathsf{not} \; \mathsf{contain} \; \mathsf{adequate} \; \mathsf{water} \; \mathsf{to} \; \mathsf{measure}$ 

DTW = Depth to Water (ft)

WLE = Water level elevation

Elevations, ft. MSL

 $\mathsf{NM} = \mathsf{Not} \; \mathsf{measured}$ 

-- = Groundater elevation not calculated

 $Please\ Note:\ MPE\ for\ well\ MW-1\ is\ approximate\ ground\ surface\ elevation\ (not\ top\ of\ casing\ elevation).$ 

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## Table 4A. Detections and Field Measurements - Compliance Monitoring Wells 2014 Annual Monitoring Report Olympic View Sanitary Landfill, Kitsap County, Washington

The control of the co	Part   1.57   0.55   0.53   0.55		6.31 6.12 6.12 6.12 1.33 1.07 1.07 1.07 2.9 2.9 2.9 2.9 2.9 2.9 2.9 2.9					0.39	1.2	72	36.9						0.43	
1   1   1   1   1   1   1   1   1   1	Colon Potential   mV   10.5 -79.8   118.6	<del></del>	155 103 113 1243 1.07 1.07 2.9 2.9 2.9 2.9 2.9 2.9 2.9 2.9					88	-14	-72	36.9				1	l	1.00	2.43
1   1   1   1   1   1   1   1   1   1	Part   A 4   A 5   B 419		10.12 10.43 1.07 1.07 1.07 2.9 2.9 2.9 2.0 1.0 1.0 2.9 2.9 2.9 2.9 2.9 2.9 2.9 2.9					_									193	146.6
Marine   M	Othery         Lobes/cm         151         179         182           Othery         Lobes         10.15         10.4         3.42           HVI         0.24         1.04         3.42           Honore (AccCOS)         mg/L         90         93         79           Honore (AccCOS)         mg/L         90         93         79           Intervence         mg/L         10         11         94           solved         mg/L         10         11         94           solved         mg/L         0.0016         0.0076         0.0079           solved         mg/L         0.004         0.0051         0.0099           solved         mg/L         1.20         0.0051         0.0099           solved         mg/L         1.20         0.0051         0.0001s           solved         mg/L         1.20         0.0021         0.0001s           solved         mg/L         1.20	<del>╎┤┤</del> ╏ <del>┈╎┤┤┤┤┤┤┤</del> ╏┼	133 12.43 11.07 11.07 259 259 259 250 250 250 250 250 250 250 250 250 250					5.83	6.3	6.3	5.98						5.84	5.61
No.	NTU   O74   10.4   10.5		12.43 1.07 5.9 5.9 1.3 3.3 3.3 3.3 5.9 5.9 5.9 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7					711	251	249	213						45	29
No.   1	NTU   074   1.04   3.42	<del>├</del> ┨┣ <del>┈┼┼┼┼┼┼┼┼┼┼┼┼</del> ╏┣┼	1.07 5 9 5 9 5 9 1 1 1 2 2 3 3 3 3 3 5 9 5 9 6 9 7 1 1 1 1 2 1 3 2 3 3 3 5 9 6 9 7 2 7 3 7 3 7 3 7 3 7 3 7 3 7 3 7 3					10.82	10.9	13.48	711						11.83	12.1
1	Marco   Marc		\$9 :: :: :: :: :: :: :: :: :: :					10.44	9.8	21.3	2				H		4	4
No.	International Process		59 13 13 13 13 13 13 14 14 16 10 10 110					-			ŀ				1			
1	colorly, Total (Ax CaCO3)         mg/L         90         93         79           Rum, Isoland (Ax N)         mg/L         -         0.038         -         -           Rom, Isoland (Ax N)         mg/L         17         2.7         2.6         2.7           A Distolved         mg/L         -         -         -         -         -           Op, Distolved         mg/L         -	<del></del>	59 13 13 13 13 14 14 10 10 10 10 10 10 10 10 10 10					64	16	83	86	250				17	16	21
1	kinn, Disolved         mg/L          0.036            kinn, Disolved         mg/L         2.7         2.6         2.7         14           nicolar control         mg/L		13 3.3 3.3 5.9 5.9 0.0012 1.4 7.9 2.6 110					94	91	83	86	250				17	16	21
March   Marc	Confidency Endowed         mg/L         18         17         14           conded         mg/L         27         2.6         2.7           n, Distolved         mg/L              mg/L               greekeln of an open control         mg/L         10         11         9.6           mg/L         100         11         9.6         0.11           mg/L         1004         0.0016         0.007         0.007           mg/L         0.034              dism, Disolved         mg/L         0.7             dism, Disolved         mg/L         0.7         5.6         5.5           dism, Disolved         mg/L         0.7             dism, Disolved         mg/L              of Opposite Carbon (ToC)         mg/L              of Opposite Carbon (ToC)         mg/L               of Opposite Carbon (ToC)         mg/L		13 3.3   5.9  0.0012 1.4  7.9 2.6  110					0.057	0.43	0.28	0.3	6.6				0.1	:	0.12
1	mg/l   2.7   2.6   2.7   2		3.3 5.9 5.9 1.4 1.4 7.9 7.9 2.6 1.0 1.0					12	12	11	11	45				3.6	3.8	4.4
Mary	to, Distolved         mg/1         · · · · · · · · · · · · · · · · · · ·		5.9 5.9 5.9 5.9 5.9 5.4 7.9 7.9 7.9 7.9 7.9					:	5.1	5.3	2.7	19					2.1	1.5
1	mg/l viole         n. viole         n. viole           groeking         mg/l         10         96           mgarees, Disolved         mg/l         0.0016         0.0016         0.007           mgarees, Iroal         mg/l         0.034         0.0093         0.0093           mayl         0.034         0.0051         0.0093         0.0093           mayl         0.033         -         -         -           citien, Disolved         mg/l         6,9         5,6         5,5           fete         mg/l         4,0         6,7         5,5         5,5           fete         mg/l         1,0         1,0         1,0         1,0           fete         Disolved Solids (TSS)         mg/l         -         -         -         -           oil Organic Carbon (TCO)         mg/l         -		5.9 					1.6	40	33	29	28					:	0.7
Mary   Color Col	Mg/l   Ng   Ng   Ng   Ng   Ng   Ng   Ng   N		5.9					2.2	36	33	32	26					0.22	1.7
Mary   Control Contr	mag/large (Marched)         mg/l (Marched)         0.0016         0.0007           may (Marched)         0.0016         0.0007         0.0009           may (Marched)         mg/l (Marched)         0.11         0.0109           cate (Marched)         mg/l (Marched)         0.12         0.11           clam, Distolend (Marched)         mg/l (Marched)         5.6         5.5           clam, Distolend (Marched)         mg/l (Marched)         1.00         1.20           al Distolend (Marched)         mg/l (Marched)         0.000013         0.000013           al Suppended Solids (TSS)         mg/l (Marched)         0.000013         0.000013           melec, Distolend         mg/l (Marched)         0.0004         0.00054           mg/l (Marched)         0.0004         0.00054         0.00054           mg/l (Marched)         0.0004         0.00054         0.00054           mg/l (Marched)	$oxed{++++++++++++++++++++++++++++++++++++$	0.0012 1.4 7.9 2.6 110					7.1	7.6	6.7	6.5	17					1.6	1.8
Mary   Court	Image: Final Interpretation of the Control of Control		0.0012 1.4  7.9 2.6 					0.11	0.45	0.47	0.49	2					0.0098	0.24
9.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	rection (Ax NI)         mg/l (1)          0.11           crostade (Ax NI)         mg/l (2)          0.11           clow, Dissolved (2)         mg/l (2)         5.6         5.5           clow, Dissolved (2)         mg/l (2)         6.7         5.6         5.7           of Dissolved (2)         mg/l (2)         1.00         1.20         1.20           of Dissolved Solids (10S)         mg/l (2)              of Dissolved Solids (10S)         mg/l (2)              of Supparded Solids (10S)         mg/l (2)              of Supp	++++++++++++++++++++++++++++++++++++	1.4  7.9 2.6 110					0.086	0.44	0.44	0.49	5.3					0.011	0.26
Milk	Listur, Disolved         mg/1              ration, Disolved         mg/1         6.9         5.6         5.5           fore control (ToC)         mg/1         4.0         6.7         1.0         6.7           fore control (ToC)         mg/1                oil Organic Control (ToC)         mg/1                 oil Organic Control (ToC)         mg/1	++++++++++++++++++++++++++++++++++++	2.6					1.5	:		0.19						0.2	0.81
Mail	Image   Imag	++++++++++++++++++++++++++++++++++++	2.6	2.2 110				:	:	:	:	7.6				:	:	:
9. 1	March   Marc	++++++++++++++++++++++++++++++++++++	110	2.2				6.2	7.9	9.5	6.9	22				2.6	2.4	2.8
931 1 100 1100 1100 1100 1100 1100 1100	10   10   10   10   10   10   10   10	+++	011	011				1.5	:	:	1.2	וו				1.9	2	2.1
Mail	Organic Carbon (TOC)   mg/l	+HH	: :	: :				78	120	120	130	300				30	38	20
1	of Suppended Solids (TSS)         mg/L             ent., Distoleted         mg/L         0.00023         0.00001         0.0001           ent., Distoleted         mg/L         0.00023         0.00012         0.0001         0.0001           frum, Distoleted         mg/L         0.005         0.0051         0.0005         0.0001           dehan, Teal         mg/L               dehan, Teal         mg/L               bot, Distoleted         mg/L               mg/L                 bot, Distoleted         mg/L	$\dashv \vdash$	:	:				1.1	2.7	2.2	2.4	8				1.8	:	1.3
Marie   Mari	Displaying   mg/l   0.00023   0.00021   0.00015   mg/l   mg/l   0.00023   0.00015   mg/l   mg/l   0.00023   0.00015   mg/l   0.0002   0.00015   mg/l   0.0005   0.00051   0.00051   mg/l   0.00051   0.00051   0.00051   mg/l   0.00051   0.00051   0.00051   0.00051   mg/l   0.00051   0.000	Н						9.6	99	32	:	35			1	13	:	4.4
May   Control Contro	wed         mg/L         0.00023         0.00013           ved         mg/L         0.0005         0.0001         0.00015           ved         mg/L         0.004         0.0084         0.0005         0.0005           ved         mg/L                red         mg/L                 red         mg/L                  red         mg/L  <	+			ŀ			ŀ	101000		ŀ		ļ		+	700000		0000
may 1 0056 00541 00540	wed         mg/L         0.005         0.0051         0.0053           ol         mg/L         0.004         0.0084         0.0054           ol         mg/L              red         mg/L              red         mg/L              mg/L	_			$^{+}$			+	721000		+				+		:	0.0000
mark   Course	mg/t   0.0046   0.0084   0.0054   0.0	+			t			+	0.017		+		,		$^{+}$		0.0035	
mg/l 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		H			+			t	0.016		╀				H		0.0038	0.0066
May	1/8w	٠						H	,		H						,	:
mg/l 6	J/gm	:		_			:	:	:	:	:	:				:	:	:
mg/l   2	T/Bm	:		_				:	:	:	:					:	:	:
mg/l		:	:	:			:	:	0.0081	0.0071	0.0065	:				:	:	:
mg/l	1/6m	:	:	:		_			0.0076	0.007	0.0076					:	:	:
mary	mg/L	:	:		1			1			:					:		:
	1/6w	:	:		+			4	:	:	:				1	:	:	:
May   Control	// Gw	:	:		+		:	,	,	:	:					:		:
mg/l   100.043   0.0035   0.0036   0.0046   0.0056   0.0046   0.0036   0.0046   0.0036   0.0046   0.0036   0.0046   0.0036   0.0046   0.0036   0.0046   0.0036   0.0046   0.0036   0.0046   0.0036   0.0046   0.0036   0.0046   0.0036   0.0046   0.0036   0.0046   0.0036   0.0046   0.0036   0.0046   0.0036   0.0044   0.0037   0.0044   0.0037   0.0044   0.0037   0.0044   0.0037   0.0044   0.0037   0.0044   0.0037   0.0044   0.0037   0.0044   0.0037   0.0044   0.0037   0.0044   0.0037   0.0044   0.0034   0.0044   0.	wed mg/L 0.0038 0.0035 0.0027	+	0.0051		+			: :	0.0022	: :	: :					: :	: :	: :
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	ma/L 0.0043 0.0035 0.0027	+	0.005		+				0.0023		:					0.0081		
1 by		:	:		$\vdash$			,	,	;	:		_			;	;	:
1																		
	1/6n	:	:	:			:	:	:	:	:	:		27 J	:	:	:	:
ug/l vg/l vg/l	ng/L	:	:				:	:	:	:	:			41 )		:	:	:
vg/L	1/6n	:	:	:			:	:	:	:	:	:			:	:	:	:
vg/l	1/6n e	:	:					:	:	:	:					:	:	:
vg/l   1	1/6n	:	:			_	:	:	:	:	:					:	:	:
vg/l   1	1/6n	:	:	:			:	:	:	:	:	:			:	:	:	:
ug/L <td> 1/6n</td> <td>:</td> <td>:</td> <td>:</td> <td>1</td> <td></td> <td>:</td> <td>:</td> <td>:</td> <td>:</td> <td>:</td> <td>:</td> <td></td> <td></td> <td></td> <td>:</td> <td>:</td> <td>:</td>	1/6n	:	:	:	1		:	:	:	:	:	:				:	:	:
vg/1   0.00 - 1   0.	1/6n api	:	:					:	:	:	:					:	:	:
ug/1   0.0095   0.0098   0.012   0.0069   0.03   0.16   0.13   0.13   0.12   0.0079     0.048   0.034   0.16   0.16   0.18   0.18   0.16   0.16   0.18   0.16	1/6n		:	:				:	:	:	:					:	:	:
animeter	yl chloride ug/L 0.0095 J 0.0098 J 0.012 J	_	:	:	0			:	:	0.0079 J	:					:	:	:
i antimeter																		
		cific reporting lim	=															

## Table 4B. Detections and Field Measurements - Performance Monitoring Wells 2014 Annual Monitoring Report Olympic View Sanitary Landfill, Kitsap County, Washington

Parameter	Units	MW-2B1 3/4/2014	MW-2B1 6/4/2014	MW-2B1 9/22/2014	MW-2B1	MW-4 3/4/2014	MW-4 6/3/2014	MW-4 9/22/2014 1	MW-4	MW-19C	MW-19C 6/3/2014	MW-19C	MW-19C	MW-20 3/3/2014 6	MW-20 /	MW-20 M	MW-20 MI	MW-23A MI	MW-23A MV	MW-23A MV	MW-23A 1	MW-24 MI	MW-24 MW-24 6/3/2014 9/22/2014	-24 MW-24 2014 11/20/2014
Field Parameter			ΙI				П	П		Ш	П			П	П			П	П			Ш	П	ΙI
Dissolved Oxygen	mg/L	5.47	0.63	0.29	2.2	4.96	0.3	0.58	0.33	0.24	0.8	1.19	0.47	3.73							0.83		1.2 0.	0.72 0.41
Oxidation Reduction Potential	λ E	9.5	100	155.3	329	173.5	106	73	217.6	-31	-33	117.4	183	06			322				93.3			^
Hd	Hd	89.9	6.57	5.82	5.86	6.29	6.56	129	5.73	7.06	6.67	6.1	6.58	9.9	29.9			6.27		6.43	6.26	6.75 6		5.7 6.
Specific Conductivity	umhos/cm	49	150	215	78	48	121	135	9.6	133	133	159	147	262	330	447	246				207		120	
Temperature	deg C	9.47	12.76	14.2	13.14	9.27	9.6	10.82	10.1	10.43	11.2	11.4	10.35	14.24	14.7						13.2			
Turbidity	DIN	3.31	69'0	3.78	2	2.91	1.1	0.75	2.7	3.27	2.7	2.85	1	1.58	3.97	3.05	2			3.69	2	3.59	6.6 8.	8.58 2.5
General Chemistry																								
Alkalinity Bicarbonate (As CoCO3)	ma/L	2.4	76	16	37	25	59	63	47	7.5	99	69	02	110	120	160	001	59	87	110	94	69	56 5	58 62
Alkalinity, Total (As CaCO3)	ma/L	2.4	76	10	37	2.5	20	63	47	7.5	99	69	20	110	120	160	001	50	87	110	04	69	29	58 62
Ammonia (As N)	ma/L		1.7	2.2	0.063	:	; 1	0.064	: 1	0.64	0.41	0.55	0.0				0.031				0.035			
Calcium, Dissolved	mg/L	5.4	12	13	8.7	5.1	1	=	9.4	14	13	13	14	29	31		25	12	18		20		-	-
Chloride	1/6m		1.2	7	-	4.1	2.2	2.1	1.8	3.4	2.3	2.7	2.6	12	16	19	9.5	1.2		2.7	2.7			3 2.8
Iron, Dissolved	1/6m	,		0.14		0.24	0.45		,	0.12	860.0	0.17	0.13	,	:		:	:	-		0.46	2.1		0.64
Iron, Total	1/6m	0.067	0.072	0.25	0.17	0.29	0.52	80'0	;	0.14	0.3	0.19	0.16								0.91		0.88 0.81	
Magnesium, Dissolved	1/6m	2.1	4.1	6.5	3.1	2.4	9	5.7	4.7	7.2	6.4	6.8	7.2	16	17	22		5.5			9.3	8.2		
Manganese, Dissolved	√6m	0.14	4.1	2.6	0.47	1.2	96.0	66.0	0.29	17	0.82	1.1	1.2	0.12	2.0077		0.16		0.81		2.1		1 0.12	3 0.22
Manganese, Total	mg/L	0.16	1.4	2.6	0.51	1.9	1.2	1.5	0.35	-	0.99	171	12	0.17	0.015		0.15	0.53			2.2	3.6		2.3
Nitrate (As N)	1/6w	0.15	:	0.13	0.29	0.24		:	:	:	;	,			5.1		2.7	0.49		:				0.34
Potassium, Dissolved	mg/L	:	2.4	1.3	1.1					1.4	1.2	1.4	1.5	3.4	4		3.1				1.1			
Sodium, Dissolved	√gm	2.9	Ξ	^	3.3	3.1	9	6.1	5.5	5.7	5.3	5.6	6.1	13	14	12	10	4.3	5.5	9	5.1		4.6	4.6 5.4
Sulfate	mg/L	4.7	3	11	2.7	2.2	5.4	5	2.8	5.3	4.2	5.7	4.4	10	11	15	5.7		3.9	6.9	4.2			
Total Dissolved Solids (TDS)	T/6m	45	110	120	09	45	80	86	7.5	110	83	110	100	180	210		160	80			140		88 89	
Total Suspended Solids (TSS)	mg/L	:	:	:		9	4.4	:	:	:	:					:	:	:		4.8	4		8 6	4.4
Metals																								
Arsenic, Dissolved	mg/L	0.00011	0.00061	0.00048	0.00022	0.00032	0.00049		0.0004		0.00261		Н				H	0.00004 0.0			0.00009			0.00022 0.00022
Arsenic, Total	mg/L	0.00017	0.00064	0.00048	0.00034	0.00032	0.00152	10	0.0004	0.00296	0.00307	0.00264	0.00319	0.0003		0.0003 0.	0.0002 0.0		0.00023 0.		_			0.00023 0.00
Barium, Dissolved	mg/L	0.0019	0.0056	0.011	0.0029	0.0063	0.0076		0.0022		0.0031			0.0086								0.028 0.0		
Barium, Total	mg/L	0.0018	0.0067	0.01	0.0032	0.0081	0.0085	0.0032	0.0024	0.0035	0.0047	0.0035	0.0033	0.0087	0.012	0.012 0.	0.0057	0.01 0		0.0083 0	0.014		0.012 0.0	0.0092 0.0042
Cobalt, Dissolved	mg/L		:	:		:		:	;	;	;	,	;			;	;	;		;	,	0.013	0.0	0.0036
Cobalt, Total	mg/L	:	:	:		:		:	:		:										-			
Copper, Dissolved	mg/L	:		:		0.002	:	:	:		:		:	:	:	:		:		:	:	:		:
Copper, Total	mg/L	:		:		:	:		:		:		:	:		:		:	:	:	:			:
Nickel, Dissolved	mg/L	;		:	:	:	;	,	;		;	;	;	;	,	;		;	;		:			:
Nickel, Total	mg/L	:	,	:	:		:		:	,	:	:		:		:	:	;	:		:			:
Vanadium, Dissolved	mg/L	:	:			0.0026	0.0021		:	:				:			0.002				-			0.0031
Vanadium, Total	mg/L	:	:	-		0.0032	0.0024	0.0025	:	:	-	:	-	:		0.0021	:		0.002 0.	0.0024	:	0.0061 0.0	0.0049 0.0	0.0043 0.0021
Zinc, Dissolved	mg/L	:	0.0058	-	:					0.0074	-		-	-				0.011	0		0.012			0.0053
Zinc, Total	mg/L	:			0.0056				:	:								0.01	0.	0.0077 0.	0.0053	0	0.013 0.0	19000
Volatile Organic Compounds																								
2-Butanone (MEK)	ng/L	:	:	-		-		:	-		-	:	1.5 J			-		-	:	-	:			
Acetone	ng/L		;	,	;	:	;	;	4.1 J	;	ı	;	;	;	;		;		;	1	3.4 J	;		1
Methylene Chloride	1/Bn		:		:	:		:	0.55 J	:	:	:	:		:		:	:	:			:		:
Trichloroethene	1/6n		:	:	;	:		:		1.3	1.2	1.1	1.3		:		:					:		:
Vinyl chloride	ng/L	:	:	:		0.0089 J	:	0.27	0.017 J	0.15	0.024	0.064	60.0	0.022		0.062 0	0.054	:	.0	0.015 J 0.0	0.0082 J	:	:	
Notes																								

mV = Milrodis
NITE = Neptoment curbidity units
NITE = Neptoment curbidity units
S.M. = Standard units
= = Parameter and detected above the project-specific reporting limit

Notes CCO<sub>2</sub> = Caldom carbonate deg<sub>2</sub> = Degrees, Celdor J = Conentration is estimated Jumbo<sub>4</sub>(cm = Mixcham per centimeter I) = Mixcham per ser inter mpl, = Mixgram per liter mpl, = Mixgram per liter

# Table 4C. Detections and Field Measurements - Downgradient Monitoring Wells 2014 Annual Monitoring Report Olympic View Sanitary Landfill, Kitsap County, Washington

Parameter	Units	MW-29A 11/18/2014	MW-29A 6/3/2014	MW-32 3/5/2014	MW-32 6/4/2014	MW-32 9/23/2014	MW-32 11/20/2014	MW-33A 11/19/2014	MW-33A 6/3/2014	MW-33C 3/5/2014	MW-33C 6/3/2014	MW-33C 9/23/2014	MW-33C 11/19/2014	MW-36A 11/19/2014	MW-36A 3/3/2014	MW-36A 6/2/2014	MW-36A 9/23/2014
Field Parameter																	
Dissolved Oxygen	mg/L	0.39	0.4	0.99	1.4	69.0	0.32	0.42	0.61	1.39	0.36	1.01	0.28	2.01	2.17	2.5	2.45
Oxidation Reduction Potential	> <sub>E</sub> :	79.4	50	-39	50	-38	47.9	202	-101.9	-103	-125.8	18	70	328	96	31.1	158.1
Hd	На .	6.03	6.25	6.87	6.72	6.84	6.35	5.65	7.3	7.28	7.71	7.34	7.11	5.88	6.2	6.28	5.7
Specific Conductivity	nmhos/cm	71.2	16	77.7	12.00	34.8	308	9001	12/	131	144	11.7	148	120	0 0	11.0	130
Tirbidito	) FIN	- ~	3.3	1.45	11.05	1 78	2.17	7.00	43.0	3.40	1.54	12.1		1.3/	1.03	9.10	3 0 1
General Chemistry	2	2	0.0	00:1	00:	0 /:-	71.7	1	600.4	6.44	00:1	1.2.1	-	-	00.1	0.0	5.4
Alkalinity, Bicarbonate (As CaCO3)	mg/L	41	42	120	110	140	130	36	63	69	69	99	99	56	64	09	56
Alkalinity, Total (As CaCO3)	mg/L	41	42	120	110	140	130	36	63	69	69	99	99	99	64	9	56
Ammonia (As N)	mg/L	0.074	0.092	:	0.03	:	:	0.21	0.044	:	:	:	:	:	1	:	:
Calcium, Dissolved	mg/L	6.5	7.2	23 B	22	32	32	9.1	14	168	17	16	18	11	10	11	6.7
Chloride	mg/L	2.2	1.6	10	8.7	18	12	1.7	2.8	3	3	3.1	2.8	1.5	1.5	1.8	1.5
Iron, Dissolved	mg/L	3.7	4.3	9.0	0.49	0.77	0.87	5.1	0.4	:	:	:	0.38	0.066	:	:	0.13
Iron, Total	mg/L	4.7	4.4	1.3	6.3	Ξ.	0.87	5	1.1	0.21	0.19	0.29	0.38	;	0.15	0.18	0.12
Magnesium, Dissolved	mg/L	3.7	4	14B	11	16	16	4.1	6.8	7.6 B	7.1	6.7	7.4	7.2	9.9	6.9	9.9
Manganese, Dissolved	mg/L	1.3	1.3	2.1	1.8	2.6	2.4	0.11	260000	0.14	0.13	0.14	0.2		:	:	0.0063
Manganese, Total	mg/L	1.3	1.4	2.5	1.1	3	2.4	0.1	0.016	0.19	0.17	0.22	0.2	0.002	0.0067	0.0068	0.0049
Nitrate (As N)	mg/L	:		:	:	:	:	:		:	:	:	:	0.94	1.2	2.8	1.2
Potassium, Dissolved	mg/L	:	1	1.2	-	1.2	1.3	:	,	1.5	1.2	1.3	1.5	1.1	;	:	:
Sodium, Dissolved	mg/L	3.1	3.1	13	13	16	17	3.3	3.8	1.4	4.2	4.2	4.5	6.5	9.5	8	6.5
Sulfate	mg/L	1.4	1	14	10	21	16	1.4	3.7	6.3	8.7	9.6	7.7	2.7	3.3	2.6	3.4
Total Dissolved Solids (TDS)	mg/L	72	47	180	180	250	220	73	73	92	83	110	110	110	110	100	110
Total Organic Carbon (TOC)	mg/L	4.1	1.2	1.2	:	1.3	1:1	က		ı	:	:	:	:	:		:
Total Suspended Solids (TSS)	mg/L	:	10	12	14	7.6	:	13	7.2	-	:	13	5.6	:	:	-	:
Metals																	
Arsenic, Dissolved	mg/L	0.00153	0.00143	0.0087	0.00447	0.0085	0.0092	0.0002	0.00014	0.00228	0.00225	0.00233	0.00235	15000'0	9900000	9000'0	0.00053
Arsenic, Total	mg/L	0.0019	0.00171	0.0142	0.0266	960000	0.0092	0.00041	0.00025	0.00241	0.00251	0.00248	0.00254	0.00053	0.00068	900000	0.00053
Barium, Dissolved	mg/L	0.0094	0.0073	0.0051	0.0031	0.0053	9000	0.0037	0.0012	0.0038	0.004	0.0037	0.0047	0.0021	0.0024	0.002	0.0038
Barium, Total	mg/L	0.01	0.0081	0.0075	0.018	0.0072	0.0059	0.0036	0.0016	0.0043	0.0045	0.0054	0.0049	0.0024	0.0029	0.0032	0.0027
Chromium, Dissolved	mg/L	:		:	:	:	:	:		:	:	:	:	0.0093	0.013	0.012	0.0094
Chromium, Total	mg/L	:	:		:	:	:	:	:	:	:	:	:	0.0085	0.014	0.011	0.0092
Cobalt, Total	mg/L	:	0.003		:	:	:	:	:	·	:	:	:	:	:		:
Copper, Total	mg/L	:	0.0028		0.0079	:	:	:	:	:		:	:	:	:	:	
Lead, Total	mg/L	:	:	:	0.0012	:	:	:	:	:		:	:	:	:	:	
Selenium, Dissolved	mg/L	:	:	:	0.0011	:	:	:	:	:		:	:	:	:	0.0014	
Selenium, Total	mg/L	:	:	:	ı	:	:	:	:	:	:	:	:	:	:	0.0019	
Vanadium, Dissolved	mg/L	:	:	:	:	1	:	0.003	;	:	:	1	:	0.0025	0.0035	0.0027	0.0026
Vanadium, Total	T/bm	:	:	:	:	ı	:	0.0027	0.0021	:	:	ı	:	0.0023	0.0035	0.0039	0.0029
Zinc, Dissolved	mg/L	:	:	:	:	1	0.0055	:	:	:	:	;	:	:	:	:	:
Zinc, Total	mg/L	:	0.019	:	0.016	0.0051	-	-	:	:	:	0.0079	-	:	:	:	:
Volatile Organic Compounds																	
Acetone	ng/L	-		-		-	-				-	-	-		-		:
Methylene Chloride	1/6n	:	:	:	:	:		:	:	:	:	:		:	:	:	:
Trichloroethene	1/6n	:	:	0.49 J	0.5 J	0.46 J	0.49 J	:	:	:	:	:	:		:	:	:
Vinyl chloride	ng/L	:	:	0.54	0.4	0.44	0.39	:	:	:	:	:	:	:	:	:	:
Notes:																	

 $CaCO_3 = Caldium carbonate$ deg-C = Degrees Celcius

J = Conentration is estimated

 $\mu mhos/\alpha m = Microhms\ per\ centime ter$   $\mu g/L = Micrograms\ per\ liter$   $mg/L = Milligrams\ per\ liter$ 

mV = Millvolts
N = Nitrogen
NTU = Nephelometric turbidity units
SU = Standard units
- - Parameter not detected above the project-spedfic reporting limit

Table 4D. Detections and Field Measurements - Upgradient MonitoringWells 2014 Annual Monitoring Report Olympic View Sanitary Landfill, Kitsap County, Washington

Parameter	Units	MW-13A 3/4/2014	MW-13A 6/2/2014	MW-13A 9/22/2014	MW-13A	MW-13B 3/4/2014	MW-13B 6/2/2014	MW-13B 9/22/2014	MW-13B 11/17/2014	MW-16 3/5/2014	MW-16 6/2/2014	MW-16 9/22/2014	MW-16 11/18/2014	MW-35 3/4/2014	MW-35 6/2/2014	MW-35 9/22/2014	MW-35
Field Parameter																	
Dissolved Oxygen	mg/L	6.71	;	3.81	6.17	6.82	;	3.95	7.32	6.92	:	2.25	5.21	6.78	1	8.65	1.3
Oxidation Reduction Potential	/m	72	-79.9	119	149.1	75	-98	134	161.3	113	-48.1	172	176.7	57	-60.4	109.2	115.1
Hd	Hd	7.48	7.26	7.26	66.9	7.4	7.35	7.68	7.08	6.5	6.61	6.4	6.38	7.53	7.17	6.62	7.48
Specific Conductivity	umhos/cm	141	154	166	172	139	154	167	172	66	94	122	126	129	140	161	160
Temperature	deg C	8.98	11.15	10.58	9.4	٥	14.32	11.02	9.4	9.4	9.56	10.73	8.9	9.76	11.79	13.7	10.4
Turbidity	NTO	2.95	0.81	0	-	2.01	0.62	0	4	2.99	1.04	1.22	2	2.36	0.82	2.09	2
General Chemistry																	
														1	i		
Alkalinity, Bicarbonate (As CaCO3)	mg/L	87	84	82	79	83	81	80	79	22	44	22	57	78	76	7.5	74
Alkalinity, Total (As CaCO3)	mg/L	87	84	82	79	83	18	80	79	57	44	57	57	78	76	7.5	74
Ammonia (As N)	mg/L	;	;	;	1	;	;	;	;	0.051	0.058	;	;	;	;	;	;
Calcium, Dissolved	mg/L	16	16	15	15	17	16	15	16	9.8 B	8.8	6.6	=	14	14	13	4
Chloride	mg/L	1.7	2	1.7	1.9	1.9	2.1	1.9	2.1	-	4.	11	1.5	1.8	2	1.7	1.8
Iron, Total	mg/L	;	;	;	1	;	;	;	;	0.2	;	;	0.18	;	;	;	1
Magnesium, Dissolved	mg/L	8.6	9.2	8.7	9.3	8.7	8.3	7.7	8.7	6.6 B	5	5.5	6.4	9.3	8.6	8.2	8.7
Manganese, Dissolved	mg/L	;	;	;	1	;	;	;	;	;	0.002	0.0099	0.012	;	1	;	;
Manganese, Total	mg/L	;	;	;	1	;	0.002	;	;	0.02	0.0049	0.014	0.032	;	1	;	;
Nitrate (As N)	mg/L	0.48	0.48	0.44	0.46	0.45	0.53	0.45	0.47	0.55	1.2	0.36	0.28	0.42	0.42	0.42	0.42
Potassium, Dissolved	mg/L	;	;	;	1	;	1	;	;	ı	1.2	;	;	1	ı	;	;
Sodium, Dissolved	mg/L	5.4	5.2	5.2	5.4	5.1	4.9	5	5.3	4.9	4.5	4.9	4.8	5.1	4.9	5.1	5.2
Sulfate	mg/L	2.1	2.2	2.2	2.1	3.7	3.6	1.4	3.7	2.8	3.8	2.9	3.3	2.7	2.5	3.2	2.5
Total Dissolved Solids (TDS)	mg/L	100	100	110	110	66	100	110	110	82	79	66	100	94	92	66	100
Total Suspended Solids (TSS)	mg/L	:	:	:	;	:	:	;	;	5.2	:	:		:	:	:	:
Metals																	
Arsenic, Dissolved	mg/L	0.00019	0.0002	0.00017	0.00018	0.0003	0.00032	0.00029	0.00029	0.00029	0.00031	0.00028	0.00029	0.00011	0.00013	0.00011	0.00011
Arsenic, Total	mg/L	0.00018	0.0002	0.00017	0.00018	0.00032	0.00033	0.0003	0.0003	0.00043	0.00033	0.00032	0.00035	0.00011	0.00012	0.00011	0.00012
Barium, Dissolved	mg/L	0.0029	0.0028	0.0031	0.0025	0.0036	0.0029	0.0033	0.0035	0.0039	0.0032	0.0037	0.0037	0.0032	0.0031	0.0031	0.0031
Barium, Total	mg/L	0.0029	0.0029	0.0027	0.0026	0.0032	0.0031	0.0033	0.0037	0.0036	0.0025	0.0033	0.0039	0.003	0.0034	0.0034	0.0034
Chromium, Dissolved	mg/L	;	1	;	;	0.0032	1	0.0035	0.003	0.008	0.0081	0.0085	0.0074	1	;	;	;
Chromium, Total	mg/L	;	ı	;	;	0.0032	0.0033	ı	0.0032	0.0085	0.0087	0.0073	0.0077	1	;	;	:
Lead, Total	mg/L	;	ı	;	;	;	;	:	;	;	;	0.0014		;	;	;	;
Vanadium, Dissolved	mg/L	0.0042	0.0039	0.0041	0.004	0.0058	0.0053	0.0062	0.0054	0.0038	0.0042	0.0037	0.0035	0.0045	0.0048	0.0049	0.0036
Vanadium, Total	mg/L	0.0042	0.0048	0.0039	0.0042	0.0057	0.0057	0.005	0.0055	0.0042	0.0042	0.0042	0.004	0.0047	0.0042	0.0044	0.0042
Volatile Organic Compounds																	
No Detections in Upgradient Monitoring Wells	ng Wells																

No Detections in Upgradient Monitoring Wells

Notes:

mV = MilivoltsCGCO<sub>3</sub> = Coldum carbonate

deg.C = Degrees Celcius

J = Conentracion is estimated

Innbo,7 cm = Microbran per liter

mg/L = Milcograms per liter

...

mg/L = Milgarams per liter

N = Nitrogen NTU = Nephelometric turbidity units SU = Standard units --- = Parameter not detected above the project-specific reporting limit

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Table 4E. Detections and Field Measurements - Leachate and Leak Detection Locations 2014 Annual Monitoring Report Olympic View Sanitary Landfill, Kitsap County, Washington

Parameter	Units	L-INF	LP-LCD	LP-LCD	LP-LCD	LP-LCD
	Oillis	12/9/2014	3/14/2014	6/26/2014	9/29/2014	12/9/2014
ield Parameter						
Dissolved Oxygen	mg/L	9.8	7.71	7.70	6.83	10.39
ORP	mV	204.1	38.8	154.5	27.9	117.1
рН	рН	6.99	7.06	7.29	7.15	<i>7</i> .15
Specific Conductivity	umhos/cm	2871	3849	3448	3541	3597
Temperature	deg C	10.13	9.41	18.4	17.96	10.37
Turbidity	NTU	2.51	13.1	5.1	14.7	8.06
General Chemistry						
Alkalinity, Bicarbonate (As CaCO3)	mg/L	380	930	830 H	780	800
Alkalinity, Total (As CaCO3)	mg/L	380	930	830 H	780	800
Ammonia (As N)	mg/L	6.6	9.9	8.1	8.5	5.7
Biochemical Oxygen Demand	mg/L		19			
Calcium, Dissolved	mg/L	79 B				
Calcium, Total	mg/L		42	45	43	57
Chemical Oxygen Demand	mg/L	170		200/220		
Chloride	mg/L	540	660	690	660	660
Iron, Dissolved	mg/L	0.36				
Iron, Total	mg/L		0.64	0.76	0.99	0.55
Magnesium, Dissolved	mg/L	47				
Magnesium, Total	mg/L		26	27	25	36
Manganese, Dissolved	mg/L	0.66				
Manganese, Total	mg/L		1	0.86	0.82	0.81
Nitrate/Nitrite, Total	mg/L	48				
Potassium, Dissolved	mg/L	69				
Potassium, Total	mg/L		70	78	75	72
Sodium, Dissolved	mg/L	460				
Sodium, Total	mg/L		890	870	820	790
Sulfate	mg/L	200	200	230	260	250
Total Dissolved Solids (TDS)	mg/L	2000	2500	2500 H	2400	2500
Total Organic Carbon (TOC)	mg/L	56	78	70	65	63
Total Suspended Solids (TSS)	mg/L			7.6		
Metals	9/ -		l	,		
Antimony, Dissolved	mg/L	0.0051				
Barium, Dissolved	mg/L	0.083				
Cadmium, Dissolved	mg/L	0.00021				
Chromium, Dissolved	mg/L	0.0051				
Cobalt, Dissolved	mg/L	0.0091				
Copper, Dissolved	mg/L	0.026				
Copper, Total	mg/L			0.015		
Nickel, Dissolved	mg/L	0.065				
Nickel, Total	mg/L	0.065		0.12		
Vanadium, Dissolved	mg/L	0.007				
Zinc, Dissolved		0.007		<del></del>		
	mg/L	0.04		0.055		
Zinc, Total  /olatile Organic Compounds	mg/L			0.033		

### Notes:

 $CaCO_3 = Calcium carbonate$ mV = Milivoltsdeg-C = Degrees Celcius N = Nitrogen

NTU = Nephelometric turbidity units

J = Conentration is estimated µmhos/cm = Microhms per centimeter SU = Standard units

 $\mu g/L = \text{Micrograms per liter}$ -- = Parameter not detected above the project-specific reporting limit

mg/L = Miligrams per liter

The LP-LCD sample in June 2014 was analyzed for TSS, total copper, nickel, and zinc as a result of a labeling error VOCs detected in groundwater samples were not observed in leachate or leak detection samples

#### Table 5. 2014 Groundwater and Leachate VOC Detections 2014 Annual Monitoring Report Olympic View Sanitary Landfill, Kitsap County, Washington

Parameter	Units	Event	Well Type	Well	Result
1,2-Dichlorobenzene	µg/L	Q314	Compliance	MW-42	0.27 J
1,4-Dichlorobenzene	µg/L	Q314	Compliance	MW-42	0.41 J
2-Butanone (MEK)	µg/L	Q414	Performance	MW-19C	1.5 J
Acetone	µg/L	Q414	Performance	MW-4	4.1 J
				MW-23A	3.4 J
Chlorobenzene	µg/L	Q314	Compliance	MW-42	0.51 J
Chlorodifluoromethane	µg/L	Q414	Compliance	MW-34A	3.6
cis-1,2-Dichloroethene	µg/L	Q214	Compliance	MW-34C	0.38 J
		Q314		MW-42	0.32 J
lodomethane	µg/L	Q314	Compliance	MW-42	0.25 J
Methylene Chloride	µg/L	Q314	Compliance	MW-42	0.38 J
		Q414	Performance	MW-4	0.55 J
Trichloroethene	µg/L	Q114	Performance	MW-19C	1.3
			Downgradient	MW-32	0.49 J
		Q214	Performance	MW-19C	1.2
			Downgradient	MW-32	0.5 J
			Compliance	MW-34C	0.26 J
		Q314	Compliance	MW-42	0.42 J
			Downgradient	MW-32	0.46 J
			Performance	MW-19C	1 J
		Q414	Performance	MW-19C	1.3
			Downgradient	MW-32	0.49 J
Vinyl chloride	µg/L	Q114	Compliance	MW-15R	0.0095 J
			Compliance	MW-34A	0.03
			Compliance	MW-34C	0.16
			Compliance	MW-42	0.048
			Downgradient	MW-32	0.54
			Performance	MW-4	0.0089 J
			Performance	MW-19C	0.15
			Performance	MW-20	0.022
		Q214	Compliance	MW-15R	0.0098 J
				MW-34C	0.13
				MW-42	0.034
			Downgradient	MW-32	0.4
			Performance	MW-19C	0.024
				MW-20	0.027
		Q314	Compliance	MW-15R	0.012 J
				MW-34C	0.13
				MW-39	0.0079 J
				MW-42	0.16
			Downgradient	MW-32	0.44
			Performance	MW-4	0.27
				MW-19C	0.064
				MW-20	0.062
				MW-23A	0.015 J

#### Table 5. 2014 Groundwater and Leachate VOC Detections 2014 Annual Monitoring Report Olympic View Sanitary Landfill, Kitsap County, Washington

Parameter	Units	Event	Well Type	Well	Result
Vinyl chloride (cont.)	μg/L	Q414	Compliance	MW-15R	0.0069 J
				MW-42	0.082
				MW-34C	0.12
			Downgradient	MW-32	0.39
			Performance	MW-20	0.054
				MW-19C	0.09
				MW-4	0.01 <i>7</i> J
				MW-23A	0.0082 J

J = Indicates that concentration is estimated due to low concentration in sample

#### Table 6A. Summary of Significant Parameter Trends by Well Type 2014 Annual Monitoring Report Olympic View Sanitary Lanfill, Kitsap County, Washington

Significant	VOC Trends	Significant Inorgan	ic Parameter Trends
Increasing	Decreasing	Increasing	Decreasing
Upgradient Wells			
None	None	Alkalinity, Bicarbonate Alkalinity, Total Nitrate pH	Arsenic, Dissolved Sulfate
Performance Wells			
None	Trichloroethene Vinyl Choride	pH Sodium, Dissolved Sulfate Temperature	Alkalinity, Bicarbonate Alkalinity, Total Arsenic, Dissolved Barium, Dissolved Calcium, Dissolved Chloride Iron, Dissolved Magnesium, Dissolved Manganese, Dissolved Sodium, Dissolved Specific Conductivity Sulfate
			Temperature Total Dissolved Solids
Compliance Wells	1 10 10 11		
None	Vinyl Choride	Chromium, Dissolved pH Potassium, Dissolved Temperature	Alkalinity, Bicarbonate Arsenic, Dissolved Barium, Dissolved Calcium, Dissolved Iron, Dissolved Magnesium, Dissolved Manganese, Dissolved Specific Conductivity Sulfate Total Dissolved Solids
Downgradient Wells			
None	None	Chromium, Dissolved Nitrate Temperature	Alkalinity, Bicarbonate Alkalinity, Total Ammonia Arsenic, Dissolved Barium, Dissolved Calcium, Dissolved Chloride Iron, Dissolved Magnesium, Dissolved Specific Conductivity Total Dissolved Solids

### Table 6B. Summary of Trends in Groundwater (2005 - 2014) Olympic View Sanitary Lanfill, Kitsap County, Washington 2014 Annual Monitoring Report

## Results of Sen's Non-Parametric Test for Trend

Frend Test Period: January 2005 through September 2013

#### **Trend Test Wells:**

- Compliance Wells: MW-15R, MW-34A, MW-34C, MW-39, MW-42, MW-43
- Performance Wells: MW-2B1, MW-4, MW-19C, MW-20, MW-23A, MW-24
- Downgradient Wells: MW-9\*, MW-29A\*\*, MW-32, MW-33A\*\*, MW-33C, MW-36A
- Upgradient Wells MW-13A, MW-13B, MW-16, MW-35,

Significant Decreasing Trends Trend Test A = all organic parameters listed in Appendix I and Appendix II of WAC 173-351-990 that have been detected at least once in 2) performance, 3) downgradient, and 4) upgradient site monitoring wells, at least one of 22 wells comprising the network of 1) compliance, during the trend test period. This MW-19C (graph 533) MW-19C (graph 555) MW-34C (graph 565) MW-24 (graph 558) None Significant Increasing Trends None includes the following constituents: ,2-Dichloroethene (total) Dichlorodifluoromethane trans-1,2-Dichloroethene Chlorodifluoromethane cis-1,2-dichloroethene 1,2-Dichlorobenzene 1,4-Dichlorobenzene Methylene Chloride 1,1-Dichloroethane Tetrachloroethene tert-Butyl Alcohol Carbon Disulfide **Tetrahydrofuran** Chlorobenzene Trichloroethene Chloromethane n-Butyl Alcohol Vinyl Chloride Chloroethane Naphthalene Chloroform Ethyl Ether Benzene Acetone Toluene

<sup>\*</sup>no longer routinely sampled; \*\*sampled semi-annually

<b>Trend Test B</b> = all metals and groundwater quality parameterslisted in Appendix I and Appendix II of WAC (173-351-990)	dix II of WAC (173-351-990)	
	Significant Increasing Trends	Significant Decreasing Trends
Antimony, dissolved	None	None
		MW-16 (graph 92)
		MW-19C (graph 93)
		MW-23A (graph 95)
Arsenic, dissolved	None	MW-24 (graph 96)
		MW-32 (graph 99)
		MW-33C (graph 101)
		MW-34C (araph 103)
		MW-15R (graph 113)
		MW-19C (graph 115)
Barium, dissolved	None	MW-24 (graph 118)
		MW-29A (graph 119)
		MW-36A (graph 127)
Beryllium, dissolved	None	None
Cadmium, dissolved	None	None
Chromium, dissolved	MW-34A (graph 234)	None
	MW-36A (graph 237)	
Cobalt, dissolved	None	None
Copper, dissolved	None	None
Lead, dissolved	None	None
Nickel, dissolved	None	None
Selenium, dissolved	None	None
Silver, dissolved	None	None
Thallium, dissolved	None	None
Vanadium, dissolved	None	MW-36A (graph 677)
Zinc, dissolved	None	None
Nitrate (as N)	MW-35 (graph 412)	None
	MW 23A (gldpil 413)	
LIA	1014 Hapia) 407-11	יאַכוּט

None   None   None   Nw20 (graph 578)   NW281 (graph 582)   NW34 (graph 583)   NW34 (graph 587)   NW34 (graph 587)   Nw34 (graph 587)   Nw34 (graph 1)   Nw134 (graph 1)   Nw138 (graph 1)   Nw138 (graph 1)   Nw138 (graph 1)   Nw35 (graph 16)	<b>Trend Test B</b> = all metals and groundwater quality parameterslisted in Appendix I and Appendix II of WAC (173-351-990)	endix II of WAC (173-351-990)	
None   None		Significant Increasing Trends	Significant Decreasing Trends
None   None			MW-15R (graph 531)
Awv-20 (graph 578)  Aww-21 (graph 582)  Aww-32 (graph 583)  Aww-34 (graph 587)  Aww-34C (graph 587)  Aww-34C (graph 587)  Aww-134 (graph 1)  Aww-138 (graph 1)  Aww-138 (graph 1)			MW-19C (graph 533)
None  MW-20 (graph 578)  MW-21 (graph 582)  MW-32 (graph 583)  MW-34 (graph 583)  MW-34C (graph 587)  None  None  None  None  MW-134 (graph 1)  MW-134 (graph 1)  MW-134 (graph 1)  MW-135 (graph 1)			MW-23A (graph 535)
None  None  WW-20 (graph 578)  WW-22 (graph 582)  WW-34 (graph 587)  NW-34 (graph 587)  None			MW-24 (graph 536)
AWW-20 (graph 578)  AWW-21 (graph 582)  AWW-34 (graph 583)  AWW-34 (graph 587)  AWW-34C (graph 587)  AWW-34C (graph 587)  AWW-34C (graph 587)  AWW-134 (graph 1)  AWW-138 (graph 1)  AWW-138 (graph 1)  AWW-136 (graph 2)  AWW-35 (graph 16)			MW-29A (graph 537)
MW-20 (graph 578)  MW-38 (graph 582)  MW-34 (graph 583)  MW-34 (graph 586)  MW-34C (graph 587)  None  None  MW-13A (graph 1)  MW-13B (graph 1)  MW-35 (graph 1)	بالإنائية بالمسول بالماري ما		MW-2B1 (graph 538)
MW-20 (graph 578)		<u> </u>	MW-32 (graph 539)
MW-20 (graph 578)			MW-33A (graph 540)
MW-20 (graph 578)  MW-21 (graph 582)  MW-34 (graph 583)  MW-34C (graph 587)  MW-34C (graph 587)  MW-134 (graph 1)  Alkalinity (as CaCO3)  MW-138 (graph 1)  MW-35 (graph 1)			MW-34A (graph 542)
MW-20 (graph 578)  MW-21 (graph 582)  MW-32 (graph 583)  MW-34C (graph 587)  MW-34C (graph 587)  MW-34C (graph 587)  MW-34C (graph 587)  Alkalinity (as CaCO3)  MW-134 (graph 1)  MW-138 (graph 1)  MW-35 (graph 16)			MW-34C (graph 543)
MW-20 (graph 578)  MW-21 (graph 582)  MW-34 (graph 583)  MW-34C (graph 587)  MW-34C (graph 587)  Alkalinity (as CaCO3)  MW-134 (graph 1)  MW-138 (graph 1)  MW-138 (graph 16)			MW-36A (graph 545)
AWW-20 (graph 578)         AWW-281 (graph 582)         AWW-32 (graph 583)         AWW-34A (graph 587)         AWW-34C (graph 587)         AWW-34C (graph 587)         AWW-13A (graph 1)         Alkalinity (as CaCO3)         AWW-13A (graph 1)         AWW-35 (graph 16)			MW-4 (graph 547)
Alkalinity (as CaCO3)       MW-381 (graph 582)         MW-21 (graph 582)       MW-34A (graph 587)         MW-34C (graph 587)       MW-134 (graph 1)         Alkalinity (as CaCO3)       MW-13A (graph 1)         MW-35 (graph 16)       MW-35 (graph 16)		MW-20 (graph 578)	
Alkalinity (as CaCO3)       MW-134 (graph 583)         AWW-34A (graph 587)       MW-34C (graph 587)         AWW-134 (graph 587)       MW-134 (graph 1)         Alkalinity (as CaCO3)       MW-138 (graph 1)         Alkalinity (as CaCO3)       MW-138 (graph 16)		MW-2B1 (graph 582)	
Alkalinity (as CaCO3)       MW-34A (graph 586)         MW-34C (graph 587)       MW-13A (graph 1)         Alkalinity (as CaCO3)       MW-13A (graph 1)         Alkalinity (as CaCO3)       MW-13B (graph 16)	Temperature	MW-32 (graph 583)	MW-24 (graph 580)
MW-34C (graph 587)         None         None         MW-13A (graph 1)         MW-13B (graph 2)         MW-35 (graph 16)		MW-34A (graph 586)	
None  None  MW-13A (graph 1)  MW-13B (graph 2)  MW-35 (graph 1)		MW-34C (graph 587)	
None  None  MW-13A (graph 1)  MW-13B (graph 2)  MW-35 (graph 1)			MW-15R (graph 179)
None  None  MW-13A (graph 1)  AWW-13B (graph 2)  AWW-35 (graph 16)			MW-23A (graph 183)
None  MW-13A (graph 1)  MW-13B (graph 2)  MW-35 (graph 1)			MW-24 (graph 184)
None  None  MW-13A (graph 1)  MW-13B (graph 2)  MW-35 (graph 1)			MW-29A (graph 185)
MW-13A (graph 1) MW-13B (graph 2) MW-35 (graph 16)	Calcium, dissolved	None	MW-2B1 (graph 186)
MW-13A (graph 1) MW-13B (graph 2) MW-35 (graph 16)			MW-33A (graph 188)
MW-13A (graph 1) MW-13B (graph 2) MW-35 (graph 16)			MW-34C (graph 191)
MW-13A (graph 1) MW-13B (graph 2) MW-35 (graph 16)			MW-36A (graph 193)
MW-13A (graph 1) MW-13B (graph 2) MW-35 (graph 16)			MW-9 (graph 198)
MW-13B (graph 2) MW-35 (graph 16)		MW-134 (252b) 1)	MW-15R (graph 3)
MW-35 (graph 16)	Ricarbonate Albalinity (as CaCC3)	(C 40072) (S 1707)	MW-23A (graph 7)
		///// 3E (Side) 25	MW-24 (graph 8)
		MW-55 (graph 10)	MW-36A (graph 17)

<b>Trend Test B</b> = all metals and groundwater quality parameterslisted in Appendix I and Appendix II of WAC (173-351-990)	dix II of WAC (173-351-990)	
	Significant Increasing Trends	Significant Decreasing Trends
		MW-15R (graph 333)
		MW-23A (graph 337)
		MW-24 (graph 338)
A contraction on the contract of the contract		MW-2B1 (graph 340)
Magnesian, dissolved	שניים	MW-33A (graph 342)
		MW-34A (graph 344)
		MW-34C (graph 345)
		MW-36A (graph 347)
		MW-13A (graph 551)
		MW-13B (graph 552)
S     S	MW-20 (graph 556)	MW-19C (graph 555)
	MW-24 (graph 558)	MW-23A (graph 557)
		MW-34A (graph 564)
		MW-4 (graph 569)
		MW-15R (graph 509)
Sodium, dissolved	MW-20 (graph 512)	MW-19C (graph 511)
		MW-23A (araph 513)
		MW-15R (graph 201)
		MW-19C (graph 203)
		MW-23A (graph 205)
		MW-2B1 (graph 208)
Chloride	None	MW-33A (graph 210)
		MW-34A (graph 212)
		MW-34C (graph 213)
		MW-36A (graph 215)
		MW-4 (graph 217)
Potassium, dissolved	MW-42 (graph 460)	None
	M/N/ 13 A (2,22, 23)	MW-15R (graph 25)
Total Alicelants and an analysis and a second a second and a second an	/// 13B (2,23b 24)	MW-23A (graph 29)
	MW = 135 (gldpli 24)	MW-24 (graph 30)
	M.VV-33 (graph 38)	MW-36A (graph 39)
		MW-19C (graph 291)
		MW-24 (graph 294)
Iron, dissolved	None	MW-32 (graph 297)
		MW-34C (graph 301)
		MW-9 (graph 308)

<b>Trend Test B</b> = all metals and groundwater quality parameterslisted in Appendix I and Appendix II of WAC (173-351-990)	ndix II of WAC (173-351-990)	
	Significant Increasing Trends	Significant Decreasing Trends
		MW-15R (graph 355)
Manganese, dissolved	None	MW-23A (graph 359)
		MW-24 (graph 360)
Ammonia (as N)	None	MW-29A (graph 53)
Total Organic Carbon	None	None
		MW-15R (graph 619)
		MW-23A (graph 623)
	1 2	MW-24 (graph 624)
Total Dissolved solids	140ne	MW-2B1 (graph 626)
		MW-33A (graph 628)
		MW-34C (graph 631)

Table prepared by Aqua Chem Applications (March 2015)

#### Table 7. Fourth Quarter 2014 Prediction Limit Exceedances 2014 Annual Monitoring Report Olympic View Sanitary Landfill, Kitsap County, Washington

Well Type	Well Location	Date Sampled	Parameter	Units	Result	Prediction Limit
Compliance	MW-15R	11/19/2014	Calcium, Dissolved	mg/L	18	17.1
			Magnesium, Dissolved	mg/L	11	10.74
	MW-34A	11/19/2014	рН	рН	5.62	5.89 - 8.24
			Arsenic, Dissolved	μg/L	0.4	0.38
			Sodium, Dissolved	mg/L	11	6.2
	MW-34C	11/19/2014	Alkalinity, Bicarbonate (as CaCO <sub>3</sub> )	mg/L	110	96
			Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	110	96
			Arsenic, Dissolved	μg/L	1.14	0.38
			Barium, Dissolved	mg/L	0.025	0.0052
			Calcium, Dissolved	mg/L	25	17.1
			Iron, Dissolved	mg/L	0.59	0.097
			Magnesium, Dissolved	mg/L	11	10.86
			Manganese, Dissolved	mg/L	1.3	0.014
			Potassium, Dissolved	mg/L	2.4	1.0
			Sodium, Dissolved	mg/L	15	6.2
			Specific Conductivity	mS/cm	0.232	0.18
			Temperature	deg C	12.83	11.96
			Total Dissolved Solids (TDS)	mg/L	190	175
	MW-42	11/18/2014	Alkalinity, Bicarbonate (as CaCO <sub>3</sub> )	mg/L	230	96
			Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	230	96
			Ammonia (as N)	mg/L	6.3	0.34
			Arsenic, Dissolved	μg/L	1.6	0.38
			Barium, Dissolved	mg/L	0.12	0.0052
			Calcium, Dissolved	mg/L	44	17.1
			Chloride	mg/L	19	4.00
			Cobalt, Dissolved	mg/L	0.0077	0.00
			Iron, Dissolved	mg/L	27	0.097
			Magnesium, Dissolved	mg/L	17	10.86
			Manganese, Dissolved	mg/L	5	0.014
			Potassium, Dissolved	mg/L	8.2	1.0
			Sodium, Dissolved	mg/L	20	6.2
			Specific Conductivity	mS/cm	0.573	0.18
			Sulfate	mg/L	11	9.9
			Temperature	deg C	12.2	11.96
			Total Dissolved Solids (TDS)	mg/L	310	175
			Total Organic Carbon (TOC)	mg/L	7.9	6.0
	MW-43	11/18/2014	Barium, Dissolved	mg/L	0.0058	0.0052
			Iron, Dissolved	mg/L	0.7	0.097
			Manganese, Dissolved	mg/L	0.24	0.014
			рН	рН	5.61	5.89 - 8.24
			Temperature	deg C	12.1	11.96

#### Table 7. Fourth Quarter 2014 Prediction Limit Exceedances 2014 Annual Monitoring Report Olympic View Sanitary Landfill, Kitsap County, Washington

Well Type	Well Location	Date Sampled	Parameter	Units	Result	Prediction Limit
Downgradient	MW-29A	11/18/2014	Arsenic, Dissolved	μg/L	1.53	0.38
			Barium, Dissolved	mg/L	0.0094	0.0052
			Iron, Dissolved	mg/L	3.7	0.097
			Manganese, Dissolved	mg/L	1.3	0.014
	MW-32	11/20/2014	Alkalinity, Bicarbonate (as CaCO <sub>3</sub> )	mg/L	130	96
			Alkalinity, Total (as CaCO₃)	mg/L	130	96
			Arsenic, Dissolved	μg/L	9.2	0.38
			Barium, Dissolved	mg/L	0.006	0.0052
			Calcium, Dissolved	mg/L	32	17.1
			Chloride	mg/L	12	4.0
			Iron, Dissolved	mg/L	0.87	0.097
			Magnesium, Dissolved	mg/L	16	10.86
			Manganese, Dissolved	mg/L	2.4	0.014
			Potassium, Dissolved	mg/L	1.3	1.0
			Sodium, Dissolved	mg/L	17	6.2
			Specific Conductivity	mS/cm	0.309	0.18
			Sulfate	mg/L	16	9.9
			Temperature	deg C	12.4	11.96
			Total Dissolved Solids (TDS)	mg/L	220	175
	MW-33A	11/19/2014	Iron, Dissolved	mg/L	5.1	0.097
			Manganese, Dissolved	mg/L	0.11	0.0067
			рН	рН	5.65	5.89 - 8.24
	MW-33C	11/19/2014	Arsenic, Dissolved	μg/L	2.35	0.38
			Calcium, Dissolved	mg/L	18	17.1
			Iron, Dissolved	mg/L	0.38	0.097
			Manganese, Dissolved	mg/L	0.2	0.014
			Potassium, Dissolved	mg/L	1.5	1.0
	MW-36A	11/19/2014	Arsenic, Dissolved	μg/L	0.51	0.38
			pH	рН	5.88	6.2
			Potassium, Dissolved	mg/L	1.1	1.0
			Sodium, Dissolved	mg/L	6.5	6.2
	MW-39	11/18/2014	Alkalinity, Bicarbonate (as CaCO <sub>3</sub> )	mg/L	98	96
			Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	98	96
			Arsenic, Dissolved	μg/L	1.16	0.38
			Barium, Dissolved	mg/L	0.013	0.0052
			Cobalt, Dissolved	mg/L	0.0065	0.003
			Iron, Dissolved	mg/L	29	0.097
			Manganese, Dissolved	mg/L	0.49	0.014
			Sodium, Dissolved	mg/L	6.9	6.2
			Specific Conductivity	mS/cm	0.213	0.18

Notes:

Contents prepared by GeoChem Applications

deg C = degrees Celcius

 $CaCO3 = calcium\ carbonate$ 

N = nitrogen

 $\mu g/L = micrograms \ per \ liter$ 

mg/L = milligrams per liter

 $mS/cm = milliSiemens \; per \; centimeter \;$ 

## Table 8. 2014 Annual Groundwater Cleanup Level Statistical Evaluation Summary 2014 Annual Monitoring Report

Olympic View Sanitary Landfill, Kitsap County, Washington

Statistical Methodology: calculation of 95% UCL of mean per MTCAStat

Data Input (general): 3-year "moving window", updated annually

Data Input (specific): January 1, 2012 through December 31, 2014

Wells Evaluated: (1) Compliance -- MW-15R, MW-34A, MW-34C, MW-39, MW-42, MW-43; (2) Downgradient -- MW-9<sup>+</sup>, MW-29A, MW-32, MW-33A, MW-33C, MW-36A

									-			
Monitoring	Monitoring	Corrective Action	į	%		95% UCL of			Groundwater			Significant
Well Type	Well	Š	E Z	Detect	$Max^{[2]}$		Units <sup>[4]</sup>	Note	Cleanup Level <sup>[5]</sup>	Units <sup>[4</sup> ]	Exceed Cleanup Level?	Trend? <sup>[6]</sup>
Compliance	MW-15R	1,1-Dichloroethane	12	%0	0.38 (ND)	0.38	ng/L	В	50	J/gu	2	ž
		1,4-Dichlorobenzene	12	%0	0.84 (ND)	0.84	ng/L	В	2.0	1/6n	Ŷ	ž
		Ammonia as N	12[7]	25%	0.058	0.058	mg/L	∢	0.19	mg/L	Š	ž
		Arsenic, dissolved	12	100%	0.26	0.23	1/bn		0.462	1/6n	Ŷ	Š
		cis-1,2-dichloroethene	12	%0	0.81 (ND)	0.81	ng/L	В	35	1/6n	<u>8</u>	Š
		Ethyl ether	12	%0	0.72 (ND)	0.72	1/bn	В	50	1/6n	9N	<u>8</u>
		Iron, dissolved	12	%0	0.06 (ND)	90.0	mg/L	В	0.30	T/bm	% 9N	<sub>S</sub>
		Manganese, dissolved	12	95%	0.007	0.003	mg/L	Z	0.05	mg/L	Ŷ	Yes (↓)
		Trichloroethene	12	%0	0.46 (ND)	0.46	ng/L	В	1.0	1/6n	2	Š
		Vinyl Chloride	12	72%	0.036	0.04	ng/L	٧	0.20	ng/L	oN.	No
	MW-34A	1,1-Dichloroethane	12	%0	0.38 (ND)	0.38	1/bn	В	50	ng/L	% 9N	<u>8</u>
		1,4-Dichlorobenzene	12	%0	0.84 (ND)	0.84	1/6n	В	2.0	1/6n	٥N	<u>8</u>
		Ammonia as N	12	72%	0.15	0.15	mg/L	٨	0.19	mg/L	No	No
		Arsenic, dissolved	12	%00 L	0.57	0.48	ng/L	Z	0.462	1/6n	Yes	<u>8</u>
		cis-1,2-dichloroethene	12	%0	0.81 (ND)	0.81	ng/L	В	35	1/6n	No	No
		Ethyl ether	12	%0	0.72 (ND)	0.72	ng/L	В	50	ug/L	No	No
		Iron, dissolved	12	%0	0.06 (ND)	90.0	mg/L	В	0.30	mg/L	٥N	<u>8</u>
		Manganese, dissolved	12	%0	0.0010	0.0010	mg/L	В	0.05	1/6w	9N	<u>8</u>
		Trichloroethene	12	%0	0.46 (ND)	0.46	1/6n	В	1.0	1/6n	٥N	<u>8</u>
		Vinyl Chloride	12	17.0%	0.03	0.03	ng/L	٧	0.20	ng/L	No	No
	MW-34C	1,1-Dichloroethane	12	%0	0.38 (ND)	0.38	ng/L	В	50	ng/L	oN.	No
		1,4-Dichlorobenzene	12	%0	0.84 (ND)	0.84	1/6n	В	2.0	1/6n	٥N	<u>8</u>
		Ammonia as N	12	72%	0.18	0.18	mg/L	∢	0.19	1/6w	9N	<u>8</u>
		Arsenic, dissolved	12	%00 L	4.2	1.89	ng/L	Z	0.462	1/6n	Yes	Yes (↓)
		cis-1,2-dichloroethene	12	%0	0.81 (ND)	0.81	ng/L	В	35	1/6n	No	No
		Ethyl ether	12	%0	0.72 (ND)	0.72	ng/L	В	50	ng/L	9N	<u>8</u>
		Iron, dissolved	12[9]	100%	0.9	0.77	mg/L	z	0.30	mg/L	Yes	Yes (↓)
		Manganese, dissolved	12	100%	1.30	0.83	mg/L	Z	0.05	mg/L	Yes	ž
		Trichloroethene	12	%0	0.46 (ND)	0.46	ng/L	В	1.0	ng/L	%	ž
		Vinyl Chloride	12	100%	0.16	0.15	ng/L	Z	0.20	ng/L	No	Yes ( <b>↓</b> )

# Table 8. 2014 Annual Groundwater Cleanup Level Statistical Evaluation Summary 2014 Annual Monitoring Report Olympic View Sanitary Landfill, Kitsap County, Washington

:				3		, o . o . o . o . o . o . o . o . o . o			Groundwater		Does 95% UCL	:
Moniforing Well Type	Monitoring Well	Corrective Action Monitoring Parameter	[] <b>Z</b>	% Detect	Max <sup>[2]</sup>	Mean [3]	Units <sup>[4]</sup>	Note	Cleanup Level <sup>[5]</sup>	Units <sup>[4]</sup>		Significant Trend? <sup>[6]</sup>
Compliance	WW-39	1,1-Dichloroethane	12	%0	0.38 (ND)	0.38	ng/L	Ω	50	ng/L	ž	°Z
		1,4-Dichlorobenzene	12	%0	0.84 (ND)	0.84	ng/L	В	2.0	ng/L	°N	<u>o</u> Z
		Ammonia as N	12	100%	0.43	0.34	mg/L	Z	0.19	mg/L	Yes	°Z
		Arsenic, dissolved	12	100%	2.23	1.69	1/6n	Z	0.462	1/6n	Yes	٥ N
		cis-1,2-dichloroethene	12	%0	0.81 (ND)	0.81	ng/L	В	35	ng/L	°N	<u>o</u> Z
		Ethyl ether	12	%0	0.72 (ND)	0.72	1/6n	В	50	1/6n	9N	o N
		Iron, dissolved	12	95%	41.0	33.4	mg/L	Z	0.30	mg/L	Yes	°Z
		Manganese, dissolved	12	100%	0.53	0.45	mg/L	Z	0.05	mg/L	Yes	٥ N
		Trichloroethene	12	%0	0.46 (ND)	0.46	ng/L	В	1.0	ng/L	9 N	°Z
		Vinyl Chloride	12	%0	0.02 (ND)	0.02	ng/L	В	0.20	ng/L	No	No
	MW-42	1,1-Dichloroethane	12	%0	0.38 (ND)	0.38	1/6n	В	50	1/6n	% 9N	٥ N
		1,4-Dichlorobenzene	12	%0	0.84 (ND)	0.84	1/6n	В	2.0	ng/L	oN.	o N
		Ammonia as N	12[10]	92%	8.4	6.4	mg/L	Z	0.19	mg/L	Yes	o N
		Arsenic, dissolved	12	100%	1.7	1.6	ng/L	Z	0.462	ng/L	Yes	No
		cis-1,2-dichloroethene	12	%0	0.81 (ND)	0.81	ng/L	В	35	ng/L	No	No
		Ethyl ether	12	%0	0.72 (ND)	0.72	ng/L	В	50	ng/L	No	No
		Iron, dissolved	12	100%	28	27.0	mg/L	Z	0.30	mg/L	Yes	No
		Manganese, dissolved	12	100%	5.3	5.0	mg/L	Z	0.05	mg/L	Yes	٥ N
		Trichloroethene	12	17%	0.51	0.51	ng/L	4	1.0	ng/L	No	No
		Vinyl Chloride	12	92%	0.16	0.14	ng/L	Z	0.20	ng/L	No	No
	MW-43	1,1-Dichloroethane	12	%0	0.38 (ND)	0.38	1/6n	В	50	1/6n	9N	% N
		1,4-Dichlorobenzene	12	%0	0.84 (ND)	0.84	1/6n	В	2.0	ng/L	No	No
		Ammonia as N	12	75%	0.15	0.16	mg/L	Z	0.19	mg/L	No	No
		Arsenic, dissolved	12	33%	0.05	0.05	ng/L	4	0.462	ng/L	No	No
		cis-1,2-dichloroethene	12	%0	0.81 (ND)	0.81	1/6n	В	35	ng/L	No	No
		Ethyl ether	12	%0	0.72 (ND)	0.72	ng/L	В	50	ng/L	No	No
		Iron, dissolved	12	83%	0.87	0.48	mg/L	z	0:30	mg/L	Yes	o N
		Manganese, dissolved	12	100%	0.26	0.20	mg/L	Z	0.05	mg/L	Yes	o Z
		Trichloroethene	12	%0	0.46 (ND)	0.46	ng/L	В	1.0	ng/L	Š	o N
		Vinyl Chloride	12	8.3%	0.036	0.036	ng/L	∢	0.20	ng/L	N <sub>o</sub>	No

# Table 8. 2014 Annual Groundwater Cleanup Level Statistical Evaluation Summary 2014 Annual Monitoring Report Olympic View Sanitary Landfill, Kitsap County, Washington

						, , , , , , , , , , , , , , , , , , ,			Groundwater		Does 95% UCL	
Monitoring Well Type	Monitoring Well	Corrective Action Monitoring Parameter	<u></u>	% Detect	Max <sup>[2]</sup>	95% UCL of Mean <sup>[3]</sup>	Units <sup>[4]</sup>	Note	Cleanup Level <sup>[5]</sup>	Units <sup>[4]</sup>		Significant Trend? <sup>[6]</sup>
Downgradient	MW-29A	1,1-Dichloroethane	9	%0	0.38 (ND)	0.38	1/6n	Ω	50	ng/L	ž	ž
		1,4-Dichlorobenzene	9	%0	0.84 (ND)	0.84	ng/L	В	2.0	ng/L	<u>8</u>	Ŷ
		Ammonia as N	9	100%	0.14	0.11	mg/L	Z	0.19	mg/L	No	Yes (↓)
		Arsenic, dissolved	9	100%	1.73	1.61	1/6n	Z	0.462	ng/L	Yes	٩
		cis-1,2-dichloroethene	9	%0	0.81 (ND)	0.81	ng/L	В	35	ng/L	No	No
		Ethyl ether	9	%0	0.72 (ND)	0.72	ng/L	Ω	50	ng/L	<u>8</u>	g
		Iron, dissolved	9	100%	4.3	4.1	mg/L	z	0.3	mg/L	Yes	%
		Manganese, dissolved	9	100%	1.4	1.35	mg/L	z	0.1	mg/L	Yes	%
		Trichloroethene	9	%0	0.46 (ND)	0.460	1/6n	В	1	1/6n	٥N	٩
		Vinyl Chloride	9	%0	0.02 (ND)	0.02	ng/L	В	0.20	ng/L	oN.	No
	MW-32	1,1-Dichloroethane	12	%0	0.38 (ND)	0.38	ng/L	В	90	ng/L	٥N	Ŷ.
		1,4-Dichlorobenzene	12	%0	0.84 (ND)	0.84	ng/L	В	2.0	ng/L	No	No
		Ammonia as N	12	33%	0.17	0.17	mg/L	∢	0.19	mg/L	9N	٩
		Arsenic, dissolved	12	100%	11.4	9.5	ng/L	Z	0.462	ng/L	Yes	Yes (↓)
		cis-1,2-dichloroethene	12	%0	0.81 (ND)	0.81	ng/L	В	35	ng/L	No	No
		Ethyl ether	12	%0	0.72 (ND)	0.72	ng/L	В	50	ng/L	No	No
		Iron, dissolved	12	100%	0.87	0.70	mg/L	Z	0:30	mg/L	Yes	Yes (🕹)
		Manganese, dissolved	12	100%	2.7	2.31	mg/L	Z	0.05	mg/L	Yes	No
		Trichloroethene	12	95%	0.70	0.57	ng/L	Z	1.0	ng/L	No	No
		Vinyl Chloride	12	100%	0.63	0.49	ng/L	Z	0.20	ng/L	Yes	No
	MW-33A	1,1-Dichloroethane	9	%0	0.38 (ND)	0.38	1/bn	В	90	ng/L	9N	%
		1,4-Dichlorobenzene	9	%0	0.84 (ND)	0.84	ng/L	В	2.0	ng/L	No	No
		Ammonia as N	9	83%	0.28	0.28	mg/L	A***	0.19	mg/L	Yes	No
		Arsenic, dissolved	9	100%	0.37	0.25	ng/L	Z	0.462	ng/L	<u>8</u>	g
		cis-1,2-dichloroethene	9	%0	0.81 (ND)	0.81	ng/L	В	35	ng/L	No	No
		Ethyl ether	9	%0	0.72 (ND)	0.72	ng/L	В	50	ng/L	No	No
		Iron, dissolved	9	83%	5.1	5.1	mg/L	**A	0:30	mg/L	Yes	N
		Manganese, dissolved	9	100%	0.11	0.11	mg/L	**	0.05	mg/L	Yes	9 N
		Trichloroethene	9	%0	0.46 (ND)	0.46	ng/L	В	1.0	ng/L	Ŷ	9 N
		Vinyl Chloride	9	%0	0.02 (ND)	0.02	ng/L	В	0.20	ng/L	N <sub>o</sub>	No

## Table 8. 2014 Annual Groundwater Cleanup Level Statistical Evaluation Summary 2014 Annual Monitoring Report

## Olympic View Sanitary Landfill, Kitsap County, Washington

Monitoring Well Type	Monitoring Well	Corrective Action Monitoring Parameter	[1]	% Detect	Max <sup>[2]</sup>	95% UCL of Mean <sup>[3]</sup>	Units <sup>[4]</sup>	Note	Groundwater Cleanup Level <sup>[5]</sup>	Units <sup>[4]</sup>	Does 95% UCL Exceed Cleanup Level?	Significant Trend? <sup>[6]</sup>
Downgradient MW-33C	MW-33C	1,1-Dichloroethane	12	%0	0.38 (ND)	0.38	ng/L	В	50	ng/L	92	°Z
		1,4-Dichlorobenzene	12	%0	0.84 (ND)	0.84	ng/L	В	2.0	ng/L	Š	<u>م</u>
		Ammonia as N	12	25%	0.15	0.15	mg/L	∢	0.19	mg/L	Š	<u>گ</u>
		Arsenic, dissolved	12	100%	2.66	2.38	ng/L	Image: Section of the	0.462	ng/L	Yes	Yes (↓)
		cis-1,2-dichloroethene	12	%0	0.81 (ND)	18.0	1/bn	В	35	ng/L	% 8	9N
		Ethyl ether	12	%0	0.72 (ND)	0.72	1/bn	В	90	1/6n	9 N	% N
		Iron, dissolved	12	17.0%	0.38	86.0	1/6w	4	0.3	mg/L	Yes	9N
		Manganese, dissolved	12	100%	0.2	0.15	mg/L	Z	0.05	mg/L	Yes	No
		Trichloroethene	12	%0	0.46 (ND)	0.46	1/6n	В	1.0	1/6n	°N	% N
		Vinyl Chloride	12	%0	0.02 (ND)	0.02	ug/L	В	0.20	ng/L	No	No
	MW-36A	1,1-Dichloroethane	12	%0	0.38 (ND)	88.0	1/6n	В	90	ng/L	No	No
		1,4-Dichlorobenzene	12	%0	0.84 (ND)	0.84	7/6n	В	2.0	ng/L	No	No
		Ammonia as N	12[8]	25%	0.072	0.072	mg/L	٧	0.19	mg/L	No	No
		Arsenic, dissolved	12	100%	0.81	0.73	ng/L	깈	0.462	ug/L	Yes	Yes (↓)
		cis-1,2-dichloroethene	12	%0	0.81 (ND)	0.81	ng/L	В	35	ug/L	No	No
		Ethyl ether	12	%0	0.72 (ND)	0.72	ng/L	В	50	ng/L	No	No
		Iron, dissolved	12	17%	0.13	0.13	mg/L	4	0.3	mg/L	No	No
		Manganese, dissolved	12	28%	0.0063	0.003	mg/L	Z	0.05	mg/L	No	No
		Trichloroethene	12	%0	0.46 (ND)	0.46	ng/L	В	1.0	ng/L	No	No
	1	Vinyl Chloride	12	8.3%	0.063	0.063	ug/L	∢	0.20	ng/L	No	No

#### NOTES:

<sup>&</sup>lt;sup>t</sup> Well MW-9 is no longer routinely sampled and no longer included on this table

<sup>[1]</sup> N = number of data points used for UCL calculation of the mean; only SIM results used for Vinyl Chloride (e.g., duplicate results with higher RLs by non-SIM were omitted).

<sup>[2]</sup> MAX = maximum detected result in the data set; if no detected results, then = maximum reporting limit for non-detect results (indicated with ND).

 $<sup>^{\</sup>left[3\right]}$  A 3-year moving data set is used for calculation of the UCL.

 $<sup>^{[4]}\, \</sup>mathrm{ug/L}$  - micrograms per liter;  $\mathrm{mg/L} = \mathrm{milligrams}$  per liter.

<sup>&</sup>lt;sup>[5]</sup> Groundwater Cleanup Levels are listed on Table 3 of the October 2010 Draft Cleanup Action Plan.

 $<sup>^{[6]}</sup>$  Trend analysis results are based on data for the period January 2005 through December 2014; arrows indicated decreasing (  $\downarrow$  ) trends.

 $<sup>^{</sup>m PJ}$  For MW-15R, gross outlier of 0.31 mg/L from 6-7-12 sampling event was removed prior to UCL calculation

 $<sup>^{[8]}</sup>$  For MW-36A, gross outlier of  $0.30~\mathrm{mg/L}$  from  $6-7-12~\mathrm{sampling}$  event was removed prior to UCL calculation

 $<sup>^{[9]}</sup>$  For MW-34C, gross outliers of 25 mg/L from 3-4-14 and 59 mg/L from 9-23-14 were removed prior to UCL calculation

 $<sup>^{110]}</sup>$  For MW-42, gross outlier of 59 mg/L from 9-3-13 was removed prior to UCL calculation

A = Detection frequency of data set too low to calculate 95% UCL of mean; therefore, the highest detected result in the data set used to represent 95% UCL of mean.

A\* = Same as note "A" except that the highest value in the data set is below the reporting limit of one or more non-detected results; therefore, the highest reporting limit is used to represent the 95% UCL of the mean.

# Table 8. 2014 Annual Groundwater Cleanup Level Statistical Evaluation Summary 2014 Annual Monitoring Report

## Olympic View Sanitary Landfill, Kitsap County, Washington

Significant	Trend? <sup>[6]</sup>
Does 95% UCL	Exceed Cleanup Level?
[4]	Units <sup>[-]</sup>
Groundwater	Cleanup Level <sup>[5]</sup>
:	Note
[4]	Units <sup>[7]</sup>
95% UCL of	Mean <sup>[3]</sup>
[2]	Max
%	Detect
Ξ	Z
Corrective Action	Monitoring Parameter
Monitoring	Well
Monitoring	Well Type

A\*\* = MTCAStat suggests use of lognormal formula but calculation of 95% UCL of mean by Land's formula provides unrealistic result; therefore, the highest detected result is used to represent the 95% UCL of the mean.

A\*\*\* = MTCAStat suggests use of the Z-score method but then cites inability to calculate due to presence of censored value; therefore, the highest detected result is used to represent the 95% UCL of the mean.

B = Detection frequency = 0; therefore, the highest reporting limit in the data set is used to represent the 95% UCL of mean.

LN = The 95% UCL of the mean is calculated using Land's formula since lognormal distribution is indicated.

Notes (Continued)

N = The 95% UCL of the mean is calculated using a normal-based t-statistic since a normal distribution is indicated.

Z = the 95% UCL of the mean is calculated using the Z-score method in MTCAStat since neither normal nor lognormal distribution can be determined.

Prepared by: GeoChem Applications

#### Table 9. Groundwater Quality Criteria and Site-Specific Cleanup Level Exceedances 2014 Annual Monitoring Report Olympic View Sanitary Landfill, Kitsap County, Washington

		Field Parameters	General Chemistry			Me	tals			vo	Cs
Comparisor	n Criteria	pH (SU)	Ammonia (mg N/L)	Arsenic, Dissolved (mg/L)	Arsenic, Total (mg/L)	Iron, Dissolved (mg/L)	Iron, Total (mg/L)	Manganese, Dissolved (mg/L)	Manganese, Total (mg/L)	TCE (µg/L)	Vinyl Chloride (µg/L)
١	WAC 173-200	6.5< >8.5		0.00005	0.00005	0.3	0.3	0.05	0.05	3	0.02
	y Federal MCL			0.01	0.01					5	2
Secondar te-specific MTCA	y Federal MCL	6.5< >8.5	0.19	0.00044	0.00044	0.3	0.3	0.05	0.05	1	0.2
Vell, Location, o			0.17	0.00046	0.00046					' '	0.2
MW-13A	Q1 2014			0.00019	0.00018						
	Q2 2014			0.0002	0.0002						
S S	Q3 2014			0.00017	0.00017						
9	Q4 2014			0.00018	0.00018						
MW-13B	Q1 2014 Q2 2014			0.0003	0.00032 0.00033						
8	Q2 2014 Q3 2014			0.00032	0.0003						
ğ	Q4 2014			0.00029	0.0003						
MW-16	Q1 2014			0.00029	0.00043						
£	Q2 2014			0.00031	0.00033						
	Q3 2014 Q4 2014	6.40	-	0.00028	0.00032 0.00035						
MW-35	Q1 2014			0.00011	0.00033						
5	Q2 2014			0.00013	0.00012						
	Q3 2014			0.00011	0.00011		-				
1111/ 05-	Q4 2014			0.00011	0.00012						
MW-2B1	Q1 2014 Q2 2014		1.7	0.00011	0.00017 0.00064			0.14 1.4	0.16 1.4		
	Q2 2014 Q3 2014	5.82	2.2	0.00061	0.00044			2.6	2.6		
	Q4 2014	5.86		0.00022	0.00034			0.47	0.51		
MW-4	Q1 2014	6.29		0.00032	0.00032			1.2	1.9		
	Q2 2014			0.00049	0.00152	0.45		0.98	1.2		
ous	Q3 2014			0.00065	0.00075			0.99	1.5		
MW-19C	Q4 2014 Q1 2014	5.73	0.64	0.0004 0.00287	0.0004 0.00296			0.29	0.35	1.3	0.15
	Q1 2014 Q2 2014		0.64	0.00287	0.00296			0.82	0.99	1.3	0.15
MW-20	Q3 2014	6.10	0.55	0.00256	0.00364			1.1	1.1		0.064
101	Q4 2014		0.6	0.00307	0.00319			1.2	1.1	1.3	0.09
MW-20	Q1 2014			0.00031	0.0003			0.12	0.17		0.022
	Q2 2014			0.0002	0.0002				0.28		0.027
u di	Q3 2014	6.37		0.00033	0.0003			0.29	0.15		0.062
MW-23A	Q4 2014	6.33		0.0002	0.0002			0.16	0.53		0.054
	Q1 2014 Q2 2014	6.27		0.00012	0.00014 0.00023		0.39 0.42	0.55 0.81	0.87 2.2		
	Q3 2014	6.43		0.00012	0.00023	0.33	0.75	2.1	2.2		_
	Q4 2014	6.26		0.00009	0.00018	0.46	0.91	2.1	3.6		
MW-24	Q1 2014			0.00027	0.00028	2.1	1.3	5.7	2.5		
	Q2 2014	6.43		0.00024	0.00091		0.88	0.12	2.3		
	Q3 2014	5.70		0.00022	0.00023	0.64	0.81	1.3	1		
MW-15R	Q4 2014 Q1 2014	6.05 6.40		0.00022	0.00061 0.00023		0.45	0.22			
MVV-15K	Q2 2014	0.40		0.00023	0.00023						
	Q3 2014	6.19		0.00011	0.00012						
	Q4 2014	6.31		0.0002	0.00021						
MW-34A	Q1 2014	6.34		0.0005	0.0005						0.03
	Q2 2014	6.12		0.00043	0.00042						
ons	Q3 2014	5.41		0.00044	0.00044						
MW-34C	Q4 2014 Q1 2014	5.62		0.0004 0.00128	0.0004 0.00127	25	26	0.73	0.73		0.16
3	Q2 2014			0.00126	0.0628	0.32	88	0.51	6.2		0.13
Ē	Q3 2014	6.30		0.00132	0.00127	59	65	1.1	1.2		0.13
	Q4 2014	6.22		0.00114	0.00491	0.59	4.9	1.3	1.2		0.12
MW-39	3/12/2013	5.83	0.43	0.00012	0.00036	1.6	2.2	0.11	0.086		
3	6/6/2013 9/5/2013	6.30	0.43	0.00191	0.00177 0.00151	40 33	36 33	0.45 0.47	0.44 0.44		
	12/5/2013	5.98	0.28	0.00137	0.00131	29	32	0.49	0.44		
MW-42	Q1 2014		6.6	0.00116	0.0017	28	26	5	5.3		0.048
,	Q2 2014	-	6.1	0.0015	0.0015	24	28	4.9	4.9		0.034
	Q3 2014	-	5.9	0.0016	0.0016	25	24	4.4	4.5		0.16
1111/ 12	Q4 2014	6.41	6.3	0.0016	0.0016	27	32	5	5.1		0.082
MW-43	Q1 2014 Q2 2014	5.97 6.11				0.53	24	0.18	0.24		
	Q2 2014 Q3 2014	5.84				0.53		0.18	0.24		-
	Q4 2014	5.61				0.7	1.7	0.24	0.26		
MW-32	Q1 2014			0.0087	0.0142	0.6	1.3	2.1	2.5		0.54
2	Q2 2014			0.00447	0.0266	0.49	6.3	1.8	4.1		0.4
	Q3 2014			0.0085	0.0096	0.77	1.1	2.6	3		0.44
WW 22C	Q4 2014	6.35		0.0092	0.0092	0.87	0.87	2.4	2.4		0.39
MW-33C	Q1 2014 Q2 2014			0.00228	0.00241 0.00251			0.14 0.13	0.19 0.17		
	Q2 2014 Q3 2014			0.00223	0.00251			0.13	0.17		
MW-36A	Q4 2014			0.00235	0.00254	0.38	0.38	0.14	0.2		
MW-36A	Q1 2014	6.20		0.00066	0.00068						
<u></u>	Q2 2014	6.28		0.0006	0.0006			-		-	_
	Q3 2014	5.70		0.00053	0.00053						
5	Q4 2014	5.88		0.00051	0.00053						
MW-29A	Q2 2014 Q4 2014	6.25		0.00014	0.00171	4.3	4.4	1.3	1.4		
		6.03		0.0002	0.0019	3.7	4.7	1.3	1.3		
MW-33A	Q2 2014			0.00011	0.00025	0.4	1.1				

SU = standard units

mg N/L = miligrams of Nitrogen per liter
mg/L = milligrams per liter

µg/L = micrograms per liter

0.00141 = exceeds Site-specific MTCA Cleanup Levels

0.035 = exceeds WAC 173-200 Groundwater Quality Criteria
6.44 = exceeds Federal MCL and WAC 173-200 Groundater Quality Criteria
0.0014 = exceeds Federal MCLs, Site-specific MTCA Cleanup Levels, and WAC 173-200 Criteria

TCE = Trichloroethene

#### Table 10. Cumulative 2014 Leak Detection System Volumes 2014 Annual Monitoring Report Olympic View Sanitary Landfill, Kitsap County, Washington

Date	Total Volume (Gals)	Comments
1/6/2014	0	Did not pump
1/13/2014	0	Pumped dry; no liquid present
1/21/2014	0	Pumped dry; no liquid present
1/27/2014	0	Pumped dry; no liquid present
2/3/2014	85	Pumped dry
2/10/2014	95	Pumped dry
2/18/2014	0	
2/24/2014	115	Pumped dry
3/3/2014	0	
3/10/2014	0	
3/17/2014	215	Pumped and sampled on 03/14/14
3/24/2014	0	Pumped dry; no liquid present
3/28/2014	0	Pumped dry; no liquid present
4/7/2014	80	Pumped dry
4/15/2014	70	Pumped dry
4/21/2014	0	Pumped dry
4/30/2014	95	Pumped dry
5/5/2014	0	Pumped dry
5/15/2014	0	Pumped dry
5/19/2014	0	No measurement made
5/27/2014	0	No measurement made
6/2/2014	0	No measurement made
6/9/2014	0	No measurement made
6/16/2014	0	No measurement made
6/23/2014	0	No measurement made
6/30/2014	325	Sampled on 6/26/2014.
7/7/2014	0	Pumped dry
7/14/2014	0	Pumped dry
7/21/2014	75	Pumped dry
7/28/2014	0	Pumped dry
8/4/2014	85	Pumped dry
8/13/2014	0	Pumped dry
8/18/2014	0	Pumped dry
8/25/2014	55	Pumped dry
9/2/2014	0	No measurement made
9/8/2014	0	No measurement made
9/15/2014	0	No measurement made
9/22/2014	0	No measurement made
9/29/2014	0	Sampled on 9/29/2014.
10/6/2014	350	Pumped Dry; Sampled
10/13/2014	0	Pumped Dry
10/20/2014	0	Pumped Dry
10/27/2014	85	Pumped Dry
11/3/2014	0	Pumped Dry
11/10/2014	0	No measurement made
11/17/2014	0	No measurement made
11/24/2014	0	No measurement made
12/1/2014	0	No measurement made
12/9/2014	425	sampled; pumped dry
12/16/2014	0	Pumped Dry
12/23/2014	0	Pumped Dry
12/31/2014	75	Pumped Dry
, ,		Volume for period between 1/1/2014 through
TOTAL	2,230	
		12/31/2014.

<sup>&</sup>quot;No measurement made" indicates that volume present was not pumped so adequate volume would be available for sampling.

#### Table 11. Fourth Quarter 2014 Landfill Gas Measurement Results 2014 Annual Monitoring Report Olympic View Sanitary Landfill, Kitsap County Washington

GP-8 1 GP-9S 1 GP-9D 1 GP-10S 1 GP-10D 1 GP-11S 1 GP-11D 1 GP-12S 1 GP-12M 1 GP-12M 1 GP-13M 1 GP-13M 1 GP-13M 1 GP-13D 1 GP-14 1 GP-15 1 GP-16 1 Onsite Building Int SH-SS 1 SH-NS 1	12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14	Time	Pressure (in H <sub>2</sub> O) Gas Probes): -0.44 -0.52 -0.31 -0.31 -0.29 -0.45 -0.31 -0.15	CH <sub>4</sub> (% vol.)  0.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00	CO <sub>2</sub> (% vol.)  8.30  2.60  1.80  1.00  0.90  3.20  3.50	O <sub>2</sub> (% vol.)  3.60  5.30  18.50 19.60  20.50 19.80	CH <sub>4</sub> Spike Note I (% vol.)	CO <sub>2</sub> Spike Note 1 (% vol.)	Depth to Water TOP (ft) 14.6 17.6 31.8 31.8	-	Portion of Notes 2 & 3 (%)  81%  96%  100%	Other
Reference Designation         Reference Designation           Subsurface Landfill         GP-7         1           GP-7         1         1           GP-8         1         1           GP-9D         1         1           GP-9D         1         1           GP-10D         1         1           GP-11S         1         1           GP-11D         1         1           GP-12S         1         1           GP-12D         1         1           GP-13S         1         1           GP-13M         1         1           GP-13D         1         1           GP-14         1         1           GP-15         1         1           Onsite Building Int         1           SH-NS         1         1	fill Gas Detect 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14	9:01 9:05 9:08 9:14 9:17 9:24 9:27 9:31 9:35 9:39	(in H <sub>2</sub> O) Gas Probes): -0.44 -0.52 -0.31 -0.31 -0.29 -0.45 -0.31 -0.15 -0.36 -0.53	0.00 0.00 0.00 0.00 0.00 0.00 0.00	(% vol.)  8.30  2.60  1.80  1.00  0.90  3.20	3.60  5.30  18.50 19.60  20.50 19.80	Spike Note 1	Spike Note 1	Water TOP (ft) 14.6 17.6 31.8 31.8	4.0 4.8 20.3	(%) 81% 96%	Other
GP-7 1 GP-8 1 GP-9S 1 GP-9D 1 GP-10S 1 GP-10D 1 GP-11S 1 GP-11D 1 GP-11D 1 GP-12S 1 GP-12D 1 GP-12D 1 GP-13S 1 GP-12D 1 GP-13S 1 GP-13D 1 GP-13D 1 GP-13D 1 GP-14 1 GP-15 1 GP-16 1 GP-16 1 Onsite Building Int SH-SS 1 SH-NS 1	12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14	9:01 9:05 9:08 9:14 9:17 9:24 9:27 9:31 9:35 9:39	Gas Probes): -0.44 -0.52 -0.31 -0.31 -0.29 -0.45 -0.31 -0.15 -0.36 -0.53	0.00 0.00 0.00 0.00 0.00 0.00 0.00	2.60 2.60 1.80 1.00 0.90	3.60 5.30 18.50 19.60 20.50 19.80	(% vol.)	(% vol.)	14.6 17.6 31.8 31.8	4.0	81% 96%	
GP-7 1 GP-8 1 GP-9S 1 GP-9D 1 GP-10S 1 GP-10D 1 GP-11S 1 GP-11D 1 GP-11D 1 GP-12S 1 GP-12D 1 GP-12D 1 GP-13S 1 GP-12D 1 GP-13S 1 GP-13D 1 GP-13D 1 GP-13D 1 GP-14 1 GP-15 1 GP-16 1 GP-16 1 Onsite Building Int SH-SS 1 SH-NS 1	12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14	9:01 9:05 9:08 9:14 9:17 9:24 9:27 9:31 9:35 9:39	-0.44 -0.52 -0.31 -0.31 -0.29 -0.45 -0.31 -0.15 -0.36 -0.53	0.00 0.00 0.00 0.00 0.00 0.00	2.60 2.60 1.80 1.00 0.90	5.30 18.50 19.60 20.50 19.80			17.6 31.8 31.8	4.8	96%	
GP-7 1 GP-8 1 GP-9S 1 GP-9D 1 GP-10S 1 GP-10D 1 GP-11D 1 GP-11D 1 GP-12S 1 GP-12D 1 GP-12D 1 GP-12D 1 GP-13S 1 GP-13D 1 GP-13D 1 GP-13D 1 GP-13D 1 GP-13D 1 GP-14 1 GP-15 1 GP-16 1 GP-16 1 Onsite Building Int SH-SS 1 SH-NS 1	12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14	9:01 9:05 9:08 9:14 9:17 9:24 9:27 9:31 9:35 9:39	-0.44 -0.52 -0.31 -0.31 -0.29 -0.45 -0.31 -0.15 -0.36 -0.53	0.00 0.00 0.00 0.00 0.00 0.00	2.60 2.60 1.80 1.00 0.90	5.30 18.50 19.60 20.50 19.80			17.6 31.8 31.8	4.8	96%	
GP-8 1 GP-9S 1 GP-9D 1 GP-10S 1 GP-10D 1 GP-11D 1 GP-11D 1 GP-12S 1 GP-12M 1 GP-12M 1 GP-12M 1 GP-13D 1 GP-13D 1 GP-13D 1 GP-13D 1 GP-14 1 GP-15 1 GP-16 1 GP-16 1 COnsite Building Interpretation	12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14	9:01 9:05 9:08 9:14 9:17 9:24 9:27 9:31 9:35 9:39	-0.52 -0.31 -0.31 -0.29 -0.45 -0.31 -0.15 -0.36 -0.53	0.00 0.00 0.00 0.00 0.00 0.00	2.60 2.60 1.80 1.00 0.90	5.30 18.50 19.60 20.50 19.80			17.6 31.8 31.8	4.8	96%	
GP-9S 1 GP-9D 1 GP-10S 1 GP-10D 1 GP-11S 1 GP-11D 1 GP-12S 1 GP-12D 1 GP-12D 1 GP-13D 1 GP-14 1 GP-15 1 GP-15 1 GP-15 1 GP-15 1 GP-16 1 GP-16 1 GP-16 1 GP-18 1 GP-18 1	12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14	9:05 9:08 9:14 9:17 9:24 9:27 9:31 9:35 9:39	-0.31 -0.31 -0.29 -0.45 -0.31 -0.15 -0.36 -0.53	0.00 0.00 0.00 0.00 0.00	2.60 1.80 1.00 0.90	18.50 19.60 20.50 19.80			31.8 31.8	20.3	100%	
GP-9S 1 GP-9D 1 GP-10S 1 GP-10D 1 GP-11S 1 GP-11D 1 GP-12S 1 GP-12D 1 GP-12D 1 GP-12D 1 GP-13D 1 GP-13D 1 GP-13D 1 GP-13D 1 GP-14 1 GP-15 1 GP-16 1 GP-16 1 GP-16 1 SH-SS 1 SH-NS 1	12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14	9:08 9:14 9:17 9:24 9:27 9:31 9:35 9:39	-0.31 -0.29 -0.45 -0.31 -0.15 -0.36 -0.53	0.00 0.00 0.00 0.00	1.80 1.00 0.90 3.20	19.60 20.50 19.80			31.8			
GP-10S 1 GP-10S 1 GP-10D 1 GP-11S 1 GP-11D 1 GP-12S 1 GP-12D 1 GP-12D 1 GP-12D 1 GP-13S 1 GP-13D 1 GP-13D 1 GP-13D 1 GP-13D 1 GP-13D 1 GP-14 1 GP-15 1 GP-16 1 Dnsite Building Int SH-SS 1 SH-NS 1	12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14	9:08 9:14 9:17 9:24 9:27 9:31 9:35 9:39	-0.31 -0.29 -0.45 -0.31 -0.15 -0.36 -0.53	0.00 0.00 0.00 0.00	1.80 1.00 0.90 3.20	19.60 20.50 19.80			31.8			
GP-10S 1 GP-10D 1 GP-11S 1 GP-11D 1 GP-12S 1 GP-12M 1 GP-12D 1 GP-13S 1 GP-13D 1 GP-13D 1 GP-13D 1 GP-13D 1 GP-14 1 GP-15 1 GP-16 1 Onsite Building Int SH-SS 1 SH-NS 1	12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14	9:14 9:17 9:24 9:27 9:31 9:35 9:39	-0.29 -0.45 -0.31 -0.15 -0.36 -0.53	0.00 0.00 0.00 0.00	1.00 0.90 3.20	20.50				5.5	100%	
GP-10D 1 GP-11S 1 GP-11D 1 GP-12S 1 GP-12D 1 GP-12D 1 GP-13S 1 GP-13D 1 GP-13D 1 GP-13D 1 GP-14 1 GP-15 1 GP-16 1 Onsite Building Int SH-SS 1 SH-NS 1	12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14	9:17 9:24 9:27 9:31 9:35 9:39	-0.45 -0.31 -0.15 -0.36 -0.53	0.00	0.90 3.20	19.80			20.7			
GP-10D 1 GP-11S 1 GP-11D 1 GP-12S 1 GP-12D 1 GP-12D 1 GP-13S 1 GP-13D 1 GP-13D 1 GP-13D 1 GP-14 1 GP-15 1 GP-16 1 Onsite Building Int SH-SS 1 SH-NS 1	12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14	9:17 9:24 9:27 9:31 9:35 9:39	-0.45 -0.31 -0.15 -0.36 -0.53	0.00	0.90 3.20	19.80			00.7		1	
GP-11S 1 GP-11D 1 GP-12S 1 GP-12M 1 GP-12D 1 GP-13S 1 GP-13D 1 GP-13D 1 GP-13D 1 GP-14 1 GP-15 1 GP-16 1 GP-16 1 SH-SS 1 SH-NS 1	12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14	9:24 9:27 9:31 9:35 9:39	-0.31 -0.15 -0.36 -0.53	0.00	3.20				28.7	15.7	100.0%	
GP-11D 1 GP-12S 1 GP-12M 1 GP-12D 1 GP-13S 1 GP-13M 1 GP-13D 1 GP-13D 1 GP-14 1 GP-14 1 GP-16 1 Dnsite Building Int SH-SS 1 SH-NS 1	12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14	9:27 9:31 9:35 9:39	-0.15 -0.36 -0.53	0.00					28.7	4.6	92%	
GP-11D 1 GP-12S 1 GP-12M 1 GP-12D 1 GP-13S 1 GP-13M 1 GP-13D 1 GP-13D 1 GP-14 1 GP-14 1 GP-16 1 Dnsite Building Int SH-SS 1 SH-NS 1	12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14	9:27 9:31 9:35 9:39	-0.15 -0.36 -0.53	0.00								
GP-12S 1 GP-12M 1 GP-12D 1 GP-13S 1 GP-13M 1 GP-13D 1 GP-13D 1 GP-14 1 GP-15 1 GP-16 1 Onsite Building Int SH-SS 1 SH-NS 1	12/29/14 12/29/14 12/29/14 12/29/14 12/29/14 12/29/14	9:31 9:35 9:39 9:47	-0.36 -0.53		3.50	17.90			27.9	4.8	96%	
GP-12M 1 GP-12D 1 GP-13S 1 GP-13S 1 GP-13D 1 GP-13D 1 GP-14 1 GP-16 1 Onsite Building Int SH-SS 1 SH-NS 1	12/29/14 12/29/14 12/29/14 12/29/14 12/29/14	9:35 9:39 9:47	-0.53	0.00	<b>-</b>	14.40			27.9	2.6	52%	
GP-12M 1 GP-12D 1 GP-13S 1 GP-13S 1 GP-13D 1 GP-13D 1 GP-14 1 GP-16 1 Onsite Building Int SH-SS 1 SH-NS 1	12/29/14 12/29/14 12/29/14 12/29/14 12/29/14	9:35 9:39 9:47	-0.53	0.00								
GP-12D 1 GP-13S 1 GP-13M 1 GP-13D 1 GP-14 1 GP-15 1 GP-16 1 Onsite Building Int SH-SS 1 SH-NS 1	12/29/14 12/29/14 12/29/14 12/29/14	9:39 9:47			1.30	20.10			48.5	37.1	100%	
GP-13S 1 GP-13M 1 GP-13D 1 GP-14 1 GP-15 1 GP-16 1 Onsite Building Int SH-SS 1 SH-NS 1	12/29/14 12/29/14 12/29/14	9:47	0.45	0.00	1.20	19.50			48.5	16.9	100%	
GP-13M 1 GP-13D 1 GP-14 1 GP-15 1 GP-16 1 Onsite Building Int SH-SS 1 SH-NS 1	12/29/14		1	0.00	1.70	16.40			48.5	3.1	62%	
GP-13M 1 GP-13D 1 GP-14 1 GP-15 1 GP-16 1 Onsite Building Int SH-SS 1 SH-NS 1	12/29/14											
GP-13D 1 GP-14 1 GP-15 1 GP-16 1 Onsite Building Int SH-SS 1 SH-NS 1	12/29/14	0.51	-0.48	0.00	3.60	17.50			50.1	38.0	100%	
GP-14 1 GP-15 1 GP-16 1 Onsite Building Int SH-SS 1 SH-NS 1			-1.19	0.00	3.50	17.50			50.1	16.6	100%	
GP-15 1  GP-16 1  Onsite Building Int SH-SS 1 SH-NS 1		9:56	-1.02	0.00	0.10	20.70			50.1	4.9	49%	
GP-15 1  GP-16 1  Onsite Building Int SH-SS 1 SH-NS 1			0.05	0.00							1000/	
GP-16         1           Onsite Building Int         SH-SS         1           SH-NS         1	12/29/14	10:00	-0.35	0.00	6.80	5.70			15.5	5.1	100%	
GP-16         1           Onsite Building Int         SH-SS         1           SH-NS         1	10/00/14	10.05	0.05	0.40	7.20	0.00			150	4.4	010/	
Onsite Building Int SH-SS 1 SH-NS 1	12/29/14	10:05	0.05	0.40	7.30	0.00			15.0	4.6	91%	
Onsite Building Int           SH-SS         1           SH-NS         1	12/29/14	10:10	-0.31	0.00	3.90	16.40			15.0	4.8	96%	
SH-SS 1 SH-NS 1	12/29/14	10:10	-0.31	0.00	3.90	10.40			13.0	4.0	7070	
SH-SS 1 SH-NS 1	nteriors											
SH-NS 1	12/29/14	9:43	-0.30	0.00	0.10	20.80						
	12/29/14	9:43	-4.78	0.00	0.10	20.80						
SH-IN 1	12/29/14	9:44	-0.26	0.00	0.10	20.80						
011111	//		0.20									
SS-WH 1	12/29/14	9:21	-0.28	0.00	0.10	20.90						
					Weather Co	nditions						
Mc	Monitoring Dat	e:	12/29/14		Sky Cov	er:			Clear			
Mc	Monitored By:		Brad Beach		Wind/Ro	ain/Snow:			None			
Inst	nstrument:		GEM 2NAV		Tempero	iture (°F):			43			
Са	Calibration Da	te:	12/29/14		Precedin	g 24-hr Bard	metric Trend		Falling			
			concentrations				erved during	sampling.				
			perforated pi	-								
			Screened inter			d.						
_			ement not taker									
5.	o. Pressure is n	ot thought t	o be indicative	ot soil gas p	oressure. An e	error in meas	urement is su	pected.				
CH = Mast				2 — 22 U2	ula Ua C	audi Ci-l- F ·						
CH <sub>4</sub> = Methane	and de				ale House - S							
$CO_2 = Carbon Dio$	oxide				ale House - N							
O <sub>2</sub> = Oxygen					ale House - C							
GP = Gas Probe				55-WH = Sc	outh Slope W	'ell House						
S = Shallow Ma					~ 00 001							
M = Middle Mo		e			O <sub>2</sub> < 20.3%							
D = Deep Moni TOP = From Top of	-				D <sub>2</sub> > 0.3 % v H <sub>4</sub> > 0.3 % v							

#### Table 12. Landfill Gas Monitoring Results - 2014 2014 Annual Monitoring Report Olympic View Sanitary Landfill, Kitsap County, Washington

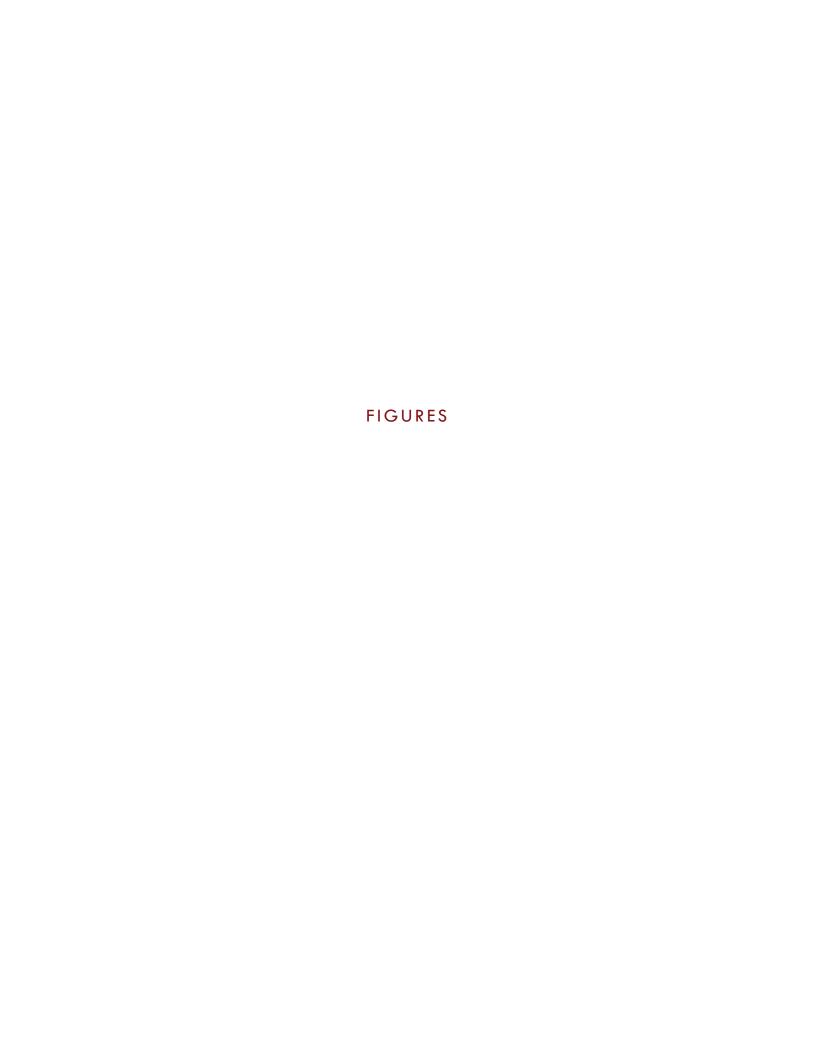
Location	Date	Pressure (in. H <sub>2</sub> O)	CH4 (% vol.)	CO2 (% vol.)	O2 (% vol.)
GP-7	3/28/2014	0.07	0.00	5.90	4.80
	6/16/2014	-0.08	0.00	8.90	3.70
	9/24/2014	0.10	0.00	11.20	8.30
	12/29/2014	-0.44	0.00	8.30	3.60
GP-8	3/28/2014	0.08	0.00	2.00	3.30
	6/16/2014	-0.06	0.00	4.00	5.70
	9/24/2014	0.09	0.00	6.10	8.60
	12/29/2014	-0.52	0.00	2.60	5.30
GP-9S	3/28/2014	-0.06	0.00	1.80	19.00
	6/16/2014	-0.03	0.00	2.90	18.50
	9/24/2014	0.12	0.00	2.00	19.90
	12/29/2014	-0.31	0.00	2.60	18.50
GP-9D	3/28/2014	-0.11	0.00	1.80	19.50
	6/16/2014	-0.02	0.00	1.80	18.80
	9/24/2014	0.11	0.00	1.60	19.60
	12/29/2014	-0.31	0.00	1.80	19.60
GP-10S	3/28/2014	-0.15	0.00	0.80	20.90
	6/16/2014	-0.01	0.00	1.20	20.00
	9/24/2014	0.10	0.00	0.80	20.40
	12/29/2014	-0.29	0.00	1.00	20.50
GP-10D	3/28/2014	-0.13	0.00	0.90	18.80
	6/16/2014	-0.04	0.00	1.00	18.50
	9/24/2014	0.04	0.00	0.70	19.40
	12/29/2014	-0.45	0.00	0.90	19.80
GP-11S	3/28/2014	-0.12	0.00	2.50	18.70
	6/16/2014	-0.04	0.00	4.20	16.90
	9/24/2014	0.12	0.00	3.40	18.60
	12/29/2014	-0.31	0.00	3.20	1 <i>7</i> .90
GP-11D	3/28/2014	_	_	_	_
	6/16/2014	_	_	_	_
	9/24/2014	0.14	0.00	3.00	17.40
	12/29/2014	-0.15	0.00	3.50	14.40
GP-12S	3/28/2014	2.29	0.00	1.90	18.70
	6/16/2014	-0.02	0.00	2.00	19.10
	9/24/2014	0.12	0.00	1.20	19.50
	12/29/2014	-0.36	0.00	1.30	20.10
GP-12M	3/28/2014	0.10	0.00	2.20	18.20
	6/16/2014	-0.04	0.00	1.70	18.80
	9/24/2014	0.06	0.00	1.30	18.70
	12/29/2014	-0.53	0.00	1.20	19.50
GP-12D	3/28/2014		_		_
	6/16/2014	_	_	_	<del></del>
	9/24/2014	0.03	0.00	1.60	15.20
	12/29/2014	0.45	0.00	1.70	16.40
GP-13S	3/28/2014	-0.08	0.00	3.30	18.30
	6/16/2014	0.01	0.00	3.70	1 <i>7.</i> 70
	9/24/2014	0.08	0.00	2.90	18.50
	12/29/2014	-0.48	0.00	3.60	1 <i>7</i> .50

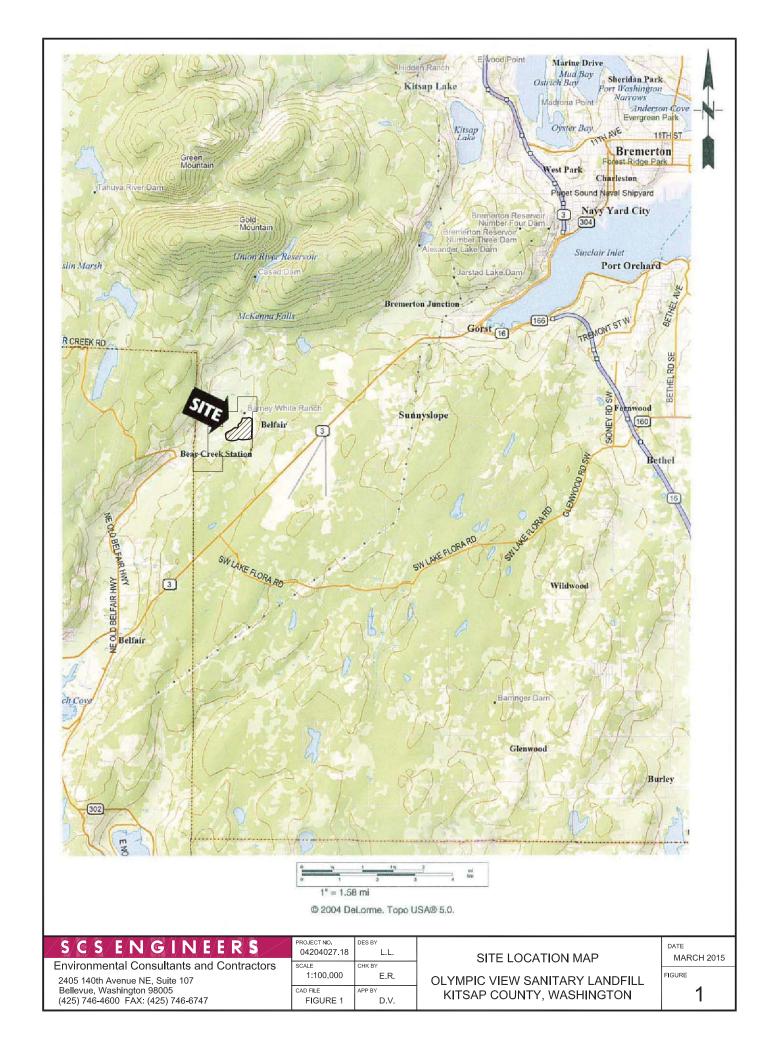
#### Table 12. Landfill Gas Monitoring Results - 2014 2014 Annual Monitoring Report Olympic View Sanitary Landfill, Kitsap County, Washington

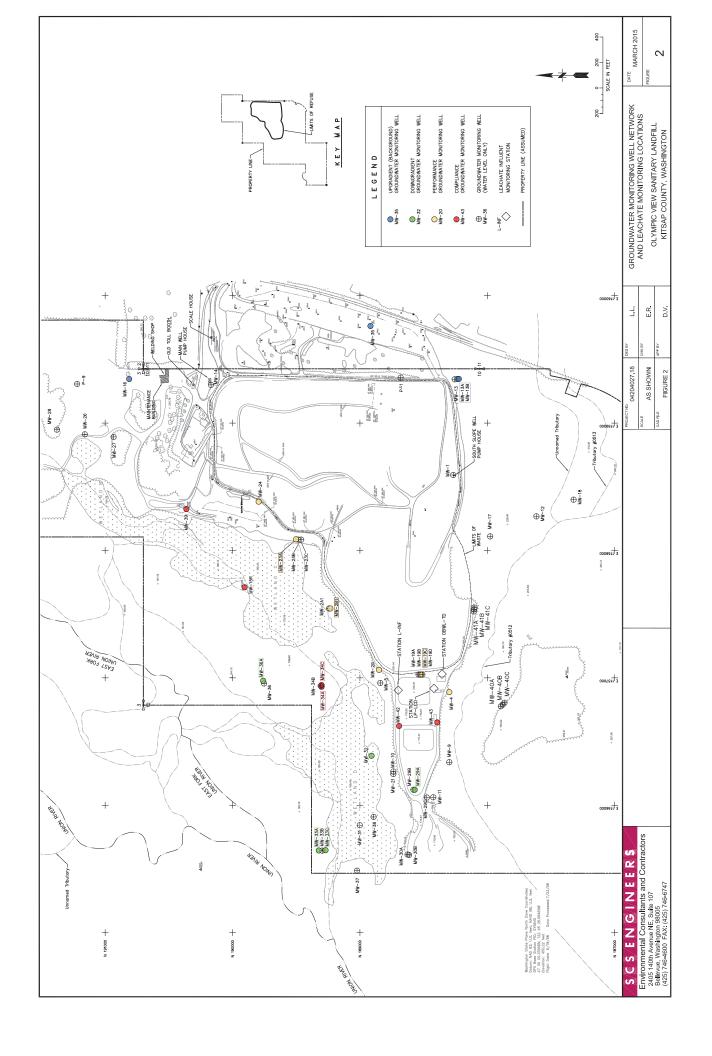
Location	Date	Pressure (in. H <sub>2</sub> O)	CH4 (% vol.)	CO2 (% vol.)	O2 (% vol.)
GP-13M	3/28/2014	-0.03	0.00	3.50	18.10
	6/16/2014	-0.12	0.00	3.30	1 <i>7</i> .30
	9/24/2014	-0.24	0.00	3.30	17.70
	12/29/2014	-1.19	0.00	3.50	17.50
GP-13D	3/28/2014	0.12	0.00	3.20	18.20
	6/16/2014	-0.09	0.00	1.10	20.10
	9/24/2014	-0.23	0.00	1.30	19.50
	12/29/2014	-1.02	0.00	0.10	20.70
GP-14	3/28/2014	-0.11	0.00	6.40	5.50
	6/16/2014	0.08	0.00	6.60	5.90
	9/24/2014	0.19	0.00	9.30	7.00
	12/29/2014	-0.35	0.00	6.80	5.70
GP-15	3/28/2014	3.86	3.70	2.20	5.80
	6/16/2014	0.03	1.00	6.10	0.00
	9/24/2014	0.14	0.00	10.10	3.20
	12/29/2014	0.05	0.40	7.30	0.00
GP-16	3/28/2014	-0.14	0.00	3.30	16.80
	6/16/2014	0.07	0.00	5.00	16.90
	9/24/2014	0.15	0.00	4.20	17.70
	12/29/2014	-0.31	0.00	3.90	16.40

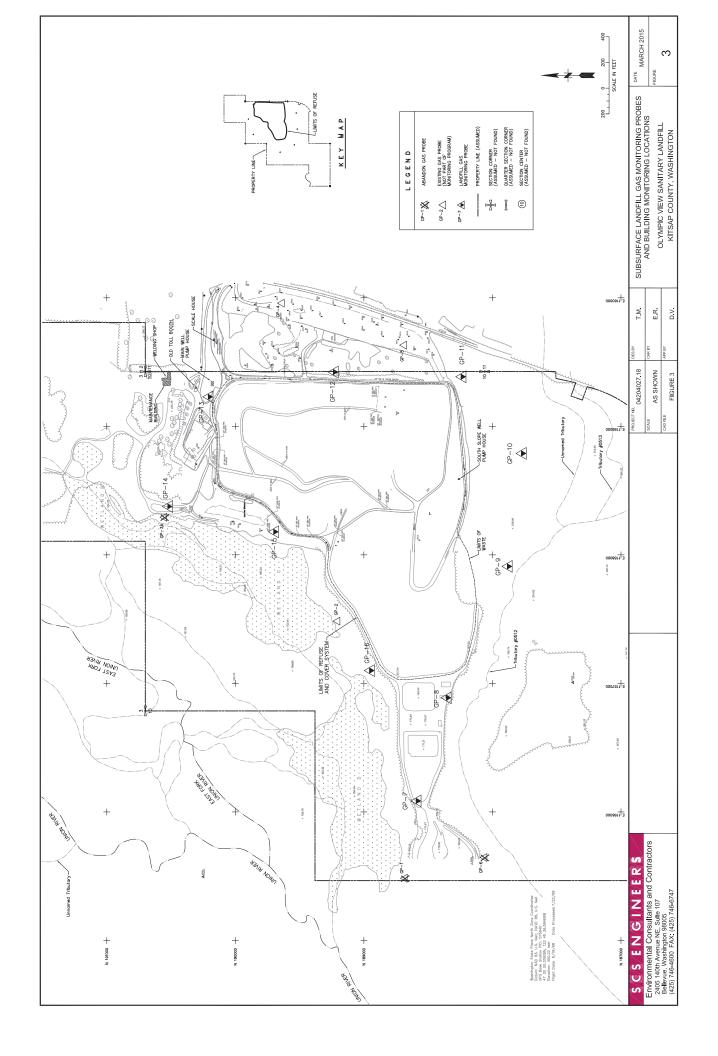
#### Notes:

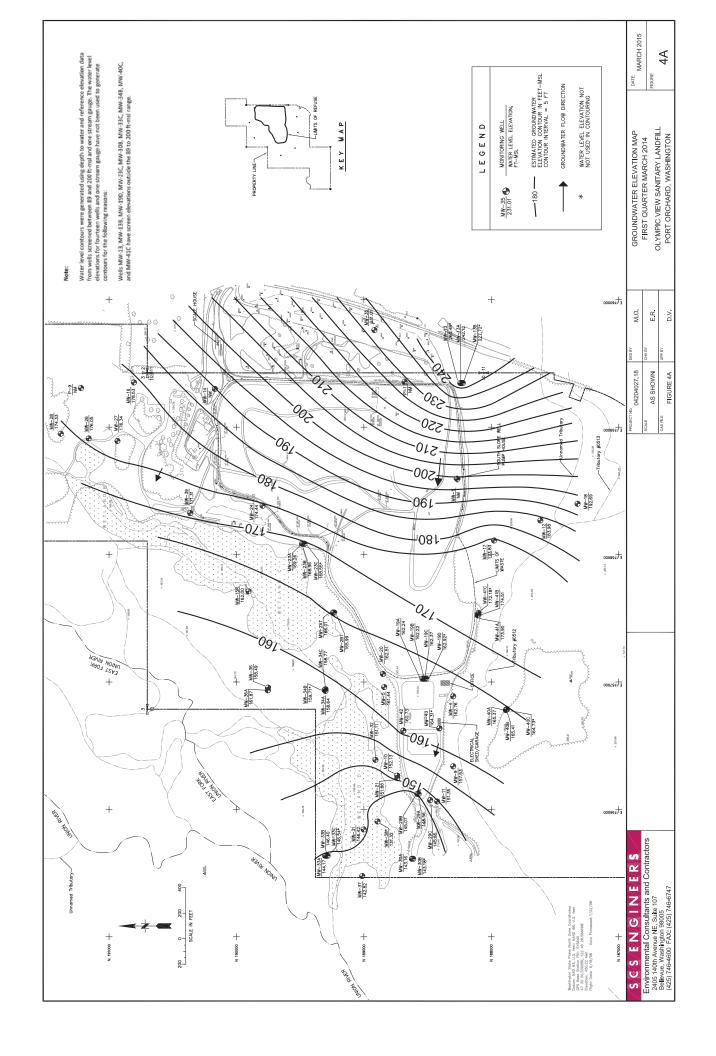
<sup>—</sup> Readings not reported: screened interval submerged

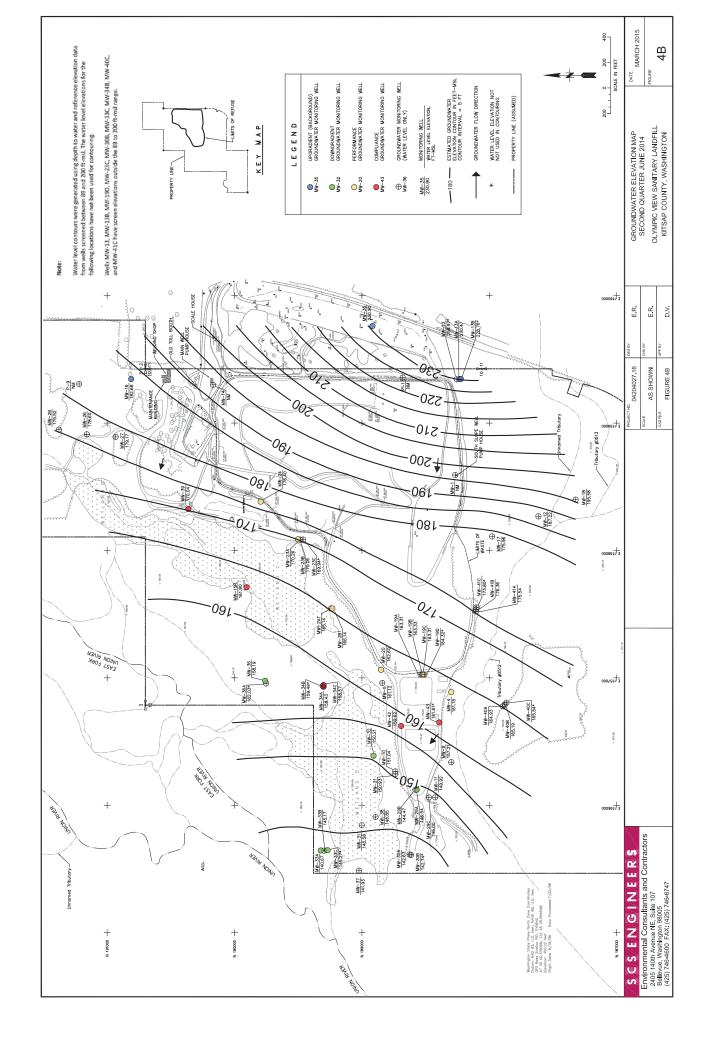


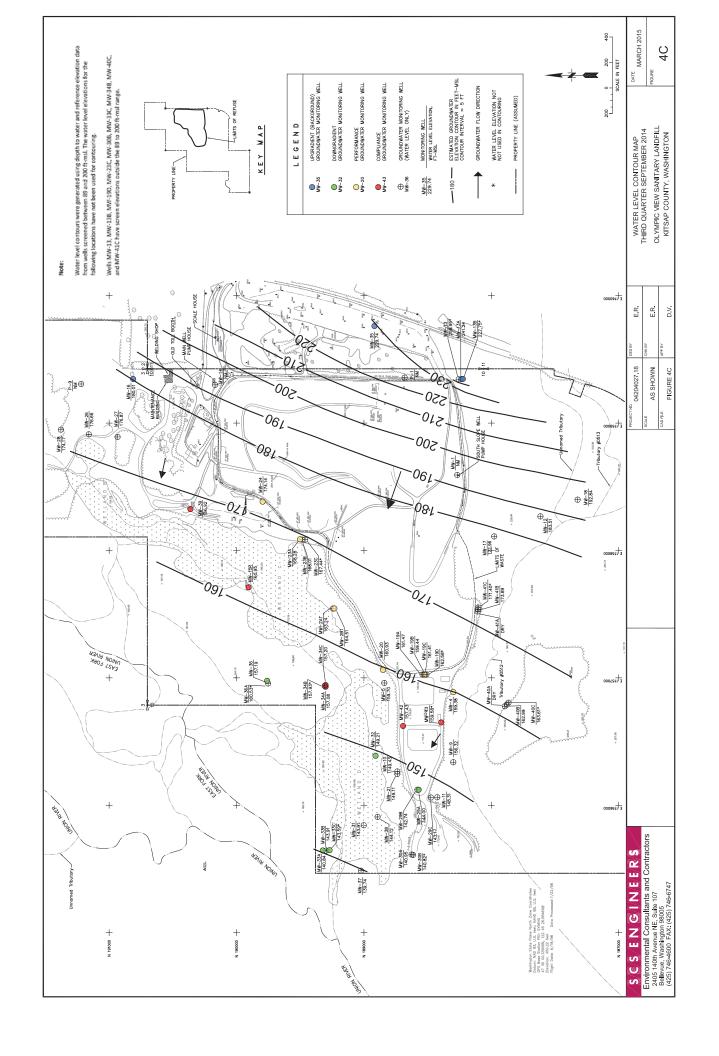












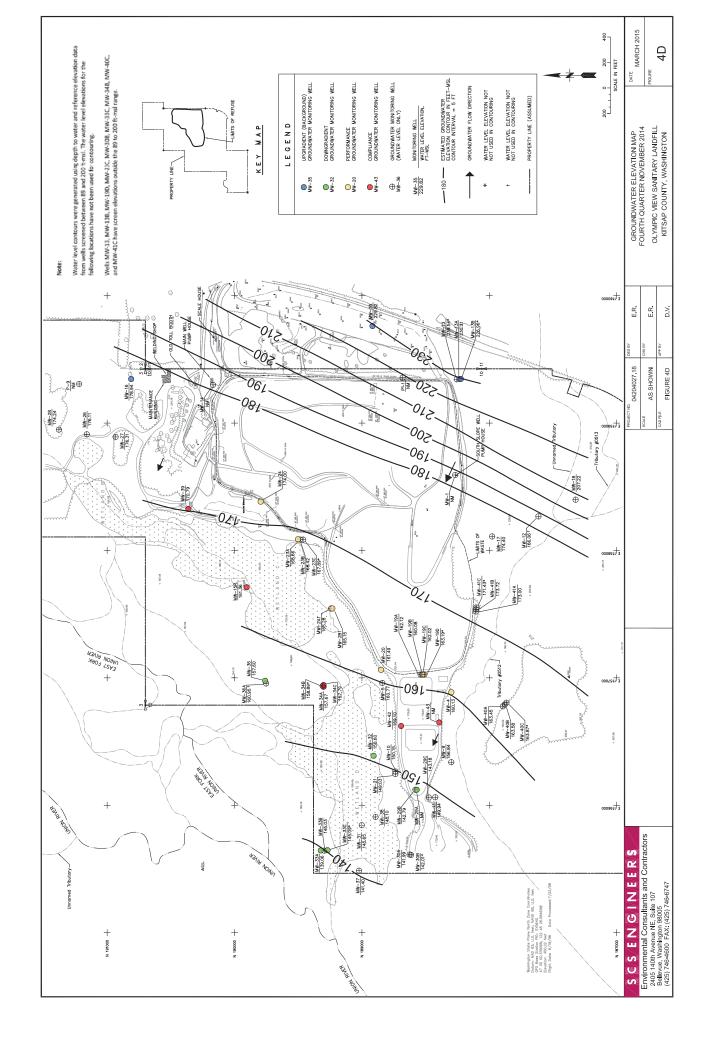
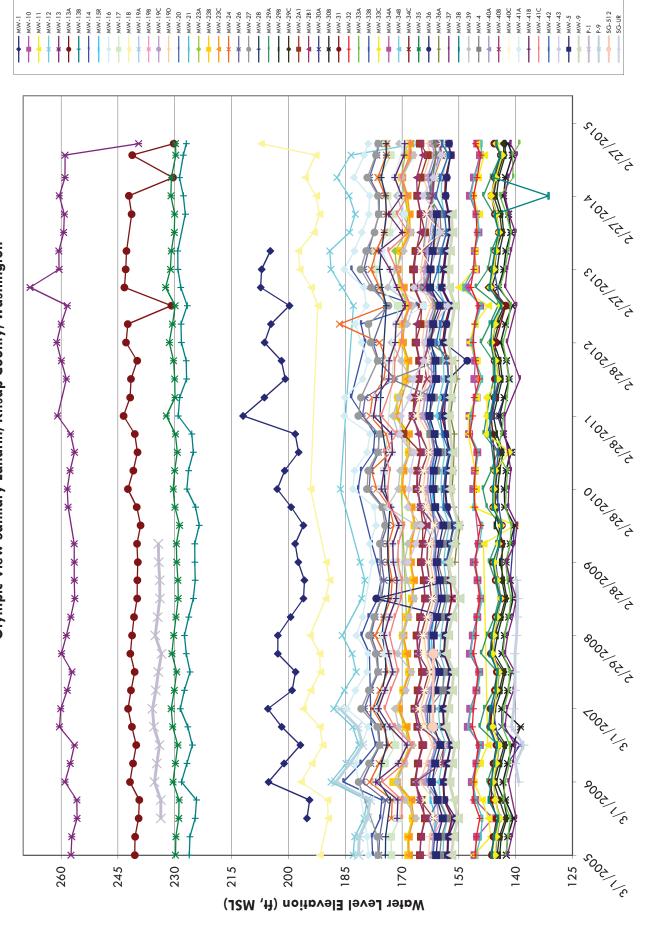
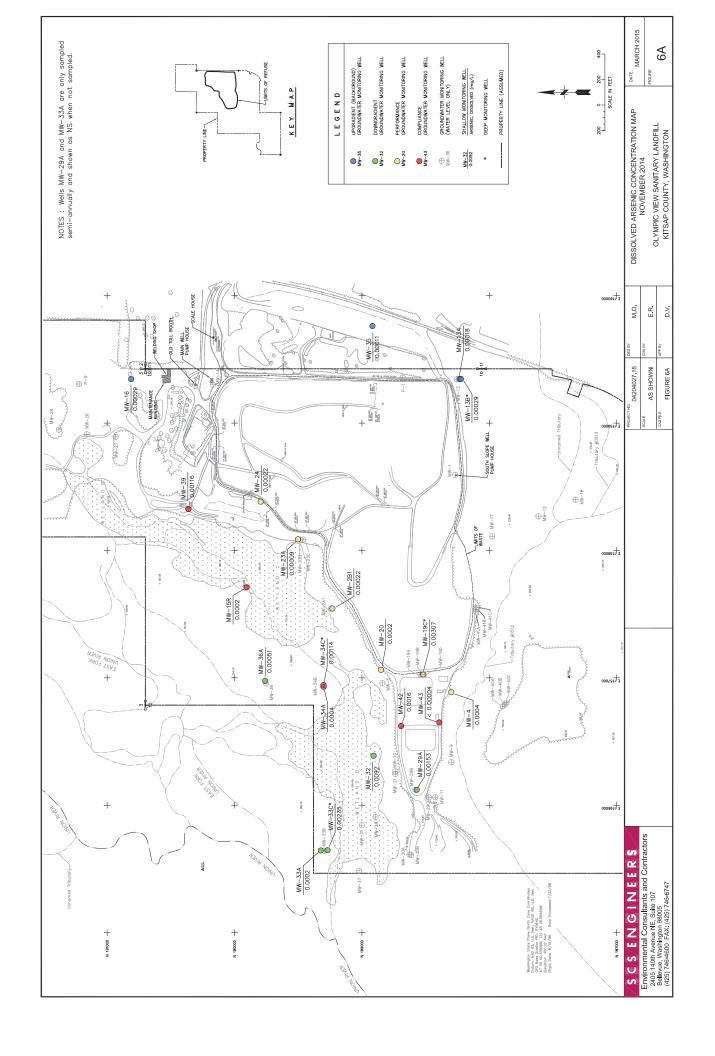
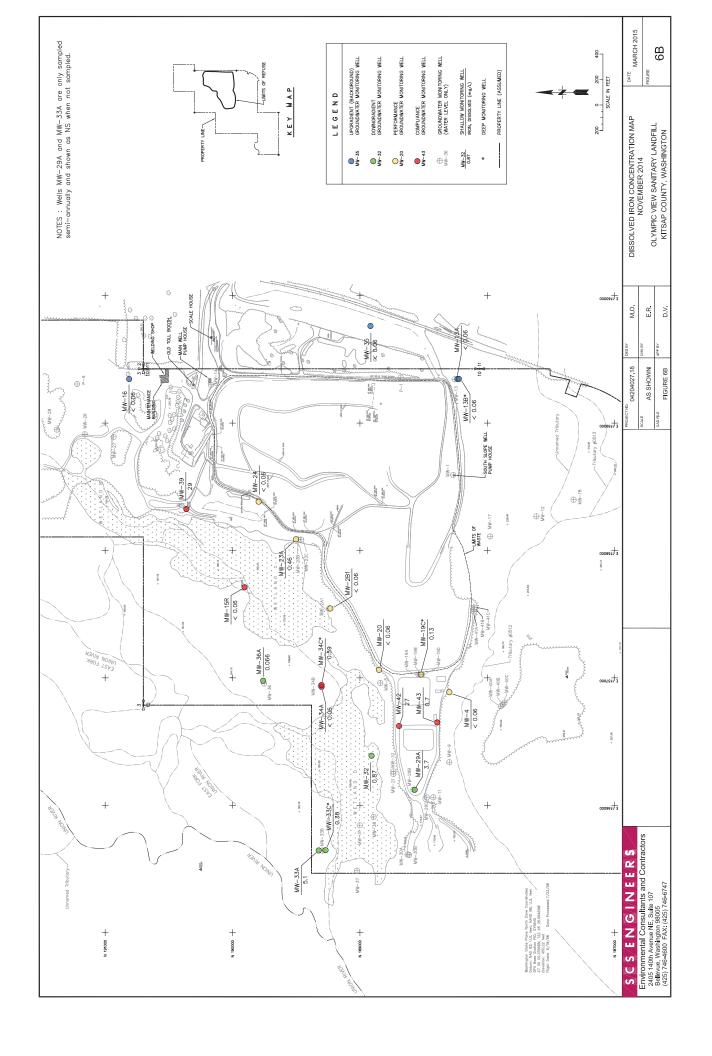
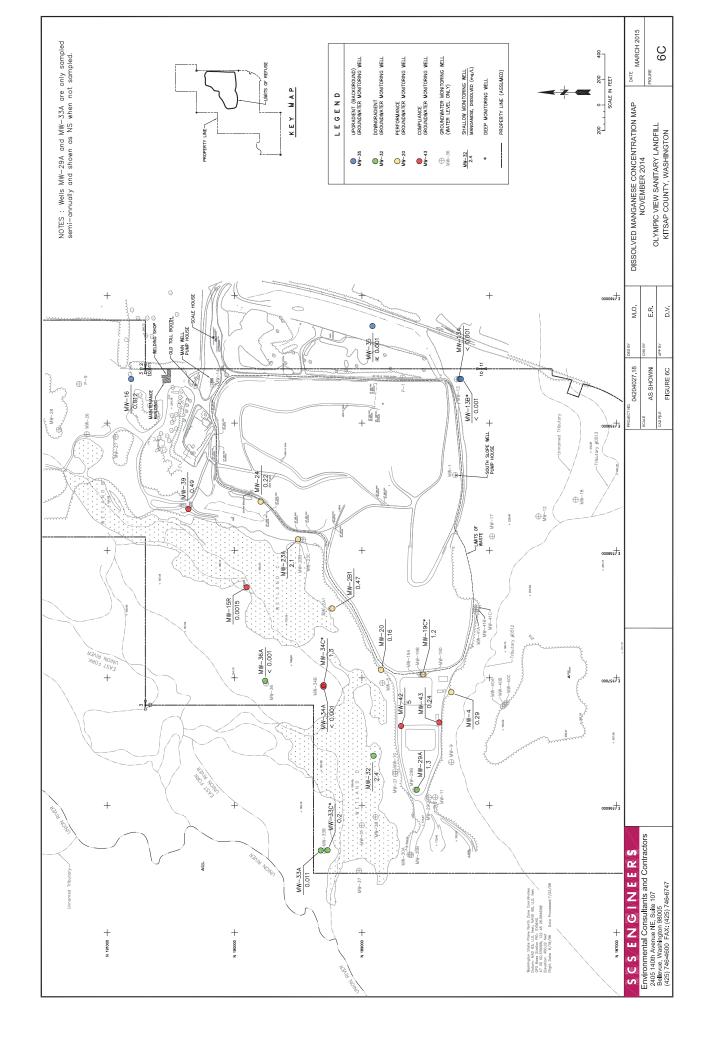


Figure 5. Historical Groundwater Elevations 2014 Annual Monitoring Report Olympic View Sanitary Landfill, Kitsap County, Washington









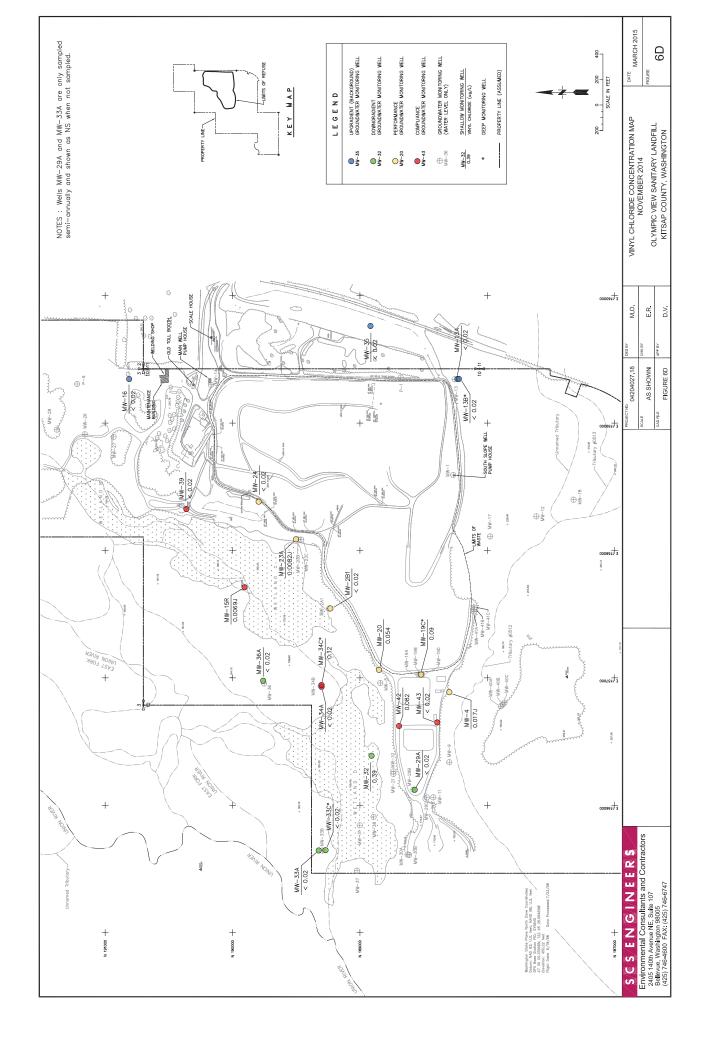
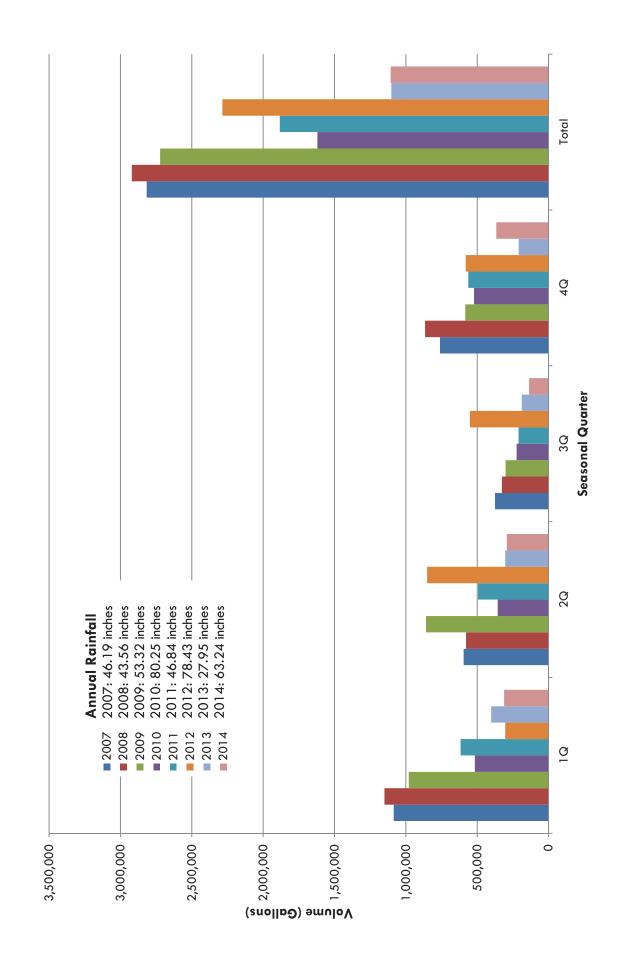


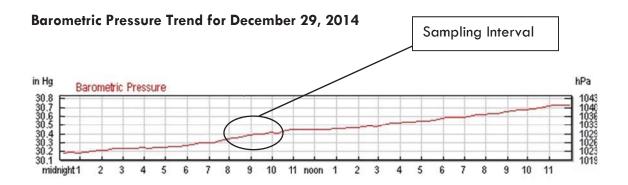
Figure 7. Leachate Generation (20017 - 2014)
2014 Annual Monitoring Report
Olympic View Sanitary Landfill, Kitsap County, Washington



#### Figure 8. Barometric Pressure during LFG Migration Monitoring — December 2014 2014 Annual Monitoring Report Olympic View Sanitary Landfill, Kitsap County, Washington

#### **Barometric Pressure Trend for December 2014**





Source: Bremerton National Airport, Station KPWT Latitude 47.5, Longitude 122.75, Elevation 482 ft-AMSL Data Sources:

http://www.wunderground.com/history/airport/KPWT/2014/12/29/MonthlyHistory.html? req\_city=Bremerton&req\_state=WA&req\_statename=Washington&reqdb.zip=98310&reqdb.magic=1&reqdb.wmo=99999

#### APPENDIX A

#### FOURTH QUARTER 2014 FIELD DOCUMENTATION

(FIELD DOCUMENTATION FROM Q1 THROUGH Q3 ON CD)

## SCS ENGINEERS

March 7, 2014 File No. 04204027.17

Subject: First Quarter March 2014 Ground Water Monitoring Event Olympic View Sanitary Landfill, Kitsap County, Washington

Sampling Event Dates: 3/3/14 through 3/5/14 Personell: Matt O'Hare and Bradley Beach

Notes/Sampling Decoding:

• Dedicated pumps were used for purging and sampling all wells.

- Duplicate samples were collected at MW-2B1 (DUP1) and MW-43 (DUP2).
- The Solinst model 102 water level meter failed during the monitoring event. The Solinst model 101 water level meter was subsequently used.
- In addition to the monitoring wells were groundwater was collected for chemical analysis, additional wells were monitored for groundwater level elevations. A summary of measured water levels are included with the field documentation.
- The samples were sent to TestAmerica Denver for analysis at the close of each sampling day, except samples for low level arsenic which were held until the end of the sampling event and provided to Analytical Resources, Inc. in Tukwila, Washington.

Sample Date	Location ID	Comments
3/3/14	MW-15R	
3/3/14	MW-23A	
3/3/14	MW-36A	
3/3/14	MW-20	
3/3/14	MW-42	
3/4/14	MW-43	DUP2
3/4/14	MW-4	
3/4/14	MW-24	
3/4/14	MW-34A	
3/4/14	MW-34C	
3/4/14	MW-19C	
3/4/14	MW-13B	
3/4/14	MW-13A	
3/4/14	MW-35	
3/4/14	MW-2B1	DUP1
3/5/14	MW-33C	
3/5/14	MW-16	
3/5/14	MW-39	
3/5/14	MW-32	

1214 3/3/14

## SCS ENGINEERS

Olympic View Sanitary Landfill

				Olympic Vie	w Sanitary Landfill	Page 1	of 2
Well	Date	Time	DTW	Measured by (initials)	Comments	Last Q DT	uarter
MW-1	3/3/14	-		_	AXAB NM - lost		69.04
MW-10	33/14		2.94		No lock Broken lock	NM	
MW-11			3,69		Broken lock		4.25
MW-12	<b>'</b>		49.11			NM	
MW-13	1		28.46				28.94
MW-13A			46.62				46.34
MW-13B			60.94				60.30
MW-14	-	-	_		Nm		47.38
MW-15R			18.66		No lock		18.72
MW-16			61.48		No lock		57.65
MW-17			34.18			NM	
MW-18			65,65			NM	
MW-19A			33,50				32.58
MW-19B			33,60		Broken lack		32.62
MW-19C			34,59				33.80
MW-19D			3391				32.73
MW-20			35.90				35.91
MW-21			4.17				5.35
MW-23A			13.02		bockey Medianism not by	NM	
MW-23B			3.46		5, 1,		12.41
MW-23C			13.86		W /)		12.92
MW-24			33.81				21.74
MW-26			13.68		Brolan lock	NM	
MW-27			24.31				21.74
MW-28			6.72			NM	
MW-29A			11.65				13.35
MW-29B			16.62				17.12
MW-29C			11.07				11.73

	30	S EN	GINE	OVSL		
	Date	Time	DTW	Measured	Comments	Page 2 of 2 Last Quarte
	o bal		C9	by (initials)		DTW
MW-2A1	3/3/14		8.21			9.1
MW-2B1			6.95			6.7
MW-30A			23.58			24.0
MW-30B			23.42			23.8
MW-31			1.86		Broken I'd Broken I'd	N
MW-32			1.25		Broken lid	1.5
MW-33A			3,51		N 300	5.6
MW-33B			1,15			2.1
MW-33C			1.05			2.1
MW-34A			39,31			39.
MW-34B			39.22			39.4
MW-34C			41.12			41.2
MW-35			71-68			72.0
MW-36			30.90		Nolock	31.1
MW-36A			30.81			31.0
MW-37			3.11		Broken lock	NM
MW-38			3.23		No lock	3.6
MW-39			18.61		7	21.3
MW-4			13.02		Broken lock	14.9
MW-40A			14.79			15.5
MW-40B			14.83			
MW-40C			16.43		Braken leck	15.44
MW-41A					of allen lock	15.84
			25.53			24.18
MW-41B			26.13			24.64
MW-41C			27.49			26.16
MW-42			26.70		No leck	27.85
MW-43			11.55		No leck Breken lock	25.16
MW-5			2,93		Broker lock	2.57
MW-9			2.81		Polock	NM

	FIELD	INFORMA	TION FORM	1	V	$\sqrt{\sqrt{\Lambda}}$
Si Nai	ite   ()()	is Waste Management Fiel	d Information Form is Requirent addition to any State Forms.	red	WAS	STE MANAGEMENT
Si No	Sumple		of Custody Forms that accomp that is returned to the laborator		Laboratory Use Only/	Lab ID:
PURGE	PURGE DATE PURGE TIME EL	APSED HRS	WATER VOL IN CAS		VOL PURGED	WELL VOLS
d	(MM DD YY) (2400 Ht Clock) Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols				Gallons) Mark changes, record f	PURGED ield data, below
PURGE/SAMPLE	Purging and Sampling Equipment Dedicated:  Purging Device A-Submersible Pump D-Bailer  B-Peristaltic Pump E-Pistor  C-QED Bladder Pump F-Dippe	r 1 Pump F	ilter Type:	0.45 µ or 0.45 µ	X-Other	or fill in) Other:
_	X-Other:	Sample	Tube Type: E	3-Stainless Steel	D-Polypropylene	
WELLDATA	Well Elevation Depth to W. (at TOC) (ft/msl) (from TOC)		1 8 6 6 (n) (n)	Groundwater Elevati site datum, from TO	c) [ ] ]	(ft/msl)
WELL	Total Well Depth Stick Up  (from TOC)  Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be fr	d elevation) com historical data, unless r	(ft) I	Casing D (in) Hevation, DTW, and Gr		nust be current.
	Sample Time Rate/Unit pH Conductance (SC (2400 Hr Clock) (std) (µmhos/cm@25	,	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
	10.76	6 1010		401	144	18 73
(lgt	2 <sup>nd</sup> 6 1 5 2 <sup>nd</sup> 1 3	7 1 0 13	0,14	3 75	132	[ 8 [3
STABILIZATION DATA (Optional)	1015   3rd 6 2 1 3rd 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	5 1013		7 18	123	
ATA (	10128 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	7 1012		256	114	
OND	10H1 1 634 114	S 1013	0 74	2 50	114	15 70
ZATI	1644 1 636 114	1015		12.11		114
ABIL		1 15	1 1	1 57	1011	
ST	16180 640 115		0.74			
100	Suggested range for 3 consec. readings or +/- 0.2 +/- 3% note Permit/State requirements:		>5 0,40%	+/- 149%	+/- 25 mV	Stabilize
	Stabilization Data Fields are Optional (i.e. complete stabilization readings for by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in j	or parameters required by final readings below and su	WM, Site, or State). These for bmit electronic data separately	ields can be used whe to Site. If more filed	s above are needed. 1	ise separate sheet or fora
TA	SAMPLE DATE pH CONDUCTAN		TURBIDITY	DO		Other:
FIELD DATA	(MM DD YY) (std) (umhos/cm @ 2:	11 11015	ample readings before sample	(mg/L-ppm)  [] [57]  ing for all field paran	105	Units  \[ \lambda \ 0 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
	Sample Appearance:			lor:		
	Weather Conditions (required daily, or as conditions change):	Direction/Speed:		ok:		ation: Y or N
	Specific Comments (including purge/well volume calculations if r	required):	Lond=10%,	Two+O	5°( T.d.	\$5 -5 109
COMMENTS	DO I D.Z DTW Stabilis.	11 20.2	Cona-106,	Temp = 0	1 1310	723 8, 36 8
MME	1 2 3 100 112					
			, and a second			
FIELD	e.				R Ly	
	I certify that sampling procedures were in accordance with applicable	EPA, State, and WM p	rotocols (if more than one	sampler, all should s	sign):	
	3 ZIII MINANI	11M	V		CIC	
	Date Name DISTRIBUTION: WHITE/ORIG	Signature INAL - Stays with Sample	, YELLOW - Returned to Cli		mpany	14

Γ	7						FIELD I	VF	ORMA	IT	ION FO	RN	1		
	lite ime:		OV	51			This Wa	ste N	lanagement Fie	ld In	formation Form is	Require	ed	- w	ASTE MANAGEMENT
s	Site		1 1	amp	1576 A 1 8 W 1 2	_ /	submitte	d alo	ng with the Chai	πof	dition to any State F Custody Forms that	accomp	any the sample	Laboratory Use Onl	y/Lab ID:
ľ	lo.:		1	Poin		ample	Name of the last o	rs (1.6	e. with the cooler	that	is returned to the la	boratory	/).		-
PURGE	INFO	2 3	II 4		PURGE	Z	E ELAPSI	0	5 IRS	v	/ATER VOL IN	CAST	NG ACTUAL	VOL PURGED	WELL VOLs
] <sub>2</sub>		(MM DD Y	YY)	replac	(2400 Hr	Clock		min)			(Gallon	ıs)		(Gallons)	PURGED
LE	E	Purging and Samp					Y or N				Device: Y or		0.45 µ or		e or fill in)
PURGE/SAMPLE	EQUIPMENT	Purging Device	1		A-Submersib B-Peristaltic I		•	m	. F	Tilter	Type:		-In-line Disposable Pressure	C-Vacuum X-Other	
\\ \\ \\ \\ \\	our	Sampling Device	F		C-QED Blade			-		nec	1,100.		-Teflon	-	(-Other:
PUR	南	X-Other:	L					ال	Sample	Tub	e Type:		-Stainless Steel	D-Polypropylene	
1	DATA	Well Elevation (at TOC)				fv/msl)	Depth to Water (from TOC)	(DT	w) [ ]	1	302(1)		roundwater Elevat ite datum, from TO		(ft/msl)
1	WELL	Total Well Depth (from TOC)				ft)	Stick Up (from ground elev				(ft)	II			
_		Note: Total Well De	epth, Stick Rate/U		Casing Id. etc. ar		onal and can be from his onductance (SC/EC)	storic		equi	red by Site/Permit.  Turbidity	Well Ele	D.O.	roundwater Elevation eH/ORP	must be current.  DTW
		400 Hr Clock)	Kate/O		(std)		(μmhos/cm@25°C)	ï	Temp.	1	(ntu)	i i	(mg/L - ppm)	(mV)	(ft)
	1	11127		1 st	450	1 <sup>st</sup>	1 1118		1 33	-	38	95	[5]1	11-191	11513
=	1	11:31		2 <sup>nd</sup>	61215	2 <sup>nd</sup>	11/1614		1115		1314	SC	(3)(5)	111111	1.3
tions		1133		3 <sup>rd</sup>	41215	3 <sup>rd</sup>			19 134			ıS.	3 31	11111	HSP
(O	1	111316	11	4 <sup>th</sup>	625	4 <sup>th</sup>			30		1115	-71	1510	11411	
ATA	-	111319			6,27		1 11011		19 43			53	200	11014	113-1
N D	1	11412			6 27		1 15 10 14	ĺ	921		3	سة	200	104	
4TIC	1	11415			0 21		1 1011	Ī	11/15-			Н	12,14	110141	
STABILIZATION DATA (Optional)		1145			6127	ľ	1 11 0 1	Ì	454			45	2,65	C C	(3)
[ABI			1		1 1	ŀ	i i a i	İ	9 1	İ	1 1 1 1				
S					1 1	-			4 1	t					
		gested range for 3 conse		or	+/- 0.2	H	+/- 3%	ŀ		+		-	+/- 10%	+/- 25 mV	Stabilize
-	Stat		s are Optic												surements are required
_	ру З	SAMPLE DATE		ger oi	pH		CONDUCTANCE	aain	TEMP.	omii	TURBIDITY		DO	eH/ORP	Other:
) DA	-	(MM DD YY)		1 1	(std)	1	(umhos/cm @ 25°C)	1	(°C)	Ŧ	(ntu)	118	(mg/L-ppm)	(mV)	Units
FIELD DATA	U	SOSU	9 required	fi a	record field me	L	ments, final stabilized	read	lings passive so	ama/	e readings hefore	amplin	of for all field parage	neters required by S	tate/Permit/Site
-		nple Appearance	-		pa/	шынг	monio, jinar diaomizaa		dor:			Colo		Other:	-
		ather Conditions	-	d dai		ions	change):	- 1	ection/Speed:			Outloo	0 -	Precipit	ation: Y or N
	Spe	ecific Comments (	(includin	g pu	rge/well volu	me c	alculations if requir	ed):						10	
co.	•	See N	12 -	-1	SR C	0 (	Stabili	e	Lun	P,	vanet	w	\$		
ENT										1	-		a		
MM													1		
00						_									
FIELD COMMENTS	_			-	- 14			_							
	[ 00	wife that complies	~ aroandu	IMOG V	ware in accord	37700	with applicable EDA	Sto	to and WM n	roto	cole (if more than	OBA FO	mpler all should s	sian):	
	ı ce	тену гнас затрипе	<sub>5</sub> իւ սշշան	ia es V	vere in accord:	THEE,	with applicable EPA	เมเส	, ани <i>ч</i> чи рі		oro (11 more man	OHE 38	न्त्राच्याः, वस आण्यायः इ	······································	
	-	3 2 16	1	Λ	111	)i	11		1,1	1	1			SIS	
	-	Date	<u>-</u>	Name			TRIV		Signature	-				трапу	
	_				DISTRIBUT	ON:	WHITE/ORIGINAL	- Sta	ys with Sample,	YE	LOW - Returned	to Clier	it. PINK - Field Cop	у	

	FIELD INFORMATION FORM
Sit Nam	This Waste Management Field Information Form is Required
Sit No.	Sample Sample Laboratory Use Only/Lab ID:
	Sample ID
景。	3 3 14 1233 9005
PURGE	PURGE DATE PURGE TIME ELAPSED HRS WATER VOL IN CASING ACTUAL VOL PURGED WELL VOLS  (MM DD YY) (2400 Hr Clock) (hrs:min) (Gallons) PURGED
	Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.
PURGE/SAMPLE	Purging and Sampling Equipment Dedicated:    Purging Device   A   A-Submersible Pump D-Bailer   A-In-line Disposable C-Vacuum
JRGE/SAMPL	B-Peristaltic Pump E-Piston Pump Filter Type: A B-Pressure X-Other  Sampling Device C-QED Bladder Pump F-Dipper/Bottle
PURG	Sampling Device C-QED Bladder Pump F-Dipper/Bottle  X-Other: Sample Tube Type: B-Stainless Steel D-Polypropylene
DATA	Well Elevation Depth to Water (DTW) 3 0 8 Groundwater Elevation (at TOC) (from TOC) (from TOC)
	(at TOC) (from TOC) (site datum, from TOC) (from TOC) (from TOC) (Casing Casing Casing Casing Casing Casing (from TOC)
WELL	(from TOC)  (ft) (from ground elevation)  Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.
	Sample Time         Rate/Unit         pH         Conductance (SC/EC)         Temp.         Turbidity         D.O.         eH/ORP         DTW           2400 Hr Clock)
	12:318 1 14 6,0 6 14 1 1 5 1 9 944 1 1 51 592 1 312 1 31 69
=	2:4:1 2º 5.95 2º 1:18: 9.5° 1:171 3.2° 1.24 3.1° 2
STABILIZATION DATA (Optional)	12:414 1 3th 602 3th 117 1992 1 1933 263 1115 31102
(O)	12,4,8 4 6,1,8 4 1,1,7 1960 2,50 2,20 1,0,2 3,1,07
DAT.	12:5:1 6:18 1:16 9:8 2:1 9:8 3:107
NO	12:5:4 6:20 1:16: 9:9 21 9:6: 3:167
ZATI	
BILL	
STA	
no	ggested range for 3 consec. readings or +/- 0.2 +/- 3% +/- 10% +/- 25 mV Stabilize c Permit/State requirements:  abilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required
Бу	State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fileds above are needed, use separate sheet or for SAMPLE DATE pH CONDUCTANCE TEMP. TURBIDITY DO eH/ORP Other:
DAT	(MM DD YY) (std) (umhos/cm @ 25°C) (°C) (ntu) (mg/L-ppm) (mV) Units
FIELD DATA	P30319 670 9 989 217 96 1254
_	imple Appearance: Clara Odor: Color: Other:
V	Teather Conditions (required daily, or as conditions change): Direction/Speed: Outlook: Outlook: Precipitation: or N
S	ecific Comments (including purge/well volume calculations if required):
SI –	SEC MW ISR for Stabilitation praneture
MEN	
MO:	
FIELD COMMENTS	
1	ertify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):
	or or or or or or or or or or or or or o
	Date Name Signature Company

		FORMAT	TION FORM	id.	M	$\sqrt{\Lambda}$
Site Nam	[This Waste		information Form is Required			MANAGEMENT
Site No.	Sample	long with the Chain o	f Custody Forms that accompant is returned to the laboratory)	ny the sample	Laboratory Use Only/Lab	ID:
	Sample ID		AND AND DE SECOND		11 0 141 2	
景。	530314 1339 080	92				
PURGE	PURGE DATE PURGE TIME ELAPSED		WATER VOL IN CASIN			WELL VOLs PURGED
	(MM DD YY) (2400 Hr Clock) (hrs:mi Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged"	w/ Water Vol in Tubi		Cell Vols Purged, M		data, below
PURGE/SAMPLE	Purging and Sampling Equipment Dedicated:    Purging Device   A-Submersible Pump D-Bailer	Filter	Device: Or N	0.45 μ or In-line Disposable	μ (circle or fi	ll in)
JRGE/SAMPL	B-Peristaltic Pump E-Piston Pump Sampling Device C-QED Bladder Pump F-Dipper/Bottle				X-Other	
PURG	Sampling Device C-QED Bladder Pump F-Dipper/Bottle  X-Other:	Sample Tu		Teflon Stainless Steel	C-PVC X-Oth D-Polypropylene	er:
_	Well Elevation Depth to Water (D	TW)		oundwater Elevatio	1 1 1 1	
WELL DATA	(at TOC) (from TOC)  Total Well Depth       Stick Up		NI NI INI N	e datum, from TOC	Casing	(ft/msl)
WEI	(from TOC)  Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from histo		(ft) ID uired by Site/Permit. Well Ele	vation, DTW, and Gro	Material undwater Elevation must	be current.
	Sample Time Rate/Unit pH Conductance (SC/EC) 2400 Hr Clock) (std) (µmhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
1	13:44 200 1ª 6.66 1ª 1237	14 107	1 1 188	68	95	3590
	3:47 1 2nd 6.69 2nd 2729	1 2 18	345	1616	941	35,20
STABILIZATION DATA (Optional)	3:50 3 6663 1234	1420	1 310	548	94	13/3/90
0	3:53 11 41 6:65 41 1242	1421	287	496	99	3590
ATA	3:56 1 6:62 1253	[42]	33	19.95	1931	13/5/90
ONI	73:59 V 6.61 1.256	1418	1160	407	911	3500
ZATI	14:02   6:60   12:60	1419	1 39	398	90	315190
BILIZ	H:05 1 666 1262	1473	1 25	13.77	90.	3550
STA	1908 660 1262	14 29	1 58	373	9.0	3550
no	ggested range for 3 consec. readings or +/- 0.2 +/- 3%  te Permit/State requirements:  abilization Data Fields are Optional (i.e. complete stabilization readings for param	eters required by W	M. Site, or State). These field	+/- 10%	+/- 25 mV e four (4) field measurer	Stabilize nents are required
by	State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final read SAMPLE DATE pH CONDUCTANCE	dings below and subm	it electronic data separately to TURBIDITY	Site. If more fileds DO	above are needed, use s	eparate sheet or form, ier: 'Thuy
DAT	(MM DD YY) (std) (umhos/em @ 25°C)	(°C)	(ntu)	(mg/L-ppm)	(mV) Uni	ts
FIELD DATA	nal Field Readings are required (i.e. record field measurements, final stabilized re	eadings, passive sam	ple readings before sampling	s for all field parame	eters required by State/F	Permit/Site.
S	ample Appearance: C C U in	Odor:	Color	:	Other:	
ı v	Veather Conditions (required daily, or as conditions change):	rirection/Speed:	Outlook	Rom	Precipitation	Y of N
S	pecific Comments (including purge/well volume calculations if required	i):	n 8			
ST –	STOR MWHISR for St	alarlten	han form	nnter	3	
MEN				8		
MO:	<u>-</u>					
FIELD COMMENTS						
		VARANGE I			240	
I	certify that sampling procedures were in accordance with applicable EPA, S	tate, and WM pro	ocols (it more than one sai	mpier, all should sig		
	- John John College	10-11	T. C.			
U	Date Name	Signature	FLLOW - Returned to Clien		pany	

	FIELD INFORMATION FORM	$\overline{\Lambda}$
Site Nam	e: This waste wanagement Field Information Form is Required.	MEHT
Site	submitted along with the Chain of Custody Forms that accompany the sample	
	Sample ID	
GE C	036314 11505 0005 1111	
PURGE	PURGE DATE PURGE TIME ELAPSED HRS WATER VOL IN CASING ACTUAL VOL PURGED WELL V  (MM DD YY) (2400 Hr Clock) (hrs:min) (Gallons) (Gallons) PURGI	
67	Note: For Passive Sumpling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below	ı.
PURGE/SAMPLE	Purging and Sampling Equipment Dedicated: Y or N   0.45 \( \nu\) or   \( \nu\) (circle or fill in)  Purging Device: Y or N   0.45 \( \nu\) or   \( \nu\) (circle or fill in)  Purging Device: Y or N   0.45 \( \nu\) or   \( \nu\) (circle or fill in)	
JRGE/SAMPL	B-Peristaltic Pump E-Piston Pump Filter Type:  B-Pressure X-Other  C-QED Bladder Pump F-Dipper/Bottle	
PURG	X-Other:  Sample Tube Type:  B-Stainless Steel D-Polypropylene	
DATA	Well Elevation   Depth to Water (DTW)   C   Groundwater Elevation (at TOC)   (ft/msi) (from TOC)   Groundwater Elevation (site datum, from TOC)	(fi/msl)
WELL I	Total Well Depth (from TOC) Stick Up (Casing (fix) (from ground elevation) ID (in) Material	
	Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.  Sample Time Rate/Unit pH Conductance (SC/EC) Temp. Turbidity D.O. eH/ORP DT	rw
Į,	Sual 700 / Call 1/72 / 1201 / 201 / 7 / 2	(t)
,	15:0 500 14 650 14 1975 1607	6.0
(E)	2 <sup>nd</sup> 6,11 2 <sup>nd</sup> 9,71 12,03 1,061 0,7 7,8 12,03 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1	6.50
STABILIZATION DATA (Optional)	170 170 170 010 010 010	6.80
7A (0	5 9 4 6 9 1 1 1 C 9 2 D 10 D 1 6 D	6.18
DAT	1/6	6.76
NOI.	15:25 1 6.50 1 982 120 1 90 1015 -891 12	6.75
ZAT		
BILI		1
STA		
	iggested range for 3 consec. readings or 4/ 25 mV Stah	
no St	te Permit/State requirements:  abilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are r	required
by	State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fileds above are needed, use separate sh  SAMPLE DATE pH CONDUCTANCE TEMP. TURBIDITY DO eH/ORP Other:	eet or form
DAT	(MM DD YY) (std) (umhos/cm @ 25°C) (°C) (ntu) (mg/L-ppm) (mV) Units	10-1
FIELD DATA	inal Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.	22
_	ample Appearance: Cd . Odor: Color: Other:	
V	Weather Conditions (required daily, or as conditions change): Direction/Speed: Outlook: Run Precipitation Y br	<u>N</u>
S	pecific Comments (including purge/well volume calculations if required):	
LS.	See MW -18R For Stelestintion towarders	
FIELD COMMENTS		
OMIN		
D C		
FIEI		
1	certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):	
	SISILY MARK OHME TWING	
	Date Name Signature Company	
	DICTRIPUTION, WHITE/ODICINAL Store with Samula VELLOW, Deturned to Client PINK, Field Conv.	

	FIELD IN	FORMA	TION FORM	[		$\sqrt{\Lambda}\sqrt{\Lambda}$
Site Name	This Wast	te Management Field	Information Form is Require	ed .	WAST	E MANAGEMENT
Site	Sample M Z Submitted	along with the Chain o	f Custody Forms that accompa at is returned to the laboratory	any the sample	Laboratory Use Only/Lal	DID:
No.:	Point: Sample ID	(i.e. with the cooler th	at is returned to the laboratory	).		
PURGE	PURGE DATE PURGE TIME ELAPSEI	D HBS	WATER VOL IN CASI	NG ACTUAL	VOL PURGED	WELL VOLs
PU	(MM DD YY) (2400 Hr Clock) (hrs:m Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged	in)	(Gallons)	(1	Gallons)	PURGED
PLE	Purging and Sampling Equipment Dedicated: Flyor N		Device: Y or N	0.45 µ ог	μ (circle or	
PURGE/SAMPLE EQUIPMENT	Purging Device A-Submersible Pump D-Bailer B-Peristaltic Pump E-Piston Pump	o Filt	1-4	In-line Disposable Pressure	C-Vacuum X-Other	
RGE/	Sampling Device C-QED Bladder Pump F-Dipper/Bottl			Teflon	C-PVC X-Ot	ner:
10000	X-Other:	Sample Ti	ibe Type: B-	Stainless Steel	D-Polypropylene	
DATA	Well Elevation (at TOC) Depth to Water (I (ft/msl) (from TOC)	OTW) 2	(n) (si	roundwater Elevati te datum, from TO	C)	(ft/msl)
WELL	Total Well Depth (from TOC)  Note: Total Well Depth, Stick Up, Casing Id. etc., are optional and can be from history.		(ft) ID			
	Sample Time Rate/Unit pH Conductance (SC/EC) 2400 Hr Clock) (std) (μmhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
Ü	18:419 1 1 61 18 1 012 91	18111	11643	1620	1085	12211
<b>a</b> 0	8 5 2 2 <sup>nd</sup> 6 0 5 2 <sup>nd</sup> 0 2 9	1810	9 73	614	11185	12209
Otion	855	810	1 1 5 8"	6"	1 265	2210
A (0)	18:5 8 1 4h 6.0 1 4h 0 2 9	8 10	40	601	13012	2211
DAT	9:61 5.98 0.281	18110	1 1 183	604	1372	12210
NO	19:014 1 5:9.7 0:291	8 09	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	(φ <sup>ρ3</sup> )	1 3 8 4	[2[2]]
STABILIZATION DATA (Optional)		1.1				
BIL						
ST		1 1				
	gested range for 3 consec. readings or +/- 0.2 +/- 3%	-		+/- 10%	+/- 25 mV	Stabilize,
Sta	Permit/State requirements:  bilization Data Fields are Optional (i.e. complete stabilization readings for parar  State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final rea	meters required by W.	M, Site, or State). These field	lds can be used when	re four (4) field measure	ments are required
	SAMPLE DATE PH CONDUCTANCE	TEMP.	TURBIDITY	DO DO		her: Twe
FIELD DATA	(MM DD YY) (std) (umhos/cm @ 25°C)	8 09	(ntu) 	(mg/L-ppm)	(mV) Un	0904
	nal Field Readings are required (i.e. record field measurements, final stabilized r			District Control	04	rerminsue.
	mple Appearance:  eather Conditions (required daily, or as conditions change):	Direction/Speed:		-		n: Y or N
Sp	ecific Comments (including purge/well volume calculations if require				· · · · · · · · · · · · · · · · · · ·	
so 1	lup taken as Dup-Z			ъ.		
ENT				9		
FIELD COMMENTS	See MW-ISR for Style	MEntre	n form	users		
کر آ					)()	
I c	ertify that sampling procedures were in accordance with applicable EPA,	State, and WM prot	ocols (if more than one sa	mpler, all should si	ign):	E
S-	5,1,14 Man Orthan	MAL			305	
1.5	Date Name DISTRIBUTION: WHITE/ORIGINAL.	Signature			прапу	- ,

6:1	I I I	FORMATION FO		WASTE MANAGEMENT
Sit Nan Sit No	ee: Sample A D A Submitted	te Management Field Information Form is is to be completed, in addition to any State along with the Chain of Custody Forms that is (i.e. with the cooler that is returned to the left)	Forms. The Field Form is t accompany the sample	Laboratory Use Only/Lab ID:
F F	PURGE DATE PURGE TIME  (MM DD YY) (2400 Hr Clock) (Ins:note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purget  Purging and Sampling Equipment Dedicated:  Purging Device A  A-Submersible Pump B-Peristaltic Pump Sampling Device A  C-QED Bladder Pump F-Dipper/Bott  X-Other:	nin) (Gallo d" w/ Water Vol in Tubing/Flow Cell and Tu  Filter Device: Y or  p Filter Type:	ons) (Cabing/Flow Cell Vols Purged, A	μ (circle or fill in)
WELL DATA	Well Elevation (at TOC)  Total Well Depth (from TOC)  Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from his	ation)         (ft)		C) (ft/msl)  Casing Material
STABILIZATION DATA (Optional)	Sample Time (2400 Hr Clock)    3   2   0	Temp. Turbidity (ntu)  9 25  9 25  9 26  9 28  9 27  9 26  9 27  2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	D.O. (mg/L - ppm)  93	eH/ORP (mV)  2 1 3 3  1 9 4 6  1 8 8 1  1 3 01  1 8 8 1  1 3 01  1 3 02  1 3 02  1 3 02  1 4-25 mV Stabilize  re four (4) field measurements are required showe are needed, use separate sheet or form
FIELD DATA	SAMPLE DATE PH CONDUCTANCE (MM DD YY) (std) (umhos/cm @ 25°C)  3 0 4 1 4 6 2 9 0 4 8  Final Field Readings are required (i.e. record field measurements, final stabilized	TEMP. TURBIDIT  (°C) (ntu)  [q 27] 2 2  readings, passive sample readings before	91 4 96	eH/ORP Other: The Units Units State/Permit/Site.
FIELD COMMENTS	Sample Appearance:  Weather Conditions (required daily, or as conditions change):  Specific Comments (including purge/well volume calculations if required to the conditions of the conditions o	biltraten Po	Color: Outlook: Ran  an one sampler, all should s	Other: Precipitation Or N
	Date Name DISTRIBUTION: WHITE/ORIGINAL	Signature - Stays with Sample, YELLOW - Returns		mpany V

	FIELD INFORMATION FORM
Site Nam	e: This waste wangement return mount as execution and state forms. The Field Form is
Site No.	The state of the s
PURGE	
PURGE/SAMPLE	Pureing and Sampling Equipment Dedicated:   Yor   N   Filter Device: Yor   N   0.45 y   Or     y (circle or fill in)
DATA	Well Elevation (at TOC) Depth to Water (DTW) Groundwater Elevation (ft/msl) (from TOC) Groundwater Elevation (site datum, from TOC)
WELL D	Total Well Depth (from TOC)  Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.
	Sample Time Rate/Unit pH Conductance (SC/EC) Temp. Turbidity D.O. eH/ORP DTW
STABILIZATION DATA (Optional)	2400 Hr Clock)  [18] TI O I III I S I S S O I P I I I I S I S S O I P I I I I I I I I I I I I I I I I I
_	ample Appearance: Color: grey Other:
	veather Conditions (required daily, or as conditions change):  Direction/Speed:  Outlook:  Precipitation: y or N  pecific Comments (including purge/well volume calculations if required):
ENTS	the viwo is to provide property
OMMEN	
CLDC	
FIE	certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):
	3,4,14 Mast orther light SCS
	Date Name Signature Company  Name VELLOW - Returned to Client PINK - Field Conv

				FIELD II	VFORMA:	TION FORM	M =	V	$\sqrt{\Lambda}\sqrt{\Lambda}$
Si Nar		15 L				Information Form is Requi- addition to any State Forms.		WAST	E MANAGEMENT
Si	te	Samp	1000	Submitte	d along with the Chain o	of Custody Forms that accompate is returned to the laborator	pany the sample	Laboratory Use Only/La	ıb ID:
No	).:	Poin		Sample ID	is (i.e. with the cooler tr	lat is retained to the laborator	19).		
国	03041	141	10	58					
PURGE	PURGE DAT	E	PURGE	ETIME ELAPS	ED HRS	WATER VOL IN CAS	ING ACTUAL	VOL PURGED	WELL VOLs
Ъ	(MM DD YY)	mpling, repla	(2400 H ce "Water Vol in	r Clock) (hrs:  or Casing" and "Well Vols Purg	min) ed" w/ Water Vol in Tub	(Gallons) ing/Flow Cell and Tubing/Fl		Gallons) Mark changes, record field	PURGED  d data, below.
PLE	Purging and Sampling	g Equipmen	t Dedicated:	Y or N	Filte	r Device: Y Or N	0.45 µ or	μ (circle or	fill-in)
PURGE/SAMPLE	Purging Device	4	A-Submersib B-Peristaltic	10-10-10-10-10-10-10-10-10-10-10-10-10-1	np Fil		A-In-line Disposable B-Pressure	C-Vacuum X-Other	
RGE/	Sampling Device	A	C-QED Blade				A-Teflon	C-PVC X-Ot	ther:
_	X-Other:		n 25 H		Sample T	ube Type: E	B-Stainless Steel	D-Polypropylene	x
WELL DATA	Well Elevation (at TOC)			Depth to Water (ft/msl) (from TOC)	(DTW) 3		Groundwater Elevat site datum, from TO		(ft/msl)
VELL	Total Well Depth (from TOC)			Stick Up (from ground ele	vation)	(ft) I	Casing (in		
2	1401e. Ibidi Heli Depi	th, Stick Up, Rate/Unit	Casing Id. etc. a	re optional and can be from he Conductance (SC/EC)		uired by Site/Permit. Well E  Turbidity	Elevation, DTW, and Gr	eH/ORP	DTW
ì	(2400 Hr Clock)		(std)	(µmhos/cm@25°C)	(°C)	(ntu)	(mg/L - ppm)	(mV)	(ft)
	111:013	1 st	653	fn 119121	11163	323	10 14	115011	311
(lal)	11106	2 <sup>nd</sup>	634	2 <sup>nd</sup>		2 98	0 64	1 4 0 1	3926
STABILIZATION DATA (Optional)	1 11019	3 <sup>rd</sup>	634	314 6	1 1 73	1   2   78	0 60	1360	1319123
A (0	11112	4 <sup>th</sup>		411 1 4 7	1 67	1   2   67	0 660	1323	1319 126
DAT	11:15	1	61314	146	1 68	1 12115	10 76	1,3,0,0	3 9 26
NO.	1:1:1:8		61314	1 5	1169	1 1 1 A8	0,96	1,2,8,0	13,9,25
ZAT			11						
BILI		1	11	1111					
STA	1 1 1		_1_1_						
			11		LLL.		1 1 2		
r	Suggested range for 3 consec. note Permit/State requirements	ST.	+/- 0.2	+/- 3%		The Control of the Co	+/- 10%	+/- 25 mV	Stabilize
	Stabilization Data Fields a by State/Permit/Site. If a De	<u>ata Logger o</u>	(i.e. complete s or other Electron	stabilization readings for par nic format is used, fill in final r	cameters required by W eadings below and subn	M. Site, or State). These fi nit electronic data separately	telds can be used whe v to Site. <u>If more filed</u>	ere jour (4) field medsur I <mark>s above are needed, use</mark>	ements are required separate sheet or form,
ATA	SAMPLE DATE (MM DD YY)		pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP.	TURBIDITY (ntu)	DO (mg/L-ppm)	024	ther:
FIELD DATA	0 3 0 4 1 1	4	16/3/4/	1155	11169	1 98	0 96	11/2/8/01	111118
FIE	Final Field Readings are r	required (i.e.	record field m	neasurements, final stabilized	d readings, passive san	aple readings before sample	ing for all field param	neters required by States	/Permit/Site.
	Sample Appearance:		Chew		Odor:	Col	lor:	Other:	
	Weather Conditions (r				Direction/Speed:	Outlo	ok: K	Precipitatio	on: Y or N
	Specific Comments (in	cluding pu	urge/well volu	ume calculations if requi	red):	P	2 . 1		
VTS	See V	IME	1210	- fur st	2611262	- Inn	notices	>	
COMMENT							<u> </u>		
MO:									
FIELD									
1	I certify that sampling p	orocedures	were in accord	dance with applicable EPA	, State, and WM pro	tocols (if more than one s	sampler, all should s	sign):	
	2,7,19	-1	UNIT	Orltwe	- WOF		9	262	
	/	Nam	e		Signature		Co	mpany	
			DISTRIBUT	TION: WHITE/ORIGINAL	- Stays with Sample, Y	ELLOW - Returned to Cli	ent. PINK - Field Cop	ny	

FIELD INFORMATION FORM	
Name:  This Waste Management Field Information Form is Required This form is to be completed, in addition to any State Forms. The Field Form is	Use Only/Lab ID:
Site No.:    Sample Point:   Sample   S	Use Only/Lab iD.
80030414 10107	
PURGE DATE  PURGE TIME  ELAPSED HRS  WATER VOL IN CASING ACTUAL VOL PUR  (MM DD YY)  (2400 Hr Clock)  (hrs:min)  (Gallons)  (Gallons)  Note: For Passive Sampling, replace "Water Vol in Casing" on "Water Vol in Tubing/Flow Cell Vols Purged. Mark changes	PURGED
	μ (circle or fill in)
B-Peristaltic Pump E-Piston Pump Filter Type: A B-Pressure X-Other	
A-Teflon C-PVC  Sample Tube Type:  B-Stainless Steel D-Polypro	X-Other: pylene
Well Elevation (at TOC)  Depth to Water (DTW)  (from TOC)  Groundwater Elevation (site datum, from TOC)	(ft/msl)
Total Well Depth (from TOC)  Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater E	rial
Sample Time Rate/Unit pH Conductance (SC/EC) Temp, Turbidity D.O. eH/O (2400 Hr Clock) (std) (μmhos/cm@25°C) (°C) (ntu) (mg/L - ppm) (mV	
10:12 1.664.21141 1120 20117 1063 4	7.3 41.11
200 6 8 0 200 2 1 3 1 1 2 9 1 5 6 3 10 77 5 6	
6   O; \   8     3°   6   8   7   3°   2   \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	13 410
© 10:21 4 688 4 2113; 12 <sup>22</sup> 110H2 0 <sup>35</sup> 11	8 4116
E 10:214   6:910 2:113   1:215   1:10:16:13   10:22   111	
STABILIZATION DATA OPTION DATA	
Suggested range for 3 consec. readings or +/- 0.2 +/- 3% +/- 25	
Stabilization Data Fields are Optional (i.e., complete stabilization readings for parameters required by WM. Site, or State). These fields can be used where four (4) fi by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fileds above are in the state of the stat	needed, use separate sheet or form
SAMPLE DATE PH CONDUCTANCE TEMP. TURBIDITY DO eH/O (MM DD YY) (std) (umhos/cm @ 25°C) (°C) (ntu) (mg/L-ppm) (mV	
SAMPLE DATE pH CONDUCTANCE TEMP. TURBIDITY DO eH/O  (MM DD YY) (std) (umhos/cm @ 25°C) (°C) (ntu) (mg/L-ppm) (m'  [In all Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters require	ed by State/Permit/Site.
Sample Appearance: Color: Odor: Color: Oth	ier:
	Precipitation: Y or N
Specific Comments (including purge/well volume calculations if required):	
E DEC VOVIV - 131C DA SHOPPING	
I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):	
Teeting that plant	51
3, 4,14 Mall Outre Wife SCS	

Total Well Depth   Stick Up   Casing   Casing   Casing   (fin) Material   Note: Total Well Depth. Stick Up. Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.  Sample Time Rate/Unit pH Conductance (SC/EC) Temp. Turbidity D.O. eH/ORP DTW	
Site No.:    Sample   Point:   Point:   Sample   Point:   Sample   Point:	
PURGE DATE PURGE TIME ELAPSED HRS WATER VOL IN CASING ACTUAL VOL PURGED WELL VOL (MN DD YY)  Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below  Purging and Sampling Equipment Dedicated:  Purging and Sampling Equipment Dedicated:  Purging Device A-Submersible Pump D-Bailer B-Peristaltic Pump E-Piston Pump F-Dipper/Bottle  X-Other:  Sampling Device C-QED Bladder Pump F-Dipper/Bottle  X-Other:  Sample Tube Type:  Well Elevation (at TOC)  Note: Total Well Depth (from TOC)  Note: Total Well Depth Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.  Sample Time Rate/Unit pH Conductance (SC/EC) Temp. Turbidity D.O. eH/ORP DTW	
PURGE DATE PURGE TIME (MM DD YY) Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below  Purging and Sampling Pluipment Dedicated:  Y or N Filter Device: M or N O-45 µ or µ (circle or fill in)  Purging Device A-In-line Disposable C-Vacuum B-Perssure X-Other:  Sample Tube Type: B-Pressure X-Other:  Well Elevation (at TOC)  Total Well Depth (from TOC) Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.  Sample Time Rate/Unit pH Conductance (SC/EC) Temp. Turbidity D. ACTUAL VOL PURGED WELL VOL (Gallons) (Gall	
Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell und Tubing/Flow Cell Vols Purged. Mark changes, record field data, below  Purging and Sampling Fluipment Dedicated:  Purging Device  A-Submersible Pump  B-Peristaltic Pump  B-Peristaltic Pump  B-Peristaltic Pump  F-Dipper/Bottle  X-Other:  X-Other:  Sampling Device  Well Elevation (at TOC)  Total Well Depth (from TOC)  Note: Total Well Depth, Stick Up, Casing Id. etc. are aptional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.  Sample Time  Rate/Unit pH  Conductance (SC/EC)  Temp.  Turbidity  Delt in Tubing/Flow Cell vols Purged. Mark changes, record field data, below  Filter Device:  Or N  0.45 p  0.45 p  O	
Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell und Tubing/Flow Cell Vols Purged. Mark changes, record field data, below  Purging and Sampling Fluipment Dedicated:  Purging Device  A-Submersible Pump  B-Peristaltic Pump  B-Peristaltic Pump  B-Peristaltic Pump  F-Dipper/Bottle  X-Other:  X-Other:  Sampling Device  Well Elevation (at TOC)  Total Well Depth (from TOC)  Note: Total Well Depth, Stick Up, Casing Id. etc. are aptional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.  Sample Time  Rate/Unit pH  Conductance (SC/EC)  Temp.  Turbidity  Delt in Tubing/Flow Cell vols Purged. Mark changes, record field data, below  Filter Device:  Or N  0.45 p  0.45 p  O	
Purging Device  A-Submersible Pump B-Peristaltic Pump B-Pressure X-Other:  A-In-line Disposable C-Vacuum B-Pressure X-Other:  A-Teflon C-PVC X-Other: B-Stainless Steel D-Polypropylene  Total Well Depth (fit) (fit	
Well Elevation (at TOC)  Total Well Depth (from TOC)  Stick Up (from ground elevation)  Note: Total Well Depth. Stick Up. Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.  Sample Time  Rate/Unit  PH  Conductance (SC/EC)  Temp.  Groundwater Elevation (ft)  Groundwater Elevation (ft)  Groundwater Elevation (ft)  Casing (in)  Material (in)  Material  Well Elevation, DTW, and Groundwater Elevation must be current.  Turbidity  D.O.  eH/ORP  DTW	_
Well Elevation (at TOC)  Total Well Depth (from TOC)  Stick Up (from ground elevation)  Note: Total Well Depth. Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.  Sample Time Rate/Unit pH Conductance (SC/EC) Temp. Turbidity D.O. eH/ORP DTW	
Well Elevation (at TOC)  Total Well Depth (from TOC)  Stick Up (from ground elevation)  Note: Total Well Depth. Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.  Sample Time Rate/Unit pH Conductance (SC/EC) Temp. Turbidity D.O. eH/ORP DTW	
Total Well Depth  (from TOC)  Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.  Sample Time Rate/Unit pH Conductance (SC/EC) Temp. Turbidity D.O. eH/ORP DTW	
Sample Time Rate/Unit pH Conductance (SC/EC) Temp. Turbidity D.O. eH/ORP DTW	t/msi)
Sample Time Rate/Unit pH Conductance (SC/EC) Temp. Turbidity D.O. eH/ORP DTW	
(2400 Hr Clock) (std) (µmhos/cm@25°C) (°C) (ntu) (mg/L - ppm) (mV) (ft)	v
1/2:59 200 -732 - 129 1047 - 821 758 27	1
13:02 1 2 7 1 7 2 1 3 4 1 0 59 6 08 0 80 7 20	
13:05 3471334 133 1044 488 1050 -24	1
E 13:08 V/ 4" 7:110 4" 11314 110 42 1 1420 1037 -1261	i
E 1 20 1 706 1 23 1043 1 391 1012 -30	
	i
Suggested range for 3 consec. readings or +/- 0.2 +/- 3% +/- 25 mV Stabiliz	ize
Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM. Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fileds above are needed, use separate sheet	uired t or form
	4
SAMPLE DATE pH CONDUCTANCE TEMP. TURBIDITY DO eH/ORP Other: 400 (MM DD YY) (std) (umhos/cm@25°C) (°C) (ntu) (mg/L-ppm) (mV) Units 400 (mg/L-ppm) (mV) (mg/L-ppm) (mV) (mg/L-ppm) (mV) (mV) (mg/L-ppm) (mV) (mV) (mg/L-ppm) (mV) (mV) (mV) (mV) (mV) (mV) (mV) (m	4
	_L\J
Sample Appearance: Color: Color: Other:	
Weather Conditions (required daily, or as conditions change): Direction/Speed: Outlook: Precipitation: Y or N	
Specific Comments (including purge/well volume calculations if required):	N_
	N_
The wood of the strater much	N_
Water level Meter Faller	N
Water level Meter Faller	N
Water level Meter Faller	N
	N_
I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):	N
	N

	FIELD INFORMATION FORM	
Site Nam	This folial is to be completed, in addition to any state forms. The first settle is	
Site No.	Sample Point: Sample ID Submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).	
PURGE	PURGE DATE  (MM DD YY)  (2400 Hr Clock)  Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell Land Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.	
PURGE/SAMPLE	Purging and Sampling Equipment Dedicated: Y or N	
DATA	Well Elevation Depth to Water (DTW) Groundwater Elevation (ft/msl) (from TOC) (ft/msl) (ft/msl)	
WELL	Total Well Depth (from TOC)  Note: Total Well Depth, Stick Up, Casing (d. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.	
SLD DATA  STABILIZATION DATA (Optional)	ample Time Rate/Unit pH Conductance (SC/EC) Temp. Turbidity (Rt)  Std)    Std)   1	
v s	mple Appearance: Color: Color: Other:  cather Conditions (required daily, or as conditions change): Direction/Speed: Outlook: Rull Precipitation For N  ecific Comments (including purge/well volume calculations if required):  The TO.46  The Color: Other:  Outlook: Rull Precipitation For N  Precipitation For N  The To.46  The Color: Other:  Outlook: Rull Precipitation For N  Precipitation For N  Outlook: Rull Precipitation For N  Outl	
FIELD COMMENTS	CAMPANA POR DE LA COMPANA DE L	
	Date  Name  Distribution: White/Original-Stays with Sample, YELLOW - Returned to Client, Pink - Field Copy	=3

cel

Site	. 1			T-		TION FORM		V	$\sqrt{\sqrt{\Lambda}}$
Nam Site	e:	Samp	ole 1, 1, 1,	This form is submitted a	is to be completed, in a along with the Chain o	nformation Form is Requir ddition to any State Forms. Custody Forms that accomp	The Field Form is pany the sample	Laboratory Use Only/L	ab (D:
No.	: [ ] ]	Poin		containers	(i.e. with the cooler the	at is returned to the laborator	у).		
PURGE	PURGE DA		PURGE TI			WATER VOL IN CASI		VOL PURGED	WELL VOLs
	Note: For Passive Se	Sampling, replac		ock) (hrs:mi sing" and "Well Vols Purged   Y   or   N	" w/ Water Vol in Tubi	(Gallons) ng/Flow Cell and Tubing/Flo Device: Y Por   N		Gallons)  Mark changes, record field    \( \mu \) (circle or	
PURGE/SAMPLE FOUIPMENT	Purging Device	A	A-Submersible I B-Peristaltic Pur	Pump D-Bailer		IAI A	-In-line Disposable -Pressure		
PURGE	Sampling Device	\d \.	C-QED Bladder	Pump F-Dipper/Bottle	e Sample Tu		-Teflon -Stainless Steel	C-PVC X-O D-Polypropylene	ther:
WELL DATA	Well Elevation (at TOC)		(ft/π	Depth to Water (D	DTW) MK 6		roundwater Elevati ite datum, from TO	1 1 1 1	(ft/msl)
WELL	Total Well Depth (from TOC) Note: Total Well De	epth, Stick Up, (	(ft) Casing Id. etc. are of	Stick Up (from ground eleval ptional and can be from histo		(ft) II	.     ()	Casing Material oundwater Elevation mu	st be current.
	Sample Time 2400 Hr Clock)	Rate/Unit	pH (std)	Conductance (SC/EC) (µmhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP	DTW (ft)
	016	1 <sup>st</sup> 2 <sup>nd</sup>	746 2nd	142	9 02	> 60	669	73	XC0 02
DATA (Optional)	10:19	3rd	748 311		898	295	671	72	14 11
ATA (0		4 <sup>th</sup>	4 <sup>th</sup>						1/1/1/
	18 18								. 4 //
STABILIZATION	1 1 1	1						1 1 1	1 1 1
STABI									
	ggested range for 3 consecte Permit/State requirement		÷/- 0.2	÷/- 3%			+/- 10%	÷/- 25 mV	Stabilize
Sta by	abilization Data Fields State/Permit/Site. If a l	are Optional	r other Electronic fo	ilization readings for param ormat is used, fill in final read	dings below and submi	t electronic data separately	to Site. If more fileds	above are needed, use	separate sheet or form.
DATA	SAMPLE DATE (MM DD YY)	- 1 I	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP.	TURBIDITY (ntu)	DO (mg/L-ppm)	6	nits
FIELD DATA	) 30 4 ( ) nal Field Readings are	required (i.e.	record field meas	urements, final stabilized re	eadings, passive samį	le readings before samplin	671 ng for all field param	eters required by State	Permit/Site.
	ample Appearance:	-	Clim		Odor:	Cold		Other:	
	eather Conditions pecific Comments (i	-		ns change): D	d):	Outloo	k: Com	Precipitation	on: Wor N
	HES	60	05m	Dry about	Topol	Paryons			
COMMENTS	Water	revel	Metro	Failure	\ <u>/</u>	<u></u>	- K		
_	STED IM	SULLIA )	SRE	5 (000 h	tien-	Pormale	12		
FIELD -		~ ·		Dr. Will		1			
	ertify that sampling	procedures v	were in accordance	ce with applicable EPA, S	State and WM prote	ocols (if more than one sa	ampler, all should si	gn):	
	71 (1.1	1 /-	NAT U	Hon	1 MIL				
	Date	Name		N: WHITE/ORIGINAL - 8	Signature Stays with Sample, YI	ELLOW - Returned to Clie		ipany '	

		NFORMATION FORM
Site	e: This Y	Waste Management Field Information Form is Required form is to be completed, in addition to any State Forms. The Field Form is  The closer with the Chain of Custody Forms that accompany the cample
No.	Jumple	tted along with the Chain of Custody Forms that accompany the sample ners (i.e. with the cooler that is returned to the laboratory).
GE CE	030414 0855 00	0,05
PURGE	(MM DD YY) (2400 Hr Clock) (hr	SED HRS WATER VOL IN CASING ACTUAL VOL PURGED WELL VOLS  rs:min) (Gallons) (Gallons) PURGED  rged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.
PLE	Purging and Sampling Eduinment Dedicated:	Filter Device: V or V (circle or fill in)
JRGE/SAMPL	Purging Device A-Submersible Pump D-Bailer B-Peristaltic Pump E-Piston Pu	
PURGE/SAMPLE	Sampling Device C-QED Bladder Pump F-Dipper/B  X-Other:	Sottle A-Teflon C-PVC X-Other:  Sample Tube Type: B-Stainless Steel D-Polypropylene
DATA	Well Elevation Depth to Water (at TOC) Per (fr/msl) (from TOC)	Groundwater Elevation (site datum, from TOC)
WELL DATA	Total Well Depth (from TOC) (ft) (ft) (from ground el-	levation) Casing Casing Casing ID (in) Material historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.
	Sample Time Rate/Unit pH Conductance (SC/EC	C) Temp. Turbidity D.O. eH/ORP DTW
6	2400 Hr Clock) (μmhos/cm@25°C)	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
	0905 1 2nd 7145 2nd 1 129	9 9 92 1 491 689 65 7850
(Optional)	09106 3rd 748 3rd 129	1 1979 1 366 680 1611 1785
	11 4th 182 4th 129	1976 11348 1678 291 7850
STABILIZATION DATA	7123 1669	216 1 299 1677 128
RION	1911 M 1813 1 11891	116 126 6/8 5/1
LIZA		
[ABI]		
S -		
not	ggested range for 3 consec. readings or +/- 0.2 +/- 3% e Permit/State requirements:	+/- 10% +/- 25 mV Stabilize
Бу	State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final	arameters <mark>required by WM, Site, or State). These fields can be used where four (4) field measurements are required</mark> I readings below and submit electronic data separately to Site. <u>If more fileds above are needed, use separate sheet or fort</u>
DATA	SAMPLE DATE pH CONDUCTANCE (MM DD YY) (std) (umhos/cm @ 25°C)	
FIELD DATA	230414 1753 129 nal Field Readings are required (i.e. record field measurements, final stabilize	ed readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.
Sa	ample Appearance:	Odor: Color: Other:
1	eather Conditions (required daily, or as conditions change):	Direction/Speed: Outlook: Precipitation: Y br N
SI	ecific Comments (including purge/well volume calculations if requ	aired):
SLU	The too ( ) to fair the	ener 1/2 miles
MME -		The second secon
000		
FIELD COMMENT		
7.5	ertify that sampling procedures were in accordance with applicable EP.	A, State, and WM grotocols (if more than one sampler, all should sign):
11-	3, 4, 14 MAR Other	1MM 3CS
,	Date Name  DISTRIBUTION: WHITE/ORIGINA	Signature

	FIELD INFORMATION FORM
Site Nam	e: This waste wanagement Freid information Form is Reduited This form is to be completed, in addition to any State Forms. The Field Form is
Site No.	Sample   M(1)   Submitted along with the Chain of Custody Politis that accompany the sample
PURGE	PURGE DATE  PURGE TIME  ELAPSED HRS  WATER VOL IN CASING ACTUAL VOL PURGED  WELL VOLs  (MM DD YY)  (2400 Hr Clock)  (hrs:min)  (Gallons)  (Gallons)  (Gallons)  PURGED  Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below
PURGE/SAMPLE	Pureine and Sampling Bruinment Dedicated:   Y or   N   Filter Device:   Y or   N   0.45 µ   or           (circle or fill in)
DATA	Well Elevation   Depth to Water (DTW)   Groundwater Elevation (at TOC)   (ft/msl) (from TOC)   (ft/msl)
WELL DATA	Total Well Depth (from TOC)  Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.
STABILIZATION DATA (Optional)	Sample Time Rate/Unit pH Conductance (SC/EC) Temp. Turbidity D.O. eH/ORP (R)  3:50 ZGO 1* 7:0 1* 50 19 19 19 19 19 19 19 19 19 19 19 19 19
V	Ample Appearance: Chew Odor: Color: Other:  Veather Conditions (required daily, or as conditions change): Direction/Speed: Outlook: Row Precipitation Y of N  pecific Comments (including purge/well volume calculations if required):  White feather fails at the State of State
	certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):
	Date Name Signature Company  DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

	FIELD INFORMATION FORM
Site Name	This Waste Management Field Information Form is Required
Site No.:	This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).
	Sample ID
PURGE	030514 127 0005
IU <sup>A</sup>	PURGE DATE PURGE TIME ELAPSED HRS WATER VOL IN CASING ACTUAL VOL PURGED WELL VOLS  (MM DD YY) (2400 Hr Clock) (hrs:min) (Gallons) (Gallons) PURGED  Note: For Passive Sampling, replace "Water Vol in Casing" any "Kell Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.
PLE	Purging and Sampling Equipment Dedicated: Y or N Filter Device: Y or N 0.45 µ or µ (circle or fill in)
PURGE/SAMPLE EQUIPMENT	Purging Device A-Submersible Pump D-Bailer A-In-line Disposable C-Vacuum B-Peristaltic Pump E-Piston Pump Filter Type: B-Pressure X-Other
RGE	Sampling Device C-QED Bladder Pump F-Dipper/Bottle A-Teflon C-PVC X-Other:
_	X-Other: Sample Tube Type: B-Stainless Steel D-Polypropylene
WELL DATA	Well Elevation (at TOC)  Depth to Water (DTW) Groundwater Elevation (ft/msl) (ft/msl) (ft/msl) (ft/msl) (ft/msl)
WELL	Total Well Depth (from TOC)  Stick Up (from ground elevation)  Note: Total Well Depth, Stick Up, Casing Id. etc, are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.
	ample Time Rate/Unit pH Conductance (SC/EC) Temp. Turbidity D.O. eH/ORP DTW
1	100 Hr Clock) (std) (μmhos/cm@25°C) (°C) (ntu) (mg/L-ppm) (mV) (ft)  1.3 1 250 14 58 14 13) 899 77
	7.75 1 (50 120 5761 300 120 77
nal)	2.70 1 (26 1.70 000 3 20 111 -7.5
STABILIZATION DATA (Optional)	2111
[A (6	21411 4 10 4 131 800 241 107
DA7	
NO	2.97 7.28 7.51 894 3.59 137 -105
ZAT	
BILL	
STA	
not	rested range for 3 consec. readings or +/- 0.2 +/- 3% +/- 10% +/- 25 mV Stabilize  Permit/State requirements:
by	illization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required tate/Permit/Site, If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fileds above are needed, use separate sheet or for
DATA	SAMPLE DATE pH CONDUCTANCE TEMP. TURBIDITY DO eH/ORP Other: Told (MM DD YY) (std) (umhos/cm @ 25°C) (°C) (ntu) (mg/L-ppm) (mV) Units
FIELD D	30514 728 131 894 349 13 -103 1247
	al Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.
l	ather Conditions (required daily, or as conditions change):  Odor:  Color:  Other:  Precipitation: Y or
	ecific Comments (including purge/well volume calculations if required):
31	2 2 R 1 1 5
STN —	73 A - 7 SI
COMMENTS	See mi 100 C Stall D. I.A.
CO —	at MW-1516 for Sollo 1 Cartier Mymeters
q	
FIET.	
1 c	rtify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):
	of the thing the
	Date Name Signature Company
	DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client. PINK - Field Copy

	FIELD IN	VIFORMATION FORM
Site Name	This Was	ste Management Field Information Form is Required  n is to be completed, in addition to any State Forms. The Field Form is
Site No.:	Sample   Aby	al along with the Chain of Custody Forms that accompany the sample so (i.e. with the cooler that is returned to the laboratory).
PURGE	PURGE DATE PURGE TIME ELAPSE	6 S WATER VOL IN CASING ACTUAL VOL PURGED WELL VOLS
PU II	(MM DD YY) (2400 Hr Clock) (hrs:m	THE TOTAL OF THE T
PURGE/SAMPLE EQUIPMENT	Purging and Sampling Equipment Dedicated:  Purging Device  A-Submersible Pump B-Peristaltic Pump E-Piston Pump C-QED Bladder Pump F-Dipper/Bottl	
DATA	Well Elevation Depth to Water (I (ft/msl) (from TOC)	DTW) Groundwater Elevation (site datum, from TOC) (ft/msl)
WELL!	Total Well Depth (from TOC)  Note: Total Well Depth, Stick Up, Casing Id. etc., are optional and can be from hist	ation)  Casing  (ft)  ID  (in)  Material  torical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.
	Sample Time Rate/Unit pH Conductance (SC/EC) 2400 Hr Clock) (std) (µmhos/cm@25°C)	Temp. Turbidity D.O. eH/ORP DTW (°C) (ntu) (mg/L - ppm) (mV) (ft)
	1 1 0 0 1 1 2 nd 1 1 0 1 1 0 1 1	9.46 1001 689 107 6141
Optiona	1:03	944 672 679 109 6141
STABILIZATION DATA (Optional)	11:09	940 389 690 112 6141
TIONI	1:12 / 650 199	9,40 299 692 113 6141
BILIZA		
STA		
note	gested range for 3 consec. readings or +/- 0.2 +/- 3%  Permit/State requirements:  bilization Data Fields are Optional (i.e. complete stabilization readings for parameters)	+/- 10% +/- 25 mV Stabilize meters required by WM, Site, or State). These fields can be used where four (4) field measurements are required
	State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final real SAMPLE DATE PH CONDUCTANCE	adings below and submit electronic data separately to Site. If more fileds above are needed, use separate sheet or for TEMP. TURBIDITY DO eH/ORP Other:
FIELD DATA	(MM DD YY) (std) (umhos/cm @ 25°C)	(°C) (ntu) (mg/L-ppm) (mV) Units (mV) (mV)
	#	readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.  Odor: Other:
		Direction/Speed: Outlook: Inv Precipitation: Y of N
Sp	ecific Comments (including purge/well volume calculations if require	
COMMENTS	THE MAY ISK FOR 5	Hall Nation Manutacs
MMI -	The Allestan Control of the Control	
D C0		
FIELD		
	ertify that sampling procedures were in accordance with applicable EPA, S	State, and WM/protocols (if more than one sampler, all should sign):
-	2,2,13 MAR OHM	WITT SKS
7'-	Date Name  DISTRIBUTION: WHITE/ORIGINAL.	Signature Company Stays with Sample, YELLOW - Returned to Client, PINK - Field Conv

	FIELD INFORMATION FORM
Sit Nam	This form is to be completed, in addition to any State Forms. The Field Form is
Sit No.	Sample Sample Submitted along with the Chain of Custody Potitis that accompany the sample
PURGE	PURGE DATE (MM DD YY) (2400 Hr Clock) (hrs:min) (Gallons) (Gallons) (Gallons) (Gallons) (Gallons) (Gallons) (Gallons)
IPLE	Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell Vols Purged. Mark changes, record field data, below  Purging and Sampling Haujument. Dedicated:    Vol   N
PURGE/SAMPLE	Purging Device A-Submersible Punh D-Bailer B-Peristaltic Pump E-Piston Pump Filter Type: A-In-line Disposable C-Vacuum B-Pressure X-Other  Sampling Device C-QED Bladder Pump F-Dipper/Bottle  X-Other: Sample Tube Type: B-Stainless Steel D-Polypropylene
DATA	Well Elevation (at TOC)  Depth to Water (DTW)  (from TOC)  Groundwater Elevation (site datum, from TOC)  (ft/msl)
WELL DATA	Total Well Depth (from TOC)  Note: Total Well Depth. Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.
	Sample Time Rate/Unit pH Conductance (SC/EC) Temp. Turbidity D.O. eH/ORP DTW (2400 Hr Clock) (std) (μmhos/cm@25°C) (°C) (ntu) (mg/L-ppm) (mV) (ft)
	908 1 2nd 589 2nd 119 1076 1010 103 67 1918
Optiona	011   30 585 30 118 1081 1011 1058 771 1970
STABILIZATION DATA (Optional)	10:17 7 584 118 1078 1995 1043 84 11920
ATION	10120 5183 117 1082 1044 039 88 1960
ABILIZ	
	ggested range for 3 consec. readings or
no St	gesetate range for 3 corsec, featings of +/- 0.2 +/- 25 mV Stabilize le Permit/State requirements:  abilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fileds above are needed, use separate sheet or form
DATA	SAMPLE DATE pH CONDUCTANCE TEMP. TURBIDITY DO eH/ORP Other: 1/1/1/2 (MM DD YY) (std) (umhos/cm @ 25°C) (°C) (ntu) (mg/L-ppm) (mV) Units
FIELD DATA	nal Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.
	Ample Appearance:Odor:Odor:Other:
S	pecific Comments (including purge/well volume calculations if required):
ENTS	See MW-15R for Stabilirenten Paranetas
COMMENTS	
FIELD C	
- 25	certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):
	3,5,14 Matt Other Ses
	Date Name Signature Company  DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client. PINK - Field Copy

		FIELD IN	FORMA	TION FORM	1		$\Lambda$
Site Name Site No.:	Sample Point:	This form i	is to be completed, in along with the Chain	Information Form is Requir addition to any State Forms. of Custody Forms that accomp hat is returned to the laborator	The Field Form is pany the sample	Laboratory Use Only	ASTE MANAGEMENT
PURGE	PURGE DATE  (MM DD YY)  Note: For Passive Sampling, replace "Water Vol in Case	ock) (hrs:mi	in)	WATER VOL IN CASI (Gallons) ing/Flow Cell and Tubing/Flo		VOL PURGED (Gallons) Mark changes, record	WELL VOLs PURGED field data, below.
PURGE/SAMPLE EQUIPMENT	Purging and Sampling Equipment Dedicated:  Purging Device A-Submersible F B-Peristaltic Pun Sampling Device C-QED Bladder  X-Other:	np E-Piston Pump	Fi e	lter Type: A	0.45 µ or -In-line Disposable-Pressure  A-Teflon -Stainless Steel	e C-Vacuum X-Other	e or fill in) -Other:
WELL DATA	Well Elevation (at TOC)  Total Well Depth (from TOC)  Note: Total Well Depth, Stick Up, Casing Id. etc. are of	Stick Up (from ground eleva	tion)	(ft) (s	Groundwater Eleva site datum, from To Casing (in D (in Ievation, DTW, and G	Casing Material	must be current.
STABILIZATION DATA (Optional)	Sample Time 2400 Hr Clock)  PH 2400 Hr Clock)  PG   V   760   1st   6   5   9   1st    2nd   6   8   2nd    2nd   6   8   2nd    3nd   6   9   3nd    4th   6   9   4th    2nd   6   8   2nd    3nd   6   9   3nd    4th   6   9   9   1    2nd   6   8   2nd    3nd   6   9   1st    4th   6   9   9   1st    2nd   6   8   2nd    4th   6   9   9   1st    2nd   6   8   2nd    3nd   6   9   1st    4th   6   9   9   1st    2nd   6   8   2nd    3nd   6   9   1st    4th   6   9   9   1st    2nd   6   8   2nd    3nd   6   9   1st    4th   6   9   9   1st    2nd   6   8   2nd    3nd   6   9   1st    4th   6   9   9   1st    2nd   6   8   2nd    3nd   6   9   1st    4th   6   9   9   1st    2nd   6   8   2nd    3nd   6   9   1st    4th   6   9   9   1st    2nd   6   8   2nd    3nd   6   9   1st    4th   6   9   9   1st    2nd   6   8   2nd    3nd   6   9   1st    4th   6   9   9   1st    2nd   6   9   1st    4th   6   9   9   1st    2nd   6   9   1st    4th   6   9   9   1st    2nd   6   9   1st    4th   6   9   9   1st    2nd   6   9   1st    4th   6   9   9   1st    2nd   6   9   1st    4th   6   9   9   1st    2nd   6   9   1st    4th   6   9   9   1st    2nd   6   9   1st    2nd   6   9   1st    4th   6   9   9   1st    2nd   6   9   1st    2nd   6   8   2nd    3nd   6   9   1st    4th   6   9   9   1st    2nd   6   9   1st    3nd   6   9   1st    4th   6   9   1st    4th   6   9   1st    4th   6   9   1st    2nd   6   9   1st    3nd   6   9   1st    4th   6   9   1st    4th   6   9   1st    4th   6   9   1st    2nd   6   9   1st    4th   6   9   1st    2nd   6   9   1s	Conductance (SC/EC) (µmhos/cm@25°C)    2 9   2 27   2 2 8   2 2 7   2 2 8   2 2 7   4 7 8   1 7 8	Temp. (°C)	Turbidity (ntu)  38  205  210  185  066  197  198  198  198  198  198  198  198	D.O. (mg/L - ppm)    Z   S     1   48     2   6     0   69         +/- 10%     elds can be used wh	eH/ORP (mV)  -	DTW (ft)  1 83  2 04  2 10  2 12  2 13  2 13  Stabilize
by .	State/Permit/Site. If a Data Logger or other Electronic for SAMPLE DATE pH	conductance  conductance	dings below and subi	mit electronic data separately TURBIDITY	to Site. If more files	ds above are needed. eH/ORP	use separate sheet or form Other:
FIELD DATA	(MM DD YY) (std)    S   Y	(umhos/cm @ 25°C)	(°C)	(ntu)	(mg/L-ppm)	(mV)	Units
l	mple Appearance: Chur		Odor:	Cole	-0	Other:	6
LD COMMENTS	See MW - ISR	e calculations if require	ostan	Sound Con Acardand Perrum	m'ny fo	Precipita	ation: Y o(N)
ETE .			State and WM num	tavels (if were then any	amatan all should	oign).	
I c	3,5,14 Mast of O	te with applicable EPA, S	State, and WM pro	otocols (if more than one s	ampier, ali should	sign):	
=	Date Name DISTRIBUTION	N: WHITE/ORIGINAL-	Signature Stays with Sample,	YELLOW - Returned to Clie		ompany	

## SCS ENGINEERS

June 5, 2014

File No. 04204027.17

**Subject:** Second Quarter 2014 Ground Water Monitoring Event

Olympic View Sanitary Landfill, Kitsap County, Washington

Sampling Event Dates: 6/2/14 through 6/4/14 Personell: Matt O'Hare and Bradley Beach

## NOTES/SAMPLING DECODING:

• Dedicated pumps were used for purging and sampling all wells.

- Duplicate samples were collected at MW-42 (DUP1) and MW-36A (DUP2).
- The Solinst model 101 water level meter was used to record all water level elevations.
- In addition to the monitoring wells where groundwater was collected for chemical analysis, additional wells were monitored for groundwater level elevations. A summary of measured water levels are included with the field documentation.
- Several clearing efforts should be made at the site going forward to ensure ease of access to all monitoring wells.
- The second quarter monitoring event was a 3-year event. WAC 173-351 Appendix III parameters were collected at wells MW-15R and MW-34C.
- The second quarter monitoring event was a semi-annual event. The wells MW-29A and MW-33A were sampled.
- The dissolved oxygen probe on the YSI flow meter was unable to be calibrated on 6/2/2014. Samples collected using that meter on that day were MW-13A, MW-13B, MW-16, and MW-35, and this data has been rejected. The meter was subsequently able to be calibrated for the remainder of the monitoring event.
- The samples were sent to TestAmerica Denver for analysis at the close of each sampling day, except samples for low level arsenic which were held until the end of the sampling event and provided to Analytical Resources, Inc. in Tukwila, Washington.

Sample Date	Location ID	Sample ID	Comments
6/2/2014	MW-36A	0614-01	DUP2 (0614-02)
6/2/2014	MW-43	0614-03	
6/2/2014	MW-23A	0614-04	
6/2/2014	MW-13B	0614-05	
6/2/2014	MW-13A	0614-06	
6/2/2014	MW-35	0614-07	

Q 2 2014 Groundwater Monitoring Event - OVSL Page 2

Sample Date	Location ID	Sample ID	Comments
6/2/2014	MW-16	0614-08	
6/3/2014	MW-29A	0614-09	
6/3/2014	MW-04	0614-10	
6/3/2014	MW-39	0614-11	
6/3/2014	MW-24	0614-12	
6/3/2014	MW-19C	0614-13	
6/3/2014	MW-15R	0614-14	
6/3/2014	MW-34C	0614-15	
6/3/2014	MW-33C	0614-16	
6/3/2014	MW-33A	0614-17	
6/4/2014	MW-42	0614-18	DUP1 (0614-19)
6/4/2014	MW-32	0614-20	
6/4/2014	MW-20	0614-21	
6/4/2014	MW-2B1	0614-22	
6/4/2014	MW-34A	0614-23	

OVSL

2014

6/4/14

SCS	ENG	NEE	<b>₹</b> 5	Olympic Vie	w Sanitary Landfill	Daws 4	of 0
Well	Date	Time	DTW	Measured	Comments	Page 1 Last Q	uarter
				by (initials)	=	DT	VV
MW-1		-		-	Lost - Nn		69.04
MW-10	6/4/14		41,08	ng	N N	NM	
MW-11	6/4/14		5112	Mo			4.25
MW-12	6/3/14	1142	45,87	BB		NM	8)
MW-13	6/4/14		29.97	WO			28.94
MW-13A	6/2/14	1409	58.27	MO			46.34
MW-13B	6/2/14	1500	59.90	Mo	e <sup>2</sup>		60.30
MW-14	See 3				Do Not Measure - Well Damaged		47.38
MW-15R	6/3/M	0908	18.76	une			18.72
MW-16	6214	11:20	57.33	Mo			57.65
MW-17	6/3/14	1154	32.05	23		NM	
MW-18	6/3/14	1140	62.76	811		NM	
MW-19A	4/3/14	12:11	32,43	BB			32.58
MW-19B	6 3 14	12:12	32.49	BB			32.62
MW-19C	6/3/14	0838	3365	15B		4.	33.80
MW-19D	4/3/14	12:13	32,51	BA	Needs new lock		32.73
MW-20	6/4/14	1204	35,81	me			35.91
MW-21	6/4/cm		5.10	no			5.35
MW-23A	13/14	1233	12,02	7573	eser <sup>a</sup>	NM <sup>6</sup>	
MW-23B	6/3/14	1234	12.34	BB			12.41
MW-23C	6/3/14	1235	12.47	273			12.92
MW-24	6/3/14	0937	31,85	1373	T I		21.74
MW-26	6/3/14	11:24	11013	BB	Needs now lock	NM	
MW-27	6/3/14	11:21	21.48	1513			21.74
MW-28	6314	11:24	5,53	475		NM	E
MW-29A	6/2/14	1400.	13.67	53			13.35
MW-29B	6/2/14	1358	17.22	4th			17.12
MW-29C	6/2/14	1355	11.92	BB			11.73

Site	I UIVITIDIO	: View Sanit	earv I andfill	1		TION FORM		V	
Num Site No.	e: L	Sam Pol	iple Mw	This form	is to be completed, in along with the Chain o	indultion to any State Forms of Custody Forms that accomp hat is returned to the laborator	The Field Form is pany the sample	Laboratory Use Only/La	ih ID:
PURGE	(MM DD Y	(Y)	PURGE TI 12-400 Hr Cl lines Wat in Co	lock) (firsin	nin) 🖹	WATER VOL IN CASI (Gallona) hingti-low Cell and Tubungs Fic	((	VOL PURGED Gullwan) Mark changes, receired field	WELL VOLS PURGED d deta, before:
PURGE/SAMPLE FOURPMENT	Purging and Samp			Pump D-Bailer mp E-Piston Pump	File P Fil	er Device: W N A	0.45 µ or	p (virele of t	fill to)
DATA	Well Elevation (at TOC)	Ш	L L L	Depth to Water (I	DTW)		Groundwater Elevationsite datum, from TOC		[fi/msi)
WELL	Total Well Depti (from TOC) Note: Total Well D		Casing Id. etc. are a				Casing (in) D (in) lecturion, DTW, and Gree	Casing Material oundwater Elevation must	i be current.
	Sample Time 2400 Hr Clock)	Rate/Unit	pH (sid)	Conductance (SC/EC) (µmhos/cm @ 25 °C)	Temp.	Turbidity (NO)	D.O. (mg/L - ppm)	cH/ORP (mV)	DTW (fi)
ELD DATA	SAMPLE DATE (MM DD YY)	sare Optional Data Logger	626 300 400 100 100 100 100 100 100 100 100 1	to the state of th	TEMP.	of 10% \$ 5  W. Site, or State). These fie electronic deta separately of TURBIDITY  (ntu)  October 100 Control of the separately of the sep	3,4  3,0  2,9  2,7  2,5  1,1 	9990 900 870 8100 81	3111 3112 3111 3111 3111 3111 Substitue  ments are required  reparate sheet or form  ter: Time  its
	mple Appearance eather Conditions		ily, or as condition	<del></del> :	Odor: Vo		or: Noul		i: Y or N
Sp	meific Comments (	(Including p	urge/well volume	e calculations if require	d):				
ENTS 	Vo (	<u></u>	6100						1
MWO-									
<u> </u>									
le	ertify that sampling	0	were in accordance	1	tale, and WM prot	ocols (if more than one sa	impler, all should sig	(n): SCS Engin	eers
	Dute	Nam			Signature		Com	peny	

Γ,	ilte	74			FIE	1		TION FORM		V	V <sub>A</sub> V <sub>A</sub> V
Nu	site Ime: Site	Olympic		nitary Landfill	1 1 1	This form	is to be completed, in	Information Form is Result addition to any State Forms of Castraly Forms that accomp	The Field Form is	Laboratory Use Only/La	th ID:
	No.;			mple olnt:	MW4 Sample ID			in is returned to the laborator			
GE	0,	0602	1 4	10	20	01	20				
PURGE		PURGE DA (MM DD Y Note: For Passive S	Y)	PURGE (2400 Hr phase Water Vol to	r Clock)	ELAPSEI (hrsan Cell Vols Purges	iis) I'' ny Waner-Yol in Tuh	WATER VOLIN CAS (Gatkans) (org/Flow Cell and Tubing/Flo	(4	VOL PURGED Gullous) duck changes, record field	WELL VOLA PURGED d duta, below.
PURGE/SAMPLE	ENT	Purging and Sampl Purging Device	V	nent Dedicated: A- Suhmersit		or N D-Bailer	Filte	r Device: (V) or N	0.45 µ or	p (circle or )	fill to)
CE/S	EQUIPMENT	Sampling Device		B-Peristatile C-QED Blade	Pump E	E-Pision Pump F- <b>Dipper/B</b> oul		ler Type:	3-Pressure A-Teflon	X-Other C-PVC X-Ott	•
_	_	X-Other:					Sample To		A-Tellon 3-Stainless Steel	D-Polypropylene	her:
	DATA	Well Elevation (at TOC)	Ш			h to Water (I n TOC)	отw)2		Graundwater Elevati site datum, from TO	1 1 1 1	[fi/mst)
	WELL	Total Well Depth (from TOC) Note: Total Well De				i ground eleva			Casing (in) Description, DTW, and Great	Casing Material Gundwater Elevation unus	i be current.
,		ample Time 400 Hr Clock)	Rate/Uni		Conductar	nce (SC/EC) m @ 25 °C)	Temp. (°C)	Turbidity (nto)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (fi)
	1	01410		61112	p [	01415	11016	483	19	151410	12/4/18
8	1	0:413		2-1 6111	2" (	21414	11016	1128	PL	5,60	121418
STABILIZATION DATA (Optional)	1	10:416	1 3	3" 61111	3"   (	14 HC	11017	1 33	19	151910	2418.
CA (0	1	10:419		4 61111	411	043	1017	1 135	1.9	610	21418
I DAT	1	101512		6:11		21415	106	14	de l'	620	2,4,8
TION						11					
LIZA	- 1		1				4 1				
LABI						1 1		1111			
S											
	nore	pessed range for 3 conse Permit/State requiremen	mile:	771 17, 2	<b>♦</b> /- :		+/-0,5°C	+1-104€ ≤ 5	+/= 0.2		Saubilize
	by 5	tatelPermittSite. If a	Date Logge	r or other Electroni	ic format is used	, filt in final rea	dings below and subm	M. Site, or State). These fit is electronic data separately	io Site. <u>If more fields</u>	above are needed, use s	eparate sheet or form
DATA		SAMPLE DATE	8 arangan	pH (std)		CTANCE m@25°C)	TEMP.	TURBIDITY (ntw)	DO (mg/L-ppm)	eH/ORP On (mV) Uni	tr
FIELD DATA	O	GOZI	required (	i.e. record fleld m	easurements, fli	5 4 3	endings, passive sum	ple readings before sampli	0 9	G 2 0	1052
		aple Appearance:		Ally off col			Odor: No		or: light Stras		Erminus.
		ather Conditions	•	•			irection/Speed:	N Outloo	k: Clear	Precipitation	n: Y or N
	Spe	eific Comments (	Including	purge/well volu	me calculatio	as if require	d):				
SEN.			9								-
COMMENTS											
	_										
GE.									7		
	l cer	rtify that sampling	procedure	s were in accorda	ince with appl	icable EPA, S	late, and WM proto	ocols (if more than one sa	impler, all should si	ម្នា):	
	n(	6,2,14	<u> </u>	rondley Be	each		hop	1/_1		SCS Engin	eers
	-	Dute	- No	HEADO.			Signuture	In .	Conn	pery	

	Site	l Olympic	: View Sanit	and landfill	1.0			TION FOR		V	\V\V\
1	ame: Site Novi	: Loympio	Sam	ple	12 12 14	This fount is b submitted also	s be completed, i ng with the Chair	n indiction to any State Forms (of Custody Forms that accor- that is returned to the Inborat	The Field Form is opany the sample	Lateratory Use Only/La	ah ID:
-		lak lala	li la l		mptc ID	Inti	A	1111		1   1	
PURGE	INFO	PURGE DA	(Y)	PURGET (240) Hr C	(lwck)	(hrsmin)		WATER VOLIN CA (Gatlons) thing(Flow Cell and Tabling)		VOL PURGED (Gullerie)	WELL VOLS PURGED
API F	Ė	Purging and Sump	ding Equipme	nt Dedicated:	OF	7		ler Device: Or N	0.45 µ or	p (eitele ot	
PURGE/SAMPLE	EQUIPMENT	Purging Device Sampling Device		A- Submersible B-Peristaltic Per C-QED Bladde	ımp E-Pisi	ier Ion Pump per/Boitle	F	ilter Type:	A-in-line Disposable B-Pressure	X-Other	
-	_	X-Other:	<u> </u>				Sample	Tube Type:	A-Teffon B-Stainless Steel	C-PVC X-Oi D-Polypropylene	her:
	DATA	Well Elevation (at TOC)	Ш		Depth to (from TO	Water (DT C)	w)	203	Groundwater Elevat (site datum, from TC		
	WELL	Total Well Depth (from TOC) Note: Total Well De		Casing Id. etc. are		und elevatio from historia		ognired by Site(Permu, Well	Casing ling (in Electrical, DTW, and G.		i be current.
		ample Time 400 Hr Clock)	Rate/Unit	pH (std)	Conductance (5 (µmhos/cm@		Temp. (°C)	Turbidity (nlu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
	1	11:410	i*	61414	- 1112	112	11319	113.4	1 13	620	111210
(leno	+	111415	2°	1111	1	515	140	1 14.0	1 3	161810	111910
(Optional)	Ī	111419		6 7	. 115	515	1:4:1	1   15,2	1 2	1710.0	11211
DATA	1	171512		6:417	1113	51.5	1.4.1	1 51	1.2	7116	1120
STABILIZATION DATA	_			11	1 1 1	4	_1_1_				
LIZA.				1		+					
STABI			i								
	Suos	pested range for 3 conne			_1_1_1	1-					
	Stab	Permit/State requirement	nis: are Optiona	+/- 0.2 (i.e. complete stat	+/- 10% bilizasion readings	for paramete	ers required by	+t- 10% ≤ 5 WM, Site, or State). These	tields can be used whe	re four (4) field measure	Subilize
ATA		SAMPLE DATE (MM DD YY)		pH (std)	CONDUCTA	NÇE	TEMP,	mis electronic data separatel TURBIDITY	DO	eH/ORP O	her: Time
FIELD DATA	() Fine	6021	required (i.e.	647	15	55	lings, passive su	unple readings before samp	(mg/L-ppm)  2  ling for all field param	(mV) Un	1152
	Sen	aple Appearance:	Clei				tor: No		olor: Clear		
		ether Conditions cific Comments (	•	-			_	Outle	ook: Clear	Precipitation	n: Y or N
90	- 1	STORIN MISSE			ind well			e cleared of	Flackber	rvies.	
COMMENTS	_			)	3						
COM		<del></del>									
FIELD	-										
	l cer	rtify that sampling	procedures	were in accordan	ce with applicabl	e EPA, Siai	e, and WM pro	otocols (if more than one	sampler, all should s	ign):	
	(	012114	Bu	adley Bea	ch		poll	47-1		SCS Engir	eers
	-	Dute	Nun				Signature		Con	<b>Приму</b>	

		RMATION FOR	M	
Si Nur Si	This Waste Manage This form is so be e	ement Field Information Form is Req ampleted, in addition to any State Forms is the Chain of Custode Forms that acces	The Field Form is	destatory Use Only/Lab ID:
No		the cooler that is returned to the Inbora	sultants to essention	
35	0166121141 1141401 60GS			
PURGE	PURGE DATE PURGE TIME ELAPSED HRS  (MM DD YY) (2-40) Hr Clock) (brisinin)  None: For Passive Sampling, replace Water Vol in Clasing and Well Vols Parged" of Water Vol in Clasing and Well Vols Parged" of Water Vol in Clasing and Well Vols Parged of Water Vol in Clasing and Water Vol in Clasing and Water Vol in Clasing and Water Vol in Clasing and Water Vol in Clasing and Water Vol in Clasing and Water Vol in Classing and Water Vol in Classical And Water Vol i	WATER VOL IN CA (Gattens) or Vol in Tubing/Flow College Tubing/	(Gall	Notes) PURGED
1 LE	Pureing and Sampline Sugicement Dedicated: (V) or [ N ]	Filter Devices of N	0.45 µ 07	p (sircle or fill in)
PURGESSAMPLE	Purging Device A-Submersible Pump D-Bailer B-Peristatitic Pump E-Piston Pump C-QED Bladder Pump F-Dipper/Bottle	Filter Type:	A-In-line Disposable C- B-Pressure X	-Other
PURC	X-Other:	Sample Tube Type:		-Polypropylene
DATA	Well Elevation Depth to Water (DTW) (nt TOC)	15988	Graundwater Elevation (site datum, from TOC)	
WELL	Total Well Depth Stick Up (from TOC) Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and cun be from historical da	a. unless required by SisePernu, Well	Casing   (in)	Casing Material dwaver Elevation unust be current.
	Sample Time Rate/Unit pH Conductance (SC/EC) T	emp. Turbidity	D.O. (mg/L - ppm)	eH/ORP DTW (mV) (fi)
	14:45 296 7113 155 11	142 1135	- 8:25 -	875 5993
<u>-</u>	1 M 1 2 7 10 7 2 1 1 5 6 1 5	1.49 101	1835	87.2 S9.71
(Optional)	14:S1 V 3" 7107 3" 1 S6 15	110	1859	876 599
TA (0	14.65	139	18.76	974 51990
N DA	15.60 735 ISY IS	132 062	854	980 5970
ATIO		120	0.57	
STABILIZATION DATA				
STAI				
	Suggested range for 3 consec. readings or +/- () 2 +/- 10% +/-	1 1 1 1		
3	ore Permit/State requirements:  Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters re	0.5°C +i-10% 5 5 quired by WM, Site, or State). These	fields can be used where fo	Subtline  our (4) field measurements are required
		MP. TURBIDITY	DO DO	eH/ORP Other:Time
FIELD DATA	(MM DD YY)  (Std)  (umhos/em @ 25°C)  (560 Z   Y   735     S   Y   Y   Y   Y   Y   Y   Y   Y	132 062	(mg/L-ppm)	980   S00
	41	21 3	olor: Class	The state of the s
,	Weather Conditions (required daily, or as conditions change): Direction	Speed: Wight Outle	ook: Su	
	Specific Comments (including purge/well volume calculations if required):			
FIELD COMMENTS	9			W-1
MIMO				
9 - E				
				N N
1	certify that sampling procedures were in accordance with applicable EPA, State, and	WM protocols (if more than one	sampler, all should sign):	: -SCS Engineers
	Dute Nume Signal DISTRIBUTION: WHITE/ORIGINAL - Stays wit		Companient, PINK - Field Copy	y

Г	FIELD INFORMATION FORM	VAVA
	Site Olympic View Sanitary Landfill This Waste Management Field Information Form is Required.  This form is so be completed, in addition to any State Forms. The Field Form is	WASTE MANAGEMENT
1	Site Sample WW   Sample with the Chain of Custody Forms that accompany the sample containers (i.e. with the coster that is returned to the laboratory)	Laboratory Use Only/Lab ID:
Ľ	Somple ID	
異	= 060214 1349 LIII LIII LI	
PURGE	PURGE DATE PURGE TIME ELAPSED HRS WATER VOL IN CASING ACTU	AL VOL PURGED WELL VOL
Ľ	(MM DD YY) (2400 Hr Clock) (hts:nin) (Gallons)  None: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Parged" not Water Vol in Tabing/Flow Cell and Tabing/Flow Cell and Parged of the Parged of the Coll and Tabing/Flow Cell and Parged of the Parged of the Coll and Parged of the C	(Gullwas) PURGED  d. Mark changes, record field data, below:
IPLE	Punging and Sampling Equipment Dedicated: Y or N Filter Devices Y or N 11.45 µ or	p (elicle or fill in)
SAM	Purging Device  A-Submersible Pump  B-Peristattic Pump  C-QED Bladder Pump  D-Bailer  E-Piston Pump  F-Dipper/Bottle  A-Teflon	hle C-Vacuum  X-Other
PURGE/SAMPLE	Sumpling Device C-QED Bladder Pump F-Dipper/Boule	C-PVC X-Other:
$\vdash$		D-Polypropylene
	Well Elevation (at TOC) (from TOC) (from TOC) Graundwater Elevation (site datum, from the total	
	Total Well Depth (from TOC) Note: Total Well Depth, Stick Up, Caxing Id. etc. are optional and can be from historical data. unless required by SlictPersut. Well Elevation, DTW, and	Casing (in) Material Groundwater Elevation must be current.
	Sample Time Rate/Unit pH Conductance (SC/EC) Temp. Turbidity D.O. (2400 Hr Clock) (std) (µmhos/cm @ 25 °C) (°C) (nlu) (mg/L - ppm)	eH/ORP DTW
	113:514 250 - 7107 - 158 1184 - 1562 874	1-17612   S827
	13:57 1 2 727 155 1134 105 870	778 582
onal	14:00 176 155 1131 117 18	-JAI SPR
(Opt	M:013 V1 17776 1 1154 1119 1 1097 88	-793 S827
TA	14.06 7.26 154 115 032 85	799 582
N D	14:09 7216 11514 115 081 848	-7919 SISR
VT10		2027
CIZ		
STABILIZATION DATA (Optional)		
20		
	Suggested range for 3 consect, readings or +/- 0.2 +/- 10% +/- 0.5°C +/- 10% ≤ 5 +/- 0.2 note Permit/State requirements:	Sambilize
	Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used no by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fie	here four (4) field measurements are required lds above are needed, use separate sheet or form,
- 44		eH/ORP Other:Time
FIELD DATA	1960214 1746 1684 118 1 081 818	-79.9 1409
_	Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field par Sample Appearance:  Odor: Algorithm Color: Col	Other:
	Wenther Conditions (required daily, or as conditions change):  Direction/Speed:	Precipitation: Y or N
	Specific Comments (including purge/well volume calculations if required):	
90	DO Calibration Fallors	
COMMENTS		
MM		
000		
OTEL D		
	I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should	f sign):
	6,2,19 Mast Other Mas	SCS Engineers
	Dute Nume Signature	Parada.
	Disc (value Signature Sign	Company

Г		· ·	FIELD IN	FORMATION FOR	RM.	
Nu	ite me:		This form is	e Management Field Information Form is Re- s to be completed, in addition to any State Form	is The Field Form is	e Only/Lah ID:
	ite lo.;	Sample   Point: U		doing with the Chairrof Custody Forms that acc (i.e. with the corder that is returned to the lathor	continuity net sentition	
無		0161012141	1226 000	55 [[[		
PURGE	INFO	PURGE DATE	PURGETIME ELAPSED (240) Hr Clock) (brsoni		ASING ACTUAL VOL PURG	ED WELL VOL
- M	_	The state of the s	Vater Val in Casing" and "Well Vols Purged"	"of Water Vol in Tahong/Flow Colored Tahing	dFlow Cell Vols Purged. Mark changes, r	
PURGESSAMPLE	MENT	Purging Device A-S	Submersible Pump D-Bailer Peristallik Pump E-Piston Pump	IA	A-in-line Disposable C-Vacuum B-Pressure X-Other	,
JRGEZ	EQUIPMENT	Sampling Device C-QI	ED Bladder Pump F-Dipper/Bonk		A-Tellon C-PVC	X-Other:
-	_	X-O(he):	Depth to Water (D	Sample Tube Type:	B-Stainless Steel D-Polypropy	l l l l l
	LDAIA	(at TOC)	(funsi) (from TOC)	71179(m)	Groundwater Elevation (site datum, from TOC)	(flymsi)
	WELL	Total Well Depth (from TOC)  Note; Total Well Depth, Stick Up, Cassing	Stick Up (from ground elevating life circ, are optional and can be from historial.)	tion)  rical data, unless required by ShelPermu, We	Casing Casing ID (in) Materia  If Elevations, DTW, and Groundwater Elevations	
		ample Time Rate/Unit	pH Conductance (SC/EC) (std) (µmhos/cm @ 25 °C)	Temp. Turbidity	D.O. cH/OR! (mg/L-ppm) (mV)	
	1	2:33 360 7	211 1139	11145 06	846 -61	0 7182
nal)	1	2:36 1 21	192	68 81	839 -59	14 71179
Option	1	17,47	118 310	11.78	1839 -1517	3 7/79
ATA (	1	7,4(,	17	1179	2 834 - 60	4 7170
ON D						
STABILIZATION DATA (Optional)						
ABILI						
ST.						
	nore	Permit/State requirements:	+/- (),2 +/- 1096	+/-0,5°C +/-10% ≤ 5	+/- 0,2	Saubiline
1	ph.2	tate!Permit/Site. If a Data Logger or other	er Electronic format is used. fill in final read	neters required by WM, Site, or State). These lings below and submit electronic data separat	ely to Site. If more fields above are nee	led, use separate sheet or form,
DAT/	<u>~</u>	SAMPLE DATE PH (MM DD YY) (std		TEMP. TURBIDITY	DO eH/ORI (mg/L-ppm) (mV)	Other: Time
FIELD DATA	y Fig.	a Field Rendings are required (i.e. recor	and field measurements, final stabilized re	edings, passive sample readings before sam	pling for all field parameters required	by State/Permit/Site.
		aple Appearance: Clys		λ.	Color: Clew Other:	
		nther Conditions (required daily, or	e Sacration and the sacration		llook: Pre-	cipitation: Y or N
	1	26. Where ca	Well volume calculations if required	)		
FIELD COMMENTS		XXX M. LALMA				
MIMO.	_					
inc.	_					
	l co-	tifu that sampling propertures were to	in accordance with anoticeble EDA C	late, and WM, protocols (if more than on	e esmulae   all should al-al-	
	1	0,2,14 MA	H Ollan	Marin on Mar	-	Engineers
	_	Dute Nume		Signature	Сопрену	

		VFORMA	TION FORM	И	V	
Site Nam	P: Olympic view Santary Landini	n is to be completed, in	Information Form is Requi addition to any State Forms of Custudy Forms that accom-	The Field Form is	Laboratory Use Only/I	ah ID:
No.			not is returned to the Inhorated			
PURGE	06021141 11100 001	05				
2	PURGE DATE PURGE TIME ELAPSI (MM DD YY) (2400 Hr Clock) (biss Note: For Pussive Sampling, replace 'Water Vol in Casing" and "Well Vols Purge	min)	WATER VOL IN CAS (Gathons) ing/Flow Cell-and Tubing/Fl		L VOL PURGED (Gailean) Mark changes, record fo	WELL VOL  PURGED Id data, below.
FE E	Purging and Sampling Equipment Dedicated:    Y   V   N	File	Device: N N	0.45 µ or	p (circle o	fill in)
PURGESAMPLE	Sampling Device   B-Perisattic Pump   E-Piston Pum  Sampling Device   C-QED Bladder Pump   F-Dipper/But	1	1111	3-Pressure	X-Other	
FURC	X-O <sub>l</sub> he <sub>l</sub> :	Va.		A-Teffon 3-Stainless Steel	C-PVC X-C D-Polypropylene	liher:
DATA	Well Elevation (at TOC) Depth to Water (from TOC)	(DTW) 5		Groundwater Eleval site datum, from Ti		(fi/msl)
WELL	Total Well Depth (from TOC)  Note: Total Well Depth, Stick Up, Casing Id, cic. are optional and can be from this		(n) I	D (in		si be current.
	Sample Time Rate/Unit pH Conductance (SC/EC) (38d) (µmhos/cm @ 25 °C)	Temp. (°C)	Turbidity (NU)	D.O. (mg/L - ppm)	eH/ORP	DTW (fi)
	1:05 350 631 1114	9,94	1 1990	19:33	-151912	57733
£ \	11:018 2 6519 2 101	9.69	1 1 1 20	19 05	-56.2	573
ption	3-0633-	463	1 1/03	9,02	-151315	51782
V (0	11:14	9 0	1 1 11 10	17,14	-416.7	<u> </u>
STABILIZATION DATA (Optional)	170	95	11.50	9 20	-481	272
OLL		11,00		M .08	1101	- 755
TITI		1.1				
STAB		1.1				
L	ggented range for 3 connec, readings or	1.1			111	
no St	e Permit State requirements:  abilization Data Fields are Optional (i.e. complete stabilization readings for part	+I-0,5°C umeters required by W	+t- 10% ≤ 5 /M, Site, or State). These fi	+/- 0,2 elds can be used who	re four (4) field measur	Subflire chicals are required
by	State!Permit/Site. If a Data Logger or other Electronic format is used, fill in final re SAMPLE DATE  PH  CONDUCTANCE	adings below and subn	ni electronic data separately TURBIDITY	to Site. If more field	s above are needed, use	separate sheet or form.
DATA	(MM DD YY) (std) (umhos/em @ 25°C)	(°C)	(ntu)	(mg/L-ppm)	paragon rais	nits
FIELD	and Field Rendings are required (i.e. record field measurements, final stabilized	readings, passive sun	ple readings before sampli	ng for all field paras	neters required by State	PermitiSite.
	mple Appearance: Olican	Odor: Vor	Col-	or: alex	Other:	
W	eather Conditions (required daily, or as conditions change):	Direction/Speed:	Light Outloo	ok: Clen	Precipitatio	on: Y Or D
S	ecific Comments (including purge/well volume calculations if requir	red):				
NTS -	Do Myer not allowing - Man.					
PIELD COMMENTS						
00						
	ertify that sampling procedures were in accordance with applicable EPA,	State, and WM prot	ocols (if more than one s	ampler, all should		
	6,2,14 Matt O'Hum	AN	fen		SCS Engi	neers
1	Dete Nume	Signature		Co	трику	
	DISTRIBUTION: WHITE/ORIGINAL	Stays with Sample, Y	ELLOW - Returned to Cile	nt, PINK - Field Cop	y	

	Olympic View Sanitary Landfill	D INFORMA			
1	Site Sample MW29A  Sompte ID	This form is to be completed, in submitted along with the Chain containers (i.e. with the cooler r	indication to any State Forms. T of Custody Forms that accompa	The Field Form is any the sample Lat	Isratory Use Only/Lah ID:
PURGE	PURGE DATE PURGE TIME (MM DD YY) [2480 He Clock] Note: For Possive Stampling, replace "Water Ved in Custing" and "Wel	ELAPSED HRS (bismin) Vols Purged" of Water Vol in Ta	WATER VOL IN CASI (Gallous) https://doi.org/flow/Cell-und-Tubing/Flow	(Gall	PURGED
PURGESSAMPLE	Purging and Sampling Equipment Dedicated:  Purging Device A A- Submersible Pump D-I B-Peristatile Pump E-I Sampling Device A C-QED Bladder Pump F-D X-Other:	Sailer iston Pump Fi lipper/Bottle	lter Type: A B	-Teffon C-	Vacuum Other PVC X-Other:
į	(firms) (from 1	o Water (DTW)	4 0 V 0 10 10 10 10 10 10 10 10 10 10 10 10 1	roundwater Elevation ite datum, from TOC)	(fi/mel)
	Total Well Depth Stick U  (from TOC) (fi) (from g  Note: Total Well Depth, Stick Up, Cassing Id, ctc, are optional and cur	ound elevation)	(n) ID	1 1 1 1 1 1 1 1 1	Casing Material water Elevation must be current.
	Sample Time Rate/Unit pH Conductance (2400 Hr Clock) (sid) (µmhos/cm	(SC/EC) Temp. @ 25 °C) (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	cH/ORP DTW (mV) (fl)
onal)	1	8   6   9   7   7   19   6	319.4	11,7	5170 1135 15140 1136
ATA (Opti	114:017 1 46:217 1 10	90 96	1 18.1	1.6	5120 11316
STABILIZATION DATA (Optional)	1 14:11:3 1 6:2:5 1 0	911 96	13.3	1 14	500 1136
STABILE					
	Suggested range for 3 connect, readings or +/- 0.2 +/- 10.9 note Permit/State requirements:  Stabilization Data Fields are Optional (i.e. complete stabilization readin by State/Permit/Site. If a Data Logger or other Electronic format is used, fi	gs for parameters required by V	of- 10% ≤ 5	+/- 11.2	Subfline ur (4) field measurements are required
	SAMPLE DATE PH CONDUCT		TURBIDITY	DO DO	eH/ORP Other: Time
FIELD DATA	(MM DD YY) (std) (umbos/cm of the local Readings are required (i.e. record field measurements, final	911 96	(ntu) 33 uple readings before sampling	(mg/L-ppm)    O 4	(mV) Units  SOO Q
	Sample Appearance:	Odor: Non	Color	. clear	Other:
	Weather Conditions (required daily, or as conditions change): Specific Comments (including purge/well volume calculations	Direction/Speed:	Outlook	: covercast	Precipitation: Y or 😥
2	¥				
MEN.					
OMO:	•				
FIELD COMMENTS					
			A Pr. 500 - 1 - 1 - 1 - 1		
	OC 103 14 Bradley Beach	ble EPA, State, and WM prot	ocols (if more than one sur	mpler, all should sign):	SCS Engineers
	Dute Nume	Signature		Сомрин	,

				FIELD IN	FORMA	TION FORM	М	V	V <sub>A</sub> V <sub>A</sub> \
Si	I UIVIIDI	c View Sanit	tary Landfill	This Was	te Management Flei	d Information Form is Requi	irel	-	MANAGEMENT
Si	te	Sam		submitted	along with the Chair	n inhibition to any State Forms r of Custody Forms that accom- that is returned to the Inborates	many the sample	Jahrstatiwy Use Only/L	ah ID:
135	hi [ ]	Гол		mp4c 1D	(In white the control	Trial 1 - 15 the trace of the same of the	431		
13 (C)			124	10 00	0 5				
PURGE	PURGE D		PURGET			WATER VOL IN CAS	SING ACTUA	L VOL PURGED	WELL VOL
	(MM DD 1		(240) Hr C lace Water Vol in C		ún) I <sup>m</sup> wi Water Vol in Ti	(Gathons) shong/Flow Cell and Tubing/Fl	low Cell Vols Purged.	(Gulbons) Mark changes, record fiel	PURGED ld dura, below:
IPLE	Purging and Same	pling Equipme	m Dedicated:	Q m M		ler Device: Or N	0.45 p   or	p (c)rele or	
SAN	Purging Device Sumpling Device		A- Submersible B-Peristattic Pu	ımp E-Piston Pump	o F	- A	A-in-line Disposab B-Pressure	le C-Vacuum X-Other	
PURGESSAMPLE	Sampling Device		C-QED Bladde		le		A-Tellin	C-PVC X-O	ther:
-	X-Other:	L	v v v v		Sample	Tube Type: E	B-Stainless Steel	D-Polypropylene	
DATA	Well Elevation (at TOC)			Depth to Water () /msi) (from TOC)	OTW)	Late I for the second	Graundwater Eleva Isite datum, from T		(fi/msl)
WELL.	Total Well Dept (from TOC) Note: Total Well E		Casing Id. cic. are				Casing (in		er ha cureens
1.1	Sample Time (2400 Hr Clock)	Rate/Unit	рН	Conductance (SC/EC)	Temp. (°C)	Turbidity	D.O.	eH/ORP	DTW
1	1 2:48		(sid)	(jumhos/em @ 25 °C)	1 917	(nlu)	(mg/L - ppm)	(mV)	1 1146
	17:41	2**	61415	1127	96	- 0	1015		1146
(lauc	1254	3=		22	96	1018	14 VE 0	101810	111415
Opti	1,2,5,7		0 000	1122	916	12.7	1014	1101710	111416
TAC	2.0.0	4*	1	121	91		10,1	1 101616	111416
DA	121010		0516	W W A A	116		6.3	10/6:0	11:416
NOL					11	$\perp \perp \perp \downarrow$	-11		
STABILIZATION DATA (Optional)					1.1	11-11			
1BIL		$\dashv$							
ST				$\perp$	11				
L	upgested range for 3 cons	ec. readings or	11						
<u>n</u>	ose Permit/State requirem	enis: Is are Optional	+/- 0,2 [fi.e. complete stab	+i- 10% bilization readings for paran	+t-0,5°€ meters required by t	+i- 10% ≤ 5 WM, Site, or State). These fit	+/- 0,2 lelds can be used who	ere four (4) field measure	Subtlive ments are required
b	SAMPLE DATE	Data Logger	or other Electronic f	format is used, fill in final read CONDUCTANCE	dings below and subs	mit electronic data separately TURBIDITY	to Site. <u>Umore field</u>	ls above are needed, use s	separate sheet or form her: Time
DAT	(MM DD YY)	tof I	(std)	(umhos/cm @ 25°C)	(°C)	(mtw)	(mg/L-ppm)	(mV) Un	
FIELD DATA	06051	required (i.e	e. record field meas	1 2 1	andinos, passive sa	mple readings before sampling	on for all field paras	1 0 6 0	1300
	ample Appearance		Ci v		Odor: NON		or: Clear	Other:	remitigate.
٧	Veather Conditions	(required da	illy, or as conditio		irection/Speed:		ok: overcast		n: Y or N
s	pecific Comments	(Including p	urge/well volum	e calculations if require	d):				
۔ یع									
COMMENTS	1.7								
ME -				ii .					
200	17								
	9								
_	certify that sampling	procedures	were in accordance	ce with applicable EPA, S	tate, and WM pro	tocols (if more than one si	empler, all should s		
	06,03,14	B	adlay Be	ach	hell	2 Lens		SCS Engin	eers
		- No.	- 0		0				
	Dute	Nam		N. WHITE/ODICINAL	Signature	THE R. P. LEWIS CO., LANSING MICH.	Co	nipany	

_		DIEL D IVERADIA	ACTION: FOR		3050
	Olympic View Sanitary Landfill		left) futuranting Form is Requi	ired	
1	Site   Sample   No.:	W 3 9 submitted along with the Ch	, in addition to any State Forms ain of Custudy Forms that accord or that is returned to the laborate	grany the sample Laborat	ory Use Only/Lah ID:
H	Sonq	4c1D			
PHIDGE	PURGE DATE PURGE TIME	1 05			
N N	(MINI DO 11) (Smith Cite	ck) (brsanin)	WATER VOL IN CAS (Gatkins)	(Galloris)	PURGED
Ė	Note: For Passive Sampling, replace 'Water Val in Cas  Purging and Sampling Equipment Dedicated:		Tahing/Flow Cell and Tubung/Fl	low Cell Vols Purged. Mark clini  0.45 p.   or	p (circle or fill to)
PUBLISHERANDE	Purging Device A A-Submersible P B-Peristatile Pum C-QED Bladder I	•	A	A-In-line Disposable C-Vac B-Pressure X-Othe	* *
180	Sumpling Device C-QED Bladder I		1000	A-Teffine C-PVC	
-		Samp	e Tube Type: E	B-Stainless Steel D-Poly	rpropylene
	Well Elevation (at TOC)	Depth to Water (DTW) (from TOC)	1 CA G CO	Graundwater Elevation (site datum, from TOC)	(fi/msl)
	Total Well Depth (from TOC) Nose: Total Well Depth, Stick Up, Casing Id. erc. are up	Stick Up (from ground elevation) nional and cun be from historical data, unless		D (in) M	ising aterial or Elevation must be current.
Γ		Conductance (SC/EC) Temp. (µmhos/cm @ 25 °C) (°C)	Turbidity (NO)	D.O. eH	/ORP DTW
	10:412 1 6118	1248 109	211	2.5 -1	120   202
_	100:45	1248 109	11126	120 -11	140 2012
tions	1 10:418 1 3 6 2 16 31	1 121418 11018	1 1 1818	11.6 -11	1510 12,013.
0)	110:511 1 16:219 1	1 12 14 1 1 1018	11911	11.4 -11	1510 121012
ATA	010:514 1 6:310	1 12 15 1 109	86	112 -11	410 2012
NO		1111 11			
STABILIZATION DATA (Optional)			1111	1.1	
BILI			1111		
ST					
	Suggested range for 3 consec, readings or +/- 0.2	*/- 10% */- 0.5°C	+/- 10% s 5	+/- 0.2	
	note Permit/State requirements:  Stabilization Data Fields are Optional fi.e. complete stabili	itation readings for parameters required b	WM, Site, or State). These fit	elds can be used where four (4	Subflice    field measurements are required
3	by State/Permit/Site. If a Data Logger or other Electronic for SAMPLE DATE pH	mat is used, fill in final readings below and so  CONDUCTANCE TEMP.	turbility		ORP Other: Time
Ž	(MM DD YY) (std)	(umhos/cm @ 25°C) (°C)	(Mtu)		mV) Units
FIELD DATA	Final Field Readings are required (i.e. record field measure	251 109	sumple readings before sampli	ny for all field parameters rea	40 1054
_	Sample Appearance: Cleny				Other:
	Weather Conditions (required daily, or as conditions		Access to the second se	ok: Overcust	Precipitation: Y or N
	Specific Comments (including purge/well volume	calculations If required):			
LS					
FIELD COMMENTS					
MOX					
ě					
	I certify that sampling procedures were in accordance		rotocols (if more than one si		20 5
	06,03,14 Bradley Beach	had	you of	S	CS Engineers
	Diste Nume	Signuture		Company	

Γ,	cte	INFORMATION FORM
Nu	ume: Olympic View Santary Landrill This This This This This This This This	Waste Minumement Field Information Form is Required form is to be completed, in addition to any State Forms. The Field Form is interfacing with the Chain of Custody Forms that accompany the sample.  Laboratory Use Only/Lab ID:
	Controllers   Co	theractic with the cooler that is returned to the Inforatory).
GE	060314 0939	005
PURGE	None: For Passive Sampling, replace "Water Vol in Casing" and "Welt Vols Pu	PSED HRS WATER VOLIN CASING ACTUAL VOL PURGED WELL VOLS  Its anim ) (Gathers) (Gathers) PURGED  Regord" of Water Vol in Tahing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.
MITLE	Purging and Sampling Equipment Dedicated: You or N  Purging Device A A-Submersible Pump D-Bailer	Filter Devices or N 0.45 µ or µ (sircle or fill in)  A-In-line Disposable C-Vacuum
PURGESSAMPLE	Purging Device A A- Submersible Pump D-Bailer B-Peristallic Pump E-Piston P C-QED Bladder Pump F-Dipper/E	Pump Filter Type: A B-Pressure X-Other Bottle
$\vdash$		Sample Tube Type:  A-Teflon C-PVC X-Other:  B-Skrinless Steel D-Polypropylene
	Well Elevation Depth to Water (at TOC) (from TOC)	er (DTW) 3 1 8 5 (n) Groundwater Elevation (site datum, from TOC) (fi/mul)
	Total Well Depth Stick Up  (from TOC)  Note: Total Well Depth, Stick Up, Casing Id. cic. are optional and can be from	Casing Casing Casing Casing (in) Material (in) Material (in) Material (in) Material (in) Casing (in) Material (in) Material (in) Material (in) (in) Material (in) (in) (in) (in) (in) (in) (in) (in)
	Sample Time Rate/Unit pH Conductance (SC/Er (2400 Hz Clock) (atd) (µmhos/cm@ 25 °C	C) Temp. Turbidity D.O. eH/ORP DTW
	019:412 1 -613/2 - 1112/7	1 125 1146 116 670 13118
(le	09:45 12-613142-1121	1 11213 1 1814 1116 519.6 311.7
ption	019:418 1 3-61319 3- 111210	0 11213 1 1614 115 151310 131118.
[A (O	0.9:511 1 40 61410 10 1121	1 1,2,2 1 6,7 1,3 14,8,0 31,18
I DAT	0 9 5 9 1 6 9 13 1 1 2 0	0 123 66 12 430 3117
TIOP.		┥┝╧┩┡┵┵┪┠┷┩┠╁┪
LIZA		<del>┩┞╌┋┩┞╌╌┋┩┡╬┋┩┡╌╒┩</del>
STABILIZATION DATA (Optional)		
	Suggested range for 3 connect, readings or +/- 0.2 +/- 10% note Permit/State requirements:  Stabilization Data Fields are Continued (i.e. complete stabilization readings for D	+/-0,5°C +/-10% ≤ 5 +/-0,2 Sumbline
	by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final	parameters required by WM, Sile, or State). These fields can be used where four (4) field measurements are required at readings below and submit electronic data separately to Site. If more fields above are needed, use separate sites or form
DAT/	SAMPLE DATE pH CONDUCTANCE (MM DD YY) (std) (umhos/cm @ 25°C)	11014
FIELD DATA	6 43 120	2 2 4 3 0 0 9 5 9 seed readings, passive sample readings before sampling for all field parameters required by State/PermitiSite.
	Sample Appearance: Dowticulates	Odor: None Color: Clear Other:
	Weather Conditions (required daily, or as conditions change):	Direction/Speed: (p N Outlook: Overfact Precipitation: Y or N
	Specific Comments (including purge/well volume calculations if requ	uired):
SEN.		
COMMENTS		
OTEL.		
	I certify that sampling procedures were in accordance with applicable EP/	A, State, and WM protocojs (if more than one sampler, all should sign):
	06,03 14 Bredley Beach	SCS Engineers
		Signature Compuny

	EIEI D	INFORMATION FORM
Sie	Olympic View Sanitary Landfill	INFORMATION FORM Waste Minagement Field Information Form is Required
Num	e: Links	from is to be completed, in addition to any State Forms. The Field Form is intent along with the Chain of Custudy Forms that accompany the sample.
No.		tines (i.e. with the cooler that is returned to the Inhoratory).
$\vdash$	Interference Interference	
35	0 6 0 3 1 4 0 8 5 0	010 5
PURGE		PSED HRS WATER VOL IN CASING ACTUAL VOL PURGED WELL VOL  (Gathons) (Gathons) PURGED
<u> </u>	Note: For Passive Sampling, replace Water Val in Casing and Well Vols Pu	surged" of Winer Vol in Tahing/Flow Cell and Tahing/Flow Cell Vols Purged. Mark changes, recent field data, below.
PURGESAMPLE	Purging and Sampling Equipment Dedicated:  Purging Device   A-Submersible Pump D-Bailer	Filter Device: or N 0.45 µ or
JRGESAMPL	B-Peristattic Pump E-Piston P	
URGE	Sampling Device C-QED Bladder Pump F-Dipper/E	A-Teflon C-PVC X-Other:
$\overline{}$	X-Other:	Sample Tube Type: B-Stainless Steel D-Polypropylene
DATA	(at TOC) Depth to Water (from TOC)	er (DTW) 3365(n) Graundwater Elevation (fi/msl)
WELL	Total Well Depth (from TOC) (In) (from ground e	
-		n historical data, unless required by StietPermu, Well Elevation, DTW, and Groundwater Elevation must be current.
ı, e	Sample Time Rate/Unit pH Conductance (SC/E 2400 Hr Clock) (std) (µmhes/em @ 25 °C	
	018:515 1 161318 1 111318	8 1116 1145 128 340 3316
	018:518 206:415 20 113:5	5 1115 145 1211 -1110 31317
C C	019:011 3-615163-111314	4 1113 1115 112 -12110 131317
<u></u>	019:014 1 4061611 40 111313	3 1:113 1 13.4 11.0 -131010 131316
ATA C	9:07 667 1133	5 111.2 1127 18 -31310 31316
Z C		
STABILIZATION DATA (Optional)		<b>┪╒╌╸</b>
ZI7		┪┠ <del>╌</del> ╸┪┞╧╧╁╸┫┠╁╸┫┠╁┼┪
ABI		┫ <del>╒╒┋</del> ┩╒╧╧╧┪┠┵╃┨╟┵╃┫╟┵┷┩
S		<del>┨┠╧┷┩╞╧╧╧┩</del>
11200	ggested range for 3 consec. readings or +/- 0.2 +/- 10%	4/-0,5°C
St	e Permit/State requirements:  abilization Data Fields are Optional (i.e. complete stabilization readings for the	parameters required by WM. Site, or State). These fields can be used where four (4) field measurements are required
	SAMPLE DATE pH CONDUCTANCE	tl readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet or form.  E TEMP, TURBIDITY DO eH/ORP Other: Time
DVI	(MM DD YY) (std) (umbos/cm @ 25°C)	
FIELD DATA	60319 667 133	zed readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.
	imple Appearance: Usass	
	eather Conditions (required daily, or as conditions change):	Direction/Speed: [2 N Outlook: Overcast Precipitation: Y or N
	ecific Comments (including purge/well volume calculations if requ	
	•	
COMMENTS		
¥-		
	notific that compiles according to the second secon	DA Since and DDA American Information
1 0		PA, State, and WM protocols (if more than one sampler, all should sign):
(	Dlo 103 114 Gradley Beach	SCS Engineers
15	Date Name	Signature

Г	FII	ELD INFORMAT	ION FORM	!	
	Olympic View Sanitary Landfill	This Waste Management Field to This form is to be completed, in add		ie Field Form is	WARTE MANAGEMENT
	Sample   Sample   WW - 1   Somple 10	submitted along with the Chain of Cooper that		ity ine saturbie	ratory Use Only/Lab ID:
35	060314 0908	00015			
PURGE	PURGE DATE PURGE TIME (MM DD YY) [2-40) Hr Clock1 Note: For Passive Sampling, replace 'Water Val in Cusing' and '	(bisania)	ATER VOL IN CASIN (Gathan) giflow Cell and Tubingiflow	(Galleri	*) PURGED
APLE	Purging and Sampling Equipment Dedicated:	<u> </u>	Device: N	D.45 B OT	p (strete or fill in)
PURGE/SAMPLE	Purging Device A - Submersible Pump B-Peristatile Pump C-QED Bladder Pump	D-Bailer E-Piston Pump F-Dipper/Bottle	1 & 1	in-line Disposable C-V Pressure X-O	
PURG	X-Other:	Sample Tub		Tellon C-Pi Stainless Steel D-Po	VC X-Other:
	(fumsi) (fro	on TOC)	V 1 / 1 / 1	nundwater Elevation e datum, from TOC)	(R/msl)
		k Up m ground elevation) from historical data, unless requir	(n) ID	(in)	Casing Material mer Elevation must be current.
		nnce (SC/EC) Temp. icm @ 25 °C) (°C)	Turbidity (nlu)	D.O. (mg/L - ppm)	eH/ORP DTW (nV) (fi)
	09:113 250 1. 5,72 1.	191 1014	1/12/12	530 -	2416 11876
(le	09:118	185 1047	1739	1201	657 11876
STABILIZATION DATA (Optional)	09:25	182 1042	1 1307	10,78	15,12 11,876.
LA (C	0972	178 10191	1 12 12	1065	790 10
V DAT	019:311 1 6:718	1:71 110.4	1 109	085 -	719:8
TION				++	
LIZA					
TAB					
S					
. 8	note Permit/State requirements:	10% +/-0,5°C	+/- 10% ≤ 5	+/- 0,2	Smbilipe
	Stabilization Data Fields are Optional (i.e. complete stabilization re- by StatelPermit/Site. If a Data Logger or other Electronic format is use	d. fill in final readings below and submit of	electronic data separately to	Site. If more fields above	are needed, use separate sheet or form,
DAT		UCTANCE TEMP, em @ 25°C) (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	H/ORP Other: Time (mV) Units
PIELD DATA	DODS 4 4 678 Find Field Readitions are countred (i.e. record field measurements, )	final stabilized readings, passive sample	readings before sampling	for all field parameters r	79,8 0931 equired by State/Permit/Site.
	Sample Appearance:	Odor:			
1	Weather Conditions (required daily, or as conditions change Specific Comments (including purge/well volume calculati		Outlook:		Precipitation: Y or N
	App III Both set Alle				
FIELD COMMENTS	11				
MIMO					
oq.					
MI.					
	I certify that sampling procedures were in accordance with app	olicable EPA, State, and WM protoco	ols (if more than one sum		0005
	DISIM FORTUHE	- Aut			SCS Engineers
		177			

Γ,	iite	Ĭ a	\. 5 \ 7 \ 3		FIE	1		TION FORM		V	
N <sub>1</sub>	ıme: ilte	Ulympi	c View Sanit	ipte I Mill	-13141	This form submitted	is to be completed, in along with the Chains	Information Form is Resour- idation to any State Forms (Custody Forms that accomp	The Field Form of a pany the sample	Laboratory Use Only/	Lab ID:
Ľ	in,:		Pol		iomple ID	Continuers	the with the easter in	nt is returned to the laborator	(y)		
PURGE	INFO	0603	,1141		00	90	30	ШЦ			
2	2	PURGE D (MM DD 1 Nove: For Positive	YY)	PURGE (2400 Hr lace Water Val in	Clock)	ELAPSEI (brsim Well Vols Parges	in)	WATER VOL IN CAS (Gathous) ing/Flow Cell-peop Futhing/Flo		L VOL PURGED (Gallwar) Mark changes, record fi	WELL VOLs PURGED eld data, below.
API.E	F	Purging and Sump	pling Equipme		(ix)	or N D-Bailer		r Devices N	0.45 p or	μ (circle c	
PURGE/SAMPLE	EQUIPMENT	Sampling Device	.7	B-Peristable I C-QED Blade	ump <sub>e</sub>	E-Piston Pump F-Dipper/Bond		er Type:	3-Pressure	X-Other	
_	_	X-Other:					Sample T	. 1 1 1	A-Teffon 3-Stainless Steel	C-PVC X-0 D-Polypropylene	Other;
	DATA	Well Elevation (at TOC)	Ш			th to Water (I m TOC)	DTW)		Groundwater Elevat site datum, from TC		(fl/msl)
	WELL	Total Well Dept (from TOC) Note: Total Well L				n ground eleva			Casing Lin		ısı be current.
		smple Time 100 Hr Clock)	Rate/Unit	pH (sid)		ince (SC/EC) cm @ 25 °C)	Temp. (°C)	Turbidity (nlu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
	1	1:30	300	61717	I*	239	1266	17.83	084	-106	9/132
(Jamo	-	0 4: (	2	( -1 -	2nd	739	17 75	1758	0 SH	~637 -637	1911 125
(Optional)	Ì	11:45	<b>Y</b> .		4 <sup>th</sup>	2,39	17270	11717	0.55	-999	14/132
STABILIZATION DATA		111	_1_		1	11					
HOLL			1			11-		1111	11		111
HLIZA											
STAI					11	1.1		1111			
		ested runge for 3 cons		+/- 0,2	+/-	10%	+/-0,5°C	+I- 10% s 5	+/- 0,2		Sanbiline
	Stab	Permit/State requirem ilitration Data Field total Permit/Site If a	is are Optiona	fi.e. complete sta or other Electronic	obilization rec format is used	adings for param d. fill in final rea	neters required by W	M, Site, or State). These fit is electronic data separately:	elds can be used whe	re four (4) field measus subove are needed, us	rements are required
ATA		SAMPLE DATI		pΗ	CONDI	JCTANCE	ТЕМР.	TURBIDITY	DO	eH/ORP O	ther:Time
FIELD DATA	Finn	(MM DD YY)  6031  Field Readings as	Y L	(std) 677		25°C)	LIZ 70	ole readings before sampli	(mg/L-ppm)	-909	nits
_		sple Appearunce	01	ouly			Odor: Mo	Cole	4-	Other:	77 CFINISONCE
		nther Conditions			1900000		irection/Speed:	13ht Outloo	ok: Overa	St Precipitation	on: Y or 🕟
	Spin	Comments	(Including p	urge/well volui	me calculati	ons if require	d): C. e.o	Stadel R	1		
ENTS	_	10,00	100		150	71 501	toral -	100000 1	wyu		
FIELD COMMENTS											
CDC											
	_										
	I cer	tify that sampling	g procedures	were in accorda	OUTU	Nicable EPA, S	state, and WM proto	cols (if more than one si	impler, all should s	(gn): SCS Engi	neers
	_			( 10/ 1							
		Dute	Nun		ON: WHITE	ORIGINAL - S	Signature Stays with Sample, Y	ELLOW - Returned to Cile		nipury V	

[	FIELD INFORMATION FORM	
Nam Site	This found is no the completeer in inclusion to any State Founds. The Field Found	Laboratory Use Only/Lab ID:
No.		][
w,	- 06/013/1M 11414/01 10/01/05 11/11/11	
PURGE	PURGE DATE PURGETIME ELAPSED HRS WATER VOL IN CASING ACT	UAL VOL PURGED WELL VOL
	Nose: For Passive Sampling, replace Water Vol in Casing and Well Vols Purged" of Water Vol in Tahing/Flow Cell and Tahing/Flow Cell Vols Purged	
PURGESSAMPLE	Purging and Sampling Equipment Dedicated: Y or N Filter Device Y or N 0.45 µ or Purging Device A-Submersible Pump D-Bailer A-In-line Dispo	r µ (virely or fill in)  Sable C-Vacuum
RGE/S	Purging Device  A- Submersible Pump B-Perlstatile Pump B-Perlstatile Pump C-QED Bladder Pump C-QED Bladder Pump B-Perlstatile Pump F-Dipper/Boule A-Teflon	X-Other C-PVC X-Other:
DATA		
WELL	Total Well Depth   Stick Up   Casing   (from TOC)   (from ground elevation)   (ii)   ID   Note: Total Well Depth, Stick Up, Casing Id, etc. are optional and can be from historical data, unless required by Site/Permit, Well Elevation, DTW, in	Casing (in) Material and Groundwater Elevation must be current.
	Sample Time Rate/Unit pH Conductance (SC/EC) Temp. Turbidity D.O. (2400 Hr Clock) (skd) (µmhos/em @ 25 °C) (°C) (n(u) (mg/L - ppm	eH/ORP DTW
L	14:42 018 618	1   1
(le	14:50 20 (01912 - 145 9.73 1178 34	-9711 P32
ption	14:55 30 195 962 245 30	1 -1119 1232
TA (6	5.00	1742
NDA	1510 771 194 951	7-1258 238
ATT0		1423
STABILIZATION DATA (Optional)		
STA		
Su	Suggested range for 3 consec, readings or +/- (1,2 4/- 1)7% 4/- (1,2 4/- 1)7% 5 5 +/- (1,2	
St	nois Permit/State requirements:  Stobilization Data Fields are Optional fi.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data segmentally to Site. If more	where four (4) field measurements are required
	SAMPLE DATE PH CONDUCTANCE TEMP. TURBIDITY DO	eH/ORP Other: Time
FIELD DATA	060314 7711 144 99 1166 036	-1258 1510
	Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field passive sample Appearance:  Odor: Color: Cur	Other:
W	Weather Conditions (required daily, or as conditions change): Direction/Speed: Lyfut Outlook: Dwo	Precipitation: Y or N
Sp	Specific Comments (including purge/well volume calculations if required):	
STN3		
COMMENTS		
	MW-338 = 2,38	
le	I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should be a sample of the	
	WISH TOWN TO THE T	SCS Engineers
	Dute Nume Signature	Сомрану

Γ	_ , ,	NFORMA	TION FOR	М	V	
Nu	ne: Olympic view Santary Candrill This for	m is to be completed, in	I futurenation Form is Requi	The Field Form is	Laboratory Use Only/	sh ID:
Si N			of Custudy Entries that account that is relatived to the laborate	7		
36	060314 6345 00	105				
PURGE		ED HRS	WATER VOL IN CAS (Gathous)	sing ACTUA	L VOL PURGED	WELL VOL
щ	New: For Passive Sampling, replace Water Val in Casing and Well Vals Purs  Purging and Sampling Equipment Dedicated:	ged" of Winer Vol in To		low Cell Vols Purged.		dd data, below,
AMPL	Purging Device A- Suhmersible Pump D-Bailer			A-In-line Disposabi	e C-Vacuum	, ,,,,
PURGE/SAMPLE	Purging Device  A- Submersible Pump  B-Peristatile Pump  C-QED Bladder Pump  F-Dipper/Bo	•		B-Pressure A-Tellon	X-Other	Other:
_	A-Diller:	774 AV 14	Tube Type:	B-Stainless Steel	D-Polypropylene	
DATA	Well Elevation Depth to Water (at TOC) (from TOC)	(DTW)	1/100 km	Greundwater Eleva (site datum, from T		(n/mst)
mer	Total Well Depth (from TOC)  Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and cun be from h		(n) [	Casing   (in Elevation, DTW, and G		ist be current.
١,	Sample Time Rate/Unit pH Conductance (SC/EC) (2400 Hz Clock) (std) (µmhos/em @ 25 °C)	) Temp. (°C)	Turbidity (ptu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (fi)
	7317 1128	PISI	573	185	-192,4	1700
ब्र	19:05	9 51	1 281	1092	-101 7	17,00
	3" 17 3" 17 3" 17 3"	9 45	61019	1008	-1018	1 12 90
TAG	4 120 4	TIPIS	1600	1967	-10111	1100
STABILIZATION DATA (Optional)						
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Į	uggested range for 3 consec. readings or		1111	1.1		
1	pe Permit/State requirements:  10	+/-0,5°C cameters required by V	+i- 10% ≤ 5 VM, Site, or State). These fi	+/- 0,2 ields can be used who	re four (4) field measur	Subflice cinents are required
	SAMPLE DATE PH CONDUCTANCE	endings below and subs TEMP.	nti electronic data separately TURBIDITY	no Site. If more field		separate sheet or form, ther: Time
D DATA	(MM DD YY) (std) (umbos/cm @ 25°C)	1914	(ntu)	(mg/L-ppm)	(mV) U	nits
dual i	ingl Field Readings are required (i.e. record field measurements, final stabilized	readings, passive sar	nple readings before sample	ing for all field paras	meters required by State	PermitiSite.
	ample Appearance: Cler	Odor: No	~ Col	or: Clen	Other:	
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	pecific Comments (Including purge/well volume calculations if required to the state of the state	red):	And Wil			
FIELD COMMENTS	Crowber from bue in	- myn	TALONOD			
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	certify that sampling procedures were in accordance with applicable EPA	, Stale, and WM pro	tocols (if more than one s	ampler, all should i		
	6,2,14 /V/01/10/fm	1/14			SCS Engi	neers

Γ	_	70			FI	ELD IN	FORMA	TION FORM	И		
Ni	site ume:	Olympic	View Sanit	ary Landfill		This from	is to be completed, in	Information Form is Requi	The Field Form is	Labaratury Use Onl	AGTE MANAGEMENT
	iite lo.:		Sam Poli	i: <u>"YM</u>	- 4  <b>3</b> Sample 1D			of Clasticidy France (but account not is required to the Juborator		12manuary Ove Our	year to:
35	Q	0601	1141	08	12	Del	05				
PURGE	INFO	(MM DD Y	(Y)	PURGE (2401 H. lace 10'arer Vol II	r Clock)	ELAPSE (brsin SWell Vols Purge	tin)	WATER VOLIN CAS (Gallens) ung/Flow Cell und Tubing/Flo		L VOL PURGED (Gullous) Mark changes, record	WELL VOLS PURGED Reld data, below,
PI E	Ę	Purging and Samp		ni Dedicated:	( Y	Dir [N]	1000	or Device N N	0.45 µ or _	n (eirek	or fill inj
PURGE/SAMPI.E	EQUIPMENT	Purging Device Sampling Device	A	A- Submersit  B-Peristattie  C-QED Blade	Pump	D-Bailer E-Piston Pum		/3	A-in-line Disposabi 3-Pressure	X-Other	
PURG	ğ	X-Other:		CAGED BIND	oci Fullip	F-Dipper/Bott		CUZ-LOCACO-O-O-O	A-Teflon B-Stainless Steel	C-PVC X D-Polypropylene	-Other:
	DATA	Well Elevation (at TOC)			The state of	pth to Water ( om TOC)	DTW) 2	I /I X I I	Groundwater Eleva site datum, from T		(fl/msl)
	WELL	Total Well Depth (from TOC)		Casing Id. etc. a	(f) (fre	ck Up om ground eleva d can be from his			Casing (in	The state of the s	must be current.
Г		ample Time 400 Hr Clock)	Rate/Unit	pH (std)	Conduct	ance (SC/EC) /cm @ 25 °C)	Temp.	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (fi)
	0	1:8	250 1	1/2 11-1	r <sup>u</sup>	525	1 1 58	58.0)	078	-72,5	1217 83
=	0	18:20	2 2	651	2**	530	11155	499	068	-32	270
(Optional)	0	18:23	3~	6.513	3 <sup>r4</sup>	529	1 53	1 300	0.57	-13171	2781
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	Stat	pested runge for 3 const Permit/State requiremental https://doi.org/10.1007/journal.pub.	s are Optional	+/- 0.2 fi.e. complete s	nhilizatina re	i- 10% eadings for para	#1-0,5°C meters required by W	+/- 10% ≤ 5 'M, Site, or State). These fi	+/- 0.2 elds can be used who	re face (4) field meas	Subflice Surements are required
<u>⊀</u>	by S	SAMPLE DATE	Date Logger	or other Electron	c format is us	ed. fill in final red UCTANCE	TEMP.	til electronic deta separately TURBIDITY	to Site. If more field	's above are needed, i	ne separate sheet or form. Other: Time
FIELD DATA	0	(MM DD YY)	Iu	(md) [6 5 7		km @ 25°C)	(°C)	(ntu)	(mg/L-ppm)	00000045333	Units D
ME	Flor	al Field Readings ar	e required (i.e	e. record fleld m	easurements,	final stabilized t		ple readings before sampli	ng for all field paras	neters required by Su	neiPernitiSite.
		aple Appearunce ather Conditions	-	en	41	.). F	Odor: 10	Col	or: Che	Other:	
		eific Comments (					Direction/Speed: <u> </u>	J 041770 04080	ok: <u>UNES C</u>	Precipita	lion: Y of N
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FIELD COMMENTS	_										
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	l ce	rtify that sampling	procedures	were in accord	ince with an	nlicable FPA	State, and WM dent	ocols (if more than one si	ampler all should	ulan):	
		6,4,4		MM	- 9l	tur	_ ///	All	suprem an around )	SCS Eng	gineers
		1	-				7				
		Dute	Nun		ION: WHIT	E/ORIGINAL -	Signature Stays with Sample, 's	ELLOW - Returned to Cile		Hipany Y	

	FIELD INFORMATION FORM
Sit Nan	This Waste Management Field Information Form is Required
Sit No	Point: Point:   Containers (i.e. with the cooler that is returned to the laboratory).
<u>E</u>	Sample ID Sample
PURGE	PURGE DATE PURGE TIME  (MM DD YY)  (2400 Hr Clock)  (hts:min)  (Gallons)  (Gallons)  (Gallons)  (Gallons)  PURGED  Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell-pag Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.
PURGE/SAMPLE	Purging and Sampling Equipment Dedicated: V Dr   N   Filter Device: V or   N   0.45 m   or
_	Well Elevation   Depth to Water (DTW)   Z   S Groundwater Elevation   Groundwater Elevation   Groundwater Elevation   Groundwater Elevation   Grown TOC)   Grown
WELL DATA	Total Well Depth (from TOC)  Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.
ELD DATA	Sample Time Rate/Unit pH (std) (amhos/cm@25°C) Temp. (Turbidity (ntu) (mg/L - ppm) (m/V) (ft) (2400 Hr Clock)  3 7 8 1
	nal Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.    Ample Appearance:
	pecific Comments (including purge/well volume calculations if required):
ENTS	
COMMENTS	
FIELD C	
7.5	The state of the state of WM and the state of the state o
	certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):
	Date Name Signature Company
	DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, VELLOW - Returned to Client, PINK - Field Conv

	FIELD INFORMATION FORM	\
Sit Nan	e:  This Waste Management Field Information Form is Required  This form is to be completed, in addition to any State Forms. The Field Form is	<u>*</u>
Sit No	Sample Sample In Submitted along with the Chain of Custody Forms that accompany the sample Laboratory Use Only/Lab ID:	
_	Sample ID	
E 6	060414 1704 0005	
PURGE		
	(MM DD YY) (2400 Hr Clock) (hrs:min) (Gallons) (Gallons) PURGED  Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.	
PURGE/SAMPLE	Purging and Sampling Equipment Dedicated: ( or N Filter Device ) or N 0.45 µ or µ (circle or fill in)  Purging Device   A-Submersible Pump D-Bailer   A-In-line Disposable C-Vacuum	
RGE/SAMPL	B-Personal E-Piston Pump Filter Type:  B-Personal B-Pressure X-Other	
URG	Sampling Device C-QED Bladder Pump F-Dipper/Bottle  X-Other:  Sample Tube Type:  A-Teflon C-PVC X-Other:  B-Stainless Steel D-Polypropylene	-
	Well Elevation     Depth to Water (DTW)   7   Groundwater Elevation	
L DATA	(at TOC) (ft/msl) (from TOC)   S   N (ft) (site datum, from TOC) (ft/msl)	)
WELL	Total Well Depth (from TOC)  Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.	
	Sample Time Rate/Unit pH Conductance (SC/EC) Temp. Turbidity D.O. eH/ORP DTW 2400 Hr Clock) (std) (µmhos/cm@25°C) (°C) (ntu) (mg/L - ppm) (mV) (ft)	
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onal)	12:15 3" 60693" 325 1463 282 509 107 351	02
Opti	12:18 4" (0684" 328 1466 281 479 107 355	22
VIA (	17:71 667 328 1468 309 473 109 35	R
STABILIZATION DATA (Optional)	7.2 4 667 330 1470 397 477 169 358	3z
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LIZ/		
FABI		7
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	aggested range for 3 consec. readings or +/- 0.2 +/- 3% +/- 10% +/- 25 mV Stabilize	
S	abilization Data Fields are Optional (i.e., complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required state/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fileds above are needed, use separate sheet or	
_	SAMPLE DATE PH CONDUCTANCE TEMP. TURBIDITY DO eH/ORP Other:	
FIELD DATA	(MM DD YY) (std) (umhos/cm @ 25°C) (°C) (ntu) (mg/L-ppm) (mV) Units	4
E	inal Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.	
	ample Appearance: Odor: Color: Color: Other:	~
	Veather Conditions (required daily, or as conditions change): Direction/Speed: Outlook: Precipitation: Y or pecific Comments (including purge/well volume calculations if required):	D
	Forms Community (minimum grand minimum modulus).	_
COMMENTS		_
MM	***************************************	_
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FIELD		
1.00	certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):	
	6,4,14 Mast Ollfan MM 45	
	Date Name Signature Company  DISTRIBUTION: WHITE/ORIGINAL-Stays with Sample, YELLOW - Returned to Client. PINK - Field Copy	

Site Nam Site No.	This Waste Management Field Information Form is Required  This form is to be completed, in addition to any State Forms. The Field Form is  te       Sample	Laboratory Use Only/Lab ID:
PURGE		L VOL PURGED WELL VOLs (Gallons) PURGED Mark changes, record field data, below.
PURGE/SAMPLE	Purging and Sampling Equipment Dedicated:  Purging Device  A-Submersible Pump B-Peristaltic Pump Sampling Device  C-QED Bladder Pump  A-Teflon Sample Tube Type:  B-Peristance  A-Teflon B-Stainless Steel	μ (circle or fill in)  e C-Vacuum  X-Other  C-PVC X-Other:  D-Polypropylene
WELL DATA	Well Elevation (at TOC)  Depth to Water (DTW) (from TOC)  Groundwater Eleva (site datum, from TOC)  Total Well Depth (from TOC)  Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and G	Casing Material (ft/msl)
STABILIZATION DATA (Optional)	Sample Time (2400 Hr Clock)    Add   Clock   C	ACCOUNT OF THE PERSON OF THE P
FIELD DATA	(MM DD YY) (std) (umhos/cm @ 25°C) (°C) (ntu) (mg/L-ppm)  O ( O 4 1 4 6 5 7 1 1 5 0 1 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	(mV) Units
V	Sample Appearance: Color: Cluw Weather Conditions (required daily, or as conditions change): Direction/Speed: Outlook:  Specific Comments (including purge/well volume calculations if required):	Other:  Precipitation: Y or N
I	I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should be a signature of the sample of t	sign):

Г		IELD INFORMA	TION FORM	1	V	$\sqrt{\Lambda}$
	Olympic View Sanitary Landfill me:	This Waste Management Fleid This form is to be completed, in		he Field Form is	UNA.EM	TE MANAGERIEST
	Sample MU-34	substituted along with the Chain of containers (i.e. with the coaler the		ritis une sactudare	alsoratory Use Only/La	ah ID:
_		1-1-1-10/1	1 1 1 1	1 1 1	1 1 1	
PURGE	PURGE DATE PURGE TIME	0101015				
2	(MM DD YY) [240) Hr Clock)	ELAPSED HRS (bisanin)	WATER VOL IN CASH (Gatheries)	(G)	OL PURGED	PURGED
TE I		7	er Device: (Y) or   N	e Cell Vals Purged. Ma   0.45 p   or	p (citele o)	
AMP	Purging Device A-Submersible Pump B-Peristatile Pump	D-Bailer E-Piston Pump Fil	A	in-line Disposable (	C-Vacuum X-Other	
PURGE/SAMPLE	Purging Device A- Submersible Pump B-Peristatile Pump C-QED Bladder Pump	F-Dipper/Boule	-		C-PVC X-OI	her:
-	- X-D(he):		uhe Type: B-	Stainless Steel 1	D-Polypropylene	
Ė		rom TOC)	20121	roundwater Elevation te datum, from TOC		(fi/msl)
0 00/00	Total Well Depth (from TOC) (ft) (G) (G) (G) (G) (G) (G) (G) (G) (G) (G	tick Up from ground elevation) mud can be from historical data, waless rec	(n) (D	,	Casing Material Indivates Elevation mus	a be current.
		ctance (SC/EC) Temp. cs/cm @ 25 °C) (°C)	Turbidity (nto)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (fi)
	10:13 250 1602 1	1137 1248	1.13	6.6	156	3952
(l	10:16 1 20 610 6 20	1134 17243	1097	655	155	1319152
tions	10:119 30 6111 30	1133 12144	10.87	635	154.	39153
(O)	10:212 11 0012 1	1133 1244	1 1095	633	156	3952
DAT.	110:215	133 1243	10.75	632	155	3982
NOL	10:218	1133 12,43	1117.07	1631	ISST	39 52
IZAT			1111	1.1		
STABILIZATION DATA (Optional)			1111			
ST,						
	Suggested range for 3 connect readings or +/, +/, +/, 2	+/- 10% +/- 0,5°C	e/- 10% ≤ 5	+/- 0,2		Stabilize
	note Permit/State requirements: Stabilization Data Fields are Optional (i.e. complete stabilization	readings for parameters required by W	M. Site, or State). These fiel	ds can be used where	four (4) field measure	ments are required
	by State)Permit/Site. If a Data Logger or other Electronic format is to SAMPLE DATE pH CON	DUCTANCE TEMP.	TURBIDITY	DO DO		her:Time
PIELD DATA	(MM PD YY) (std) (umbo	nslem @ 25°C) (°C)		(mg/L-ppm)	(mV) Un	11 02 8
72	Final Field Readings are required (i.e. record field measuremens	z, final stabilized readings, passive son	ple readings before sampling	g for all field paramete	ers required by State/i	Permit/Site.
	Sample Appearance:	Odor: X to	Color	- Clev		
	Weather Conditions (required daily, or as conditions char-		Outlook		Precipitation	n: <u>Y</u> or <u>N</u>
	Specific Comments (including purge/well volume calcul	ations ii requirea):				
STA:						
COMMENTS						
OIE.						
	certify that sampling procedures were in accordance with a	applicable EPA, State, and WM prot	ocols (if more than one sar	mpler, all should sign	1):	
	o, 4, 14 Moston	- Al	un		SCS Engir	neers
	Dute Name	Signature		Comp	wrv .	
		ITE/ORIGINAL - Stays with Sample, Y	ELLOW - Returned to Cilen	. PINK - Field Copy	•	

# SCS ENGINEERS

September 25, 2014 File No. 04204027.17

**Subject:** Third Quarter 2014 Ground Water Monitoring Event

Olympic View Sanitary Landfill, Kitsap County, Washington

Sampling Event Dates: 9/22/14 through 9/23/14 Personell: Matt O'Hare and Bradley Beach

## NOTES/SAMPLING DECODING:

• Dedicated pumps were used for purging and sampling all wells.

- Duplicate samples were collected at MW-4 (DUP1) and MW-19C (DUP2).
- The Solinst model 101 water level meter was used to record all water level elevations.
- In addition to the monitoring wells where groundwater was collected for chemical analysis, additional wells were monitored for groundwater level elevations. A summary of measured water levels are included with the field documentation.
- Several clearing efforts should be made at the site going forward to ensure ease of access to all monitoring wells. Several well locks need replacement on the site.
- Well MW-42 was also sampled for the 5-year WAC 173-351-990 Appendix III parameters. It was inadvertently missed during the June 5-year Appendix III sampling and will be included for future events
- The samples were sent to TestAmerica Denver for analysis at the close of each sampling day, except samples for low level arsenic which were held until the end of the sampling event and provided to Analytical Resources, Inc. in Tukwila, Washington.

Sample Date	Location ID	Sample ID	Comments
9/22/14	MW-39	0914-01	
9/22/14	MW-16	0914-02	
9/22/14	MW-13B	0914-03	
9/22/14	MW-13A	0914-04	
9/22/14	MW-4	0914-05	
9/22/14	DUP-1	0914-06	Duplicate of MW-4
9/22/14	MW-35	0914-07	
9/22/14	MW-19C	0914-08	
9/22/14	DUP-2	0914-09	Duplicate of MW-19C
9/22/14	MW-24	0914-10	
9/22/14	MW-2B1	0914-11	
9/23/14	MW-23A	0914-12	
9/23/14	MW-33C	0914-13	
9/23/14	MW-42	0914-14	
9/23/14	MW-43	0914-15	

Q 3 2014 Groundwater Monitoring Event - OVSL Page 2

Sample Date	Location ID	Sample ID	Comments
9/23/14	MW-32	0914-16	
9/23/14	MW-34A	0914-17	
9/23/14	MW-34C	0914-18	
9/23/14	MW-20	0914-19	
9/23/14	MW-15R	0914-20	
9/23/14	MW-36A	0914-21	
9/29/2014	LP-LCD	0914-22	

Site Nam	e: OVSL This Wa	Vaste Management Field Information Form is Required  orm is to be completed, in addition to any State Forms. The Field Form is
Site No.		ted along with the Chain of Custody Forms that accompany the sample lears (i.e. with the cooler that is returned to the laboratory).
PURGE	PURGE DATE  (MM DD YY)  PURGE TIME  (2400 Hr Clock)  (hrs.	SED HRS WATER VOL IN CASING ACTUAL VOL PURGED WELL VOLS (Gallons) (Gallons) PURGED
PURGE/SAMPLE	Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purg	Filter Device: Or N 0.45 µ or µ (circle or fill in)  A-In-line Disposable C-Vacuum
17004	Sampling Device C-QED Bladder Pump F-Dipper/Bo X-Other:	
L DATA	Well Elevation (at TOC) Depth to Water (from TOC)	(ft/mst)
WELL		historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.
	Sample Time (2400 Hr Clock)  Rate/Unit pH (std) Conductance (SC/EC) (μmhos/cm@25°C)  200 1 <sup>st</sup> 6.23 1 <sup>st</sup> 2.51	
tional)		1388 227 TT -71 2295 1340 219 TT -72 22155
STABILIZATION DATA (Optional)	13:417 4 6:30 4 2:49	1348 7213 + 772 2275
ZATIONI		
STABILE		
Su	inggested range for 3 consect, readings or +/- 0,2 +/- 3% tet Permit/State requirements:	+/- 10% +/- 25 mV Stabilize
		arameters required by WM, Site, or State).  These fields can be used where four <mark>(4) field m</mark> easurements are <mark>required</mark> readings below and submit electronic data separately to Site. <u>If more fields above are needed, use separate sheet or form</u>
VTA	SAMPLE DATE PH CONDUCTANCE	W CHANGES CONTROL CONT
FIELD DATA	(MM DDYY)  (std)  (umhos/cm @ 25°C)  [	(CC) (ntu) (mg/L-ppm) (mV) Units    3   48   2   1   3
	ample Appearance:	Odor: Very Color: Clear Other:  Direction/Speed: Outlook: Cloudy Precipitation: Y or N
Sı	pecific Comments (including purge/well volume calculations if requi	
SI _	D.O. meter Failur @ 1332	
FIELD COMMENTS		
OMIN -		-
D C		
FIEI		
	certify that sampling procedures were in accordance with applicable EPA	A, State, and WM protocols (if more than one sampler, all should sign):
	THE THE TOTAL	
	Date Name	Signature Company  L. Stave with Sample VELLOW - Peturned to Client PUNK - Field Conv.

Site Name Site No.:	This Waste Management Field Information Form is Required This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample  Laboratory Use Only/Lab ID:
PURGE	PURGE DATE  PURGE TIME  ELAPSED HRS  WATER VOL IN CASING ACTUAL VOL PURGED  WELL VOLs  (MM DD YY)  (2400 Hr Clock)  (hrs:min)  (Gallons)  (Gallons)  PURGED  Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.
PURGE/SAMPLE EQUIPMENT	Purging and Sampling Equipment Dedicated: Y or N
WELL DATA	Well Elevation (at TOC)  Depth to Water (DTW)  (from TOC)  O O O Groundwater Elevation (site datum, from TOC)  Total Well Depth (from TOC)  Stick Up (from ground elevation)  (ft) (ft) (ft) (ft) (ft) (ft) (ft) (ft)
STABILIZATION DATA (Optional)	Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.  Sample Time Rate/Unit pH Conductance (SC/EC) (µmhos/cm@25°C) (ntu) D.O. eH/ORP OTW (my/L - ppm) (mV) (ft)  2.22 1.67 2.22 1.77 1.60 2.62 2.73 1.73 1.73 1.73 1.73 1.73 1.73 1.73 1
FIELD DATA	SAMPLE DATE pH CONDUCTANCE TEMP. TURBIDITY DO eH/ORP Other: \[ \frac{1}{2} \]  (MM DD YY) (std) (umhos/cm @ 25°C) (°C) (ntu) (mg/L-ppm) (mV) Units  \[ \frac{1}{2} \]  \[ \frac{1}{2} \]  \[ \frac{1}{2} \]  (mV) Units  \[ \frac{1}{2} \]  (all Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.
FIELD COMMENTS	eather Conditions (required daily, or as conditions change):  Direction/Speed:  Dire
I c	Pate  Name  Distribution: White/Original-Stays with Sample, YELLOW - Returned to Client. PINK - Field Copy

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Site Nam Site No.	This Waste Management Field Information Form is Required This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample  [Laboratory Use Only/Lab ID:
PURGE	PURGE DATE  (MM DD YY)  (2400 Ht Clock)  (hts:min)  (Gallons)  (Gallons)  (Gallons)  (Gallons)  PURGED  Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.
PURGE/SAMPLE	Purging and Sampling Equipment Dedicated:
WELL DATA	Well Elevation (at TOC)  Depth to Water (DTW)  (ft/msl)  Groundwater Elevation (site datum, from TOC)  Casing  (ft/msl)  Casing  (ft)  ID  (in)  Material  Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit, Well Elevation, DTW, and Groundwater Elevation must be current.
ELD DATA     STABILIZATION DATA (Optional)   STABILIZATION DATA (Optional)	Sample Time Rate/Unit pH Conductance (SC/EC) Temp. Turbidity D.O. eH/ORP (ntu) (std) (mg/L-ppm) (mY) (ft) (atu) (mg/L-ppm) (mY) (ft) (atu) (mg/L-ppm) (mY) (ft) (ft) (ft) (ft) (ft) (ft) (ft) (ft
Sa W S <sub>I</sub>	mple Appearance:  Color:  Color:  Color:  Other:  Conditions (required daily, or as conditions change):  Comments (including purge/well volume calculations if required):
FIELD COMMENTS	ertify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):
	Date Name Signature Company  DISTRICTION: WHITE/ODICINAL State with Sample VELLOW Peturned to Client PINK Field Conv.

Site Nam	I This Waste Management Kield Information Form is Required
Site No.	
PURGE	PURGE DATE PURGE TIME  (MM DD YY)  (2400 Hr Clock)  (hrs:min)  (Gallons)  (Gallons)  (Gallons)  PURGED  Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.
PURGE/SAMPLE	Purging and Sampling Equipment Dedicated:  Purging Device  A-Submersible Pump B-Peristaltic Pump C-QED Bladder Pump  X-Other:    A-Submersible Pump   D-Bailer   B-Piston Pump   F-Dipper/Bottle   A-Teflon   C-PVC   X-Other:
WELL DATA	Well Elevation (at TOC)  Depth to Water (DTW)  (from TOC)  Groundwater Elevation (site datum, from TOC)  Casing  Casing  Casing
WEI	Total Well Depth (from TOC)  Stick Up (from ground elevation)  Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.
ELD DATA STABILIZATION DATA (Optional)	Sample Time Rate/Unit pH Conductance (SC/EC) (µmhos/cm@25°C) (
S	eather Conditions (required daily, or as conditions change):  Odor: Varie Color: Vene Other:  Direction/Speed: Varie Color: Vene Precipitation or N
	ecific Comments (including purge/well volume calculations if required):
OMMENTS 	
COMIN —	
	ertify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):  1.114 Math O'Han SCS Eynus
	Date Name Signature Company  DISTRIBUTION: WHITE/ODICINAL State with Sample VELLOW, Determined to Client PINIX, Field Company

Site Name Site No.:	FIELD INFORMATION FORM  This Waste Management Field Information Form is Required This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).  Laboratory Use Only/Lab ID:
PURGE/SAMPLE PURGE EQUIPMENT INFO	PURGE DATE PURGE TIME (MM DD YY) (2400 Hr Clock) (hrs:min) Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.  Purging and Sampling Equipment Dedicated:  Purging Device A-Submersible Pump D-Bailer B-Peristaltic Pump E-Piston Pump Filter Type:  A-In-line Disposable C-Vacuum B-Pressure X-Other
1000	Sampling Device C-QED Bladder Pump F-Dipper/Bottle  X-Other: Sample Tube Type: A-Teflon C-PVC X-Other: B-Stainless Steel D-Polypropylene  Well Elevation Depth to Water (DTW) Sample Tube Type: Groundwater Elevation
WELL DATA	(at TOC) (ft/mst) (from TOC) (ft/mst) (from TOC) (ft/mst)  Total Well Depth (from TOC) (ft) (site datum, from TOC) (ft/mst)  Casing (in) Material  Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.
STABILIZATION DATA (Optional)	mple Time 0 Hr Clock)  4 1 2 1 2 1
FIELD DATA	(MM DD YY) (std) (umhos/cm @ 25°C) (°C) (ntu) (mg/L-ppm) (mV) Units  Q Z Z   Y   (67   1   1   3   5   1   0   62   1   0   75   0   58   7   3   1   1   4   2    Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.
FIELD COMMENTS	ple Appearance:

_			
Site Name Site No.:	This waste Wanagement Field Information This form is to be completed, in addition to a submitted along with the Chain of Custody by containers (i.e. with the cooler that is returned.)	n Form is Required any State Forms. The Field Form is forms that accompany the sample	Laboratory Use Only/Lab ID:
E PURGE	PURGE DATE  (MM DD YY)  Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Co.  Purging and Sampling, Equipment Dedicated:	(Gallons)  ell and Tubing/Flow Cell Vols Purged.	L VOL PURGED WELL VOLs (Gallons) PURGED Mark changes, record field data, below.    µ (circle or fill in)
PURGE/SAMPLE EQUIPMENT	Purging Device A-Submersible Pump D-Bailer B-Peristaltic Pump E-Piston Pump F-Dipper/Bottle  X-Other: Sample Tube Type:	A-In-line Disposabl B-Pressure A-Teflon B-Stainless Steel	
WELL DATA	Well Elevation (at TOC)  Total Well Depth (from TOC)  Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Sir	Groundwater Eleva (site datum, from To (in)  Casing ID (in) (in) (e/Permit. Well Elevation, DTW, and G	Casing (ft/msl)  Material
STABILIZATION DATA (Optional)	(2400 Hr Clock)  (a) (3 0)  (b) (3 0)  (c) (c)  (c) (d) (d) (d) (d) (d) (d) (d) (d) (d) (d		
Sa	Cinal Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample reading Sample Appearance:  Odor: None  Weather Conditions (required daily, or as conditions change):  Direction/Speed: 7	Color: Clear Outlook: Over CAS	neters required by State/Permit/Site.  Other:  Precipitation: Y or
FIELD COMMENTS	Specific Comments (including purge/well volume calculations if required):  Certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if n	pore than one sampler, all should	sign):
(	O9 122 114  Browley Beach  Name  DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW-	Co	mpany

Site Nam Site No.	This Waste Management Field Information Form is Required This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).  [Laboratory Use Only/Lab ID:
PURGE	PURGE DATE  PURGE TIME  ELAPSED HRS  WATER VOL IN CASING ACTUAL VOL PURGED  WELL VOLS  (MM DD YY)  (2400 Hr Clock)  (hrs:min)  (Gallons)  (Gallons)  PURGED  Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.
PURGE/SAMPLE	Purging and Sampline Equipment Dedicated: Type of N   Filter Device:   Y   or   N     0.45 m   or
WELL DATA	Well Elevation (at TOC)  Depth to Water (DTW)  (from TOC)  Stick Up  (from TOC)  Casing  (from TOC)  Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.
ELD DATA  A SE SE  A SE  A SE SE  A	Sample Time Rate/Unit pH Conductance (SC/EC) Temp. Turbidity D.O. eH/ORP (mV) (ft)  1   S   D
FIELD COMMENTS	eather Conditions (required daily, or as conditions change):  Direction/Speed: 3 N Outlook: Retty Cloudy Precipitation: Y or N over Colors: Cloudy Precipitation: Y or N over Colors: Comments (including purge/well volume calculations if required):  Dup 2 taken  Precipitation: Y or N over Colors: Cloudy Precipitation: Y or N
	Date Name Signature Company  DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, VELLOW - Returned to Client, PINK - Field Copy

Site Name Site No.:	FIELD INFORMATION FORM  This Waste Management Field Information Form Is Required This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).  Laboratory Use Only/Lab ID:	
PURGE	PURGE DATE PURGE TIME (MM DD YY) (2400 Hr Clock) (hrs:min) (Gallons) (Gallon	
PURGE/SAMPLE EOUIPMENT	Purging and Sampling Equipment Dedicated:	<b>→</b> 2
WELL DATA	Well Elevation (at TOC)  Depth to Water (DTW)  Groundwater Elevation (site datum, from TOC)  Total Well Depth (from TOC)  Stick Up (from ground elevation)  Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.	
ELD DATA    Color   Co	Tample Time 400 Hr Clock)    3	3 2 3 3
W	mple Appearance: Perticulates Clear Odor: Nove Color: Clear Other: eather Conditions (required daily, or as conditions change): Direction/Speed: UN Outlook: Overcast Precipitation: Y or Weefice Comments (including purge/well volume calculations if required):	
FIELD COMMENTS	ertify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):    OP 122 14   Bradley Black   Substitute   Superior	

Site Name	This Waste Management Field Information Form is Required This form is to be completed, in addition to any State Forms. The Field Form is be completed, in addition to any State Forms. The Field Form is the completed, in addition to any State Forms. The Field Form is the complete with the Country Laboratory Use Only/Lab ID:	
Site No.:	Sample Point: Sample ID submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).	
PURGE	PURGE DATE  (MM DD YY)  (2400 Hr Clock)  (hrs:min)  (Gallons)  (Gallons)  (Gallons)  PURGED  WELL VOLs  (Gallons)  (Gallons)  PURGED  Note: For Passive Sampling, replace "Water Vol in Casing" and, "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.	
PURGE/SAMPLE FOUIPMENT	Purging and Sampling Equipment Dedicated:  Purging Device A-Submersible Pump D-Bailer B-Peristaltic Pump E-Piston Pump F-Dipper/Bottle  X-Other:  Sample Tube Type:  Filter Device:  Or N 0.45 µ or µ (circle or fill in)  A-In-line Disposable C-Vacuum B-Pressure X-Other  A-Teflon C-PVC X-Other: B-Stainless Steel D-Polypropylene	
WELL DATA	Well Elevation (at TOC)  Depth to Water (DTW) (from TOC)  Stick Up (from TOC)  Stick Up (from TOC)  Casing (from TOC)  Casing (from TOC)  (from TOC)  (from TOC)  (from TOC)  Casing (from TOC)  (from TOC)  (from TOC)	
STABILIZATION DATA (Optional)	Note: Total Well Depth, Stick Up. Casing Id. etc. are optional and can be from historical data, unless required by StierPermit. Well Elevation. DTW, and Groundwater Elevation must be current.  Turbidity  D.O. eH/ORP  DTW  Ond uctance (SC/EC)  Temp. Turbidity  (ntu)  (ntu)  (ntu)  D.O. eH/ORP  DTW  (ntv)  (ntv	5 4 5 4
W	ther Conditions (required daily, or as conditions if required):  Odor: Nove Color: Clear Other:  Outlook: Over Cost Precipitation: Y or Nove Color: Clear Other:  Outlook: Over Cost Precipitation: Y or Nove Color: Clear Other:  Outlook: Over Cost Precipitation: Y or Nove Color: Clear Other:  Outlook: Over Cost Precipitation: Y or Nove Color: Clear Other:  Outlook: Over Cost Other:  Outlook: Over C	
	tify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):  9,22,14    Bradley Beach   SCS-FS	- X

	FIELD INFORMATION FORM	1
Site	This Waste Management Field Information Form is Required	Ü
Nam Site	This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample  Laboratory Use Only/Lab ID:	1
No.	Point: Containers (i.e. with the cooler that is returned to the laboratory).  Sample ID	
黑。	092314 1245 0005	
PURGE	PURGE DATE PURGE TIME ELAPSED HRS WATER VOL IN CASING ACTUAL VOL PURGED WELL VOL	s
	(MM DD YY) (2400 Hr Clock) (hrs:min) (Gallons) (Gallons) PURGED  Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.	
J.	Purging and Sampling Equipment Dedicated: (V) or IN   Filter Devices (V) or IN   10.45 u   or I   1 u (circle or fill in)	
AMI	Purging Device A-Submersible Pump D-Bailer B-Peristaltic Pump E-Piston Pump Filter Type: A-In-line Disposable C-Vacuum B-Pressure X-Other	
PURGE/SAMPLE	B-Peristaltic Pump E-Piston Pump Filter Type: B-Pressure X-Other  Sampling Device A C-QED Bladder Pump F-Dipper/Bottle  A-Teflon C-PVC X-Other:	_
PUR	X-Other: Sample Tube Type: B-Stainless Steel D-Polypropylene	_
DATA	Well Elevation (at TOC)  Depth to Water (DTW)  Organization (ft/msl) (from TOC)  Organization (site datum, from TOC)	ısl)
WELL DATA	Total Well Depth (from TOC)  Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.	
ŕ	Sample Time Rate/Unit pH Conductance (SC/EC) Temp. Turbidity D.O. eH/ORP DTW	
ĵ,	2400 Hr Clock) (std) (μmhos/cm@25°C) (°C) (ntu) (mg/L - ppm) (mV) (ft)	דין
	250 150 150 150	1 0
(a)	2153 2nd 5 6 1 2nd 1 3 6 9 8 2 1 1 5 5 9 3 2	
tion	2:56 37 56 37 136 91 170 29 1513 32	
	2:519 4 5:613 4 1136 98 1484 244 1585 32	
ATA	3:012   566   136 97   528 28 1564 312	רו
	3:05 570 136 97 20 245 1581 37	18
STABILIZATION DATA (Optional)		
ABI)		$\vdash$
S		
Sı	gested range for 3 consec. readings or 1/02 1/30/	_
no	Permit/State requirements:  +/- 0.2  +/- 25 mV  Stabilize  Flow  F	
ь	State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet of	er form
DAT	SAMPLE DATE pH CONDUCTANCE TEMP. TURBIDITY DO eH/ORP Other: Time (MM DD YY) (std) (umhos/cm @ 25°C) (°C) (ntu) (mg/L-ppm) (mV) Units	
FIELD DATA	92314 570 136 97 39 245 (581 130	5
_	mple Appearance: Cen Cew Odor: Nove Color: Clear Other:	
	mple Appearance: Color: Clear Other:  eather Conditions (required daily, or as conditions change):  Direction/Speed: N Outlook: Precipitation: V or N	
	ecific Comments (including purge/well volume calculations if required):	•
COMMENTS		
AME -		—
<u>S</u> –		-
FIELD		_
1	ertify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):	
	50-17 Index beach fully had 505-17	-
	Date Name Signature Company	
	DISTRIBUTION. WHITE/ODICINAL State with Sounds VELLOW Returned to Client DINK Field Court	

	FIELD IN	TODICA	CON FORM			
Site			TION FORM		V.A	$\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{$
Name			nformation Form is Require ddition to any State Forms. T			a MANAGEMENT
Site No.:			f Custody Forms that accompa it is returned to the laboratory		Laboratory Use Only/Lal	b ID:
(40	Sample ID	(i.e. with the booler the	at to returned to the factory	,		
	Laladatatatata Latatata Lalada	-10-1		1 1 1	1 1 1 1	
PURGE	07/23/14	75				
URGE	PURGE DATE PURGE TIME ELAPSE		WATER VOL IN CASI		VOL PURGED	WELL VOLs
"	(MM DD YY) (2400 Hr Clock) (hrs:m Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged		(Gallons) ng/Flow Cell and Tubing/Flow		Gallons) Mark changes, record field	PURGED I data, below.
E LE	Purging and Sampling Equipment Dedicated:	Filter	Device: Y or N	0.45 µ or	μ (circle or	fill in)
EN	Purging Device A-Submersible Pump D-Bailer		T 1 A-	In-line Disposable	C-Vacuum	
PURGE/SAMPLE EQUIPMENT	Sampling Device   B-Peristaltic Pump		er Type: A B-	Pressure	X-Other	
JRG		19	1 W M 1	Teflon	C-PVC X-Otl	ner:
17.E	X-Other:	Sample Tu	be Type:	Stainless Steel	D-Polypropylene	
DATA	Well Elevation (at TOC) Depth to Water (I (ft/msl) (from TOC)	OTW)	ICA I I I	oundwater Elevati te datum, from TO		(ft/msi)
WELL DATA	Total Well Depth (from TOC) Stick Up (from ground eleva		(ñ) ID		Casing Material	ĵ
	Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from hist					
	Sample Time Rate/Unit pH Conductance (SC/EC) (400 Hr Clock) (std) (μmhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
1	7:05 1 6007 1 183	11015	134	0 83	1754	11975
	2:08 (008	104	7 18	10(8)	1:2:4:7	1.074
<u>a</u>	2 nd 0 9 8 2 nd 1 8 2	10.9			1611	1 9 7
	Z     3 <sup>rd</sup>       8 Z	103		0 70	1237	1119117
<u> </u>	2,14 4 6124 1 182	105	052	063	1218	11/9/75
I I	2.17 (-1.7   1.82	105	1 1 81	0 58	11198	11974
	2.7 ()		3 10	7	C la	1 0 75
1 <u>5</u> 17	2:20 6119 1184	105	374	0.55	11133	11910
STABILIZATION DATA (Optional)		1 1		ĵ. j.		
		1 1	1 1 1 1		1 T E	1 6 1
AB		- V	F 7 F 7		700 00 00	10 H: W
IS —						
	gested range for 3 consec, readings or +/- 0.2 +/- 3%	<u> </u>		+/- 10%	+/- 25 mV	Stabilize
	bilization Data Fields are Optional (i.e. complete stabilization readings for paral State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final rea					
	SAMPLE DATE PH CONDUCTANCE	TEMP.	TURBIDITY	DO		her: Tree
DA	(MM DD YY) (std) (umhos/cm @ 25°C)	(°C)	(ntu)	(mg/L-ppm)	(mV) Un	its
FIELD DATA	192314 619 182	105	344	053	1186	1220
E Fin	al Field Readings are required (i.e. record field measurements, final stabilized r	eadings, passive samp	ole readings before sampling	g for all field param	eters required by State/I	Permit/Site.
Sa	mple Appearance: Lem Cerv	Odor: Now		: cerv	Other:	200
W	eather Conditions (required daily, or as conditions change):	Direction/Speed:	Outlook	c lain	Precipitation	i: Y or N
Sp	ecific Comments (including purge/well volume calculations if require	d):				
2 —						
COMMENTS						
MM						
FIELD					2	
E						
I co	ertify that sampling procedures were in accordance with applicable EPA,	State, and WM prot	ocols (if more than one sa	mpler, all should si	gn):	
(	29,23,14 Bundley Beach	And	12/1 1	2	565-F5	
			1			
-	Date Name	Signature		Con	прапу	

Sit Nam Sit No.	e   OVS	ASTERIOR FORM  aste Management Field Information Form is Required m is to be completed, in addition to any State Forms. The ad along with the Chain of Custody Forms that accompany are (i.e., with the cooler that is returned to the laboratory).	If about on the Oak II ab III.
PURGE	<b>–</b>	ED HRS WATER VOL IN CASING (Gallons) ed" w/ Water Vol in Tubing/Flow Cell, and Tubing/Fl	(Gallons) PURGED
PURGE/SAMPLE	Purging and Sampling Equipment Dedicated:  Purging Device A-Submersible Pump D-Bailer B-Peristaltic Pump E-Piston Pum C-QED Bladder Pump F-Dipper/Bo X-Other:	np Filter Type: A-In- ttle A-Te	o.45 μ or μ (circle or fill in)  -line Disposable C-Vacuum essure X-Other  efflon C-PVC X-Other: ainless Steel D-Polypropylene
WELL DATA	Well Elevation (at TOC)  Total Well Depth (from TOC)  Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from his	vation) (ft) (site of the control of	(in) Material
STABILIZATION DATA (Optional)	Sample Time Rate/Unit pH Conductance (SC/EC) (µmhos/cm@25°C) (	ameters required by WM. Site, or State). These fields eadings below and submit electronic data separately to S.	lite. If more fields above are needed, use separate sheet or form
FIELD DATA	SAMPLE DATE PH CONDUCTANCE (MM DD YY) (std) (umhos/cm @ 25°C)  9 2 3 1 4 6 3 7 4 4 7  inal Fleld Readings are required (i.e. record field measurements, final stabilized	151 3.05	mg/L-ppm) (mV) Units  (mg/L-ppm) (mV) Units  or all field parameters required by State/Permit/Site.
S	ample Appearance: Particulates	Odor: Color: Direction/Speed: Outlook:	Clear Other:  Raining Precipitation: (Y) or N
	Date  Date  Date  Distribution: WHITE/ORIGINAL	Signature - Stays with Sample, YELLOW - Returned to Client. P	SCS-F5 Company

Site Nam Site No.	e: Sample 7 14 Submitted along with the Chain of Cus	mation Form is Required on to any State Forms. The Field Form is tody Forms that accompany the sample	Laboratory Use Only/Lab ID:
PURGE	PURGE DATE PURGE TIME  (MM DD YY) Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Fi	(Gallons) fow Call and Tubing/Flow Cell Vols Purged.	
PURGE/SAMPLE	Purging and Sampling Equipment Dedicated:  Purging Device  A-Submersible Pump  B-Peristaltic Pump  B-Piston Pump  Filter De  B-Peristaltic Pump  F-Dipper/Bottle  X-Other:  Sample Tube T	ype: A-In-line Disposabl B-Pressure A-Teflon	μ (circle or fill in) e C-Vacuum X-Other C-PVC X-Other: D-Polypropylene
WELL DATA	Well Elevation (at TOC)  Total Well Depth (from TOC)  Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required	Groundwater Eleva (site datum, from To ID ID (in by Site/Permit. Well Elevation, DTW, and G	Casing (ft/msl)  Material
ELD DATA STABILIZATION DATA (Optional)	Sample Time (2400 Hr Clock)  PH Conductance (SC/EC) ("C")  PH (std) (µmhos/cm@25°C)  PH S O	Turbidity (ntu) (mg/L - ppm)    2   2   5	eH/ORP (mV) (ft)  III OH H271  P 74 H271  S 92 H271  S 11 H271  H2
FIELD COMMENTS	Sample Appearance: Clossy Odor: Name  Odor	Color: Overage Country	Other:  Precipitation: V or N  Vicility ~ 228.6

Sic Nan Sic No	This Waste Management Field Information Form is Required This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample
[-]	Sample ID  O 9 2 3 1 4
PURGE/SAMPLE	Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.  Purging and Sampling Equipment Dedicated:  Purging Device  A-Submersible Pump  B-Peristaltic Pump  B-Peristaltic Pump  C-QED Bladder Pump  F-Dipper/Bottle  X-Other:  Sample Tube Type:  Sample Tube Type:  Sample Tube Type:  A-In-line Disposable  C-Vacuum  B-Pressure  X-Other:  A-Teflon  C-PVC  X-Other:  D-Polypropylene
WELL DATA	Well Elevation (at TOC)  Depth to Water (DTW)  (from TOC)  Output  Depth to Water (DTW)  (from TOC)  Well Depth (from TOC)  Stick Up (from ground elevation)  Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit, Well Elevation. DTW, and Groundwater Elevation must be current.
<u>n</u>	Sample Time Rate/Unit pH Conductance (SC/BC) Temp. Turbidity D.O. (mg/L-ppm) (mV) (ft)  98:335
5	nal Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.  ample Appearance: Color: Color: Other:  Veather Conditions (required daily, or as conditions change): Direction/Speed: Outlook: Clouds / Internation: Your Necessity of
FIELD COMMENTS	certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):
	Date Name Signature Company  DISTRIBUTION: WHITE/ORIGINAL - Stave with Sample VELLOW - Returned to Chart PINK - Field Conv.

Sit Nam Sit No.	This Waste Management Field Information Form is Required This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample	Laboratory Use Only/Lab ID:
PURGE	PURGE DATE PURGE TIME ELAPSED HRS WATER VOL IN CASING ACTUALY	VOL PURGED WELL VOLs Gallons) PURGED dark changes, record field data, below.
PURGE/SAMPLE	Purging and Sampling Equipment Dedicated:  Purging Device A-Submersible Pump D-Bailer  B-Peristaltic Pump E-Piston Pump F-Dipper/Bottle  Sampling Device C-OED Bladder Pump F-Dipper/Bottle	μ (circle or fill in)
WELL DATA	Well Elevation (at TOC)    Cosing   Coundwater Elevation (from TOC)   Casing   Coundwater Elevation (site datum, from TOC)   Casing   Coundwater Elevation (from TOC)   Casing   Coundwater Elevation	C) (ft/mst)  Casing Material
ELD DATA STRB STABILIZATION DATA (Optional)	Sample Time (2400 Hr Clock)  Stat   S	eH/ORP Other: J
FIELD COMMENTS	Sample Appearance:	Other:  Precipitation: V or N  gn):
	Date Name Signature Comp	pany

		FIL	LD INFORM	ATION FOR	M		
Site	II	Olle.	1	Cield Information Form is Requi		WAST	E MANAGEMENT
Nam Site		Sample   Maril   Maril	This form is to be complete	d, in addition to any State Forms. ain of Custody Forms that accom	The Field Form is	Laboratory Use Only/La	b ID:
No.		Point: NW - 1913		ler that is returned to the laborato		7	
胃。	092314	09:42					
PURGE	PURGE DATE	PURGE TIME	ELAPSED HRS	WATER VOL IN CAS	SING ACTUAL	VOL PURGED	WELL VOLs
Ľ	(MM DD YY)	(2400 Hr Clock) replace "Water Vol in Casing" and	(hrs:min) Well Vols Purged" w/ Water Vol in	(Gallons) Tubing/Flow Cell and Tubing/F		Gallons) Mark changes, record field	PURGED d data, below.
PLE	Purging and Sampling Equip	ment Dedicated:	or N	Filter Device Y or N	0.45 µ or	μ (circle or	fill in)
PURGE/SAMPLE	Purging Device	· · · · · · · · · · · · · · · · · · ·	D-Bailer E-Piston Pump		A-In-line Disposable B-Pressure	C-Vacuum X-Other	
RGE	Sampling Device	i .	F-Dipper/Bottle		A-Teflon	C-PVC X-Ot	her:
-	X-Other:		Samp	le Tube Type:	B-Stainless Steel	D-Polypropylene	
DATA	Well Elevation (at TOC)		h to Water (DTW)	/ // //	Groundwater Elevationsite datum, from TO		(fi/msi)
WELL	Total Well Depth (from TOC)  Note: Total Well Depth, Stick	Stick (ft) (from	ground elevation)	(ft) I	Casing (in) Clevation, DTW, and Gra	Casing Material nundwater Elevation mus.	t be current.
	Sample Time Rate/U (2400 Hr Clock)	Init pH Conductar	nce (SC/EC) Temp. cm@25°C) (°C)	Turbidity (ntu)	D.O.	eH/ORP	DTW
10	DI9 S 7   200	I st S (sta) (µmnos/	45 1113	27 2	(mg/L - ppm)	(mV)	(ft)
	0957		40 116	4.70	1647	191	19 2 195
	131	2 <sup>nd</sup> 2 2 <sup>nd</sup> 2	LUC III	7.65	10.	1.0.	-2013
pti (	101010 101017	3 <sup>rd</sup>	15 113	317	ZHO	10.5	2015
IA (	MOIO S	4 <sup>th</sup> 3 3 4 4 <sup>th</sup>	113	19.00	10143	143	46.8
DA							
STABILIZATION DATA (Optional)							
BILI							
STA							111
L					1 1		
по	ggested range for 3 consec, readings te Permit/State requirements:	+/- 0.2	- 3%		+/- 10%	+/- 25 mV	Stabilize
		onal (i.e. complete stabilization rea ger or other Electronic format is usea					
ATA	SAMPLE DATE (MM DD YY)		CTANCE TEMP. m@25°C) (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP Ot	her: Huse
FIELD DATA	D9 231 4	(i.e. record field measurements, fit	45 1118	1 1/00	Olies	193	1003
	ample Appearance:	alex		ev Col	771	Other:	sa.minanv.
W	eather Conditions (required	d daily, or as conditions change):	Direction/Speed	:Outloo	ok:	Precipitation	n: Y or N
Sį	pecific Comments (includin	g purge/well volume calculation	ons if required):				
o E	studed Por	x. do to h	1sh tobid	Hy - Drawne	color		
COMMENTS		<i>y</i> -	7	7			
MM /	del mails	Went look					
	- Court	1.000 1 1001					
FIELD —							#
	ertify that sampling procedu	res were in accordance with app	licable EPA, State, and WM	protocols (if more than one s	ampler, all should sig	gn):	
	9,23,14	Mass O'Hur	e W	In		SCS	
		<b>V</b>	//				
	Date	Name	Signature	o VELLOW Deturned to Clie	Comp	pany	

somewho			7	CITY D IN	TTODAGA	TION FOR			
Sample   Sam		/(/	4950	This Wast	te Management Field	I Information Form is Requi	ired		VASTE MANAGEMENT
PURCE DATE  PURCE TORY  (MAN DO YV)  Some for the transportion of the former of the fo	Site	Sa Sa		This form i	is to be completed, in along with the Chain of	addition to any State Forms. of Custody Forms that accomp	The Field Form is pany the sample	Laboratory Use On	ly/Lab ID:
PURGE DATE  1000 (20 YY)  1000	110	*		<del></del>	(i.e. with the cooler	nat is returned to the raporator	ry).		
Policy of the Patrice Reprints produce of the Configuration of the Confi	9 G	092314	11950	001	20				
Personal Deptide Control of Contr	PUR	(MM DD YY)	(2400 Hr Clock)	(hrs:mi	nin)	(Gallons)	(	(Gallons)	PURCED
Well Elevation (cross) Depth to Water (DTW)	띡	Note: For Passive Sampling, re	replace "Water Vol in Casing"	and "Well Vols Purged"	d" w/ Water Vol in Tub	bing/Flow Cell and Tubing/Flo	low Cell Vols Purged.	Mark changes, record	d field data, below.
Well Elevation (cross) Depth to Water (DTW)	AMPI	Purging Device	A-Submersible Pump	D-Bailer		A   ^	A-In-line Disposable	e C-Vacuum	e or till inj
Well Elevation (cross) Depth to Water (DTW)	RGE/S	Sampling Device						-	Other
Sample Time Rate Child pill (cital) pill (conductance (soft)). Teap (cital) pill (cital) (milholoring): September 1 (soft)  September 1 (sof	3745	X-Other:			Sample T				t-Other.
Sample Time Rate Child pill (cital) pill (conductance (soft)). Teap (cital) pill (cital) (milholoring): September 1 (soft)  September 1 (sof	DAT.	1 1 1		-	TW) 2				(ft/msl)
Sample Time Rate Child pill (cital) pill (conductance (soft)). Teap (cital) pill (cital) (milholoring): September 1 (soft)  September 1 (sof	ELL		10000	MARKET TO SEE THE SECOND SECON	tion)	1 1 1 1	1 1 1	_	1 -
(C) (ntb) (corrections) (corre		Note: Total Well Depth, Stick L	Up, Casing Id. etc. are optional	al and can be from histo	orical data, unless req	quired by Site/Permit. Well El	levation, DTW, and Gr	roundwater Elevation	
Suggested range for 3 cames, readings or 4-0.2  1			r						
Suggested range for 3 ownes, readings or 14.0.2 14.3% 29.20  11.10  12.92  14.35  13.65  13.65  13.65  13.65  14.10  14.1	1	055 070	1" 6 5 6 1"	1995	1369	1 000	6 38	-611	2975
Suggested range for 3 consect, readings or 14-0.2 14-31/6 - 14-10/6 14-25 mV Stabilizes  Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site for Data Logger or other Electronic format is used, fill in final readings below and submit electronic data superated to Site. If more fields above are needed, use separate sheet or form SAMPLE DATE  PH CONDUCTANCE TEMP. TURBIPITY  DO H/ORP Other:  (MM DD YY) (std) (umhos/cm @ 25°C) (°C) (ntw) (mg/L-ppm) (mV) Units  Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.  Sample Appearance:  Odor:  Odor:  Odor:  Other:  Other:  Weather Conditions (required daily, or as conditions change):  Direction/Speed:  Outlook:  Precipitation Y or N  Specific Comments (including purge/well volume calculations if required):  APP	Tag T	1.00	65	700	1365	203	0.47	16181	2921
Suggested range for 3 consect, readings or 14-0.2 14-31/6 - 14-10/6 14-25 mV Stabilizes  Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site for Data Logger or other Electronic format is used, fill in final readings below and submit electronic data superated to Site. If more fields above are needed, use separate sheet or form SAMPLE DATE  PH CONDUCTANCE TEMP. TURBIPITY  DO H/ORP Other:  (MM DD YY) (std) (umhos/cm @ 25°C) (°C) (ntw) (mg/L-ppm) (mV) Units  Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.  Sample Appearance:  Odor:  Odor:  Odor:  Other:  Other:  Weather Conditions (required daily, or as conditions change):  Direction/Speed:  Outlook:  Precipitation Y or N  Specific Comments (including purge/well volume calculations if required):  APP	Optio	1.1.0	3 <sup>rd</sup> 0 2 7 3 <sup>rd</sup>	305 503	1361	176		108	
Suggested range for 3 consect, readings or 14-0.2 14-31/6 - 14-10/6 14-25 mV Stabilizes  Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site for Data Logger or other Electronic format is used, fill in final readings below and submit electronic data superated to Site. If more fields above are needed, use separate sheet or form SAMPLE DATE  PH CONDUCTANCE TEMP. TURBIPITY  DO H/ORP Other:  (MM DD YY) (std) (umhos/cm @ 25°C) (°C) (ntw) (mg/L-ppm) (mV) Units  Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.  Sample Appearance:  Odor:  Odor:  Odor:  Other:  Other:  Weather Conditions (required daily, or as conditions change):  Direction/Speed:  Outlook:  Precipitation Y or N  Specific Comments (including purge/well volume calculations if required):  APP	TA(		4th 6 76 4***		1001	0.77	070	-60	2700
Suggested range for 3 consect, readings or 14-0.2 14-31/6 - 14-10/6 14-25 mV Stabilizes  Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site for Data Logger or other Electronic format is used, fill in final readings below and submit electronic data superated to Site. If more fields above are needed, use separate sheet or form SAMPLE DATE  PH CONDUCTANCE TEMP. TURBIPITY  DO H/ORP Other:  (MM DD YY) (std) (umhos/cm @ 25°C) (°C) (ntw) (mg/L-ppm) (mV) Units  Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.  Sample Appearance:  Odor:  Odor:  Odor:  Other:  Other:  Weather Conditions (required daily, or as conditions change):  Direction/Speed:  Outlook:  Precipitation Y or N  Specific Comments (including purge/well volume calculations if required):  APP	NDA						7 1		
Suggested range for 3 consec. readings or wi-0.2 wi	ATIO								
Suggested range for 3 consec. readings or wi-0.2 wi	ILIZ								
Suggested range for 3 consec. readings or wi-0.2 wi	STAB			ĬĬÌ	Ĺ		6 1		
sublikation pata Fields are complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. Il more fields above are needed, use separate sheet or form SAMPLE DATE  PH  CONDUCTANCE  TEMP.  TURBIDITY  DO  eH/ORP  Other: VILL  Inits  Final Field Readings are required by State/Permit/Site.  Sample Appearance:  Weather Conditions (required daily, or as conditions change):  Direction/Speed:  Outlook:  Precipitation Y or N  Specific Comments (including purge/well volume calculations if required):  APP   A A A A A A A A A A A A A A A A A		1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2							
SAMPLE DATE  SAMPLE DATE  PH  CONDUCTANCE  S(std)  (umbos/cm @ 25°C)  ("C)  (ntu)  (mgl-ppm)  (mV)  Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.  Sample Appearance:  Weather Conditions (required daily, or as conditions change):  Direction/Speed:  Outlook:  Precipitation  Outlook:  Precipitation  Or N  Specific Comments (including purge/well volume calculations if required):  APP	note Stab	Permit/State requirements: bilization Data Fields are Option	nal (i.e. complete stabilizatio	on readings for parame	notors required by W	M. Site, or State). These fie	elds can be used when	re four (4) field mea	surements are runnirud
Sample Appearance:	by Si	state/Permit/Site. If a Data Logge	er or other Electronic format is	is used, fill in final read	dings below and submi	nit electronic data separately t	to Site. If more fields	above are needed,	use separate sheet or form
Sample Appearance:	DDAT					52 LB			
Sample Appearance:		al Field Readings are required	(i.e. record field measureme	nts, final stabilized re	367 cadings, passive sam	iple readings before samplin	O So	- 68	nte/Permit/Site.
Specific Comments (including purge/well volume calculations if required):  APP 11 taken  Bobbeles in art shram duke to taken connection  Unleads needs needs to take to taken connection  I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):  9.23,14 Matt O'Hane SCS			- /		01				Attack we stylen when the
Bobbles in all strain direction they connection  Well needs new field  I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):  9,23,14 Matt O'Have SCS			•	0,		Outlool	k:	Precipita	ation. Y or N
Bobbeles in art Aram disc to they connection  Well needs new fice  I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):  9.23,14 Malt O'Hare Lawrence SCS	Spe	100,11		ılations if required	.):				
I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):  9,23,14  Matt O'Hane  John Ma	<u>2</u> /	Tri III TAK	Marc						
I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):  9,23,14  Matt O'Hane  J	WW P	aldalac na	· A A v · N	1.00	La belo	10000	1.		
I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):  9,23,14  Mall O'Hane  J	5 — <u> </u>	Office Co IV	WII SHINN	MIL	TO TOUR	y) Comme	NUC		
9,23,14 Mattoltare duties SCS		Jell nords	Med loc	C					
	I cer		es were in accordance with	a applicable EPA, St	tate, and WM prot	ocols (if more than one sa	mpler, all should sig	gn):	
Date Name Signature Company		1,23,14	Matt O'Has	e	MA			SCS	
DISTRIBUTION. WHITE/ODICINAL Standard VELLOW, Debugator Company		Date N			Signature		Com	pany	

_		
Sit	Site FIELD INFORMATION FORM This Waste Management Field Information Form is Require	
	Name:    Site       Sample	he Field Form is
	No.: Point: Containers (i.e. with the cooler that is returned to the laboratory)	, , , , , , , , , , , , , , , , , , , ,
黑。	BODA 23114 18:119 00:015 1111	
PURGE	PURGE DATE PURGE TIME ELAPSED HRS WATER VOL IN CASIN	
	(MM DD YY) (2400 Hr Clock) (hrs:min) (Gallons)  Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow	(Gallons) PURGED w Cell Vols Purged. Mark changes, record field data, below.
PLE	Purging and Sampling Equipment Dedicated:	0.45 µ or µ (circle or fill in)
/SAM	Purging Device A-Submersible Pump D-Bailer  A-Submersible Pump E-Piston Pump Filter Type:  B-Peristaltic Pump E-Piston Pump	In-line Disposable C-Vacuum Pressure X-Other
PURGE/SAMPLE	Purging Device A-Submersible Pump D-Bailer B-Peristaltic Pump E-Piston Pump F-Dipper/Bottle  C-QED Bladder Pump F-Dipper/Bottle  A-Submersible Pump A-Bailer A-A-Submersible Pump F-Dipper/Bottle  A-A-Submersible Pump F-Dipper/Bottle  A-A-Submersible Pump F-Dipper/Bottle	Teflon C-PVC X-Other:
5.00		Stainless Steel D-Polypropylene
LDATA	Well Elevation (at TOC)  Depth to Water (DTW)  (ft/msi) (from TOC)  Gr (sit	roundwater Elevation te datum, from TOC) (ff/msl)
WELL	Total Well Depth Stick Up  (from TOC)  Note: Total Well Depth, Stick Up, Casing Id. etc., are optional and can be from historical data, unless required by Site/Permit. Well Elev	.,
	Sample Time Rate/Unit pH Conductance (SC/EC) Temp. Turbidity (2400 Hr Clock) (std) (μmhos/cm@25°C) (°C) (ntu)	D.O. eH/ORP DTW (mg/L - ppm) (mV) (ft)
	350 1 72 St 1 1 1 S S 1 1 1 Z G	087 24 1 7 00
	1374 1 and 778 and 1188 1171 1120	103 24 400
onal)	73234 1 37 732 37 1 1 56 1 1 75	101 73 400
Opti	5 3 3 9 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1	101 10 1400
TA	ET 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
AD		
STABILIZATION DATA (Optional)		
S		
	Suggested range for 3 consec, readings or +/- 0,2 +/- 3%	+/- 10% +/- 25 mV Stabilize
S	note Permit/State requirements:  Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These field	lds can be used where four (4) field measurements are required
	by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to  SAMPLE DATE pH CONDUCTANCE TEMP. TURBIDITY	DO eH/ORP Other:
AU O	(MM DD YY) (std) (umhos/cm @ 25°C) (°C) (ntu)	(mg/L-ppm) (mV) Units
FIELD DATA	Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling	g for all field parameters required by State/Permit/Site.
_	Sample Appearance: Time Odor: North Color	C1
v	Weather Conditions (required daily, or as conditions change): Direction/Speed: Outlook	- CULV
s	Specific Comments (including purge/well volume calculations if required):	
2_	<u>&amp;</u>	
EN_		-
AIMIC	AJWC	
D C		
FIELD COMMENTS		
1 199	I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sar	mpler, all should sign):
	4, 73 14 Mattottme /h&V	SUS
		***
	Date Name Signature	Company

Site Name:    State   Polish
Note: For Passive Sampling, replace "Water Vol in Casing" and, "Well Volds Parged" of Water Vol in Tablogy/Flow Cell and Tubing/Flow Ce
Well Elevation (at TOC)  Total Well Depth (from TOC)  Stick Up. Casing (in) Material Naterial  Sample Time (2400 Hr Clock)  Total Well Depth, Sick Up. Casing ld etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation. DTW. and Groundwater Elevation must be current.  Sample Time (2400 Hr Clock)  Total Well Depth, Sick Up. Casing ld etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation. DTW. and Groundwater Elevation must be current.  Sample Time (2400 Hr Clock)  Total Well Depth, Sick Up. Casing ld etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation. DTW and Groundwater Elevation must be current.  Sample Time (2400 Hr Clock)  Total Well Depth, Sick Up. Casing ld etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation. DTW and Groundwater Elevation must be current.  Sample Time (2400 Hr Clock)  Total Well Depth, Sick Up. Casing ld etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation. DTW and Groundwater Elevation must be current.  Sample Time (2400 Hr Clock)  Total Well Depth, Sick Up. Casing ld etc. are optional and can be from historical data. unless required by Wh. Site, or State). These fields are optional file. are not expensed. As a separate sheet or form
Sample Time (240 Hr Clock)  Rate/Unit pH (conductance (SC/BC) Temp. Turbidity D.O. eH/ORP (mV) (ft)  LY 15 0 1
Sample Time (2400 Hr Clock)    Missing Permit/State requirements:   Suggested range for 3 consec. readings or   4/- 0.2   4/- 3%   1/- 10%   1/- 1
SAMPLE DATE pH CONDUCTANCE TEMP. TURBIDITY DO eH/ORP Other: TWEE  (MM DD YY) (std) (umhos/cm @ 25°C) (°C) (ntu) (mg/L-ppm) (mV) Units  [O 9 2 3 1 4 6 9 6 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9
Sample Appearance:  Weather Conditions (required daily, or as conditions change):  Direction/Speed:  Odor:  Direction/Speed:  Outlook:  Direction/Speed:  Outlook:  Direction:  Outlook:  Direction:  Outlook:
Dry @ 14 ft, Blacked? Alole to pull water up low flow.  Cherty Mesossom, Brandles completely covering location.  Walking tripping Harand
I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):    1

## SCS ENGINEERS

Olympic View Sanitary Landfill

Page 1 of 2								
Last Quarter DTW								
NM								

Well	Date	Time	DTW	Measured by (initials)	Comments		Quarter TW
MW-10	9/23/4		5.69	MO		NM	
MW-11			6.73		, e <sup>m</sup> ( <b>b</b> )		4.25
MW-12			49.58			NM	
MW-13			29.99	V	1		28.94
MW-13A			47,50				46.34
MW-13B			60.91				60.30
MW-15R			1971				18.72
MW-16			60.00	60.00			57.65
MW-17			35.05			NM	
MW-18			65,50			NM	
MW-19A			34,27				32.58
MW-19B			36.38				32.62
MW-19C			35,55				33.80
MW-19D			34.25				32.73
MW-20			37,48				35.91
MW-21			6,92		12		5.35
MW-23A			14,00		Drya 14.00 (Top of Pump)	NM	
MW-23B			14,41		* 1		12.41
MW-23C			14.97				12.92
MW-24			34.11				21.74
MW-26			13,07			NM	
MW-27			23.78				21.74
MW-28			6.88			NM	
MW-29A			16.21				13.35
MW-29B			18.95				17.12
MW-29C			13.75				11.73

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6	FIELD INFORMATION FORM	
Na	This Waste Management Field Information Form is Required This form is to be completed, in addition to any State Forms. The Field Form is	MENT
	te CA 7 Sample Sample Submitted along with the Chain of Custody Forms that accompany the sample	
N 2	containers (i.e. with the cooler that is returned to the laboratory).	
-		1
GE		
PURGE	PURGE DATE PURGE TIME ELAPSED HRS WATER VOL IN CASING ACTUAL VOL PURGED WELL VO	
	(MM DD YY) (2400 Hr Clock) (hrs:min) (Gallons) (Gallons) PURGE  Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.	D
LE	Purging and Sampling Equipment Dedicated: Y or Filter Device: Y or 0.45 µ or µ (circle or fill in)	
AMI	Purging Device A-Submersible Pump D-Bailer A-In-line Disposable C-Vacuum	
3E/S	Purging Device A-Submersible Pump D-Bailer A-In-line Disposable C-Vacuum B-Peristaltic Pump E-Piston Pump Filter Type: B-Pressure X-Other  Sampling Device C-QED Bladder Pump F-Dipper/Bottle  A-Teflon C-PVC X-Other:	
PURGE/SAMPLE	X-Other:    Sample Tube Type:   A-Teflon C-PVC X-Other:   B-Stainless Steel D-Polypropylene	
_	E Language 1 Tr	
WELL BATT	Well Elevation   Depth to Water (DTW)   Groundwater Elevation   Groundwater   Groundwater Elevation   Groundwater   Ground	ft/msl)
5	Total Well Depth         Stick Up         Casing   Casing	1
12/	(from TOC) (ft) (from ground elevation) (ft) ID (in) Material	
-	rote. Total nen Depin, onen Op, Chang In. etc. are opnomia and can be from majorica duda, antess required by shert errors. Her Deciation, DIV, and Ordinamate Deciation image to entering	
	Sample Time         Rate/Unit         pH         Conductance (SC/EC)         Temp.         Turbidity         D.O.         eH/ORP         DT'           (2400 Hr Clock)	
(lal)	1 2 <sup>nd</sup> 2 <sup>nd</sup> 2 <sup>nd</sup>	
tion	3 <sup>rd</sup> 3 <sup>rd</sup> 1 3 <sup>rd</sup> 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
DATA (Optional)	1	
TA		
DA		-
ON		
STABILIZATION		
ILIZ		***
AB		*
ST		-
	Suggested range for 3 consec. readings or +/- 0.2 +/- 3% - +/- 10% +/- 25 mV Stabil	1
	Stabilization Data Fields are Optional (i.e., complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are re by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate she	
VTA	SAMPLE DATE PH CONDUCTANCE TEMP. TURBIDITY DO eH/ORP Other:	
DDA	(MM DD YY) (std) (umhos/cm@25°C) (°C) (ntu) (mg/L-ppm) (inV) Units	
FIELD DATA	092119 1113 3391 11190 11191 68 217	
	Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.	
	Sample Appearance: OFFCOlor Clean Odor: Slight Color: Straw Other:	
	Weather Conditions (required daily, or as conditions change): Direction/Speed: Outlook: Precipitation:	N
	Specific Comments (including purge/well volume calculations if required):	
S		
ENI		
COMMENTS		
CON		_
FIELD		
	I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):	
	09,29,14 Bradley Beach & Math SCS-FS	
	Date Name Signature Company	
	DISTRIBUTION: WHITE/ORIGINAL - Stave with Sample VELLOW - Returned to Client PINK - Field Conv	

#### FIELD INFORMATION FORM Site This Waste Management Field Information Form is Required Name: This form is to be completed, in addition to any State Forms. The Field Form is Laboratory Use Only/Lab ID submitted along with the Chain of Custody Forms that accompany the sample Sample containers (i.e. with the cooler that is returned to the laboratory). Point: PURGE INFO **ACTUAL VOL PURGED** WELL VOLS **ELAPSED HRS** WATER VOL IN CASING (Gallons) **PURGED** (MM DD YY) (2400 Hr Clock) (Gallons) (hrs:min) Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing Flow Cell Vols Purged. Mark changes, record field data, below. PURGE/SAMPLE Filter Device: Y or N 0.45 µ or Purging and Sampling Equipment... Dedicated: μ (circle or fill in) Y or N A-In-line Disposable C-Vacuum A-Submersible Pump D-Bailer Purging Device **B-Peristaltic Pump E-Piston Pump** Filter Type: **B-Pressure** X-Other Sampling Device C-QED Bladder Pump F-Dipper/Bottle C-PVC A-Teflon X-Other: X-Other: Sample Tube Type: **B-Stainless Steel** D-Polypropylene DATA Well Elevation Depth to Water (DTW) **Groundwater Elevation** (from TOC) (site datum, from TOC) (at TOC) Total Well Depth Stick Up Casing Casing (from TOC) (from ground elevation) ID Material twater Elevation wast be cum Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Ground Sample Time Rate/Unit Conductance (SC/EC) Turbidity D.O. eH/ORP DTW pH Temp. (std) (2400 Hr Clock) (µmhos/cm@25°C) (°C) (ntu) (mg/L - ppm) (mV) (ft) STABILIZATION DATA (Optional) Suggested range for 3 consec. readings or +/-0.2 +/- 3% +/- 10% +/- 25 mV Stabilize note Permit/State requirements: Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet or form TURBIDITY DO eH/ORP Other: SAMPLE DATE pH CONDUCTANCE TEMP. FIELD DATA (MM DD YY) (std) (umhos/cm @ 25°C) (mg/L-ppm) Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site. Color: Other: Sample Appearance: Odor: Weather Conditions (required daily, or as conditions change): Direction/Speed: Outlook: Precipitation: Y or N Specific Comments (including purge/well volume calculations if required): FIELD COMMENTS I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign): Name DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client. PINK - Field Copy

# SCS ENGINEERS

November 21, 2014 File No. 04204027.17

**Subject:** Fourth Quarter 2014 Ground Water Monitoring Event

Olympic View Sanitary Landfill, Kitsap County, Washington

Sampling Event Dates: 11/17/14 through 11/20/14

Personell: Matt O'Hare and Bradley Beach

## NOTES/SAMPLING DECODING:

• Dedicated pumps were used for purging and sampling all wells.

- Duplicate samples were collected at MW-20 (DUP1) and MW-32 (DUP2).
- The Solinst model 101 water level meter was used to record all water level elevations.
- In addition to the monitoring wells where groundwater was collected for chemical analysis, additional wells were monitored for groundwater level elevations. A summary of measured water levels are included with the field documentation.
- Several clearing efforts were made at the site to ensure ease of access to all monitoring wells. Several well locks need replacement on the site.
- The samples were sent to TestAmerica Denver for analysis at the close of each sampling day, except samples for low level arsenic which were held until the end of the sampling event and provided to Analytical Resources, Inc. in Tukwila, Washington.

Sample Date	Location ID	Sample ID	Comments
11/17/2014	MW-35	1114-01	
11/17/2014	MW-13A	1114-02	
11/17/2014	MW-13B	1114-03	
11/18/2014	MW-16	1114-04	
11/18/2014	MW-39	1114-05	
11/18/2014	MW-23A	1114-06	
11/18/2014	MW-43	1114-07	
11/18/2014	MW-29A	1114-08	
11/18/2014	MW-42	1114-09	
11/19/2014	MW-36A	1114-10	
11/19/2014	MW-15R	1114-11	
11/19/2014	MW-33C	1114-12	
11/19/2014	MW-33A	1114-13	
11/19/2014	MW-34A	1114-14	
11/19/2014	MW-34C	1114-15	
11/20/2014	MW-2B1	1114-16	
11/20/2014	MW-20	1114-17	
11/20/2014	MW-20	1114-18	Field Duplicate DUP1
11/20/2014	MW-24	1114-19	

# Q 4 2014 Groundwater Monitoring Event - OVSL Page 2

Sample Date	Location ID	Sample ID	Comments
11/20/2014	MW-19C	1114-20	
11/20/2014	MW-4	1114-21	
11/20/2014	MW-32	1114-22	
11/20/2014	MW-32	1114-23	Field Duplicate DUP2
12/9/2014	LP-LCD	1114-24	Lechate Pond
12/9/2014	L-INF	1114-25	Leachate Influent

				Olympic view	w Sanitary Landfill	Dogg 4 of 2
Well	Date	Time	DTW	Measured by (initials)	Comments	Page 1 of 2 Last Quarte DTW
MW-10			4.97	no		NM
MW-11			5,10	200		4.2
MW-12			67.03	BB		NM
MW-13			49.40	BB		28.9
MW-13A			58.43	no		46.3
MW-13B			61,70	mo		60.3
MW-15R			19.30	vio		18.7
MW-16			61,07	mo		57.6
MW-17			35.61	BB		NM
MW-18			51.12	BB		NM
MW-19A			33.62	wo		32.5
MW-19B			35.74	mo		32.6
MW-19C			34.94	no		33.8
MW-19D			33.64	no		32.7
MW-20			36.92			35.9
MW-21			7.00	Mo		5.3
MW-23A			13.62	wo		NM
MW-23B			14 00			12.4
MW-23C			14.52	mo		12.9
MW-24			34.25	mo		21.7
MW-26			13.62			NM
MW-27			24.34			21.7
MW-28			le.81	BB		NM
MW-29A			NM		low conductioning	13.3
MW-29B			18,90	mo	)	17.1
MW-29C			13.74	wo		11.5

SUS	ENGI	NEEF	₹ S	OVSL		
				OVGL		Page 2 of 2
	Date	Time	DTW	Measured by (initials)	Comments	Last Quarter DTW
MW-2A1	11/18/14		8.94	BB		9.13
MW-2B1			7.79	BB		6.72
MW-30A			24,75	wo		24.00
MW-30B			24.59	mo		23.88
MW-31			2.63	no		NA.
MW-32		5	1,76	BB		1.50
MW-33A			8.62	Mo		5.62
MW-33B			2,152	an		2.13
MW-33C			2.50	mo		2.17
MW-34A			40.28	no		39.5
MW-34B			40,04	mo		39.41
MW-34C			42.10	NO		41.21
MW-35			72.87	ND		72.07
MW-36			31,71	BB		31.14
MW-36A			31,73	BB		31.00
MW-37			4,53	wo		NM
MW-38			4,83	mo		3.67
MW-39			19.13	mo		21.34
MW-4			15.65	4BB		14.95
MW-40A			16.71	mo		15.51
MW-40B			16.66	am		15.44
MW-40C			17,29			
MW-41A			26.43			15.84
MW-41B						24.18
			26,92			24.64
MW-41C			78.24			26.16
MW-42			28,33	mo		27.85
MW-43			NM	mo	law Condictionity	25.16
MW-5			3.60	ma	,	2.57
MW-9			3,50			NM

	FIELD INFORMATION FORM	
Site	This Waste Management Field Information Form is Required	WASTE MANAGEMENT
Name: Site	This form is to be completed, in addition to any State Forms. The Field Form is	Laboratory Use Only/Lab ID:
No.:	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
S S	01111014 (036)	
PURGE		AL VOL PURGED WELL VOLs (Gallons) PURGED
	(MM DD YY) (2400 Hr Clock) (hts:min) (Gallons) Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged	, ,
PLE	Purging and Sampling Equipment Dedicated:	μ (circle or fill in)
SAM	Purging Device A-Submersible Pump D-Bailer A-In-line Disposa  B-Peristaltic Pump E-Piston Pump Filter Type: B-Pressure	ble C-Vacuum X-Other
PURGE/SAMPLE EQUIPMENT	Sampling Device C-QED Bladder Pump F-Dipper/Bottle	C-PVC X-Other:
PUI	X-Other: Sample Tube Type: B-Stainless Steel	D-Polypropylene
DATA	Well Elevation (at TOC)  Depth to Water (DTW) 7287 Groundwater Elevation (from TOC) (site datum, from the control of the contr	
WELL DATA	Total Well Depth (from TOC)  Note: Total Well Depth, Stick Up, Casing Id. etc., are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and	Casing (in) Material  Groundwater Elevation must be current.
	Sample Time Rate/Unit pH Conductance (SC/EC) Temp. Turbidity D.O.	eH/ORP DTW
(2	(2400 Hr Clock) (std) (μmhos/cm@25°C) (°C) (ntu) (mg/L - ppm)	(mV) (ft)
1	11035 270 18 71511 18 1160 11014 11514 1122	111716 1/207
	7 14 0 2 nd 7 9 9 2 nd 1 / le 0 1 0 1 1 3 1 23	11147 720
	112:45 (1) 30 7:918 30 160 104 2 134	11511 17287
<u>  6</u>	1.50 4 7.48 4 160 104 2 130	111511 728
AT)		
STABILIZATION DATA (Optional)		
STA		
	uggested range for 3 consec. readings or +/- 0.2 +/- 3% +/- 10%	+/- 25 mV Stabilize
Sta	itabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used way State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fi	
_	SAMPLE DATE PH CONDUCTANCE TEMP. TURBIDITY DO	eH/ORP Other: The
Mal V	(MM DD YY) (std) (umhos/cm @ 25°C) (°C) (ntu) (mg/L-ppm)	(mV) Units
FIELD DATA	Sinal Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field par	rameters required by State/Permit/Site.
Sa	Sample Appearance: Clar Odor: None Color: Clar	Other:
We	Weather Conditions (required daily, or as conditions change): Direction/Speed: Outlook: Lieuw	Precipitation: Y or N
Sp	Specific Comments (including purge/well volume calculations if required):	
50 O1	In mital Purpe, Purp Compressor and Controller method themed	. purge restarted
EN	on 11/17/14/ @ 17:30	0
MIM —		
00		**************************************
FIELD COMMENTS		
1,500		
1 00	certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should be a sample of the sa	a sign):
	The total the thouse	-205
=	Date Name Signature	Сотрялу
	DISTRIBUTION. WHITE/ORIGINAL. Stays with Sample VELLOW, Returned to Client PINK. Field C	

914	FIELD INFORMATION FORM	$\overline{\wedge}$
Sit Nam	Waster Management Plate Information Description Control Management Plate Information	минт
Sit.	Sample Laboratory Use Only/Lab ID:	
PURGE	PURGE DATE  PURGE TIME  ELAPSED HRS  WATER VOL IN CASING ACTUAL VOL PURGED  WELL VOL MAN DD YY)  (MM DD YY)  (2400 Hr Clock)  (hts:min)  (Gallons)  (Gallons)  PURGE  Note: For Passive Sampling, replace "Water Vol in Casing" and Well Vols Purged" w/ Water Vol in Tubing/Flow Cell, and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.	cn.
PURGE/SAMPLE	Purging and Sampling Equipment Dedicated:	
WELL DATA	Total Well Depth   Stick Up   Casing   Casing   (from TOC)   (from ground elevation)   (ft) ID   (in) Material	ft/msl)
STABILIZATION DATA (Optional)	Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.  Sample Time Rate/Unit pH Conductance (SC/EC) Temp, Turbidity (mtu) D.O. eH/ORP (mg/L - ppm) (my/) (ft)  3 2 5 7 7 9 9 9 1 1 1 7 7 9 9 9 1 1 1 7 7 9 9 9 1 1 1 7 7 9 9 9 1 1 1 7 7 9 9 9 1 1 1 1	843 843 843 843 943 943
FIELD DATA	SAMPLE DATE pH CONDUCTANCE TEMP. TURBIDITY DO eH/ORP Other: 1 vivo (mg/L-ppm) (mV) Units 1 left Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.	40
Sa	mple Appearance:  Color:  Color:  Color:  Other:  Cather Conditions (required daily, or as conditions change):  Direction/Speed:  Outlook:  Precipitation: Y or leading purge/well volume calculations if required):	<u>N</u>
FIELD COMMENTS	rtify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):	
7=	Date Name Signature Company  DISTRIBUTION: WHITE/ORIGINAL-Stays with Sample, YELLOW-Returned to Client. PINK - Field Copy	

		FIELD IN	FORMAT	TION FOR	M		$\sqrt{\Lambda}\sqrt{\Lambda}$
Site Name	A.M. 0.C. a.	This Waste	e Management Field Is	Information Form is Requ	uired	WASTE	MANAGEMENT
Site No.:	Sample IA	submitted a	along with the Chain of	ddition to any State Forms. f Custody Forms that accomat is returned to the laborate	mpany the sample	Laboratory Use Only/Lab	ID:
140.0	Point:	Sample ID containers (	i.e. with the cooler tha	it is returned to the laborate	ory).		
PURGE	PURGE DATE P	PURGE TIME ELAPSED	D HRS	WATER VOL IN CAS	SING ACTUAL	VOL PURGED	WELL VOLs
<u>a</u> -	(MM DD YY) (2 Note: For Passive Sampling, replace "Water	(2400 Hr Clock) (hrs:mir	in)	(Gallons)	(G	Gallons)	PURCED
PLE	Purging and Sampling Equipment Dedi			Device: Y or N		μ (circle or fi	
PURGE/SAMPLE EQUIPMENT	Purging Device A-Subn	omersible Pump D-Bailer istaltic Pump E-Piston Pump	Filtr	/-man-	A-In-line Disposable		
RGE/	Sampling Device C-QED	D Bladder Pump F-Dipper/Bottle		1		X-Other C-PVC X-Other	251
	X-Other:		Sample Tul	]		D-Polypropylene	er:
WELL DATA	Well Elevation (at TOC)	Depth to Water (D' (fi/msl) (from TOC)	TW) [6		Groundwater Elevatio (site datum, from TOC		(ft/msl)
<u> </u>	Total Well Depth (from TOC) Note: Total Well Depth, Stick Up, Casing Id.			(ft)	Casing (in)  Elevation, DTW, and Gro	Casing Material oundwater Elevation must	be current
	Sample Time Rate/Unit pH 2400 Hr Clock) (std	,	Temp.	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
#	141300 1867	00 II	1_1_1		(		
1	4:35 1 214 617	70 2"	95	114	\$ 70	1618	611 70
iona	14:410 1 31 68	311 311 173	95	4	811	1/2/2	61770
0 1	M:45 1 41 6.9	13 411 1 1 7 2	99	5	78/	11/1014	1110
ATA	M:50 [69	9 172	94	4	740	1606	1.1170
ON	4:55 70	4 72	94	4	724	1/1/3	(17
ATIC	5.00 70	8 1177	94	4	72)	1/1/3	1/2/17
ILIZ,			i j		/,	1013	161.0
STABILIZATION DATA (Optional)				1 1 1 1		i i i	
8							
note	ggested range for 3 consec, readings or +/- 0.:		**		+/- 10%	+/- 25 mV	Stabilize
Stal	bilization Data Fields are Optional (i.e., comp. State/Permit/Site. If a Data Logger or other El.	plete stabilization readings for parame Electronic format is used, fill in final read	eters required by WM	I, Site, or State). These f	fields can be used where	o four (4) field measurem	nents are reautred
	SAMPLE DATE pH	CONDUCTANCE	TEMP.	TURBIDITY	DO	eH/ORP Other	er: The
FIELD DATA	(MM DD YY) (std) (std)	(umhos/cm @ 25°C)	q  u	(ntu)	(mg/L-ppm)	(mV) Unit	11000
E Fin	al Field Readings are required (i.e. record f	field measurements, final stabilized rea	adings, passive samp	le readings before sampl	ling for all field parame	ters required by State/Pa	ermit/Site.
	mple Appearance:		Odor: New	Col	olor: Clew	Other;	
	eather Conditions (required daily, or as		rection/Speed:	Outloo	ok:	Precipitation:	Y or N
Spe	ecific Comments (including purge/well	ll volume calculations if required	):				
SI—					ī.		
COMMENTS							
— OM							
FIELD —		5					
I ce	ertify that sampling procedures were in a	ccordance with applicable EPA, St	ate, and WM protoc	cols (if more than one s	sampler, all should sign	n):	
_1	1,17,14 (4x)	H U Har	MATT		<u> </u>	CS	
-	Date Name		Signature		Comy		
		RIBUTION: WHITE/ORIGINAL - Str	o .	LLOW - Returned to Clic	Comp	any	

		F	FIELD INF	ORMAT	TON FOR	M	V	$\sqrt{\Lambda}$
Site Name					nformation Form is Requidition to any State Forms		WAST	THEMBOAHAM BY
Site No.:	]	mple MW=	submitted along containers (i.e.	g with the Chain of	Custody Forms that according to the laborate	mpany the sample	Laboratory Use Only/La	ab ID:
PURGE	PURGE DATE (MM DD YY) Note: For Passive Sampling, ref	PURGE TIME (2400 Hr Clock) place "Water Vol in Casing"	ELAPSED H.  (hts:min) and "Well Vols Purged" w/		WATER VOL IN CA (Gallons) 1g/Flow Cell and Tubing/I	(	VOL PURGED  Gallons)  Mark changes, record fiel	WELL VOLs PURGED d data, below.
PURGE/SAMPLE EOUIPMENT	Purging and Sampling Equipm	/	y or N  D-Bailer  E-Piston Pump	Filter	Device: Y or N		μ (circle or	fill in)
DATA	Well Elevation (at TOC)		Depth to Water (DTV (from TOC)	v)     6		Groundwater Elevat (site datum, from TC		[ [ft/msl)
WELL DATA	Total Well Depth (from TOC) Note: Total Well Depth, Stick U	(ft)	Stick Up (from ground elevation		(ft)	Casing (in		st he current
	Sample Time Rate/Uni 2400 Hr Clock)	it pH Cond	ductance (SC/EC) mhos/cm@25°C)	Temp.	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
C	18:51 250	1" 6.44 11	1127	99		6 08	1171919	6107
ional)	0.5	2 <sup>nd</sup> [0.4 C 2 <sup>nd</sup> ]		89		S 11	1756	6 (0)
A (Opt	04.00	44 6 3 9 44	1126	89		516	1760	6/10>
STABILIZATION DATA (Optional)	9:03	638	1126	89	2	S 24	1764	6/07
ATIO	11.00	0,50		1.1		5 [2]	[ 76,7	6/01
BILIZ								III
STA						_1_1_	<u> </u>	
	ggested range for 3 consec, readings or e Permit/State requirements:	r +/- 0,2	+/- 3%	-		+/- 10%	+/- 25 mV	Stabilize
Sta	abilization Data Fields are Option State/Permit/Site_ If a Data Logge.	al (i.e. complete stabilization or other Electronic format	on readings for parameter is used, fill in final reading.	rs required by WM	I, Site, or State) These	fields can be used whe	re four (4) field measur	ements are required
	SAMPLE DATE		ONDUCTANCE	TEMP.	TURBIDITY	DO		ther: M
FIELD DATA	(MM DDYY)	638	nhos/cm @ 25°C)	89	(ntu) Z	(mg/L-ppm)	1767	0906
	nal Field Readings are required ( ample Appearance:	s.e. record field measureme		7.4		711		Permit/Site.
	eather Conditions (required	daily, or as conditions ch	Ode ange): Direc	ction/Speed:	Outle	olor: Class	Other:	on: Y or N
Sp	ecific Comments (including	purge/well volume calc	culations if required):				·	_ 0
TIS	Nater to SI	- Luce (a) l	X46					
MEN -								
COM								
FIELD COMMENTS								
	ertify that sampling procedure	es were in accordance wit	th applicable FPA State	and WM syste	eals (if mare then are	sampler all chould -	ian):	
-	11,18,14	MMOHI	ha d	Lite	(1. Alore than one		505	
1.2	Date Na	ame DISTRIBUTION: W		ignature	LLOW - Paturned to Cl		прапу	

FIELD INFORMAT	TION FORM
Site Name:  This Waste Management Field In This form is to be completed, in ac	
No.: Sample Point: Sample ID Submitted along with the Chain of containers (i.e. with the cooler that	Costody I of his that accompany the sample
PURGE DATE (MM DD YY) (MM DD YY) (Partial Clock) (Mote: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubin	VATER VOL IN CASING ACTUAL VOL PURGED WELL VOLs  (Gallons) (Gallons) PURGED  g/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.
Purging Device A-Submersible Pump D-Bailer	Device:   Or N 0.45 µ or µ (circle or fill in)  A-In-line Disposable C-Vacuum B-Pressure X-Other  A-Teflon C-PVC X-Other: B-Stainless Steel D-Polypropylene
Well Elevation (at TOC)  Total Well Depth (from TOC)  Total Well Depth (from TOC)  Stick Up (from ground elevation)  Nate: Total Well Depth Stick Up (from ground elevation)	Groundwater Elevation (site datum, from TOC)  Casing Casing Material
Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by WM.  Sample Time (2400 Hr Clock)  Rate/Unit  PH Conductance (SC/EC) (µmhos/cm@25°C)  (°C)  PHOD  Solution  Sample Time (2400 Hr Clock)  Solution  Sample Time (2400 Hr Clock)  Solution  Soluti	Turbidity (ntu)  D.O.  eH/ORP (mV)  (ft)  1 1 1 1 2 0 00  2 0 00  2 1 2 0 00  2 1 2 0 00  2 1 2 0 00  4 58 3 5 4 2 0 00  2 1 2 0 00  4 58 3 6 9 2 0 00  4 58 3 6 9 2 0 00  4 58 58 6 9 2 0 00  5 1 2 1 4 58 58 6 9 2 0 00  4 58 58 58 58 58 58 58 58 58 58 58 58 58
SAMPLE DATE PH CONDUCTANCE TEMP.  (MM DD YY) (std) (umhos/cm @ 25°C) (°C)  Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample	TURBIDITY DO eH/ORP Other: 144 (mtu) (mg/L-ppm) (mV) Units [4] SS [5] [4] [4] O S
Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample Sample Appearance:  Weather Conditions (required daily, or as conditions change):  Direction/Speed:  Specific Comments (including purge/well volume calculations if required):	Color: Color: Other: Outlook: Precipitation: Y or
FIELD COMMENTS	
I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocology of the sample	SCS

FIELD IN	NFORMATION FORM	
Site Name:	ste Management Field Information Form is Required n is to be completed, in addition to any State Forms. The Fie	eld Form is
Site     Sample   A    1   2   7   A   submitte	d along with the Chain of Custody Forms that accompany the se (i.e. with the cooler that is returned to the laboratory).	
PURGE DATE (MM DD YY) Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purge	min) (Gallons)	ACTUAL VOL PURGED WELL VOLs (Gallons) PURGED Vols Purged. Mark changes, record field data, below.
Purging and Sampling Equipment Dedicated: Y or N Purging Device A-Submersible Pump D-Bailer B-Peristaltic Pump E-Piston Pum Sampling Device C-QED Bladder Pump F-Dipper/Bot	A-ln-lir B-Press	
		less Steel D-Polypropylene
Well Elevation (at TOC)  Total Well Depth (from TOC)  Stick Up (from TOC)  Mater Total Well Depth (from TOC)	(site dat	water Elevation tum, from TOC) (ft/msl)
(from TOC) (ft) (from ground eleven Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from his		(in) Material  DTW, and Groundwater Elevation must be current.
Sample Time Rate/Unit pH Conductance (SC/EC) (2400 Hr Clock) (std) (µmhos/cm@25°C)	Temp. Turbidity (°C) (ntu) (m	D.O. eH/ORP DTW g/L - ppm) (mV) (ft)
11130 1161611 1207	132 1191	017 19312 11371
2nd 2nd 2nd 2nd 2nd 2nd	152 13	088 1933 11368
STABILIZATION DATA (Optional)  1	132	083 1938 1368
9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1152	083 933 1368
YDY .		
CUZA		
[AB]		
i i		
Suggested range for 3 consec. readings or h/- 0.2 +/- 3%		+/- 10% +/- 25 mV Stabilize
Stabilization Data Fields are Optional (i.e. complete stabilization readings for part by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final re	umeters required by WM, Site, or State). These fields ca adings below and submit electronic data separately to Site.	to be used where four (4) field measurements are required  If more fields above are needed, use separate sheet or form
	TEMP. TURBIDITY	DO eH/ORP Other:
SAMPLE DATE pH CONDUCTANCE (mm DD YY) (std) (umhos/cm @ 25°C)  Final Field Readings are required (i.e. record field measurements, final stabilized	[32   2	CPL-ppm) (mV) Units    O   S       7     5     5     1   1   4     5    Ill field parameters required by State/Permit/Site.
Sample Appearance:	Odor: Vare Color:	lew Other:
Weather Conditions (required daily, or as conditions change):	Direction/Speed: Outlook:	Precipitation: Y or N
Specific Comments (including purge/well volume calculations if require	ed):	
SEL.		
COMMENTS		
<u> </u>		
I certify that sampling procedures were in accordance with applicable EPA,	State, and WM protocols (if more than one sampler	, all should sign):
11,15,14 Most-ortan	differ	_ SUS
Date Name	Signature	Company
	Stays with Sample, YELLOW - Returned to Client. PIN	

		· ·		F	FIELD IN	FORMA	ATION FOR	M	W	$\sqrt{\Lambda}\sqrt{\Lambda}$
Site Name:		01	156		This Was	te Management Fie	eld Information Form is Req	uired	WAS	TH MANAGEMENT
Site No.:		Sampl		-   <i>u</i>	submitted	along with the Cha	in addition to any State Forms in of Custody Forms that accor-	mpany the sample	Laboratory Use Only/La	ab ID:
140		Point	N	Sample ID		s (i.e. with the coote	r that is returned to the laborar	tory).		
PURGE INFO	PURGE DAT	<u> </u>		Y S E TIME	ELAPSE (hrs:n		WATER VOL IN CA (Gallons)		LVOL PURGED	WELL VOLS PURGED
	Note: For Passive Sam		"Water Vol i	n Casing"	and Well Vols Purger	l" w/ Water Vol in I	ubing/Flow Cell and Tubing/.	Flow Cell Vols Purged.	Mark changes, record fiel	ld data, below.
PURGE/SAMPLE EQUIPMENT	Purging and Sampling	/ /		(	YZ Or N	Fi	Iter Device Y or N		μ (circle or	fill in)
PME	Purging Device	45	A-Submersi B-Peristaltic		D-Bailer E-Piston Pum	p ]	Filter Type:	A-In-line Disposable B-Pressure	C-Vacuum X-Other	
URGE/SAMPL EQUIPMENT	Sampling Device (		C-QED Blac	lder Pum	p F-Dipper/Bott	100		A-Teflon	C-PVC X-O	ther:
	X-Other:					Sample	Tube Type:	B-Stainless Steel	D-Polypropylene	
LDA	Well Elevation (at TOC)				Depth to Water (I (from TOC)	DTW)		Groundwater Elevat (site datum, from TO		(ft/msl)
VELL	Fotal Well Depth from TOC)				Stick Up (from ground eleve		(ft)	Casing   (in		
- "							required by Site/Permit. Well		roundwater Elevation mus	
	nple Time F 0 Hr Clock)	Rate/Unit	pH (std)		ductance (SC/EC) nhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
113	3100	1 st	5/611	1 st	1 59	172	1291	17.178	1971	
13	3:05	2 <sup>nd</sup>	560	2 <sup>nd</sup>	59	11712	7	7 HI	1402	
ona /	210	311	559	3 rd	59	1712		24/	14/.7	
STABILIZATION DATA (Optional)	3:15	4 <sup>th</sup>	561	4 <sup>th</sup>	159	121	4	7 43	1466	
ATA	J î		ĵij					11 1	1 1 1	
ON										EPI
VIII)	,					-	F Y F Y			
LIZ						-				X 2 X
ABI	-									
S	-	+ +								
Suggest	ted range for 3 consec. re	eadings or	+/- 0.2		+/- 3%					
Stabili	rmit/State requirements: zation Data Fields are	e Optional (i	e. complete :	stabilizati	on readings for para	meters required by	WM, Site, or State). These	+/- 10%  flelds can be used whe	+/- 25 mV re four (4) field measure	Stabilize ements are required
by State	te/Permit/Site. If a Dat AMPLE DATE	ta Logger or	other Electron	nic format	is used, fill in final rea	idings below and su	bmit electronic data separate	ly to Site. If more field	s above are needed, use	separate sheet or form.
	(MM DD YY)		(std)		nhos/cm @ 25°C)	TEMP.	TURBIDITY (ntu)	DO (mg/L-ppm)	7,000	its_
	Field Readings are re	quired (i.e.	561 record field n	neasureme	nts, final stabilized t	readings, passive s	ample readings before samp	ling for all field paran	1466 eters required by State	Permit/Site.
Samp	ole Appearance:	Cle	w4	) Card	31	Odor: Va	L Co	olor: Men.	COMOTHER:	
Weat	her Conditions (re	quired daily	, or as cond	litions cha	ange):	Direction/Speed:	Outle	ook: Clas		n: Y or N
Specia	fic Comments (inc	luding pur	ge/well vol	ume calc	ulations if require	ed):				
s Mi	stell to	det	2 ruin	e W	ater lan	el De D	ese to low	ConDurki	orh	
FIELD COMMENTS	0					C -W	( to b	W.V.		<del></del>
KI J.	Wr Grah	¥ 8-	t . a t 1	10-1	Λα	. 1	7 1 0 0 1	64	40 1 1	1.0%
0	301 814	, 0,	KNIZC	(Harris	11m) 6m	32 6	There by	age mye	to high	Mensis
ELD —										
V-	fy that come !!	o and	un le mo-	lan	h annikasti, mma	A. A		12020 1403 <b>4</b> 007 H		
1 certi	Ly that sampling pro	A A	AH-0	( / /	п аррисаріе ЕРА, 8	state, and WM p	otocols (if more than one	sampler, all should s	ign):	
		1 0	0	Mur		· UUI PC				
V	Date	Name				Signature	=	Cor	npany	
			DISTRIBUT	TION: W	HITE/ORIGINAL -	-	YELLOW - Returned to Cli			

Si	FIELD INFORMATION FORM
Nan	This Waste Management Field Information Form is Required This form is to be completed, in addition to any State Forms. The Field Form is
Sit No	Sandro (1/4)   7   7   7   7   7   7   7   7   7
	PURGE DATE  (MM DD YY)  (2400 Hr Clock)  (Mos: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.
PURGE/SAMPLE	Purging and Sampling Equipment Dedicated:  Purging Device  A-Submersible Pump  B-Peristaltic Pump  B-Peristaltic Pump  C-QED Bladder Pump  X-Other:  Sample Tube Type:  Filter Device:  Y of N  O.45 µ or µ (circle or fill in)  A-In-line Disposable C-Vacuum  B-Pressure  X-Other:  Sample Tube Type:  B-Stainless Steel  D-Polypropylene
WELL DATA	Well Elevation (at TOC)  Depth to Water (DTW)  (Ri/msi) (from TOC)  Groundwater Elevation (ft) (site datum, from TOC)
<u>n</u> S	Sample Time Rate/Unit pH Conductance (SC/EC) Temp. ("C) Turbidity D.O. eH/ORP DTW ((t) I S 1477
	SAMPLE DATE pH CONDUCTANCE TEMP. TURBIDITY DO eH/ORP Other: Ywy (MM DD YY) (std) (umhos/cm@25°C) (°C) (ntu) (mg/L-ppm) (mV) Units
FIELD DATA	Gial Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.
5	Sample Appearance: Color: Color: Color: Other:  Weather Conditions (required daily, or as conditions change): Direction/Speed: Outlook: Color: Precipitation: Y or N  Specific Comments (including purge/well volume calculations if required):
FIELD COMMENTS	under to determine Water level du to los conductions
COM	
ELD	
	certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):
	Date Name Signature Company  DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client. PINK - Field Copy

Na	te me: This Wa	VFORMATION FOR  aste Management Field Information Form is R  m is to be completed, in addition to any State For  sed along with the Chain of Custody Forms that as	equired rms. The Field Form is	Laboratory Use Only/Lab ID:
N		ers (i.e. with the cooler that is returned to the laborated		
PURGE		ED HRS WATER VOL IN ( imin) (Gallons red" w/ Water Vol in Tubing/Flow Cell and Tubin	) (	VOL PURGED WELL VOLs Gallons) PURGED Mark changes, record field data, below.
PURGE/SAMPLE	Purging and Sampling Equipment Dedicated:  Purging Device A-Submersible Pump D-Bailer B-Peristaltic Pump E-Piston Pum Sampling Device C-QED Bladder Pump F-Dipper/Bo  X-Other:	· · · · · · · · · · · · · · · · · · ·	A-In-line Disposable B-Pressure A-Teflon B-Stainless Steel	μ (circle or fill in)  C-Vacuum  X-Other  C-PVC X-Other:  D-Polypropylene
THE STATE OF	Well Elevation Depth to Water (at TOC)	(DTW) 2833(ft)	Groundwater Elevati (site datum, from TO	The state of the s
ATT OF LEAST	Total Well Depth Stick Up  (from TOC) (ft) (from ground elements)  Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from the		Casing (in) ID (in) Well Elevation, DTW, and Grant	
FIELD DATA STABILIZATION DATA (Optional)	Sample Time (2400 Hr Clock)    Y   Y   O	(°C) (ntu) 1 2 1 9 7 1 2 2 3 5 1 2 2 1 2 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
-	Final Field Readings are required (i.e. record field measurements, final stabilized  Sample Appearance:	d readings, passive sample readings before so	Color: Clu	other:
	Weather Conditions (required daily, or as conditions change):  Specific Comments (including purge/well volume calculations if requi	· -	utlook: Clew	Precipitation: Y or N
LS	Specific Comments (including purge wen volume catediations in requi			
COMMENTS				
		111	V	
FIELD				
	Certify that sampling procedures were in accordance with applicable EPA    1	Signature  Stays with Sample, YELLOW - Returned to	Con	SCS npany

Site	FIELD I.	NFORMATION FO	ORM
Nam	a. This W	rm is to be completed, in addition to any State	Forms. The Field Form is
No.	Sample (As )	ted along with the Chain of Custody Forms the ers (i.e., with the cooler that is returned to the	
PURGE		SED HRS WATER VOL I s:min) (Gall ged" w/ Water Vol in Tubing/Flow Cell and T	ons) (Gallons) PURGED
PURGE/SAMPLE	Purging and Sampling Equipment Dedicated:  Or N  Purging Device A-Submersible Pump D-Bailer  B-Peristaltic Pump E-Piston Pu  Sampling Device C-QED Bladder Pump F-Dipper/Bo	mp Filter Type:	A-In-line Disposable C-Vacuum B-Pressure X-Other  A-Teflon C-PVC X-Other:
-	Well Elevation         Depth to Water	Sample Tube Type:	B-Stainless Steel D-Polypropylene  Groundwater Elevation
WELL DATA	(at TOC) (from TOC)  Total Well Depth (from TOC)  (ft) (ft) (ft) (from ground electron TOC)		
STABILIZATION DATA (Optional)	Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from New York Sample Time  Rate/Unit pH Conductance (SC/EC (µmhos/cm@25°C)    Signature   Temp. Turbidity (ntu)  938  936  936  937  1	D.O. eH/ORP (my/L - ppm) (my/) (fit)  I Z ST 3 Z 3	
	State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final SAMPLE DATE pH CONDUCTANCE	readings below and submit electronic data se TEMP. TURBIDIT	30:3
	(MM DD YY) (std) (umhos/cm @ 25°C)    1	d readings, passive sample readings before	(mg/L-ppm) (mV) Units  Z p 1
	reather Conditions (required daily, or as conditions change):	Odor: Man	Color: Other:
	pecific Comments (including purge/well volume calculations if requi	Direction/Speed:ired):	Outlook: Precipitation: Y or N
ST.			
COMMENTS 		1	
OM—			
) (I) (I) (I) (I) (I) (I) (I) (I) (I) (I			
FIELD			
	ertify that sampling procedures were in accordance with applicable EPA	, State, and WM protocols (if more tha	n one sampler, all should sign):
-	11/19/14 Mast O'Hay	When	ses
i e	Date Name	Signature	Company

FIELD INCODICERON FORM	
Site Name:    This Waste Management Field Information Form is Required   This form is to be completed, in addition to any State Forms. The Field Form is	WASTE MANAGEMENT
Site No.:  Sample Point:  Sample ID  Sample ID  Sample ID  Sample ID  Sample ID	Laboratory Use Only/Lab ID:
(MM DD YY) (2400 Hr Clock) (hrs:min) (Gallons)	AL VOL PURGED WELL VOLs (Gallons) PURGED
Note: For Passive Sampling, replace "Water Vol in Casing" Well Vols Purged" w/ Water Vol in Tubing/Flow Cell vols Purged  Purging and Sampling Equipment Dedicated:  Purging Device  A-Submersible Pump B-Peristaltic Pump Sampling Device C-QED Bladder Pump X-Other:  Sample Tube Type:  Sample Tube Type:  A-In-line Disposal B-Pressure  A-Teflon B-Stainless Steel	μ (circle or fill in)
Well Elevation (at TOC)  Depth to Water (DTW)  Groundwater Elev (site datum, from TOC)  Groundwater Elev (site datum, from TOC)	
Note: Total Well Depth, Stick Up, Casing Id. etc., are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and	Casing in) Material Groundwater Elevation must be current.
Sample Time Rate/Unit pH Conductance (SC/EC) Temp. Turbidity D.O. (mtu) (mg/L - ppm)  (2400 Hr Clock)	eH/ORP Other:  (mV) Units
Sample Appearance: Cur Odor: Non Color: Cler	other:
Weather Conditions (required daily, or as conditions change): Direction/Speed: Outlook: Outlook: Specific Comments (including purge/well volume calculations if required):	Precipitation: Y or N
I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should be a sampler).	SUS

	FIFI D I	NEORMA	TION FOR	DM		
Site Nam	This W	aste Management Field	d Information Form is Re-	quired	WAST	E MANAGEMENT
Site	This for	rm is to be completed, ir	n addition to any State Forn of Custody Forms that acc	ns. The Field Form is	Laboratory Use Only/Lat	b ID:
No.	Point: MM - SS containe	ers (i.e. with the cooler	that is returned to the labor	ratory).	-	
PURGE	PURGE DATE PURGE TIME ELAPS	SED HRS	WATER VOL IN CA	ASING ACTUAL	VOL PURGED	WELL VOLS
<u>a</u> -		s-min)	(Gallone)	(	Gallone)	DUDCED
J.E.	Purging and Sampling Equipment Dedicated:		er Device: or   N		Mark changes, record field    \( \mu \) (circle or f	
AMEN	Purging Device A-Submersible Pump D-Bailer		14	A-In-line Disposable		,
PURGE/SAMPLE	Sampling Device B-Peristaltic Pump E-Piston Pur C-QED Bladder Pump F-Dipper/Bo		ilter Type:	B-Pressure	X-Other	
Sitting	X-Other:	Sample	Tube Type:	A-Teflon B-Stainless Steel	C-PVC X-Oth D-Polypropylene	ier:
WELL DATA	Well Elevation Depth to Water (at TOC) (fr/msl) (from TOC)	(DTW)	2500	Groundwater Elevati (site datum, from TO		(ft/msl)
WELI	Total Well Depth (from TOC)  Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from him.		quired by Site/Permit. Wel	Casing ID (in)	Casing Material oundwater Elevation must	be current.
	Sample Time Rate/Unit pH Conductance (SC/EC)		Turbidity	D.O.	eH/ORP	DTW
	2400 Hr Clock)  156 350 1" 639 1" (\mu mhos/cm@25°C)	1 908	(ntu)	(mg/L - ppm)	11301	297
	3:01 1 2nd 100 2nd 1 148	907	11111	10[38	77	1204
tiona	13:06 3rd 7107 3rd 1 114 K	908	1 2	0 29	72	200
0	B:111 V 4th 7,11,4th 1,148	907		0.28	70	300
ATA						1111
STABILIZATION DATA (Optional)						
ATIC						
ILIZ						
STAB						
not	ggested range for 3 consec, readings or +/- 0,2 +/- 3%		//=	+/- 10%	+/- 25 mV	Stabilize
Sta by	ibilization Data Fields are Optional (i.e. complete stabilization readings for par State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final re	ameters required by W eadings below and subr	VM, Site, or State). These nit electronic data separate	fields can be used wher ely to Site. If more fields	e four (4) field measuren above are needed, use s	nents are required
ATA	SAMPLE DATE PH CONDUCTANCE	TEMP.	TURBIDITY	DO	eH/ORP Oth	ier: Tune
FIELD DATA	(MM DD YY) (std) (umhos/cm @ 25°C)	907	(ntu)	(mg/L-ppm)	(mV) Unit	
Fir	nal Field Readings are required (i.e. record field measurements, final stabilized	readings, passive san	nple readings before samp	oling for all field parame		ermit/Site.
	mple Appearance:	Odor: Nav	u c	olor: Clu	Other:	
		Direction/Speed:	Outl	look: Evercus	Precipitation:	Y on (K)
	ecific Comments (including purge/well volume calculations if requir	red):	2			
COMMENTS						
— W						
						<del></del>
	artific that compling area described.	CA	HONOR AN			
A CE	ertify that sampling procedures were in accordance with applicable EPA,	State, and WM pro	tocols (if more than one	sampler, all should sig	(n):	
_		full V				
_	Date Name	Signature	PLY AND MOVEMENT HOUSE	Comp	pany	
	DISTRIBUTION: WHITE/ORIGINAL-	<ul> <li>otays with Sample, Y</li> </ul>	ELLOW - Returned to Cl	hent, PINK - Field Copy		

	FIELD IN	FORMATION FORM	
Site	e: OL/SC. This Wa	e Management Field Information Form is Required	TH MANAGEMENT
Site No.	This form	is to be completed, in addition to any State Forms. The Field Form is along with the Chain of Custody Forms that accompany the sample (i.e. with the cooler that is returned to the laboratory).	ab ID:
PURGE	(MM DD YY) (2400 Hr Clock) (hrs:	D HRS WATER VOL IN CASING ACTUAL VOL PURGED	WELL VOLS PURGED
PURGE/SAMPLE EQUIPMENT	Purging and Sampling/Equipment Dedicated:	Filter Device: Or N 0.45 µ or µ (circle o	
WELL DATA	Well Elevation (at TOC)  Total Well Depth (from TOC)  Note: Total Well Depth Stick Up Casing Id etc. are optional and can be from him.	(ft) (site datum, from TOC)  Casing Casing	(ft/msl)
STABILIZATION DATA (Optional)	Sample Time 2400 Hr Clock)  Rate/Unit pH (std)  Conductance (SC/EC) (µmhos/cm@25°C)  C171 390 1 <sup>st</sup> 5 6 9 1 <sup>st</sup> 70  C176 2 <sup>nd</sup> 5 6 9 2 <sup>nd</sup> 70  2131 3 <sup>rd</sup> 5 6 9 3 <sup>rd</sup> 7 5  213 6 4 <sup>th</sup> 7 6	Temp. Turbidity D.O. eH/ORP (mV)    O   O   O   O   O   O      O   O   O	DTW (ft)    9   14    9   22    19   22    9   22    10
FIELD DATA	SAMPLE DATE PH CONDUCTANCE  (MM DD YY) (std) (umhos/cm @ 25°C)    \	$  \begin{array}{c c c c c c c c c c c c c c c c c c c $	ther: Time
Sa	mple Appearance:	odor: Color: Other:  irection/Speed: Outlook: Outlook: Precipitation	
FIELD COMMENTS	ecific Comments (including purge/well volume calculations if required to the following	turbilly	
	Date  Date  Date  Date  Date  Date  Date  Date  Date  Distribution: White/Original-	Signature tays with Sample, YELLOW - Returned to Client. PINK - Field Copy	

Site FIELD INFORMATION FORM
Name:    This Waste Management Field Information Form is Required   This form is to be completed, in addition to any State Forms. The Field Form is   The product of the pr
Site No.:  Sample Point:  Sample ID  Sample ID  Sample ID  Submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).
PURGE DATE PURGE TIME ELAPSED HRS WATER VOLIN CASING ACTUAL VOL PURGED WELL VOLS
Note: For Passive Sampling, replace "Water Vol in Casing" are "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell And Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.
Purging and Sampling Equipment Dedicated: Y N Filter Device or N 0.45 µ or µ (circle or fill in)
Purging Device A-Submersible Pump B-Peristaltic Pump E-Piston Pump F-Dipper/Bottle  A-In-line Disposable C-Vacuum B-Pressure X-Other  A-In-line Disposable C-Vacuum B-Pressure X-Other  A-Teflon C-PVC X-Other:
Purging and Sampling Equipment Dedicated:  Purging Device  A-Submersible Pump  B-Peristaltic Pump  E-Piston Pump  Sampling Device  C-QED Bladder Pump  T-Dipper/Bottle  X-Other:  B-Pitter Device:  Or N 0.45 µ or µ (circle or fill in)  A-In-line Disposable C-Vacuum  B-Pressure  A-Teflon  C-PVC  X-Other:  Sample Tube Type:  B-Stainless Steel  D-Polypropylene
Well Elevation (at TOC)  Total Well Depth (from TOC)  Stick Up (from ground elevation)  (from TOC)  Total Well Depth (from Force)  Stick Up (from ground elevation)  Natural Well Depth Stick Up (from ground elevation)  Natural Well Depth Stick Up (from ground elevation)  Natural Well Depth Stick Up (from ground elevation)  Natural Well Depth Stick Up (from ground elevation)
Total Well Depth   Stick Up   Casing   Casing   (from TOC)   (ft) (from ground elevation)   (ft) (from ground elevation)   (ft) (from ground elevation)   (ft) (from ground elevation)   (ft) (ft) (from ground elevation)   (ft) (ft) (ft) (ft) (ft)   (ft) (ft) (ft) (ft) (ft) (ft) (ft) (ft)
Sample Time Rate/Unit pH Conductance (SC/EC) Temp. Turbidity D.O. eH/ORP DTW (2400 Hr Clock) (std) (µmhos/cm@25°C) (°C) (ntu) (ng/L - ppm) (mV) (ft)
[10:310 350 1.51612 1.168 11184 13 3 29 40 P
= 10:35 1 2 5.62 2 165 11 PC 13 1145 3301 410 P
TO: 40  310  310  310  310  310  310  310  3
5 0:45 4 51612 4 1165 11 B 13 159 334 14012
Suggested range for 3 consec, readings or +/- 0,2 +/- 3% +/- 10% +/- 25 mV Stabilize
note Permit/State requirements:  Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet or f
SAMPLE DATE pH CONDUCTANCE TEMP. TURBIDITY DO eH/ORP Other: W (mM DD YY) (std) (umhos/cm @,25°C) (°C) (ntu) (mg/L-ppm) (mV) Units  Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.
Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permitt/Site.
Sample Appearance: Cur Odor: Nem Color: Cler Other:
Weather Conditions (required daily, or as conditions change): Direction/Speed: Outlook: Outlook: Precipitation: Y or
Specific Comments (including purge/well volume calculations if required):
ENTS
I certify that sampling procedures were in accordance with applicable EPA, State, and WM by ptocols (if more than one sampler, all should sign):
11,19 MATOUTAN (MI) SCS
Date Name Signature Company  DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Conv

	FIELD INFOR	MATION FORM	1	VAVA\
Site Name:		ent Field Information Form is Require		WASTE MANAGEMENT
Site     Sample   M	3   U   C   submitted along with th	leted, in addition to any State Forms. T e Chain of Custody Forms that accompa	any the sample Laboratory Us	e Only/Lab ID:
No.: Point: V\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	ample ID containers (i.e. with the	cooler that is returned to the laboratory	/).	
PURGE DATE PURGE (2400 Hr	Clock) (hrs:min)	WATER VOL IN CASII (Gallons)	(Gallons)	PURGED
Note: For Passive Sampling, replace "Water Vol in	Casing " and "Well Vols Purgad" w/ Water V	ol in Tubing/Flow Cell and Tubing/Flow	w Cell Vols Purged. Mark changes, r	ecord field data, below.
Purging and Sampling Equipment Dedicated:  Purging Device A-Submersibl B-Peristaltic P C-QED Bladd	Y or N	Filter Device:   Y or N		(circle or fill in)
Purging Device A-Submersible B-Peristaltic P C-QED Bladd		4	-In-line Disposable C-Vacuum Pressure X-Other	
Sampling Device C-QED Bladd	er Pump F-Dipper/Bottle	1 A-	-Teflon C-PVC	X-Other:
X-Other:	Sa	ımple Tube Type: B-	-Stainless Steel D-Polypropy	ene
Well Elevation (at TOC)  Total Well Depth (from TOC)  Natur Total Well Depth Stick Un Coming Ideas on the Ideas on the Ideas on Ideas on the Ideas on the Ideas on the Ideas on the Ideas on the Ideas on the Ideas on the Ideas on the Ideas on Ideas on the Ideas on the Ideas on the Ideas on the Ideas on the Ideas on the Id	Depth to Water (DTW) (from TOC)		roundwater Elevation te datum, from TOC)	(ft/msl)
Total Well Depth  (from TOC)	Stick Up (from ground elevation)	Ca (ft) ID	asing Casing Casing (in) Materia	. [ ]
Hole. Total Well Depth, Shok Op, Cusing ia. etc. are				
Sample Time Rate/Unit pH (2400 Hr Clock) (std)	Conductance (SC/EC) Temp (umhos/cm@25°C) (°C)	Turbidity (ntu)	D.O. eH/ORI (ing/L - ppm) (mV)	DTW (ft)
09:37 900 670	1 2311 12	70 16281	1 951 1179	1 47.6
@ C. U 7 \ / .2.0		74 7//	013 1 6.5	11010
2nd 0.00 2	27117		0113 1183	1 7 210
(among of 187) 3rd 077	rd CSI IC	80 100	640 [R3	1 4510
2 2 2 0 0 0 4 4 0 2 2 2	11 632 112	84 18	039 183	. 4210
10:03 6:22	1232 12	83 1814	038 183	1 4210
Q N C				
			F 7 10 7	
STABILIZATION DATA				
				+ + + + + + + + + + + + + + + + + + + +
Suggested range for 3 consec, readings or +/- 0.2	+/- 3%		1 100	
note Permit/State requirements:  Stabilization Data Fields are Optional (i.e. complete sta	bilization readings for parameters requir	ed by WM, Site, or State). These fiel	+/- 10% +/- 25 mV	l measurements are required
by State/Permit/Site. If a Data Logger or other Electronic	format is used, fill in final readings below t	and submit electronic data separately to	o Site. If more fields above are nee	ded, use separate sheet or form,
SAMPLE DATE PH  (MM DD YY) (std)	CONDUCTANCE TEM (umhos/cm @ 25°C) (°C)	P. TURBIDITY (ntu)	DO eH/OR (mg/L-ppm) (mV)	Other: Units
Final Field Readings are required (i.e., record field med	surements, final stabilized readings, pas	83 4 Sive sample readings before sampling	g for all field parameters required	by State/Permit/Site.
Sample Appearance: CUV		lone Color	()	
Weather Conditions (required daily, or as conditions)			8	cipitation: Y or N
Specific Comments (including purge/well volur	ne calculations if required):	· · · · · · · · · · · · · · · · · · ·		
a Extended pury don	to Let topheli	۲.		
La la la la la la la la la la la la la la	and the same	)		
COMMENT				
Ē			3	
I certify that sampling procedures were in accorda	nce with applicable EPA, State, and	Morotocols (if more than one sar	mpler, all should sign):	
They warren	Marc 10	WW C	300	
			*	
Date Name	Signature ON: WHITE/ORIGINAL - Stave with Se	mnle VELLOW - Returned to Client	Company	

	FIELD INFO	RMATION FOR	M	
Site Name:	This Waste Manag	gement Field Information Form is Requestion of the Requestion of the Register	ired . The Field Form is	WASTE MANAGEMENT
Site Sample Point:	submitted along wit	th the Chain of Custody Forms that accord the cooler that is returned to the laborat	npany the sample	aboratory Use Only/Lab ID:
1 5 =	RGE TIME ELAPSED HRS 10 Hr Clock) (hrs:min) 10 in Casing" garg "Well Vols Purged" w/ Wate	WATER VOL IN CA (Gallons) ter Vol in Tubing/Flow Cell agrd Tubing/H	(Gal	OL PURGED WELL VOLs lons) PURGED rk changes, record field data, below.
B-Perista	or N  or Strible Pump D-Bailer  ltic Pump E-Piston Pump  ladder Pump F-Dipper/Bottle	Filter Type:	A-Teflon C	μ (circle or fill in)  -Vacuum  -Other  -PVC X-Other:
Well Elevation (at TOC)  Total Well Depth (from TOC)  Note: Total Well Depth, Stick Up, Casing Id. et	Depth to Water (DTW) (ff/msl) (from TOC)  Stick Up (ft) (from ground elevation)  tc. are optional and can be from historical dol	(n)	Groundwater Elevation (site datum, from TOC)  Casing (in)  Elevation DTW and Ground	Casing Material Character Flavation must be current
Sample Time (2400 Hr Clock)  Rate/Unit pH (std)  O S S S S S S S S S S S S S S S S S S	Conductance (SC/EC) (µmhos/cm@25°C)  1	Turbidity (°C) (ntu)  312 314 314 314 314 314 314 314 314 314 314	D.O. (mg/L - ppm)    Z	eH/ORP DTW (ft)  3 3 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
SAMPLE DATE pH (MM DD YY) (std)  [Std]  [Std	(umhos/cm @ 25°C) (	EMP. TURBIDITY  (°C) (ntu)  3 14   Z    passive sample readings before sample	Ing/L-ppm)    2 7   3	eH/ORP Other: The (mV) Units 100 12
Sample Appearance: Cew Weather Conditions (required daily, or as c Specific Comments (including purge/well	Odor:	Nene co	olor: Cler	Other: Precipitation Y or N
The defendance of the latern o	u water level	dise to las	2 Candu	. Himb
I certify that sampling procedures were in acc	Signate Suttion: WHITE/ORIGINAL - Stays with	AH	Compar	S <i>U</i> S

FIELD I	NFORMATION FORM	V
Site   NIF1	aste Management Field Information Form is Required	
I list to	rm is to be completed, in addition to any State Forms. The	11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	ers (i.e. with the cooler that is returned to the laboratory).	
PURGE DATE PURGE TIME ELAP.	old IIII	
PURGE DATE PURGE TIME ELAP	SED HRS WATER VOL IN CASIN	
(MM DD YY) (2400 Hr Clock) (ht  Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Pur	s:min) (Gallons) ged** w/ Water Vol in Tubing/Flow Cell one Tubing/Flow	(Gallons) PURGED  Cell Vols Purged. Mark changes, record field data, below.
Purging and Sampling Equipment Dedicated: or N	Filter Device: N	0.45 $\mu$ or $\mu$ (circle or fill in)
Purging Device A-Submersible Pump D-Bailer		n-line Disposable C-Vacuum
Purging Device A-Submersible Pump B-Peristaltic Pump E-Piston Purging Device C-QED Bladder Pump F-Dipper/B	ottle	ressure X-Other
Purging and Sampling Equipment Dedicated: or N Purging Device A-Submersible Pump D-Bailer B-Peristaltic Pump E-Piston Pu Sampling Device C-QED Bladder Pump F-Dipper/B		Teflon C-PVC X-Other: trainless Steel D-Polypropylene
Well Elevation (at TOC)  Total Well Depth (from TOC)  Total Well Depth (from TOC)  (from TOC)  One of the Water (from TOC)  One of the Well Depth (from ground elevation)  One of the Well Depth (from ground elevation)		oundwater Elevation (ff/msi)
Total Well Depth         Stick Up		ing   Casing
(from TOC)  Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from		(in) Material ation, DTW, and Groundwater Elevation must be current.
Sample Time Rate/Unit pH Conductance (SC/EC (2400 Hr Clock) (std) (µmhos/cm@25°C)	Temp. Turbidity (°C) (ntu)	D.O. eH/ORP DTW (mg/L - ppm) (mV) (ft)
0855 375 1037 11 250	1470 13	11118 325 3692
0.9.00	1.47	A. 0 7.7.3 3./c
T	1470	031 322
3rd (2) 3rd (2) 4		08 369 3692
209110 14 633 4	1976 7	084 322 3692
ATZ		
Q Z		
STABILIZATION DATA (Optional)  31rd (01.24.3 3 4 1 2.4 6 6 1 3 3 4 1 1 2.4 6 6 1 3 3 4 1 1 2.4 6 1 3 3 4 1 1 2.4 6 1 3 3 4 1 1 2.4 6 1 3 3 4 1 1 2.4 6 1 3 3 4 1 1 2 4 6 1 3 4		
STA STA		
Suggested range for 3 consec. readings or +/- 0,2 +/- 3%	e 1	+/- 10% +/- 25 mV Stabilize
Stabilization Data Fields are Optional (i.e. complete stabilization readings for pa by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final	rameters required by WM, Site, or State). These field	s can be used where four (4) field measurements are required
	TEMP. TURBIDITY	DO eH/ORP Other: 7
(MM DD YY) (std) (umhos/cm @ 25°C)	(°C) (ntu)	(mg/L-ppm) (mV) Units
SAMPLE DATE PH CONDUCTANCE (umhos/cm @ 25°C)  Final Field Readings are required (i.e., record field measurements, final stabilize	d readings, passive sample readings before sampling	for all field parameters required by State/Permit/Site.
Sample Appearance: Clux	Odor: Von Color:	Clean Other:
Weather Conditions (required daily, or as conditions change):	Direction/Speed:Outlook:	Precipitation Y or N
Specific Comments (including purge/well volume calculations if requ	red);	
2 Jup. 1 taken here @ 0920		
THE TOTAL STATE OF THE STATE OF		
I certify that sampling procedures were in accordance with applicable EP	, State, and WM protocols (if more than one sam	pler, all should sign):
11, W, M MAT GITAL	WIM	565
Date Name DISTRIBUTION: WHITE/ORIGINAL	Signature - Stays with Sample, YELLOW - Returned to Client.	Company PINK - Field Copy

	FIELD INFORMATION FORM
	This Waste Management Field Information Form is Required This form is to be completed, in addition to any State Forms. The Field Form is
	te D: Sample Point:   NW - Z
PURGE	PURGE DATE  PURGE TIME  (MM DD YY)  (2400 Hr Clock)  (Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.
PURGE/SAMPLE	Purging and Sampling Equipment Dedicated:  Purging Device  A-Submersible Pump B-Peristaltic Pump Sampling Device  C-QED Bladder Pump  F-Dipper/Bottle  X-Other:  Sample Tube Type:  Filter Device:  Filter Device:  A-In-line Disposable B-Pressure  X-Other  A-Teflon B-Stainless Steel D-Polypropylene
WELL DATA	Well Elevation (at TOC)  Depth to Water (DTW)  (from TOC)  Depth to Water (DTW)  (from TOC)  Stick Up  Casing  Casing
<b>X</b>	(from TOC) (ft) (from ground elevation) (ft) ID (in) Material  Note: Total Well Depth, Stick Up. Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.
ELD DATA	Sample Time Rate/Unit pH Conductance (SC/EC) Temp. Turbidity D.O. (mg/L-ppm) (mV) (ft)    O
	Cinal Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.  Sample Appearance:  Odor: Very Color: (lew Other:
	Sample Appearance: Odor: Vinc Color: Clerk Other:  Weather Conditions (required daily, or as conditions change): Direction/Speed: Outlook: Precipitation/Y or N
	Specific Comments (including purge/well volume calculations if required):
FIELD COMMENTS	Extended fronge dose to high turbility
I	certify that sampling procedures, were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):
	Date Name Signature Company  DISTRIBUTION: WHITE/ORIGINAL Stays with Sample VELLOW - Returned to Client PINK Field Conv.

Site	0.20 1 12-1-1	NFORMATION FORM
Name Site No.:	This fo	Waste Management Field Information Form is Required  orm is to be completed, in addition to any State Forms. The Field Form is itted along with the Chain of Custody Forms that accompany the sample iners (i.e. with the cooler that is returned to the laboratory).
PURGE	(MM DD YY) (2400 Hr Clock) (hr	PSED HRS WATER VOL IN CASING ACTUAL VOL PURGED WELL VOLS  as:min) (Gallons) (Gallons) PURGED  wrged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.
PURGE/SAMPLE EQUIPMENT	Purging and Sampling Equipment Dedicated:  Purging Device  A-Submersible Pump  B-Peristaltic Pump  Sampling Device  C-QED Bladder Pump  K-Other:	
WELL DATA	Well Elevation (at TOC)  Total Well Depth (from TOC)  Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from	
STABILIZATION DATA (Optional)	Sample Time Rate/Unit pH Conductance (SC/EC (µmhos/cm@25°C)  1 1 1 2 2 3 3 2 2 3 3 2 2 2 3 3 2 2 2 3 3 2 2 2 3 3 2 2 2 3 3 2 2 2 3 3 2 2 2 3 3 2 2 2 3 3 2 2 2 3 3 2 2 2 3 3 2 2 2 3 3 2 2 2 3 3 2 2 2 2 3 3 2 2 2 2 3 3 2 2 2 2 3 3 2 2 2 2 3 3 2 2 2 2 3 3 2 2 2 2 3 3 2 2 2 2 3 3 2 2 2 2 3 3 2 2 2 2 3 3 2 2 2 2 3 2 2 2 2 3 3 2 2 2 2 2 3 2 2 2 2 2 3 2	, , , , , , , , , , , , , , , , , , , ,
FIELD DATA	SAMPLE DATE PH CONDUCTANCE (MM DD YY) (std) (umhos/cm @ 25°C)	E TEMP. TURBIDITY DO eH/ORP Other:
Sa We Sp	nal Field Readings are required (i.e. record field measurements, final stabilized imple Appearance:  ceather Conditions (required daily, or as conditions change):  decific Comments (including purge/well volume calculations if required daily).	od readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.  Odor: Color: Color: Other:  Direction/Speed: Outlook: Raw Precipitation: Y of N
	14 14 0111	A, State, and WM protocols (if more than one sampler, all should sign):
	Date Name DISTRIBUTION: WHITE/ORIGINAL	Signature Company L. Stavs with Sample VELLOW - Peturned to Client PINK - Field Conv.

	ar -			FI	ELD IN	VF (	ORMA	TIO	V FORM	M	W	$\sqrt{\Lambda}\sqrt{\Lambda}$
Si Nai		SL			This Wa	ste Ma	nagement Fie	ld Informatio	on Form is Requi		WAS	THEMEDANAM BY
Si No		Sam Poir	11 11 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Sample ID	submitte	d along	with the Chair	n of Custody	Forms that accomp	pany the sample	Laboratory Use Only/L	ab ID:
PURGE	PURGE DA (MM DD Y Note: For Passive S	Y)	(2400 H	E TIME Ir Clock) In Casing" an	ELAPSI (hrs:	min)			VOL IN CAS (Gallons)  fell and Tubing/Fi		L VOL PURGED (Gallons) Mark changes, record fie	WELL VOLS PURGED
PURGE/SAMPLE	Purging and Sampl Purging Device Sampling Device X-Other:	ling Equipmen		ble Pump Pump	or N  D-Bailer E-Piston Pun  F-Dipper/Bot	ıp	Fii F	ter Device: Tilter Type: Tube Type:		0.45 µ or   A-In-line Disposab B-Pressure A-Teflon B-Stainless Steel	μ (circle o le C-Vacuum X-Other	
WELL DATA	Well Elevation (at TOC)				epth to Water ( rom TOC)	DTW	)	156		Groundwater Eleva site datum, from T		(ft/msl)
WELL	Total Well Depth (from TOC) Note: Total Well De			(ft) (fr	cick Up rom ground elev and can be from his			equired by Si	(ft) I		Casing n) Material Groundwater Elevation mu	st be current.
	Sample Time (2400 Hr Clock)	Rate/Unit	pH (std)	(μmho	ctance (SC/EC) os/cm@25°C)	L	Temp.	Th	arbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
al)	09:24	1 <sup>m</sup>	E / O	1 <sup>st</sup> 2 <sup>nd</sup>	095		011		656	0 59	21145	1150
(Optional)	091219	3 <sup>rd</sup>	c	3 <sup>rd</sup> 4 <sup>th</sup>	095		11011		387	040	21165	156
STABILIZATION DATA	0191319		5,7,3		095		1011		2 70	0 33	211716	1567
TION					1 1 1			-1-		_1_1_		
ILIZA						-						
STAB					LIL		1.1	1		11		
	uggested range for 3 consec		+/- 0,2		+/- 3%	-	=			+/- 10%	+/- 25 mV	Stabilize
S	ote Permit/State requirement tabilization Data Fields v State/Permit/Site If a	are Optional	(i.e. complete s	itabilization	readings for pare	meters	s required by	WM, Site, or	State). These fi	elds can be used wh	ere four (4) field measur ds above are needed, use	ements are required
	SAMPLE DATE	, Dala Logger C	pH		DUCTANCE		TEMP.		RBIDITY	DO Sile, If more fiel		separate sheet or form. ther:
FIELD DATA	(MM DD YY)  1 2 0 1  Cinal Field Readings are	q     e required (i.e	(std) 573 e. record field m		os/cm @ 25°C) O 9 5 s, final stabilized	readin	gs, passive so	imple reading	(ntu)  2 76 gs before sampli	(mg/L-ppm)	(mV) Us	onits Time  0 9 3 9
	Sample Appearance:	- 1	1.01				r:			or: Clear		
	Weather Conditions						ion/Speed:	25	Outloo	ok: clouds/R	Precipitatio	on: Y or N
	Specific Comments (i	including p	arge/well volu	ime calcula	itions if requir	ed):	y <del>=====</del>					<del></del>
IENT												
OMIN												
FIELD COMMENTS												
i ho												
I	certify that sampling		were in accord			State,	and WM pr	otocols (if n	ore than one sa		sign): SCS - FS	
	//		- Sicy	ZEALV		+	/	71			)~) []	
	Date	Nam		TON: WHI	TE/ORIGINAL		nature with Sample.	YELLOW - 1	Returned to Clies	Cont. PINK - Field Co.	ompany	

				FIELD II	VFORMA	TION FOR	M		VAVA
Site Nam		ISL		This Wa	iste Management Fie	d Information Form is Req	uired	WAS	TE MANAGEMENT
Site	1 1 1	Sam	- 114/11/11	submitte	d along with the Chair	n addition to any State Forms n of Custody Forms that acco	mpany the sample	Laboratory Use Only/L	ab ID;
No.		l Poi		ample ID	rs (i.e. with the cooler	that is returned to the labora	tory).		
PURGE	(MM DD Y	YY)	PURGE (2400 Hr	Clock) (hrs:	ED HRS	WATER VOL IN CA		L VOL PURGED (Gallons)	WELL VOLS PURGED
E .	Purging and Samp			Casing" and "Well Vols Purg		ter Device: Y or   N		Mark changes, record field	
PURGE/SAMPLE EQUIPMENT	Purging Device Sampling Device X-Other:		A-Submersib B-Peristaltic I C-QED Bladd	Pump E-Piston Pun	np F	ilter Type: A	A-In-line Disposabl B-Pressure A-Teflon B-Stainless Steel	le C-Vacuum X-Other	other:
WELL DATA	Well Elevation (at TOC)			Depth to Water (from TOC)	(DTW)	1176	Groundwater Eleva (site datum, from To		(ft/msi)
WELL	Total Well Depth (from TOC) Note: Total Well De			Stick Up ft) (from ground elev coptional and can be from hi		(ft)	Casing ID (in	Casing  n) Material	
	Sample Time 2400 Hr Clock)	Rate/Unit	pH (std)	Conductance (SC/EC) (µmhos/cm@25°C)	Temp.	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
STABILIZATION DATA (Optional)	11:0:9	1 st 2 rd 3 rd 4 th	630		11214			1304 748 602 545 479	178 178 177 177 178
Sug note Sta	ggested range for 3 consect Permit/State requirement	nts: are Optional	+/- 0.2 (i.e. complete sta	+/- 3% bilization readings for para	ameters required by	VM, Site, or State). These	+/- 10%  fields can be used whe	+/- 25 mV ere four (4) field measure	Stabilize ements are required
oy .	SAMPLE DATE	Data Logger a	pr other Electronic  pH	format is used, fill in final re CONDUCTANCE	adings below and sub TEMP.	mit electronic data separatel TURBIDITY	by to Site. If more field DO	ls above are needed, use	separate sheet or form. ther:
FIELD DATA	(MM DD YY)  1 2 0 1  al Field Readings are	required (i.e	(std) 3 5 record field med	(umhos/cm @ 25°C) 3 0 9 surements, final stabilized	(°C) 1 2 4 readings, passive sai	(ntu)	(mg/L-ppm)	(mV) Un	nits Time
	mple Appearance:		al Clew		Odor: None		lor: Cleur	Other:	
	eather Conditions ecific Comments (i	-		ons change):  ne calculations if require	Direction/Speed:	2. S Outlo	ook: Clarks Rais	Precipitation	n: Y or N
<u>*</u>	Duptak	en							
COMMENTS									
<u>~</u>									
FIELD —									
									4
I ce	rtify that sampling	Brocedures v	were in accordance of the Beaco	nce with applicable EPA,	State, and WM pro	tocols (if more than one s		ign): SCS-FS	
-	Date	Name		ON: WHITE/ORIGINAL.	Signature Stave with Sample V	FILOW Patronal to Con.		npany	

# APPENDIX B

# FOURTH QUARTER 2014 DATA VALIDATION AND ANALYTICAL DATA REPORTS

(ANALYTICAL DATA REPORTS AVAILABLE ON CD)

# SCS ENGINEERS

# DATA VALIDATION REPORT - OLYMPIC VIEW SANITARY LANDFILL

# **Project Details**

Project No.	04204027.17	Site Name	Olympic View Sanitary Landfill					
Data Validator	Matt O'Hare	Data Level	Level II					
Date	2/13/15 <b>DV Tier</b> Tier I							
QA Document	Olympic View Sanitary Landfill Sampling Analysis Plan, April 30, 2013							

# Sample Login Summary

Sample Group	Sample Login Comments	Analytical Lab (Primary)
280-62647	No comments.	TestAmerica, Denver CO
280-62688	No comments.	TestAmerica, Denver CO
280-62813	COC for MW-33A, MW-34C and MW-34A was delayed, Nitrate analysis preformed outside of hold time. See case narrative.	TestAmerica, Denver CO
280-62814	No comments.	TestAmerica, Denver CO
280-63441	N/A	Analytical Resources Inc.

# **Analytical Summary**

s 1 6	Analyses									
Sample Group	Inorganics	Metals**	VOCs	SVOCs	Pest/PCBs	Herbs	S-/CN-			
280-62647	x	x	x							
280-62688	x	x	x							
280-62813	x	x	x	x	x	x	x			
280-62814	x	x	x							
280-63441		As Only								

# **Laboratory Quality Assurance Samples**

Lab QA Samples	Notes	Comments
Surrogates	See case narrative.	
MB	See case narrative.	
DUP	See case narrative.	Sulfate; 280-62688. See case narrative.
LCS/LCSD	See case narrative.	280-62647 (Ammonia outside RPD control limits), 280-62688 (Vinyl Chloride outside recovery control limits) 280-62813 (p-Chlorotoluene and p-Cymene outside recovery control limits) 280-62814 (Methyl acetate and Vinyl acetate outside recovery control limits). See case narrative.
MS/MSD	See case narrative.	Tetrachloroethene; 280-62647, 280-62688, Ammonia; 280-62647. Dissolved zinc; 280-62647. 1,1-Dichloroethene; 280-62688, 280-62813. Trans-1,2-Dichloroethene; 280-62688. Trichloroethene; 280-62688. Total Iron; 280-62688. Dissolved Manganese; 280-62688, 280-62813, 280-62814. Total Manganese; 280-62688, 280-62814. 1,2,4-Trimethylbenzene; 280-62813. Ethylbenzene; 280-62813. Dissolved Potassium; 280-62813. M-Xylene and p-xylene; 280-62814. See case narrative.

# **Field Quality Assurance Samples**

Field QA Samples	Sample Group	Analytes	Notes
Trip Blank	280-62688	Acetone	Common Laboratory contaminate. See
			case narrative.

**Detailed Field Replicate Evaluation** 

Analyte	Units	MW-20	MW-20 DUP	RPD	MW-32	MW-32 DUP	RPD
Alkalinity, Bicarbonate (As CaCO3)	mg/L	100	99	1	130	130	0
Alkalinity, Total (As CaCO3)	mg/L	100	99	1	130	130	0
Ammonia (As N)	mg/L	0.031	0.038	20	*	0.033	N/A
Arsenic, Dissolved	mg/l	0.0002	0.0002	0	0.0092	0.0092	0
Arsenic, Total	mg/l	0.0002	0.0002	0	0.0092	0.0092	0
Barium, Dissolved	mg/L	0.0063	0.0064	2	0.0060	0.0061	2
Barium, Total	mg/L	0.0057	0.0061	7	0.0059	0.0049	19
Calcium, Dissolved	mg/L	25	24	4	32	33	3
Chloride	mg/L	9.5	9.3	2	12	12	0
Iron, Dissolved	mg/L	*	*	N/A	0.87	0.83	5
Iron, Total	mg/L	*	*	N/A	0.87	0.82	6
Magnesium, Dissolved	mg/L	15	14	7	16	16	0
Manganese, Dissolved	mg/L	0.16	0.16	0	2.4	2.5	4
Manganese, Total	mg/L	0.15	0.15	0	2.4	2.3	4
Potassium, Dissolved	mg/L	3.1	3.0	3	1.3	1.4	7
Nitrate as N	mg/L	2.7	2.6	4	*	*	N/A
Sodium, Dissolved	mg/L	10	8.4	1 <i>7</i>	1 <i>7</i>	1 <i>7</i>	0
Sulfate	mg/L	5.7	5.7	0	16	1 <i>7</i>	6
Total Dissolved Solids (TDS)	mg/L	160	170	6	220	230	4
Total Organic Carbon (TOC)	mg/L	*	1.0	N/A	1.1	1.1	0
Trichloroethene	ug/L	*	0.47 J	N/A	0.49 J	0.51 J	4
Vanadium, Total	mg/L	0.0020	*	N/A	*	*	N/A
Vinyl chloride	υg/L	0.054	0.064	1 <i>7</i>	0.39	0.42	7
Zinc, Dissolved	mg/L	*	*	N/A	0.0055	*	N/A

# **Lab Qualifier Definitions**

Lab Qualifiers	Description	Lab Group
*	LCS or LCSD exceeds the control limits	280-62688, -62813, -62814
F1	MS and/or MSD Recovery exceeds the control limits.	280-62688, -62813, -62814
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.	280-62688, -62813, -62814
٨	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.	280-62688, -62813
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.	280-62688, -62813, -62814
F3	Duplicate RPD exceeds the control limit	280-62688
Χ	Surrogate outside control limits	280-62813, -62814
L	Analyte concentration is less than or equal to 5 times the RL and the replicate control limit defaults to $\pm 1$ RL instead of the normal 20% RPD	280-63441

# **Additional Qualifier Definitions**

Qualifiers	Description	Lab Group
U	Results were not detected at concentrations greater than the method reporting limit.	
J	Sample results were estimated either as a trace result (between the method reporting limit and the method detection limit) or a sample impacted by potential bias from blank introduction.	

# **Qualified Data and Usability**

Lab qualifiers are noted. All data, as qualified, are acceptable for use.



# **ANALYTICAL REPORT**

Job Number: 280-62647-1

Job Description: WA02|Olympic View Sanitary LF

For:

Waste Management Sun Valley Hauling 9081 Tujunga Avenue Sun Valley, CA 91352

Attention: Mr. Phil Perley

Betsy Sara

Approved for release Betsy A Sara Project Manager II 12/12/2014 9:45 AM

Betsy A Sara, Project Manager II 4955 Yarrow Street, Arvada, CO, 80002 (303)736-0189 betsy.sara@testamericainc.com 12/12/2014

cc: Mr. Sam Adlington Mr. Charles Luckie Mr. Matt O'Hare Ms. Elena Ramirez

Mr. Dan Venchiarutti

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is 4025.



TestAmerica Denver 4955 Yarrow Street, Arvada, CO 80002 Tel (303) 736-0100 Fax (303) 431-7171 <u>www.testamericainc.com</u>



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#### **CASE NARRATIVE**

**Client: Waste Management** 

Project: WA02|Olympic View Sanitary LF

Report Number: 280-62647-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

This report may include reporting limits (RLs) less than TestAmerica's standard reporting limit. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

#### Sample Receiving

The samples were received on 11/18/2014; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 2.2 C.

#### **Holding Times**

All holding times were within established control limits.

#### **Method Blanks**

All Method Blank recoveries were within established control limits.

#### **Laboratory Control Samples (LCS)**

The Method 350.1 LCS/LCSD exhibited RPD data outside the QC control limits for Ammonia. Both the LCS and LCSD were recovered within QC control limits, demonstrating that the laboratory performed the method within acceptable guidelines; therefore, corrective action is deemed unnecessary.

All other Laboratory Control Samples were within established control limits.

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

The Matrix Spikes and Matrix Spike Duplicates performed on samples from other clients exhibited recoveries outside control limits for Tetrachloroethene Method 8260C and Ammonia Method 350.1. In addition, the RPD result was outside the RPD limit for Ammonia. Because the corresponding Laboratory Control Samples and the Method Blank samples were within control limits, these anomalies may be due to matrix interference and no corrective action was taken.

Sample MW-35 was selected to fulfill the laboratory batch quality control requirements for Method 6020. Analysis of the laboratory generated MS/MSD for this sample exhibited recoveries of Dissolved Zinc above the upper control limit indicating the possible presence of a matrix interference.

All other MS and MSD samples were within established control limits.

#### **General Comments**

The analyses for Volatile Organics by Method 8260C and Volatile Organics by Method 8260C SIM were performed by TestAmerica Buffalo. Their address and phone number are:

TestAmerica Buffalo 10 Hazelwood Drive, Suite 106 Amherst, NY 14228 716-691-2600

# **EXECUTIVE SUMMARY - Detections**

Lab Sample ID Client Sample ID Analyte	Result	Qualifier	Reporting Limit	Units	Method
280-62647-1 MW-35					
Chloride	1.8		1.0	mg/L	300.0
Sulfate	2.5		1.0	mg/L	300.0
Nitrate as N	0.42		0.050	mg/L	353.2
Alkalinity, Total (As CaCO3)	74		5.0	mg/L	SM 2320B
Alkalinity, Bicarbonate (As CaCO3)	74		5.0	mg/L	SM 2320B
Total Dissolved Solids (TDS)	100		5.0	mg/L	SM 2540C
Dissolved					
Calcium, Dissolved	14		0.040	mg/L	6010B
Magnesium, Dissolved	8.7		0.050	mg/L	6010B
Sodium, Dissolved	5.2		1.0	mg/L	6010B
Barium, Dissolved	0.0031		0.0010	mg/L	6020
Vanadium, Dissolved	0.0036		0.0020	mg/L	6020
Total Recoverable					
Barium, Total	0.0034		0.0010	mg/L	6020
Vanadium, Total	0.0042		0.0020	mg/L	6020
280-62647-2 MW-13A					
Chloride	1.9		1.0	mg/L	300.0
Sulfate	2.1		1.0	mg/L	300.0
Nitrate as N	0.46		0.050	mg/L	353.2
Alkalinity, Total (As CaCO3)	79		5.0	mg/L	SM 2320B
Alkalinity, Bicarbonate (As CaCO3)	79		5.0	mg/L	SM 2320B
Total Dissolved Solids (TDS)	110		5.0	mg/L	SM 2540C
Dissolved					
Calcium, Dissolved	15		0.040	mg/L	6010B
Magnesium, Dissolved	9.3		0.050	mg/L	6010B
Sodium, Dissolved	5.4		1.0	mg/L	6010B
Barium, Dissolved	0.0025		0.0010	mg/L	6020
Vanadium, Dissolved	0.0040		0.0020	mg/L	6020
Total Recoverable					
Barium, Total	0.0026		0.0010	mg/L	6020
Vanadium, Total	0.0042		0.0020	mg/L	6020

# **EXECUTIVE SUMMARY - Detections**

Lab Sample ID Client Sample ID Analyte	Result	Qualifier	Reporting Limit	Units	Method
280-62647-3 MW-13B					
Chloride	2.1		1.0	mg/L	300.0
Sulfate	3.7		1.0	mg/L	300.0
Nitrate as N	0.47		0.050	mg/L	353.2
Alkalinity, Total (As CaCO3)	79		5.0	mg/L	SM 2320B
Alkalinity, Bicarbonate (As CaCO3)	79		5.0	mg/L	SM 2320B
Total Dissolved Solids (TDS)	110		5.0	mg/L	SM 2540C
Dissolved					
Calcium, Dissolved	16		0.040	mg/L	6010B
Magnesium, Dissolved	8.7		0.050	mg/L	6010B
Sodium, Dissolved	5.3		1.0	mg/L	6010B
Barium, Dissolved	0.0035		0.0010	mg/L	6020
Chromium, Dissolved	0.0030		0.0030	mg/L	6020
Vanadium, Dissolved	0.0054		0.0020	mg/L	6020
Total Recoverable					
Barium, Total	0.0037		0.0010	mg/L	6020
Chromium, Total	0.0032		0.0030	mg/L	6020
Vanadium, Total	0.0055		0.0020	mg/L	6020

#### **METHOD SUMMARY**

Client: Waste Management Job Number: 280-62647-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Metals (ICP) Preparation, Total Recoverable or Dissolved Metals	TAL DEN TAL DEN	SW846 6010B	SW846 3005A
Metals (ICP) Preparation, Total Recoverable or Dissolved Metals Sample Filtration, Field	TAL DEN TAL DEN	SW846 6010B	SW846 3005A FIELD_FLTRD
Metals (ICP/MS)  Preparation, Total Recoverable or Dissolved Metals	TAL DEN TAL DEN	SW846 6020	SW846 3005A
Metals (ICP/MS)  Preparation, Total Recoverable or Dissolved Metals  Sample Filtration, Field	TAL DEN TAL DEN	SW846 6020	SW846 3005A FIELD_FLTRD
Anions, Ion Chromatography	TAL DEN	MCAWW 300.0	
Nitrogen, Ammonia	TAL DEN	MCAWW 350.1	
Nitrate	TAL DEN	EPA 353.2	
Alkalinity	TAL DEN	SM SM 2320B	
Solids, Total Dissolved (TDS)	TAL DEN	SM SM 2540C	
Solids, Total Suspended (TSS)	TAL DEN	SM SM 2540D	
Organic Carbon, Total (TOC)	TAL DEN	SM SM 5310B	
Volatile Organic Compounds by GC/MS Purge and Trap	TAL BUF TAL BUF	SW846 8260C	SW846 5030C
Volatile Organic Compounds (GC/MS)  Purge and Trap	TAL BUF TAL BUF	SW846 8260C SI	M SW846 5030C

#### Lab References:

TAL BUF = TestAmerica Buffalo

TAL DEN = TestAmerica Denver

#### **Method References:**

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

# METHOD / ANALYST SUMMARY

Method	Analyst	Analyst ID
SW846 8260C	Boldt, Erik D	EDB
SW846 8260C SIM	Sobol, Renee A	RAS
SW846 6010B SW846 6010B	Broander, Laura L Scott, Samantha J	LLB SJS
SW846 6020	Trudell, Lynn-Anne M	LMT
MCAWW 300.0	Phan, Thu L	TLP
MCAWW 350.1	Lawrence, Caitlyn M	CML
EPA 353.2	Sullivan, Roxanne K	RKS
SM SM 2320B	Jewell, Connie C	CCJ
SM SM 2540C	Cherry, Scott V	SVC
SM SM 2540D	Woolley, Mark -	MW1
SM SM 5310B	Jewell, Connie C	CCJ

# **SAMPLE SUMMARY**

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-62647-2	MW-13A	Water	11/17/2014 1340	11/18/2014 0935
280-62647-3	MW-13B	Water	11/17/2014 1500	11/18/2014 0935
280-62647-4TB	TRIP BLANK	Water	11/17/2014 0000	11/18/2014 0935

# **SAMPLE RESULTS**

Job Number: 280-62647-1 Client: Waste Management

Client Sample ID: MW-35

Lab Sample ID: 280-62647-1 Date Sampled: 11/17/2014 1250

Client Matrix: Date Received: 11/18/2014 0935 Water

# 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-216102 Instrument ID: HP5973G Prep Method: 5030C Prep Batch: N/A Lab File ID: G36797.D Dilution: Initial Weight/Volume: 1.0 5 mL Final Weight/Volume: 5 mL

Analysis Date: 11/26/2014 1253

Prep Date: 11/26/2014 1253

Analyte	Result (ug/L)	Qualifier	MDL	RL
,1,1,2-Tetrachloroethane	ND		0.35	1.0
,1,1-Trichloroethane	ND		0.82	1.0
,1,2,2-Tetrachloroethane	ND		0.21	1.0
,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
,1,2-Trichloroethane	ND		0.23	1.0
,1-Dichloroethane	ND		0.38	1.0
,1-Dichloroethene	ND		0.29	1.0
,1-Dichloropropene	ND		0.72	1.0
,2,3-Trichlorobenzene	ND		0.41	1.0
,2,3-Trichloropropane	ND		0.89	1.0
,2,4-Trichlorobenzene	ND		0.41	1.0
,2,4-Trimethylbenzene	ND		0.75	1.0
,2-Dibromo-3-Chloropropane	ND		0.39	1.0
,2-Dibromoethane (EDB)	ND		0.73	1.0
,2-Dichlorobenzene	ND		0.79	1.0
,2-Dichloroethane	ND		0.21	1.0
,2-Dichloroethene, Total	ND		0.81	2.0
,2-Dichloropropane	ND		0.72	1.0
,3,5-Trichlorobenzene	ND		0.23	1.0
,3,5-Trimethylbenzene	ND		0.77	1.0
,3-Dichlorobenzene	ND		0.78	1.0
,3-Dichloropropane	ND		0.75	1.0
,4-Dichlorobenzene	ND		0.84	1.0
4-Dioxane	ND		9.3	40
,2-Dichloropropane	ND		0.40	1.0
-Butanone (MEK)	ND		1.3	10
-Chloroethyl vinyl ether	ND		0.96	5.0
-Hexanone	ND		1.2	5.0
-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
cetone	ND		3.0	10
cetonie	ND		4.9	15
crolein	ND ND		0.91	20
crylonitrile	ND ND		0.83	5.0
enzene	ND ND		0.63	1.0
romobenzene	ND		0.41	1.0
	ND ND		0.87	
romochloromethane romodichloromethane	ND ND		0.87	1.0
				1.0
romoform	ND ND		0.26	1.0
romomethane	ND		0.69	1.0
utyl alcohol, n-	ND		8.9	40
utyl alcohol, tert-	ND		3.3	10
arbon disulfide	ND		0.19	1.0
carbon tetrachloride	ND		0.27	1.0
hlorobenzene	ND		0.75	1.0
Chlorodifluoromethane	ND		0.26	1.0
Chloroethane	ND		0.32	1.0

Job Number: 280-62647-1 Client: Waste Management

Client Sample ID: MW-35

Lab Sample ID: 280-62647-1 Date Sampled: 11/17/2014 1250

Client Matrix: Date Received: 11/18/2014 0935 Water

# 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-216102 Instrument ID: HP5973G Prep Method: 5030C Prep Batch: N/A Lab File ID: G36797.D Dilution: Initial Weight/Volume: 1.0 5 mL Final Weight/Volume: 5 mL

Analysis Date: 11/26/2014 1253

Prep Date: 11/26/2014 1253

Analyte	Result (ug/L)	Qualifier	MDL	RL
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dibromochloromethane	ND		0.32	1.0
Dibromomethane	ND		0.41	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Dichlorofluoromethane	ND		0.34	1.0
Ethyl acetate	ND		0.66	1.0
Ethyl ether	ND		0.72	1.0
Ethyl tert-butyl ether	ND		0.29	1.0
Ethylbenzene	ND		0.74	1.0
Hexachlorobutadiene	ND		0.28	1.0
Hexane	ND		0.40	10
Iodomethane	ND		0.30	1.0
Isobutanol	ND		4.8	25
Isopropyl ether	ND		0.59	1.0
Isopropylbenzene	ND		0.79	1.0
Methacrylonitrile	ND		0.69	5.0
Methyl acetate	ND		0.50	2.5
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
m-Xylene & p-Xylene	ND		0.66	2.0
Naphthalene	ND		0.43	1.0
n-Butylbenzene	ND		0.64	1.0
N-Propylbenzene	ND		0.69	1.0
o-Chlorotoluene	ND		0.86	1.0
o-Xylene	ND		0.76	1.0
p-Chlorotoluene	ND		0.84	1.0
p-Cymene	ND		0.31	1.0
sec-Butylbenzene	ND		0.75	1.0
Styrene	ND		0.73	1.0
Tert-amyl methyl ether	ND		0.27	1.0
tert-Butylbenzene	ND		0.81	1.0
Tetrachloroethene	ND		0.36	1.0
Tetrahydrofuran	ND		1.3	5.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
trans-1,4-Dichloro-2-butene	ND		0.22	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0
Vinyl ablarida	ND		0.85	5.0
Vinyl chloride	ND		0.90	1.0

Client: Waste Management Job Number: 280-62647-1

Client Sample ID: MW-35

Lab Sample ID: 280-62647-1 Date Sampled: 11/17/2014 1250

Client Matrix: Water Date Received: 11/18/2014 0935

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-216102 Instrument ID: HP5973G Prep Method: 5030C Prep Batch: N/A Lab File ID: G36797.D Dilution: 1.0 Initial Weight/Volume: 5 mL

Dilution: 1.0 Initial Weight/Volume: 5 mL

Analysis Date: 11/26/2014 1253 Final Weight/Volume: 5 mL

Prep Date: 11/26/2014 1253

Surrogate%RecQualifierAcceptance Limits1,2-Dichloroethane-d4 (Surr)10066 - 1374-Bromofluorobenzene (Surr)10273 - 120Toluene-d8 (Surr)9971 - 126

Client: Waste Management Job Number: 280-62647-1

Client Sample ID: MW-35

Lab Sample ID: 280-62647-1 Date Sampled: 11/17/2014 1250

Client Matrix: Water Date Received: 11/18/2014 0935

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-216102 Instrument ID: HP5973G Prep Method: 5030C Prep Batch: N/A Lab File ID: G36797.D

Dilution: 1.0 Initial Weight/Volume: 5 mL

Analysis Date: 11/26/2014 1253 Final Weight/Volume: 5 mL

Prep Date: 11/26/2014 1253

**Targeted Tentatively Identified Compounds** 

Cas Number Analyte Est. Result (ug/L) Qualifier

67-72-1 Hexachloroethane TIC ND

RL

1.0

MDL

0.35

Job Number: 280-62647-1 Client: Waste Management

Client Sample ID: MW-13A

Lab Sample ID: 280-62647-2 Date Sampled: 11/17/2014 1340

Client Matrix: Date Received: 11/18/2014 0935 Water

# 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-216102 Instrument ID: HP5973G Prep Method: 5030C Prep Batch: N/A Lab File ID: G36798.D Dilution: Initial Weight/Volume: 1.0 5 mL Final Weight/Volume: 5 mL

Analysis Date: 11/26/2014 1315

1,1,1,2-Tetrachloroethane

Prep Date:	11/26/2014 1315		
Analyte		Result (ug/L)	Qualifier

1, 1, 1,2-1 etrachioroethane	ND	0.35	1.0	
1,1,1-Trichloroethane	ND	0.82	1.0	
1,1,2,2-Tetrachloroethane	ND	0.21	1.0	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.31	1.0	
1,1,2-Trichloroethane	ND	0.23	1.0	
1,1-Dichloroethane	ND	0.38	1.0	
1,1-Dichloroethene	ND	0.29	1.0	
1,1-Dichloropropene	ND	0.72	1.0	
1,2,3-Trichlorobenzene	ND	0.41	1.0	
1,2,3-Trichloropropane	ND	0.89	1.0	
1,2,4-Trichlorobenzene	ND	0.41	1.0	
1,2,4-Trimethylbenzene	ND	0.75	1.0	
1,2-Dibromo-3-Chloropropane	ND	0.39	1.0	
1,2-Dibromoethane (EDB)	ND	0.73	1.0	
1,2-Dichlorobenzene	ND	0.79	1.0	
1,2-Dichloroethane	ND	0.21	1.0	
1,2-Dichloroethene, Total	ND	0.81	2.0	
1,2-Dichloropropane	ND	0.72	1.0	
1,3,5-Trichlorobenzene	ND	0.23	1.0	
1,3,5-Trimethylbenzene	ND	0.77	1.0	
1,3-Dichlorobenzene	ND	0.78	1.0	
1,3-Dichloropropane	ND	0.75	1.0	
1,4-Dichlorobenzene	ND	0.84	1.0	
1,4-Dioxane	ND	9.3	40	
2,2-Dichloropropane	ND	0.40	1.0	
2-Butanone (MEK)	ND	1.3	10	
2-Chloroethyl vinyl ether	ND	0.96	5.0	
2-Hexanone	ND	1.2	5.0	
4-Methyl-2-pentanone (MIBK)	ND	2.1	5.0	
Acetone	ND	3.0	10	
Acetonitrile	ND	4.9	15	
Acrolein	ND	0.91	20	
Acrylonitrile	ND	0.83	5.0	
Benzene	ND	0.41	1.0	
Bromobenzene	ND	0.80	1.0	
Bromochloromethane	ND	0.87	1.0	
Bromodichloromethane	ND	0.39	1.0	
Bromoform	ND	0.26	1.0	
Bromomethane	ND	0.69	1.0	
Butyl alcohol, n-	ND	8.9	40	
Butyl alcohol, tert-	ND	3.3	10	
Carbon disulfide	ND	0.19	1.0	
Carbon tetrachloride	ND	0.27	1.0	
Chlorobenzene	ND	0.75	1.0	
Chlorodifluoromethane	ND	0.26	1.0	
Chloroethane	ND	0.32	1.0	

Client Sample ID: MW-13A

Lab Sample ID: 280-62647-2 Date Sampled: 11/17/2014 1340

Client Matrix: Water Date Received: 11/18/2014 0935

# 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-216102 Instrument ID: HP5973G Prep Method: 5030C Prep Batch: N/A Lab File ID: G36798.D Dilution: Initial Weight/Volume: 1.0 5 mL Final Weight/Volume: 5 mL

Analysis Date: 11/26/2014 1315 Prep Date: 11/26/2014 1315

Analyte	Result (ug/L)	Qualifier	MDL	RL
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dibromochloromethane	ND		0.32	1.0
Dibromomethane	ND		0.41	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Dichlorofluoromethane	ND		0.34	1.0
Ethyl acetate	ND		0.66	1.0
Ethyl ether	ND		0.72	1.0
Ethyl tert-butyl ether	ND		0.29	1.0
Ethylbenzene	ND		0.74	1.0
Hexachlorobutadiene	ND		0.28	1.0
Hexane	ND		0.40	10
Iodomethane	ND		0.30	1.0
Isobutanol	ND		4.8	25
Isopropyl ether	ND		0.59	1.0
Isopropylbenzene	ND		0.79	1.0
Methacrylonitrile	ND		0.69	5.0
Methyl acetate	ND		0.50	2.5
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
m-Xylene & p-Xylene	ND		0.66	2.0
Naphthalene	ND		0.43	1.0
n-Butylbenzene	ND		0.64	1.0
N-Propylbenzene	ND		0.69	1.0
o-Chlorotoluene	ND		0.86	1.0
o-Xylene	ND		0.76	1.0
p-Chlorotoluene	ND		0.84	1.0
p-Cymene	ND		0.31	1.0
sec-Butylbenzene	ND		0.75	1.0
Styrene	ND		0.73	1.0
Tert-amyl methyl ether	ND		0.27	1.0
tert-Butylbenzene	ND		0.81	1.0
Tetrachloroethene	ND		0.36	1.0
Tetrahydrofuran	ND		1.3	5.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
trans-1,4-Dichloro-2-butene	ND		0.22	1.0
Trichloroethene	ND		0.46	1.0
	ND		0.88	1.0
Trichiorotilloromethane			0.00	
Trichlorofluoromethane Vinyl acetate	ND		0.85	5.0

Client: Waste Management Job Number: 280-62647-1

Client Sample ID: MW-13A

Lab Sample ID: 280-62647-2 Date Sampled: 11/17/2014 1340

Client Matrix: Water Date Received: 11/18/2014 0935

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-216102 Instrument ID: HP5973G Prep Method: 5030C Prep Batch: N/A Lab File ID: G36798.D Dilution: 1.0 Initial Weight/Volume: 5 mL

Dilution: 1.0 Initial Weight/Volume: 5 mL

Analysis Date: 11/26/2014 1315 Final Weight/Volume: 5 mL

Prep Date: 11/26/2014 1315

Surrogate%RecQualifierAcceptance Limits1,2-Dichloroethane-d4 (Surr)9966 - 1374-Bromofluorobenzene (Surr)10273 - 120Toluene-d8 (Surr)9871 - 126

Client: Waste Management Job Number: 280-62647-1

Client Sample ID: MW-13A

Lab Sample ID: 280-62647-2 Date Sampled: 11/17/2014 1340

Client Matrix: Water Date Received: 11/18/2014 0935

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-216102 Instrument ID: HP5973G Prep Method: 5030C Prep Batch: N/A Lab File ID: G36798.D

Dilution: 1.0 Initial Weight/Volume: 5 mL Analysis Date: 11/26/2014 1315 Final Weight/Volume: 5 mL

Analysis Date: 11/26/2014 1315
Prep Date: 11/26/2014 1315

**Targeted Tentatively Identified Compounds** 

Cas Number Analyte Est. Result (ug/L) Qualifier

67-72-1 Hexachloroethane TIC ND

Job Number: 280-62647-1 Client: Waste Management

Client Sample ID: MW-13B

Lab Sample ID: 280-62647-3 Date Sampled: 11/17/2014 1500

Client Matrix: Date Received: 11/18/2014 0935 Water

# 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-216102 Instrument ID: HP5973G Prep Method: 5030C Prep Batch: N/A Lab File ID: G36799.D Dilution: Initial Weight/Volume: 1.0 5 mL 5 mL

Analysis Date: 11/26/2014 1338 Final Weight/Volume:

Prep Date: 11/26/2014 1338

nalyte	Result (ug/L)	Qualifier	MDL	RL
,1,1,2-Tetrachloroethane	ND		0.35	1.0
,1,1-Trichloroethane	ND		0.82	1.0
,1,2,2-Tetrachloroethane	ND		0.21	1.0
,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
,1,2-Trichloroethane	ND		0.23	1.0
,1-Dichloroethane	ND		0.38	1.0
,1-Dichloroethene	ND		0.29	1.0
,1-Dichloropropene	ND		0.72	1.0
,2,3-Trichlorobenzene	ND		0.41	1.0
,2,3-Trichloropropane	ND		0.89	1.0
,2,4-Trichlorobenzene	ND		0.41	1.0
,2,4-Trimethylbenzene	ND		0.75	1.0
,2-Dibromo-3-Chloropropane	ND		0.39	1.0
,2-Dibromoethane (EDB)	ND		0.73	1.0
,2-Dichlorobenzene	ND		0.79	1.0
,2-Dichloroethane	ND		0.21	1.0
,2-Dichloroethene, Total	ND		0.81	2.0
,2-Dichloropropane	ND		0.72	1.0
,3,5-Trichlorobenzene	ND		0.23	1.0
,3,5-Trimethylbenzene	ND		0.77	1.0
,3-Dichlorobenzene	ND		0.78	1.0
,3-Dichloropropane	ND		0.75	1.0
.4-Dichlorobenzene	ND		0.84	1.0
,4-Dioxane	ND		9.3	40
,2-Dichloropropane	ND		0.40	1.0
-Butanone (MEK)	ND		1.3	10
-Chloroethyl vinyl ether	ND		0.96	5.0
-Hexanone	ND		1.2	5.0
-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
cetone	ND		3.0	10
cetonitrile	ND		4.9	15
crolein	ND		0.91	20
crylonitrile	ND		0.83	5.0
enzene	ND		0.41	1.0
romobenzene	ND		0.80	1.0
romochloromethane	ND		0.87	1.0
romodichloromethane	ND		0.39	1.0
romoform	ND		0.26	1.0
romomethane	ND		0.69	1.0
utyl alcohol, n-	ND		8.9	40
utyl alcohol, tert-	ND		3.3	10
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
hlorobenzene	ND		0.75	1.0
Chlorodifluoromethane	ND		0.26	1.0

Job Number: 280-62647-1 Client: Waste Management

Client Sample ID: MW-13B

Lab Sample ID: 280-62647-3 Date Sampled: 11/17/2014 1500

Client Matrix: Date Received: 11/18/2014 0935 Water

# 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-216102 Instrument ID: HP5973G Prep Method: 5030C Prep Batch: N/A Lab File ID: G36799.D Dilution: Initial Weight/Volume: 1.0 5 mL Final Weight/Volume: 5 mL

Analysis Date: 11/26/2014 1338

Prep Date: 11/26/2014 1338

Analyte	Result (ug/L)	Qualifier	MDL	RL
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dibromochloromethane	ND		0.32	1.0
Dibromomethane	ND		0.41	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Dichlorofluoromethane	ND		0.34	1.0
Ethyl acetate	ND		0.66	1.0
Ethyl ether	ND		0.72	1.0
Ethyl tert-butyl ether	ND		0.29	1.0
Ethylbenzene	ND		0.74	1.0
Hexachlorobutadiene	ND		0.28	1.0
Hexane	ND		0.40	10
lodomethane	ND		0.30	1.0
Isobutanol	ND		4.8	25
Isopropyl ether	ND		0.59	1.0
Isopropylbenzene	ND		0.79	1.0
Methacrylonitrile	ND		0.69	5.0
Methyl acetate	ND		0.50	2.5
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
m-Xylene & p-Xylene	ND		0.66	2.0
Naphthalene	ND		0.43	1.0
n-Butylbenzene	ND		0.64	1.0
N-Propylbenzene	ND		0.69	1.0
o-Chlorotoluene	ND		0.86	1.0
o-Xylene	ND		0.76	1.0
p-Chlorotoluene	ND		0.84	1.0
p-Cymene	ND		0.31	1.0
sec-Butylbenzene	ND		0.75	1.0
Styrene	ND		0.73	1.0
Tert-amyl methyl ether	ND		0.27	1.0
tert-Butylbenzene	ND		0.81	1.0
Tetrachloroethene	ND		0.36	1.0
Tetrahydrofuran	ND		1.3	5.0
· · · · · · · · · · · · · · · · · · ·	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
trans-1,4-Dichloro-2-butene	ND		0.22	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0
	ND		0.85	5.0
tert-Butylbenzene Tetrachloroethene Tetrahydrofuran Toluene trans-1,2-Dichloroethene trans-1,3-Dichloropropene trans-1,4-Dichloro-2-butene Trichloroethene	ND ND ND ND ND ND ND ND ND ND ND ND ND		0.27 0.81 0.36 1.3 0.51 0.90 0.37 0.22 0.46 0.88	1.0 1.0 1.0 5.0 1.0 1.0 1.0 1.0

Client: Waste Management Job Number: 280-62647-1

Client Sample ID: MW-13B

Lab Sample ID: 280-62647-3 Date Sampled: 11/17/2014 1500

Client Matrix: Water Date Received: 11/18/2014 0935

8260C Volatile Organic Compounds by GC/MS

480-216102 Analysis Method: 8260C Analysis Batch: Instrument ID: HP5973G Prep Method: 5030C Prep Batch: N/A Lab File ID: G36799.D Dilution: Initial Weight/Volume: 1.0 5 mL

Dilution: 1.0 Initial Weight/Volume: 5 mL

Analysis Date: 11/26/2014 1338 Final Weight/Volume: 5 mL

Prep Date: 11/26/2014 1338

Surrogate%RecQualifierAcceptance Limits1,2-Dichloroethane-d4 (Surr)10366 - 1374-Bromofluorobenzene (Surr)10073 - 120Toluene-d8 (Surr)9971 - 126

Client: Waste Management Job Number: 280-62647-1

Client Sample ID: MW-13B

Lab Sample ID: 280-62647-3 Date Sampled: 11/17/2014 1500

Client Matrix: Water Date Received: 11/18/2014 0935

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-216102 Instrument ID: HP5973G Prep Method: 5030C Prep Batch: N/A Lab File ID: G36799.D

Dilution: 1.0 Initial Weight/Volume: 5 mL

Analysis Date: 11/26/2014 1338 Final Weight/Volume: 5 mL

Prep Date: 11/26/2014 1338

**Targeted Tentatively Identified Compounds** 

Cas Number Analyte Est. Result (ug/L) Qualifier

67-72-1 Hexachloroethane TIC ND

Job Number: 280-62647-1 Client: Waste Management

Client Sample ID: TRIP BLANK

Lab Sample ID: 280-62647-4TB Date Sampled: 11/17/2014 0000 Client Matrix:

Date Received: 11/18/2014 0935 Water

# 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-216102 Instrument ID: HP5973G Prep Method: 5030C Prep Batch: N/A Lab File ID: G36800.D Dilution: Initial Weight/Volume: 1.0 5 mL 5 mL

Analysis Date: 11/26/2014 1400 Final Weight/Volume:

Prep Date: 11/26/2014 1400

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	ND	Q.G.G	0.35	1.0
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,1-Dichloropropene	ND		0.72	1.0
1,2,3-Trichlorobenzene	ND		0.41	1.0
1,2,3-Trichloropropane	ND		0.89	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2,4-Trimethylbenzene	ND		0.75	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane (EDB)	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloroethene, Total	ND		0.81	2.0
1,2-Dichloropropane	ND		0.72	1.0
1,3,5-Trichlorobenzene	ND		0.23	1.0
1,3,5-Trimethylbenzene	ND		0.77	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,3-Dichloropropane	ND		0.75	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
1,4-Dioxane	ND		9.3	40
2,2-Dichloropropane	ND		0.40	1.0
2-Butanone (MEK)	ND		1.3	10
2-Chloroethyl vinyl ether	ND		0.96	5.0
2-Hexanone	ND		1.2	5.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Acetonitrile	ND		4.9	15
Acrolein	ND		0.91	20
Acrylonitrile	ND		0.83	5.0
Benzene	ND		0.41	1.0
Bromobenzene	ND		0.80	1.0
Bromochloromethane Bromodichloromethane	ND		0.87	1.0
	ND		0.39	1.0
Bromoform	ND ND		0.26	1.0
Bromomethane	ND ND		0.69	1.0
Butyl alcohol, n-	ND ND		8.9 3.3	40 10
Butyl alcohol, tert- Carbon disulfide	ND ND		0.19	1.0
Carbon disulide Carbon tetrachloride	ND ND		0.19	1.0
Chlorobenzene	ND		0.27	1.0
Chlorodifluoromethane	ND ND		0.75	1.0
Chloroethane	ND		0.20	1.0
Oniorocalane	ואט		0.02	1.0

Client Sample ID: TRIP BLANK

Lab Sample ID: 280-62647-4TB Date Sampled: 11/17/2014 0000

Client Matrix: Water Date Received: 11/18/2014 0935

# 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-216102 Instrument ID: HP5973G Prep Method: 5030C Prep Batch: N/A Lab File ID: G36800.D Dilution: Initial Weight/Volume: 1.0 5 mL Final Weight/Volume: 5 mL

Analysis Date: 11/26/2014 1400 Prep Date: 11/26/2014 1400

Analyte	Result (ug/L)	Qualifier	MDL	RL
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dibromochloromethane	ND		0.32	1.0
Dibromomethane	ND		0.41	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Dichlorofluoromethane	ND		0.34	1.0
Ethyl acetate	ND		0.66	1.0
Ethyl ether	ND		0.72	1.0
Ethyl tert-butyl ether	ND		0.29	1.0
Ethylbenzene	ND		0.74	1.0
Hexachlorobutadiene	ND		0.28	1.0
Hexane	ND		0.40	10
lodomethane	ND		0.30	1.0
Isobutanol	ND		4.8	25
Isopropyl ether	ND		0.59	1.0
Isopropylbenzene	ND		0.79	1.0
Methacrylonitrile	ND		0.69	5.0
Methyl acetate	ND		0.50	2.5
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
m-Xylene & p-Xylene	ND		0.66	2.0
Naphthalene	ND		0.43	1.0
n-Butylbenzene	ND		0.64	1.0
N-Propylbenzene	ND		0.69	1.0
o-Chlorotoluene	ND		0.86	1.0
o-Xylene	ND		0.76	1.0
p-Chlorotoluene	ND		0.84	1.0
p-Cymene	ND		0.31	1.0
sec-Butylbenzene	ND		0.75	1.0
Styrene	ND		0.73	1.0
Tert-amyl methyl ether	ND		0.27	1.0
tert-Butylbenzene	ND		0.81	1.0
Tetrachloroethene	ND		0.36	1.0
Tetrahydrofuran	ND		1.3	5.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
trans-1,4-Dichloro-2-butene	ND		0.22	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0
Vinyl acetate	ND		0.85	5.0
Vinyl chloride	ND		0.90	1.0

HP5973G

Client: Waste Management Job Number: 280-62647-1

TRIP BLANK Client Sample ID:

Lab Sample ID: 280-62647-4TB Date Sampled: 11/17/2014 0000

Client Matrix: Water Date Received: 11/18/2014 0935

8260C Volatile Organic Compounds by GC/MS

480-216102 Analysis Method: 8260C Analysis Batch: Instrument ID: Prep Method: 5030C Prep Batch: N/A Lab File ID: Dilution: 1.0

G36800.D Initial Weight/Volume: 5 mL

Final Weight/Volume: 5 mL

Prep Date: 11/26/2014 1400

11/26/2014 1400

Analysis Date:

Surrogate %Rec Qualifier Acceptance Limits 66 - 137 1,2-Dichloroethane-d4 (Surr) 119 4-Bromofluorobenzene (Surr) 120 73 - 120 Toluene-d8 (Surr) 117 71 - 126

Client: Waste Management Job Number: 280-62647-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 280-62647-4TB Date Sampled: 11/17/2014 0000

Client Matrix: Water Date Received: 11/18/2014 0935

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-216102 Instrument ID: HP5973G Prep Method: 5030C Prep Batch: N/A Lab File ID: G36800.D

Dilution: 1.0 Initial Weight/Volume: 5 mL

Analysis Date: 11/26/2014 1400 Final Weight/Volume: 5 mL

Prep Date: 11/26/2014 1400

**Targeted Tentatively Identified Compounds** 

Cas Number Analyte Est. Result (ug/L) Qualifier

67-72-1 Hexachloroethane TIC ND

Client: Waste Management Job Number: 280-62647-1

Client Sample ID: MW-35

Lab Sample ID: 280-62647-1 Date Sampled: 11/17/2014 1250

Client Matrix: Water Date Received: 11/18/2014 0935

8260C SIM Volatile Organic Compounds (GC/MS)

Analysis Method: 8260C SIM Analysis Batch: 480-215763 Instrument ID: HP5973J Prep Method: 5030C Prep Batch: N/A Lab File ID: J4139.D Dilution: Initial Weight/Volume: 1.0 25 mL

Analysis Date: 11/25/2014 0317 Initial Weight/Volume: 25 mL Final Weight/Volume: 25 mL

Prep Date: 11/25/2014 0317

 Analyte
 Result (ug/L)
 Qualifier
 MDL
 RL

 Vinyl chloride
 ND
 0.0040
 0.020

Surrogate%RecQualifierAcceptance LimitsDibromofluoromethane (Surr)9750 - 150

TBA-d9 (Surr) 116 50 - 150

Client: Waste Management Job Number: 280-62647-1

Client Sample ID: MW-13A

Lab Sample ID: 280-62647-2 Date Sampled: 11/17/2014 1340

Client Matrix: Water Date Received: 11/18/2014 0935

8260C SIM Volatile Organic Compounds (GC/MS)

Analysis Method: 8260C SIM Analysis Batch: 480-215763 Instrument ID: HP5973J Prep Method: 5030C Prep Batch: N/A Lab File ID: J4140.D Dilution: 1.0 Initial Weight/Volume: 25 mL

Dilution: 1.0 Initial Weight/Volume: 25 mL Analysis Date: 11/25/2014 0342 Final Weight/Volume: 25 mL

Prep Date: 11/25/2014 0342

 Analyte
 Result (ug/L)
 Qualifier
 MDL
 RL

 Vinyl chloride
 ND
 0.0040
 0.020

Surrogate%RecQualifierAcceptance LimitsDibromofluoromethane (Surr)9850 - 150

TBA-d9 (Surr) 114 50 - 150

HP5973J

J4141.D

Client: Waste Management Job Number: 280-62647-1

Client Sample ID: MW-13B

Lab Sample ID: 280-62647-3 Date Sampled: 11/17/2014 1500

Client Matrix: Water Date Received: 11/18/2014 0935

8260C SIM Volatile Organic Compounds (GC/MS)

Analysis Method: 8260C SIM Analysis Batch: 480-215763 Instrument ID:
Prep Method: 5030C Prep Batch: N/A Lab File ID:
Dilution: 1.0 Initial Weight/Volume:

Dilution: 1.0 Initial Weight/Volume: 25 mL Analysis Date: 11/25/2014 0406 Final Weight/Volume: 25 mL

Prep Date: 11/25/2014 0406

 Analyte
 Result (ug/L)
 Qualifier
 MDL
 RL

 Vinyl chloride
 ND
 0.0040
 0.020

Surrogate%RecQualifierAcceptance LimitsDibromofluoromethane (Surr)9550 - 150

TBA-d9 (Surr) 108 50 - 150

Client: Waste Management Job Number: 280-62647-1

Client Sample ID: MW-35

Lab Sample ID: 280-62647-1 Date Sampled: 11/17/2014 1250

Client Matrix: Water Date Received: 11/18/2014 0935

6010B Metals (ICP)-Total Recoverable

Analysis Method: 6010B Analysis Batch: 280-255227 Instrument ID: MT\_026

Prep Method: 3005A Prep Batch: 280-253675 Lab File ID: 26g112914.asc

Dilution: 1.0 Prep Batch: 280-253675 Lab File ID: 26g112914.asc

Analysis Date: 11/30/2014 0156 Final Weight/Volume: 50 mL

Prep Date: 11/20/2014 0815

 Analyte
 Result (mg/L)
 Qualifier
 RL
 RL

 Cobalt, Total
 ND
 0.0030
 0.0030

 Iron, Total
 ND
 0.060
 0.060

6010B Metals (ICP)-Dissolved

Analysis Method: 6010B Analysis Batch: 280-256165 Instrument ID: MT\_026

Prep Method: 3005A Prep Batch: 280-253674 Lab File ID: 26a120614c.asc

Dilution: 1.0 Initial Weight/Volume: 50 mL Analysis Date: 12/06/2014 1855 Final Weight/Volume: 50 mL

Analysis Date: 12/06/2014 1855 Final Weight/Volume: 5
Prep Date: 11/19/2014 0815

Analyte Result (mg/L) Qualifier RL RL Calcium, Dissolved 14 0.040 0.040 ND Cobalt, Dissolved 0.0030 0.0030 Iron, Dissolved ND 0.060 0.060 0.050 8.7 0.050 Magnesium, Dissolved ND 1.0 Potassium, Dissolved 1.0

1.0

0.0050

1.0

0.0050

6020 Metals (ICP/MS)-Total Recoverable

5.2

Analysis Method: 6020 Analysis Batch: 280-253945 Instrument ID: MT\_077
Prep Method: 3005A Prep Batch: 280-253678 Lab File ID: 067SMPL.d

Dilution: 1.0 Initial Weight/Volume: 50 mL

Analysis Date: 11/19/2014 1803 Final Weight/Volume: 50 mL Prep Date: 11/19/2014 0815

ND

Qualifier RL Analyte Result (mg/L) RL 0.0010 0.0010 Antimony, Total ND 0.0034 0.0010 0.0010 Barium, Total Cadmium, Total ND 0.00020 0.00020 Chromium, Total ND 0.0030 0.0030 Copper, Total ND 0.0020 0.0020 Lead, Total ND 0.0010 0.0010 Manganese, Total ND 0.0010 0.0010 Nickel, Total ND 0.0040 0.0040 Selenium, Total ND 0.0010 0.0010 Silver, Total ND 0.0020 0.0020 Thallium, Total ND 0.0010 0.0010 Vanadium, Total 0.0042 0.0020 0.0020

Zinc, Total

Sodium, Dissolved

Client: Waste Management Job Number: 280-62647-1

Client Sample ID: MW-35

Lab Sample ID: 280-62647-1 Date Sampled: 11/17/2014 1250

Client Matrix: Water Date Received: 11/18/2014 0935

6020 Metals (ICP/MS)-Total Recoverable

Analysis Method: 6020 Analysis Batch: 280-254051 Instrument ID: MT\_077 Prep Method: 3005A Prep Batch: 280-253678 Lab File ID: 030SMPL.d

Dilution: 1.0 Initial Weight/Volume: 50 mL Analysis Date: 11/20/2014 1408 Final Weight/Volume: 50 mL

Prep Date: 11/19/2014 0815

Qualifier RL Analyte Result (mg/L) RLBeryllium, Total ND 0.0010 0.0010

6020 Metals (ICP/MS)-Dissolved

Analysis Method: 6020 Analysis Batch: 280-253945 Instrument ID: MT\_077 Prep Method: 3005A Prep Batch: 280-253688 Lab File ID: 117SMPL.d

Dilution: 1.0

Initial Weight/Volume: 50 mL Analysis Date: Final Weight/Volume: 11/19/2014 2116 50 mL

Prep Date: 11/19/2014 0815

Analyte	Result (mg/L)	Qualifier	RL	RL
Antimony, Dissolved	ND		0.0010	0.0010
Barium, Dissolved	0.0031		0.0010	0.0010
Beryllium, Dissolved	ND		0.0010	0.0010
Cadmium, Dissolved	ND		0.00020	0.00020
Chromium, Dissolved	ND		0.0030	0.0030
Copper, Dissolved	ND		0.0020	0.0020
Lead, Dissolved	ND		0.0010	0.0010
Manganese, Dissolved	ND		0.0010	0.0010
Nickel, Dissolved	ND		0.0040	0.0040
Selenium, Dissolved	ND		0.0010	0.0010
Silver, Dissolved	ND		0.0020	0.0020
Thallium, Dissolved	ND		0.0010	0.0010
Vanadium, Dissolved	0.0036		0.0020	0.0020
Zinc, Dissolved	ND		0.0050	0.0050

Client: Waste Management Job Number: 280-62647-1

Client Sample ID: MW-13A

Lab Sample ID: 280-62647-2 Date Sampled: 11/17/2014 1340

Client Matrix: Water Date Received: 11/18/2014 0935

6010B Metals (ICP)-Total Recoverable

Analysis Method: 6010B Analysis Batch: 280-255227 Instrument ID: MT\_026

Prop Method: 2005A Prop Batch: 280-255227 Lab File ID: 36g112014 ct

 Prep Method:
 3005A
 Prep Batch:
 280-253675
 Lab File ID:
 26g112914.asc

Dilution: 1.0 Initial Weight/Volume: 50 mL Analysis Date: 11/30/2014 0159 Final Weight/Volume: 50 mL

Prep Date: 11/20/2014 0815

 Analyte
 Result (mg/L)
 Qualifier
 RL
 RL

 Cobalt, Total
 ND
 0.0030
 0.0030

Iron, Total ND 0.060 0.060

6010B Metals (ICP)-Dissolved

Analysis Method: 6010B Analysis Batch: 280-256165 Instrument ID: MT\_026

Prep Method: 3005A Prep Batch: 280-253674 Lab File ID: 26a120614c.asc

Dilution: 1.0 Initial Weight/Volume: 50 mL

Analysis Date: 12/06/2014 1916 Final Weight/Volume: 50 mL Prep Date: 11/19/2014 0815

Analyte Result (mg/L) Qualifier RL RL Calcium, Dissolved 15 0.040 0.040 ND Cobalt, Dissolved 0.0030 0.0030 Iron, Dissolved ND 0.060 0.060 0.050 9.3 0.050 Magnesium, Dissolved ND 1.0 Potassium, Dissolved 1.0

1.0

0.0050

1.0

0.0050

6020 Metals (ICP/MS)-Total Recoverable

Analysis Method: 6020 Analysis Batch: 280-253945 Instrument ID: MT\_077

Prep Method: 3005A Prep Batch: 280-253678 Lab File ID: 072SMPL.d

5.4

Dilution: 1.0 Initial Weight/Volume: 50 mL

Analysis Date: 11/19/2014 1822 Final Weight/Volume: 50 mL Prep Date: 11/19/2014 0815

ND

Qualifier RL Analyte Result (mg/L) RL 0.0010 0.0010 Antimony, Total ND 0.0026 0.0010 0.0010 Barium, Total Cadmium, Total ND 0.00020 0.00020 Chromium, Total ND 0.0030 0.0030 Copper, Total ND 0.0020 0.0020 Lead, Total ND 0.0010 0.0010 Manganese, Total ND 0.0010 0.0010 Nickel, Total ND 0.0040 0.0040 Selenium, Total ND 0.0010 0.0010 Silver, Total ND 0.0020 0.0020 Thallium, Total ND 0.0010 0.0010 Vanadium, Total 0.0042 0.0020 0.0020

Zinc, Total

Sodium, Dissolved

Client: Waste Management Job Number: 280-62647-1

Client Sample ID: MW-13A

Lab Sample ID: 280-62647-2 Date Sampled: 11/17/2014 1340

Client Matrix: Water Date Received: 11/18/2014 0935

6020 Metals (ICP/MS)-Total Recoverable

Analysis Method: 6020 Analysis Batch: 280-254051 Instrument ID: MT\_077

Prep Method: 3005A Prep Batch: 280-253678 Lab File ID: 035SMPL.d

Dilution: 1.0 Lab File ID: 0335MFE.d. 250-233078 Lab File ID: 0335MFE.d. 1035MFE.d. 1035

Analysis Date: 11/20/2014 1428 Final Weight/Volume: 50 mL Prep Date: 11/19/2014 0815

 Analyte
 Result (mg/L)
 Qualifier
 RL
 RL

 Beryllium, Total
 ND
 0.0010
 0.0010

6020 Metals (ICP/MS)-Dissolved

Analysis Method: 6020 Analysis Batch: 280-253945 Instrument ID: MT\_077

Prep Method: 3005A Prep Batch: 280-253688 Lab File ID: 122SMPL.d

Dilution: 1.0 Initial Weight/Volume: 50 mL

Analysis Date: 11/19/2014 2135 Final Weight/Volume: 50 mL

Prep Date: 11/19/2014 0815

Analyte Result (mg/L) Qualifier RL RL Antimony, Dissolved ND 0.0010 0.0010 Barium, Dissolved 0.0025 0.0010 0.0010 Beryllium, Dissolved ND 0.0010 0.0010 Cadmium, Dissolved ND 0.00020 0.00020 ND 0.0030 0.0030 Chromium, Dissolved Copper, Dissolved ND 0.0020 0.0020 Lead, Dissolved ND 0.0010 0.0010 Manganese, Dissolved ND 0.0010 0.0010 ND Nickel, Dissolved 0.0040 0.0040 Selenium, Dissolved ND 0.0010 0.0010

Silver, Dissolved ND 0.0020 0.0020 ND Thallium, Dissolved 0.0010 0.0010 Vanadium, Dissolved 0.0040 0.0020 0.0020 Zinc, Dissolved ND 0.0050 0.0050

Client: Waste Management Job Number: 280-62647-1

Client Sample ID: MW-13B

Lab Sample ID: 280-62647-3 Date Sampled: 11/17/2014 1500

Client Matrix: Water Date Received: 11/18/2014 0935

6010B Metals (ICP)-Total Recoverable

Analysis Method: 6010B Analysis Batch: 280-255227 Instrument ID: MT\_026

Prep Method: 3005A Prep Batch: 280-253675 Lab File ID: 26g112914.asc

Dilution: 1.0 Initial Weight/Volume: 50 mL

Analysis Date: 11/30/2014 0202 Final Weight/Volume: 50 mL

Prep Date: 11/20/2014 0815

 Analyte
 Result (mg/L)
 Qualifier
 RL
 RL

 Cobalt, Total
 ND
 0.0030
 0.0030

 Cobalt, Total
 ND
 0.0030
 0.0030

 Iron, Total
 ND
 0.060
 0.060

6010B Metals (ICP)-Dissolved

Analysis Method: 6010B Analysis Batch: 280-256165 Instrument ID: MT\_026

Prep Method: 3005A Prep Batch: 280-253674 Lab File ID: 26a120614c.asc

Dilution: 1.0 Initial Weight/Volume: 50 mL

Analysis Date: 12/06/2014 1918 Final Weight/Volume: 50 mL Prep Date: 11/19/2014 0815

Qualifier Analyte Result (mg/L) RL RL Calcium, Dissolved 16 0.040 0.040 Cobalt, Dissolved ND 0.0030 0.0030 Iron, Dissolved ND 0.060 0.060 0.050 Magnesium, Dissolved 8.7 0.050 ND 1.0 Potassium, Dissolved 1.0

1.0

0.0050

1.0

0.0050

6020 Metals (ICP/MS)-Total Recoverable

 Analysis Method:
 6020
 Analysis Batch:
 280-253945
 Instrument ID:
 MT\_077

 Prep Method:
 3005A
 Prep Batch:
 280-253678
 Lab File ID:
 075SMPL.d

5.3

Dilution: 1.0 Initial Weight/Volume: 50 mL

Analysis Date: 11/19/2014 1834 Final Weight/Volume: 50 mL Prep Date: 11/19/2014 0815

ND

Qualifier RL Analyte Result (mg/L) RL 0.0010 0.0010 Antimony, Total ND Barium, Total 0.0037 0.0010 0.0010 Cadmium, Total ND 0.00020 0.00020 Chromium, Total 0.0032 0.0030 0.0030 Copper, Total ND 0.0020 0.0020 Lead, Total ND 0.0010 0.0010 Manganese, Total ND 0.0010 0.0010 Nickel, Total ND 0.0040 0.0040 ND Silver, Total 0.0020 0.0020 Thallium, Total ND 0.0010 0.0010 Vanadium, Total 0.0055 0.0020 0.0020

Zinc, Total

Sodium, Dissolved

Client: Waste Management Job Number: 280-62647-1

Client Sample ID: MW-13B

Thallium, Dissolved

Zinc, Dissolved

Vanadium, Dissolved

Lab Sample ID: 280-62647-3 Date Sampled: 11/17/2014 1500

Client Matrix: Water Date Received: 11/18/2014 0935

6020 Metals (ICP/MS)-Total Recoverable

Analysis Method: 6020 Analysis Batch: 280-253945 Instrument ID: MT\_077

Prep Method: 3005A Prep Batch: 280-253678 Lab File ID: 160SMPL.d

Dilution: 1.0 Initial Weight/Volume: 50 mL

Analysis Date: 11/20/2014 0002 Final Weight/Volume: 50 mL Prep Date: 11/19/2014 0815

 Analyte
 Result (mg/L)
 Qualifier
 RL
 RL

 Beryllium. Total
 ND
 0.0010
 0.0010

 Beryllium, Total
 ND
 0.0010
 0.0010

 Selenium, Total
 ND
 0.0010
 0.0010

6020 Metals (ICP/MS)-Dissolved

Analysis Method: 6020 Analysis Batch: 280-253945 Instrument ID: MT\_077

Prep Method: 3005A Prep Batch: 280-253688 Lab File ID: 123SMPL.d

Dilution: 1.0 Initial Weight/Volume: 50 mL

Analysis Date: 11/19/2014 2139 Final Weight/Volume: 50 mL

Prep Date: 11/19/2014 0815

ND

ND

0.0054

Qualifier Analyte Result (mg/L) RL RL Antimony, Dissolved ND 0.0010 0.0010 Barium, Dissolved 0.0035 0.0010 0.0010 Beryllium, Dissolved ND 0.0010 0.0010 ND 0.00020 0.00020 Cadmium, Dissolved Chromium, Dissolved 0.0030 0.0030 0.0030 Copper, Dissolved ND 0.0020 0.0020 Lead, Dissolved ND 0.0010 0.0010 ND Manganese, Dissolved 0.0010 0.0010 Nickel, Dissolved ND 0.0040 0.0040 Selenium, Dissolved ND 0.0010 0.0010 ND Silver, Dissolved 0.0020 0.0020

0.0010

0.0020

0.0050

0.0010

0.0020 0.0050

# **General Chemistry**

Client Sample ID: MW-35

Lab Sample ID: 280-62647-1 Date Sampled: 11/17/2014 1250

Client Matrix: Water Date Received: 11/18/2014 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Chloride	1.8		mg/L	1.0	1.0	1.0	300.0
Analysis Batch: 280	0-254912	Analysis Date:	11/26/2014	1926			
Sulfate	2.5		mg/L	1.0	1.0	1.0	300.0
Analysis Batch: 280	0-254912	Analysis Date:	11/26/2014	1926			
Ammonia (as N)	ND	*	mg/L	0.030	0.030	1.0	350.1
Analysis Batch: 280	0-253904	Analysis Date:	11/19/2014	1404			
Nitrate as N	0.42		mg/L	0.050	0.050	1.0	353.2
Analysis Batch: 280	0-254696	Analysis Date:	11/18/2014	2206			
Alkalinity, Total (As CaCO3)	74		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 280	0-254188	Analysis Date:	11/20/2014	1517			
Alkalinity, Bicarbonate (As CaCO3)	74		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 280	0-254188	Analysis Date:	11/20/2014	1517			
Total Dissolved Solids (TDS)	100		mg/L	5.0	5.0	1.0	SM 2540C
Analysis Batch: 280	0-253850	Analysis Date:	11/19/2014	1425			
Total Suspended Solids	ND		mg/L	4.0	4.0	1.0	SM 2540D
Analysis Batch: 280	0-253695	Analysis Date:	11/18/2014	1640			
Total Organic Carbon - Average	ND		mg/L	1.0	1.0	1.0	SM 5310B
Analysis Batch: 280	0-254004	Analysis Date:	11/19/2014	2315			

# **General Chemistry**

Client Sample ID: MW-13A

Lab Sample ID: 280-62647-2 Date Sampled: 11/17/2014 1340

Client Matrix: Water Date Received: 11/18/2014 0935

Analyto	Result	Qual	Units	RL	RL	Dil	Method
Analyte Chloride	1.9	Quai		1.0	1.0	1.0	300.0
		Analysis Date	mg/L		1.0	1.0	300.0
Analysis Batch: 2		Analysis Date:					
Sulfate	2.1		mg/L	1.0	1.0	1.0	300.0
Analysis Batch: 2	80-254912	Analysis Date:	11/26/2014	1944			
Ammonia (as N)	ND	*	mg/L	0.030	0.030	1.0	350.1
Analysis Batch: 2	80-253904	Analysis Date:	11/19/2014	1418			
Nitrate as N	0.46		mg/L	0.050	0.050	1.0	353.2
Analysis Batch: 2	80-254696	Analysis Date:	11/18/2014	2206			
Alkalinity, Total (As CaCO3)	79		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 2	80-254188	Analysis Date:	11/20/2014	1522			
Alkalinity, Bicarbonate (As CaCO3)	79	•	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 2	80-254188	Analysis Date:	J	1522			
Total Dissolved Solids (TDS)	110	. ,	mg/L	5.0	5.0	1.0	SM 2540C
Analysis Batch: 2		Analysis Date:	•		0.0	1.0	0.00
Total Suspended Solids	ND	, mary sid bate.	mg/L	4.0	4.0	1.0	SM 2540D
•		Analysis Data:	Ü		4.0	1.0	3W 2340D
Analysis Batch: 2		Analysis Date:					
Total Organic Carbon - Average	ND		mg/L	1.0	1.0	1.0	SM 5310B
Analysis Batch: 2	280-254004	Analysis Date:	11/19/2014	2330			

# **General Chemistry**

Client Sample ID: MW-13B

Lab Sample ID: 280-62647-3 Date Sampled: 11/17/2014 1500

Client Matrix: Water Date Received: 11/18/2014 0935

Analyte Resul	t Qual	Units	RL	RL	Dil	Method
Chloride 2.1		mg/L	1.0	1.0	1.0	300.0
Analysis Batch: 280-254912	Analysis Date:	11/26/2014	2001			
Sulfate 3.7		mg/L	1.0	1.0	1.0	300.0
Analysis Batch: 280-254912	Analysis Date:	11/26/2014	2001			
Ammonia (as N) ND	*	mg/L	0.030	0.030	1.0	350.1
Analysis Batch: 280-253904	Analysis Date:	11/19/2014	1438			
Nitrate as N 0.47		mg/L	0.050	0.050	1.0	353.2
Analysis Batch: 280-254696	Analysis Date:	11/18/2014	2206			
Alkalinity, Total (As CaCO3) 79		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 280-254188	Analysis Date:	11/20/2014	1527			
Alkalinity, Bicarbonate (As CaCO3) 79		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 280-254188	Analysis Date:	11/20/2014	1527			
Total Dissolved Solids (TDS) 110		mg/L	5.0	5.0	1.0	SM 2540C
Analysis Batch: 280-253850	Analysis Date:	11/19/2014	1425			
Total Suspended Solids ND		mg/L	4.0	4.0	1.0	SM 2540D
Analysis Batch: 280-253695	Analysis Date:	11/18/2014	1640			
Total Organic Carbon - Average ND		mg/L	1.0	1.0	1.0	SM 5310B
Analysis Batch: 280-254004	Analysis Date:	11/19/2014	2344			

# **DATA REPORTING QUALIFIERS**

Client: Waste Management Job Number: 280-62647-1

Lab Section	Qualifier	Description
GC/MS VOA		
	F1	MS and/or MSD Recovery exceeds the control limits
Metals		
	F1	MS and/or MSD Recovery exceeds the control limits
General Chemistry		
	F1	MS and/or MSD Recovery exceeds the control limits
	F2	MS/MSD RPD exceeds control limits
	*	RPD of the LCS and LCSD exceeds the control limits

# **QUALITY CONTROL RESULTS**

# **QC Association Summary**

		Report			
Lab Sample ID	Client Sample ID	Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:480-215	763				
LCS 480-215763/5	Lab Control Sample	Т	Water	8260C SIM	
_CSD 480-215763/6	Lab Control Sample Duplicate	Т	Water	8260C SIM	
MB 480-215763/7	Method Blank	Т	Water	8260C SIM	
280-62647-1	MW-35	Т	Water	8260C SIM	
280-62647-2	MW-13A	Т	Water	8260C SIM	
280-62647-3	MW-13B	Т	Water	8260C SIM	
Analysis Batch:480-216	102				
LCS 480-216102/5	Lab Control Sample	Т	Water	8260C	
MB 480-216102/7	Method Blank	Т	Water	8260C	
280-62647-1	MW-35	Т	Water	8260C	
280-62647-2	MW-13A	Т	Water	8260C	
280-62647-3	MW-13B	Т	Water	8260C	
280-62647-4TB	TRIP BLANK	Т	Water	8260C	
480-71411-E-2 MS	Matrix Spike	Т	Water	8260C	
480-71411-E-2 MSD	Matrix Spike Duplicate	Т	Water	8260C	

# Report Basis

T = Total

# **QC Association Summary**

		Report			
Lab Sample ID	Client Sample ID	Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-253674					
LCS 280-253674/2-A	Lab Control Sample	R	Water	3005A	
MB 280-253674/1-A	Method Blank	R	Water	3005A	
280-62647-1	MW-35	D	Water	3005A	
280-62647-1MS	Matrix Spike	D	Water	3005A	
280-62647-1MSD	Matrix Spike Duplicate	D	Water	3005A	
280-62647-2	MW-13A	D	Water	3005A	
280-62647-3	MW-13B	D	Water	3005A	
Prep Batch: 280-253675					
LCS 280-253675/2-A	Lab Control Sample	R	Water	3005A	
MB 280-253675/1-A	Method Blank	R	Water	3005A	
280-62642-B-1-B MS	Matrix Spike	R	Water	3005A	
280-62642-B-1-C MSD	Matrix Spike Duplicate	R	Water	3005A	
280-62647-1	MW-35	R	Water	3005A	
280-62647-2	MW-13A	R	Water	3005A	
280-62647-3	MW-13B	R	Water	3005A	
Prep Batch: 280-253678					
LCS 280-253678/2-A	Lab Control Sample	R	Water	3005A	
MB 280-253678/1-A	Method Blank	R	Water	3005A	
280-62647-1	MW-35	R	Water	3005A	
280-62647-1MS	Matrix Spike	R	Water	3005A	
280-62647-1MSD	Matrix Spike Duplicate	R	Water	3005A	
280-62647-2	MW-13A	R	Water	3005A	
280-62647-3	MW-13B	R	Water	3005A	
Prep Batch: 280-253688					
LCS 280-253688/2-A	Lab Control Sample	R	Water	3005A	
MB 280-253688/1-A	Method Blank	R	Water	3005A	
280-62647-1	MW-35	D	Water	3005A	
280-62647-1MS	Matrix Spike	D	Water	3005A	
280-62647-1MSD	Matrix Spike Duplicate	D	Water	3005A	
280-62647-2	MW-13A	D	Water	3005A	
280-62647-3	MW-13B	D	Water	3005A	

# **QC Association Summary**

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:280-2539	45				
LCS 280-253678/2-A	Lab Control Sample	R	Water	6020	280-253678
MB 280-253678/1-A	Method Blank	R	Water	6020	280-253678
LCS 280-253688/2-A	Lab Control Sample	R	Water	6020	280-253688
MB 280-253688/1-A	Method Blank	R	Water	6020	280-253688
280-62647-1	MW-35	R	Water	6020	280-253678
280-62647-1MS	Matrix Spike	R	Water	6020	280-253678
280-62647-1MSD	Matrix Spike Duplicate	R	Water	6020	280-253678
280-62647-1	MW-35	D	Water	6020	280-253688
280-62647-1MS	Matrix Spike	D	Water	6020	280-253688
280-62647-1MSD	Matrix Spike Duplicate	D	Water	6020	280-253688
280-62647-2	MW-13A	R	Water	6020	280-253678
280-62647-2	MW-13A	D	Water	6020	280-253688
280-62647-3	MW-13B	R	Water	6020	280-253678
280-62647-3	MW-13B	D	Water	6020	280-253688
Analysis Batch:280-2540	51				
LCS 280-253678/2-A	Lab Control Sample	R	Water	6020	280-253678
MB 280-253678/1-A	Method Blank	R	Water	6020	280-253678
280-62647-1	MW-35	R	Water	6020	280-253678
280-62647-1MS	Matrix Spike	R	Water	6020	280-253678
280-62647-1MSD	Matrix Spike Duplicate	R	Water	6020	280-253678
280-62647-2	MW-13A	R	Water	6020	280-253678
Analysis Batch:280-2552	27				
LCS 280-253675/2-A	Lab Control Sample	R	Water	6010B	280-253675
MB 280-253675/1-A	Method Blank	R	Water	6010B	280-253675
280-62642-B-1-B MS	Matrix Spike	R	Water	6010B	280-253675
280-62642-B-1-C MSD	Matrix Spike Duplicate	R	Water	6010B	280-253675
280-62647-1	MW-35	R	Water	6010B	280-253675
280-62647-2	MW-13A	R	Water	6010B	280-253675
280-62647-3	MW-13B	R	Water	6010B	280-253675
Analysis Batch:280-2561	65				
LCS 280-253674/2-A	Lab Control Sample	R	Water	6010B	280-253674
MB 280-253674/1-A	Method Blank	R	Water	6010B	280-253674
280-62647-1	MW-35	D	Water	6010B	280-253674
280-62647-1MS	Matrix Spike	D	Water	6010B	280-253674
280-62647-1MSD	Matrix Spike Duplicate	D	Water	6010B	280-253674
280-62647-2	MW-13A	D	Water	6010B	280-253674
280-62647-3	MW-13B	D	Water	6010B	280-253674

# Report Basis

D = Dissolved

R = Total Recoverable

#### **TestAmerica Denver**

# **QC Association Summary**

Commard Chemistry	Lab Cample ID	Client Comple ID	Report Basis	Client Metrix	Mathad	Draw Batala
Analysis Batch:280-253695   Lab Control Sample		Client Sample ID	Dusis	Chefit Watrix	Wethod	Prep Batch
LGS 280-253695/1 Lab Control Sample T Water SM 2540D LCSD 280-253695/2 Lab Control Sample Duplicate T Water SM 2540D Method Blank T Water SM 2540D 280-62690-A:1 DU Duplicate T Water SM 2540D 280-62697-1 MW-35 T Water SM 2540D 280-62647-2 MW-13A T Water SM 2540D 280-62647-3 MW-13B T Water SM 2540D 280-62647-3 MW-13B T Water SM 2540D  Analysis Batch:280-253850 LCS 280-253850/2 Lab Control Sample T Water SM 2540C LCSD 280-253850/1 Method Blank T Water SM 2540C LMB 280-253850/1 Method Blank T Water SM 2540C 280-62647-1 MW-35 T Water SM 2540C 280-62647-1 MW-35 T Water SM 2540C 280-62647-1 DU Duplicate T Water SM 2540C 280-62647-1 MW-35 T Water SM 2540C 280-62647-1 MW-35 T Water SM 2540C 280-62647-2 MW-13A T Water SM 2540C 280-62647-3 MW-13B T Water SM 2540C 280-62647-3 MW-13B T Water SM 2540C 280-62647-3 MW-13B T Water SM 2540C 280-62647-3 MW-13B T Water SM 2540C 280-62647-1 MS 2540C 280-62647-1 MS 2540C 280-62647-1 MS 2540C 280-62647-1 MS 2540C 280-62647-1 MS 2540C 280-62647-2 MW-13B T Water SM 2540C 280-62647-3 MW-13B T Water SM 2540C 280-62647-1 MS 2550C 280-62647-1	General Chemistry					
LCSD 280-253695/2 Lab Control Sample Duplicate T Water SM 2540D MB 280-253695/3 Method Blank T Water SM 2540D 280-62620-A-1 DU Duplicate T Water SM 2540D 280-62647-1 MW-35 T Water SM 2540D 280-62647-2 MW-13A T Water SM 2540D 280-62647-3 MW-13B T Water SM 2540D 280-62647-3 MW-13B T Water SM 2540D  Analysis Batch:280-253850 LCS 280-253850/3 Lab Control Sample T Water SM 2540C LCSD 280-253850/1 Method Blank T Water SM 2540C MB 280-253850/1 Method Blank T Water SM 2540C 280-62647-1 MW-35 T Water SM 2540C 280-62647-1 MW-35 T Water SM 2540C 280-62647-1 MW-35 T Water SM 2540C 280-62647-1 MW-35 T Water SM 2540C 280-62647-2 MW-13A T Water SM 2540C 280-62647-3 MW-13B T Water SM 2540C 280-62647-3 MW-13B T Water SM 2540C 280-62647-3 MW-13B T Water SM 2540C 280-62647-3 MW-13B T Water SM 2540C 280-62647-3 MW-13B T Water SM 2540C 280-62647-3 MW-13B T Water SM 2540C 280-62647-3 MW-13B T Water SM 2540C 280-62647-3 MW-13B T Water SM 2540C 280-62647-3 MW-13B T Water SM 2540C 280-62647-3 MW-13B T Water SM 2540C 280-62647-3 MW-13B T Water SM 2540C 280-62647-3 MW-13B T Water 350.1 280-62647-1 MM 280-253904/27 Method Blank T Water 350.1 280-62647-1 MM 280-62647-1 MW-35 T Water 350.1 280-62647-2 MW-13A T Water 350.1 280-62647-3 MW-13B T Water 350.1 280-62647-3 MW-13A T Water 350.1 280-62647-3 MW-13A T Water 350.1 280-62647-3 MW-13A T Water 350.1 280-62647-3 MW-13B T Water 350.1 280-62647-3 MW-13A T Water 350.1 280-62647-3 MW-13A T Water 350.1 280-62647-3 MW-13B T Water SM 5310B 280-62615-B-1 MSD Matrix Spike T Water SM 5310B 280-62615-B-1 MSD Matrix Spike Duplicate T Water SM 5310B 280-62615-B-1 MSD Matrix Spike Duplicate T Water SM 5310B 280-62615-B-1 MSD Matrix Spike T Water SM 5310B 280-62615-B-1 MSD Matrix Spike Duplicate T Water SM 5310B 280-62615-B-1 MSD Matrix Spike Duplicate T Water SM 5310B 280-62647-2 MW-13A T Water SM 5310B	•					
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Analysis Batch:280-253850 LCS 280-253850/2 Lab Control Sample T Water SM 2540C LCSD 280-253850/3 Lab Control Sample Duplicate T Water SM 2540C MB 280-253850/1 Method Blank T Water SM 2540C MB 280-253850/1 Method Blank T Water SM 2540C MB 280-62647-1 MW-35 T Water SM 2540C 280-62647-1 MW-35 T Water SM 2540C 280-62647-2 MW-13A T Water SM 2540C 280-62647-3 MW-13B T Water SM 2540C 280-62647-3 MW-13B T Water SM 2540C 280-62647-3 MW-13B T Water SM 2540C 280-62647-3 MW-13B T Water SM 2540C 280-62647-3 MW-13B T Water SM 2540C 280-62647-3 MW-13B T Water SM 2540C 280-62647-3 MW-13B T Water SM 2540C 280-62647-3 MW-13B T Water SM 2540C 280-62647-3 MW-13B T Water SM 2540C 280-62647-3 MW-13B T Water SM 2540C 350.1  Water SM 2540C	280-62647-1	MW-35	T	Water	SM 2540D	
Analysis Batch:280-253850/2 Lab Control Sample LCS 280-253850/3 Lab Control Sample Duplicate T Water SM 2540C LCSD 280-253850/1 Method Blank T Water SM 2540C 280-62647-1 MW-35 T Water SM 2540C 280-62647-1DU Duplicate T Water SM 2540C 280-62647-2 MW-13A T Water SM 2540C 280-62647-3 MW-13B T Water SM 2540C  Analysis Batch:280-253904 LCS 280-253904/25 Lab Control Sample T Water SM 2540C  Analysis Batch:280-253904 LCS 280-253904/26 Lab Control Sample Duplicate T Water 350.1 ME 280-253904/27 Method Blank T Water 350.1 200-25454-D-1 MS Matrix Spike T Water 350.1 220-25454-D-1 MSD Matrix Spike T Water 350.1 280-62647-1 MW-35 T Water 350.1 280-62647-1 MW-35 T Water 350.1 280-62647-2 MW-13A T Water 350.1 Analysis Batch:280-254004 LCS 280-254004/4 LCS 280-254004/4 Lab Control Sample T Water 350.1 Analysis Batch:280-254004 LCS 280-254004/4 LCS 280-254004/4 LCS 280-254004/4 LAB Control Sample T Water 350.1 Analysis Batch:280-254004 LCS 280-254004/4 LAB Control Sample T Water 350.1 Analysis Batch:280-254004 LCS 280-254004/4 LAB Control Sample T Water 350.1 Analysis Batch:280-254004 LCS 280-254004/4 LAB Control Sample T Water SM 5310B LCSD 280-254004/4 LAB Control Sample T Water SM 5310B LCSD 280-254004/4 LAB Control Sample T Water SM 5310B MB 280-254004/5 Method Blank T Water SM 5310B MB 280-62615-B-1 MS Matrix Spike T Water SM 5310B MB 280-62615-B-1 MS Matrix Spike T Water SM 5310B Matrix Spike T Water SM 5310B Matrix Spike T Water SM 5310B Matrix Spike T Water SM 5310B Matrix Spike T Water SM 5310B Matrix Spike T Water SM 5310B Matrix Spike T Water SM 5310B Matrix Spike T Water SM 5310B	280-62647-2	MW-13A	T	Water	SM 2540D	
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MB 280-253850/1 Method Blank T Water SM 2540C 280-62647-1 MW-35 T Water SM 2540C 280-62647-1DU Duplicate T Water SM 2540C 280-62647-2 MW-13A T Water SM 2540C 280-62647-3 MW-13B T Water SM 2540C 280-62647-3 MW-13B T Water SM 2540C 280-62647-3 MW-13B T Water SM 2540C  Analysis Batch:280-253904 LCS 280-253904/25 Lab Control Sample T Water 350.1 LCSD 280-253904/26 Lab Control Sample Duplicate T Water 350.1 MB 280-253904/27 Method Blank T Water 350.1 280-25454-D-1 MS Matrix Spike T Water 350.1 280-62647-1 MS Matrix Spike T Water 350.1 280-62647-1 MW-35 T Water 350.1 280-62647-2 MW-13A T Water 350.1 280-62647-3 MW-13B T Water 350.1  Analysis Batch:280-254004 LCS 280-254004/3 Lab Control Sample T Water 350.1  Analysis Batch:280-254004 LCS 280-254004/3 Lab Control Sample T Water 350.1  Analysis Batch:280-254004 LAB Control Sample T Water SM 5310B LCSD 280-254004/5 Method Blank T Water SM 5310B 280-62615-B-1 MS Matrix Spike Duplicate T Water SM 5310B 280-62615-B-1 MS Matrix Spike Duplicate T Water SM 5310B 280-62615-B-1 MS Matrix Spike Duplicate T Water SM 5310B 280-62615-B-1 MS Matrix Spike Duplicate T Water SM 5310B 280-62647-1 MW-35 T Water SM 5310B 280-62647-1 MW-35 T Water SM 5310B 280-62647-1 MW-35 T Water SM 5310B 280-62647-2 MW-13A T Water SM 5310B	LCSD 280-253850/3	Lab Control Sample Duplicate	Т	Water	SM 2540C	
Duplicate	MB 280-253850/1	·	Т	Water	SM 2540C	
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280-62647-2 MW-13A T Water SM 2540C 280-62647-3 MW-13B T Water SM 2540C  Analysis Batch:280-253904 LCS 280-253904/25 Lab Control Sample T Water 350.1 LCSD 280-253904/26 Lab Control Sample Duplicate T Water 350.1 MB 280-253904/27 Method Blank T Water 350.1 200-25454-D-1 MS Matrix Spike T Water 350.1 200-25454-D-1 MSD Matrix Spike Duplicate T Water 350.1 280-62647-1 MSD Matrix Spike Duplicate T Water 350.1 280-62647-2 MW-13A T Water 350.1 280-62647-3 MW-13B T Water 350.1 Analysis Batch:280-254004 LCS 280-254004/3 Lab Control Sample T Water SM 5310B LCSD 280-254004/5 Method Blank T Water SM 5310B MB 280-62615-B-1 MSD Matrix Spike Duplicate T Water SM 5310B 280-62615-B-1 MSD Matrix Spike Duplicate T Water SM 5310B 280-62615-B-1 MSD Matrix Spike Duplicate T Water SM 5310B 280-62647-1 Water SM 5310B 280-62615-B-1 MSD Matrix Spike Duplicate T Water SM 5310B 280-62647-1 MW-35 T Water SM 5310B 280-62647-1 MW-35 T Water SM 5310B 280-62647-1 MW-35 T Water SM 5310B 280-62647-1 MW-35 T Water SM 5310B 280-62647-1 MW-35 T Water SM 5310B 280-62647-2 MW-13A T Water SM 5310B	280-62647-1DU	Duplicate	Т	Water		
Analysis Batch:280-2539044 LCS 280-253904/25			Т			
LCS 280-253904/25	280-62647-3	MW-13B	Т	Water		
LCS 280-253904/25	Analysis Batch:280-2539	04				
LCSD 280-253904/26	LCS 280-253904/25		Т	Water	350.1	
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200-25454-D-1 MS       Matrix Spike       T       Water       350.1         200-25454-D-1 MSD       Matrix Spike Duplicate       T       Water       350.1         280-62647-1       MW-35       T       Water       350.1         280-62647-2       MW-13A       T       Water       350.1         280-62647-3       MW-13B       T       Water       350.1         Analysis Batch:280-254004/       Lab Control Sample       T       Water       SM 5310B         LCS 280-254004/3       Lab Control Sample Duplicate       T       Water       SM 5310B         LCSD 280-254004/4       Lab Control Sample Duplicate       T       Water       SM 5310B         MB 280-254004/5       Method Blank       T       Water       SM 5310B         280-62615-B-1 MS       Matrix Spike       T       Water       SM 5310B         280-62615-B-1 MSD       Matrix Spike Duplicate       T       Water       SM 5310B         280-62647-1       MW-35       T       Water       SM 5310B         280-62647-2       MW-13A       T       Water       SM 5310B	MB 280-253904/27	·	Т	Water		
200-25454-D-1 MSD Matrix Spike Duplicate T Water 350.1 280-62647-1 MW-35 T Water 350.1 280-62647-2 MW-13A T Water 350.1 280-62647-3 MW-13B T Water 350.1  Analysis Batch:280-254004 LCS 280-254004/3 Lab Control Sample T Water SM 5310B LCSD 280-254004/4 Lab Control Sample Duplicate T Water SM 5310B MB 280-254004/5 Method Blank T Water SM 5310B 280-62615-B-1 MS Matrix Spike T Water SM 5310B 280-62615-B-1 MSD Matrix Spike Duplicate T Water SM 5310B 280-62647-1 MW-35 T Water SM 5310B 280-62647-2 MW-13A T Water SM 5310B						
280-62647-1 MW-35 T Water 350.1 280-62647-2 MW-13A T Water 350.1 280-62647-3 MW-13B T Water 350.1  Analysis Batch:280-254004  LCS 280-254004/3 Lab Control Sample T Water SM 5310B  LCSD 280-254004/4 Lab Control Sample Duplicate T Water SM 5310B  MB 280-254004/5 Method Blank T Water SM 5310B  280-62615-B-1 MS Matrix Spike T Water SM 5310B  280-62615-B-1 MSD Matrix Spike Duplicate T Water SM 5310B  280-62647-1 Water SM 5310B  280-62647-2 MW-13A T Water SM 5310B		·	Т	Water	350.1	
280-62647-2 MW-13A T Water 350.1 280-62647-3 MW-13B T Water 350.1  Analysis Batch:280-254004  LCS 280-254004/3 Lab Control Sample T Water SM 5310B  LCSD 280-254004/4 Lab Control Sample Duplicate T Water SM 5310B  MB 280-254004/5 Method Blank T Water SM 5310B  280-62615-B-1 MS Matrix Spike T Water SM 5310B  280-62615-B-1 MSD Matrix Spike Duplicate T Water SM 5310B  280-62647-1 Water SM 5310B  280-62647-2 MW-13A T Water SM 5310B						
Analysis Batch:280-254004  LCS 280-254004/3     Lab Control Sample     T Water SM 5310B  LCSD 280-254004/4     Lab Control Sample Duplicate     T Water SM 5310B  MB 280-254004/5     Method Blank     T Water SM 5310B  280-62615-B-1 MS Matrix Spike     T Water SM 5310B  280-62615-B-1 MSD Matrix Spike Duplicate     T Water SM 5310B  280-62647-1     MW-35     T Water SM 5310B  280-62647-2     MW-13A     T Water SM 5310B			=			
LCS 280-254004/3       Lab Control Sample       T       Water       SM 5310B         LCSD 280-254004/4       Lab Control Sample Duplicate       T       Water       SM 5310B         MB 280-254004/5       Method Blank       T       Water       SM 5310B         280-62615-B-1 MS       Matrix Spike       T       Water       SM 5310B         280-62615-B-1 MSD       Matrix Spike Duplicate       T       Water       SM 5310B         280-62647-1       MW-35       T       Water       SM 5310B         280-62647-2       MW-13A       T       Water       SM 5310B	280-62647-3	*****	=			
LCS 280-254004/3       Lab Control Sample       T       Water       SM 5310B         LCSD 280-254004/4       Lab Control Sample Duplicate       T       Water       SM 5310B         MB 280-254004/5       Method Blank       T       Water       SM 5310B         280-62615-B-1 MS       Matrix Spike       T       Water       SM 5310B         280-62615-B-1 MSD       Matrix Spike Duplicate       T       Water       SM 5310B         280-62647-1       MW-35       T       Water       SM 5310B         280-62647-2       MW-13A       T       Water       SM 5310B	Analysis Batch:280-2540	04				
LCSD 280-254004/4       Lab Control Sample Duplicate       T       Water       SM 5310B         MB 280-254004/5       Method Blank       T       Water       SM 5310B         280-62615-B-1 MS       Matrix Spike       T       Water       SM 5310B         280-62615-B-1 MSD       Matrix Spike Duplicate       T       Water       SM 5310B         280-62647-1       MW-35       T       Water       SM 5310B         280-62647-2       MW-13A       T       Water       SM 5310B	LCS 280-254004/3		Т	Water	SM 5310B	
MB 280-254004/5         Method Blank         T         Water         SM 5310B           280-62615-B-1 MS         Matrix Spike         T         Water         SM 5310B           280-62615-B-1 MSD         Matrix Spike Duplicate         T         Water         SM 5310B           280-62647-1         MW-35         T         Water         SM 5310B           280-62647-2         MW-13A         T         Water         SM 5310B						
280-62615-B-1 MS       Matrix Spike       T       Water       SM 5310B         280-62615-B-1 MSD       Matrix Spike Duplicate       T       Water       SM 5310B         280-62647-1       MW-35       T       Water       SM 5310B         280-62647-2       MW-13A       T       Water       SM 5310B		·				
280-62615-B-1 MSD       Matrix Spike Duplicate       T       Water       SM 5310B         280-62647-1       MW-35       T       Water       SM 5310B         280-62647-2       MW-13A       T       Water       SM 5310B						
280-62647-1 MW-35 T Water SM 5310B 280-62647-2 MW-13A T Water SM 5310B		•				
280-62647-2 MW-13A T Water SM 5310B						
			=			
	280-62647-3	MW-13B	Ť	Water	SM 5310B	

# **QC Association Summary**

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-25400	05				
LCS 280-254005/3	Lab Control Sample	Т	Water	SM 5310B	
LCSD 280-254005/4	Lab Control Sample Duplicate	Т	Water	SM 5310B	
MB 280-254005/5	Method Blank	Т	Water	SM 5310B	
280-62615-B-1 MS	Matrix Spike	Т	Water	SM 5310B	
280-62615-B-1 MSD	Matrix Spike Duplicate	Т	Water	SM 5310B	
280-62647-1	MW-35	Т	Water	SM 5310B	
280-62647-2	MW-13A	Т	Water	SM 5310B	
280-62647-3	MW-13B	Т	Water	SM 5310B	
Analysis Batch:280-25418	38				
LCS 280-254188/4	Lab Control Sample	Т	Water	SM 2320B	
LCSD 280-254188/5	Lab Control Sample Duplicate	Т	Water	SM 2320B	
MB 280-254188/6	Method Blank	Т	Water	SM 2320B	
280-62647-1	MW-35	Т	Water	SM 2320B	
280-62647-2	MW-13A	Т	Water	SM 2320B	
280-62647-3	MW-13B	Т	Water	SM 2320B	
280-62694-D-1 DU	Duplicate	Т	Water	SM 2320B	
Analysis Batch:280-25469	96				
MB 280-254696/1	Method Blank	Т	Water	353.2	
280-62647-1	MW-35	Т	Water	353.2	
280-62647-2	MW-13A	Т	Water	353.2	
280-62647-3	MW-13B	Т	Water	353.2	
Analysis Batch:280-25491	12				
LCS 280-254912/4	Lab Control Sample	Т	Water	300.0	
LCSD 280-254912/5	Lab Control Sample Duplicate	Т	Water	300.0	
MB 280-254912/6	Method Blank	Т	Water	300.0	
280-62647-1	MW-35	Т	Water	300.0	
280-62647-2	MW-13A	Т	Water	300.0	
280-62647-3	MW-13B	Т	Water	300.0	
280-62848-A-1 DU	Duplicate	T	Water	300.0	
280-62848-A-1 MS	Matrix Spike	T	Water	300.0	
280-62848-A-1 MSD	Matrix Spike Duplicate	T.	Water	300.0	

# Report Basis

T = Total

Job Number: 280-62647-1

# **Surrogate Recovery Report**

Client: Waste Management

# 8260C Volatile Organic Compounds by GC/MS

# Client Matrix: Water

		DCA	BFB	TOL
Lab Sample ID	Client Sample ID	%Rec	%Rec	%Rec
280-62647-1	MW-35	100	102	99
280-62647-2	MW-13A	99	102	98
280-62647-3	MW-13B	103	100	99
280-62647-4	TRIP BLANK	119	120	117
MB 480-216102/7		116	119	117
LCS 480-216102/5		95	102	97
480-71411-E-2 MS		97	103	101
480-71411-E-2 MSD		98	101	100

Surrogate	Acceptance Limits
DCA = 1,2-Dichloroethane-d4 (Surr)	66-137
BFB = 4-Bromofluorobenzene (Surr)	73-120
TOL = Toluene-d8 (Surr)	71-126

# **Surrogate Recovery Report**

## 8260C SIM Volatile Organic Compounds (GC/MS)

### Client Matrix: Water

		DBFM	TBA
Lab Sample ID	Client Sample ID	%Rec	%Rec
280-62647-1	MW-35	97	116
280-62647-2	MW-13A	98	114
280-62647-3	MW-13B	95	108
MB 480-215763/7		95	112
LCS 480-215763/5		102	104
LCSD 480-215763/6		101	109

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane (Surr)	50-150
TBA = TBA-d9 (Surr)	50-150

#### Method Blank - Batch: 480-216102

Method: 8260C Preparation: 5030C

Lab Sample ID: MB 480-216102/7 Analysis Batch: 480-216102 Instrument ID: HP5973G Client Matrix: Water Prep Batch: N/A Lab File ID: G36795.D Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 5 mL Units: Final Weight/Volume: Analysis Date: 11/26/2014 1144 ug/L 5 mL Prep Date: 11/26/2014 1144

Leach Date: N/A

1,1,1,2-Tetrachloroethane	Analyte	Result	Qual	MDL	RL
1,1,2,2-Tetrachrorethane   ND	1,1,1,2-Tetrachloroethane	ND		0.35	1.0
1,12-Trichloro-1,22-trifluoreethane         ND         0.31         1.0           1,1,2-Trichloroethane         ND         0.23         1.0           1,1-Dichloroethane         ND         0.28         1.0           1,1-Dichloropthane         ND         0.29         1.0           1,1-Dichloroptopene         ND         0.41         1.0           1,2,3-Trichloropropane         ND         0.41         1.0           1,2,3-Trichloropropane         ND         0.41         1.0           1,2,4-Trichlorobenzene         ND         0.41         1.0           1,2,4-Trichlorobenzene         ND         0.75         1.0           1,2,4-Trichlorobenzene         ND         0.75         1.0           1,2,2-Dichloropenzene         ND         0.73         1.0           1,2,2-Dichloropenzene         ND         0.73         1.0           1,2-Dichloropenzene         ND         0.79         1.0           1,2-Dichloropenzene         ND         0.77         1.0           1,2-Dichloropenzene         ND         0.77         1.0           1,3-5-Trichlorobenzene         ND         0.77         1.0           1,3-5-Trichlorobenzene         ND         0.75 <td< td=""><td>1,1,1-Trichloroethane</td><td>ND</td><td></td><td>0.82</td><td>1.0</td></td<>	1,1,1-Trichloroethane	ND		0.82	1.0
1.1.2 Trichloroethane         ND         0.23         1.0           1,1-Dichloroethene         ND         0.28         1.0           1,1-Dichloroethene         ND         0.29         1.0           1,1-Dichloropropene         ND         0.72         1.0           1,2-3-Trichlorobenzene         ND         0.41         1.0           1,2-3-Trichloropropane         ND         0.89         1.0           1,2-4-Trinchlorobenzene         ND         0.41         1.0           1,2-4-Trinchloropropane         ND         0.75         1.0           1,2-Dibromo-3-Chioropropane         ND         0.99         1.0           1,2-Dichloropropane         ND         0.73         1.0           1,2-Dichlorobenzene         ND         0.79         1.0           1,2-Dichloroptenzene         ND         0.21         1.0           1,2-Dichlorobenzene         ND         0.21         1.0           1,2-Dichlorobenzene         ND         0.77         1.0           1,3-5-Trichloropopane         ND         0.77         1.0           1,3-Dichloropopane         ND         0.75         1.0           1,4-Dichloropopane         ND         0.75         1.0 <td>1,1,2,2-Tetrachloroethane</td> <td>ND</td> <td></td> <td>0.21</td> <td>1.0</td>	1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1-Dichloroethane         ND         0.38         1,0           1,1-Dichloroethene         ND         0.29         1,0           1,1-Dichloropropene         ND         0.72         1,0           1,2,3-Trichlorobenzene         ND         0.41         1,0           1,2,3-Trichloropropane         ND         0.89         1,0           1,2,4-Trichlorobenzene         ND         0.75         1,0           1,2,4-Trimethylbenzene         ND         0.75         1,0           1,2-Dibromo-Chloropropane         ND         0.73         1,0           1,2-Dibromo-Chloropropane         ND         0.73         1,0           1,2-Dichlorobenzene         ND         0.79         1,0           1,2-Dichloropropane         ND         0.81         2,0           1,2-Dichloropropane         ND         0.72         1,0           1,2-Dichloropropane         ND         0.72         1,0           1,3-Dichlorobenzene         ND         0.77         1,0           1,3-Dichlorobenzene         ND         0.77         1,0           1,3-Dichlorobenzene         ND         0.78         1,0           1,3-Dichlorobenzene         ND         0.78         1,0	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1-Dichloroethene         ND         0.29         1.0           1,1-Dichloropropene         ND         0.72         1.0           1,2-3-Trichlorobenzene         ND         0.41         1.0           1,2-3-Trichloropropane         ND         0.89         1.0           1,2-4-Trinchlorobenzene         ND         0.41         1.0           1,2-4-Trinchlybenzene         ND         0.75         1.0           1,2-Dichorop-3-Chloropropane         ND         0.39         1.0           1,2-Dichlorobenzene         ND         0.73         1.0           1,2-Dichlorobenzene         ND         0.73         1.0           1,2-Dichloroptene, Total         ND         0.81         2.0           1,2-Dichlorobenzene         ND         0.81         2.0           1,2-Dichloroptene, Total         ND         0.81         2.0           1,2-Dichlorobenzene         ND         0.72         1.0           1,3-5-Trinchlorobenzene         ND         0.77         1.0           1,3-5-Trinchlybenzene         ND         0.77         1.0           1,3-Dichloroptopane         ND         0.75         1.0           1,3-Dichloroptopane         ND         0.75         1.0<	1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloropropene         ND         0,72         1.0           1,2,3-Trichlorobenzene         ND         0.41         1.0           1,2,3-Trichloropropane         ND         0.89         1.0           1,2,4-Trindhybenzene         ND         0.41         1.0           1,2,4-Trimethybenzene         ND         0.75         1.0           1,2-Dibromo-3-Chloropropane         ND         0.39         1.0           1,2-Dibromo-4-Chloropropane         ND         0.73         1.0           1,2-Dichlorobenzene         ND         0.79         1.0           1,2-Dichlorobenzene         ND         0.79         1.0           1,2-Dichloropropane         ND         0.21         1.0           1,2-Dichloropropane         ND         0.72         1.0           1,3-Firichlorobenzene         ND         0.72         1.0           1,3-Firichlorobenzene         ND         0.78         1.0           1,3-Firichlorobenzene         ND         0.76         1.0           1,3-Firichloropropane         ND         0.75         1.0           1,3-Firichloropropane         ND         0.76         1.0           1,4-Dichlorobenzene         ND         0.84         1.0 </td <td>1,1-Dichloroethane</td> <td>ND</td> <td></td> <td>0.38</td> <td>1.0</td>	1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloropropene         ND         0,72         1.0           1,2,3-Trichlorobenzene         ND         0.41         1.0           1,2,3-Trichloropepane         ND         0.89         1.0           1,2,4-Trinchloropenzene         ND         0.41         1.0           1,2,4-Trinchlybenzene         ND         0.75         1.0           1,2-Dibromo-3-Chloropropane         ND         0.39         1.0           1,2-Dichlorobenzene         ND         0.73         1.0           1,2-Dichlorobenzene         ND         0.79         1.0           1,2-Dichlorobenzene         ND         0.79         1.0           1,2-Dichloropropane         ND         0.21         1.0           1,2-Dichloropropane         ND         0.72         1.0           1,3-5-Trinchlorobenzene         ND         0.77         1.0           1,3-5-Trichlorobenzene         ND         0.78         1.0           1,3-Dichlorobenzene         ND         0.77         1.0           1,3-Dichloropropane         ND         0.75         1.0           1,4-Dichlorobenzene         ND         0.75         1.0           1,4-Dichlorobenzene         ND         0.84         1.0     <	1,1-Dichloroethene	ND		0.29	1.0
1,2,3-Trichloropenzene         ND         0,41         1.0           1,2,3-Trichloropropane         ND         0.89         1.0           1,2,4-Trichloropropane         ND         0.41         1.0           1,2,4-Trichloropropane         ND         0.75         1.0           1,2-Dibromo-3-Chloropropane         ND         0.39         1.0           1,2-Dichlorobenzene         ND         0.79         1.0           1,2-Dichloroptane         ND         0.21         1.0           1,2-Dichloroptane         ND         0.81         2.0           1,2-Dichloroptane         ND         0.81         2.0           1,2-Dichloroptopane         ND         0.72         1.0           1,2-Dichloroptopane         ND         0.72         1.0           1,3-5-Trichlorobenzene         ND         0.77         1.0           1,3-5-Tridhorbylbenzene         ND         0.77         1.0           1,3-Dichloroptopane         ND         0.77         1.0           1,3-Dichloroptopane         ND         0.75         1.0           1,4-Dioxane         ND         0.84         1.0           1,4-Dioxane         ND         0.84         1.0	1,1-Dichloropropene	ND		0.72	
1,2,3-Trichloropropane         ND         0.41         1.0           1,2,4-Trinchlorobenzene         ND         0.41         1.0           1,2,4-Trinchlybenzene         ND         0.75         1.0           1,2-Dibromo-3-Chloropropane         ND         0.39         1.0           1,2-Dibromo-dethane (EDB)         ND         0.79         1.0           1,2-Dichlorobenzene         ND         0.79         1.0           1,2-Dichloroethane         ND         0.21         1.0           1,2-Dichloroptopane         ND         0.21         1.0           1,2-Dichloroptopane         ND         0.72         1.0           1,2-Dichloroptopane         ND         0.72         1.0           1,3-Frichlorobenzene         ND         0.77         1.0           1,3-Frimethylbenzene         ND         0.77         1.0           1,3-Frimethylbenzene         ND         0.75         1.0           1,3-Dichlorobenzene         ND         0.75         1.0           1,4-Dichorbenzene         ND         0.75         1.0           1,4-Dichorbenzene         ND         0.84         1.0           1,4-Dichorbenzene         ND         0.84         1.0				0.41	
1.2.4-Trichlorobenzene         ND         0.41         1.0           1.2.4-Trimethylbenzene         ND         0.39         1.0           1.2-Dibromo-3-Chloropropane         ND         0.39         1.0           1.2-Dibromoethane (EDB)         ND         0.73         1.0           1.2-Dichlorobenzene         ND         0.79         1.0           1.2-Dichloropethane         ND         0.21         1.0           1.2-Dichloropropane         ND         0.81         2.0           1.2-Dichloropropane         ND         0.72         1.0           1.2-Dichloropropane         ND         0.72         1.0           1.3-Trimethylbenzene         ND         0.77         1.0           1.3-Trimethylbenzene         ND         0.77         1.0           1.3-Dichloropropane         ND         0.75         1.0           1.3-Dichloropropane         ND         0.75         1.0           1.4-Dioxane         ND         0.75         1.0           1.4-Dioxane         ND         0.84         1.0           1.4-Dioxane         ND         0.84         1.0           2Dichloropropane         ND         0.40         1.0           2-But					
1,2,4-Trimethylbenzene         ND         0.75         1.0           1,2-Dibromo-3-Chloropropane         ND         0.39         1.0           1,2-Dibromo-S-Chloropropane         ND         0.73         1.0           1,2-Dicholoroethane (EDB)         ND         0.79         1.0           1,2-Dichloroethane         ND         0.79         1.0           1,2-Dichloroethane         ND         0.81         2.0           1,2-Dichloroptopane         ND         0.72         1.0           1,2-Dichloroptopane         ND         0.72         1.0           1,3,5-Trinchlorobenzene         ND         0.77         1.0           1,3-Dichlorobenzene         ND         0.78         1.0           1,3-Dichloroppane         ND         0.78         1.0           1,3-Dichloroppane         ND         0.75         1.0           1,4-Dichloroppane         ND         0.84         1.0					
1,2-Dibromo-3-Chloropropane         ND         0.39         1.0           1,2-Dibromoethane (EDB)         ND         0.73         1.0           1,2-Dichlorobenzene         ND         0.79         1.0           1,2-Dichloroethane         ND         0.21         1.0           1,2-Dichloropthene, Total         ND         0.81         2.0           1,2-Dichloropropane         ND         0.72         1.0           1,3,5-Trichlorobenzene         ND         0.23         1.0           1,3,5-Trimethylbenzene         ND         0.77         1.0           1,3,5-Trimethylbenzene         ND         0.78         1.0           1,3-Dichloropropane         ND         0.75         1.0           1,3-Dichloropropane         ND         0.75         1.0           1,4-Dioxane         ND         0.84         1.0           1,4-Dioxane         ND         0.84         1.0           1,4-Dioxane         ND         0.40         1.0           2,2-Dichloropropane         ND         0.40         1.0           2,2-Dichloropropane         ND         0.40         1.0           2,-Dichloropropane         ND         0.40         1.0 <td< td=""><td></td><td></td><td></td><td></td><td></td></td<>					
1,2-Dichlorobenzene         ND         0,73         1.0           1,2-Dichlorobenzene         ND         0.79         1.0           1,2-Dichlorobenzene         ND         0.21         1.0           1,2-Dichloropropane         ND         0.81         2.0           1,2-Dichloropropane         ND         0.72         1.0           1,3,5-Trichlorobenzene         ND         0.23         1.0           1,3,5-Trimethylbenzene         ND         0.77         1.0           1,3-Dichlorobenzene         ND         0.78         1.0           1,3-Dichloropropane         ND         0.75         1.0           1,4-Dioxane         ND         0.84         1.0           2,2-Dichloroptropane         ND					
1,2-Dichlorobenzene         ND         0.79         1.0           1,2-Dichloroethane         ND         0.21         1.0           1,2-Dichloroethane, Total         ND         0.81         2.0           1,2-Dichloropenzene         ND         0.72         1.0           1,3,5-Trichlorobenzene         ND         0.77         1.0           1,3-Dichlorobenzene         ND         0.78         1.0           1,3-Dichloropropane         ND         0.75         1.0           1,4-Dichlorobenzene         ND         0.75         1.0           1,4-Dichloropropane         ND         0.84         1.0           1,4-Dichloropropane         ND         0.84         1.0           1,4-Dichloropropane         ND         0.84         1.0           1,4-Dioxane         ND         0.84         1.0           2,2-Dichloropropane         ND         0.40         1.0           2,2-Dichlorophy livily ether         ND         0.93         40           2,2-Dichlorophy livily ether         ND         0.96         5.0           2-Hexanone         ND         0.96         5.0           2-Hexanone         ND         0.9         1.0           4-					
1,2-Dichloroethane         ND         0.21         1.0           1,2-Dichloroethene, Total         ND         0.81         2.0           1,2-Dichloroptopane         ND         0.72         1.0           1,3-E-Trichlorobenzene         ND         0.23         1.0           1,3-Dichlorobenzene         ND         0.77         1.0           1,3-Dichloroptopane         ND         0.75         1.0           1,4-Dichlorobenzene         ND         0.84         1.0           1,4-Dichlorobenzene         ND         0.84         1.0           1,4-Dichlorobenzene         ND         0.84         1.0           1,4-Dichloroptopane         ND         0.84         1.0           1,4-Dichloroptopane         ND         9.3         40           2,2-Dichloroptopane         ND         0.40         1.0           2,2-Dichloroptopane         ND         0.40         1.0           2,2-Dichloroptopane         ND         0.40         1.0           2,2-Dichloroptopane         ND         0.40         1.0           2,2-Dichloroptopane         ND         0.96         5.0           2-Hutanone         ND         0.96         5.0           2-H					
1,2-Dichloroethene, Total         ND         0.72         1.0           1,2-Dichloropropane         ND         0.72         1.0           1,3,5-Trichlorobenzene         ND         0.77         1.0           1,3,5-Trichlorobenzene         ND         0.78         1.0           1,3-Dichlorobenzene         ND         0.75         1.0           1,3-Dichloropapane         ND         0.84         1.0           1,4-Dichlorobenzene         ND         0.84         1.0           1,4-Dichloropapane         ND         0.84         1.0           1,4-Dichloropapane         ND         0.40         1.0           1,4-Dichloropapane         ND         0.40         1.0           1,4-Dichloropapane         ND         0.40         1.0           2,2-Dichloropropane         ND         0.40         1.0           2,2-Dichloropapane         ND         0.40         1.0           2,2-Dichloropapane         ND         0.96         5.0           2-Hutanone         ND         0.96         5.0           2-Hutanone         ND         0.96         5.0           2-Hetanone         ND         0.96         5.0           4-Methyl-2-pentanone (	•				
1,2-Dichloropropane         ND         0.72         1.0           1,3,5-Trichlorobenzene         ND         0.23         1.0           1,3,5-Trimethylbenzene         ND         0.77         1.0           1,3-Dichlorobenzene         ND         0.78         1.0           1,3-Dichloropopane         ND         0.75         1.0           1,4-Dichlorobenzene         ND         0.84         1.0           1,4-Dioxane         ND         9.3         40           2,2-Dichloropropane         ND         0.40         1.0           2-Butanone (MEK)         ND         1.3         10           2-Butanone (MEK)         ND         1.3         10           2-Hexanone         ND         0.96         5.0           4-Methyl-2-pentanone (MIBK)         ND         1.2         5.0           4-Methyl-2-pentanone (MIBK)         ND         3.0         10           Acetonitrile         ND         3.0         10           Acetonitrile         ND         4.9         15           Acrylonitrile         ND         0.83         5.0           Benzene         ND         0.41         1.0           Bromobenzene         ND         <	•				
1,3,5-Trinchlorobenzene         ND         0.23         1.0           1,3,5-Trimethylbenzene         ND         0.77         1.0           1,3-Dichlorobenzene         ND         0.75         1.0           1,3-Dichloropropane         ND         0.75         1.0           1,4-Dichloropropane         ND         0.84         1.0           1,4-Dioxane         ND         9.3         40           2,2-Dichloropropane         ND         0.40         1.0           2-Butanone (MEK)         ND         1.3         10           2-Chloroethyl vinyl ether         ND         0.96         5.0           2-Hexanone         ND         1.2         5.0           4-Methyl-2-pentanone (MIBK)         ND         2.1         5.0           A-cetone         ND         3.0         10           Acetoner         ND         3.0         10           Acetonifile         ND         0.91         20           Acrylonitrile         ND         0.83         5.0           Benzene         ND         0.83         5.0           Benzene         ND         0.80         1.0           Bromochloromethane         ND         0.87					
1,3,5-Trimethylbenzene         ND         0.77         1.0           1,3-Dichlorobenzene         ND         0.78         1.0           1,3-Dichloropropane         ND         0.75         1.0           1,4-Dichlorobenzene         ND         0.84         1.0           1,4-Dioxane         ND         9.3         40           2,2-Dichloropropane         ND         0.40         1.0           2-Butanone (MEK)         ND         1.3         10           2-Chloroethyl vinyl ether         ND         0.96         5.0           2-Hexanone         ND         0.96         5.0           2-Hexanone (MIBK)         ND         1.2         5.0           4-Methyl-2-pentanone (MIBK)         ND         2.1         5.0           Acetonic         ND         3.0         10           Acetonitile         ND         4.9         15           Acrolein         ND         0.83         5.0           Benzene         ND         0.83         5.0           Benzene         ND         0.83         5.0           Bromochloromethane         ND         0.80         1.0           Bromoform         ND         0.80         1					
1,3-Dichlorobenzene         ND         0.78         1.0           1,3-Dichloropropane         ND         0.75         1.0           1,4-Dichlorobenzene         ND         0.84         1.0           1,4-Dioxane         ND         9.3         40           2,2-Dichloropropane         ND         0.40         1.0           2-Butanone (MEK)         ND         1.3         10           2-Chloroethyl vinyl ether         ND         0.96         5.0           2-Hexanone         ND         1.2         5.0           4-Methyl-2-pentanone (MIBK)         ND         2.1         5.0           Acetone         ND         3.0         10           Acetonitrile         ND         4.9         15           Acrolein         ND         0.91         20           Acrolein         ND         0.83         5.0           Benzene         ND         0.83         5.0           Benzene         ND         0.81         1.0           Bromochloromethane         ND         0.87         1.0           Bromochloromethane         ND         0.26         1.0           Bromomethane         ND         0.69         1.0					
1,3-Dichloropropane         ND         0.75         1.0           1,4-Dichlorobenzene         ND         0.84         1.0           1,4-Dioxane         ND         9.3         40           2,2-Dichloropropane         ND         0.40         1.0           2-Butanone (MEK)         ND         1.3         10           2-Chloroethyl vinyl ether         ND         0.96         5.0           2-Hexanone         ND         1.2         5.0           4-Methyl-2-pentanone (MIBK)         ND         2.1         5.0           4-Methyl-2-pentanone (MIBK)         ND         3.0         10           Acetone         ND         3.0         10           Acetonitrile         ND         4.9         15           Acrolein         ND         0.91         20           Acrylonitrile         ND         0.83         5.0           Benzene         ND         0.83         5.0           Benzene         ND         0.81         1.0           Bromochloromethane         ND         0.87         1.0           Bromoform         ND         0.26         1.0           Bromomethane         ND         0.69         1.0					
1,4-Dichlorobenzene       ND       0.84       1.0         1,4-Dioxane       ND       9.3       40         2,2-Dichloropropane       ND       0.40       1.0         2-Butanone (MEK)       ND       1.3       10         2-Chloroethyl vinyl ether       ND       0.96       5.0         2-Hexanone       ND       1.2       5.0         4-Methyl-2-pentanone (MIBK)       ND       2.1       5.0         4-Methyl-2-pentanone (MIBK)       ND       3.0       10         Acetone       ND       3.0       10         Acetonitrile       ND       4.9       15         Acrolein       ND       9.91       20         Acrylonitrile       ND       0.83       5.0         Benzene       ND       0.83       5.0         Benzene       ND       0.80       1.0         Bromobenzene       ND       0.80       1.0         Bromodichloromethane       ND       0.87       1.0         Bromodichloromethane       ND       0.26       1.0         Bromoform       ND       0.69       1.0         Bromoform       ND       0.69       1.0         Bu					
1,4-Dioxane       ND       9.3       40         2,2-Dichloropropane       ND       0.40       1.0         2-Butanone (MEK)       ND       1.3       10         2-Chloroethyl vinyl ether       ND       0.96       5.0         2-Hexanone       ND       1.2       5.0         4-Methyl-2-pentanone (MIBK)       ND       2.1       5.0         Acetone       ND       3.0       10         Acetonitrile       ND       4.9       15         Acrolein       ND       0.91       20         Acrylonitrile       ND       0.83       5.0         Benzene       ND       0.83       5.0         Bromobenzene       ND       0.80       1.0         Bromobenzene       ND       0.80       1.0         Bromodichloromethane       ND       0.87       1.0         Bromoform       ND       0.69       1.0         Bromomethane       ND       0.69       1.0         Butyl alcohol, rett-       ND       3.3       10         Carbon tetrachloride       ND       0.19       1.0         Carbon tetrachloride       ND       0.27       1.0					
2,2-Dichloropropane       ND       0.40       1.0         2-Butanone (MEK)       ND       1.3       10         2-Chloroethyl vinyl ether       ND       0.96       5.0         2-Hexanone       ND       1.2       5.0         4-Methyl-2-pentanone (MIBK)       ND       2.1       5.0         Acetone       ND       3.0       10         Acetonitrile       ND       4.9       15         Acrolein       ND       0.91       20         Acrylonitrile       ND       0.83       5.0         Benzene       ND       0.83       5.0         Bromobenzene       ND       0.81       1.0         Bromobenzene       ND       0.80       1.0         Bromodichloromethane       ND       0.87       1.0         Bromoform       ND       0.26       1.0         Bromomethane       ND       0.69       1.0         Butyl alcohol, n-       ND       8.9       40         Butyl alcohol, tert-       ND       0.19       1.0         Carbon disulfide       ND       0.19       1.0         Carbon tetrachloride       ND       0.27       1.0	1,4-Dichlorobenzene				
2-Butanone (MEK)       ND       1.3       10         2-Chloroethyl vinyl ether       ND       0.96       5.0         2-Hexanone       ND       1.2       5.0         4-Methyl-2-pentanone (MIBK)       ND       2.1       5.0         Acetone       ND       3.0       10         Acetonitrile       ND       4.9       15         Acrolein       ND       0.91       20         Acrylonitrile       ND       0.83       5.0         Benzene       ND       0.41       1.0         Bromobenzene       ND       0.80       1.0         Bromochloromethane       ND       0.87       1.0         Bromoform       ND       0.26       1.0         Bromomethane       ND       0.26       1.0         Butyl alcohol, n-       ND       8.9       40         Butyl alcohol, tert-       ND       0.19       1.0         Carbon disulfide       ND       0.19       1.0         Carbon tetrachloride       ND       0.27       1.0         Chlorobenzene       ND       0.75       1.0	1,4-Dioxane			9.3	40
2-Chloroethyl vinyl ether       ND       0.96       5.0         2-Hexanone       ND       1.2       5.0         4-Methyl-2-pentanone (MIBK)       ND       2.1       5.0         Acetone       ND       3.0       10         Acetonitrile       ND       4.9       15         Acrolein       ND       0.91       20         Acrylonitrile       ND       0.83       5.0         Benzene       ND       0.41       1.0         Bromobenzene       ND       0.80       1.0         Bromochloromethane       ND       0.87       1.0         Bromoform       ND       0.39       1.0         Bromoform       ND       0.26       1.0         Bromomethane       ND       0.69       1.0         Butyl alcohol, n-       ND       8.9       40         Butyl alcohol, tert-       ND       3.3       10         Carbon tetrachloride       ND       0.19       1.0         Carbon tetrachloride       ND       0.27       1.0         Chlorobenzene       ND       0.75       1.0	2,2-Dichloropropane	ND		0.40	1.0
2-Hexanone       ND       1.2       5.0         4-Methyl-2-pentanone (MIBK)       ND       2.1       5.0         Acetone       ND       3.0       10         Acetonitrile       ND       4.9       15         Acrolein       ND       0.91       20         Acrylonitrile       ND       0.83       5.0         Benzene       ND       0.41       1.0         Bromobenzene       ND       0.80       1.0         Bromochloromethane       ND       0.87       1.0         Bromoform       ND       0.39       1.0         Bromomethane       ND       0.26       1.0         Bromomethane       ND       0.69       1.0         Butyl alcohol, n-       ND       8.9       40         Butyl alcohol, tert-       ND       3.3       10         Carbon disulfide       ND       0.19       1.0         Carbon tetrachloride       ND       0.27       1.0         Chlorobenzene       ND       0.75       1.0	2-Butanone (MEK)	ND		1.3	10
4-Methyl-2-pentanone (MIBK)       ND       2.1       5.0         Acetone       ND       3.0       10         Acetonitrile       ND       4.9       15         Acrolein       ND       0.91       20         Acrylonitrile       ND       0.83       5.0         Benzene       ND       0.41       1.0         Bromobenzene       ND       0.80       1.0         Bromochloromethane       ND       0.87       1.0         Bromoform       ND       0.39       1.0         Bromomethane       ND       0.26       1.0         Butyl alcohol, n-       ND       0.69       1.0         Butyl alcohol, tert-       ND       3.3       10         Carbon disulfide       ND       0.19       1.0         Carbon tetrachloride       ND       0.27       1.0         Chlorobenzene       ND       0.75       1.0	2-Chloroethyl vinyl ether	ND		0.96	5.0
Acetone         ND         3.0         10           Acetonitrile         ND         4.9         15           Acrolein         ND         0.91         20           Acrylonitrile         ND         0.83         5.0           Benzene         ND         0.41         1.0           Bromobenzene         ND         0.80         1.0           Bromochloromethane         ND         0.87         1.0           Bromoform         ND         0.39         1.0           Bromomethane         ND         0.26         1.0           Butyl alcohol, n-         ND         0.69         1.0           Butyl alcohol, tert-         ND         3.3         10           Carbon disulfide         ND         0.19         1.0           Carbon tetrachloride         ND         0.27         1.0           Chlorobenzene         ND         0.75         1.0	2-Hexanone	ND		1.2	5.0
Acetone       ND       3.0       10         Acetonitrile       ND       4.9       15         Acrolein       ND       0.91       20         Acrylonitrile       ND       0.83       5.0         Benzene       ND       0.41       1.0         Bromobenzene       ND       0.80       1.0         Bromochloromethane       ND       0.87       1.0         Bromoform       ND       0.39       1.0         Bromomethane       ND       0.26       1.0         Bromomethane       ND       0.69       1.0         Butyl alcohol, n-       ND       8.9       40         Butyl alcohol, tert-       ND       3.3       10         Carbon disulfide       ND       0.19       1.0         Carbon tetrachloride       ND       0.27       1.0         Chlorobenzene       ND       0.75       1.0	4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acrolein       ND       0.91       20         Acrylonitrile       ND       0.83       5.0         Benzene       ND       0.41       1.0         Bromobenzene       ND       0.80       1.0         Bromochloromethane       ND       0.87       1.0         Bromoform       ND       0.39       1.0         Bromomethane       ND       0.26       1.0         Butyl alcohol, n-       ND       8.9       40         Butyl alcohol, tert-       ND       3.3       10         Carbon disulfide       ND       0.19       1.0         Carbon tetrachloride       ND       0.27       1.0         Chlorobenzene       ND       0.75       1.0	Acetone	ND		3.0	10
Acrolein       ND       0.91       20         Acrylonitrile       ND       0.83       5.0         Benzene       ND       0.41       1.0         Bromobenzene       ND       0.80       1.0         Bromochloromethane       ND       0.87       1.0         Bromoform       ND       0.39       1.0         Bromomethane       ND       0.26       1.0         Butyl alcohol, n-       ND       8.9       40         Butyl alcohol, tert-       ND       3.3       10         Carbon disulfide       ND       0.19       1.0         Carbon tetrachloride       ND       0.27       1.0         Chlorobenzene       ND       0.75       1.0	Acetonitrile	ND		4.9	15
Acrylonitrile         ND         0.83         5.0           Benzene         ND         0.41         1.0           Bromobenzene         ND         0.80         1.0           Bromochloromethane         ND         0.87         1.0           Bromodichloromethane         ND         0.39         1.0           Bromoform         ND         0.26         1.0           Bromomethane         ND         0.69         1.0           Butyl alcohol, n-         ND         8.9         40           Butyl alcohol, tert-         ND         3.3         10           Carbon disulfide         ND         0.19         1.0           Carbon tetrachloride         ND         0.27         1.0           Chlorobenzene         ND         0.75         1.0	Acrolein	ND		0.91	20
Benzene         ND         0.41         1.0           Bromobenzene         ND         0.80         1.0           Bromochloromethane         ND         0.87         1.0           Bromodichloromethane         ND         0.39         1.0           Bromoform         ND         0.26         1.0           Bromomethane         ND         0.69         1.0           Butyl alcohol, n-         ND         8.9         40           Butyl alcohol, tert-         ND         3.3         10           Carbon disulfide         ND         0.19         1.0           Carbon tetrachloride         ND         0.27         1.0           Chlorobenzene         ND         0.75         1.0	Acrylonitrile				5.0
Bromobenzene         ND         0.80         1.0           Bromochloromethane         ND         0.87         1.0           Bromodichloromethane         ND         0.39         1.0           Bromoform         ND         0.26         1.0           Bromomethane         ND         0.69         1.0           Butyl alcohol, n-         ND         8.9         40           Butyl alcohol, tert-         ND         3.3         10           Carbon disulfide         ND         0.19         1.0           Carbon tetrachloride         ND         0.27         1.0           Chlorobenzene         ND         0.75         1.0					
Bromochloromethane         ND         0.87         1.0           Bromodichloromethane         ND         0.39         1.0           Bromoform         ND         0.26         1.0           Bromomethane         ND         0.69         1.0           Butyl alcohol, n-         ND         8.9         40           Butyl alcohol, tert-         ND         3.3         10           Carbon disulfide         ND         0.19         1.0           Carbon tetrachloride         ND         0.27         1.0           Chlorobenzene         ND         0.75         1.0					
Bromodichloromethane         ND         0.39         1.0           Bromoform         ND         0.26         1.0           Bromomethane         ND         0.69         1.0           Butyl alcohol, n-         ND         8.9         40           Butyl alcohol, tert-         ND         3.3         10           Carbon disulfide         ND         0.19         1.0           Carbon tetrachloride         ND         0.27         1.0           Chlorobenzene         ND         0.75         1.0					
Bromoform         ND         0.26         1.0           Bromomethane         ND         0.69         1.0           Butyl alcohol, n-         ND         8.9         40           Butyl alcohol, tert-         ND         3.3         10           Carbon disulfide         ND         0.19         1.0           Carbon tetrachloride         ND         0.27         1.0           Chlorobenzene         ND         0.75         1.0					
Bromomethane         ND         0.69         1.0           Butyl alcohol, n-         ND         8.9         40           Butyl alcohol, tert-         ND         3.3         10           Carbon disulfide         ND         0.19         1.0           Carbon tetrachloride         ND         0.27         1.0           Chlorobenzene         ND         0.75         1.0					
Butyl alcohol, n-         ND         8.9         40           Butyl alcohol, tert-         ND         3.3         10           Carbon disulfide         ND         0.19         1.0           Carbon tetrachloride         ND         0.27         1.0           Chlorobenzene         ND         0.75         1.0					
Butyl alcohol, tert-         ND         3.3         10           Carbon disulfide         ND         0.19         1.0           Carbon tetrachloride         ND         0.27         1.0           Chlorobenzene         ND         0.75         1.0					
Carbon disulfide         ND         0.19         1.0           Carbon tetrachloride         ND         0.27         1.0           Chlorobenzene         ND         0.75         1.0	*				
Carbon tetrachlorideND0.271.0ChlorobenzeneND0.751.0	•				
Chlorobenzene ND 0.75 1.0					
Chiorogituoromethane ND 0.26 1.0					
***	Cniorodifluorometnane	ND		0.26	1.0

#### Method Blank - Batch: 480-216102

Method: 8260C Preparation: 5030C

Lab Sample ID: MB 480-216102/7 Analysis Batch: 480-216102 Instrument ID: HP5973G Client Matrix: Water Prep Batch: N/A Lab File ID: G36795.D Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 5 mL Units: Final Weight/Volume: Analysis Date: 11/26/2014 1144 ug/L 5 mL Prep Date: 11/26/2014 1144

Leach Date: N/A

Analyte	Result	Qual	MDL	RL
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dibromochloromethane	ND		0.32	1.0
Dibromomethane	ND		0.41	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Dichlorofluoromethane	ND		0.34	1.0
Ethyl acetate	ND		0.66	1.0
Ethyl ether	ND		0.72	1.0
Ethyl tert-butyl ether	ND		0.29	1.0
Ethylbenzene	ND		0.74	1.0
Hexachlorobutadiene	ND		0.28	1.0
Hexane	ND		0.40	10
lodomethane	ND		0.30	1.0
Isobutanol	ND		4.8	25
Isopropyl ether	ND		0.59	1.0
Isopropylbenzene	ND		0.79	1.0
Methacrylonitrile	ND		0.69	5.0
Methyl acetate	ND		0.50	2.5
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
m-Xylene & p-Xylene	ND		0.66	2.0
Naphthalene	ND		0.43	1.0
n-Butylbenzene	ND		0.64	1.0
N-Propylbenzene	ND		0.69	1.0
o-Chlorotoluene	ND		0.86	1.0
o-Xylene	ND		0.76	1.0
p-Chlorotoluene	ND		0.84	1.0
p-Cymene	ND		0.31	1.0
sec-Butylbenzene	ND		0.75	1.0
Styrene	ND		0.73	1.0
Tert-amyl methyl ether	ND		0.27	1.0
tert-Butylbenzene	ND		0.81	1.0
Tetrachloroethene	ND		0.36	1.0
Tetrahydrofuran	ND		1.3	5.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
trans-1,4-Dichloro-2-butene	ND		0.22	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Client: Waste Management Job Number: 280-62647-1

Method Blank - Batch: 480-216102

Method: 8260C Preparation: 5030C

Lab Sample ID: MB 480-216102/7 Analysis Batch: 4
Client Matrix: Water Prep Batch: N
Dilution: 1.0 Leach Batch: N
Analysis Date: 11/26/2014 1144 Units: u
Prep Date: 11/26/2014 1144

nalysis Batch: 480-216102 Instrument ID: HP5973G
rep Batch: N/A Lab File ID: G36795.D
each Batch: N/A Initial Weight/Volume: 5 mL
nits: ug/L Final Weight/Volume: 5 mL

Leach Date: N/A

Analyte Result Qual MDL RL

Vinyl acetate ND 0.85 5.0

Vinyl chloride ND 0.90 1.0

 Surrogate
 % Rec
 Acceptance Limits

 1,2-Dichloroethane-d4 (Surr)
 116
 66 - 137

 4-Bromofluorobenzene (Surr)
 119
 73 - 120

 Toluene-d8 (Surr)
 117
 71 - 126

Method Blank TICs- Batch: 480-216102

Cas Number Analyte RT Est. Result (ug/L Qual 67-72-1 Hexachloroethane TIC 0.00 ND

Lab Control Sample - Batch: 480-216102

Method: 8260C Preparation: 5030C

 Lab Sample ID:
 LCS 480-216102/5

 Client Matrix:
 Water

 Dilution:
 1.0

 Analysis Date:
 11/26/2014 1059

 Prep Date:
 11/26/2014 1059

N/A

Leach Date:

Analysis Batch:
Prep Batch:
Leach Batch:
Units:

480-216102 N/A N/A ug/L Instrument ID: HP5973G
Lab File ID: G36793.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1-Dichloroethane	25.0	25.1	100	71 - 129	Quai
1,1-Dichloroethane	25.0	23.9	96	58 - 121	
,	25.0	24.9	100	76 - 121	
1,2,4-Trimethylbenzene					
1,2-Dichlorobenzene	25.0	25.4	101	80 - 124	
1,2-Dichloroethane	25.0	24.6	98	75 - 127	
Benzene	25.0	25.4	101	71 - 124	
Chlorobenzene	25.0	26.0	104	72 - 120	
cis-1,2-Dichloroethene	25.0	25.9	104	74 - 124	
Ethylbenzene	25.0	25.5	102	77 - 123	
Methyl tert-butyl ether	25.0	25.0	100	64 - 127	
m-Xylene & p-Xylene	25.0	26.2	105	76 - 122	
o-Xylene	25.0	25.8	103	76 - 122	
Tetrachloroethene	25.0	26.3	105	74 - 122	
Toluene	25.0	25.4	102	80 - 122	
trans-1,2-Dichloroethene	25.0	24.1	97	73 - 127	
Trichloroethene	25.0	25.4	102	74 - 123	
Surrogate	%	% Rec		cceptance Limits	
1,2-Dichloroethane-d4 (Surr)	9	5		66 - 137	
4-Bromofluorobenzene (Surr)	1	02		73 - 120	
Toluene-d8 (Surr)	9	7		71 - 126	

Matrix Spike/ Method: 8260C

Matrix Spike Duplicate Recovery Report - Batch: 480-216102 Preparation: 5030C

480-216102 Instrument ID: HP5973G MS Lab Sample ID: 480-71411-E-2 MS Analysis Batch: Client Matrix: Water Prep Batch: N/A Lab File ID: G36814.D Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 5 mL Analysis Date: 11/26/2014 1914 Final Weight/Volume: 5 mL Prep Date: 11/26/2014 1914 5 mL Leach Date: N/A Instrument ID: MSD Lab Sample ID: 480-71411-E-2 MSD Analysis Batch: 480-216102 HP5973G Client Matrix: Lab File ID: Water Prep Batch: N/A G36815.D Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 5 mL Final Weight/Volume: Analysis Date: 11/26/2014 1936 5 mL Prep Date: 11/26/2014 1936 5 mL Leach Date: N/A % Rec. RPD Limit **RPD Limit** Analyte MS MSD MS Qual MSD Qual 1,1-Dichloroethane 71 - 129 2 111 113 20 1,1-Dichloroethene 110 104 58 - 121 5 16 1,2-Dichloroethane 105 107 75 - 127 2 20 3 Benzene 104 112 71 - 124 13 Chlorobenzene 113 72 - 120 5 25 118 cis-1,2-Dichloroethene 113 114 74 - 124 0 15 77 - 123 6 Ethylbenzene 120 15 113 m-Xylene & p-Xylene 120 112 76 - 122 7 16 5 76 - 122 o-Xylene 117 111 16 Tetrachloroethene 124 118 74 - 122 4 20 F1 80 - 122 5 15 Toluene 118 111 20 trans-1,2-Dichloroethene 111 112 73 - 127 1 Trichloroethene 117 116 74 - 123 1 16 MS % Rec MSD % Rec Surrogate Acceptance Limits 1,2-Dichloroethane-d4 (Surr) 97 98 66 - 137 4-Bromofluorobenzene (Surr) 103 101 73 - 120 Toluene-d8 (Surr) 101 100 71 - 126

Client: Waste Management Job Number: 280-62647-1

Matrix Spike/ Method: 8260C
Matrix Spike Duplicate Recovery Report - Batch: 480-216102 Preparation: 5030C

Units: ug/L

MS Lab Sample ID: 480-71411-E-2 MS

Client Matrix: Water Dilution: 1.0

Analysis Date: 11/26/2014 1914 Prep Date: 11/26/2014 1914

Leach Date: N/A

MSD Lab Sample ID: 480-71411-E-2 MSD

Client Matrix: Water Dilution: 1.0

Analysis Date: 11/26/2014 1936 Prep Date: 11/26/2014 1936

Leach Date: N/A

	Sample	MS Spike	MSD Spike	MS	MSD
Analyte	Result/Qual	Amount	Amount	Result/Qual	Result/Qual
1,1-Dichloroethane	ND	25.0	25.0	27.7	28.2
1,1-Dichloroethene	ND	25.0	25.0	27.4	26.1
1,2-Dichloroethane	5.1	25.0	25.0	31.3	31.9
Benzene	28	25.0	25.0	53.6	55.5
Chlorobenzene	ND	25.0	25.0	29.6	28.2
cis-1,2-Dichloroethene	6.0	25.0	25.0	34.3	34.4
Ethylbenzene	ND	25.0	25.0	30.0	28.2
m-Xylene & p-Xylene	ND	25.0	25.0	29.9	28.0
o-Xylene	ND	25.0	25.0	29.3	27.7
Tetrachloroethene	ND	25.0	25.0	30.9 F1	29.5
Toluene	9.8	25.0	25.0	39.4	37.4
rans-1,2-Dichloroethene	ND	25.0	25.0	27.7	28.0
Trichloroethene	ND	25.0	25.0	29.3	29.0

Method Blank - Batch: 480-215763 Method: 8260C SIM
Preparation: 5030C

480-215763 Lab Sample ID: Instrument ID: HP5973J MB 480-215763/7 Analysis Batch: Client Matrix: Water Prep Batch: N/A Lab File ID: J4138.D N/A Dilution: 1.0 Leach Batch: Initial Weight/Volume: 25 mL Analysis Date: 11/25/2014 0250 Units: ug/L Final Weight/Volume: 25 mL

Prep Date: 11/25/2014 0250

Leach Date: N/A

Analyte Result Qual MDL RL Vinyl chloride ND 0.0040 0.020 Surrogate % Rec Acceptance Limits Dibromofluoromethane (Surr) 95 50 - 150 TBA-d9 (Surr) 112 50 - 150

Lab Control Sample/ Method: 8260C SIM
Lab Control Sample Duplicate Recovery Report - Batch: 480-215763 Preparation: 5030C

LCS Lab Sample ID: Instrument ID: LCS 480-215763/5 Analysis Batch: 480-215763 HP5973J Client Matrix: Water Prep Batch: N/A Lab File ID: J4135.D Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 25 mL Analysis Date: 11/25/2014 0138 Units: ug/L Final Weight/Volume: 25 mL Prep Date: 11/25/2014 0138 25 mL

Leach Date: N/A

LCSD Lab Sample ID: LCSD 480-215763/6 Analysis Batch: 480-215763 Instrument ID: HP5973J Client Matrix: Water Prep Batch: N/A Lab File ID: J4136.D Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 25 mL Analysis Date: 11/25/2014 0202 Units: ug/L Final Weight/Volume: 25 mL 11/25/2014 0202 Prep Date: 25 mL

Leach Date: N/A

% Rec. LCS LCSD RPD LCS Qual LCSD Qual Analyte Limit **RPD Limit** 50 - 150 Vinyl chloride 120 123 2 20 Surrogate LCS % Rec LCSD % Rec Acceptance Limits Dibromofluoromethane (Surr) 102 101 50 - 150 50 - 150 TBA-d9 (Surr) 104 109

Client: Waste Management Job Number: 280-62647-1

Laboratory Control/ Method: 8260C SIM Laboratory Duplicate Data Report - Batch: 480-215763 Preparation: 5030C

LCS Lab Sample ID: LCS 480-215763/5 Units: ug/L LCSD Lab Sample ID: LCSD 480-215763/6

Client Matrix:WaterClient Matrix:WaterDilution:1.0Dilution:1.0

 Analysis Date:
 11/25/2014
 0138
 Analysis Date:
 11/25/2014
 0202

 Prep Date:
 11/25/2014
 0138
 Prep Date:
 11/25/2014
 0202

Leach Date: N/A Leach Date: N/A

Analyte LCS Spike LCSD Spike LCS LCSD
Amount Amount Result/Qual Result/Qual

Vinyl chloride 0.200 0.200 0.240 0.245

Client: Waste Management Job Number: 280-62647-1

Method Blank - Batch: 280-253674

Method: 6010B Preparation: 3005A Total Recoverable

Lab Sample ID: MB 280-253674/1-A

Client Matrix: Water Dilution: 1.0

 Dilution:
 1.0

 Analysis Date:
 12/06/2014 1850

 Prep Date:
 11/19/2014 0815

Leach Date: N/A

Total Recoverable

Analysis Batch: 280-256165 Instrument ID:

Prep Batch: 280-253674 Leach Batch: N/A

Units:

tch: N/A Initial Weight/V mg/L Final Weight/Vo

Instrument ID: MT\_026
Lab File ID: 26a120614c.asc

Initial Weight/Volume: 50 mL Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL	RL
Calcium, Dissolved	ND		0.040	0.040
Cobalt, Dissolved	ND		0.0030	0.0030
Iron, Dissolved	ND		0.060	0.060
Magnesium, Dissolved	ND		0.050	0.050
Potassium, Dissolved	ND		1.0	1.0
Sodium, Dissolved	ND		1.0	1.0

Lab Control Sample - Batch: 280-253674

Method: 6010B
Preparation: 3005A
Total Recoverable

Lab Sample ID: LCS 280-253674/2-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 12/06/2014 1853

Analysis Date: 12/06/2014 1853 Prep Date: 11/19/2014 0815

Frep Date. 11/19/2014

Leach Date: N/A

Analysis Batch: 280-256165 Instrument ID: MT\_026 Prep Batch: 280-253674 Lab File ID: 26a120614c.asc Leach Batch: 50 mL N/A Initial Weight/Volume: Units: Final Weight/Volume: 50 mL mg/L

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Calcium, Dissolved	50.0	50.2	100	90 - 111	
Cobalt, Dissolved	0.500	0.512	102	89 - 111	
Iron, Dissolved	1.00	1.02	102	89 - 115	
Magnesium, Dissolved	50.0	50.6	101	90 - 113	
Potassium, Dissolved	50.0	53.3	107	89 - 114	
Sodium, Dissolved	50.0	53.7	107	90 - 115	

MT\_026

26a120614c.asc

Client: Waste Management Job Number: 280-62647-1

N/A

N/A

Leach Batch:

Analysis Batch:

Prep Batch:

Leach Batch:

Matrix Spike/

Dilution:

Matrix Spike Duplicate Recovery Report - Batch: 280-253674

Method: 6010B

**Dissolved** 

MS Lab Sample ID: Client Matrix:

280-62647-1

Water 1.0

Analysis Date: 12/06/2014 1900 Prep Date: 11/19/2014 0815

Leach Date: N/A

MSD Lab Sample ID: 280-62647-1

Client Matrix: Water Dilution: 1.0

12/06/2014 1903 Analysis Date: Prep Date: 11/19/2014 0815

Leach Date: N/A Preparation: 3005A

280-256165 Instrument ID: Analysis Batch: Prep Batch: 280-253674 Lab File ID:

Initial Weight/Volume: 50 mL Final Weight/Volume: 50 mL

Instrument ID: MT 026 280-256165 Lab File ID: 26a120614c.asc 280-253674

> Initial Weight/Volume: 50 mL Final Weight/Volume: 50 mL

Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Calcium, Dissolved	100	100	48 - 153	1	20		
Cobalt, Dissolved	102	101	82 - 119	1	20		
Iron, Dissolved	100	100	52 - 155	0	20		
Magnesium, Dissolved	101	100	62 - 146	1	20		
Potassium, Dissolved	107	107	76 - 132	0	20		
Sodium, Dissolved	107	106	70 - 203	1	20		

Matrix Spike/

Matrix Spike Duplicate Recovery Report - Batch: 280-253674

Units: mg/L

MS Lab Sample ID: 280-62647-1 Client Matrix: Water Dilution: 1.0

Analysis Date: 12/06/2014 1900 Prep Date: 11/19/2014 0815

Leach Date: N/A Method: 6010B Preparation: 3005A Dissolved

MSD Lab Sample ID: 280-62647-1 Client Matrix: Water Dilution: 1.0

12/06/2014 1903 Analysis Date: Prep Date: 11/19/2014 0815

Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Calcium, Dissolved	14	50.0	50.0	63.7	63.4
Cobalt, Dissolved	ND	0.500	0.500	0.509	0.505
Iron, Dissolved	ND	1.00	1.00	1.00	1.00
Magnesium, Dissolved	8.7	50.0	50.0	59.1	58.7
Potassium, Dissolved	ND	50.0	50.0	53.6	53.4
Sodium, Dissolved	5.2	50.0	50.0	58.9	58.2

MT\_026

Job Number: 280-62647-1 Client: Waste Management

Method Blank - Batch: 280-253675

Method: 6010B Preparation: 3005A **Total Recoverable** 

Lab Sample ID: MB 280-253675/1-A

Client Matrix: Water

Dilution: 1.0 11/30/2014 0110 Analysis Date: Prep Date: 11/20/2014 0815

Leach Date: N/A

280-255227 Instrument ID: Analysis Batch:

Prep Batch: 280-253675 Leach Batch: N/A Units:

mg/L

Lab File ID: 26g112914.asc Initial Weight/Volume: 50 mL

Final Weight/Volume: 50 mL

Analyte Result Qual RL RL Cobalt, Total ND 0.0030 0.0030 Iron. Total ND 0.060 0.060

Lab Control Sample - Batch: 280-253675

Method: 6010B Preparation: 3005A **Total Recoverable** 

Lab Sample ID: LCS 280-253675/2-A Client Matrix: Water Dilution: 1.0

11/30/2014 0113 Analysis Date: Prep Date: 11/20/2014 0815

Leach Date: N/A

Analysis Batch: MT 026 280-255227 Instrument ID: Prep Batch: 280-253675 Lab File ID: 26g112914.asc Leach Batch: N/A Initial Weight/Volume: 50 mL

Units: 50 mL mg/L Final Weight/Volume:

Analyte Spike Amount Result % Rec. Limit Qual Cobalt, Total 0.500 0.507 101 89 - 111 Iron, Total 1.00 1.01 101 89 - 115

Matrix Spike/

MS Lab Sample ID:

Client Matrix:

Matrix Spike Duplicate Recovery Report - Batch: 280-253675

280-62642-B-1-B MS

Method: 6010B Preparation: 3005A **Total Recoverable** 

Client Matrix: Water Dilution: 1.0 Analysis Date: 11/30/2014 0124

11/20/2014 0815

Prep Batch: 280-253675 Leach Batch: N/A

280-255227

280-255227

280-253675

N/A

Analysis Batch:

Analysis Batch:

Prep Batch:

Leach Batch:

Prep Date: Leach Date:

MSD Lab Sample ID: 280-62642-B-1-C MSD Water

Dilution: 1.0 11/30/2014 0127 Analysis Date: Prep Date: 11/20/2014 0815

Leach Date: N/A Instrument ID: MT\_026 Lab File ID: 26g112914.asc Initial Weight/Volume: 50 mL 50 mL

Final Weight/Volume:

Instrument ID: MT\_026 Lab File ID: 26q112914.asc

Initial Weight/Volume: 50 mL Final Weight/Volume: 50 mL

% Rec. Analyte MS MSD Limit **RPD RPD Limit** MS Qual MSD Qual Cobalt. Total 99 101 82 - 119 2 20 52 - 155 Iron, Total 95 98 3 20

Client: Waste Management Job Number: 280-62647-1

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 280-253675 Method: 6010B Preparation: 3005A **Total Recoverable** 

MS Lab Sample ID:

280-62642-B-1-B MS

Units: mg/L

MSD Lab Sample ID: 280-62642-B-1-C MSD

Client Matrix: Water

1.0

Client Matrix: Water Dilution: 1.0

Dilution: Analysis Date: 11/30/2014 0124 Prep Date: 11/20/2014 0815

Analysis Date: 11/30/2014 0127 Prep Date: 11/20/2014 0815

Leach Date: N/A Leach Date: N/A

Analyte	Sample	MS Spike	MSD Spike	MS	MSD
	Result/Qual	Amount	Amount	Result/Qual	Result/Qual
Cobalt, Total	ND	0.500	0.500	0.497	0.507
Iron, Total	0.069	1.00	1.00	1.02	1.05

Client: Waste Management Job Number: 280-62647-1

Method Blank - Batch: 280-253678

Method: 6020 Preparation: 3005A **Total Recoverable** 

Lab Sample ID: Client Matrix:

MB 280-253678/1-A Water 1.0

Analysis Batch: Prep Batch: Leach Batch:

Units:

280-253945 280-253678 N/A

mg/L

Instrument ID: Initial Weight/Volume:

MT\_077 065 BLK.d

Analysis Date: Prep Date:

Dilution:

11/19/2014 1755

11/19/2014 0815

Leach Date: N/A Lab File ID: 50 mL Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL	RL	
Antimony, Total	ND		0.0010	0.0010	
Barium, Total	ND		0.0010	0.0010	
Cadmium, Total	ND		0.00020	0.00020	
Chromium, Total	ND		0.0030	0.0030	
Copper, Total	ND		0.0020	0.0020	
Lead, Total	ND		0.0010	0.0010	
Manganese, Total	ND		0.0010	0.0010	
Nickel, Total	ND		0.0040	0.0040	
Selenium, Total	ND		0.0010	0.0010	
Silver, Total	ND		0.0020	0.0020	
Thallium, Total	ND		0.0010	0.0010	
Vanadium, Total	ND		0.0020	0.0020	
Zinc, Total	ND		0.0050	0.0050	

Method Blank - Batch: 280-253678

Method: 6020 Preparation: 3005A **Total Recoverable** 

Instrument ID:

Lab Sample ID: Client Matrix: Dilution:

MB 280-253678/1-A Water 1.0

Analysis Date: 11/20/2014 1348 Prep Date: 11/19/2014 0815

N/A

Leach Date:

Analysis Batch: 280-254051 Prep Batch: 280-253678 Leach Batch: N/A Units: mg/L

Lab File ID: Initial Weight/Volume: Final Weight/Volume:

MT 077 025\_BLK.d 50 mL 50 mL

Analyte Result Qual RL RL Beryllium, Total ND 0.0010 0.0010

Client: Waste Management Job Number: 280-62647-1

Lab Control Sample - Batch: 280-253678

LCS 280-253678/2-A

Method: 6020 Preparation: 3005A **Total Recoverable** 

Client Matrix: Water Dilution: 1.0 Analysis Date: 11/19/2014 1759 Prep Date: 11/19/2014 0815

Analysis Batch: Prep Batch: Leach Batch: Units:

280-253945 280-253678 N/A mg/L

Instrument ID: MT\_077 Lab File ID: 066 LCS.d Initial Weight/Volume: 50 mL Final Weight/Volume: 50 mL

Leach Date: N/A

Lab Sample ID:

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Antimony, Total	0.0400	0.0353	88	85 - 115	
Barium, Total	0.0400	0.0386	97	85 - 118	
Cadmium, Total	0.0400	0.0368	92	85 - 115	
Chromium, Total	0.0400	0.0380	95	84 - 121	
Copper, Total	0.0400	0.0371	93	85 - 119	
Lead, Total	0.0400	0.0381	95	85 - 118	
Manganese, Total	0.0400	0.0403	101	85 - 117	
Nickel, Total	0.0400	0.0363	91	85 - 119	
Selenium, Total	0.0400	0.0372	93	77 - 122	
Silver, Total	0.0400	0.0357	89	85 - 115	
Thallium, Total	0.0400	0.0376	94	85 - 118	
Vanadium, Total	0.0400	0.0377	94	85 - 120	
Zinc, Total	0.0400	0.0396	99	83 - 122	

Lab Control Sample - Batch: 280-253678

N/A

Method: 6020 Preparation: 3005A **Total Recoverable** 

Lab Sample ID: Client Matrix: Dilution: Analysis Date: Prep Date:

Leach Date:

LCS 280-253678/2-A Water 1.0

11/20/2014 1352

11/19/2014 0815

Analysis Batch: 280-254051 Prep Batch: 280-253678 Leach Batch: N/A Units: mg/L

Instrument ID: MT\_077 Lab File ID: 026\_LCS.d Initial Weight/Volume: 50 mL Final Weight/Volume: 50 mL

% Rec. Limit Qual

Analyte Spike Amount Result Beryllium, Total 0.0400 0.0357 89 80 - 125

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 280-253678 Method: 6020 Preparation: 3005A **Total Recoverable** 

MS Lab Sample ID: 280-62647-1 Client Matrix: Dilution:

Water 1.0

11/19/2014 1811 11/19/2014 0815 Analysis Batch: Prep Batch: Leach Batch:

280-253945 280-253678 N/A

Instrument ID: Lab File ID: Initial Weight/Volume:

Final Weight/Volume:

MT\_077 069SMPL.d 50 mL 50 mL

Leach Date: N/A

Analysis Date:

Prep Date:

MSD Lab Sample ID: 280-62647-1 Water Client Matrix: Dilution: 1.0

11/19/2014 1815 Analysis Date: Prep Date: 11/19/2014 0815

Leach Date: N/A Analysis Batch: 280-253945 Instrument ID: MT\_077 Prep Batch: Lab File ID: 280-253678 Leach Batch: N/A Initial Weight/Volume:

070SMPL.d 50 mL Final Weight/Volume: 50 mL

	<u>%</u>	Rec.					
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Antimony, Total	94	96	85 - 115	2	20		
Barium, Total	101	95	85 - 118	5	20		
Cadmium, Total	97	98	85 - 115	0	20		
Chromium, Total	105	106	84 - 121	1	20		
Copper, Total	95	95	85 - 119	0	20		
Lead, Total	100	100	85 - 118	0	20		
Manganese, Total	103	105	85 - 117	2	20		
Nickel, Total	95	97	85 - 119	2	20		
Selenium, Total	90	92	77 - 122	3	20		
Silver, Total	94	95	85 - 115	1	20		
Thallium, Total	99	100	85 - 118	2	20		
Vanadium, Total	101	100	85 - 120	1	20		
Zinc, Total	107	104	83 - 122	2	20		

Client: Waste Management Job Number: 280-62647-1

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 280-253678 Method: 6020 Preparation: 3005A **Total Recoverable** 

Final Weight/Volume:

Initial Weight/Volume:

Final Weight/Volume:

MS Lab Sample ID: Client Matrix:

280-62647-1 Water

Analysis Batch: Prep Batch: Leach Batch:

280-254051 280-253678 N/A

Instrument ID: Lab File ID: Initial Weight/Volume: MT\_077 032SMPL.d 50 mL

50 mL

Analysis Date: Prep Date:

Leach Date:

Dilution:

1.0 11/20/2014 1416

11/19/2014 0815

280-62647-1

N/A

Analysis Batch: Prep Batch:

Leach Batch:

280-254051 280-253678

N/A

Instrument ID: Lab File ID:

MT\_077 033SMPL.d 50 mL

50 mL

Client Matrix: Dilution: Analysis Date:

Prep Date:

MSD Lab Sample ID:

Water 1.0

11/20/2014 1420 11/19/2014 0815

Leach Date: N/A

Analyte

% Rec. Limit RPD **RPD** Limit MS MSD MS Qual MSD Qual Beryllium, Total 99 101 80 - 125 2 20

Client: Waste Management Job Number: 280-62647-1

Units: mg/L

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-253678

Method: 6020 Preparation: 3005A Total Recoverable

MS Lab Sample ID: 280-62647-1 Client Matrix: Water

Water 1.0

Analysis Date: 11/19/2014 1811 Prep Date: 11/19/2014 0815

Leach Date: N/A

Dilution:

MSD Lab Sample ID: 280-62647-1 Client Matrix: Water

Dilution: vvato

Analysis Date: 11/19/2014 1815 Prep Date: 11/19/2014 0815

Leach Date: N/A

	Sample	MS Spike	MSD Spike	MS	MSD
Analyte	Result/Qual	Amount	Amount	Result/Qual	Result/Qual
Antimony, Total	ND	0.0400	0.0400	0.0377	0.0384
Barium, Total	0.0034	0.0400	0.0400	0.0437	0.0416
Cadmium, Total	ND	0.0400	0.0400	0.0390	0.0391
Chromium, Total	ND	0.0400	0.0400	0.0419	0.0422
Copper, Total	ND	0.0400	0.0400	0.0380	0.0381
Lead, Total	ND	0.0400	0.0400	0.0399	0.0401
Manganese, Total	ND	0.0400	0.0400	0.0412	0.0420
Nickel, Total	ND	0.0400	0.0400	0.0381	0.0389
Selenium, Total	ND	0.0400	0.0400	0.0359	0.0369
Silver, Total	ND	0.0400	0.0400	0.0376	0.0379
Thallium, Total	ND	0.0400	0.0400	0.0395	0.0402
Vanadium, Total	0.0042	0.0400	0.0400	0.0447	0.0444
Zinc, Total	ND	0.0400	0.0400	0.0428	0.0418

Matrix Spike/

Matrix Spike Duplicate Recovery Report - Batch: 280-253678

Method: 6020 Preparation: 3005A Total Recoverable

MS Lab Sample ID: 280-62647-1

Client Matrix: Water Dilution: 1.0

Analysis Date: 11/20/2014 1416 Prep Date: 11/19/2014 0815

Leach Date: N/A

MSD Lab Sample ID: 280-62647-1
Client Matrix: Water
Dilution: 1.0

Analysis Date: 11/20/2014 1420 Prep Date: 11/19/2014 0815

Leach Date: N/A

	Sample	MS Spike	MSD Spike	MS	MSD
Analyte	Result/Qual	Amount	Amount	Result/Qual	Result/Qual
Beryllium, Total	ND	0.0400	0.0400	0.0397	0.0404

Units: mg/L

Client: Waste Management Job Number: 280-62647-1

Method Blank - Batch: 280-253688

Method: 6020 Preparation: 3005A **Total Recoverable** 

Lab Sample ID: MB 280-253688/1-A Client Matrix: Water

Dilution: 1.0 Analysis Date: 11/19/2014 2108

Prep Date: 11/19/2014 0815

Leach Date: N/A

Analysis Batch: 280-253945 Prep Batch: 280-253688 Leach Batch: N/A Units: mg/L

Instrument ID: MT\_077 Lab File ID: 115\_BLK.d Initial Weight/Volume: 50 mL Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL	RL
Antimony, Dissolved	ND		0.0010	0.0010
Barium, Dissolved	ND		0.0010	0.0010
Beryllium, Dissolved	ND		0.0010	0.0010
Cadmium, Dissolved	ND		0.00020	0.00020
Chromium, Dissolved	ND		0.0030	0.0030
Copper, Dissolved	ND		0.0020	0.0020
Lead, Dissolved	ND		0.0010	0.0010
Manganese, Dissolved	ND		0.0010	0.0010
Nickel, Dissolved	ND		0.0040	0.0040
Selenium, Dissolved	ND		0.0010	0.0010
Silver, Dissolved	ND		0.0020	0.0020
Thallium, Dissolved	ND		0.0010	0.0010
Vanadium, Dissolved	ND		0.0020	0.0020
Zinc, Dissolved	ND		0.0050	0.0050

Lab Control Sample - Batch: 280-253688

Method: 6020 Preparation: 3005A **Total Recoverable** 

Lab Sample ID: LCS 280-253688/2-A

Client Matrix: Water Dilution: 1.0 Analysis Date: 11/19/2014 2112 11/19/2014 0815

Prep Date:

Leach Date: N/A

MT\_077 Analysis Batch: 280-253945 Instrument ID: Lab File ID: 116\_LCS.d Prep Batch: 280-253688 Leach Batch: N/A Initial Weight/Volume: 50 mL Units: mg/L Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Antimony, Dissolved	0.0400	0.0363	91	85 - 115	
Barium, Dissolved	0.0400	0.0423	106	85 - 118	
Beryllium, Dissolved	0.0400	0.0397	99	80 - 125	
Cadmium, Dissolved	0.0400	0.0401	100	85 - 115	
Chromium, Dissolved	0.0400	0.0408	102	84 - 121	
Copper, Dissolved	0.0400	0.0407	102	85 - 119	
Lead, Dissolved	0.0400	0.0415	104	85 - 118	
Manganese, Dissolved	0.0400	0.0398	100	85 - 117	
Nickel, Dissolved	0.0400	0.0402	100	85 - 119	
Selenium, Dissolved	0.0400	0.0396	99	77 - 122	
Silver, Dissolved	0.0400	0.0403	101	85 - 115	
Thallium, Dissolved	0.0400	0.0410	103	85 - 118	
Vanadium, Dissolved	0.0400	0.0402	100	85 - 120	
Zinc, Dissolved	0.0400	0.0412	103	83 - 122	

280-253945

280-253688

280-253688

N/A

N/A

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 280-253688 Method: 6020 Preparation: 3005A

Final Weight/Volume:

Initial Weight/Volume:

Final Weight/Volume:

Dissolved

Lab File ID:

280-62647-1 MS Lab Sample ID: Client Matrix: Water Dilution: 1.0

Analysis Batch: Prep Batch: Leach Batch:

Instrument ID: MT\_077 Lab File ID: 119SMPL.d Initial Weight/Volume: 50 mL

50 mL

120SMPL.d

50 mL

50 mL

Analysis Date: 11/19/2014 2123 Prep Date: 11/19/2014 0815

Leach Date: N/A

280-62647-1 Instrument ID: MT\_077 MSD Lab Sample ID: Analysis Batch: 280-253945

Prep Batch:

Leach Batch:

Client Matrix: Water Dilution: 1.0

Analysis Date: 11/19/2014 2127 11/19/2014 0815 Prep Date:

Leach Date: N/A

% Rec. RPD **RPD** Limit Analyte MS MSD Limit MS Qual MSD Qual Antimony, Dissolved 85 - 115 7 20 89 96 Barium, Dissolved 98 96 85 - 118 2 20 Beryllium, Dissolved 101 101 80 - 125 0 20 Cadmium, Dissolved 98 99 85 - 115 1 20 Chromium, Dissolved 105 108 84 - 121 3 20 Copper, Dissolved 101 100 85 - 119 1 20 1 20 Lead, Dissolved 101 102 85 - 118 Manganese, Dissolved 100 100 85 - 117 1 20 2 85 - 119 20 Nickel, Dissolved 101 98 Selenium, Dissolved 99 101 77 - 122 1 20 Silver, Dissolved 85 - 115 2 20 97 100 3 20 Thallium, Dissolved 100 103 85 - 118 Vanadium, Dissolved 101 102 85 - 120 1 20 Zinc, Dissolved 125 103 83 - 122 19 20 F1

Client: Waste Management Job Number: 280-62647-1

Units: mg/L

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-253688

Method: 6020 Preparation: 3005A

Dissolved

MS Lab Sample ID: 280-62647-1

Client Matrix: Water Dilution: 1.0

Analysis Date: 11/19/2014 2123 Prep Date: 11/19/2014 0815

Leach Date: N/A

MSD Lab Sample ID: 280-62647-1 Client Matrix: Water Dilution: 1.0

Analysis Date: 11/19/2014 2127 Prep Date: 11/19/2014 0815

Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Antimony, Dissolved	ND	0.0400	0.0400	0.0357	0.0383
Barium, Dissolved	0.0031	0.0400	0.0400	0.0425	0.0415
Beryllium, Dissolved	ND	0.0400	0.0400	0.0403	0.0403
Cadmium, Dissolved	ND	0.0400	0.0400	0.0391	0.0394
Chromium, Dissolved	ND	0.0400	0.0400	0.0420	0.0434
Copper, Dissolved	ND	0.0400	0.0400	0.0405	0.0401
Lead, Dissolved	ND	0.0400	0.0400	0.0404	0.0410
Manganese, Dissolved	ND	0.0400	0.0400	0.0401	0.0398
Nickel, Dissolved	ND	0.0400	0.0400	0.0403	0.0393
Selenium, Dissolved	ND	0.0400	0.0400	0.0398	0.0403
Silver, Dissolved	ND	0.0400	0.0400	0.0390	0.0399
Thallium, Dissolved	ND	0.0400	0.0400	0.0400	0.0413
/anadium, Dissolved	0.0036	0.0400	0.0400	0.0439	0.0443
Zinc, Dissolved	ND	0.0400	0.0400	0.0499 F	1 0.0411

Client: Waste Management Job Number: 280-62647-1

Method Blank - Batch: 280-254912

Method: 300.0 Preparation: N/A

Final Weight/Volume:

5 mL

25 uL

Lab Sample ID: MB 280-254912/6 280-254912 Instrument ID: WC\_lonChrom7 Analysis Batch: Client Matrix: Water Prep Batch: N/A Lab File ID: 15.0000.d N/A Dilution: 1.0 Leach Batch: Initial Weight/Volume: 5 mL 11/26/2014 1137 Units: Final Weight/Volume: 5 mL Analysis Date: mg/L

Prep Date: N/A Leach Date: N/A

 Analyte
 Result
 Qual
 RL
 RL

 Chloride
 ND
 1.0
 1.0

 Sulfate
 ND
 1.0
 1.0

Method Reporting Limit Check - Batch: 280-254912 Method: 300.0 Preparation: N/A

Lab Sample ID: Analysis Batch: 280-254912 WC IonChrom7 MRL 280-254912/3 Instrument ID: 12.0000.d Client Matrix: Water Prep Batch: N/A Lab File ID: Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 5 mL Units: 5 mL mg/L Final Weight/Volume:

Analysis Date: 11/26/2014 1044
Prep Date: N/A

N/A

11/26/2014 1101

Leach Date:

Qual Analyte Spike Amount Result % Rec. Limit Chloride ND 50 - 150 2.50 103 Sulfate 2.50 ND 91 50 - 150

Lab Control Sample/ Method: 300.0
Lab Control Sample Duplicate Recovery Report - Batch: 280-254912 Preparation: N/A

Units:

WC\_lonChrom7 LCS Lab Sample ID: LCS 280-254912/4 Analysis Batch: 280-254912 Instrument ID: 13.0000.d Client Matrix: N/A Water Prep Batch: Lab File ID: Dilution: Leach Batch: Initial Weight/Volume: 5 mL 1.0 N/A

mg/L

Prep Date: N/A Leach Date: N/A

Analysis Date:

LCSD Lab Sample ID: LCSD 280-254912/5 Analysis Batch: 280-254912 Instrument ID: WC\_lonChrom7 Client Matrix: Water Prep Batch: N/A Lab File ID: 14.0000.d Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 5 mL

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 5 mL

Analysis Date: 11/26/2014 1119 Units: mg/L Final Weight/Volume: 5 mL

Prep Date: N/A 25 uL

Leach Date: N/A

% Rec. Analyte LCS **LCSD** Limit RPD **RPD Limit** LCS Qual LCSD Qual Chloride 102 102 90 - 110 0 10 Sulfate 100 100 90 - 110 0 10

Job Number: 280-62647-1 Client: Waste Management

**Laboratory Control/** 

Laboratory Duplicate Data Report - Batch: 280-254912

Method: 300.0 Preparation: N/A

LCSD Lab Sample ID:

Leach Date:

LCS Lab Sample ID:

LCS 280-254912/4

Units: mg/L

Amount

100

100

LCSD 280-254912/5

Client Matrix: Dilution:

Water 1.0

Client Matrix: Water

Analysis Date: 11/26/2014 1101 Dilution: 1.0 Analysis Date: 11/26/2014 1119

Prep Date: N/A Leach Date: N/A

Prep Date: N/A

LCSD Spike LCS **LCSD** Result/Qual Result/Qual 102 102

N/A

Matrix Spike/

Analyte

Chloride

Sulfate

Matrix Spike Duplicate Recovery Report - Batch: 280-254912

Method: 300.0 Preparation: N/A

100

MS Lab Sample ID:

Client Matrix:

280-62848-A-1 MS Water

Analysis Batch: Prep Batch:

LCS Spike

Amount

100

100

280-254912 Instrument ID: WC IonChrom7 32.0000.d

100

Dilution: Analysis Date:

11/26/2014 1703

N/A Leach Batch: N/A Lab File ID: Initial Weight/Volume: 5 mL Final Weight/Volume:

5 mL 25 uL

Prep Date: N/A

Leach Date: N/A

> 280-254912 Analysis Batch:

Instrument ID: Lab File ID:

WC\_lonChrom7 33.0000.d

Client Matrix: Water Dilution:

MSD Lab Sample ID:

1.0

Prep Batch: N/A Leach Batch: N/A

Initial Weight/Volume:

5 mL 5 mL

MS Qual

MSD Qual

Analysis Date: Prep Date:

11/26/2014 1721

280-62848-A-1 MSD

N/A Leach Date: N/A Final Weight/Volume: 25 uL

% Rec.

Analyte MS MSD Limit **RPD RPD Limit** Chloride 80 - 120 20 108 108 0 Sulfate 80 - 120 20 107 106 1

Client: Waste Management Job Number: 280-62647-1

Matrix Spike/ Method: 300.0 Matrix Spike Duplicate Recovery Report - Batch: 280-254912 Preparation: N/A

MS Lab Sample ID:

280-62848-A-1 MS

Units: mg/L

MSD Lab Sample ID:

280-62848-A-1 MSD

Client Matrix:

Water

Client Matrix: Dilution:

Water

Dilution:

1.0

N/A

1.0

Analysis Date: Prep Date: Leach Date:

11/26/2014 1703 N/A

Analysis Date:

11/26/2014 1721

Prep Date: Leach Date: N/A N/A

Analyte	Sample	MS Spike	MSD Spike	MS	MSD
	Result/Qual	Amount	Amount	Result/Qual	Result/Qual
Chloride	19	25.0	25.0	45.7	45.7
Sulfate	ND	25.0	25.0	26.7	26.4

Duplicate - Batch: 280-254912

Method: 300.0 Preparation: N/A

Lab Sample ID: Client Matrix:

280-62848-A-1 DU

11/26/2014 1646

Analysis Batch:

280-254912

Instrument ID:

WC\_IonChrom7 31.0000.d

Qual

Dilution: Analysis Date: Water 1.0

N/A Prep Batch: Leach Batch: N/A Units: mg/L

Lab File ID: Initial Weight/Volume: Final Weight/Volume:

5 mL 5 mL

Prep Date: N/A Leach Date:

N/A

25 uL

Analyte	Sample Result/Qual	Result	RPD	Limit
Chloride	19	18.4	2	15
Sulfate	ND	ND	NC	15

LCSD Qual

Client: Waste Management Job Number: 280-62647-1

Method Blank - Batch: 280-253904

Method: 350.1 Preparation: N/A

Lab Sample ID: MB 280-253904/27 Analysis Batch: 280-253904 Instrument ID: WC\_Alp 3

Client Matrix: Water Prep Batch: N/A Lab File ID: E:\FLOW\_4\111914.RST

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 10 mL Analysis Date: 11/19/2014 1323 Units: mg/L Final Weight/Volume: 10 mL

Prep Date: N/A Leach Date: N/A

Analyte Result Qual RL RL

Ammonia (as N) ND 0.030 0.030

Lab Control Sample/ Method: 350.1
Lab Control Sample Duplicate Recovery Report - Batch: 280-253904 Preparation: N/A

LCS Lab Sample ID: LCS 280-253904/25 Analysis Batch: 280-253904 Instrument ID: WC\_Alp 3

Client Matrix: Water Prep Batch: N/A Lab File ID: E:\FLOW\_4\111914.RST

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 100 mL Analysis Date: 11/19/2014 1319 Units: mg/L Final Weight/Volume: 100 mL

Prep Date: N/A
Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-253904/26 Analysis Batch: 280-253904 Instrument ID: WC\_Alp 3

Client Matrix: Water Prep Batch: N/A Lab File ID: E:\FLOW\_4\111914.RST

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 100 mL Analysis Date: 11/19/2014 1321 Units: mg/L Final Weight/Volume: 100 mL

Prep Date: N/A Units: mg/L Final Weight/Volume: 100 mi

Leach Date: N/A

% Rec.
Analyte LCS LCSD Limit RPD RPD Limit LCS Qual

Ammonia (as N) 93 109 90 - 110 16 10 \*

Laboratory Control/ Method: 350.1
Laboratory Duplicate Data Report - Batch: 280-253904 Preparation: N/A

LCS Lab Sample ID: LCS 280-253904/25 Units: mg/L LCSD Lab Sample ID: LCSD 280-253904/26

Client Matrix: Water Client Matrix: Water
Dilution: 1.0 Dilution: 1.0

Analysis Date: 11/19/2014 1319 Analysis Date: 11/19/2014 1321

Prep Date:N/APrep Date:N/ALeach Date:N/ALeach Date:N/A

Analyte LCS Spike LCSD Spike LCS LCSD Result/Qual Result/Qual Ammonia (as N) 2.50 2.50 2.32 2.72 \*

Client: Waste Management Job Number: 280-62647-1

Matrix Spike/ Method: 350.1 Matrix Spike Duplicate Recovery Report - Batch: 280-253904 Preparation: N/A

200-25454-D-1 MS 280-253904 Instrument ID: MS Lab Sample ID: Analysis Batch: WC\_Alp 3

Client Matrix: Water Prep Batch: N/A Lab File ID: E:\FLOW 4\111914.RST

Dilution: N/A 1.0 Leach Batch: Initial Weight/Volume: 10 mL

Analysis Date: 11/19/2014 1352 Final Weight/Volume: 10 mL

N/A Prep Date: Leach Date: N/A

MSD Lab Sample ID: 200-25454-D-1 MSD Instrument ID: Analysis Batch: 280-253904 WC\_Alp 3

Client Matrix: Lab File ID: E:\FLOW 4\111914.RST Water Prep Batch: N/A

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 10 mL

11/19/2014 1354 Final Weight/Volume: Analysis Date: 10 mL Prep Date: N/A

% Rec. Analyte Limit **RPD RPD** Limit MS MSD MS Qual MSD Qual

Ammonia (as N) 90 - 110 22 F1 F2 103 82 10

Matrix Spike/ Method: 350.1 Matrix Spike Duplicate Recovery Report - Batch: 280-253904 Preparation: N/A

MS Lab Sample ID: 200-25454-D-1 MS Units: mg/L MSD Lab Sample ID: 200-25454-D-1 MSD

Client Matrix: Water Client Matrix: Water Dilution: 1.0 Dilution: 1.0

11/19/2014 1354 Analysis Date: 11/19/2014 1352 Analysis Date:

Prep Date: N/A N/A Prep Date: Leach Date: N/A Leach Date: N/A

Sample MS Spike MSD Spike MS MSD Result/Qual Amount Amount Result/Qual Result/Qual Analyte Ammonia (as N) ND 1.00 1.00 1.03 0.819 F1 F2

Leach Date:

N/A

Client: Waste Management Job Number: 280-62647-1

Method Blank - Batch: 280-254696 Method: 353.2 Preparation: N/A

Lab Sample ID: MB 280-254696/1 280-254696 Instrument ID: Analysis Batch: No Equipment Assigned Client Matrix: Water Prep Batch: N/A Lab File ID:

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

11/18/2014 2206 Units: Final Weight/Volume: Analysis Date: mg/L Prep Date: N/A Leach Date: N/A

Analyte Result Qual RL RL

Nitrate as N ND 0.050 0.050

Final Weight/Volume:

Client: Waste Management Job Number: 280-62647-1

Method Blank - Batch: 280-254188 Method: SM 2320B Preparation: N/A

Units:

Lab Sample ID: MB 280-254188/6 Analysis Batch: 280-254188 Instrument ID: WC-AT3
Client Matrix: Water Prep Batch: N/A Lab File ID: 112014b.TXT

Dilution: User Prep Batch: N/A Lab File ID: 112014b.TX

N/A Lab File ID: 112014b.TX

N/A Initial Weight/Volume:

Prep Date: N/A Leach Date: N/A

11/20/2014 1346

Analysis Date:

Leach Date:

N/A

 Analyte
 Result
 Qual
 RL
 RL

 Alkalinity, Total (As CaCO3)
 ND
 5.0
 5.0

 Alkalinity, Bicarbonate (As CaCO3)
 ND
 5.0
 5.0

mg/L

Lab Control Sample/ Method: SM 2320B
Lab Control Sample Duplicate Recovery Report - Batch: 280-254188 Preparation: N/A

LCS Lab Sample ID: LCS 280-254188/4 Analysis Batch: 280-254188 Instrument ID: WC-AT3

Client Matrix: Water Prep Batch: N/A Lab File ID: 112014b.TXT

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 11/20/2014 1336 Units: mg/L Final Weight/Volume: Prep Date: N/A

LCSD Lab Sample ID: LCSD 280-254188/5 Analysis Batch: 280-254188 Instrument ID: WC-AT3

Client Matrix: Water Prep Batch: N/A Lab File ID: 112014b.TXT

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 11/20/2014 1342 Units: mg/L Final Weight/Volume: Prep Date: N/A

Leach Date: N/A % Rec.

Analyte LCS LCSD Limit RPD RPD Limit LCS Qual LCSD Qual

Alkalinity, Total (As CaCO3) 97 93 90 - 110 5 10

Laboratory Control/ Method: SM 2320B
Laboratory Duplicate Data Report - Batch: 280-254188 Preparation: N/A

LCS Lab Sample ID: LCS 280-254188/4 Units: mg/L LCSD Lab Sample ID: LCSD 280-254188/5

Client Matrix:WaterClient Matrix:WaterDilution:1.0Dilution:1.0

Analysis Date: 11/20/2014 1336 Analysis Date: 11/20/2014 1342

Prep Date:N/APrep Date:N/ALeach Date:N/ALeach Date:N/A

Analyte LCS Spike Amount LCS Spike LCS LCSD Spike Result/Qual Result/Qual

Alkalinity, Total (As CaCO3) 200 194 186

Client: Waste Management Job Number: 280-62647-1

Duplicate - Batch: 280-254188 Method: SM 2320B Preparation: N/A

Lab Sample ID: 280-62694-D-1 DU Analysis Batch: 280-254188 Instrument ID: WC-AT3

Client Matrix: Water Prep Batch: N/A Lab File ID: 112014b.TX

Client Matrix: Water Prep Batch: N/A Lab File ID: 112014b.TXT Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 11/20/2014 1356 Units: mg/L Final Weight/Volume: Prep Date: N/A

Leach Date: N/A

Analyte Sample Result/Qual Result RPD Limit Qual

Alkalinity, Total (As CaCO3) 240 249 4 10

Client: Waste Management Job Number: 280-62647-1

Method Blank - Batch: 280-253850 Method: SM 2540C Preparation: N/A

Lab Sample ID: MB 280-253850/1 Analysis Batch: 280-253850 Instrument ID: WC\_Cond\_Orion

Client Matrix: Water Prep Batch: N/A Lab File ID: N/A N/A Dilution: 1.0 Leach Batch: Initial Weight/Volume: 100 mL 11/19/2014 1425 Units: Final Weight/Volume: 100 mL Analysis Date: mg/L

Prep Date: N/A Leach Date: N/A

Analyte Result Qual RL RL

Total Dissolved Solids (TDS) ND 5.0 5.0

Lab Control Sample/ Method: SM 2540C
Lab Control Sample Duplicate Recovery Report - Batch: 280-253850 Preparation: N/A

LCS Lab Sample ID: LCS 280-253850/2 Analysis Batch: 280-253850 Instrument ID: WC\_Cond\_Orion

Client Matrix: Water Prep Batch: N/A Lab File ID: N/A
Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 100 mL
Analysis Date: 11/19/2014 1425 Units: mg/L Final Weight/Volume: 100 mL

Analysis Date: 11/19/2014 1425

Prep Date: N/A

Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-253850/3 Analysis Batch: 280-253850 Instrument ID: WC\_Cond\_Orion

Client Matrix: Water Prep Batch: N/A Lab File ID: N/A
Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 100 mL

Analysis Date: 11/19/2014 1425 Units: mg/L Final Weight/Volume: 100 mL Prep Date: N/A

Leach Date: N/A

**TestAmerica Denver** 

% Rec.

Analyte LCS LCSD Limit RPD RPD Limit LCS Qual LCSD Qual

Total Dissolved Solids (TDS) 98 98 86 - 110 0 20

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-253850

Method: SM 2540C

Preparation: N/A

LCS Lab Sample ID: LCS 280-253850/2 Units: mg/L LCSD Lab Sample ID: LCSD 280-253850/3

Client Matrix: Water Client Matrix: Water
Dilution: 1.0 Dilution: 1.0

Analysis Date: 11/19/2014 1425 Analysis Date: 11/19/2014 1425

Prep Date:N/APrep Date:N/ALeach Date:N/ALeach Date:N/A

Analyte LCS Spike LCSD Spike LCS LCSD
Amount Amount Result/Qual Result/Qual

Total Dissolved Solids (TDS) 501 501 490 491

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Client: Waste Management Job Number: 280-62647-1

Duplicate - Batch: 280-253850 Method: SM 2540C Preparation: N/A

Lab Sample ID: 280-62647-1 Analysis Batch: 280-253850 Instrument ID: WC\_Cond\_Orion

Client Matrix: Water Prep Batch: N/A Lab File ID: Dilution: Leach Batch: N/A Initial Weight/Volume: 100 mL 1.0 Final Weight/Volume: Analysis Date: 11/19/2014 1425 Units: mg/L 100 mL

Prep Date: N/A Leach Date: N/A

Analyte Sample Result/Qual Result RPD Limit Qual

Total Dissolved Solids (TDS) 100 96.0 6 10

Client: Waste Management Job Number: 280-62647-1

Method Blank - Batch: 280-253695 Method: SM 2540D Preparation: N/A

Lab Sample ID: MB 280-253695/3 Analysis Batch: 280-253695 Instrument ID: No Equipment Assigned

Client Matrix: Water Prep Batch: N/A Lab File ID: N/A Dilution: Leach Batch: Initial Weight/Volume: 250 mL 1.0 11/18/2014 1640 Units: Final Weight/Volume: 250 mL Analysis Date: mg/L

Prep Date: N/A Leach Date: N/A

Analyte Result Qual RL RL

Total Suspended Solids ND 4.0 4.0

Lab Control Sample/ Method: SM 2540D
Lab Control Sample Duplicate Recovery Report - Batch: 280-253695 Preparation: N/A

LCS Lab Sample ID: LCS 280-253695/1 Analysis Batch: 280-253695 Instrument ID: No Equipment Assigned

Client Matrix: Prep Batch: Lab File ID: N/A N/A Dilution: Leach Batch: N/A Initial Weight/Volume: 100 mL 1.0 11/18/2014 1640 Analysis Date: Units: mg/L Final Weight/Volume: 250 mL

Prep Date: N/A
Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-253695/2 Analysis Batch: 280-253695 Instrument ID: No Equipment Assigned

Client Matrix: Water Prep Batch: N/A Lab File ID: N/A Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 100 mL Analysis Date: 11/18/2014 1640 Units: mg/L Final Weight/Volume: 250 mL

Prep Date: N/A Leach Date: N/A

<u>% Rec.</u>

Analyte LCS LCSD Limit RPD RPD Limit LCS Qual LCSD Qual

Total Suspended Solids 89 92 86 - 114 3 20

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-253695

Method: SM 2540D

Preparation: N/A

LCS Lab Sample ID: LCS 280-253695/1 Units: mg/L LCSD Lab Sample ID: LCSD 280-253695/2

Client Matrix: Water Client Matrix: Water
Dilution: 1.0 Dilution: 1.0

Analysis Date: 11/18/2014 1640 Analysis Date: 11/18/2014 1640

Prep Date:N/APrep Date:N/ALeach Date:N/ALeach Date:N/A

Analyte LCS Spike LCSD Spike LCS Result/Qual Result/Qual

Total Suspended Solids 100 100 89.0 92.0

Client: Waste Management Job Number: 280-62647-1

Duplicate - Batch: 280-253695 Method: SM 2540D Preparation: N/A

Lab Sample ID: 280-62620-A-1 DU Analysis Batch: 280-253695 Instrument ID: No Equipment Assigned

Client Matrix: Water Prep Batch: N/A Lab File ID: N/A
Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 250 mL

Analysis Date: 11/18/2014 1640 Units: mg/L Final Weight/Volume: 250 mL Prep Date: N/A

Analyte Sample Result/Qual Result RPD Limit Qual

Total Suspended Solids ND ND NC 10

Leach Date:

N/A

Client: Waste Management Job Number: 280-62647-1

Method Blank - Batch: 280-254004 Method: SM 5310B Preparation: N/A

Lab Sample ID: MB 280-254004/5 Analysis Batch: 280-254004 Instrument ID: WC\_SHI2

Client Matrix: Water Prep Batch: N/A Lab File ID: 111914.txt
Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 11/19/2014 1619 Units: mg/L Final Weight/Volume:

Prep Date: N/A Leach Date: N/A

N/A

Leach Date:

Analyte Result Qual RL RL

Total Organic Carbon - Average ND 1.0 1.0

Lab Control Sample/ Method: SM 5310B
Lab Control Sample Duplicate Recovery Report - Batch: 280-254004 Preparation: N/A

LCS Lab Sample ID: LCS 280-254004/3 Analysis Batch: 280-254004 Instrument ID: WC\_SHI2

Client Matrix: Water Prep Batch: N/A Lab File ID: 111914.txt

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 11/19/2014 1545 Units: mg/L Final Weight/Volume: 200 mL Prep Date: N/A

LCSD Lab Sample ID: LCSD 280-254004/4 Analysis Batch: 280-254004 Instrument ID: WC\_SHI2

Client Matrix: Water Prep Batch: N/A Lab File ID: 111914.txt

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 11/19/2014 1602 Units: mg/L Final Weight/Volume: 200 mL

Analysis Date: 11/19/2014 1602 Units: mg/L Final Weight/Volume: 200 mL Prep Date: N/A
Leach Date: N/A

% Rec.

Analyte LCS LCSD Limit RPD RPD Limit LCS Qual LCSD Qual

 Total Organic Carbon - Average
 100
 100
 88 - 112
 1
 15

Laboratory Control/ Method: SM 5310B
Laboratory Duplicate Data Report - Batch: 280-254004 Preparation: N/A

LCS Lab Sample ID: LCS 280-254004/3 Units: mg/L LCSD Lab Sample ID: LCSD 280-254004/4

Client Matrix:WaterClient Matrix:WaterDilution:1.0Dilution:1.0

Analysis Date: 11/19/2014 1545 Analysis Date: 11/19/2014 1602

Prep Date:N/APrep Date:N/ALeach Date:N/ALeach Date:N/A

Analyte LCS Spike LCSD Spike LCS Result/Qual Result/Qual

Total Organic Carbon - Average 25.0 25.0 24.9 25.0

Client: Waste Management Job Number: 280-62647-1

Matrix Spike/ Method: SM 5310B Matrix Spike Duplicate Recovery Report - Batch: 280-254004 Preparation: N/A

MS Lab Sample ID: 280-62615-B-1 MS Analysis Batch: 280-254004 Instrument ID: WC\_SHI2 Client Matrix: Water Prep Batch: N/A Lab File ID: 111914.txt

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 11/19/2014 2055 Final Weight/Volume: 50 mL Prep Date: N/A

Leach Date: N/A

MSD Lab Sample ID: 280-62615-B-1 MSD Analysis Batch: 280-254004 Instrument ID: WC\_SHI2 Client Matrix: Water Prep Batch: N/A Lab File ID: 111914.txt

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 11/19/2014 2112 Final Weight/Volume: 50 mL Prep Date: N/A

% Rec.

Analyte MS MSD Limit RPD RPD Limit MS Qual MSD Qual

Total Organic Carbon - Average 102 103 88 - 112 0 15

Matrix Spike/ Method: SM 5310B
Matrix Spike Duplicate Recovery Report - Batch: 280-254004 Preparation: N/A

MS Lab Sample ID: 280-62615-B-1 MS Units: mg/L MSD Lab Sample ID: 280-62615-B-1 MSD Client Matrix: Water Client Matrix: Water

 Client Matrix:
 Water
 Client Matrix:
 Water

 Dilution:
 1.0
 Dilution:
 1.0

 Analysis Date:
 11/19/2014 2055
 Analysis Date:
 11/19/2014 2112

Prep Date: N/A
Leach Date: N/A
Leach Date: N/A

Sample MS Spike MSD Spike MS MSD

Analyte Result/Qual Amount Amount Result/Qual Result/Qual

Total Organic Carbon - Average ND 25.0 25.6 25.6

Leach Date:

N/A

# **Laboratory Chronicle**

Lab ID: 280-62647-1 Client ID: MW-35

Sample Date/Time: 11/17/2014 12:50 Received Date/Time: 11/18/2014 09:35

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:5030C	280-62647-G-1		480-216102		11/26/2014 12:53	1	TAL BUF	EDB
A:8260C	280-62647-G-1		480-216102		11/26/2014 12:53	1	TAL BUF	EDB
P:5030C	280-62647-K-1		480-215763		11/25/2014 03:17	1	TAL BUF	RAS
A:8260C SIM	280-62647-K-1		480-215763		11/25/2014 03:17	1	TAL BUF	RAS
P:3005A	280-62647-D-1-A		280-255227	280-253675	11/20/2014 08:15	1	TAL DEN	WDS
A:6010B	280-62647-D-1-A		280-255227	280-253675	11/30/2014 01:56	1	TAL DEN	LLB
P:3005A	280-62647-C-1-A		280-256165	280-253674	11/19/2014 08:15	1	TAL DEN	WDS
A:6010B	280-62647-C-1-A		280-256165	280-253674	12/06/2014 18:55	1	TAL DEN	SJS
P:3005A	280-62647-D-1-B		280-253945	280-253678	11/19/2014 08:15	1	TAL DEN	WDS
A:6020	280-62647-D-1-B		280-253945	280-253678	11/19/2014 18:03	1	TAL DEN	LMT
P:3005A	280-62647-C-1-D		280-253945	280-253688	11/19/2014 08:15	1	TAL DEN	WDS
A:6020	280-62647-C-1-D		280-253945	280-253688	11/19/2014 21:16	1	TAL DEN	LMT
P:3005A	280-62647-D-1-B		280-254051	280-253678	11/19/2014 08:15	1	TAL DEN	WDS
A:6020	280-62647-D-1-B		280-254051	280-253678	11/20/2014 14:08	1	TAL DEN	LMT
A:300.0	280-62647-A-1		280-254912		11/26/2014 19:26	1	TAL DEN	TLP
A:350.1	280-62647-E-1		280-253904		11/19/2014 14:04	1	TAL DEN	CML
A:353.2	280-62647-A-1		280-254696		11/18/2014 22:06	1	TAL DEN	RKS
A:SM 2320B	280-62647-A-1		280-254188		11/20/2014 15:17	1	TAL DEN	CCJ
A:SM 2540C	280-62647-B-1		280-253850		11/19/2014 14:25	1	TAL DEN	SVC
A:SM 2540D	280-62647-B-1		280-253695		11/18/2014 16:40	1	TAL DEN	MW1
A:SM 5310B	280-62647-E-1		280-254004		11/19/2014 23:15	1	TAL DEN	CCJ

Lab ID: 280-62647-1 MS Client ID: MW-35

Sample Date/Time: 11/17/2014 12:50 Received Date/Time: 11/18/2014 09:35

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:3005A	280-62647-C-1-B MS		280-256165	280-253674	11/19/2014 08:15	1	TAL DEN	WDS
A:6010B	280-62647-C-1-B MS		280-256165	280-253674	12/06/2014 19:00	1	TAL DEN	SJS
P:3005A	280-62647-D-1-C MS		280-253945	280-253678	11/19/2014 08:15	1	TAL DEN	WDS
A:6020	280-62647-D-1-C MS		280-253945	280-253678	11/19/2014 18:11	1	TAL DEN	LMT
P:3005A	280-62647-C-1-E MS		280-253945	280-253688	11/19/2014 08:15	1	TAL DEN	WDS
A:6020	280-62647-C-1-E MS		280-253945	280-253688	11/19/2014 21:23	1	TAL DEN	LMT
P:3005A	280-62647-D-1-C MS		280-254051	280-253678	11/19/2014 08:15	1	TAL DEN	WDS
A:6020	280-62647-D-1-C MS		280-254051	280-253678	11/20/2014 14:16	1	TAL DEN	LMT

## **Laboratory Chronicle**

Lab ID: 280-62647-1 MSD Client ID: MW-35

Sample Date/Time: 11/17/2014 12:50 Received Date/Time: 11/18/2014 09:35

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:3005A	280-62647-C-1-C MSD		280-256165	280-253674	11/19/2014 08:15	1	TAL DEN	WDS
A:6010B	280-62647-C-1-C MSD		280-256165	280-253674	12/06/2014 19:03	1	TAL DEN	SJS
P:3005A	280-62647-D-1-D MSD		280-253945	280-253678	11/19/2014 08:15	1	TAL DEN	WDS
A:6020	280-62647-D-1-D MSD		280-253945	280-253678	11/19/2014 18:15	1	TAL DEN	LMT
P:3005A	280-62647-C-1-F MSD		280-253945	280-253688	11/19/2014 08:15	1	TAL DEN	WDS
A:6020	280-62647-C-1-F MSD		280-253945	280-253688	11/19/2014 21:27	1	TAL DEN	LMT
P:3005A	280-62647-D-1-D MSD		280-254051	280-253678	11/19/2014 08:15	1	TAL DEN	WDS
A:6020	280-62647-D-1-D MSD		280-254051	280-253678	11/20/2014 14:20	1	TAL DEN	LMT

Lab ID: 280-62647-1 DU Client ID: MW-35

Sample Date/Time: 11/17/2014 12:50 Received Date/Time: 11/18/2014 09:35

Analysis Date Prepared / Batch Method Bottle ID Run Prep Batch Analyzed Dil Lab Analyst A:SM 2540C 280-62647-B-1 DU 280-253850 11/19/2014 14:25 TAL DEN SVC

# **Laboratory Chronicle**

Lab ID: 280-62647-2 Client ID: MW-13A

Sample Date/Time: 11/17/2014 13:40 Received Date/Time: 11/18/2014 09:35

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:5030C	280-62647-G-2		480-216102		11/26/2014 13:15	1	TAL BUF	EDB
A:8260C	280-62647-G-2		480-216102		11/26/2014 13:15	1	TAL BUF	EDB
P:5030C	280-62647-K-2		480-215763		11/25/2014 03:42	1	TAL BUF	RAS
A:8260C SIM	280-62647-K-2		480-215763		11/25/2014 03:42	1	TAL BUF	RAS
P:3005A	280-62647-D-2-A		280-255227	280-253675	11/20/2014 08:15	1	TAL DEN	WDS
A:6010B	280-62647-D-2-A		280-255227	280-253675	11/30/2014 01:59	1	TAL DEN	LLB
P:3005A	280-62647-C-2-A		280-256165	280-253674	11/19/2014 08:15	1	TAL DEN	WDS
A:6010B	280-62647-C-2-A		280-256165	280-253674	12/06/2014 19:16	1	TAL DEN	SJS
P:3005A	280-62647-D-2-B		280-253945	280-253678	11/19/2014 08:15	1	TAL DEN	WDS
A:6020	280-62647-D-2-B		280-253945	280-253678	11/19/2014 18:22	1	TAL DEN	LMT
P:3005A	280-62647-C-2-B		280-253945	280-253688	11/19/2014 08:15	1	TAL DEN	WDS
A:6020	280-62647-C-2-B		280-253945	280-253688	11/19/2014 21:35	1	TAL DEN	LMT
P:3005A	280-62647-D-2-B		280-254051	280-253678	11/19/2014 08:15	1	TAL DEN	WDS
A:6020	280-62647-D-2-B		280-254051	280-253678	11/20/2014 14:28	1	TAL DEN	LMT
A:300.0	280-62647-A-2		280-254912		11/26/2014 19:44	1	TAL DEN	TLP
A:350.1	280-62647-E-2		280-253904		11/19/2014 14:18	1	TAL DEN	CML
A:353.2	280-62647-A-2		280-254696		11/18/2014 22:06	1	TAL DEN	RKS
A:SM 2320B	280-62647-A-2		280-254188		11/20/2014 15:22	1	TAL DEN	CCJ
A:SM 2540C	280-62647-B-2		280-253850		11/19/2014 14:25	1	TAL DEN	SVC
A:SM 2540D	280-62647-B-2		280-253695		11/18/2014 16:40	1	TAL DEN	MW1
A:SM 5310B	280-62647-E-2		280-254004		11/19/2014 23:30	1	TAL DEN	CCJ

## **Laboratory Chronicle**

Lab ID: 280-62647-3 Client ID: MW-13B

Sample Date/Time: 11/17/2014 15:00 Received Date/Time: 11/18/2014 09:35

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:5030C	280-62647-G-3		480-216102		11/26/2014 13:38	1	TAL BUF	EDB
A:8260C	280-62647-G-3		480-216102		11/26/2014 13:38	1	TAL BUF	EDB
P:5030C	280-62647-K-3		480-215763		11/25/2014 04:06	1	TAL BUF	RAS
A:8260C SIM	280-62647-K-3		480-215763		11/25/2014 04:06	1	TAL BUF	RAS
P:3005A	280-62647-D-3-A		280-255227	280-253675	11/20/2014 08:15	1	TAL DEN	WDS
A:6010B	280-62647-D-3-A		280-255227	280-253675	11/30/2014 02:02	1	TAL DEN	LLB
P:3005A	280-62647-C-3-A		280-256165	280-253674	11/19/2014 08:15	1	TAL DEN	WDS
A:6010B	280-62647-C-3-A		280-256165	280-253674	12/06/2014 19:18	1	TAL DEN	SJS
P:3005A	280-62647-D-3-B		280-253945	280-253678	11/19/2014 08:15	1	TAL DEN	WDS
A:6020	280-62647-D-3-B		280-253945	280-253678	11/19/2014 18:34	1	TAL DEN	LMT
P:3005A	280-62647-C-3-B		280-253945	280-253688	11/19/2014 08:15	1	TAL DEN	WDS
A:6020	280-62647-C-3-B		280-253945	280-253688	11/19/2014 21:39	1	TAL DEN	LMT
P:3005A	280-62647-D-3-B		280-253945	280-253678	11/19/2014 08:15	1	TAL DEN	WDS
A:6020	280-62647-D-3-B		280-253945	280-253678	11/20/2014 00:02	1	TAL DEN	LMT
A:300.0	280-62647-A-3		280-254912		11/26/2014 20:01	1	TAL DEN	TLP
A:350.1	280-62647-E-3		280-253904		11/19/2014 14:38	1	TAL DEN	CML
A:353.2	280-62647-A-3		280-254696		11/18/2014 22:06	1	TAL DEN	RKS
A:SM 2320B	280-62647-A-3		280-254188		11/20/2014 15:27	1	TAL DEN	CCJ
A:SM 2540C	280-62647-B-3		280-253850		11/19/2014 14:25	1	TAL DEN	SVC
A:SM 2540D	280-62647-B-3		280-253695		11/18/2014 16:40	1	TAL DEN	MW1
A:SM 5310B	280-62647-E-3		280-254004		11/19/2014 23:44	1	TAL DEN	CCJ

Lab ID: 280-62647-4 Client ID: TRIP BLANK

Sample Date/Time: 11/17/2014 00:00 Received Date/Time: 11/18/2014 09:35

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:5030C	280-62647-A-4		480-216102		11/26/2014 14:00	1	TAL BUF	EDB
A:8260C	280-62647-A-4		480-216102		11/26/2014 14:00	1	TAL BUF	EDB

# **Laboratory Chronicle**

Lab ID: MB Client ID: N/A

Sample Date/Time: N/A Received Date/Time: N/A

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:5030C	MB 480-216102/7		480-216102		11/26/2014 11:44	1	TAL BUF	EDB
A:8260C	MB 480-216102/7		480-216102		11/26/2014 11:44	1	TAL BUF	EDB
P:5030C	MB 480-215763/7		480-215763		11/25/2014 02:50	1	TAL BUF	RAS
A:8260C SIM	MB 480-215763/7		480-215763		11/25/2014 02:50	1	TAL BUF	RAS
P:3005A	MB 280-253675/1-A		280-255227	280-253675	11/20/2014 08:15	1	TAL DEN	WDS
A:6010B	MB 280-253675/1-A		280-255227	280-253675	11/30/2014 01:10	1	TAL DEN	LLB
P:3005A	MB 280-253674/1-A		280-256165	280-253674	11/19/2014 08:15	1	TAL DEN	WDS
A:6010B	MB 280-253674/1-A		280-256165	280-253674	12/06/2014 18:50	1	TAL DEN	SJS
P:3005A	MB 280-253678/1-A		280-253945	280-253678	11/19/2014 08:15	1	TAL DEN	WDS
A:6020	MB 280-253678/1-A		280-253945	280-253678	11/19/2014 17:55	1	TAL DEN	LMT
P:3005A	MB 280-253688/1-A		280-253945	280-253688	11/19/2014 08:15	1	TAL DEN	WDS
A:6020	MB 280-253688/1-A		280-253945	280-253688	11/19/2014 21:08	1	TAL DEN	LMT
P:3005A	MB 280-253678/1-A		280-254051	280-253678	11/19/2014 08:15	1	TAL DEN	WDS
A:6020	MB 280-253678/1-A		280-254051	280-253678	11/20/2014 13:48	1	TAL DEN	LMT
A:300.0	MB 280-254912/6		280-254912		11/26/2014 11:37	1	TAL DEN	TLP
A:350.1	MB 280-253904/27		280-253904		11/19/2014 13:23	1	TAL DEN	CML
A:353.2	MB 280-254696/1		280-254696		11/18/2014 22:06	1	TAL DEN	RKS
A:SM 2320B	MB 280-254188/6		280-254188		11/20/2014 13:46	1	TAL DEN	CCJ
A:SM 2540C	MB 280-253850/1		280-253850		11/19/2014 14:25	1	TAL DEN	SVC
A:SM 2540D	MB 280-253695/3		280-253695		11/18/2014 16:40	1	TAL DEN	MW1
A:SM 5310B	MB 280-254004/5		280-254004		11/19/2014 16:19	1	TAL DEN	CCJ

## **Laboratory Chronicle**

Lab ID: LCS Client ID: N/A

Sample Date/Time: N/A Received Date/Time: N/A

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:5030C	LCS 480-216102/5		480-216102		11/26/2014 10:59	1	TAL BUF	EDB
A:8260C	LCS 480-216102/5		480-216102		11/26/2014 10:59	1	TAL BUF	EDB
P:5030C	LCS 480-215763/5		480-215763		11/25/2014 01:38	1	TAL BUF	RAS
A:8260C SIM	LCS 480-215763/5		480-215763		11/25/2014 01:38	1	TAL BUF	RAS
P:3005A	LCS 280-253675/2-A		280-255227	280-253675	11/20/2014 08:15	1	TAL DEN	WDS
A:6010B	LCS 280-253675/2-A		280-255227	280-253675	11/30/2014 01:13	1	TAL DEN	LLB
P:3005A	LCS 280-253674/2-A		280-256165	280-253674	11/19/2014 08:15	1	TAL DEN	WDS
A:6010B	LCS 280-253674/2-A		280-256165	280-253674	12/06/2014 18:53	1	TAL DEN	SJS
P:3005A	LCS 280-253678/2-A		280-253945	280-253678	11/19/2014 08:15	1	TAL DEN	WDS
A:6020	LCS 280-253678/2-A		280-253945	280-253678	11/19/2014 17:59	1	TAL DEN	LMT
P:3005A	LCS 280-253688/2-A		280-253945	280-253688	11/19/2014 08:15	1	TAL DEN	WDS
A:6020	LCS 280-253688/2-A		280-253945	280-253688	11/19/2014 21:12	1	TAL DEN	LMT
P:3005A	LCS 280-253678/2-A		280-254051	280-253678	11/19/2014 08:15	1	TAL DEN	WDS
A:6020	LCS 280-253678/2-A		280-254051	280-253678	11/20/2014 13:52	1	TAL DEN	LMT
A:300.0	LCS 280-254912/4		280-254912		11/26/2014 11:01	1	TAL DEN	TLP
A:350.1	LCS 280-253904/25		280-253904		11/19/2014 13:19	1	TAL DEN	CML
A:SM 2320B	LCS 280-254188/4		280-254188		11/20/2014 13:36	1	TAL DEN	CCJ
A:SM 2540C	LCS 280-253850/2		280-253850		11/19/2014 14:25	1	TAL DEN	SVC
A:SM 2540D	LCS 280-253695/1		280-253695		11/18/2014 16:40	1	TAL DEN	MW1
A:SM 5310B	LCS 280-254004/3		280-254004		11/19/2014 15:45	1	TAL DEN	CCJ

Lab ID: LCSD Client ID: N/A

Sample Date/Time: N/A Received Date/Time: N/A

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:5030C	LCSD 480-215763/6		480-215763		11/25/2014 02:02	1	TAL BUF	RAS
A:8260C SIM	LCSD 480-215763/6		480-215763		11/25/2014 02:02	1	TAL BUF	RAS
A:300.0	LCSD 280-254912/5		280-254912		11/26/2014 11:19	1	TAL DEN	TLP
A:350.1	LCSD 280-253904/26		280-253904		11/19/2014 13:21	1	TAL DEN	CML
A:SM 2320B	LCSD 280-254188/5		280-254188		11/20/2014 13:42	1	TAL DEN	CCJ
A:SM 2540C	LCSD 280-253850/3		280-253850		11/19/2014 14:25	1	TAL DEN	SVC
A:SM 2540D	LCSD 280-253695/2		280-253695		11/18/2014 16:40	1	TAL DEN	MW1
A:SM 5310B	LCSD 280-254004/4		280-254004		11/19/2014 16:02	1	TAL DEN	CCJ

Lab ID: MRL Client ID: N/A

Sample Date/Time: N/A Received Date/Time: N/A

**Analysis** Date Prepared / Method Bottle ID Batch Prep Batch Analyzed Run Dil Lab Analyst MRL 280-254912/3 A:300.0 280-254912 11/26/2014 10:44 TAL DEN TLP

## **Laboratory Chronicle**

Lab ID: MS Client ID: N/A

Sample Date/Time: 11/13/2014 11:26 Received Date/Time: 11/14/2014 09:00

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:5030C	480-71411-E-2 MS		480-216102		11/26/2014 19:14	1	TAL BUF	EDB
A:8260C	480-71411-E-2 MS		480-216102		11/26/2014 19:14	1	TAL BUF	EDB
P:3005A	280-62642-B-1-B MS		280-255227	280-253675	11/20/2014 08:15	1	TAL DEN	WDS
A:6010B	280-62642-B-1-B MS		280-255227	280-253675	11/30/2014 01:24	1	TAL DEN	LLB
A:300.0	280-62848-A-1 MS		280-254912		11/26/2014 17:03	1	TAL DEN	TLP
A:350.1	200-25454-D-1 MS		280-253904		11/19/2014 13:52	1	TAL DEN	CML
A:SM 5310B	280-62615-B-1 MS		280-254004		11/19/2014 20:55	1	TAL DEN	CCJ

Lab ID: MSD Client ID: N/A

Sample Date/Time: 11/13/2014 11:26 Received Date/Time: 11/14/2014 09:00

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:5030C	480-71411-E-2 MSD		480-216102		11/26/2014 19:36	1	TAL BUF	EDB
A:8260C	480-71411-E-2 MSD		480-216102		11/26/2014 19:36	1	TAL BUF	EDB
P:3005A	280-62642-B-1-C MSD		280-255227	280-253675	11/20/2014 08:15	1	TAL DEN	WDS
A:6010B	280-62642-B-1-C MSD		280-255227	280-253675	11/30/2014 01:27	1	TAL DEN	LLB
A:300.0	280-62848-A-1 MSD		280-254912		11/26/2014 17:21	1	TAL DEN	TLP
A:350.1	200-25454-D-1 MSD		280-253904		11/19/2014 13:54	1	TAL DEN	CML
A:SM 5310B	280-62615-B-1 MSD		280-254004		11/19/2014 21:12	1	TAL DEN	CCJ

Lab ID: DU Client ID: N/A

Sample Date/Time: 11/20/2014 13:04 Received Date/Time: 11/21/2014 10:40

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
A:300.0	280-62848-A-1 DU		280-254912		11/26/2014 16:46	1	TAL DEN	TLP
A:SM 2320B	280-62694-D-1 DU		280-254188		11/20/2014 13:56	1	TAL DEN	CCJ
A:SM 2540D	280-62620-A-1 DU		280-253695		11/18/2014 16:40	1	TAL DEN	MW1

#### Lab References:

TAL BUF = TestAmerica Buffalo

TAL DEN = TestAmerica Denver

TestAmerica Denver	-	40	び不	1	0						+	A 4.	4
4955 Yarrow Street	-	manste.	5	Chain of Custor	f Cus	to					D	てい	ESTATIBLICO
Arvada, CO 80002 Phone (303) 736-0100 Fax (303) 431-7171		=	2				380-62647				THEL	EADER IN ENV	THE LEADER IN ENVIRONMENTAL TESTING
no	Sampler WH O'Hay	91/4c		Lab P Sara	Lab PM: Sara, Betsy A				or c ustody	9	280-1	COC No: 280-17318-3224.1	
Client Contact Mr. Charles Luckie	Phone: 425-285	-	52	E-Mai betsy	E-Mail: betsy.sara@testamericainc.com	tamericain	c.com				Page:	101	
Company. Olympic View Transfer Station							Analysis		Requested		Opp #:	02h	4027.17
Address: 9300 Southwest Barney White Road	Due Date Requested:	3d: St	mon								Preser A - HC	200	s: M - Hexane
Oity. Bremerton	TAT Requested (days):	ays):	<	<							B - Na(		N - None O - AsNaO2
State, Zip: WA, 98312	o pro care i nimerana	STAIL	NX	Z							D-Nit	D - Nitric Acid E - NaHSO4	P - Na204S Q - Na2SO3
Phone: 425-281 - 5455	PO #:				(0				(15		G - Am H - Asc	7	S - NazSzSOS S - H2SO4 T - TSP Dodecahydrate
District District OSCAN TONE COM	WO#:												U - Acetone
	Project #: 28002692				10 29				-		K-EDIA L-EDA	ď	W - ph. 4-5 Z - other (specify)
	SSOW#:				A) asi	s					of cor		
		Sample	Sample Type (C=comp.	Matrix (w=water, S=solid,	ld Filtered form MS/M	solved Metal	sil gnol - 80 I AT) MIS 80	al Metals	solved Arsei		19dmul/ls		
Sample Identification	Sample Date	Time	G=grab)	S=grab) BT=Tissue, A=Air) Preservation Code:	Per	0		doT C				Special Inst	Special Instructions/Note:
12 12 12 S	27-1	17.50	0	7	>>		X	1	1			l todo	(F-0./2 O.)
0	-	010	3 6	? -		25	5 -	1				Short Ho	Short Hold: NO3(cad)
MW-134		1340	0	3	×	×	Z	X	×		53	Arsenic - Di	Arsenic - Direct sub to AR
MW-138	)	1500	0	3	×	X X	X	$\times$	X				Y
The Blanc	/	1	)/	)			$\times$						
Possible Hazard Identification	Poison B W Unknown		Radiological		Sample	le Disposal (A t Return To Client	(A fee r	and the second	dssessed if san Disposal Bv Lab	iples are re	tained long	ger than 1 n	nonth) Months
ssted: I, II, III, IV, Other (specify)					Special	Special Instructions/QC Requirements.	s/QC Re	quiremen	ts:				
Empty Kit Relinquished by:		Date:			Time:				Method o	Method of Shipment:			
Relinquished by: M. M. (1) "U. D. M.	Date/Time: 1/1/1	79	200	Company	Rece	Received by:	9	7	R	Date/Time:	o h	335	a Medico
Relinquished by:	Date/Time:			Company	Rece	Received by		0		Date/Time:		0	Company
	Date/Time:			Company	Rece	Received by:				Date/Time:		0	Company
Custody Seals Intact: Custody Seal No.: 333   3	-				Cool	Cooler Temperature(s) °C and Other Remarks:	re(s) °C an	d Other Rei	narks:				

# Login Sample Receipt Checklist

Client: Waste Management Job Number: 280-62647-1

Login Number: 62647 List Source: TestAmerica Denver

List Number: 1

Creator: Orfield, Tayler C

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

# **Login Sample Receipt Checklist**

Client: Waste Management Job Number: 280-62647-1

List Source: TestAmerica Buffalo
List Number: 2
List Source: TestAmerica Buffalo
List Number: 2

Creator: Robison, Zachary J

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.1 C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	



## ANALYTICAL REPORT

Job Number: 280-62688-1

Job Description: WA02|Olympic View Sanitary LF

For:

Waste Management Sun Valley Hauling 9081 Tujunga Avenue Sun Valley, CA 91352

Attention: Mr. Phil Perley

Betsy Sara

Approved for release. Betsy A Sara Project Manager II 12/17/2014 11:37 AM

Betsy A Sara, Project Manager II 4955 Yarrow Street, Arvada, CO, 80002 (303)736-0189 betsy.sara@testamericainc.com 12/17/2014

cc: Mr. Sam Adlington Mr. Matt O'Hare Ms. Elena Ramirez Mr. Dan Venchiarutti

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is 4025.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

TestAmerica Laboratories, Inc.

TestAmerica Denver 4955 Yarrow Street, Arvada, CO 80002 Tel (303) 736-0100 Fax (303) 431-7171 <a href="https://www.testamericainc.com">www.testamericainc.com</a>



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#### **CASE NARRATIVE**

**Client: Waste Management** 

Project: WA02|Olympic View Sanitary LF

Report Number: 280-62688-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

This report may include reporting limits (RLs) less than TestAmerica's standard reporting limit. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

#### Sample Receiving

The samples were received on 11/19/2014; the samples arrived in good condition, properly preserved and on ice. The temperatures of the coolers at receipt were 1.4° C and 5.6° C.

#### **Holding Times**

All holding times were within established control limits.

#### Trip Blank

Acetone, a common laboratory contaminant, was detected in the trip blank sample at a level below the requested reporting limit. Acetone was also detected in the sample MW-23A at a similar level, therefore, the Acetone in this sample is likely due to laboratory artifact.

#### **Method Blanks**

All Method Blank recoveries were within established control limits.

#### **Laboratory Control Samples (LCS)**

The Method 8260C LCS exhibited a recovery of Vinyl Chloride outside the control limits. A full list spike was utilized for Method 8260C. The laboratory's SOP for Method 8260C allows for five analytes to recover outside criteria when a full list spike is utilized, and therefore reanalysis was deemed unnecessary.

All other Laboratory Control Samples were within established control limits.

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

The Matrix Spikes and Matrix Spike Duplicates performed on samples from other clients exhibited recoveries outside control limits for 1,1-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene Method 8260C and Sulfate Method 300.0. Because the corresponding Laboratory Control Samples and the Method Blank samples were within control limits, these anomalies may be due to matrix interference and no corrective action was taken.

The percent recoveries and/or relative percent difference of the MS/MSD performed on a sample from another client were outside control limits for Total Iron Method 6010B because the sample concentration was greater than four times the spike amount. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, no corrective action was taken.

The percent recoveries and/or relative percent difference of the MS/MSD performed on sample MW-23A were outside control limits for Dissolved Manganese Method 6020 because the sample concentration was greater than four times the spike amount. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, no corrective action was taken.

The percent recoveries and/or relative percent difference of the MS/MSD performed on sample MW-23A were outside control limits for Total Manganese Method 6020 because the sample concentration was greater than four times the spike amount. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, no corrective action was taken.

All other MS and MSD samples were within established control limits.

#### Sample Duplicate

The RPD for Sulfate Method 300.0 performed on a sample from another client was outside control limits. Because all other QC and calibration criteria were met no corrective action was needed.

#### **Organics**

The analyte 2-chloroethyl vinyl ether cannot be reliably quantitated in acid preserved samples, therefore, the reporting limit for the analyte 2-chloroethyl vinyl ether is not reliable or defensible.

#### Metals

The bracketing Continuing Calibration Verification Samples (CCV) surrounding the Method Blank were above control limits for Dissolved Sodium during Method 6010B analysis. Because the data are considered to be biased high and Dissolved Sodium was not detected in the Method Blank sample above the reporting limit, corrective action was deemed unnecessary.

#### **General Comments**

The analyses for Volatile Organics by Method 8260C and Volatile Organics by Method 8260C SIM were performed by TestAmerica Buffalo. Their address and phone number are:

TestAmerica Buffalo 10 Hazelwood Drive, Suite 106 Amherst, NY 14228 716-691-2600

Lab Sample ID Client Sample ID Analyte	Result	Qualifier	Reporting Limit	Units	Method
280-62688-1 MW-42					
Vinyl chloride	0.082		0.020	ug/L	8260C SIM
Chloride	19		1.0	mg/L	300.0
Sulfate	11		1.0	mg/L	300.0
Ammonia (as N)	6.3		0.060	mg/L	350.1
Alkalinity, Total (As CaCO3)	230		5.0	mg/L	SM 2320B
Alkalinity, Bicarbonate (As CaCO3)	230		5.0	mg/L	SM 2320B
Total Dissolved Solids (TDS)	310		5.0	mg/L	SM 2540C
Total Suspended Solids	170		10	mg/L	SM 2540D
Total Organic Carbon - Average	7.9		1.0	mg/L	SM 5310B
Dissolved					
Calcium, Dissolved	44		0.040	mg/L	6010B
Cobalt, Dissolved	0.0077		0.0030	mg/L	6010B
Iron, Dissolved	27		0.060	mg/L	6010B
Magnesium, Dissolved	17		0.050	mg/L	6010B
Potassium, Dissolved	8.2		1.0	mg/L	6010B
Sodium, Dissolved	20		1.0	mg/L	6010B
Barium, Dissolved	0.12		0.0010	mg/L	6020
Manganese, Dissolved	5.0		0.0010	mg/L	6020
Total Recoverable					
Cobalt, Total	0.0030		0.0030	mg/L	6010B
Iron, Total	32		0.060	mg/L	6010B
Barium, Total	0.13		0.0010	mg/L	6020
Manganese, Total	5.1		0.0010	mg/L	6020
Vanadium, Total	0.0038		0.0020	mg/L	6020

Lab Sample ID Client Sample ID Analyte	Result	Qualifier	Reporting Limit	Units	Method
280-62688-2 MW-29A					
Chloride	2.2		1.0	mg/L	300.0
Sulfate	1.4		1.0	mg/L	300.0
Ammonia (as N)	0.074		0.030	mg/L	350.1
Alkalinity, Total (As CaCO3)	41		5.0	mg/L	SM 2320B
Alkalinity, Bicarbonate (As CaCO3)	41		5.0	mg/L	SM 2320B
Total Dissolved Solids (TDS)	72		5.0	mg/L	SM 2540C
Total Organic Carbon - Average	1.4		1.0	mg/L	SM 5310B
Dissolved					
Calcium, Dissolved	6.5		0.040	mg/L	6010B
Iron, Dissolved	3.7		0.060	mg/L	6010B
Magnesium, Dissolved	3.7		0.050	mg/L	6010B
Sodium, Dissolved	3.1		1.0	mg/L	6010B
Barium, Dissolved	0.0094		0.0010	mg/L	6020
Manganese, Dissolved	1.3		0.0010	mg/L	6020
Total Recoverable					
Iron, Total	4.7		0.060	mg/L	6010B
Barium, Total	0.010		0.0010	mg/L	6020
Manganese, Total	1.3		0.0010	mg/L	6020
280-62688-3 MW-39					
Chloride	2.7		1.0	mg/L	300.0
Sulfate	1.2		1.0	mg/L	300.0
Ammonia (as N)	0.30		0.030	mg/L	350.1
Nitrate as N	0.19		0.050	mg/L	353.2
Alkalinity, Total (As CaCO3)	98		5.0	mg/L	SM 2320B
Alkalinity, Bicarbonate (As CaCO3)	98		5.0	mg/L	SM 2320B
Total Dissolved Solids (TDS)	130		5.0	mg/L	SM 2540C
Total Organic Carbon - Average	2.4		1.0	mg/L	SM 5310B
Dissolved					
Calcium, Dissolved	11		0.040	mg/L	6010B
Cobalt, Dissolved	0.0065		0.0030	mg/L	6010B
Iron, Dissolved	29		0.060	mg/L	6010B
Magnesium, Dissolved	6.5		0.050	mg/L	6010B
Sodium, Dissolved	6.9		1.0	mg/L	6010B
Barium, Dissolved	0.013		0.0010	mg/L	6020
Manganese, Dissolved	0.49		0.0010	mg/L	6020
Total Recoverable					
Cobalt, Total	0.0076		0.0030	mg/L	6010B
Iron, Total	32		0.060	mg/L	6010B
Barium, Total	0.021		0.0010	mg/L	6020
Manganese, Total	0.49		0.0010	mg/L	6020

Lab Sample ID Client Sample ID Analyte	Result	Qualifier	Reporting Limit	Units	Method
Allayee	- Itobaic	Quantito			Motriod
280-62688-4 MW-16					
Chloride	1.5		1.0	mg/L	300.0
Sulfate	3.3		1.0	mg/L	300.0
Nitrate as N	0.28		0.050	mg/L	353.2
Alkalinity, Total (As CaCO3)	57		5.0	mg/L	SM 2320B
Alkalinity, Bicarbonate (As CaCO3)	57		5.0	mg/L	SM 2320B
Total Dissolved Solids (TDS)	100		5.0	mg/L	SM 2540C
Dissolved					
Calcium, Dissolved	11		0.040	mg/L	6010B
Magnesium, Dissolved	6.4		0.050	mg/L	6010B
Sodium, Dissolved	4.8		1.0	mg/L	6010B
Barium, Dissolved	0.0037		0.0010	mg/L	6020
Chromium, Dissolved	0.0074		0.0030	mg/L	6020
Manganese, Dissolved	0.012		0.0010	mg/L	6020
Vanadium, Dissolved	0.0035		0.0020	mg/L	6020
Total Recoverable					
Iron, Total	0.18		0.060	mg/L	6010B
Barium, Total	0.0039		0.0010	mg/L	6020
Chromium, Total	0.0077		0.0030	mg/L	6020
Manganese, Total	0.032		0.0010	mg/L	6020
Vanadium, Total	0.0040		0.0020	mg/L	6020
280-62688-5 MW-43					
Chloride	1 E		1.0	m a /l	300.0
	1.5		1.0	mg/L	300.0
Sulfate	2.1		1.0	mg/L	300.0
Ammonia (as N)	0.12		0.030	mg/L	350.1
Nitrate as N	0.81		0.050	mg/L	353.2
Alkalinity, Total (As CaCO3)	21		5.0	mg/L	SM 2320B
Alkalinity, Bicarbonate (As CaCO3)	21		5.0	mg/L	SM 2320B
Total Dissolved Solids (TDS)	50		5.0	mg/L	SM 2540C
Total Suspended Solids	4.4		4.0	mg/L	SM 2540D
Total Organic Carbon - Average	1.3		1.0	mg/L	SM 5310B
Dissolved					
Calcium, Dissolved	4.4		0.040	mg/L	6010B
Iron, Dissolved	0.70		0.060	mg/L	6010B
Magnesium, Dissolved	1.8		0.050	mg/L	6010B
Sodium, Dissolved	2.8		1.0	mg/L	6010B
Barium, Dissolved	0.0058		0.0010	mg/L	6020
Manganese, Dissolved	0.24		0.0010	mg/L	6020
Total Recoverable				e.	
Iron, Total	1.7		0.060	mg/L	6010B
Barium, Total	0.0066		0.0010	mg/L	6020
Manganese, Total	0.26		0.0010	mg/L	6020

Lab Sample ID Client Sample ID			Reporting		
Analyte	Result	Qualifier	Limit	Units	Method
280-62688-6 MW-23A					
Acetone	3.4	J	10	ug/L	8260C
Vinyl chloride	0.0082	J	0.020	ug/L	8260C SIM
Chloride	2.7		1.0	mg/L	300.0
Sulfate	4.2		1.0	mg/L	300.0
Ammonia (as N)	0.035		0.030	mg/L	350.1
Alkalinity, Total (As CaCO3)	94		5.0	mg/L	SM 2320B
Alkalinity, Bicarbonate (As CaCO3)	94		5.0	mg/L	SM 2320B
Total Dissolved Solids (TDS)	140		5.0	mg/L	SM 2540C
Total Suspended Solids	4.0		4.0	mg/L	SM 2540D
Dissolved					
Calcium, Dissolved	20		0.040	mg/L	6010B
Iron, Dissolved	0.46		0.060	mg/L	6010B
Magnesium, Dissolved	9.2		0.050	mg/L	6010B
Potassium, Dissolved	1.1		1.0	mg/L	6010B
Sodium, Dissolved	5.1		1.0	mg/L	6010B
Barium, Dissolved	0.013		0.0010	mg/L	6020
Manganese, Dissolved	2.1		0.0010	mg/L	6020
Zinc, Dissolved	0.012		0.0050	mg/L	6020
Total Recoverable					
Iron, Total	0.91		0.060	mg/L	6010B
Barium, Total	0.014		0.0010	mg/L	6020
Manganese, Total	2.2		0.0010	mg/L	6020
Zinc, Total	0.0053		0.0050	mg/L	6020
280-62688-7TB TRIP BLANK					
Acetone	5.8	J	10	ug/L	8260C

#### **METHOD SUMMARY**

Client: Waste Management Job Number: 280-62688-4

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Metals 7C( I ( reBarationpPotal , eRocerable or Aissolcev Metals	P) TALN P) TALN	DW8E6 6040S	DW8E6 d003)
Metals 7C( I ( reBarationpPotal , eRocerable or Aissolcev Metals DamBle 5iltrationp5ielv	P) T ALN P) T ALN	DW8E6 6040S	DW8E6 d003) 51_TAF5TP, A
Metals 7C( _MDl ( reBarationpPotal , eRocerable or Aissolcev Metals	P) TALN P) TALN	DW8E6 6020	DW8E6 d003)
Metals 7C( _MDI ( reBarationpPotal , eRocerable or Aissolcev Metals DamBle 5iltrationp5ielv	P) T ALN P) T ALN	DW8E6 6020	DW8E6 d003) 51_TAF5TP, A
) nionsp1on C/ romatograB/ h	P) TALN	MC) WW d00y0	
Nitrogenp) mmonia	P) TALN	MC) WW d30y4	
Nitrate	P) TALN	L() d3dy2	
) I. alinith	P) TALN	DM DM 2d20S	
DolivspPotal Aissolcev 7PADI	P) TALN	DM DM 23E0C	
DolivspPotal DusBenvev 7PDDI	P) TALN	DM DM 23E0A	
k rganiRCarbonpPotal 7Pk Cl	P) TALN	DM DM 3d40S	
Colatile k rganiRComBounvs bh VC_MD ( urge anv PraB	P) T SG5 P) T SG5	DW8E6 8260C	DW8E6 30d0C
Colatile k rganiRComBounvs 7/C_MDI ( urge anv PraB	P) T SG5 P) T SG5	DW8E6 8260C D1	M DW8E6 30d0C

#### Lab References:

P) T SG5 U Pest) meriRa Su=alo

P) T ALN U Pest) meriRa Aencer

#### **Method References:**

L() UGD Lncironmental (roteRtion) genRh

MC) WW UfMet/ ovs 5or C/ emiRal ) nalhsis k =Water ) nv WastesfpL ( ) -600  $\underline{\text{E}}$ -" 9-020 pMarR 498d ) nv Dubsequent , ecisionsy

DM UfDtanvarv Met/ ovs 5or P/ e Lxamination k =Water ) nv Wastewaterf

DW8E6 UfPest Met/ ovs 5or L caluating Doliv Wastep( / hsiRal\_C/ emiRal Met/ ovsfpP/ irv L vitionpNocember 4986 ) nv 1s GBvatesy

# METHOD / ANALYST SUMMARY

Method	Analyst	Analyst ID
SW846 8260C	Boldt, Erik D	EDB
SW846 8260C SIM	Sobol, Renee A	RAS
SW846 6010B SW846 6010B SW846 6010B	Broander, Laura L Diaz, Luis R Scott, Samantha J	LLB LRD SJS
SW846 6020 SW846 6020	Mooney, Joseph C Trudell, Lynn-Anne M	JM LMT
MCAWW 300.0	Phan, Thu L	TLP
MCAWW 350.1	Lawrence, Caitlyn M	CML
EPA 353.2	Allen, Andrew J	AJA
SM SM 2320B	Jewell, Connie C	CCJ
SM SM 2540C	Cherry, Scott V	SVC
SM SM 2540D	Woolley, Mark -	MW1
SM SM 5310B	Jewell, Connie C	CCJ

## **SAMPLE SUMMARY**

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-62688-4	MW-72	Water	4414812047 4733	4414512047 0573
280-62688-2	MW-25/	Water	4414812047 4702	4414512047 0573
280-62688-9	MW-95	Water	4414812047 4003	4414512047 0573
280-62688-7	MW-46	Water	4414812047 0506	4414512047 0573
280-62688-3	MW-79	Water	4414812047 4943	4414512047 0573
280-62688-6	MW-29/	Water	4414812047 4473	4414512047 0573
280-62688-ABT	BRIP TL/ NK	Water	4414812047 0000	4414512047 0573

# **SAMPLE RESULTS**

Client Sample ID: MW-42

7ab 1amLle \$: 280-62688-4 p ate 1amLleD: 44x48x204d 4d/ / Client Matril: Water p ate 5 eReiceD: 44x4vx204d 0vd/

#### 8260C Volatile Organic Compounds by GC/MS

Analysis MetFoD: 8260C Analysis BatRF: d80-246/46 Shstrument Sp: GH/ vP9V HreL MetFoD: / 090C HreL BatRF: NχA 7ab . ile 🕸 : V968vd3p Shitial WeigFtxholume: pilution: 430 / m7 Analysis pate: 42x04x204d 4922 . inal WeigFtxholume: / m7

HreL p ate: 42x04x204d 4922

Analyte	5 esult (ugx7)	Qualifier	Mp7	57
4,4,4,2-TetraRFloroetFane	Np		039/	430
4,4,4-TriRFloroetFane	Np		0382	430
4,4,2,2-TetraRFloroetFane	Np		0324	430
4,4,2-TriRFloro-4,2,2-trifluoroetFane	Np		0394	430
4,4,2-TriRFloroetFane	Np		0329	430
4,4-p iRFloroetFane	Np		0398	430
4,4-p iRFloroetFene	Np		0 <b>3</b> 2v	430
4,4-p iRFloroLroLene	Np		03P2	430
4,2,9-TriRFlorobenzene	Np		03d4	430
4,2,9-TriRFloroLroLane	Np		038v	430
4,2,d-TriRFlorobenzene	Np		03d4	430
4,2,d-TrimetFylbenzene	Np		03P/	430
4,2-p ibromo-9-CFloroLroLane	Np		039v	430
4,2-p ibromoetFane (Ep B)	Np		03-29	430
4,2-p iRFlorobenzene	Np		03Pv	430
4,2-p iRFloroetFane	Np		0324	430
4,2-p iRFloroetFene, Total	Np		0384	230
4,2-p iRFloroLroLane	Np		03P2	430
4,9,/ -TriRFlorobenzene	Np		0329	430
4,9,/ -TrimetFylbenzene	Np		03PP	430
4,9-p iRFlorobenzene	Np		03 <del>P</del> 8	430
4,9-p iRFloroLroLane	Np		03P/	430
4,d-p iRFlorobenzene	Np		0 <b>3</b> 8d	430
4,d-p iol ane	Np		v39	dO
2,2-p iRFloroLroLane	Np		03d0	430
2-Butanone (MEK)	Np		439	40
2-CFloroetFyl cinyl etFer	Np		03/6	/ 30
2-Gel anone	Np		432	/ 30
d-MetFyl-2-Lentanone (MSBK)	Np		234	/ 30
ARetone	Np		930	40
ARetonitrile	Np		d3/	4/
ARrolein	Np		03/4	20
ARrylonitrile	Np		0389	/ 30
Benzene	Np		03d4	430
Bromobenzene	Np		0380	430
BromoRFlorometFane	Np		038P	430
BromoDiRFlorometFane	Np		039v	430
Bromoform	Np		0326	430
BromometFane	Np		036v	430
Butyl alRoFol, n-	Np		83/	d0
Butyl alRoFol, tert-	Np		939	40
Carbon DisulfiDe	Np		034v	430
Carbon tetraR-loriDe	Np		032P	430
CFlorobenzene	Np		032/	430
CFloroDifluorometFane			0326	430
CFloroetFane	Np No			
Grioroetrane	Np		0392	430

Client Sample ID: MW-42

 7ab 1amLle \$9:
 280-62688-4
 p ate 1amLleD: 44x48x204d 4d/ /

 Client Matril:
 Water
 p ate 5 eReiceD: 44x4vx204d 0vd/

#### 8260C Volatile Organic Compounds by GC/MS

Analysis MetFoD: 8260C Analysis BatRF: d80-246/46 Shstrument Sp: GH/ vP9V HreL MetFoD: / 090C HreL BatRF: NxA 7ab . ile \$5: V968vd3p Shitial WeigFtxh olume: pilution: 430 / m7 Analysis pate: 42x04x204d 4922 . inal WeigFtxholume: / m7

HreL p ate: 42x04x204d 4922

Analyte	5 esult (ugx7)	Qualifier	Mp 7	57
CFloroform	Np		039d	430
CFlorometFane	Np		039/	430
Rs-4,2-p iRFloroetFene	Np		0384	430
Rs-4,9-p iRFloroLroLene	Np		0396	430
CyRoFel ane	Np		0348	430
p ibromoRFlorometFane	Np		0392	430
p ibromometFane	Np		03d4	430
p iRFloroDifluorometFane	Np		0368	430
p iRFlorofluorometFane	Np		039d	430
EtFyl aRetate	Np		0366	430
EtFyl etFer	Np		03P2	430
EtFyl tert-butyl etFer	Np		0 <b>3</b> 2v	430
EtFylbenzene	Np		03Pd	430
Gel aRFlorobutaDiene	Np		0328	430
Gel ane	Np		03d0	40
<b>S</b> DometFane	Np		0390	430
Sobutanol	Np		d <b>3</b> 8	2/
SoLroLyl etFer	Np		03 v	430
<b>S</b> oLroLylbenzene	Np		0 <b>3</b> Pv	430
MetFaRylonitrile	Np		036v	/ 30
MetFyl aRetate	Np		03.0	23
MetFyl tert-butyl etFer	Np		0346	430
MetFylRyRoFel ane	Np		0346	430
MetFylene CFloriDe	Np		03dd	430
m-Xylene & L-Xylene	Np		0366	230
NaLFtFalene	Np		03d9	430
n-Butylbenzene	Np		036d	430
N-HroLylbenzene	Np		036v	430
o-CFlorotoluene	Np		0386	430
o-Xylene	Np		03-26	430
L-CFlorotoluene	Np		038d	430
L-Cymene	Np		0394	430
seR-Butylbenzene	Np		03P/	430
1 tyrene	Np		03P9	430
Tert-amyl metFyl etFer	Np		032P	430
tert-Butylbenzene	Np		0384	430
TetraR-loroetFene	Np		0396	430
TetraFyDrofuran	Np		439	/ 30
Toluene	Np		03 4	430
trans-4,2-p iRFloroetFene trans-4,9-p iRFloroLroLene	Np Np		03/0	430
·	Np Np		039P	430
trans-4,d-p iR-loro-2-butene	Np Np		0322 0346	430
TriÆloroetFene TriÆlorofluorometFane	Np Np		03d6	430
	Np	%	0388	430
hinyl æleribe	Np Np	70	038/	/ 30 430
hinyl RFloriDe	Np		03/0	430

Client: Waste Management Job Number: 280-62688-4

Client Sample ID: MW-42

7ab 1amLle \$: 280-62688-4 p ate 1amLleD: 44x48x204d 4d/ / Client Matril: Water p ate 5 eReiceD: 44x4vx204d 0vd/

8260C Volatile Organic Compounds by GC/MS

 Analysis MetFoD:
 8260C
 Analysis BatRF:
 d80-246/46
 Stitrument Sp:

 HreL MetFoD:
 / 090C
 HreL BatRF:
 NxA
 7ab . ile Sp:

 p ilution:
 430
 Shitial WeigFtxh oli

Shitial WeigFtxholume: / m7 . inal WeigFtxholume: / m7

GH/ vP9V

V968vd3p

Analysis p ate: 42x04x204d 4922 HreL p ate: 42x04x204d 4922

 1 urrogate
 \_ 5 eR
 Qualifier
 AFReLtanRe 7 imits

 4,2-p iRFloroetFane-Dd (1 urr)
 v8
 66 - 49P

 d-Bromofluorobenzene (1 urr)
 402
 P9 - 420

 Toluene-D8 (1 urr)
 v8
 P4 - 426

Client: Waste Management Job Number: 280-62688-4

Client Sample ID: MW-42

7ab 1amLle \$: 280-62688-4 pate 1amLleD: 44x48x204d 4d/ / Client Matril: Water pate 5 eReiceD: 44x4vx204d 0vd/

8260C Volatile Organic Compounds by GC/MS

 Analysis MetFoD:
 8260C
 Analysis BatRF:
 d80-246/46
 \$nstrument \$p:
 GH/ vP9V

 HreL MetFoD:
 / 090C
 HreL BatRF:
 NxA
 7ab . ile \$p:
 V968vd3p

p ilution: 430 Shitial WeigFtxh olume: / m7
Analysis p ate: 42x04x204d 4922 . inal WeigFtxh olume: / m7

HreL p ate: 42x04x204d 4922

**Targeted Tentatively Identified Compounds** 

Cas Number Analyte Est35 esult (ugx7) Qualifier

6P-P2-4 Gel aRFloroetFane TSC Np

Client Sample ID: MW-29A

 7ab 1amLle \$9:
 280-62688-2
 p ate 1amLleD: 44x48x204d 4d02

 Client Matril:
 Water
 p ate 5 eReiceD: 44x4vx204d 0vd/

#### 8260C Volatile Organic Compounds by GC/MS

Analysis MetFoD: 8260C Analysis BatRF: d80-246/ 46 Shstrument Sp: GH/ vP9V HreL MetFoD: / 090C HreL BatRF: NxA 7ab . ile 🕸 : V968v/3p Shitial WeigFtxh olume: pilution: 430 / m7 . inal WeigFtxholume: / m7

Analysis p ate: 42x04x204d 49dd HreL p ate: 42x04x204d 49dd

Analyte	5 esult (ugx7)	Qualifier	Mp7	57
4,4,4,2-TetraRFloroetFane	Np		039/	430
4,4,4-TriRFloroetFane	Np		0382	430
4,4,2,2-TetraRFloroetFane	Np		0324	430
4,4,2-TriRFloro-4,2,2-trifluoroetFane	Np		0394	430
4,4,2-TriRFloroetFane	Np		0329	430
4,4-p iRFloroetFane	Np		0398	430
4,4-p iRFloroetFene	Np		0 <b>3</b> 2v	430
4,4-p iRFloroLroLene	Np		03P2	430
4,2,9-TriRFlorobenzene	Np		03d4	430
4,2,9-TriRFloroLroLane	Np		0 <b>3</b> 8v	430
4,2,d-TriRFlorobenzene	Np		03d4	430
4,2,d-TrimetFylbenzene	Np		03P/	430
4,2-p ibromo-9-CFloroLroLane	Np		0 <b>3</b> 9v	430
4,2-p ibromoetFane (Ep B)	Np		03-9	430
4,2-p iRFlorobenzene	Np		0 <b>3</b> Pv	430
4,2-p iRFloroetFane	Np		0324	430
4,2-p iRFloroetFene, Total	Np		0384	230
4,2-p iRFloroLroLane	Np		03P2	430
4,9,/ -TriRFlorobenzene	Np		0329	430
4,9,/ -TrimetFylbenzene	Np		03PP	430
4,9-p iRFlorobenzene	Np		03P8	430
4,9-p iRFloroLroLane	Np		03P/	430
4,d-p iRFlorobenzene	Np		0 <b>3</b> 8d	430
4,d-p iol ane	Np		v <b>3</b> 9	d0
2,2-p iRFloroLroLane	Np		03d0	430
2-Butanone (MEK)	Np		439	40
2-CFloroetFyl cinyl etFer	Np		03/6	/ 30
2-Gel anone	Np		432	/ 30
d-MetFyl-2-Lentanone (MSBK)	Np		234	/ 30
ARetone	Np		930	40
ARetonitrile	Np		d3/	4/
ARrolein	Np		03/4	20
ARrylonitrile	Np		0389	/ 30
Benzene	Np		03d4	430
Bromobenzene	Np		0380	430
BromoRFlorometFane	Np		038P	430
BromoDiRFlorometFane	Np		039v	430
Bromoform	Np		0326	430
BromometFane	Np		036v	430
Butyl alRoFol, n-	Np		83/	d0
Butyl alPoFol, tert-	Np		939	40
Carbon DisulfiDe	Np		034v	430
Carbon tetraRFloriDe	Np		032P	430
CFlorobenzene	Np		03P/	430
CFloroDifluorometFane	Np		0326	430
CFloroetFane	Np		0392	430

Client Sample ID: MW-29A

7ab 1amLle \$: 280-62688-2 p ate 1amLleD: 44x48x204d 4d02 Client Matril: Water pate 5 eReiceD: 44x4vx204d 0vd/

#### 8260C Volatile Organic Compounds by GC/MS

Analysis MetFoD: 8260C Analysis BatRF: d80-246/46 Shstrument Sp: GH/ vP9V HreL MetFoD: / 090C HreL BatRF: NxA 7ab . ile \$5: V968v/3p Shitial WeigFtxh olume: pilution: 430 / m7 Analysis pate: 42x04x204d 49dd . inal WeigFtxholume: / m7

HreL p ate: 42x04x204d 49dd

Analyte	5 esult (ugx7)	Qualifier	Mp 7	57
CFloroform	Np		0 <b>3</b> 9d	430
CFlorometFane	Np		039/	430
Rs-4,2-p iRFloroetFene	Np		0384	430
Rs-4,9-piRFloroLroLene	Np		0396	430
CyRoFel ane	Np		0348	430
p ibromoRFlorometFane	Np		0392	430
p ibromometFane	Np		03d4	430
p iRFloroDifluorometFane	Np		0368	430
p iRFlorofluorometFane	Np		039d	430
EtFyl aRetate	Np		0366	430
EtFyl etFer	Np		03-2	430
EtFyl tert-butyl etFer	Np		0 <b>3</b> 2v	430
EtFylbenzene	Np		03Pd	430
Gel aRFlorobutaDiene	Np		0328	430
Gel ane	Np		03d0	40
<b>S</b> DometFane	Np		0390	430
Sobutanol	Np		d <b>3</b> 8	2/
SoLroLyl etFer	Np		03 v	430
<b>S</b> oLroLylbenzene	Np		03 <del>P</del> v	430
MetFaRylonitrile	Np		0 <b>3</b> 6v	/ 30
MetFyl aRetate	Np		03 0	23
MetFyl tert-butyl etFer	Np		0346	430
MetFylRyRoFel ane	Np		0346	430
MetFylene CFloriDe	Np		03dd	430
m-Xylene & L-Xylene	Np		0366	230
NaLFtFalene	Np		03d9	430
n-Butylbenzene	Np		036d	430
N-HroLylbenzene	Np		0 <b>3</b> 6v	430
o-CFlorotoluene	Np		0386	430
o-Xylene	Np		03-26	430
L-CFlorotoluene	Np		038d	430
L-Cymene	Np		0394	430
seR-Butylbenzene	Np		03P/	430
1tyrene	Np		03-9	430
Tert-amyl metFyl etFer	Np		032P	430
tert-Butylbenzene	Np		0384	430
TetraRFloroetFene	Np		0396	430
TetraFyDrofuran	Np		439	/ 30
Toluene	Np		03 4	430
trans-4,2-p iRFloroetFene	Np		03/0	430
trans-4,9-p iRFloroLroLene	Np		039P	430
trans-4,d-p iRFloro-2-butene	Np		0322	430
TriRFloroetFene	Np		03d6	430
TriRFlorofluorometFane	Np	0/	0388	430
hinyl aRetate	Np	%	038/	/ 30
hinyl ÆloriDe	Np		03/0	430

Client: Waste Management Job Number: 280-62688-4

Client Sample ID: MW-29A

7ab 1amLle \$: 280-62688-2 p ate 1amLleD: 44x48x204d 4d02 Client Matril: Water pate 5 eReiceD: 44x4vx204d 0vd/

8260C Volatile Organic Compounds by GC/MS

 Analysis MetFoD:
 8260C
 Analysis BatRF:
 d80-246/46
 \$nstrument \$p:
 GH/ vP9V

 HreL MetFoD:
 / 090C
 HreL BatRF:
 NxA
 7ab . ile \$p:
 V968v/ \$p

 p ilution:
 430
 \$nitial WeigFtxh olume:
 / m7

Shitial WeigFtxholume: / m7 . inal WeigFtxholume: / m7

HreL p ate: 42x04x204d 49dd

Analysis pate:

42x04x204d 49dd

 1 urrogate
 \_ 5 eR
 Qualifier
 AFReLtanRe 7 imits

 4,2-p iRFloroetFane-Dd (1 urr)
 vv
 66 - 49P

 d-Bromofluorobenzene (1 urr)
 400
 P9 - 420

 Toluene-D8 (1 urr)
 v8
 P4 - 426

Client: Waste Management Job Number: 280-62688-4

Client Sample ID: MW-29A

7ab 1amLle \$>: 280-62688-2 pate 1amLleD: 44x48x204d 4d02 Client Matril:

Water pate 5 eReiceD: 44x4vx204d 0vd/

8260C Volatile Organic Compounds by GC/MS

Analysis MetFoD: d80-246/ 46 GH/ vP9V 8260C Analysis BatRF: Shstrument Sp: HreL MetFoD: / 090C HreL BatRF: NxA 7ab . ile \$5: V968v/3p

Shitial WeigFtxh olume: pilution: 430 / m7 42x04x204d 49dd . inal WeigFtxholume: / m7

Analysis pate: HreL p ate: 42x04x204d 49dd

**Targeted Tentatively Identified Compounds** 

Qualifier Cas Number Analyte Est35 esult (ugx7)

6P-P2-4 Gel aRFloroetFane TSC Np

Job Number: 280-62688-4 Client: Waste Management

Client Sample ID: MW-39

7ab 1amLle \$>: 280-62688-9 p ate 1 amLleD: 44x48x204d 400/ Client Matril: Water pate 5 eReiceD: 44x4vx204d 0vd/

#### 8260C Volatile Organic Compounds by GC/MS

Analysis MetFoD: 8260C Analysis BatRF: d80-246/46 Shstrument Sp: GH/ vP9V HreL MetFoD: / 090C HreL BatRF: NxA 7ab . ile 🕸 : V968v63p Shitial WeigFtxholume: pilution: 430 / m7 . inal WeigFtxholume: / m7

Analysis pate: 42x04x204d 4d06

HreL p ate: 42x04x204d 4d06

nalyte	5 esult (ugx7)	Qualifier	Mp7	57
,4,4,2-TetraRFloroetFane	Np		039/	430
,4,4-TriRFloroetFane	Np		0382	430
,4,2,2-TetraRFloroetFane	Np		0324	430
,4,2-TriRFloro-4,2,2-trifluoroetFane	Np		0394	430
,4,2-TriRFloroetFane	Np		0329	430
,4-p iRFloroetFane	Np		0398	430
,4-p iRFloroetFene	Np		0 <b>3</b> 2v	430
,4-p iRFloroLroLene	Np		032	430
,2,9-TriRFlorobenzene	Np		03d4	430
,2,9-TriRFloroLroLane	Np		0 <b>3</b> 8v	430
,2,d-TriRFlorobenzene	Np		03d4	430
,2,d-TrimetFylbenzene	Np		0 <b>3</b> P/	430
,2-p ibromo-9-CFloroLroLane	Np		0 <b>3</b> 9v	430
,2-p ibromoetFane (Ep B)	Np		0 <b>3</b> P9	430
,2-p iRFlorobenzene	Np		0 <b>3</b> Pv	430
,2-p iRFloroetFane	Np		0324	430
,2-p iRFloroetFene, Total	Np		0384	230
,2-p iRFloroLroLane	Np		0 <b>3</b> P2	430
,9,/-TriRFlorobenzene	Np		0329	430
,9,/ -TrimetFylbenzene	Np		03PP	430
,9-p iRFlorobenzene	Np		0 <b>3</b> P8	430
,9-p iRFloroLroLane	Np		0 <b>3</b> P/	430
,d-p iRFlorobenzene	Np		038d	430
,d-p iol ane	Np		v39	d0
,2-p iRFloroLroLane	Np		03:10	430
-Butanone (MEK)	Np		439	40
-CFloroetFyl cinyl etFer	Np		03/6	/ 30
-Gel anone	Np		432	/ 30
-MetFyl-2-Lentanone (MSBK)	Np		234	/ 30
Retone	Np		930	40
Retonitrile	Np		d3/	4/
Rolein	Np		03/4	20
Rrylonitrile	Np		0389	/ 30
enzene	Np		03:14	430
romobenzene	Np		0380	430
BromoRFlorometFane	Np		0 <b>3</b> 8P	430
BromoDiRFlorometFane	Np		0 <b>3</b> 9v	430
romoform	Np		0326	430
romometFane	Np		036v	430
utyl alRoFol, n-	Np		83/	d0
utyl alRoFol, tert-	Np		939	40
Carbon DisulfiDe	Np		034v	430
Carbon tetraRFloriDe	Np		032P	430
CFlorobenzene	Np		03P/	430
CFloroDifluorometFane	Np		0326	430
CFloroetFane	Np		0392	430

Client Sample ID: MW-39

 7ab 1amLle \$9:
 280-62688-9
 p ate 1amLleD: 44x48x204d 400/

 Client Matril :
 Water
 p ate 5 eReiceD: 44x4vx204d 0vd/

#### 8260C Volatile Organic Compounds by GC/MS

Analysis MetFoD: 8260C Analysis BatRF: d80-246/ 46 Shstrument Sp: GH/ vP9V HreL MetFoD: / 090C HreL BatRF: NxA 7ab . ile \$5: V968v63p Shitial WeigFtxh olume: pilution: 430 / m7 Analysis pate: 42x04x204d 4d06 . inal WeigFtxholume: / m7

HreL p ate: 42x04x204d 4d06

Analyte	5 esult (ugx7)	Qualifier	Mp 7	57
CFloroform	Np		0 <b>3</b> 9d	430
CFlorometFane	Np		039/	430
Rs-4,2-p iRFloroetFene	Np		0384	430
Rs-4,9-p iRFloroLroLene	Np		0396	430
CyRoFel ane	Np		0348	430
p ibromoRFlorometFane	Np		0392	430
p ibromometFane	Np		03d4	430
p iRFloroDifluorometFane	Np		0368	430
p iRFlorofluorometFane	Np		039d	430
EtFyl aRetate	Np		0366	430
EtFyl etFer	Np		03-2	430
EtFyl tert-butyl etFer	Np		0 <b>3</b> 2v	430
EtFylbenzene	Np		03Pd	430
Gel aRFlorobutaDiene	Np		0328	430
Gel ane	Np		03:10	40
SoDometFane	Np		0390	430
Sobutanol	Np		d <b>3</b> 8	2/
SoLroLyl etFer	Np		03 v	430
SoLroLylbenzene	Np		0 <b>3</b> Pv	430
MetFaRrylonitrile	Np		0 <b>3</b> 6v	/ 30
MetFyl aRetate	Np		03.0	23
MetFyl tert-butyl etFer	Np		0346	430
MetFylRyRoFel ane	Np		0346	430
MetFylene CFloriDe	Np		03dd	430
m-Xylene & L-Xylene	Np		0366	230
NaLFtFalene	Np		03d9	430
n-Butylbenzene	Np		036d	430
N-HroLylbenzene	Np		036v	430
o-CFlorotoluene	Np		0386	430
o-Xylene	Np		03 <del>P</del> 6	430
L-CFlorotoluene	Np		038d	430
L-Cymene	Np		0394	430
seR-Butylbenzene	Np		03P/	430
1tyrene	Np		03-29	430
Tert-amyl metFyl etFer	Np		032P	430
tert-Butylbenzene	Np		0384	430
TetraR-loroetFene	Np		0396	430
TetraFyDrofuran	Np		439	/ 30
Toluene	Np Np		03 4	430
trans-4,2-p iRFloroetFene			03/0	430
trans-4,2-p in-loroetrene	Np No		03/0 039P	430
· · · · · · · · · · · · · · · · · · ·	Np No		0322	430
trans-4,d-p iRFloro-2-butene TriRFloroetFene	Np No			
	Np		03d6	430
TriR-lorofluorometFane	Np	0/	0388	430
hinyl aRetate	Np No	%	038/	/ 30
hinyl RFloriDe	Np		03/0	430

Client: Waste Management Job Number: 280-62688-4

Client Sample ID: MW-39

7ab 1amLle \$>: 280-62688-9 p ate 1 amLleD: 44x48x204d 400/ Client Matril: Water pate 5 eReiceD: 44x4vx204d 0vd/

8260C Volatile Organic Compounds by GC/MS

Analysis MetFoD: d80-246/ 46 8260C Analysis BatRF: Shstrument Sp: HreL MetFoD: / 090C HreL BatRF: NxA 7ab . ile \$5: Shitial WeigFtxh olume: pilution: 430

/ m7 . inal WeigFtxholume: / m7

GH/ vP9V

V968v63p

Analysis pate: HreL p ate: 42x04x204d 4d06

42x04x204d 4d06

1 urrogate Qualifier ARReLtanRe 7imits \_ 5 eR 66 - 49P 4,2-p iRFloroetFane-Dd (1 urr) 409 404 P9 - 420 d-Bromofluorobenzene (1 urr) Toluene-D8 (1 urr) P4 - 426 VV

Client: Waste Management Job Number: 280-62688-4

Client Sample ID: MW-39

7ab 1amLle \$: 280-62688-9 pate 1amLleD: 44x48x204d 400/ Client Matril: Water pate 5 eReiceD: 44x4vx204d 0vd/

8260C Volatile Organic Compounds by GC/MS

Analysis MetFoD: 8260C Analysis BatRF: d80-246/46 Snstrument Sp:
HreL MetFoD: / 090C HreL BatRF: NxA 7ab . ile Sp:
p ilution: 430 Snitial WeigFtxh

Shitial WeigFtxholume: / m7 . inal WeigFtxholume: / m7

GH/ vP9V

V968v63p

HreL p ate: 42x04x204d 4d06

Analysis pate:

**Targeted Tentatively Identified Compounds** 

42x04x204d 4d06

Cas Number Analyte Est35 esult (ugx7) Qualifier

6P-P2-4 Gel aRFloroetFane TSC Np

Client Sample ID: MW-16

7ab 1amLle \$: 280-62688-d p ate 1amLle D: 44x48x204d 0v06
Client Matril: Water p ate 5 eReiceD: 44x4vx204d 0vd/

#### 8260C Volatile Organic Compounds by GC/MS

Analysis MetFoD: 8260C d80-246/46 GH/ vP9V Analysis BatRF: Shstrument Sp: HreL MetFoD: / 090C HreL BatRF: NxA 7ab . ile \$p: V968vP3p pilution: 430 Shitial WeigFtxholume: / m7 Analysis pate: 42x04x204d 4d2v . inal WeigFtxholume: m7

HreL pate: 42x04x204d 4d2v

Analyte 5 esult (ugx7) Qualifier Mp7 57 430 4,4,4,2-TetraRFloroetFane 039/ Np 4,4,4-TriRFloroetFane Np 0382 430 4,4,2,2-TetraRFloroetFane Np 0324 430 4.4.2-TriRFloro-4.2.2-trifluoroetFane 0394 430 Np 4,4,2-TriRFloroetFane 0329 430 Np 4,4-p iRFloroetFane 430 0398 Np 430 4,4-p iRFloroetFene Np 032v 4,4-p iRFloroLroLene Np 03P2 430 4,2,9-TriRFlorobenzene 03d4 430 Np 4,2,9-TriRFloroLroLane 038v 430 Np 430 4,2,d-TriRFlorobenzene 03:14 Np 4,2,d-TrimetFylbenzene 430 Np 0**3**P/ 4,2-p ibromo-9-CFloroLroLane Np 039v 430 4,2-p ibromoetFane (Ep B) 0329 430 Np 4,2-p iRFlorobenzene Np 03Pv 430 4,2-p iRFloroetFane Np 0324 430 4,2-p iRFloroetFene, Total Np 0384 230 4,2-p iRFloroLroLane Np 03P2 430 4,9,/ -TriRFlorobenzene Np 0329 430 03PP 430 4,9,/ -TrimetFylbenzene Np 4,9-p iRFlorobenzene 03P8 430 Np 03P/ 430 4,9-p iRFloroLroLane Np 4,d-p iRFlorobenzene Np 038d 430 4,d-p iol ane Np v39 d0 03:10 430 2,2-p iRFloroLroLane Np 2-Butanone (MEK) Np 439 40 / 30 2-CFloroetFyl cinyl etFer Np 03/6 / 30 2-Gel anone Np 432 d-MetFyl-2-Lentanone (MSBK) Np 234 / 30 **ARetone** Np 930 40 4/ **ARetonitrile** Np d3/ **ARrolein** 03/4 20 Np ARrylonitrile 0389 / 30 Np Benzene Np 03:14 430 Bromobenzene Np 0380 430 BromoRFlorometFane Np 038P 430 BromoDiRFlorometFane Np 039v 430 Bromoform 0326 430 Np 036v 430 BromometFane Np Butyl alRoFol, n-Np 83/ d0 Butyl alRoFol, tert-939 40 Np Carbon DisulfiDe Np 034v 430 Carbon tetraRFloriDe Np 032P 430 03P/ 430 CFlorobenzene Np CFloroDifluorometFane Np 0326 430 CFloroetFane Np 0392 430

Client Sample ID: MW-16

7ab 1amLle \$: 280-62688-d p ate 1amLleD: 44x48x204d 0v06
Client Matril: Water pate 5 eReiceD: 44x4vx204d 0vd/

#### 8260C Volatile Organic Compounds by GC/MS

Analysis MetFoD: 8260C Analysis BatRF: d80-246/46 Shstrument Sp: GH/ vP9V HreL MetFoD: / 090C HreL BatRF: NxA 7ab . ile \$5: V968vP3p Shitial WeigFtxh olume: pilution: 430 / m7 Analysis pate: 42x04x204d 4d2v . inal WeigFtxholume: / m7

HreL p ate: 42x04x204d 4d2v

Analyte	5 esult (ugx7)	Qualifier	Mp7	57
CFloroform	Np		039d	430
CFlorometFane	Np		039/	430
Rs-4,2-p iRFloroetFene	Np		0384	430
Rs-4,9-p iRFloroLroLene	Np		0396	430
CyRoFeI ane	Np		0348	430
p ibromoRFlorometFane	Np		0392	430
p ibromometFane	Np		03d4	430
p iRFloroDifluorometFane	Np		0368	430
p iRFlorofluorometFane	Np		039d	430
EtFyl aRetate	Np		0366	430
EtFyl etFer	Np		03P2	430
EtFyl tert-butyl etFer	Np		032v	430
EtFylbenzene	Np		03Pd	430
Gel aRFlorobutaDiene	Np		0328	430
Gel ane	Np		0340	40
<b>S</b> DometFane	Np		0390	430
Sobutanol	Np		d <b>3</b> 8	2/
SoLroLyl etFer	Np		03 v	430
SoLroLylbenzene	Np		0 <b>3</b> P∨	430
MetFaRylonitrile	Np		0 <b>3</b> 6∨	/ 30
MetFyl aRetate	Np		03.0	23
MetFyl tert-butyl etFer	Np		0346	430
MetFyIRyRoFeI ane	Np		0346	430
MetFylene CFloriDe	Np		03dd	430
m-Xylene & L-Xylene	Np		0366	230
NaLFtFalene	Np		03d9	430
n-Butylbenzene	Np		0 <b>3</b> 6d	430
N-HroLylbenzene	Np		0 <b>3</b> 6∨	430
o-CFlorotoluene	Np		0386	430
o-Xylene	Np		03 <del>P</del> 6	430
L-CFlorotoluene	Np		0 <b>3</b> 8d	430
L-Cymene	Np		0394	430
seR-Butylbenzene	Np		03P/	430
1 tyrene	Np		03-29	430
Tert-amyl metFyl etFer	Np		032P	430
tert-Butylbenzene	Np		0384	430
TetraRFloroetFene	Np		0396	430
TetraFyDrofuran	Np		439	/ 30
Toluene	Np		03/4	430
trans-4,2-piRFloroetFene	Np		03/0	430
trans-4,9-p iRFloroLroLene	Np		039P	430
trans-4,d-piRFloro-2-butene	Np		0322	430
TriRFloroetFene	Np		03d6	430
TriRFlorofluorometFane	Np		0388	430
hinyl aRetate	Np	%	038/	/ 30
hinyl RFloriDe	Np		03/0	430

Client: Waste Management Job Number: 280-62688-4

Client Sample ID: MW-16

 7ab 1amLle \$9:
 280-62688-d
 p ate 1amLleD: 44x48x204d 0v06

 Client Matril:
 Water
 p ate 5 eReiceD: 44x4vx204d 0vd/

8260C Volatile Organic Compounds by GC/MS

Analysis MetFoD: 8260C
HreL MetFoD: / 090C

pilution: 430

Analysis p ate: 42x04x204d 4d2v HreL p ate: 42x04x204d 4d2v 
 Analysis BatRF:
 d80-246/46
 Shstrument \$\text{\$\exititt{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\

Shitial WeigFtxholume: / m7 . inal WeigFtxholume: / m7

inal Weig-txholume: / m/

1 urrogate	_ 5 eR	Qualifier	ARReLtanRe 7imits
4,2-p iRFloroetFane-Dd (1 urr)	400		66 - 49P
d-Bromofluorobenzene (1 urr)	409		P9 - 420
Toluene-D8 (1 urr)	400		P4 - 426

Client: Waste Management Job Number: 280-62688-4

Client Sample ID: MW-16

7ab 1amLle \$: 280-62688-d p ate 1amLleD: 44x48x204d 0v06
Client Matril: Water pate 5 eReiceD: 44x4vx204d 0vd/

8260C Volatile Organic Compounds by GC/MS

 Analysis MetFoD:
 8260C
 Analysis BatRF:
 d80-246/46
 \$nstrument \$p:
 GH/ vP9V

 HreL MetFoD:
 / 090C
 HreL BatRF:
 NxA
 7ab . ile \$p:
 V968vP3p

 p ilution:
 430
 \$nitial WeigFtxh olume:
 / m7

p ilution: 430 Shitial WeigFtxh olume: / m7
Analysis p ate: 42x04x204d 4d2v . inal WeigFtxh olume: / m7

HreL p ate: 42x04x204d 4d2v

**Targeted Tentatively Identified Compounds** 

Cas Number Analyte Est35 esult (ugx7) Qualifier

6P-P2-4 Gel afFloroetFane TSC Np

Client Sample ID: MW-43

7ab 1amLle \$: 280-62688-/ p ate 1amLleD: 44x48x204d 494/ Client Matril: Water p ate 5 eReiceD: 44x4vx204d 0vd/

### 8260C Volatile Organic Compounds by GC/MS

Analysis MetFoD: Analysis BatRF: d80-246/ 46 Shstrument Sp: GH/ vP9V 8260C HreL MetFoD: / 090C HreL BatRF: NχA 7ab . ile 🕸 : V968v83p Shitial WeigFtxholume: pilution: 430 / m7 Analysis pate: 42x04x204d 4d/4 . inal WeigFtxholume: / m7

HreL p ate: 42x04x204d 4d/4

Analyte	5 esult (ugx7)	Qualifier	Mp7	57
4,4,4,2-TetraRFloroetFane	Np		039/	430
4,4,4-TriR <del>-</del> IoroetFane	Np		0382	430
4,4,2,2-TetraRFloroetFane	Np		0324	430
4,4,2-TriRFloro-4,2,2-trifluoroetFane	Np		0394	430
4,4,2-TriR <del>-</del> loroetFane	Np		0329	430
4,4-p iRFloroetFane	Np		0398	430
4,4-p iRFloroetFene	Np		032v	430
4,4-p iRFloroLroLene	Np		03P2	430
4,2,9-TriR <del>-</del> lorobenzene	Np		03d4	430
4,2,9-TriR <del>-</del> loroLroLane	Np		038v	430
4,2,d-TriR <del>-</del> lorobenzene	Np		03d4	430
4,2,d-TrimetFylbenzene	Np		03P/	430
4,2-p ibromo-9-CFloroLroLane	Np		039v	430
4,2-p ibromoetFane (Ep B)	Np		03-9	430
4,2-p iRFlorobenzene	Np		03Pv	430
4,2-p iRFloroetFane	Np		0324	430
4,2-p iRFloroetFene, Total	Np		0384	230
4,2-p iRFloroLroLane	Np		03P2	430
4,9,/ -TriRFlorobenzene	Np		0329	430
4,9,/ -TrimetFylbenzene	Np		03PP	430
4,9-p iRFlorobenzene	Np		03-28	430
4,9-p iRFloroLroLane	Np		03P/	430
4,d-p iRFlorobenzene	Np		038d	430
4,d-p iol ane	Np		v39	d0
2,2-p iRFloroLroLane	Np		03:10	430
2-Butanone (MEK)	Np		439	40
2-CFloroetFyl cinyl etFer	Np		03/6	/ 30
2-Gel anone	Np		432	/ 30
d-MetFyl-2-Lentanone (MSBK)	Np		234	/ 30
ARetone	Np		930	40
ARetonitrile	Np		d3/	4/
ARolein	Np		03/4	20
ARylonitrile	Np		0389	/ 30
Benzene	Np		03d4	430
Bromobenzene	Np		0380	430
BromoRFlorometFane	Np		038P	430
BromoDRFlorometFane	Np		039v	430
Bromoform	Np		0326	430
BromometFane	Np		036v	430
Butyl alRoFol, n-	Np		83/	d0
Butyl alRoFol, tert-	Np		939	40
Carbon DisulfiDe	Np		034v	430
Carbon tetraRFloriDe	Np		032P	430
CFlorobenzene	Np		03P/	430
CFloroDifluorometFane	Np		0326	430
CFloroetFane	Np		0392	430

57

Client: Waste Management Job Number: 280-62688-4

Client Sample ID: MW-43

7ab 1amLle \$: 280-62688-/ pate 1amLleD: 44x48x204d 494/ Client Matril: Water pate 5 eReiceD: 44x4vx204d 0vd/

### 8260C Volatile Organic Compounds by GC/MS

Analysis MetFoD: 8260C Analysis BatRF: d80-246/ 46 Shstrument Sp: GH/ vP9V HreL MetFoD: / 090C HreL BatRF: NxA 7ab . ile \$5: V968v83p Shitial WeigFtxh olume: pilution: 430 / m7 Analysis pate: 42x04x204d 4d/4 . inal WeigFtxholume: / m7

5 esult (ugx7)

Qualifier

Mp7

03/0

430

HreL p ate: 42x04x204d 4d/ 4

Analyte

,y to	o ooan (agn)	~~~~		• .	
CFloroform	Np		039d	430	
CFlorometFane	Np		039/	430	
Rs-4,2-p iRFloroetFene	Np		0384	430	
Rs-4,9-p iRFloroLroLene	Np		0396	430	
CyRoFel ane	Np		0348	430	
p ibromoRFlorometFane	Np		0392	430	
p ibromometFane	Np		03d4	430	
p iRFloroDifluorometFane	Np		0368	430	
p iRFlorofluorometFane	Np		0 <b>3</b> 9d	430	
EtFyl aRetate	Np		0366	430	
EtFyl etFer	Np		03-22	430	
EtFyl tert-butyl etFer	Np		0 <b>3</b> 2v	430	
EtFylbenzene	Np		03Pd	430	
Gel aRFlorobutaDiene	Np		0328	430	
Gel ane	Np		03d0	40	
<b>S</b> DometFane	Np		0390	430	
Sobutanol	Np		d <b>3</b> 8	2/	
SoLroLyl etFer	Np		03 v	430	
SoLroLylbenzene	Np		0 <b>3</b> Pv	430	
MetFaRrylonitrile	Np		036v	/ 30	
MetFyl aRetate	Np		03 0	23	
MetFyl tert-butyl etFer	Np		0346	430	
MetFylRyRoFel ane	Np		0346	430	
MetFylene CFloriDe	Np		03dd	430	
m-Xylene & L-Xylene	Np		0366	230	
NaLFtFalene	Np		03d9	430	
n-Butylbenzene	Np		036d	430	
N-HroLylbenzene	Np		0 <b>3</b> 6v	430	
o-CFlorotoluene	Np		0386	430	
o-Xylene	Np		03-26	430	
L-CFlorotoluene	Np		0 <b>3</b> 8d	430	
L-Cymene	Np		0394	430	
seRButylbenzene	Np		03P/	430	
1 tyrene	Np		03-9	430	
Tert-amyl metFyl etFer	Np		032P	430	
tert-Butylbenzene	Np		0384	430	
TetraRFloroetFene	Np		0396	430	
TetraFyDrofuran	Np		439	/ 30	
Toluene	Np		03 4	430	
trans-4,2-piRFloroetFene	Np		03/0	430	
trans-4,9-p iRFloroLroLene	Np		039P	430	
trans-4,d-p iRFloro-2-butene	Np		0322	430	
TriRFloroetFene	Np		03d6	430	
TriRFlorofluorometFane	Np		0388	430	
hinyl aRetate	Np	%	038/	/ 30	
· · · · · · · · · · · · · · · · · · ·	N'		20.0	400	

Np

hinyl RFloriDe

Client: Waste Management Job Number: 280-62688-4

Client Sample ID: MW-43

7ab 1amLle \$>: 280-62688-/ p ate 1 amLleD: 44x48x204d 494/ Client Matril: Water pate 5 eReiceD: 44x4vx204d 0vd/

8260C Volatile Organic Compounds by GC/MS

Analysis MetFoD: 8260C HreL MetFoD: / 090C pilution:

430

42x04x204d 4d/4 Analysis pate:

d80-246/ 46 GH/ vP9V Analysis BatRF: Shstrument Sp: HreL BatRF: NxA 7ab . ile \$5: V968v83p

> Shitial WeigFtxh olume: / m7 . inal WeigFtxholume: / m7

HreL p ate: 42x04x204d 4d/4

1 urrogate Qualifier ARReLtanRe 7imits \_ 5 eR 66 - 49P 4,2-p iRFloroetFane-Dd (1 urr) 409 402 P9 - 420 d-Bromofluorobenzene (1 urr) Toluene-D8 (1 urr) P4 - 426 VV

Client: Waste Management Job Number: 280-62688-4

Client Sample ID: MW-43

7ab 1amLle \$: 280-62688-/ pate 1amLleD: 44x48x204d 494/ Client Matril: Water pate 5 eReiceD: 44x4vx204d 0vd/

8260C Volatile Organic Compounds by GC/MS

 Analysis MetFoD:
 8260C
 Analysis BatRF:
 d80-246/46
 \$nstrument \$p:
 GH/ vP9V

 HreL MetFoD:
 / 090C
 HreL BatRF:
 NxA
 7ab . ile \$p:
 V968v83p

p ilution: 430 Shitial WeigFtxh olume: / m7
Analysis p ate: 42x04x204d 4d/4 . inal WeigFtxh olume: / m7

HreL p ate: 42x04x204d 4d/4

**Targeted Tentatively Identified Compounds** 

Cas Number Analyte Est35 esult (ugx7) Qualifier

6P-P2-4 Gel aRFloroetFane TSC Np

Job Number: 280-62688-4 Client: Waste Management

Client Sample ID: MW-23A

7ab 1amLle \$>: 280-62688-6 p ate 1 amLleD: 44x48x204d 44d/ Client Matril: Water pate 5 eReiceD: 44x4vx204d 0vd/

### 8260C Volatile Organic Compounds by GC/MS

Analysis MetFoD: 8260C Analysis BatRF: d80-2466v/ Shstrument Sp: GH/ vP9V HreL MetFoD: / 090C HreL BatRF: NxA 7ab . ile 🕸 : V96v283p Shitial WeigFtxholume: pilution: 430 / m7 / m7

Analysis pate: 42x02x204d 42d2 . inal WeigFtxholume:

HreL p ate: 42x02x204d 42d2

Analyte	5 esult (ugx7)	Qualifier	Mp7	57
4,4,4,2-TetraR-loroetFane	Np	Qualifici	039/	430
4,4,4-TriRFloroetFane	Np		0382	430
4,4,2,2-TetraRFloroetFane	Np		0324	430
4,4,2-TriRFloro-4,2,2-trifluoroetFane	Np		0394	430
4,4,2-TriRFloroetFane	Np		0329	430
4,4-p iRFloroetFane	Np		0398	430
4,4-p iRFloroetFene	Np		032v	430
4,4-p iRFloroLroLene	Np		03P2	430
4,2,9-TriRFlorobenzene	Np		03d4	430
4,2,9-TriRFloroLroLane	Np		0 <b>3</b> 8v	430
4,2,d-TriRFlorobenzene	Np		03d4	430
4,2,d-TrimetFylbenzene	Np		03P/	430
4,2-p ibromo-9-CFloroLroLane	Np		039v	430
4,2-p ibromoetFane (Ep B)	Np		03-29	430
4,2-p iRFlorobenzene	Np		03Pv	430
4,2-p iRFloroetFane	Np		0324	430
4,2-p iRFloroetFene, Total	Np		0384	230
4,2-p iRFloroLroLane	Np		03P2	430
4,9,/ -TriRFlorobenzene	Np		0329	430
4,9,/ -TrimetFylbenzene	Np		03PP	430
4,9-p iRFlorobenzene	Np		0 <b>3</b> P8	430
4,9-p iRFloroLroLane	Np		0 <b>3</b> P/	430
4,d-p iRFlorobenzene	Np		0 <b>3</b> 8d	430
4,d-p iol ane	Np		v39	d0
2,2-p iRFloroLroLane	Np		03d0	430
2-Butanone (MEK)	Np		439	40
2-CFloroetFyl cinyl etFer	Np		03/6	/ 30
2-Gel anone	Np		432	/ 30
d-MetFyl-2-Lentanone (MSBK)	Np		234	/ 30
ARetone	93d	J	930	40
ARetonitrile	Np		d3/	4/
ARrolein	Np		03/4	20
ARylonitrile	Np		0389	/ 30
Benzene	Np		03d4	430
Bromobenzene	Np		0380	430
BromoRFlorometFane	Np		038P	430
BromoDiRFlorometFane	Np		039v	430
Bromoform	Np		0326	430
BromometFane	Np		036v	430
Butyl alRoFol, n-	Np		83/	d0
Butyl alRoFol, tert-	Np No		939	40
Carbon DisulfiDe Carbon tetraÆloriDe	Np		034v	430
	Np No		032P	430
CFlorobenzene CFloroDifluorometFane	Np No		03P/ 0326	430 430
CFloroetFane CFloroetFane	Np Np		0392	430
Of HOLDER ATIE	IAb		UJBZ	430

Job Number: 280-62688-4 Client: Waste Management

Client Sample ID: MW-23A

7ab 1amLle \$>: 280-62688-6 p ate 1 amLleD: 44x48x204d 44d/ Client Matril: Water pate 5 eReiceD: 44x4vx204d 0vd/

### 8260C Volatile Organic Compounds by GC/MS

Analysis MetFoD: 8260C Analysis BatRF: d80-2466v/ Shstrument Sp: GH/ vP9V HreL MetFoD: / 090C HreL BatRF: NχA 7ab . ile 🕸 : V96v283p Shitial WeigFtxholume: pilution: 430 / m7 . inal WeigFtxholume: / m7

Analysis pate: 42x02x204d 42d2

HreL p ate: 42x02x204d 42d2

CFloroform         Np         03d         43           CFlorometFane         Np         03J/         43           Rs-4.2p iFlFlorotLene         Np         036         43           CyRoFel ane         Np         036         43           DibromoRFlorometFane         Np         032         43           pibromoRFlorometFane         Np         034         43           piBrorofluorometFane         Np         034         43           piBrorofluorometFane         Np         038         43           piBrorofluorometFane         Np         038         43           piBrorofluorometFane         Np         038         43           piBrorofluorometFane         Np         038         43           EiFyl ere         Np         036         43           EiFyl ere         Np         036         43           EiFyl ere         Np         037         43           EiFyl ere         Np         037         43           EiFyl benzene         Np         030         43           EiFyl benzene         Np         030         43           EiFyl benzene         Np         030         43	
Rs-4,2-p iFFlorotcree	
Rs-4,9-piFfloroLroLene	
CyRoFeI ane         Np         0348         430           pibromoRFlorometFane         Np         0324         430           pibromometFane         Np         0344         430           piFloroDifluorometFane         Np         0368         430           piFlorofluorometFane         Np         0366         430           EiFyl aRetate         Np         0366         430           EiFyl tert-butyl efFer         Np         0372         430           EiFyl tert-butyl efFer         Np         0322         430           EiFyl tert-butyl efFer         Np         0372         430           EiFyl tert-butyl efFer         Np         0374         430           Gel arFlorobutaDene         Np         0374         430           Gel are         Np         0320         430           Gel are         Np         0340         40           SbDunetFane         Np         0340         40           SbDunetFane         Np         0340         43           SoLroLyle efFer         Np         034         2/           SbOLroLyle efFer         Np         034         2/           SbOLroLyle efFer         Np         03	
pibromoRFlorometFane   Np   0.32   4.30     pibromometFane   Np   0.34   4.30     pibromometFane   Np   0.38   4.30     piFrlorofiluorometFane   Np   0.38   4.30     piFrlorofiluorometFane   Np   0.36   4.30     EtFyl aRetate   Np   0.36   4.30     EtFyl aretate   Np   0.36   4.30     EtFyl etFer   Np   0.32   4.30     EtFyl tert-butyl etFer   Np   0.32   4.30     EtFyl tert-butyl etFer   Np   0.32   4.30     EtFyl tert-butyl etFer   Np   0.37   4.30     EtFylorazene   Np   0.37   4.30     Gel arFlorobutaDiane   Np   0.30   4.30     Gel are   Np   0.30   4.30     SobretFane   Np   0.30   4.30     Sobrutanol   Np   0.30   4.30     Sobrutanol   Np   0.37   4.30     Solrol.yl etFer   Np   0.37   4.30     Solrol.yl etFer   Np   0.37   4.30     MetFylaretate   Np   0.36   4.30     MetFyl tert-butyl etFer   Np   0.36   4.30     MetFyl tert-butyl etFer   Np   0.36   4.30     MetFyl tert-butyl etFer   Np   0.36   4.30     MetFylaretane   Np   0.36   4.30     MetFylaretane   Np   0.36   4.30     MetFylarene   Np   0.36   4.30     MetFylarene   Np   0.36   4.30     N-Xylene & L-Xylene   Np   0.36   4.30     N-HroLylbenzene   Np   0.37   4.30     L-Cymene   Np   0.39   4.30     L-Cymene   Np   0.39   4.30     Tert-amyl metFyl etFer   Np   0.36   4.30     Tert-amy	
p ibromometFane         Np         034         430           p iFFloroEfluorometFane         Np         038         430           p iFFloroEfluorometFane         Np         038d         430           p iFFloroEfluorometFane         Np         0386         430           EtFyl aFetate         Np         0372         430           EtFyl tert-butyl etFer         Np         0372         430           EtFyl tert-butyl etFer         Np         0374         430           EtFyl tert-butyl etFer         Np         0374         430           Gel aFFlorobutaDiene         Np         0320         430           Gel ane         Np         0300         40           SobometFane         Np         030         40           SobometFane         Np         030         43           Sobutanol         Np         030         43           SobroLyletFer         Np         03v         430           SolLroLylenErene         Np         03v         430           SolLroLylenErene         Np         03v         430           MetFyl aFetate         Np         03v         430           MetFyl aFetate         Np         036<	
p iFFloroDifluorometFane         Np         0.368         430           p iFFlorofluorometFane         Np         0.36         430           EtFyl aPetate         Np         0.366         430           EtFyl terFer         Np         0.372         430           EtFyl tert-butyl etFer         Np         0.32v         430           EtFyl tert-butyl etFer         Np         0.32v         430           EtFyl tert-butyl etFer         Np         0.37d         430           EtFyl tert-butyl etFer         Np         0.30         430           Gel are         Np         0.310         40           %DometFane         Np         0.30         430           %Doutanol         Np         0.30         430           %Doutanol         Np         0.34         27           %Doutanol         Np         0.34         23           %Dutyle etFer         Np         0.34         23           %SoLroLyl etFer         Np         0.34         23           %SoLroLyl etFer         Np         0.35         0.34         23           MetFyl aPetate         Np         0.34         430           MetFyl aPetate         Np	
p iFFlorofluorometFane         Np         0366         430           EtFyl aRetate         Np         0366         430           EtFyl terfer         Np         0372         430           EtFyl terferbutyl etFer         Np         0320         430           EtFyl terf-butyl etFer         Np         0374         430           EtFylbenzene         Np         0328         430           Gel arFlorobutaDiene         Np         0380         40           Selane         Np         0380         40           ShometFane         Np         0390         430           SobrotLyletFane         Np         0390         430           SobrotLyletFer         Np         03 v         430           SoLrot_yletFer         Np         03 v         430           MetFyletFyRotelare         Np         03 v         430           MetFyl aRetate         Np         0346         430           MetFylspRoFel ane         Np         0346	
EtFyl aRetate         Np         0366         430           EtFyl etFer         Np         0372         430           EtFyl tert-butyl etFer         Np         032v         430           EtFylbenzene         Np         037d         430           Gel aRFlorobutaDiene         Np         0328         430           Gel ane         Np         0310         40           ShDmetFane         Np         0390         430           Sobutanol         Np         039         430           SoLroLyl etFer         Np         03 v         430           SoLroLyl etFer         Np         03 v         430           SoLroLyl etFer         Np         035v         /30           MetFyl Retate         Np         035v         /30           MetFyl Betate         Np         0346         430           MetFyl FyRoFel ane         Np         0346         430           MetFyl FyRoFel ane         Np         0346         430           MatFilaene         Np         036d         230           NaLFiFalene         Np         036d         230           NaLFiFalene         Np         036d         430 <t< td=""><td></td></t<>	
EtFyl etFer         Np         03°2         430           EtFyl tert-butyl etFer         Np         03°2         430           EtFylbenzene         Np         03°2         430           EtFylbenzene         Np         03°2         430           Gel arFlorobutaDiene         Np         03°8         430           Gel ane         Np         03°0         43           Sobrotane         Np         03°0         430           Sobrotyl etFer         Np         03°0         430           SoLrotyl etFer         Np         03°0         430           SoLrotylbenzene         Np         03°0         430           SoLrotylbenzene         Np         03°0         430           SoLrotylbenzene         Np         03°0         430           MetFyll etFer         Np         03°0         23           MetFyll aRetate         Np         03°6         430           MetFyll pRoFel ater         Np         03°6         430           MetFyll pRoFel ater         Np         03°6         430           MetFyllene CFloriDe         Np         03°6         230           NaLFifalene         Np         03°6         230	
EtFyl tert-butyl etFer         Np         0.32v         4.30           EtFylbenzene         Np         0.37d         430           Gel arRiorobutaDiene         Np         0.228         4.30           Gel ane         Np         0.300         4.0           \$DometFane         Np         0.390         4.30           \$cutyl Etrane         Np         0.390         4.30           \$cutyl Etrane         Np         0.31         4.30           \$cutyl Etrer         Np         0.37 v         4.30           \$cutyl Etrer         Np         0.35 v         4.30           MetFyl Bertate         Np         0.30 v         2.3           MetFyl aretate         Np         0.316         4.30           MetFyl Bertate         Np         0.346         4.30           MetFyl Bertate         Np         0.366	
Etfylbenzené         Np         03Pd         430           Gel aRFlorobutaDiene         Np         0328         430           Gel ane         Np         0340         40           ShDmetFane         Np         0390         43           Sobutanol         Np         d38         2/           SoLroLyl etFer         Np         03 v         43           SoLroLylbenzene         Np         03 v         43           MetFall aRetate         Np         036v         /3           MetFyl aRetate         Np         03 0         23           MetFyl aretate         Np         036         43           MetFylene CFloriDe         Np         036         43           MetFylene CFloriDe         Np         036         43           MetFylene CFloriDe         Np         036         23           MalFylene & L-Xylene         Np         036         23           NalFiFalene         Np         036         23           Nal-Fylene & L-Xylene         Np         036         43           N-Fylene & L-Xylene         Np         036         43           N-Floriblenzene         Np         036         43	
Gel aRFlorobutaDiene         Np         0328         430           Gel ane         Np         0340         40           %DometFane         Np         0390         43           %obutanol         Np         d38         2/           %oLroLyl etFer         Np         03 v         43           %oLroLylbenzene         Np         03 v         43           %oLroLylbenzene         Np         03*v         43           MetFaRylonitrile         Np         03*v         /3           MetFylerate         Np         03 0         23           MetFylerate         Np         03 0         23           MetFylerate         Np         036         43           MetFylerate         Np         036         23           NaLFitFalene         Np<	
Gel ane         Np         03t0         40           %DometFane         Np         0390         43           %botutanol         Np         039         43           %botutanol         Np         03 v         43           Metrylered         Np         03 0         23           Metryl terresult         Np         036         43           Metryl terresult         Np         0346         43           Metrylene CFloriDe         Np         0346         43           m-Xylene & L-Xylene         Np         036         23           NaLFitFalene         Np         036         23           NaLFitFalene         Np         036         43           n-Butylbenzene         Np         036         43           n-Fitrolylbenzene         Np         036         43           o-CFlorotoluene	
SDDmetFane         Np         0390         430           Sobutanol         Np         d38         2/           SoLroLyl etFer         Np         03 v         43           SoLroLylbenzene         Np         03 v         43           MetFaRylonitrile         Np         036v         /3           MetFyl aRetate         Np         03 0         23           MetFyl tert-butyl etFer         Np         0346         43           MetFylRyRoFel ane         Np         0346         43           MetFylene CFloriDe         Np         0346         43           MetFylene CFloriDe         Np         0346         43           m-Xylene & L-Xylene         Np         0366         23           NaLtFtalene         Np         0366         23           NaLtFtalene         Np         036         43           n-Butylbenzene         Np         036         43           n-HroLylbenzene         Np         036         43           o-CFlorotoluene         Np         036         43           c-CFlorotoluene         Np         038d         43           L-Cymene         Np         0394         43	
Sobutanol         Np         d38         2/           SoLroLyl etFer         Np         03 v         43           SoLroLylbenzene         Np         03 v         43           SoLroLylbenzene         Np         03 v         43           MetFylonitrile         Np         03 v         /3           MetFyl aFetate         Np         03 0         23           MetFyl tert-butyl etFer         Np         0346         43           MetFylene CFloribe         Np         0346         43           MetFylene CFloriDe         Np         034d         43           m-Xylene & L-Xylene         Np         0366         23           NaLFtFalene         Np         0366         23           NaLFtFalene         Np         036         23           N-HroLylbenzene         Np         036         43           N-HroLylbenzene         Np         036         43           N-HroLylbenzene         Np         036         43           o-Xylene         Np         036         43           L-CFlorotoluene         Np         034         43           L-Cymene         Np         034         43	
SoLroLyl etFer         Np         03 v         43           SoLroLylbenzene         Np         03Pv         43           MetFaRylonitrile         Np         03bv         /30           MetFyl aRetate         Np         03 0         23           MetFyl tert-butyl etFer         Np         0346         43           MetFylRyRoFel ane         Np         0346         43           MetFylene CFloriDe         Np         03d         43           m-Xylene & L-Xylene         Np         03d         43           NaLFtFalene         Np         036         23           NaLFtFalene         Np         036         23           N-Butylbenzene         Np         036         23           N-HroLylbenzene         Np         03d         43           N-HroLylbenzene         Np         036         43           N-HroLylbenzene         Np         036         43           0-CFlorotoluene         Np         036         43           0-CFlorotoluene         Np         036         43           L-Cymene         Np         034         43           seRButylbenzene         Np         039         43	
SoLroLylbenzene         Np         03Pv         430           MetFaRylonitrile         Np         036v         / 30           MetFyl aRetate         Np         03 0         23           MetFyl tert-butyl etFer         Np         0346         43           MetFylRyRoFel ane         Np         0346         43           MetFylene CFloriDe         Np         0346         43           MetFylene CFloriDe         Np         036d         43           m-Xylene & L-Xylene         Np         0366         23           NaLFtFalene         Np         036         23           n-Butylbenzene         Np         036d         43           n-Butylbenzene         Np         036d         43           n-HroLylbenzene         Np         036         43           o-CFlorotoluene         Np         036         43           o-Xylene         Np         036         43           L-CFlorotoluene         Np         034         43           L-CFlorotoluene         Np         034         43           L-Cymene         Np         039         43           seRButylbenzene         Np         039         43 <td></td>	
MetFaRylonitrile         Np         036v         / 30           MetFyl aRetate         Np         03 0         23           MetFyl tert-butyl etFer         Np         0346         430           MetFylRyRoFel ane         Np         0346         430           MetFylene CFloriDe         Np         03dd         430           m-Xylene & L-Xylene         Np         0366         230           NaLFtFalene         Np         036         230           NaLFtFalene         Np         036         230           N-HroLylbenzene         Np         036         430           N-HroLylbenzene         Np         036         430           0-CFlorotoluene         Np         036         430           0-Xylene         Np         036         430           L-CFlorotoluene         Np         036         430           L-Cymene         Np         038d         430           seRButylbenzene         Np         039/         430           1tyrene         Np         039/         430           Tert-amyl metFyl etFer         Np         0384         430           tert-Butylbenzene         Np         0384         430<	
MetFyl aRetate         Np         03 0         23           MetFyl tert-butyl etFer         Np         0346         430           MetFylRyRoFel ane         Np         0346         430           MetFylene CFloriDe         Np         03td         430           m-Xylene & L-Xylene         Np         0366         230           NaLFiFalene         Np         0369         430           n-Butylbenzene         Np         036d         430           N-HroLylbenzene         Np         036d         430           o-CFlorotoluene         Np         036         430           o-Xylene         Np         036         430           L-CFlorotoluene         Np         036         430           L-Cymene         Np         034         430           seRButylbenzene         Np         0394         430           1tyrene         Np         0399         430           Tert-amyl metFyl etFer         Np         0394         430           tert-Butylbenzene         Np         0384         430           TetraFFloroetFene         Np         0386         430	
MetFyl tert-butyl etFer         Np         0346         43           MetFylRyRoFel ane         Np         0346         43           MetFylene CFloriDe         Np         03dd         43           m-Xylene & L-Xylene         Np         0366         23           NaLFtFalene         Np         03d9         43           n-Butylbenzene         Np         036d         43           N-HroLylbenzene         Np         036d         43           o-CFlorotoluene         Np         036         43           o-Xylene         Np         036         43           L-CFlorotoluene         Np         036         43           L-Cymene         Np         034         43           seRButylbenzene         Np         034         43           1tyrene         Np         039         43           Tert-amyl metFyl etFer         Np         034         43           tert-Butylbenzene         Np         034         43           TetraFFloroetFene         Np         034         43	
MetFylRyRoFel ane         Np         0346         43           MetFylene CFloriDe         Np         03td         43           m-Xylene & L-Xylene         Np         0366         23           NaLFtFalene         Np         03tl9         43           n-Butylbenzene         Np         036d         43           N-HroLylbenzene         Np         036         43           o-CFlorotoluene         Np         036         43           o-Xylene         Np         036         43           L-CFlorotoluene         Np         036         43           L-Cymene         Np         034         43           seR-Butylbenzene         Np         037/         43           1 tyrene         Np         039/         43           Tert-amyl metFyl etFer         Np         032P         43           tert-Butylbenzene         Np         0384         43           TetraR-FloroetFene         Np         0396         430	
MetFylene CFloriDe         Np         03td         43           m-Xylene & L-Xylene         Np         0366         23           NaLFtFalene         Np         03d9         43           n-Butylbenzene         Np         03d         43           N-HroLylbenzene         Np         036         43           o-CFlorotoluene         Np         036         43           o-Xylene         Np         036         43           L-CFlorotoluene         Np         03d         43           L-Cymene         Np         034         43           seR-Butylbenzene         Np         039/         43           1 tyrene         Np         0399         43           Tert-amyl metFyl etFer         Np         034         43           tert-Butylbenzene         Np         034         43           TetraR-FloroetFene         Np         036         43	
m-Xylene & L-Xylene       Np       0366       230         NaLFtFalene       Np       03d9       430         n-Butylbenzene       Np       036d       430         N-HroLylbenzene       Np       036v       430         o-CFlorotoluene       Np       036       430         o-Xylene       Np       036       430         L-CFlorotoluene       Np       038d       430         L-Cymene       Np       0394       430         seR-Butylbenzene       Np       039/       430         1 tyrene       Np       0399       430         Tert-amyl metFyl etFer       Np       0384       430         tert-Butylbenzene       Np       0384       430         TetrarFloroetFene       Np       0396       430	
NaLFtFalene         Np         03tl9         43           n-Butylbenzene         Np         036d         43           N-HroLylbenzene         Np         036v         43           o-CFlorotoluene         Np         036         43           o-Xylene         Np         036         43           L-CFlorotoluene         Np         03d         43           L-Cymene         Np         034         43           seR-Butylbenzene         Np         039/         43           1 tyrene         Np         03P         43           Tert-amyl metFyl etFer         Np         032P         43           tert-Butylbenzene         Np         034         43           TetraRFloroetFene         Np         036         43	
n-Butylbenzene       Np       036d       43         N-HroLylbenzene       Np       036v       43         o-CFlorotoluene       Np       036       43         o-Xylene       Np       036       43         L-CFlorotoluene       Np       03d       43         L-Cymene       Np       034       43         seR-Butylbenzene       Np       039       43         1 tyrene       Np       03P       43         Tert-amyl metFyl etFer       Np       034       43         tert-Butylbenzene       Np       034       43         TetraRFloroetFene       Np       036       43	
N-HroLylbenzene       Np       036v       43         o-CFlorotoluene       Np       036       43         o-Xylene       Np       036       43         L-CFlorotoluene       Np       038d       43         L-Cymene       Np       034       43         seR-Butylbenzene       Np       039/       43         1tyrene       Np       039       43         Tert-amyl metFyl etFer       Np       034       43         tert-Butylbenzene       Np       034       43         TetraRFloroetFene       Np       036       43	
o-CFlorotoluene       Np       036       43         o-Xylene       Np       036       43         L-CFlorotoluene       Np       03d       43         L-Cymene       Np       034       43         seRButylbenzene       Np       039/       43         1tyrene       Np       039       43         Tert-amyl metFyl etFer       Np       032P       43         tert-Butylbenzene       Np       034       43         TetraRFloroetFene       Np       036       43	
o-Xylene       Np       03P6       43         L-CFlorotoluene       Np       038d       43         L-Cymene       Np       0394       43         seRButylbenzene       Np       03P/       43         1tyrene       Np       03P9       43         Tert-amyl metFyl etFer       Np       03P       43         tert-Butylbenzene       Np       034       43         TetraRFloroetFene       Np       036       43	
L-CFlorotoluene       Np       038d       43         L-Cymene       Np       034       43         seRButylbenzene       Np       03P/       43         1tyrene       Np       03P9       43         Tert-amyl metFyl etFer       Np       03P       43         tert-Butylbenzene       Np       034       43         TetrarFloroetFene       Np       036       43	
L-Cymene         Np         034         43           seRButylbenzene         Np         037/         43           1tyrene         Np         0399         43           Tert-amyl metFyl etFer         Np         03P         43           tert-Butylbenzene         Np         034         43           TetrarFloroetFene         Np         036         43	
seR-Butylbenzene         Np         03P/         430           1 tyrene         Np         03P9         430           Tert-amyl metFyl etFer         Np         03P         430           tert-Butylbenzene         Np         0384         430           TetraRFloroetFene         Np         0396         430	
1 tyrene         Np         03P9         430           Tert-amyl metFyl etFer         Np         03P9         430           tert-Butylbenzene         Np         03B4         430           TetraRFloroetFene         Np         036         430	
Tert-amyl metFyl etFer         Np         03P         430           tert-Butylbenzene         Np         0384         430           TetraRFloroetFene         Np         0396         430	
tert-Butylbenzene         Np         0384         430           TetraRFloroetFene         Np         0396         430	
TetraRFloroetFene Np 0396 430	
·	
TetraFyDrofuran Np 439 / 30	
Toluene Np 03 4 430	
trans-4,2-p iRFloroetFene Np 03/0 430	
trans-4,9-p iRFloroLroLene Np 039P 430	
trans-4,d-p iRFloro-2-butene Np 0322 430	
TriRFloroetFene Np 03d6 430	
TriRFlorofluorometFane Np 0388 430	
hinyl aPetate Np % 038/ / 30	
hinyl RFloriDe Np 03/0 430	

Client: Waste Management Job Number: 280-62688-4

Client Sample ID: MW-23A

7ab 1amLle \$: 280-62688-6 pate 1amLleD: 44x48x204d 44d/
Client Matril: Water pate 5 eReiceD: 44x4vx204d 0vd/

8260C Volatile Organic Compounds by GC/MS

Analysis MetFoD: 8260C
HreL MetFoD: / 090C
p ilution: 430

Analysis BatRF: HreL BatRF: d80-2466v/ NxA \$\text{Shstrument \$\sigma\$: GH/ vP9V 7ab . ile \$\sigma\$: V96v28\$\tag{5}

Shitial WeigFtxholume: / m7 . inal WeigFtxholume: / m7

66 - 49P

P9 - 420

P4 - 426

ARReLtanRe 7imits

Analysis p ate: 42x02x204d 42d2 HreL p ate: 42x02x204d 42d2

1 urrogate

 1 urrogate
 \_ 5 eR
 Qualifier

 4,2-p iRFloroetFane-Dd (1 urr)
 402

 d-Bromofluorobenzene (1 urr)
 40d

 Toluene-D8 (1 urr)
 402

Client: Waste Management Job Number: 280-62688-4

Client Sample ID: MW-23A

7ab 1amLle \$: 280-62688-6 pate 1amLleD: 44x48x204d 44d/
Client Matril: Water pate 5 eReiceD: 44x4vx204d 0vd/

8260C Volatile Organic Compounds by GC/MS

 Analysis MetFoD:
 8260C
 Analysis BatRF:
 d80-2466v/
 \$\text{strument \$\text{\$}}:
 GH/ vP9V

 HreL MetFoD:
 / 090C
 HreL BatRF:
 NxA
 7ab . ile \$\text{\$}:
 V96v283p

p ilution: 430 Shitial WeigFtxh olume: / m7
Analysis p ate: 42x02x204d 42d2 . inal WeigFtxh olume: / m7

HreL p ate: 42x02x204d 42d2

**Targeted Tentatively Identified Compounds** 

Cas Number Analyte Est35 esult (ugx7) Qualifier

6P-P2-4 Gel afFloroetFane TSC Np

Job Number: 280-62688-4 Client: Waste Management

TRIP BLANK Client Sample ID:

7ab 1amLle \$>: 280-62688-PTB pate 1amLleD: 44x48x204d 0000 pate 5 eReiceD: 44x4vx204d 0vd/

Client Matril: Water

### 8260C Volatile Organic Compounds by GC/MS

Analysis MetFoD: 8260C Analysis BatRF: d80-2466v/ Shstrument Sp: GH/ vP9V HreL MetFoD: / 090C HreL BatRF: NχA 7ab . ile 🕸 : V96v2v3p Shitial WeigFtxholume: pilution: 430 / m7

Analysis pate: 42x02x204d 490/ . inal WeigFtxholume: / m7

HreL p ate: 42x02x204d 490/

Analyte	5 esult (ugx7)	Qualifier	Mp7	57
4,4,4,2-TetraRFloroetFane	Np		039/	430
4,4,4-TriRFloroetFane	Np		0382	430
4,4,2,2-TetraRFloroetFane	Np		0324	430
4,4,2-TriRFloro-4,2,2-trifluoroetFane	Np		0394	430
4,4,2-TriRFloroetFane	Np		0329	430
4,4-p iRFloroetFane	Np		0398	430
4,4-p iRFloroetFene	Np		0 <b>3</b> 2v	430
4,4-p iRFloroLroLene	Np		03P2	430
4,2,9-TriRFlorobenzene	Np		03d4	430
4,2,9-TriRFloroLroLane	Np		0 <b>3</b> 8v	430
4,2,d-TriRFlorobenzene	Np		03d4	430
4,2,d-TrimetFylbenzene	Np		03P/	430
4,2-p ibromo-9-CFloroLroLane	Np		0 <b>3</b> 9v	430
4,2-p ibromoetFane (Ep B)	Np		03P9	430
4,2-p iRFlorobenzene	Np		03Pv	430
4,2-p iRFloroetFane	Np		0324	430
4,2-p iRFloroetFene, Total	Np		0384	230
4,2-p iRFloroLroLane	Np		03P2	430
4,9,/ -TriRFlorobenzene	Np		0329	430
4,9,/ -TrimetFylbenzene	Np		03PP	430
4,9-p iRFlorobenzene	Np		03 <del>P</del> 8	430
4,9-p iRFloroLroLane	Np		03P/	430
4,d-p iRFlorobenzene	Np		0 <b>3</b> 8d	430
4,d-p iol ane	Np		v39	d0
2,2-p iRFloroLroLane	Np		03d0	430
2-Butanone (MEK)	Np		439	40
2-CFloroetFyl cinyl etFer	Np		03/6	/ 30
2-Gel anone	Np		432	/ 30
d-MetFyl-2-Lentanone (MSBK)	Np		234	/ 30
ARetone	/ 38	J	930	40
ARetonitrile	Np		d3/	4/
ARrolein	Np		03/4	20
ARrylonitrile	Np		0389	/ 30
Benzene	Np		03d4	430
Bromobenzene	Np		0380	430
BromoRFlorometFane	Np		038P	430
BromoDiRFlorometFane	Np		039v	430
Bromoform	Np		0326	430
BromometFane	Np		036v	430
Butyl alRoFol, n-	Np		83/	d0
Butyl alRoFol, tert-	Np		939	40
Carbon DisulfiDe	Np		034v	430
Carbon tetraRFloriDe	Np		032P	430
CFlorobenzene	Np		03P/	430
CFloroDifluorometFane	Np		0326	430
CFloroetFane	Np		0392	430

Client Sample ID: TRIP BLANK

7ab 1amLle \$9: 280-62688-PTB p ate 1amLleD: 44x48x204d 0000

Client Matril: Pate 5 eReiceD: 44x4vx204d 0vd/

### 8260C Volatile Organic Compounds by GC/MS

Analysis MetFoD: 8260C Analysis BatRF: d80-2466v/ Shstrument Sp: GH/ vP9V HreL MetFoD: / 090C HreL BatRF: NχA 7ab . ile 🕸 : V96v2v3p Shitial WeigFtxholume: pilution: 430 / m7

Analysis pate: 42x02x204d 490/ . inal WeigFtxholume: / m7

HreL p ate: 42x02x204d 490/

Analyte	5 esult (ugx7)	Qualifier	Mp7	57
CFloroform	Np		039d	430
CFlorometFane	Np		039/	430
Rs-4,2-p iRFloroetFene	Np		0384	430
Rs-4,9-p iRFloroLroLene	Np		0396	430
CyRoFel ane	Np		0348	430
p ibromoRFlorometFane	Np		0392	430
p ibromometFane	Np		03d4	430
p iRFloroDifluorometFane	Np		0368	430
p iRFlorofluorometFane	Np		039d	430
EtFyl aRetate	Np		0366	430
EtFyl etFer	Np		03P2	430
EtFyl tert-butyl etFer	Np		032v	430
EtFylbenzene	Np		03Pd	430
Gel aRFlorobutaDiene	Np		0328	430
Gel ane	Np		03q0	40
<b>S</b> DometFane	Np		0390	430
Sobutanol	Np		d <b>3</b> 8	2/
SoLroLyl etFer	Np		03 v	430
SoLroLylbenzene Solvenzene	Np		03Pv	430
MetFaRylonitrile	Np		036v	/ 30
MetFyl aRetate	Np		03 0	23
MetFyl tert-butyl etFer	Np		0346	430
MetFylRyRoFel ane	Np		0346	430
MetFylene CFloriDe	Np		03dd	430
m-Xylene & L-Xylene	Np		0366	230
NaLFtFalene	Np		03d9	430
n-Butylbenzene	Np		036d	430
N-HroLylbenzene	Np		036v	430
o-CFlorotoluene	Np		0386	430
o-Xylene	Np		0 <b>3</b> P6	430
L-CFlorotoluene	Np		0 <b>3</b> 8d	430
L-Cymene	Np		0394	430
seR-Butylbenzene	Np		03P/	430
1 tyrene	Np		0 <b>3</b> P9	430
Tert-amyl metFyl etFer	Np		032P	430
tert-Butylbenzene	Np		0384	430
TetraRFloroetFene	Np		0396	430
TetraFyDrofuran	Np		439	/ 30
Toluene	Np		03 4	430
trans-4,2-p iRFloroetFene	Np		03/0	430
trans-4,9-p iRFloroLroLene	Np		039P	430
trans-4,d-piRFloro-2-butene	Np		0322	430
TriRFloroetFene	Np		03d6	430
TriRFlorofluorometFane	Np		0388	430
hinyl aRetate	Np	%	038/	/ 30
hinyl RFloriDe	Np		03/0	430

Client: Waste Management Job Number: 280-62688-4

Client Sample ID: TRIP BLANK

7ab 1amLle \$1: 280-62688-PTB p ate 1amLleD: 44x48x204d 0000

Client Matril: Pate 5 eReiceD: 44x4vx204d 0vd/

8260C Volatile Organic Compounds by GC/MS

 Analysis MetFoD:
 8260C
 Analysis BatRF:
 d80-2466v/
 \$nstrument \$):
 GH/ vP9V

 HreL MetFoD:
 / 090C
 HreL BatRF:
 NxA
 7ab . ile \$):
 V 96v2v3

p ilution: 430 Shitial WeigFtxh olume: / m7
Analysis p ate: 42x02x204d 490/ . inal WeigFtxh olume: / m7

HreL p ate: 42x02x204d 490/

 1 urrogate
 \_ 5 eR
 Qualifier
 AFReLtanRe 7 imits

 4,2-p iRFloroetFane-Dd (1 urr)
 404
 66 - 49P

 d-Bromofluorobenzene (1 urr)
 40/
 P9 - 420

 Toluene-D8 (1 urr)
 40d
 P4 - 426

Client: Waste Management Job Number: 280-62688-4

Client Sample ID: TRIP BLANK

7ab 1amLle \$9: 280-62688-PTB p ate 1amLleD: 44x48x204d 0000

Client Matril: Water p ate 5 eReiceD: 44x4vx204d 0vd/

8260C Volatile Organic Compounds by GC/MS

 Analysis MetFoD:
 8260C
 Analysis BatRF:
 d80-2466v/
 \$nstrument \$:
 GH/ vP9V

 HreL MetFoD:
 / 090C
 HreL BatRF:
 NxA
 7ab . ile \$:
 V 96v2v3p

p ilution: 430 Snitial WeigFtxh olume: / m7

Analysis p ate: 42x02x204d 490/ . inal WeigFtxholume: / m7

HreL p ate: 42x02x204d 490/

**Targeted Tentatively Identified Compounds** 

Cas Number Analyte Est35 esult (ugx7) Qualifier

6P-P2-4 Gel aRFloroetFane TSC Np

Client: Waste Management Job Number: 280-62688-4

Client Sample ID: MW-42

7ab 1amLle \$: 280-62688-4 p ate 1amLleD: 44x48x204d 4d/ / Client Matril: Water pate 5 eReiceD: 44x4vx204d 0vd/

8260C SIM Volatile Organic Compounds (GC/MS)

 Analysis MetFoD:
 8260C 1 \$M
 Analysis BatRF:
 d80-24/ P69
 \$nstrument \$p:
 GH/ vP9J

 HreL MetFoD:
 / 090C
 HreL BatRF:
 NxA
 7ab . ile \$p:
 Jd4d23p

 nilution:
 430
 \$pitial WeigEth olume:
 2/ m7

p ilution: 430 Shitial WeigFtxh olume: 2/ m7
Analysis p ate: 44x2/x204d 0d90 . inal WeigFtxh olume: 2/ m7

HreL p ate: 44x2/x204d 0d90

 Analyte
 5 esult (ugx7)
 Qualifier
 Mp 7
 57

 h inyl RFloriDe
 03082
 030d0
 03020

 1 urrogate
 \_ 5 eR
 Qualifier
 ARReLtanRe 7 imits

 p ibromofluorometFane (1 urr)
 v8
 / 0 - 4/ 0

 TBA-Dv (1 urr)
 424
 / 0 - 4/ 0

Client: Waste Management Job Number: 280-62688-4

Client Sample ID: MW-29A

7ab 1amLle \$p: 280-62688-2 p ate 1amLleD: 44x48x204d 4d02

Client Matril: Pate 5 eReiceD: 44x4vx204d 0vd/

8260C SIM Volatile Organic Compounds (GC/MS)

 Analysis MetFoD:
 8260C 1 \$M
 Analysis BatFF:
 d80-24/ P69
 \$nstrument \$p:
 GH/ vP9J

 HreL MetFoD:
 / 090C
 HreL BatFF:
 NxA
 7ab . ile \$p:
 Jd4d93p

 Prillstep:
 4.20
 Prillstep:
 2/cm²
 Prillstep:
 2/cm²

p ilution: 430 Shitial WeigFtxh olume: 2/ m7
Analysis p ate: 44½/ ½04d 0d/ d . inal WeigFtxh olume: 2/ m7

HreL pate: 44x2/x204d 0d/d

 Analyte
 5 esult (ugx7)
 Qualifier
 Mp 7
 57

 h inyl RFloriDe
 Np
 030d0
 03020

 1 urrogate
 \_ 5 eR
 Qualifier
 AFReLtanRe 7 imits

 p ibromofluorometFane (1 urr)
 v6
 / 0 - 4/ 0

 TBA-Dv (1 urr)
 44/
 / 0 - 4/ 0

Client: Waste Management Job Number: 280-62688-4

Client Sample ID: MW-39

7ab 1amLle \$: 280-62688-9 pate 1amLleD: 44x48x204d 400/ Client Matril: Water pate 5 eReiceD: 44x4vx204d 0vd/

8260C SIM Volatile Organic Compounds (GC/MS)

 Analysis MetFoD:
 8260C 1 \$M
 Analysis BatRF:
 d80-24/ P69
 \$nstrument \$p:
 GH/ vP9J

 HreL MetFoD:
 / 090C
 HreL BatRF:
 NxA
 7ab . ile \$p:
 Jd4dd3p

 p ilution:
 430
 \$nitial WeigFtxh olume:
 2/ m7

p ilution: 430 Shitial WeigFtxh olume: 2/ m7
Analysis p ate: 44x2/x204d 0/48 . inal WeigFtxh olume: 2/ m7

HreL pate: 44x2/x204d 0/48

 Analyte
 5 esult (ugx7)
 Qualifier
 Mp 7
 57

 hinyl RFloriDe
 Np
 030d0
 03020

 1 urrogate
 \_ 5 eR
 Qualifier
 AFReLtanRe 7 imits

 p ibromofluorometFane (1 urr)
 v8
 / 0 - 4/ 0

 TBA-Dv (1 urr)
 44/
 / 0 - 4/ 0

Client: Waste Management Job Number: 280-62688-4

Client Sample ID: MW-16

7ab 1amLle \$: 280-62688-d p ate 1amLleD: 44x48x204d 0v06
Client Matril: Water pate 5 eReiceD: 44x4vx204d 0vd/

8260C SIM Volatile Organic Compounds (GC/MS)

 Analysis MetFoD:
 8260C 1 \$M
 Analysis BatRF:
 d80-24/ P69
 \$nstrument \$p:
 GH/ vP9J

 HreL MetFoD:
 / 090C
 HreL BatRF:
 NxA
 7ab . ile \$p:
 Jd4d/ 3p

 nilution:
 430
 \$nitial Weigetth olume:
 2/ m7

p ilution: 430 Shitial WeigFtxh olume: 2/ m7
Analysis p ate: 44x2/x204d 0/d9 . inal WeigFtxh olume: 2/ m7

HreL p ate: 44x2/x204d 0/d9

 Analyte
 5 esult (ugx7)
 Qualifier
 Mp 7
 5 7

 h inyl RFloriDe
 Np
 030d0
 03020

 1 urrogate
 \_ 5 eR
 Qualifier
 AFReLtanRe 7 imits

 p ibromofluorometFane (1 urr)
 v9
 / 0 - 4/ 0

 TBA-Dv (1 urr)
 440
 / 0 - 4/ 0

Client: Waste Management Job Number: 280-62688-4

Client Sample ID: MW-43

7ab 1amLle \$: 280-62688-/ pate 1amLleD: 44x48x204d 494/ Client Matril: Water pate 5 eReiceD: 44x4vx204d 0vd/

8260C SIM Volatile Organic Compounds (GC/MS)

 Analysis MetFoD:
 8260C 1 \$M
 Analysis BatRF:
 d80-24/ P69
 \$nstrument \$p:
 GH/ vP9J

 HreL MetFoD:
 / 090C
 HreL BatRF:
 NxA
 7ab . ile \$p:
 Jd4d63p

 n illution:
 430
 \$nitial WeigEth olume:
 2/ m7

p ilution: 430 Shitial WeigFtxh olume: 2/ m7
Analysis p ate: 44x2/x204d 060P . inal WeigFtxh olume: 2/ m7

HreL pate: 44x2/x204d 060P

 Analyte
 5 esult (ugx7)
 Qualifier
 Mp 7
 57

 hinyl RFloriDe
 Np
 030d0
 03020

 1 urrogate
 \_ 5 eR
 Qualifier
 ARReLtanRe 7 imits

 p ibromofluorometFane (1 urr)
 vP
 / 0 - 4/ 0

 TBA-Dv (1 urr)
 44P
 / 0 - 4/ 0

Client: Waste Management Job Number: 280-62688-4

Client Sample ID: MW-23A

7ab 1amLle \$p: 280-62688-6 pate 1amLleD: 44x48x204d 44d/

Client Matril: Pate 5 eReiceD: 44x4vx204d 0vd/

8260C SIM Volatile Organic Compounds (GC/MS)

 Analysis MetFoD:
 8260C 1 \$M
 Analysis BatFF:
 d80-24/ P69
 \$nstrument \$p:
 GH/ vP9J

 HreL MetFoD:
 / 090C
 HreL BatFF:
 NxA
 7ab . ile \$p:
 Jd4dP3p

 Prillstep:
 4.20
 Prillstep:
 2/cm2
 Prillstep:
 2/cm2

p ilution: 430 Shitial WeigFtxh olume: 2/ m7
Analysis p ate: 44½/ ½04d 0694 . inal WeigFtxh olume: 2/ m7

HreL pate: 44x2/x204d 0694

 Analyte
 5 esult (ugx7)
 Qualifier
 Mp 7
 57

 hinyl RFloriDe
 030082
 J
 0300d0
 03020

 1 urrogate
 \_ 5 eR
 Qualifier
 ARReLtanRe 7 imits

 p ibromofluorometFane (1 urr)
 v8
 / 0 - 4/ 0

 TBA-Dv (1 urr)
 40P
 / 0 - 4/ 0

Client Sample ID: MW-42

7ab 1amLle \$0: 280-62688-4 p ate 1 amLleD: 44x48x204d 4d// Client Matril: Water pate 5 eReiceD: 44x4vx204d 0vd/

6010B Metals (ICP)-Total Recoverable

Analysis MetFoD: 6040B 280-2//260 Sistrument Sp: MTk026 Analysis BatRF:

HreL MetFoD: 900/ A HreL BatRF: 280-2/98P9 7ab . ile \$5: 26D44904d3asR

pilution: 430 Shitial WeigFtxh olume: / 0 m7 42x04x204d 0994 Analysis pate: . inal WeigFtxholume: / 0 m7

HreL p ate: 44x20x204d 4d00

57 Qualifier 57 Analyte 5 esult (mgx7) 030090 030090 030090

Cobalt, Total Son, Total 92 03060 03060

6010B Metals (ICP)-Dissolved

Analysis MetFoD: 6040B Analysis BatRF: 280-2/ / / vv Sistrument Si: MTk026

HreL MetFoD: 900/A HreL BatRF: 280-2/9866 7ab . ile \$p: 26F42024d3asR

pilution: 430 Shitial WeigFtxh olume: / 0 m7 Analysis pate: 42x09x204d 4249 . inal WeigFtxholume: / 0 m7

HreL p ate: 44x20x204d 084/

Hotassium, pissolceD

Analyte 5 esult (mgx7) Qualifier 57 57 CalRum, pissolceD dd 030d0 030d0 0300PP Cobalt, pissolceD 030090 030090 2P 03060 03060 Son, pissolceD 4P 030/0 030/0 Magnesium, pissolceD 832

Analysis MetFoD: 6040B Analysis BatRF: 280-2/ / P4v Sistrument Si: MTk026

900/ A HreL BatRF: HreL MetFoD: 280-2/ 9866 7ab . ile \$p: 26C42094d3asR

430

430

pilution: 430 Shitial WeigFtxh olume: / 0 m7 Analysis pate: 42x09x204d 20// . inal WeigFtxholume: / 0 m7

HreL p ate: 44x20x204d 084/

Qualifier 57 57 Analyte 5 esult (mgx7) 1 oDium, pissolceD 430 430 20

6020 Metals (ICP/MS)-Total Recoverable

Analysis MetFoD: 6020 Analysis BatRF: 280-2/ d/ d6 Sistrument Sp: MTk02d 900/ A HreL MetFoD: HreL BatRF: 280-2/98P/ 7ab . ile \$p: 0/91MH73p

pilution: 430 Shitial WeigFtxh olume: / 0 m7

Analysis pate: 44x24x204d 4v/v . inal WeigFtxholume: / 0 m7 HreL p ate: 44x20x204d 4d00

Analyte 5 esult (mgx7) Qualifier 57 57 Antimony, Total 030040 030040 Np Barium, Total 0349 030040 030040 Beryllium, Total Np 030040 030040 CaDmium, Total 0300020 0300020 Np CFromium, Total Np 030090 030090 CoLLer, Total 030020 030020 Np

Client Sample ID: MW-42

7ab 1amLle \$: 280-62688-4 p ate 1amLleD: 44x48x204d 4d/ / Client Matril: Water p ate 5 eReiceD: 44x4vx204d 0vd/

		6020 Metals (ICP/	MS)-Total Reco	overable		
Analyte		5 esult (n	ngx₹)	Qualifie	r 57	57
7eaD, Total		Np			030040	030040
Manganese, Total		/ 34			030040	030040
NiRZel, Total		Np			0 <b>3</b> 00d0	0300d0
1 elenium, Total		Np			030040	030040
1 ilcer, Total		Np			030020	030020
TFallium, Total		Np			030040	030040
hanaDium, Total		030098			030020	030020
Analysis MetFoD:	6020	Analysis BatRF:	280-2/ dP94		Sistrument Sp:	MTk02d
HreL MetFoD:	900/ A	HreL BatRF:	280-2/ 98P/		7ab . ile 💲 :	08d1MH73p
p ilution:	430				Shitial WeigFtxh olume:	/ 0 m7
Analysis pate:	44x2dx204d 229/				. inal WeigFtxholume:	/ 0 m7
HreL p ate:	44x20x204d 4d00				Ü	
Analyte		5 esult (n	ngx₹)	Qualifie	r 57	57
UinR, Total		Np			0300/ 0	0300/ 0
		6020 Metals (	ICP/MS)-Disso	lved		
Analysis MetFoD:	6020	Analysis BatRF:	280-2/ d299		Sistrument Sp:	MTk02d
HreL MetFoD:	900/ A	HreL BatRF:	280-2/ 986P		7ab . ile 💲 :	0dv1MH73p
p ilution:	430				Shitial WeigFtxh olume:	/ 0 m7
Analysis pate:	44x20x204d 4v09				. inal WeigFtxholume:	/ 0 m7
HreL p ate:	44×20×204d 084/				-	
Analyte		5 esult (n	ngx₹)	Qualifie	r 57	57
Antimony nissolce	D	Nn			030040	03040

Analyte	5 esult (mgx₹)	Qualifier	57	57	
Antimony, pissolceD	Np		030040	030040	
Barium, pissolceD	0342		030040	030040	
Beryllium, pissolceD	Np		030040	030040	
CaDmium, pissolceD	Np		0300020	0300020	
CFromium, pissolceD	Np		030090	030090	
CoLLer, pissolceD	Np		030020	030020	
7eaD, pissolceD	Np		030040	030040	
Manganese, pissolceD	/ 30		030040	030040	
NiRZel, pissolceD	Np		0 <b>3</b> 00d0	0 <b>3</b> 00d0	
1 elenium, pissolceD	Np		030040	030040	
1 ilcer, p issolceD	Np		030020	030020	
TFallium, pissolceD	Np		030040	030040	
hanaDium, pissolceD	Np		030020	030020	
UinR pissolceD	Np		0300/0	0300/ 0	

Client Sample ID: MW-29A

7ab 1amLle \$: 280-62688-2 p ate 1amLle D: 44x48x204d 4d02
Client Matril: Water p ate 5 eReiceD: 44x4vx204d 0vd/

6010B Metals (ICP)-Total Recoverable

Analysis MetFoD: 6040B Analysis BatRF: 280-2//260 Shstrument Sp: MTk026

HreL MetFoD: 900/ A HreL BatRF: 280-2/ 98P9 7ab . ile \$p: 26D44904d3asR

p ilution: 430 Shitial WeigFtxh olume: / 0 m7
Analysis p ate: 42x04x204d 099d . inal WeigFtxh olume: / 0 m7

HreL p ate: 44x20x204d 4d00

 Analyte
 5 esult (mgx7)
 Qualifier
 5 7
 5 7

 Cobalt, Total
 Np
 030090
 030090

 Cobalt, Total
 Np
 030090
 03090

 \$on, Total
 d3P
 03060
 03060

6010B Metals (ICP)-Dissolved

Analysis MetFoD: 6040B Analysis BatRF: 280-2///v8 Sistrument Sp: MTk026

HreL MetFoD: 900/ A HreL BatRF: 280-2/ 9866 7ab . ile \$>: 26g42024d3asR

p ilution: 430 Sitial WeigFtxh olume: / 0 m7
Analysis plate: 42009204d 08/9 inal WeigFtxh olume: / 0 m7

Analysis plate: 42x09x204d 08/9 . inal WeigFtxholume: / 0 m7

HreL p ate: 44x20x204d 084/

Qualifier Analyte 5 esult (mgx7) 57 57 CalRum, pissolceD 63 030d0 030d0 Cobalt, pissolceD Np 030090 030090 9**3**P 03060 03060 Son, pissolceD 9**3**P 030/0 030/0 Magnesium, pissolceD Hotassium, pissolceD Np 430 430

Analysis MetFoD: 6040B Analysis BatRF: 280-2/ / P4v Sistrument Sp: MTk026

HreL MetFoD: 900/ A HreL BatRF: 280-2/ 9866 7ab . ile \$1: 26C42094d3asR

p ilution: 430 Shitial WeigFtxh olume: / 0 m7
Analysis p ate: 42x09x204d 20/ P . inal WeigFtxh olume: / 0 m7

Analysis plate: 42/09/204d 20/ P . inal Weighth olume: / 0 m/
HreL plate: 44/20/204d 084/

 Analyte
 5 esult (mgx7)
 Qualifier
 57
 57

 1 oDium, p issolceD
 934
 430
 430

6020 Metals (ICP/MS)-Total Recoverable

Analysis MetFoD: 6020 Analysis BatRF: 280-2/ d/ d6 \$\text{shrument } \mathbf{s}: MTk02d HreL MetFoD: 900/ A HreL BatRF: 280-2/ 98P/ 7ab . ile \mathbf{s}: 0/ d1 MH7\mathbf{s}

pilution: 430 Shitial WeigFth olume: /0 m7

Analysis p ate: 44x24x204d 2002 . inal WeigFtxh olume: / 0 m7

HreL p ate: 44x20x204d 4d00

Analyte 5 esult (mgx7) Qualifier 57 57 Antimony, Total 030040 030040 Np Barium, Total 03040 030040 030040 Beryllium, Total Np 030040 030040 CaDmium, Total 0300020 0300020 Np CFromium, Total Np 030090 030090 CoLLer, Total 030020 030020 Np

Client Sample ID: MW-29A

 7ab 1amLle \$9:
 280-62688-2
 p ate 1amLleD: 44x48x204d 4d02

 Client Matril :
 Water
 p ate 5 eReiceD: 44x4vx204d 0vd/

		6020 Metals (ICP/	MS)-Total Reco	overable		
Analyte		5 esult (m	ngx₹)	Qualifier	57	57
7eaD, Total		Np			030040	030040
Manganese, Total		439			030040	030040
NiRZel, Total		Np			0 <b>3</b> 00d0	0 <b>3</b> 00d0
1 elenium, Total		Np			030040	030040
1 ilcer, Total		Np			030020	030020
TFallium, Total		Np			030040	030040
hanaDium, Total		Np			030020	030020
Analysis MetFoD:	6020	Analysis BatRF:	280-2/ dP94		Sinstrument Sp:	MTk02d
HreL MetFoD:	900/ A	HreL BatRF:	280-2/ 98P/		7ab . ile 💲 :	08/ 1MH73p
o ilution:	430				Shitial WeigFtxh olume:	/ 0 m7
Analysis pate:	44x2dx204d 2298				. inal WeigFtxholume:	/ 0 m7
HreL p ate:	44×20×204d 4d00				Ŭ	
Analyte		5 esult (n	ngx₹)	Qualifier	57	57
JinR, Total		Np			0300/ 0	0300/ 0
		6020 Metals (	ICP/MS)-Dissol	lved		
Analysis MetFoD:	6020	Analysis BatRF:	280-2/ d299		Sistrument Sp:	MTk02d
HreL MetFoD:	900/ A	HreL BatRF:	280-2/ 986P		7ab . ile 🕸 :	0/ 01 MH73p
oilution:	430				Shitial WeigFtxholume:	/ 0 m7
Analysis pate:	44×20×204d 4v06				. inal WeigFtxholume:	/ 0 m7
lreL p ate:	44×20×204d 084/					
Analyte		5 esult (m	ngx₹)	Qualifier	57	57
						030040

Analyte	5 esult (mgx7)	Qualifier	57	57	
Antimony, pissolceD	Np		030040	030040	
Barium, pissolceD	0 <b>3</b> 00vd		030040	030040	
Beryllium, pissolceD	Np		030040	030040	
CaDmium, pissolceD	Np		0300020	0300020	
CFromium, pissolceD	Np		030090	030090	
CoLLer, pissolceD	Np		030020	030020	
7eaD, pissolceD	Np		030040	030040	
Manganese, pissolceD	439		030040	030040	
NiRZel, pissolceD	Np		0 <b>3</b> 00d0	0 <b>3</b> 00d0	
1 elenium, p issolceD	Np		030040	030040	
1 ilcer, p issolceD	Np		030020	030020	
TFallium, pissolceD	Np		030040	030040	
hanaDium, pissolceD	Np		030020	030020	
UinR, pissolceD	Np		0300/0	0300/ 0	

Client Sample ID: MW-39

7ab 1amLle \$: 280-62688-9 pate 1amLleD: 44x48x204d 400/
Client Matril: Water pate 5 eReiceD: 44x4vx204d 0vd/

6010B Metals (ICP)-Total Recoverable

Analysis MetFoD: 6040B Analysis BatRF: 280-2//260 Shstrument Sp: MTk026

HreL MetFoD: 900/ A HreL BatRF: 280-2/ 98P9 7ab . ile \$p: 26D44904d3asR

p ilution: 430 Shitial WeigFtxh olume: / 0 m7
Analysis p ate: 42x04x204d 099P . inal WeigFtxh olume: / 0 m7

HreL p ate: 44x20x204d 4d00

Analyte 5 esult (mgx7) Qualifier 57 57

 Cobalt, Total
 03096
 03090
 03090

 \$on, Total
 92
 0360
 0360

6010B Metals (ICP)-Dissolved

Analysis MetFoD: 6040B Analysis BatRF: 280-2///v8 Sistrument Sp: MTk026

HreL MetFoD: 900/ A HreL BatRF: 280-2/ 9866 7ab . ile \$>: 26g42024d3asR

p ilution: 430 Sitial WeigFth olume: / 0 m7
Analysis plate: 42/09/204d\_08// inal WeigFth olume: / 0 m7

Analysis p ate: 42x09x204d 08// . inal WeigFtxholume: / 0 m7

HreL p ate: 44x20x204d 084/

Analyte 5 esult (mgx7) Qualifier 57 57 CalRum, pissolceD 44 030d0 030d0 03006/ Cobalt, pissolceD 030090 030090 2v 03060 03060 Son, pissolceD 63 030/0 030/0 Magnesium, pissolceD

Np

Analysis MetFoD: 6040B Analysis BatRF: 280-2/ / P4v Sistrument \$: MTk026

430

430

 HreL MetFoD:
 900/ A
 HreL BatRF:
 280-2/9866
 7ab . ile \$\ \):
 26C42094d3asR

 p ilution:
 430
 \$\text{sitial WeigFth olume:} / 0 m7

Analysis pate: 42x09x204d 2400 . inal WeigFtxholume: / 0 m7

HreL pate: 44x20x204d 084/

Analyte 5 esult (mgx7) Qualifier 57 57

1oDium, p issolceD 63/ 430 430

6020 Metals (ICP/MS)-Total Recoverable

Analysis MetFoD: 6020 Analysis BatRF: 280-2/ d/ d6 \$\text{shrument } \mathbf{s}: MTk02d HreL MetFoD: 900/ A HreL BatRF: 280-2/ 98P/ 7ab . ile \mathbf{s}: 0/ / 1 MH7\mathbf{s}

pilution: 430 Shitial WeigFth olume: /0 m7

Analysis p ate: 44x24x204d 200/ . inal WeigFtxholume: / 0 m7

HreL p ate: 44x20x204d 4d00

Analyte 5 esult (mgx7) Qualifier 57 57 Antimony, Total 030040 030040 Np Barium, Total 03024 030040 030040 Beryllium, Total Np 030040 030040 CaDmium, Total 0300020 0300020 Np CFromium, Total Np 030090 030090 CoLLer, Total 030020 030020 Np

Hotassium, pissolceD

Client Sample ID: MW-39

 7ab 1amLle \$:
 280-62688-9
 p ate 1amLleD: 44x48x204d 400/

 Client Matril :
 Water
 p ate 5 eReiceD: 44x4vx204d 0vd/

		6020 Metals (ICP/	MS)-Total Reco	overable		
Analyte		5 esult (n	ngx₹)	Qualifier	57	57
7eaD, Total		Np			030040	030040
Manganese, Total		03dv			030040	030040
NiRZel, Total		Np			0300d0	0300d0
1 elenium, Total		Np			030040	030040
1 ilcer, Total		Np			030020	030020
TFallium, Total		Np			030040	030040
hanaDium, Total		Np			030020	030020
Analysis MetFoD:	6020	Analysis BatRF:	280-2/ dP94		Snstrument Sp:	MTk02d
HreL MetFoD:	900/ A	HreL BatRF:	280-2/ 98P/		7ab . ile \$p:	0861 MH73p
p ilution:	430				Shitial WeigFtxholume:	/ 0 m7
Analysis pate:	44x2dx204d 22d4				. inal WeigFtxholume:	/ 0 m7
HreL p ate:	44x20x204d 4d00				<b>G</b>	
Analyte		5 esult (n	ngx₹)	Qualifier	57	57
UinR, Total		Np			0300/ 0	0300/ 0
		6020 Metals (	ICP/MS)-Disso	lved		
Analysis MetFoD:	6020	Analysis BatRF:	280-2/ d299		Sistrument Si:	MTk02d
HreL MetFoD:	900/ A	HreL BatRF:	280-2/ 986P		7ab . ile \$p :	0/ 41 MH73p
p ilution:	430				Shitial WeigFtxh olume:	/ 0 m7
Analysis pate:	44×20×204d 4v0v				. inal WeigFtxholume:	/ 0 m7
HreL pate:	44×20×204d 084/				a. rroigi arroiante.	. 3 1111
Analyte		5 esult (n	ngx <b>7</b> )	Qualifier	57	57
Antimony, pissolce	·D	Np			030040	030040
Barium niccolcoD		03049			030040	030040

Client Sample ID: MW-16

7ab 1amLle \$9: 280-62688-d p ate 1amLleD: 44x48x204d 0v06

Client Matril: Pate 5 eReiceD: 44x4vx204d 0vd/

6010B Metals (ICP)-Total Recoverable

Analysis MetFoD: 6040B Analysis BatRF: 280-2//260 Sistrument \$p: MTk026

HreL MetFoD: 900/ A HreL BatRF: 280-2/ 98P9 7ab . ile \$>: 26D44904d3asR

p ilution: 430 Shitial WeigFtxh olume: / 0 m7
Analysis p ate: 42x04x204d 099v . inal WeigFtxh olume: / 0 m7

HreL p ate: 44x20x204d 4d00

 Analyte
 5 esult (mgx7)
 Qualifier
 5 7
 5 7

 Cobalt, Total
 Np
 030090
 030090

 Cobalt, Total
 Np
 03090
 03090

 \$on, Total
 0348
 0360
 0360

6010B Metals (ICP)-Dissolved

Analysis MetFoD: 6040B Analysis BatRF: 280-2///v8 Shstrument Sp: MTk026

HreL MetFoD: 900/ A HreL BatRF: 280-2/ 9866 7ab . ile \$p: 26g42024d3asR

p ilution: 430 Shitial WeigFth olume: / 0 m7
Analysis p ate: 42x09x204d 08/8 . inal WeigFth olume: / 0 m7

HreL p ate: 44x20x204d 084/

Hotassium, pissolceD

57 Qualifier Analyte 5 esult (mgx7) 57 CalRum, pissolceD 44 030d0 030d0 Cobalt, pissolceD Np 030090 030090 Np 03060 03060 Son, pissolceD 030/0 **63**d 030/0 Magnesium, pissolceD

Analysis MetFoD: 6040B Analysis BatRF: 280-2/ / P4v Sistrument Sp: MTk026

430

430

 HreL MetFoD:
 900/ A
 HreL BatRF:
 280-2/ 9866
 7ab . ile \$):
 26C42094d3asR

p ilution: 430 Shitial WeigFtxh olume: / 0 m7
Analysis p ate: 42x09x204d 2409 . inal WeigFtxh olume: / 0 m7

Np

Analysis plate: 42/09/204d 24/09 . inal WeigFtxholume: / 0 m/ HreL plate: 44/20/204d 084/

 Analyte
 5 esult (mgx7)
 Qualifier
 57
 57

 1 oDium, p issolceD
 d38
 430
 430

6020 Metals (ICP/MS)-Total Recoverable

 Analysis MetFoD:
 6020
 Analysis BatRF:
 280-2/ d/ d6
 \$\text{strument } \text{\$\exititt{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$

pilution: 430 Shitial WeigFtxh olume: / 0 m7

Analysis p ate: 44x24x204d 2008 . inal WeigFthholume: / 0 m7
HreL p ate: 44x20x204d 4d00

Analyte 5 esult (mgx7) Qualifier 57 57 Antimony, Total 030040 030040 Np Barium, Total 03009v 030040 030040 Beryllium, Total Np 030040 030040 CaDmium, Total 0300020 0300020 Np 0300PP CFromium, Total 030090 030090 CoLLer, Total 030020 030020 Np

Client Sample ID: MW-16

 7ab 1amLle \$9:
 280-62688-d
 p ate 1amLleD: 44x48x204d 0v06

 Client Matril:
 Water
 p ate 5 eReiceD: 44x4vx204d 0vd/

Analyte		5 esult (m	ngx7)	Qualifier	57	57
7eaD, Total		Np			030040	030040
Manganese, Total		03092			030040	030040
NiRZel, Total		Np			0 <b>3</b> 00d0	0300d0
1 elenium, Total		Np			030040	030040
1 ilcer, Total		Np			030020	030020
TFallium, Total		Np			030040	030040
h anaDium, Total		0 <b>3</b> 00d0			030020	030020
Analysis MetFoD:	6020	Analysis BatRF:	280-2/ 698P	, ,	∄nstrument Sp:	MTk0PP
HreL MetFoD:	900/ A	HreL BatRF:	280-2/ 626d	-	7ab . ile 💲 :	2401 MH73D
p ilution:	430				hitial WeigFtxholume:	/ 0 m7
Analysis pate:	42x0vx204d 049/				inal WeigFtxholume:	/ 0 m7
HreL p ate:	42x08x204d 4990					
Analyte		5 esult (m	ngx₹)	Qualifier	57	57
UinR, Total		Np			0300/ 0	0300/ 0

### 6020 Metals (ICP/MS)-Dissolved

Analysis MetFoD: Analysis BatRF: 280-2/ d299 Sistrument Sp: MTk02d 6020 HreL MetFoD: 900/ A HreL BatRF: 280-2/986P 7ab . ile \$p: 0/21MH73b pilution: 430 Shitial WeigFtxh olume: / 0 m7 Analysis pate: 44x20x204d 4v42 . inal WeigFtxholume: / 0 m7

HreL p ate: 44x20x204d 084/

Qualifier 57 Analyte 5 esult (mgx7) 57 Antimony, pissolceD 030040 030040 Np 03009P 030040 Barium, pissolceD 030040 Beryllium, pissolceD Np 030040 030040 CaDmium, pissolceD Np 0300020 0300020 CFromium, pissolceD 0300Pd 030090 030090 030020 CoLLer, pissolceD Np 030020 7eaD, pissolceD 030040 030040 Np 030040 Manganese, pissolceD 03042 030040 NiRZel, pissolceD 0300d0 Np 0300d0 1 elenium, pissolceD Np 030040 030040 1 ilcer, pissolceD Np 030020 030020 TFallium, pissolceD Np 030040 030040 hanaDium, pissolceD 03009/ 030020 030020 UinR, pissolceD Np 0300/0 0300/0

Client Sample ID: MW-43

7ab 1amLle \$0: 280-62688-/ p ate 1 amLleD: 44x48x204d 494/ Client Matril: Water pate 5 eReiceD: 44x4vx204d 0vd/

6010B Metals (ICP)-Total Recoverable

Analysis MetFoD: 6040B 280-2//260 Sistrument Sp: MTk026 Analysis BatRF:

HreL MetFoD: 900/ A HreL BatRF: 280-2/98P9 7ab . ile \$5: 26D44904d3asR

pilution: 430 Shitial WeigFtxh olume: / 0 m7 . inal WeigFtxholume: / 0 m7

42x04x204d 09d2 Analysis pate: HreL p ate: 44x20x204d 4d00

57 Qualifier 57 Analyte 5 esult (mgx7) Cobalt, Total 030090 030090 Np Son, Total 03060 43P 03060

6010B Metals (ICP)-Dissolved

Analysis MetFoD: 6040B Analysis BatRF: 280-2///v8 Sistrument Si: MTk026

HreL MetFoD: 900/A HreL BatRF: 280-2/9866 7ab . ile \$p: 26g42024d3asR

pilution: 430 Shitial WeigFtxh olume: / 0 m7 / 0 m7

Analysis pate: 42x09x204d 0v04 . inal WeigFtxholume: HreL p ate: 44x20x204d 084/

57 Analyte 5 esult (mgx7) Qualifier 57 CalRum, pissolceD d3d 030d0 030d0 Cobalt, pissolceD Np 030090 030090 0320 03060 03060 Son, pissolceD

030/0 438 030/0 Magnesium, pissolceD Hotassium, pissolceD Np 430 430

Analysis MetFoD: 6040B Analysis BatRF: 280-2/ / P4v Sistrument Si: MTk026

900/ A HreL BatRF: HreL MetFoD: 280-2/ 9866 7ab . ile \$p: 26C42094d3asR pilution: 430 Shitial WeigFtxh olume: / 0 m7

Analysis pate: 42x09x204d 240/ . inal WeigFtxholume: / 0 m7 HreL p ate: 44x20x204d 084/

57 57 Analyte 5 esult (mgx7) Qualifier 430 430

238

6020 Metals (ICP/MS)-Total Recoverable

Analysis MetFoD: 6020 Analysis BatRF: 280-2/ d/ d6 Sistrument Sp: MTk02d 900/ A HreL MetFoD: HreL BatRF: 280-2/98P/ 7ab . ile \$p: 0/ P1 MH73p

pilution: 430 Shitial WeigFtxh olume: / 0 m7

Analysis pate: 44x24x204d 2044 . inal WeigFtxholume: / 0 m7 HreL p ate: 44x20x204d 4d00

Analyte 5 esult (mgx7) Qualifier 57 57 Antimony, Total 030040 030040 Np Barium, Total 030066 030040 030040 Beryllium, Total Np 030040 030040 CaDmium, Total 0300020 0300020 Np CFromium, Total Np 030090 030090 CoLLer, Total 030020 030020 Np

1oDium, pissolceD

Job Number: 280-62688-4 Client: Waste Management

Client Sample ID: MW-43

7ab 1amLle \$>: 280-62688-/ p ate 1 amLleD: 44x48x204d 494/ Client Matril: pate 5 eReiceD: 44x4vx204d 0vd/ Water

		6020 Metals (ICP/	MS)-Total Reco	overable		
Analyte		5 esult (n	ngx₹)	Qualifier	57	57
7eaD, Total		Np			030040	030040
Manganese, Total		0326			030040	030040
NiRZel, Total		Np			0 <b>3</b> 00d0	0300d0
1 elenium, Total		Np			030040	030040
1 ilcer, Total		Np			030020	030020
TFallium, Total		Np			030040	030040
hanaDium, Total		Np			030020	030020
Analysis MetFoD:	6020	Analysis BatRF:	280-2/ dP94	:	Sinstrument Sp:	MTk02d
HreL MetFoD:	900/ A	HreL BatRF:	280-2/ 98P/		7ab . ile 💲 :	0881MH73p
p ilution:	430			;	Shitial WeigFtxholume:	/ 0 m7
Analysis pate:	44x2dx204d 22d8				. inal WeigFtxholume:	/ 0 m7
HreL pate:	44x20x204d 4d00				Ü	
Analyte		5 esult (n	ngx₹)	Qualifier	57	57
UinR Total		Np			0300/ 0	0300/ 0
		6020 Metals (	ICP/MS)-Disso	lved		
Analysis MetFoD:	6020	Analysis BatRF:	280-2/ d299		Sinstrument Sp:	MTk02d
HreL MetFoD:	900/ A	HreL BatRF:	280-2/ 986P		7ab . ile <b>S</b> b :	0/ 91 MH73p
n ilution:	430				Shitial WeigEtxholume	/ 0 m7

pilution: Shitial WeigFtxh olume: / 0 m7

44x20x204d 4v4/ . inal WeigFtxholume: Analysis pate: / 0 m7

HreL p ate: 44x20x204d 084/

Analyte	5 esult (mgx7)	Qualifier	57	57
Antimony, pissolceD	Np		030040	030040
Barium, pissolceD	0300/8		030040	030040
Beryllium, pissolceD	Np		030040	030040
CaDmium, pissolceD	Np		0300020	0300020
CFromium, pissolceD	Np		030090	030090
CoLLer, pissolceD	Np		030020	030020
7eaD, pissolceD	Np		030040	030040
Manganese, pissolceD	0 <b>3</b> 2d		030040	030040
NiRZel, pissolceD	Np		0300d0	0 <b>3</b> 00d0
1 elenium, pissolceD	Np		030040	030040
1 ilcer, p issolceD	Np		030020	030020
TFallium, pissolceD	Np		030040	030040
hanaDum, pissolceD	Np		030020	030020
UinR pissolceD	Np		0300/0	0300/0

Client Sample ID: MW-23A

 7ab 1amLle \$5:
 280-62688-6
 p ate 1amLleD: 44x48x204d 44d/

 Client Matril :
 Water
 p ate 5 eReiceD: 44x4vx204d 0vd/

6010B Metals (ICP)-Total Recoverable

Analysis MetFoD: 6040B Analysis BatRF: 280-2//260 Shstrument Sp: MTk026

HreL MetFoD: 900/ A HreL BatRF: 280-2/ 98P9 7ab . ile \$p: 26D44904d3asR

p ilution: 430 Shitial WeigFtxh olume: / 0 m7
Analysis p ate: 42x04x204d 09// . inal WeigFtxh olume: / 0 m7

HreL p ate: 44x20x204d 4d00

 Analyte
 5 esult (mgx7)
 Qualifier
 5 7
 5 7

 Cobalt, Total
 Np
 030090
 030090

 Cobalt, Total
 Np
 030090
 030090

 \$on, Total
 03/4
 03060
 03060

6010B Metals (ICP)-Dissolved

Analysis MetFoD: 6040B Analysis BatRF: 280-2///v8 Sistrument Sp: MTk026

HreL MetFoD: 900/ A HreL BatRF: 280-2/ 9866 7ab . ile \$>: 26g42024d3asR

p ilution: 430 Shitial WeigFth olume: / 0 m7
Analysis p ate: 42x09x204d 0v09 . inal WeigFth olume: / 0 m7

HreL p ate: 44x20x204d 084/

Analyte 5 esult (mgx7) Qualifier 57 57 CalRum, pissolceD 20 030d0 030d0 Np Cobalt, pissolceD 030090 030090 03:16 03060 03060 Son, pissolceD v32 030/0 030/0 Magnesium, pissolceD 434 Hotassium, pissolceD 430 430

Analysis MetFoD: 6040B Analysis BatRF: 280-2/ / P4v Sistrument Sp: MTk026

HreL MetFoD: 900/ A HreL BatRF: 280-2/9866 7ab . ile \$p: 26C42094d3asR

p ilution: 430 Shitial WeigFtxh olume: / 0 m7
Analysis p ate: 42x09x204d 2408 . inal WeigFtxh olume: / 0 m7

Analysis plate: 42/09/204d 24/08 . inal Weighth olume: / 0 m/
HreL plate: 44/20/204d 084/

 Analyte
 5 esult (mgx7)
 Qualifier
 57
 57

 1 oDium, p issolceD
 / 34
 430
 430

Analysis MetFoD: 6020 Analysis BatRF: 280-2/ d/ d6 Shstrument Sp: MTk02d

HreL MetFoD: 900/ A HreL BatRF: 280-2/ 98P/ 7ab . ile \$>: 060A5 E. 3p

p ilution: 430 Shitial WeigFtxh olume: / 0 m7

Analysis p ate: 44x24x204d 2024 . inal WeigFtxh olume: / 0 m7

Analysis plate: 44x24x204d 2024 . inal WeigFtxholume: / 0 m7

HreL plate: 44x20x204d 4d00

Analyte 5 esult (mgx7) Qualifier 57 57 Antimony, Total 030040 Np 030040 Barium, Total 0304d 030040 030040 Beryllium, Total Np 030040 030040 CaDmium, Total 0300020 0300020 Np CFromium, Total Np 030090 030090 CoLLer, Total 030020 030020 Np

6020 Metals (ICP/MS)-Total Recoverable

Client Sample ID: MW-23A

 7ab 1amLle \$:
 280-62688-6
 p ate 1amLleD: 44x48x204d 44d/

 Client Matril :
 Water
 p ate 5 eReiceD: 44x4vx204d 0vd/

		6020 Metals (ICP/	MS)-Total Reco	overable		
Analyte		5 esult (m	nax7)	Qualifier	57	57
eaD, Total		Np	.9/- /	03040		030040
Manganese, Total		232			030040	030040
NiRZel, Total		Np			0 <b>3</b> 00d0	0 <b>3</b> 00d0
l elenium, Total		Np			030040	030040
l ilcer, Total		Np			030020	030020
ΓFallium, Total		Np			030040	030040
nanaDium, Total		Np			030020	030020
Analysis MetFoD:	6020	Analysis BatRF:	280-2/ dP94	S	nstrument Sp:	MTk02d
HreL MetFoD:	900/ A	HreL BatRF:	280-2/ 98P/		7ab . ile Sp∶	0v4A5E.30
ilution:	430				hitial WeigFtxholume:	/ 0 m7
Analysis pate:	44x2dx204d 22/ P				inal WeigFtxholume:	/ 0 m7
HreL p ate:	44×20×204d 4d00				mar rroigi atroiamo.	7 0 1111
Analyte	5 esult (m		ng <b>ℤ</b> )	Qualifier	57	57
JinR, Total		0300/9			0300/ 0	0300/ 0
Analysis MetFoD:	6020	6020 Metals (ICP/MS)-Disson Analysis BatRF: 280-2/ d299		Sistrument Si:		
HreL MetFoD:			280-2/ d299	5	Bistrument So:	MTk02d
	900/ A	HreL BatRF:	280-2/ d299 280-2/ 986P		•	MTk02d 0/ 6A5 E. 3o
ilution:	900/ A	•		7	<sup>7</sup> ab . ile ᢒ:	0/6A5E.3p
	900/ A 4 <b>3</b> 0	•		7	7ab . ile ৡ : জitial WeigFtxh olume:	0/ 6A5 E. 3p / 0 m7
o ilution: Analysis pate: HreL pate:	900/ A	•		7	<sup>7</sup> ab . ile ᢒ:	0/ 6A5 E. 3p
Analysis pate:	900/ A 430 44x20x204d 4v2d	•	280-2/ 986P	7	7ab . ile ৡ : জitial WeigFtxh olume:	0/ 6A5 E. 3p / 0 m7
Analysis pate: HreL pate: Analyte	900/ A 430 44x20x204d 4v2d 44x20x204d 084/	HreL BatR <del>T</del> :	280-2/ 986P	7 S	7ab . ile \$5 : Siltial WeigFtxholume: inal WeigFtxholume:	0/ 6A5 E. 3p / 0 m7 / 0 m7
Analysis pate: HreL pate: Analyte Antimony, pissolce	900/ A 430 44x20x204d 4v2d 44x20x204d 084/	HreL BatR <del>T</del> : 5 esult (m	280-2/ 986P	7 S	7ab . ile \$5 : Bitial WeigFtxholume: inal WeigFtxholume:	0/ 6A5 E. 3p / 0 m7 / 0 m7
Analysis pate: HreL pate: Analyte Antimony, pissolce Barium, pissolceD	900/ A 430 44½0½04d 4v2d 44½0½04d 084/	HreL BatR <del>T</del> : 5 esult (m	280-2/ 986P	7 8	7ab . ile \$ : ile \$ : inal WeigFtxh olume: inal WeigFtxh olume: 57 030040	0/ 6A5 E. 3p / 0 m7 / 0 m7 57 030040
Analysis pate:  HreL pate:  Analyte  Antimony, pissolce  Barium, pissolceD  Beryllium, pissolce	900/ A 430 44x20x204d 4v2d 44x20x204d 084/	HreL BatRF:  5 esult (m  Np 03049	280-2/ 986P	7 8	7ab . ile \$ : Sitial WeigFtxh olume: inal WeigFtxh olume:  57  030040 030040	0/ 6A5 E. 3p / 0 m7 / 0 m7 57 030040 030040 030040 030020
Analysis pate:  Analyte  Antimony, pissolce  Barium, pissolceD  Beryllium, pissolce  CaDmium, pissolce	900/ A 430 44x20x204d 4v2d 44x20x204d 084/	HreL BatRF:  5 esult (m  Np  03049  Np	280-2/ 986P	7 8	7ab . ile \$ : Sitial WeigFtxh olume: inal WeigFtxh olume:  57  030040 030040 030040 030020 030090	0/ 6A5 E. 3p / 0 m7 / 0 m7 57 030040 030040 030040 030020 030090
Analysis pate:  Analyte  Antimony, pissolce  Barium, pissolceD  Beryllium, pissolce  CaDmium, pissolce  CFromium, pissolce	900/ A 430 44x20x204d 4v2d 44x20x204d 084/	HreL BatRF:  5 esult (m  Np  03049  Np  Np	280-2/ 986P	7 8	7ab . ile \$ : Sitial WeigFtxh olume: inal WeigFtxh olume:  57  030040 030040 030040 030020 030090 030020	0/ 6A5 E. 3p / 0 m7 / 0 m7 57 030040 030040 030040 030020 030090 030020
Analysis pate:  Analyte  Antimony, pissolce  Barium, pissolce  Beryllium, pissolce  CaDmium, pissolce  CFromium, pissolce  CoLLer, pissolceD  YeaD, pissolceD	900/ A 430 44x20x204d 4v2d 44x20x204d 084/	HreL BatRF:  5 esult (m Np 03049 Np Np Np Np Np Np Np Np	280-2/ 986P	7 8	7ab . ile \$ :  Sitial WeigFtxh olume:  inal WeigFtxh olume:  57  030040 030040 030040 030020 030090 030020 030040	0/ 6A5 E. 3p / 0 m7 / 0 m7 57 030040 030040 030040 030020 030020 030020 030040
Analysis pate:  Analyte  Antimony, pissolce  Barium, pissolce  Baryllium, pissolce  CaDmium, pissolce  CFromium, pissolce  CoLLer, pissolceD  VeaD, pissolceD  Manganese, pissol	900/ A 430 44x20x204d 4v2d 44x20x204d 084/	HreL BatRF:  5 esult (m Np 03049 Np Np Np Np Np Np Np Np Np Np Np Np Np	280-2/ 986P	7 8	7ab . ile \$ :  Sitial WeigFtxh olume:  inal WeigFtxh olume:  57  030040 030040 030040 030020 030090 030020 030040 030040 030040	0/ 6A5 E. 3p / 0 m7 / 0 m7 57 030040 030040 030020 030020 030020 030040 030040 030040
Analysis pate:  Analyte  Antimony, pissolce  Barium, pissolce  Baryllium, pissolce  CaDmium, pissolce  CFromium, pissolce  CoLLer, pissolce  VeaD, pissolceD  Manganese, pissol	900/ A 430 44x20x204d 4v2d 44x20x204d 084/  D D D D D D D D D D D D D D D D D D	HreL BatRF:  5 esult (m Np 03049 Np Np Np Np Np Np Np Np Np Np Np	280-2/ 986P	7 8	7ab . ile \$ :  Sitial WeigFtxh olume:  inal WeigFtxh olume:  57  030040 030040 030040 030020 030090 030020 030040 030040 030040 030040	0/ 6A5 E. 3p / 0 m7 / 0 m7 / 0 m7  57  030040 030040 030020 030090 030020 030040 030040 030040 030040 030040 030040
Analysis pate: HreL pate: Analyte Antimony, pissolce Barium, pissolce Beryllium, pissolce CaDmium, pissolce CFromium, pissolce CoLLer, pissolce VeaD, pissolceD Manganese, pissol I elenium, pissolce	900/ A 430 44x20x204d 4v2d 44x20x204d 084/  D D D D D D D D D D D D D D D D D D	HreL BatRF:  5 esult (m Np 03049 Np Np Np Np Np Np Np Np Np Np Np Np Np	280-2/ 986P	7 8	7ab . ile \$ :  Shitial WeigFtxh olume:  inal WeigFtxh olume:  57  03040 03040 03040 030020 030090 030020 030040 030040 030040 030040 030040 030040	0/ 6A5 E. 3p / 0 m7 / 0 m7 / 0 m7  57  030040 030040 030020 030090 030020 030040 030040 030040 030040 030040 030040
Analysis pate: HreL pate: Analyte Antimony, pissolce Barium, pissolce Baryllium, pissolce CaDmium, pissolce CFromium, pissolce CreaD, pissolceD Manganese, pissol I elenium, pissolce I ilcer, pissolceD	900/ A 430 44x20x204d 4v2d 44x20x204d 084/  D D D D D D D D D D D D D D D D D D	HreL BatRF:  5 esult (m Np 03049 Np Np Np Np Np Np Np Np Np Np Np Np	280-2/ 986P	7 8	7ab . ile \$ :  Shitial WeigFtxh olume:  inal WeigFtxh olume:  57  03040 03040 03040 030020 03090 03020 03040 03040 03040 03040 03040 03040 030040 030040 030040	0/ 6A5 E. 3p / 0 m7 / 0 m7 / 0 m7 57 030040 030040 030020 030020 030040 030040 030040 030040 030040 030040 030040
Analysis pate:  Analyte  Analyte  Antimony, pissolce  Barium, pissolce  Beryllium, pissolce  CaDmium, pissolce  Cromium, pissolce  Cromium, pissolce  VeaD, pissolceD  Manganese, pissol  IsleVel, pissolceD  I elenium, pissolce  I ilcer, pissolceD  Trallium, pissolce  ITeallium, pissolce	900/ A 430 44x20x204d 4v2d 44x20x204d 084/	HreL BatRF:  5 esult (m Np 03049 Np Np Np Np Np Np Np Np Np Np Np Np Np	280-2/ 986P	7 8	7ab . ile \$ :  Shitial WeigFtxh olume:  inal WeigFtxh olume:  57  030040 030040 030040 030020 030090 030020 030040 030040 030040 030040 030040 030040 030040 030040	0/ 6A5 E. \$\partial \text{/0 m7} \\ \text{/0 m7} \\ \text{/0 m7} \\ \text{/0 m7} \\ \text{/0 m7} \\ \text{/0 m7} \\ \text{/0 m7} \\ \text{/0 m7} \\ \text{/0 m3040} \\ \text{/0 30040} \\ \text{/0 30040} \\ \text{/0 30020} \\ \text{/0 30040} \
Analysis pate: HreL pate: Analyte Antimony, pissolce Barium, pissolce Beryllium, pissolce CaDmium, pissolce CFromium, pissolce CoLLer, pissolce VeaD, pissolceD Manganese, pissol I elenium, pissolce	900/ A 430 44x20x204d 4v2d 44x20x204d 084/	HreL BatRF:  5 esult (m Np 03049 Np Np Np Np Np Np Np Np Np Np Np Np	280-2/ 986P	7 8	7ab . ile \$ :  Shitial WeigFtxh olume:  inal WeigFtxh olume:  57  03040 03040 03040 030020 03090 03020 03040 03040 03040 03040 03040 03040 030040 030040 030040	0/ 6A5 E. 3p / 0 m7 / 0 m7 / 0 m7 57 030040 030040 030020 030020 030040 030040 030040 030040 030040 030040 030040

### **General Chemistry**

Client Sample ID: MW-42

7ab 1amLle \$: 280-62688-4 p ate 1amLleD: 44x48x204d 4d/ / Client Matril: Water p ate 5 eReiceD: 44x4vx204d 0vd/

Analyte	5 esult	Qual	* nits	57	57	pil	MetFoD
CFloriDe	4v		mgx7	430	430	430	90030
Analysis BatRF: 280	)-2/ dv0/	Analysis pate:	44x26x204d	1 2292			
1 ulfate	44		mgx7	430	430	430	90030
Analysis BatRF: 280	)-2/ dv0/	Analysis pate:	44x26x204d	1 2292			
Ammonia (as N)	639		mgx7	03060	03060	230	9/ 034
Analysis BatRF: 280	)-2/ d428	Analysis pate:	44x20x204d	1 4922			
Nitrate as N	Np		mgx7	030/0	030/0	430	9/932
Analysis BatRF: 280	)-2/ / 0vv	Analysis pate:	44x28x204d	I 0v/ P			
AlZalinity, Total (As CaCO9)	290		mgx7	/ 30	/ 30	430	1M 2920B
Analysis BatRF: 280	)-2/ d/ 09	Analysis pate:	44x24x204d	I 4606			
AlZalinity, BiRarbonate (As CaCO9)	290		mgx7	/ 30	/ 30	430	1M 2920B
Analysis BatRF: 280	)-2/ d/ 09	Analysis pate:	44x24x204d	l 4606			
Total pissolceD1oliDs (Tp1)	940		mgx7	/ 30	/ 30	430	1 M 2/ d0C
Analysis BatRF: 280	)-2/ d0dP	Analysis pate:	44x20x204d	l 4d24			
Total 1 usLenDeD 1 oliDs	4P0		mgx7	40	40	430	1 M 2/ d0p
Analysis BatRF: 280	)-2/ d408	Analysis pate:	44x20x204d	I 4P00			
Total OrganiRCarbon - Acerage	P3/		mgx7	430	430	430	1 M / 940B
Analysis BatRF: 280	)-2/ d298	Analysis pate:	44x20x204d	222v			

### **General Chemistry**

Client Sample ID: MW-29A

7ab 1amLle \$9: 280-62688-2 pate 1amLleD: 44x48x204d 4d02

Client Matril: pate 5 eReiceD: 44x4vx204d 0vd/

Analyte	5 esult	Qual	* nits	57	57	pil	MetFoD
CFloriDe	232		mgx7	430	430	430	90030
Analysis BatRF:	280-2/ dv0/	Analysis pate:	44x26x204d	22/ 2			
lulfate	43d		mg <i>x</i> 7	430	430	430	90030
Analysis BatRF:	280-2/ dv0/	Analysis pate:	44x26x204d	22/ 2			
Ammonia (as N)	030Pd		mgx7	03090	03090	430	9/ 034
Analysis BatRF:	280-2/ d428	Analysis pate:	44x20x204d	492d			
Nitrate as N	Np		mg <i>x</i> 7	030/0	030/0	430	9/932
Analysis BatRF:	280-2/ / 0vv	Analysis pate:	44x28x204d	0v/ P			
AlZalinity, Total (As CaCO9)	d4		mgx7	/ 30	/ 30	430	1M 2920B
Analysis BatRF:	280-2/ d/ 09	Analysis pate:	44x24x204d	4644			
AlZalinity, BiRarbonate (As CaCO9)	d4		mg <i>x</i> 7	/ 30	/ 30	430	1M 2920B
Analysis BatRF:	280-2/ d/ 09	Analysis pate:	44x24x204d	4644			
Total pissolceD1oliDs(Tp1)	P2		mg <i>x</i> 7	/ 30	/ 30	430	1 M 2/ d0C
Analysis BatRF:	280-2/ d0dP	Analysis pate:	44x20x204d	4d24			
Fotal 1 usLenDeD 1 oliDs	Np		mg <i>x</i> 7	d <b>3</b> 0	d <b>3</b> 0	430	1 M 2/ d0p
Analysis BatRF:	280-2/ d408	Analysis pate:	44x20x204d	4P00			
Fotal OrganiRCarbon - Acerage	43d		mgx7	430	430	430	1 M / 940B
Analysis BatRF:	280-2/ d298	Analysis pate:	44x20x204d	2946			

### **General Chemistry**

Client Sample ID: MW-39

7ab 1amLle \$: 280-62688-9 p ate 1amLleD: 44x48x204d 400/ Client Matril: Water p ate 5 eReiceD: 44x4vx204d 0vd/

Analyte	5 esult	Qual	* nits	57	57	pil	MetFoD
CFloriDe	23P		mgx7	430	430	430	90030
Analysis BatR : 280	0-2/ dv0/	Analysis pate:	44x26x204d	2944			
1 ulfate	432		mgx7	430	430	430	90030
Analysis Bat <del>R</del> F: 280	0-2/ dv0/	Analysis pate:	44x26x204d	2944			
Ammonia (as N)	0390		mgx7	03090	03090	430	9/ 034
Analysis Bat <del>R</del> F: 280	0-2/ d428	Analysis pate:	44x20x204d	4926			
Nitrate as N	034v		mgx7	030/0	030/0	430	9/932
Analysis BatRF: 280	0-2/ / 0vv	Analysis pate:	44x28x204d	0v/ P			
AlZalinity, Total (As CaCO9)	v8		mgx7	/ 30	/ 30	430	1 M 2920B
Analysis BatRF: 280	0-2/ d/ 09	Analysis pate:	44x24x204d	464/			
AlZalinity, BiRarbonate (As CaCO9)	v8		mgx7	/ 30	/ 30	430	1 M 2920B
Analysis BatRF: 280	0-2/ d/ 09	Analysis pate:	44x24x204d	464/			
Total pissolceD1oliDs (Tp1)	490		mgx7	/ 30	/ 30	430	1 M 2/ d0C
Analysis BatRF: 280	0-2/ d0dP	Analysis pate:	44x20x204d	4d24			
Total 1 usLenDeD 1 oliDs	Np		mgx7	d <b>3</b> 0	d <b>3</b> 0	430	1 M 2/ d0p
Analysis BatRF: 280	0-2/ d408	Analysis pate:	44x20x204d	4P00			
Total OrganiRCarbon - Acerage	23d		mgx7	430	430	430	1 M / 940B
Analysis BatRF: 280	0-2/ d298	Analysis pate:	44x20x204d	2992			

### **General Chemistry**

Client Sample ID: MW-16

 7ab 1amLle \$9:
 280-62688-d
 p ate 1amLleD: 44x48x204d 0v06

 Client Matril:
 Water
 p ate 5 eReiceD: 44x4vx204d 0vd/

nalyte	5 esult	Qual	* nits	57	57	pil	MetFoD
FloriDe	43		mgx7	430	430	430	90030
Analysis BatR	F: 280-2/ dv0/	Analysis pate:	44x2Px204d	0044			
ulfate	939		mgx7	430	430	430	90030
Analysis BatR	F: 280-2/ dv0/	Analysis pate:	44x2Px204d	0044			
mmonia (as N)	Np		mgx7	03090	03090	430	9/ 034
Analysis BatR	F: 280-2/ d428	Analysis pate:	44x20x204d	499d			
itrate as N	0328		mgx7	030/0	030/0	430	9/932
Analysis BatR	F: 280-2/ / 0vv	Analysis pate:	44x28x204d	0v/ P			
IZalinity, Total (As CaCO9)	/ P		mgx7	/ 30	/ 30	430	1M 2920B
Analysis BatR	F: 280-2/ d/ 09	Analysis pate:	44x24x204d	464v			
IZalinity, BiRarbonate (As CaCO9	9) / P		mgx7	/ 30	/ 30	430	1M 2920B
Analysis BatR	F: 280-2/ d/ 09	Analysis pate:	44x24x204d	464v			
otal pissolceD1oliDs (Tp1)	400		mgx7	/ 30	/ 30	430	1 M 2/ d0C
Analysis BatR	F: 280-2/ d0dP	Analysis pate:	44x20x204d	4d24			
otal 1 usLenDeD 1 oliDs	Np		mgx7	d <b>3</b> 0	d <b>3</b> 0	430	1 M 2/ d0p
Analysis BatR	F: 280-2/ d408	Analysis pate:	44x20x204d	4P00			
otal OrganiRCarbon - Acerage	Np		mgx7	430	430	430	1 M / 940B
Analysis BatR	F: 280-2/ d298	Analysis pate:	44x20x204d	29dP			

### **General Chemistry**

Client Sample ID: MW-43

7ab 1amLle \$: 280-62688-/ p ate 1amLleD: 44x48x204d 494/ Client Matril: Water p ate 5 eReiceD: 44x4vx204d 0vd/

Analyte		5 esult	Qual	* nits	57	57	pil	MetFoD
CFloriDe		43		mgx7	430	430	430	90030
	Analysis BatRF: 280-2	2/ dv0/	Analysis pate:	44x2Px204d	1 0094			
1 ulfate		234		mgx7	430	430	430	90030
	Analysis BatRF: 280-2	2/ dv0/	Analysis pate:	44x2Px204d	l 0094			
Ammonia (as N)		0342		mgx7	03090	03090	430	9/ 034
	Analysis BatRF: 280-2	2/ d428	Analysis pate:	44x20x204d	1 49/ 0			
Nitrate as N		0384		mgx7	030/0	030/0	430	9/932
	Analysis BatRF: 280-2	2/ / 0vv	Analysis pate:	44x28x204d	l 0v/ P			
AlZalinity, Total (A	As CaCO9)	24		mgx7	/ 30	/ 30	430	1M 2920B
	Analysis BatRF: 280-2	2/ d/ 09	Analysis pate:	44x24x204d	1 4629			
AlZalinity, BiRarbo	onate (As CaCO9)	24		mgx7	/ 30	/ 30	430	1M 2920B
	Analysis BatRF: 280-2	2/ d/ 09	Analysis pate:	44x24x204d	1 4629			
Total pissolceD1	oliDs (Tp 1)	/ 0		mgx7	/ 30	/ 30	430	1 M 2/ d0C
	Analysis BatRF: 280-2	2/ d0dP	Analysis pate:	44x20x204d	l 4d24			
Total 1 usLenDeD	1 oliDs	d3d		mgx7	d <b>3</b> 0	d <b>3</b> 0	430	1 M 2/ d0p
	Analysis BatRF: 280-2	2/ d408	Analysis pate:	44x20x204d	I 4P00			
Total OrganiRCa	rbon - Acerage	439		mgx7	430	430	430	1 M / 940B
	Analysis BatRF: 280-2	2/ d298	Analysis pate:	44x24x204d	l 000d			

Job Number: 280-62688-4 Client: Waste Management

#### **General Chemistry**

Client Sample ID: MW-23A

7ab 1amLle \$ : 280-62688-6 p ate 1 amLleD: 44x48x204d 44d/ pate 5 eReiceD: 44x4vx204d 0vd/

Client Matril: Water

Analyte		5 esult	Qual	* nits	57	57	pil	MetFoD
CFloriDe		23P		mgx7	430	430	430	90030
	Analysis BatRF: 280-	·2/ dv0/	Analysis pate:	44x2Px204d	00/ 4			
1 ulfate		d32		mgx7	430	430	430	90030
	Analysis BatRF: 280-	·2/ dv0/	Analysis pate:	44x2Px204d	00/ 4			
Ammonia (as N)		0309/		mgx7	03090	03090	430	9/ 034
	Analysis BatRF: 280-	·2/ d428	Analysis pate:	44x20x204d	49/ 2			
Nitrate as N		Np		mgx7	030/0	030/0	430	9/932
	Analysis BatRF: 280-	-2/ / 0vv	Analysis pate:	44x28x204d	0v/ P			
AlZalinity, Total (A	s CaCO9)	vd		mgx7	/ 30	/ 30	430	1M 2920B
	Analysis BatRF: 280	·2/ d/ 09	Analysis pate:	44x24x204d	4628			
AlZalinity, BiRarbo	nate (As CaCO9)	vd		mgx7	/ 30	/ 30	430	1M 2920B
	Analysis BatRF: 280-	·2/ d/ 09	Analysis pate:	44x24x204d	4628			
Total pissolceD1	oliDs (Tp 1)	4d0		mgx7	/ 30	/ 30	430	1 M 2/ d0C
	Analysis BatRF: 280	·2/ d0dP	Analysis pate:	44x20x204d	4d24			
Total 1 usLenDeD	1 oliDs	d <b>3</b> 0		mgx7	d <b>3</b> 0	d <b>3</b> 0	430	1 M 2/ d0p
	Analysis BatRF: 280-	·2/ d408	Analysis pate:	44x20x204d	4P00			
Total OrganiRCar	bon - Acerage	Np		mgx7	430	430	430	1M/940B
-	Analysis BatRF: 280	2/ d298	Analysis pate:	44x24x204d	0024			

# **DATA REPORTING QUALIFIERS**

Client: Waste Management Job Number: 280-62688-1

Lab Section	Qualifier	Description
GC/MS VOA		
	*	LCS or LCSD exceeds the control limits
	F1	MS and/or MSD Recovery exceeds the control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
Metals		
	٨	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.
	4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
General Chemistry		
	F3	Duplicate RPD exceeds the control limit
	F1	MS and/or MSD Recovery exceeds the control limits

# **QUALITY CONTROL RESULTS**

# **QC Association Summary**

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA	·				·
Analysis Batch:480-21576	53				
LCS 480-215763/5	Lab Control Sample	Т	Water	8260C SIM	
LCSD 480-215763/6	Lab Control Sample Duplicate	Т	Water	8260C SIM	
MB 480-215763/7	Method Blank	Т	Water	8260C SIM	
280-62688-1	MW-42	Т	Water	8260C SIM	
280-62688-2	MW-29A	Т	Water	8260C SIM	
280-62688-3	MW-39	Т	Water	8260C SIM	
280-62688-4	MW-16	Т	Water	8260C SIM	
280-62688-5	MW-43	T	Water	8260C SIM	
280-62688-6	MW-23A	Т	Water	8260C SIM	
Analysis Batch:480-21651	16				
LCS 480-216516/39	Lab Control Sample	Т	Water	8260C	
MB 480-216516/7	Method Blank	Т	Water	8260C	
280-62688-1	MW-42	Т	Water	8260C	
280-62688-2	MW-29A	Т	Water	8260C	
280-62688-3	MW-39	Т	Water	8260C	
280-62688-4	MW-16	Т	Water	8260C	
280-62688-5	MW-43	Т	Water	8260C	
480-71963-B-2 MS	Matrix Spike	Т	Water	8260C	
480-71963-B-2 MSD	Matrix Spike Duplicate	Т	Water	8260C	
Analysis Batch:480-21669	95				
LCS 480-216695/8	Lab Control Sample	Т	Water	8260C	
MB 480-216695/11	Method Blank	Т	Water	8260C	
280-62688-6	MW-23A	Т	Water	8260C	
280-62688-7TB	TRIP BLANK	Т	Water	8260C	
480-71779-F-7 MS	Matrix Spike	Т	Water	8260C	
480-71779-F-7 MSD	Matrix Spike Duplicate	Т	Water	8260C	

#### Report Basis

T = Total

# **QC Association Summary**

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-253866					
LCS 280-253866/2-A	Lab Control Sample	R	Water	3005A	
MB 280-253866/1-A	Method Blank	R	Water	3005A	
280-62682-H-2-B MS	Matrix Spike	D	Water	3005A	
280-62682-H-2-C MSD	Matrix Spike Duplicate	D	Water	3005A	
280-62688-1	MW-42	D	Water	3005A	
280-62688-2	MW-29A	D	Water	3005A	
280-62688-3	MW-39	D	Water	3005A	
280-62688-4	MW-16	D	Water	3005A	
280-62688-5	MW-43	D	Water	3005A	
280-62688-6	MW-23A	D	Water	3005A	
Prep Batch: 280-253867					
LCS 280-253867/2-A	Lab Control Sample	R	Water	3005A	
MB 280-253867/1-A	Method Blank	R	Water	3005A	
280-62688-1	MW-42	D	Water	3005A	
280-62688-2	MW-29A	D	Water	3005A	
280-62688-3	MW-39	D	Water	3005A	
280-62688-4	MW-16	D	Water	3005A	
280-62688-5	MW-43	D	Water	3005A	
280-62688-6	MW-23A	D	Water	3005A	
280-62688-6MS	Matrix Spike	D	Water	3005A	
280-62688-6MSD	Matrix Spike Duplicate	D	Water	3005A	
Prep Batch: 280-253873					
LCS 280-253873/2-A	Lab Control Sample	R	Water	3005A	
MB 280-253873/1-A	Method Blank	R	Water	3005A	
280-62687-D-1-B MS	Matrix Spike	R	Water	3005A	
280-62687-D-1-C MSD	Matrix Spike Duplicate	R	Water	3005A	
280-62688-1	MW-42	R	Water	3005A	
280-62688-2	MW-29A	R	Water	3005A	
280-62688-3	MW-39	R	Water	3005A	
280-62688-4	MW-16	R	Water	3005A	
280-62688-5	MW-43	R	Water	3005A	
280-62688-6	MW-23A	R	Water	3005A	

# **QC Association Summary**

		Report			
Lab Sample ID	Client Sample ID	Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-253875	;				
LCS 280-253875/2-A	Lab Control Sample	R	Water	3005A	
MB 280-253875/1-A	Method Blank	R	Water	3005A	
280-62688-1	MW-42	R	Water	3005A	
280-62688-2	MW-29A	R	Water	3005A	
280-62688-3	MW-39	R	Water	3005A	
280-62688-4	MW-16	R	Water	3005A	
280-62688-5	MW-43	R	Water	3005A	
280-62688-6	MW-23A	R	Water	3005A	
280-62688-6MS	Matrix Spike	R	Water	3005A	
280-62688-6MSD	Matrix Spike Duplicate	R	Water	3005A	
Analysis Batch:280-254	233				
LCS 280-253867/2-A	Lab Control Sample	R	Water	6020	280-253867
MB 280-253867/1-A	Method Blank	R	Water	6020	280-253867
280-62688-1	MW-42	D	Water	6020	280-253867
280-62688-2	MW-29A	D	Water	6020	280-253867
280-62688-3	MW-39	D	Water	6020	280-253867
280-62688-4	MW-16	D	Water	6020	280-253867
280-62688-5	MW-43	D	Water	6020	280-253867
280-62688-6	MW-23A	D	Water	6020	280-253867
280-62688-6MS	Matrix Spike	D	Water	6020	280-253867
280-62688-6MSD	Matrix Spike Duplicate	D	Water	6020	280-253867
Analysis Batch:280-254	546				
LCS 280-253875/2-A	Lab Control Sample	R	Water	6020	280-253875
MB 280-253875/1-A	Method Blank	R	Water	6020	280-253875
280-62688-1	MW-42	R	Water	6020	280-253875
280-62688-2	MW-29A	R	Water	6020	280-253875
280-62688-3	MW-39	R	Water	6020	280-253875
280-62688-4	MW-16	R	Water	6020	280-253875
280-62688-5	MW-43	R	Water	6020	280-253875
280-62688-6	MW-23A	R	Water	6020	280-253875
280-62688-6MS	Matrix Spike	R	Water	6020	280-253875
280-62688-6MSD	Matrix Spike Duplicate	R	Water	6020	280-253875

# **QC Association Summary**

		Report			
Lab Sample ID	Client Sample ID	Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:280-25473					
LCS 280-253875/2-A	Lab Control Sample	R	Water	6020	280-253875
MB 280-253875/1-A	Method Blank	R	Water	6020	280-253875
280-62688-1	MW-42	R	Water	6020	280-253875
280-62688-2	MW-29A	R	Water	6020	280-253875
280-62688-3	MW-39	R	Water	6020	280-253875
280-62688-4	MW-16	R	Water	6020	280-253875
280-62688-5	MW-43	R	Water	6020	280-253875
280-62688-6	MW-23A	R	Water	6020	280-253875
280-62688-6MS	Matrix Spike	R	Water	6020	280-253875
280-62688-6MSD	Matrix Spike Duplicate	R	Water	6020	280-253875
Analysis Batch:280-25526	60				
LCS 280-253873/2-A	Lab Control Sample	R	Water	6010B	280-253873
MB 280-253873/1-A	Method Blank	R	Water	6010B	280-253873
280-62687-D-1-B MS	Matrix Spike	R	Water	6010B	280-253873
280-62687-D-1-C MSD	Matrix Spike Duplicate	R	Water	6010B	280-253873
280-62688-1	MW-42	R	Water	6010B	280-253873
280-62688-2	MW-29A	R	Water	6010B	280-253873
280-62688-3	MW-39	R	Water	6010B	280-253873
280-62688-4	MW-16	R	Water	6010B	280-253873
280-62688-5	MW-43	R	Water	6010B	280-253873
280-62688-6	MW-23A	R	Water	6010B	280-253873
Analysis Batch:280-25559	98				
LCS 280-253866/2-A	Lab Control Sample	R	Water	6010B	280-253866
MB 280-253866/1-A	Method Blank	R	Water	6010B	280-253866
280-62682-H-2-B MS	Matrix Spike	D	Water	6010B	280-253866
280-62682-H-2-C MSD	Matrix Spike Duplicate	D	Water	6010B	280-253866
280-62688-1	MW-42	D	Water	6010B	280-253866
280-62688-2	MW-29A	D	Water	6010B	280-253866
280-62688-3	MW-39	D	Water	6010B	280-253866
280-62688-4	MW-16	D	Water	6010B	280-253866
280-62688-5	MW-43	D	Water	6010B	280-253866
280-62688-6	MW-23A	D	Water	6010B	280-253866
Analysis Batch:280-25559	9				
280-62688-1	MW-42	D	Water	6010B	280-253866
Analysis Batch:280-25571	9				
280-62688-1	MW-42	D	Water	6010B	280-253866
280-62688-2	MW-29A	D	Water	6010B	280-253866
280-62688-3	MW-39	D	Water	6010B	280-253866
280-62688-4	MW-16	D	Water	6010B	280-253866
280-62688-5	MW-43	D	Water	6010B	280-253866
280-62688-6	MW-23A	D	Water	6010B	280-253866

TestAmerica Denver

# **QC Association Summary**

		Repor	t		
Lab Sample ID	Client Sample ID	Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-256264					
LCS 280-256264/2-A	Lab Control Sample	R	Water	3005A	
MB 280-256264/1-A	Method Blank	R	Water	3005A	
280-62688-4	MW-16	R	Water	3005A	
280-62688-4MS	Matrix Spike	R	Water	3005A	
280-62688-4MSD	Matrix Spike Duplicate	R	Water	3005A	
Analysis Batch:280-2563	87				
LCS 280-256264/2-A	Lab Control Sample	R	Water	6020	280-256264
MB 280-256264/1-A	Method Blank	R	Water	6020	280-256264
280-62688-4	MW-16	R	Water	6020	280-256264
280-62688-4MS	Matrix Spike	R	Water	6020	280-256264
280-62688-4MSD	Matrix Spike Duplicate	R	Water	6020	280-256264

#### Report Basis

D = Dissolved

R = Total Recoverable

# **QC Association Summary**

		Report			
Lab Sample ID	Client Sample ID	Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-25404	<b>1</b> 7				
LCS 280-254047/2	Lab Control Sample	Т	Water	SM 2540C	
LCSD 280-254047/3	Lab Control Sample Duplicate	Т	Water	SM 2540C	
MB 280-254047/1	Method Blank	Т	Water	SM 2540C	
280-62676-C-1 DU	Duplicate	Т	Water	SM 2540C	
280-62688-1	MW-42	Т	Water	SM 2540C	
280-62688-2	MW-29A	Т	Water	SM 2540C	
280-62688-3	MW-39	Т	Water	SM 2540C	
280-62688-4	MW-16	Т	Water	SM 2540C	
280-62688-5	MW-43	Т	Water	SM 2540C	
280-62688-6	MW-23A	Т	Water	SM 2540C	
Analysis Batch:280-25410	08				
_CS 280-254108/1	Lab Control Sample	Т	Water	SM 2540D	
_CSD 280-254108/2	Lab Control Sample Duplicate	Т	Water	SM 2540D	
MB 280-254108/3	Method Blank	Т	Water	SM 2540D	
280-62688-1	MW-42	Т	Water	SM 2540D	
280-62688-1DU	Duplicate	Т	Water	SM 2540D	
280-62688-2	MW-29A	Т	Water	SM 2540D	
280-62688-3	MW-39	Т	Water	SM 2540D	
280-62688-4	MW-16	Т	Water	SM 2540D	
280-62688-5	MW-43	Т	Water	SM 2540D	
280-62688-6	MW-23A	Т	Water	SM 2540D	
Analysis Batch:280-25412	28				
_CS 280-254128/105	Lab Control Sample	Т	Water	350.1	
_CSD 280-254128/106	Lab Control Sample Duplicate	Т	Water	350.1	
MB 280-254128/107	Method Blank	Т	Water	350.1	
280-62688-1	MW-42	Т	Water	350.1	
280-62688-2	MW-29A	Т	Water	350.1	
280-62688-3	MW-39	Ť	Water	350.1	
280-62688-3MS	Matrix Spike	Ť	Water	350.1	
280-62688-3MSD	Matrix Spike Duplicate	Т	Water	350.1	
280-62688-4	MW-16	Ť	Water	350.1	
280-62688-5	MW-43	Ť	Water	350.1	
280-62688-6	MW-23A	T.	Water	350.1	

# **QC Association Summary**

Lab Sample ID	Client Sample ID	Basis	Client Matrix	Method	Prep Batch
General Chemistry			Olient Matrix	Metriou	Trep Baten
	•				
Analysis Batch:280-25423 _CS 280-254238/3	Lab Control Sample	Т	Water	SM 5310B	
CSD 280-254238/4	Lab Control Sample Duplicate	T	Water	SM 5310B	
MB 280-254238/5	Method Blank	T T	Water	SM 5310B	
280-62688-1	MW-42	T	Water		
	MW-29A	T	Water	SM 5310B	
80-62688-2		T		SM 5310B	
80-62688-3	MW-39		Water	SM 5310B	
80-62688-4	MW-16	T	Water	SM 5310B	
80-62688-5	MW-43	T <del>-</del>	Water	SM 5310B	
80-62688-6	MW-23A	T	Water	SM 5310B	
280-62748-F-13 MS	Matrix Spike	T	Water	SM 5310B	
80-62748-F-13 MSD	Matrix Spike Duplicate	Т	Water	SM 5310B	
Analysis Batch:280-25423	39				
CS 280-254239/3	Lab Control Sample	Т	Water	SM 5310B	
CSD 280-254239/4	Lab Control Sample Duplicate	Т	Water	SM 5310B	
1B 280-254239/5	Method Blank	Т	Water	SM 5310B	
80-62688-1	MW-42	Т	Water	SM 5310B	
80-62688-2	MW-29A	Т	Water	SM 5310B	
80-62688-3	MW-39	Т	Water	SM 5310B	
80-62688-4	MW-16	Т	Water	SM 5310B	
80-62688-5	MW-43	T	Water	SM 5310B	
80-62688-6	MW-23A	T	Water	SM 5310B	
80-62748-F-13 MS	Matrix Spike	T.	Water	SM 5310B	
280-62748-F-13 MSD	Matrix Spike Duplicate	T	Water	SM 5310B	
Analysis Batch:280-25450	13				
CS 280-254503/4	Lab Control Sample	Т	Water	SM 2320B	
.CSD 280-254503/5	Lab Control Sample Duplicate	T	Water	SM 2320B	
1B 280-254503/6	Method Blank	T	Water	SM 2320B	
40-44224-N-2 DU	Duplicate	Ť	Water	SM 2320B	
80-62688-1	MW-42	, T	Water	SM 2320B	
80-62688-2	MW-29A	T T	Water	SM 2320B	
80-62688-3	MW-39	T T	Water	SM 2320B	
80-62688-4	MW-16	T	Water	SM 2320B	
80-62688-5	MW-43	T	Water	SM 2320B SM 2320B	
		T			
80-62688-6	MW-23A	I	Water	SM 2320B	

# **QC Association Summary**

		Report			
Lab Sample ID	Client Sample ID	Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-2549	05				
LCS 280-254905/11	Lab Control Sample	T	Water	300.0	
LCSD 280-254905/12	Lab Control Sample Duplicate	Т	Water	300.0	
MB 280-254905/13	Method Blank	Т	Water	300.0	
280-62688-1	MW-42	Т	Water	300.0	
280-62688-2	MW-29A	Т	Water	300.0	
280-62688-3	MW-39	Т	Water	300.0	
280-62688-4	MW-16	Т	Water	300.0	
280-62688-5	MW-43	Т	Water	300.0	
280-62688-6	MW-23A	Т	Water	300.0	
280-63015-A-10 DU	Duplicate	Т	Water	300.0	
280-63015-A-10 MS	Matrix Spike	Т	Water	300.0	
280-63015-A-10 MSD	Matrix Spike Duplicate	Т	Water	300.0	
Analysis Batch:280-2550	99				
MB 280-255099/1	Method Blank	Т	Water	353.2	
280-62688-1	MW-42	Т	Water	353.2	
280-62688-2	MW-29A	Т	Water	353.2	
280-62688-3	MW-39	Т	Water	353.2	
280-62688-4	MW-16	Т	Water	353.2	
280-62688-5	MW-43	Т	Water	353.2	
280-62688-6	MW-23A	Т	Water	353.2	

#### Report Basis

T = Total

Job Number: 280-62688-1

## **Surrogate Recovery Report**

Client: Waste Management

#### 8260C Volatile Organic Compounds by GC/MS

#### Client Matrix: Water

Lab Sample ID	Client Sample ID	DCA %Rec	BFB %Rec	TOL %Rec
280-62688-1	MW-42	98	102	98
280-62688-2	MW-29A	99	100	98
280-62688-3	MW-39	103	101	99
280-62688-4	MW-16	100	103	100
280-62688-5	MW-43	103	102	99
280-62688-6	MW-23A	102	104	102
280-62688-7	TRIP BLANK	101	105	104
MB 480-216516/7		98	105	101
MB 480-216695/11		102	103	101
LCS 480-216516/39		95	100	98
LCS 480-216695/8		96	104	103
480-71963-B-2 MS		97	103	100
480-71779-F-7 MS		100	106	101
480-71963-B-2 MSD		95	101	100
480-71779-F-7 MSD		98	102	98

Surrogate	Acceptance Limits
DCA = 1,2-Dichloroethane-d4 (Surr)	66-137
BFB = 4-Bromofluorobenzene (Surr)	73-120
TOL = Toluene-d8 (Surr)	71-126

## **Surrogate Recovery Report**

## 8260C SIM Volatile Organic Compounds (GC/MS)

#### Client Matrix: Water

		DBFM	TBA
Lab Sample ID	Client Sample ID	%Rec	%Rec
280-62688-1	MW-42	98	121
280-62688-2	MW-29A	96	115
280-62688-3	MW-39	98	115
280-62688-4	MW-16	93	110
280-62688-5	MW-43	97	117
280-62688-6	MW-23A	98	107
MB 480-215763/7		95	112
LCS 480-215763/5		102	104
LCSD 480-215763/6		101	109

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane (Surr)	50-150
TBA = TBA-d9 (Surr)	50-150

#### Method Blank - Batch: 480-216P16

Method: 8260C pre5aration: P030C

Lab Sample ID: Analysis Batch: 480-216516 Instrument ID: HP5973G MB 480-216516/7 Client Matrix: Water Prep Batch: N/A Lab File ID: G36893.D Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 5 mL Units: Final Weight/Volume: Analysis Date: 12/01/2014 1247 ug/L 5 mL Prep Date: 12/01/2014 1247

Leach Date: N/A

Analyte	Result	Qual	MDL	RL
1,1,1,2-Tetrachloroethane	ND		0.35	1.0
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,1-Dichloropropene	ND		0.72	1.0
1,2,3-Trichlorobenzene	ND		0.41	1.0
1,2,3-Trichloropropane	ND		0.89	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2,4-Trimethylbenzene	ND		0.75	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane (EDB)	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloroethene, Total	ND		0.81	2.0
	ND		0.72	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3,5-Trichlorobenzene				
1,3,5-Trimethylbenzene	ND		0.77	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,3-Dichloropropane	ND		0.75	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
1,4-Dioxane	ND		9.3	40
2,2-Dichloropropane	ND		0.40	1.0
2-Butanone (MEK)	ND		1.3	10
2-Chloroethyl vinyl ether	ND		0.96	5.0
2-Hexanone	ND		1.2	5.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Acetonitrile	ND		4.9	15
Acrolein	ND		0.91	20
Acrylonitrile	ND		0.83	5.0
Benzene	ND		0.41	1.0
Bromobenzene	ND		0.80	1.0
Bromochloromethane	ND		0.87	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Butyl alcohol, n-	ND		8.9	40
Butyl alcohol, tert-	ND		3.3	10
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Chlorodifluoromethane	ND		0.26	1.0
Chiorodinacionicularic	מאו		0.20	1.0

#### Method Blank - Batch: 480-216P16

Method: 8260C pre5aration: P030C

Lab Sample ID: 480-216516 Instrument ID: HP5973G MB 480-216516/7 Analysis Batch: Client Matrix: Water Prep Batch: N/A Lab File ID: G36893.D Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 5 mL Units: Final Weight/Volume: Analysis Date: 12/01/2014 1247 ug/L 5 mL Prep Date: 12/01/2014 1247

Leach Date: N/A

Analyte	Result	Qual	MDL	RL
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dibromochloromethane	ND		0.32	1.0
Dibromomethane	ND		0.41	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Dichlorofluoromethane	ND		0.34	1.0
Ethyl acetate	ND		0.66	1.0
Ethyl ether	ND		0.72	1.0
Ethyl tert-butyl ether	ND		0.29	1.0
Ethylbenzene	ND		0.74	1.0
Hexachlorobutadiene	ND		0.28	1.0
Hexane	ND		0.40	10
lodomethane	ND		0.30	1.0
Isobutanol	ND		4.8	25
Isopropyl ether	ND		0.59	1.0
Isopropylbenzene	ND		0.79	1.0
Methacrylonitrile	ND		0.69	5.0
Methyl acetate	ND		0.50	2.5
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
m-Xylene & p-Xylene	ND		0.66	2.0
Naphthalene	ND		0.43	1.0
n-Butylbenzene	ND		0.64	1.0
N-Propylbenzene	ND		0.69	1.0
o-Chlorotoluene	ND		0.86	1.0
o-Xylene	ND		0.76	1.0
p-Chlorotoluene	ND		0.84	1.0
p-Cymene	ND		0.31	1.0
sec-Butylbenzene	ND		0.75	1.0
Styrene	ND		0.73	1.0
Tert-amyl methyl ether	ND		0.27	1.0
tert-Butylbenzene	ND		0.81	1.0
Tetrachloroethene	ND		0.36	1.0
Tetrahydrofuran	ND		1.3	5.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
trans-1,4-Dichloro-2-butene	ND		0.22	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

HP5973G

Client: Waste Management Job Number: 280-62688-1

Method Blank - Batch: 480-216P16

Method: 8260C pre5aration: P030C

Instrument ID:

Lab Sample ID: MB 480-216516/7 Analysis Batch: 480-216516 Client Matrix: Water Prep Batch: N/A Dilution: Leach Batch: N/A 1.0 Analysis Date: 12/01/2014 1247 Units: ug/L Prep Date: 12/01/2014 1247

Lab File ID: G36893.D Initial Weight/Volume: 5 mL Final Weight/Volume: 5 mL

Leach Date: N/A

 Analyte
 Result
 Qual
 MDL
 RL

 Vinyl acetate
 ND
 0.85
 5.0

 Vinyl chloride
 ND
 0.90
 1.0

 Surrogate
 % Rec
 Acceptance Limits

 1,2-Dichloroethane-d4 (Surr)
 98
 66 - 137

 4-Bromofluorobenzene (Surr)
 105
 73 - 120

 Toluene-d8 (Surr)
 101
 71 - 126

Method Blank TICs- Batch: 480-216P16

Cas Number Analyte RT Est. Result (ug/L Qual 67-72-1 Hexachloroethane TIC 0.00 ND

Lab Control Sam5le - Batch: 480-216P16

Method: 8260C pre5aration: P030C

 Lab Sample ID:
 LCS 480-216516/39

 Client Matrix:
 Water

 Dilution:
 1.0

 Analysis Date:
 12/01/2014 1140

 Prep Date:
 12/01/2014 1140

N/A

Leach Date:

Analysis Batch: Prep Batch: Leach Batch: Units: 480-216516 N/A N/A ug/L Instrument ID: HP5973G
Lab File ID: G36890.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

nalyte	Spike Amount	Result	% Rec.	Limit	Qual
1-Dichloroethane	25.0	24.4	98	71 - 129	
1-Dichloroethene	25.0	24.9	100	58 - 121	
2,4-Trimethylbenzene	25.0	24.1	97	76 - 121	
2-Dichlorobenzene	25.0	25.1	100	80 - 124	
2-Dichloroethane	25.0	23.7	95	75 - 127	
enzene	25.0	25.1	101	71 - 124	
hlorobenzene	25.0	25.3	101	72 - 120	
s-1,2-Dichloroethene	25.0	25.5	102	74 - 124	
thylbenzene	25.0	24.4	98	77 - 123	
lethyl tert-butyl ether	25.0	24.2	97	64 - 127	
-Xylene & p-Xylene	25.0	25.1	100	76 - 122	
-Xylene	25.0	24.6	99	76 - 122	
etrachloroethene	25.0	26.7	107	74 - 122	
oluene	25.0	25.0	100	80 - 122	
ans-1,2-Dichloroethene	25.0	26.9	108	73 - 127	
richloroethene	25.0	25.7	103	74 - 123	
urrogate	%	Rec	А	cceptance Limits	
2-Dichloroethane-d4 (Surr)	9	5		66 - 137	
Bromofluorobenzene (Surr)	1	00	73 - 120		
oluene-d8 (Surr)	98		71 - 126		

Matrix S5ike/ Method: 8260C
Matrix S5ike Du5licate Recovery Re5ort - Batch: 480-216P16 pre5aration: P030C

MS Lab Sample ID: Client Matrix: Dilution: Analysis Date: Prep Date: Leach Date:	480-71963-B-2 MS Water 40 12/01/2014 2109 12/01/2014 2109 N/A	Prep	ysis Batch: Batch: ch Batch:	480-216516 N/A N/A			HP5973G G36915.D 5 mL 5 mL 5 mL	
MSD Lab Sample ID Client Matrix: Dilution: Analysis Date: Prep Date: Leach Date:	2: 480-71963-B-2 MSD Water 40 12/01/2014 2132 12/01/2014 2132 N/A	Prep	ysis Batch: Batch: ch Batch:	480-216516 N/A N/A			HP5973G G36916.D 5 mL 5 mL 5 mL	
		0/2	Rec.					
Analyte		MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
1,1-Dichloroethane		108	104	71 - 129	4	20		
1,1-Dichloroethene		106	103	58 - 121	3	16		
1,2-Dichloroethane		98	96	75 - 127	2	20		
Benzene		106	101	71 - 124	4	13		
Chlorobenzene		107	104	72 - 120	3	25		
cis-1,2-Dichloroethe	ne	108	105	74 - 124	3	15		
Ethylbenzene		106	102	77 - 123	4	15		
m-Xylene & p-Xylene	е	107	101	76 - 122	5	16		
o-Xylene		108	104	76 - 122	4	16		
Tetrachloroethene		112	108	74 - 122	4	20		
Toluene		103	98	80 - 122	4	15		
trans-1,2-Dichloroetl	nene	109	104	73 - 127	5	20		
Trichloroethene		109	106	74 - 123	2	16		
Surrogate			MS % Rec	MSD %	% Rec	Acc	eptance Limits	
1,2-Dichloroethane-	d4 (Surr)		97	95		6	66 - 137	
4-Bromofluorobenze	ne (Surr)		103	101			'3 - 120	
Toluene-d8 (Surr)			100	100		7	'1 - 126	

Client: Waste Management Job Number: 280-62688-1

Matrix S5ike/ Method: 8260C Matrix S5ike Du5licate Recovery Re5ort - Batch: 480-216P16 pre5aration: P030C

MS Lab Sample ID:

480-71963-B-2 MS

Units: ug/L

MSD Lab Sample ID: 480-71963-B-2 MSD

Client Matrix:

Water

Client Matrix:

Water

Dilution: 40

Dilution: 40

Analysis Date: Prep Date:

12/01/2014 2109 12/01/2014 2109 Analysis Date: 12/01/2014 2132 Prep Date: 12/01/2014 2132

Leach Date: N/A Leach Date: N/A

Analyte	Sample Result/C	ual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
1,1-Dichloroethane	ND		1000	1000	1080	1040
1,1-Dichloroethene	ND		1000	1000	1060	1030
1,2-Dichloroethane	ND		1000	1000	978	962
Benzene	21	J	1000	1000	1080	1030
Chlorobenzene	ND		1000	1000	1070	1040
cis-1,2-Dichloroethene	ND		1000	1000	1080	1050
Ethylbenzene	ND		1000	1000	1060	1020
m-Xylene & p-Xylene	68	J	1000	1000	1130	1080
o-Xylene	30	J	1000	1000	1080	1040
Tetrachloroethene	ND		1000	1000	1120	1080
Toluene	190		1000	1000	1220	1180
rans-1,2-Dichloroethene	ND		1000	1000	1090	1040
Trichloroethene	ND		1000	1000	1090	1060

#### Method Blank - Batch: 480-21667P

Method: 8260C pre5aration: P030C

Lab Sample ID: Analysis Batch: 480-216695 Instrument ID: HP5973G MB 480-216695/11 Client Matrix: Water Prep Batch: N/A Lab File ID: G36927.D Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 5 mL Units: Final Weight/Volume: Analysis Date: 12/02/2014 1204 ug/L 5 mL Prep Date: 12/02/2014 1204

Leach Date: N/A

Analyte	Result	Qual	MDL	RL	
1,1,1,2-Tetrachloroethane	ND		0.35	1.0	
1,1,1-Trichloroethane	ND		0.82	1.0	
1,1,2,2-Tetrachloroethane	ND		0.21	1.0	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0	
1,1,2-Trichloroethane	ND		0.23	1.0	
1,1-Dichloroethane	ND		0.38	1.0	
1,1-Dichloroethene	ND		0.29	1.0	
1,1-Dichloropropene	ND		0.72	1.0	
1,2,3-Trichlorobenzene	ND		0.41	1.0	
1,2,3-Trichloropropane	ND		0.89	1.0	
1,2,4-Trichlorobenzene	ND		0.41	1.0	
1,2,4-Trimethylbenzene	ND		0.75	1.0	
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0	
1,2-Dibromoethane (EDB)	ND		0.73	1.0	
1,2-Dichlorobenzene	ND		0.79	1.0	
1,2-Dichloroethane	ND		0.21	1.0	
1,2-Dichloroethane	ND		0.81	2.0	
1,2-Dichloropropane	ND		0.72	1.0	
	ND ND		0.72	1.0	
1,3,5-Trichlorobenzene	ND ND		0.23	1.0	
1,3,5-Trimethylbenzene					
1,3-Dichlorobenzene	ND		0.78	1.0	
1,3-Dichloropropane	ND		0.75	1.0	
1,4-Dichlorobenzene	ND		0.84	1.0	
1,4-Dioxane	ND		9.3	40	
2,2-Dichloropropane	ND		0.40	1.0	
2-Butanone (MEK)	ND		1.3	10	
2-Chloroethyl vinyl ether	ND		0.96	5.0	
2-Hexanone	ND		1.2	5.0	
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0	
Acetone	ND		3.0	10	
Acetonitrile	ND		4.9	15	
Acrolein	ND		0.91	20	
Acrylonitrile	ND		0.83	5.0	
Benzene	ND		0.41	1.0	
Bromobenzene	ND		0.80	1.0	
Bromochloromethane	ND		0.87	1.0	
Bromodichloromethane	ND		0.39	1.0	
Bromoform	ND		0.26	1.0	
Bromomethane	ND		0.69	1.0	
Butyl alcohol, n-	ND		8.9	40	
Butyl alcohol, tert-	ND		3.3	10	
Carbon disulfide	ND		0.19	1.0	
Carbon tetrachloride	ND		0.27	1.0	
Chlorobenzene	ND		0.75	1.0	
Chlorodifluoromethane	ND		0.26	1.0	
55. Samuoi omotinano	ND		3.20	1.5	

#### Method Blank - Batch: 480-21667P

Method: 8260C pre5aration: P030C

Lab Sample ID: 480-216695 Instrument ID: HP5973G MB 480-216695/11 Analysis Batch: Client Matrix: Water Prep Batch: N/A Lab File ID: G36927.D Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 5 mL Units: Final Weight/Volume: Analysis Date: 12/02/2014 1204 ug/L 5 mL Prep Date: 12/02/2014 1204

Leach Date: N/A

Analyte	Result	Qual	MDL	RL
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dibromochloromethane	ND		0.32	1.0
Dibromomethane	ND		0.41	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Dichlorofluoromethane	ND		0.34	1.0
Ethyl acetate	ND		0.66	1.0
Ethyl ether	ND		0.72	1.0
Ethyl tert-butyl ether	ND		0.29	1.0
Ethylbenzene	ND		0.74	1.0
Hexachlorobutadiene	ND		0.28	1.0
Hexane	ND		0.40	10
lodomethane	ND		0.30	1.0
Isobutanol	ND		4.8	25
Isopropyl ether	ND		0.59	1.0
Isopropylbenzene	ND		0.79	1.0
Methacrylonitrile	ND		0.69	5.0
Methyl acetate	ND		0.50	2.5
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
m-Xylene & p-Xylene	ND		0.66	2.0
Naphthalene	ND		0.43	1.0
n-Butylbenzene	ND		0.64	1.0
N-Propylbenzene	ND		0.69	1.0
o-Chlorotoluene	ND		0.86	1.0
o-Xylene	ND		0.76	1.0
p-Chlorotoluene	ND		0.84	1.0
p-Cymene	ND		0.31	1.0
sec-Butylbenzene	ND		0.75	1.0
Styrene	ND		0.73	1.0
Tert-amyl methyl ether	ND		0.27	1.0
tert-Butylbenzene	ND		0.81	1.0
Tetrachloroethene	ND		0.36	1.0
Tetrahydrofuran	ND		1.3	5.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
trans-1,4-Dichloro-2-butene	ND		0.22	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Client: Waste Management Job Number: 280-62688-1

Method Blank - Batch: 480-21667P

Method: 8260C pre5aration: P030C

Lab Sample ID: MB 480-216695/11 Client Matrix: Water Dilution: 1.0 Analysis Date: 12/02/2014 1204 Prep Date: 12/02/2014 1204

Analysis Batch: Prep Batch: Leach Batch: Units:

480-216695 N/A N/A ug/L

Instrument ID: Lab File ID: Initial Weight/Volume: Final Weight/Volume: 5 mL

HP5973G G36927.D 5 mL

Leach Date: N/A

Analyte	Result	Qual	MDL	RL
Vinyl acetate	ND		0.85	5.0
Vinyl chloride	ND		0.90	1.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	102	66 - 137
4-Bromofluorobenzene (Surr)	103	73 - 120
Toluene-d8 (Surr)	101	71 - 126

Method Blank TICs- Batch: 480-21667P

Cas Number	Analyte	RT	Est. Result (ug/L	Qual
67-72-1	Hexachloroethane TIC	0.00	ND	

Lab Control Sam5le - Batch: 480-21667P

Method: 8260C pre5aration: P030C

 Lab Sample ID:
 LCS 480-216695/8

 Client Matrix:
 Water

 Dilution:
 1.0

 Analysis Date:
 12/02/2014 1119

 Prep Date:
 12/02/2014 1119

N/A

Leach Date:

Analysis Batch: Prep Batch: Leach Batch: Units: 480-216695 N/A N/A ug/L Instrument ID: HP5973G
Lab File ID: G36925.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1-Dichloroethane	25.0	26.2	105	71 - 129	
1,1-Dichloroethene	25.0	25.6	102	58 - 121	
1,2,4-Trimethylbenzene	25.0	25.3	101	76 - 121	
1,2-Dichlorobenzene	25.0	26.3	105	80 - 124	
1,2-Dichloroethane	25.0	24.2	97	75 - 127	
Benzene	25.0	25.9	104	71 - 124	
Chlorobenzene	25.0	26.4	106	72 - 120	
cis-1,2-Dichloroethene	25.0	26.0	104	74 - 124	
Ethylbenzene	25.0	26.0	104	77 - 123	
Methyl tert-butyl ether	25.0	25.0	100	64 - 127	
m-Xylene & p-Xylene	25.0	26.7	107	76 - 122	
o-Xylene	25.0	26.4	106	76 - 122	
Tetrachloroethene	25.0	27.9	112	74 - 122	
Toluene	25.0	26.1	105	80 - 122	
trans-1,2-Dichloroethene	25.0	27.8	111	73 - 127	
Trichloroethene	25.0	26.6	106	74 - 123	
Surrogate	%	Rec	А	cceptance Limits	
1,2-Dichloroethane-d4 (Surr)	9	6		66 - 137	
4-Bromofluorobenzene (Surr)	1	04		73 - 120	
Toluene-d8 (Surr)	1	03		71 - 126	

71 - 126

Client: Waste Management Job Number: 280-62688-1

Matrix S5ike/
Matrix S5ike Du5licate Recovery Re5ort - Batch: 480-21667P

Method: 8260C pre5aration: P030C

MS Lab Sample ID: Client Matrix: Dilution: Analysis Date: Prep Date: Leach Date:	480-71779-F-7 MS Water 1.0 12/02/2014 1647 12/02/2014 1647 N/A	Prep	lysis Batch: o Batch: ch Batch:	480-216695 N/A N/A			HP5973G G36939.D 5 mL 5 mL 5 mL	
MSD Lab Sample ID Client Matrix: Dilution: Analysis Date: Prep Date: Leach Date:	0: 480-71779-F-7 MSD Water 1.0 12/02/2014 1709 12/02/2014 1709 N/A	Prep	lysis Batch: o Batch: ch Batch:	480-216695 N/A N/A			HP5973G G36940.D 5 mL 5 mL 5 mL	
		%	Rec.					
Analyte		MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
1,1-Dichloroethane		126	122	71 - 129	3	20		
1,1-Dichloroethene		123	123	58 - 121	0	16	F1	F1
1,2-Dichlorobenzene	e	115	113	80 - 124	2	20		
1,2-Dichloroethane		113	110	75 - 127	3	20		
Benzene		121	120	71 - 124	1	13		
Chlorobenzene		120	117	72 - 120	3	25		
cis-1,2-Dichloroethe	ne	120	122	74 - 124	1	15		
Ethylbenzene		119	115	77 - 123	3	15		
m-Xylene & p-Xylene	e	122	116	76 - 122	5	16		
o-Xylene		120	116	76 - 122	3	16		
Tetrachloroethene		129	125	74 - 122	3	20	F1	F1
Toluene		120	117	80 - 122	3	15		
trans-1,2-Dichloroetl	hene	123	132	73 - 127	8	20		F1
Trichloroethene		123	125	74 - 123	1	16		F1
Surrogate			MS % Rec	MSD %	% Rec	Acc	eptance Limits	3
1,2-Dichloroethane-	d4 (Surr)		100	98			66 - 137	
4-Bromofluorobenze	ene (Surr)		106	102		-	73 - 120	

101

98

Toluene-d8 (Surr)

Client: Waste Management Job Number: 280-62688-1

Matrix S5ike/ Method: 8260C
Matrix S5ike Du5licate Recovery Re5ort - Batch: 480-21667P pre5aration: P030C

Units: ug/L

MS Lab Sample ID: 480-71779-F-7 MS

Client Matrix: Water Dilution: 1.0

Analysis Date: 12/02/2014 1647 Prep Date: 12/02/2014 1647

Leach Date: N/A

MSD Lab Sample ID: 480-71779-F-7 MSD

Client Matrix: Water Dilution: 1.0

Analysis Date: 12/02/2014 1709 Prep Date: 12/02/2014 1709

Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/0	Dual	MSD Result/Q	ual
1.1-Dichloroethane	ND	25.0	25.0	31.5	guui	30.5	
,							
1,1-Dichloroethene	ND	25.0	25.0	30.7	F1	30.7	F1
1,2-Dichlorobenzene	ND	25.0	25.0	28.8		28.3	
1,2-Dichloroethane	ND	25.0	25.0	28.3		27.6	
Benzene	ND	25.0	25.0	30.3		30.0	
Chlorobenzene	ND	25.0	25.0	30.1		29.1	
cis-1,2-Dichloroethene	ND	25.0	25.0	30.1		30.5	
Ethylbenzene	ND	25.0	25.0	29.7		28.7	
m-Xylene & p-Xylene	ND	25.0	25.0	30.5		28.9	
o-Xylene	ND	25.0	25.0	30.0		29.0	
Tetrachloroethene	ND	25.0	25.0	32.2	F1	31.4	F1
Toluene	ND	25.0	25.0	30.0		29.2	
trans-1,2-Dichloroethene	ND	25.0	25.0	30.6		33.0	F1
Trichloroethene	ND	25.0	25.0	30.9		31.2	F1

Method Blank - Batch: 480-21P963 Method: 8260C SIM pre5aration: P030C

480-215763 Lab Sample ID: Instrument ID: HP5973J MB 480-215763/7 Analysis Batch: Client Matrix: Water Prep Batch: N/A Lab File ID: J4138.D N/A Dilution: 1.0 Leach Batch: Initial Weight/Volume: 25 mL Analysis Date: 11/25/2014 0250 Units: Final Weight/Volume: 25 mL ug/L

Prep Date: 11/25/2014 0250

Leach Date: N/A

Analyte Result Qual MDL RL Vinyl chloride ND 0.0040 0.020 Surrogate % Rec Acceptance Limits Dibromofluoromethane (Surr) 95 50 - 150 TBA-d9 (Surr) 50 - 150 112

Lab Control Sam5le/ Method: 8260C SIM
Lab Control Sam5le Du5licate Recovery Re5ort - Batch: 480-21P963 pre5aration: P030C

LCS Lab Sample ID: Instrument ID: LCS 480-215763/5 Analysis Batch: 480-215763 HP5973J Client Matrix: Water Prep Batch: N/A Lab File ID: J4135.D Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 25 mL Analysis Date: 11/25/2014 0138 Units: ug/L Final Weight/Volume: 25 mL Prep Date: 11/25/2014 0138 25 mL

Leach Date: N/A

LCSD Lab Sample ID: LCSD 480-215763/6 Analysis Batch: 480-215763 Instrument ID: HP5973J Client Matrix: Water Prep Batch: N/A Lab File ID: J4136.D Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 25 mL Analysis Date: 11/25/2014 0202 Units: ug/L Final Weight/Volume: 25 mL 11/25/2014 0202 Prep Date: 25 mL

Leach Date: N/A

% Rec. LCS LCSD RPD LCS Qual LCSD Qual Analyte Limit **RPD Limit** Vinyl chloride 120 123 50 - 150 2 20 Surrogate LCS % Rec LCSD % Rec Acceptance Limits 102 Dibromofluoromethane (Surr) 101 50 - 150 50 - 150 TBA-d9 (Surr) 104 109

Client: Waste Management Job Number: 280-62688-1

Laboratory Control/ Method: 8260C SIM Laboratory Du5licate Data Re5ort - Batch: 480-21P963 pre5aration: P030C

LCS Lab Sample ID: LCS 480-215763/5 Units: ug/L LCSD Lab Sample ID: LCSD 480-215763/6

Client Matrix:WaterClient Matrix:WaterDilution:1.0Dilution:1.0

 Analysis Date:
 11/25/2014
 0138
 Analysis Date:
 11/25/2014
 0202

 Prep Date:
 11/25/2014
 0138
 Prep Date:
 11/25/2014
 0202

Leach Date: N/A Leach Date: N/A

Analyte LCS Spike LCSD Spike LCS LCSD Amount Result/Qual Result/Qual Vinyl chloride 0.200 0.200 0.240 0.245

Client: Waste Management Job Number: 280-62688-1

Method Blank - Batch: 280-2P3866

Method: 6010B pre5aration: 300PA **Total Recoverable** 

Lab Sample ID: MB 280-253866/1-A

Client Matrix: Water Dilution: 1.0

Analysis Date: 12/03/2014 0821 Prep Date: 11/20/2014 0815

Leach Date: N/A Analysis Batch: 280-255598

Prep Batch: 280-253866 Leach Batch: N/A Units:

mg/L

Instrument ID: MT\_026 Lab File ID: 26g120214.asc

Initial Weight/Volume: 50 mL Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL	RL
Calcium, Dissolved	ND		0.040	0.040
Cobalt, Dissolved	ND		0.0030	0.0030
Iron, Dissolved	ND		0.060	0.060
Magnesium, Dissolved	ND		0.050	0.050
Potassium, Dissolved	ND		1.0	1.0
Sodium, Dissolved	ND	٨	1.0	1.0

Lab Control Sam5le - Batch: 280-2P3866

Method: 6010B pre5aration: 300PA **Total Recoverable** 

Lab Sample ID: LCS 280-253866/2-A Client Matrix: Water Dilution: 1.0

Analysis Date: 12/03/2014 0824 Prep Date: 11/20/2014 0815

Leach Date: N/A

Analysis Batch: 280-255598 Instrument ID: MT\_026 Prep Batch: 280-253866 Lab File ID: 26g120214.asc Leach Batch: 50 mL N/A Initial Weight/Volume: Units: Final Weight/Volume: 50 mL mg/L

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Calcium, Dissolved	50.0	52.4	105	90 - 111	
Cobalt, Dissolved	0.500	0.518	104	89 - 111	
Iron, Dissolved	1.00	1.01	101	89 - 115	
Magnesium, Dissolved	50.0	51.4	103	90 - 113	
Potassium, Dissolved	50.0	54.2	108	89 - 114	
Sodium, Dissolved	50.0	57.1	114	90 - 115	

Client: Waste Management Job Number: 280-62688-1

Matrix S5ike/

Matrix S5ike Du5licate Recovery Re5ort - Batch: 280-2P3866

280-62682-H-2-B MS

280-62682-H-2-C MSD

Method: 6010B pre5aration: 300PA

Dissolved

MS Lab Sample ID: Client Matrix:

Water

Analysis Batch: Prep Batch:

280-255598 280-253866 Instrument ID: Lab File ID:

MT\_026

Dilution:

1.0

Leach Batch:

N/A

Initial Weight/Volume: Final Weight/Volume:

26g120214.asc 50 mL

50 mL

Analysis Date: Prep Date: Leach Date:

12/03/2014 0832

N/A

11/20/2014 0815

Analysis Batch:

280-255598 280-253866

N/A

Instrument ID: Lab File ID:

MT 026 26g120214.asc

Client Matrix: Dilution: Analysis Date:

MSD Lab Sample ID:

Water 1.0

12/03/2014 0834

11/20/2014 0815

Initial Weight/Volume: Final Weight/Volume:

50 mL 50 mL

MS Qual

MSD Qual

Prep Date: Leach Date:

N/A

|--|

Prep Batch:

Leach Batch:

Analyte	MS	MSD	Limit	RPD	RPD Limit
Calcium, Dissolved	108	102	48 - 153	2	20
Cobalt, Dissolved	103	101	82 - 119	2	20
Iron, Dissolved	102	99	52 - 155	3	20
Magnesium, Dissolved	103	100	62 - 146	2	20
Potassium, Dissolved	110	107	76 - 132	3	20
Sodium, Dissolved	115	111	70 - 203	2	20

Matrix S5ike/

Matrix S5ike Du5licate Recovery Re5ort - Batch: 280-2P3866

Method: 6010B pre5aration: 300PA

Dissolved

MS Lab Sample ID:

280-62682-H-2-B MS

Units: mg/L

MSD Lab Sample ID:

280-62682-H-2-C MSD

Client Matrix:

Water

Client Matrix:

Water 1.0

Dilution: Analysis Date: 1.0

Dilution: Analysis Date:

12/03/2014 0834

Prep Date:

12/03/2014 0832 11/20/2014 0815

Prep Date:

11/20/2014 0815

Leach Date: N/A Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Calcium, Dissolved	70	50.0	50.0	123	121
Cobalt, Dissolved	ND	0.500	0.500	0.514	0.505
Iron, Dissolved	ND	1.00	1.00	1.02	0.995
Magnesium, Dissolved	21	50.0	50.0	73.1	71.4
Potassium, Dissolved	2.7	50.0	50.0	57.8	56.2
Sodium, Dissolved	20	50.0	50.0	77.5	75.8

Job Number: 280-62688-1 Client: Waste Management

Method Blank - Batch: 280-2P3893

Method: 6010B pre5aration: 300PA **Total Recoverable** 

Lab Sample ID: MB 280-253873/1-A

Client Matrix: Water

Dilution: 1.0 12/01/2014 0318 Analysis Date: Prep Date: 11/20/2014 1400

Leach Date: N/A Analysis Batch: 280-255260 Instrument ID:

Prep Batch: 280-253873 Leach Batch: N/A Units:

mg/L

MT\_026 Lab File ID: 26d113014.asc

Initial Weight/Volume: 50 mL Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL	RL
Cobalt, Total	ND		0.0030	0.0030
Iron, Total	ND		0.060	0.060

Lab Control Sam5le - Batch: 280-2P3893

Method: 6010B pre5aration: 300PA **Total Recoverable** 

Lab Sample ID: LCS 280-253873/2-A Water Client Matrix: Dilution: 1.0

12/01/2014 0321 Analysis Date: Prep Date: 11/20/2014 1400

Leach Date: N/A

Analysis Batch: 280-255260 MT 026 Instrument ID: Prep Batch: 280-253873 Lab File ID: 26d113014.asc Leach Batch: N/A Initial Weight/Volume: 50 mL

Units: 50 mL mg/L Final Weight/Volume:

Analyte Spike Amount Result % Rec. Limit Qual Cobalt, Total 0.524 0.500 105 89 - 111 Iron, Total 1.00 1.10 110 89 - 115

N/A

Leach Batch:

Matrix S5ike/

Matrix S5ike Du5licate Recovery Re5ort - Batch: 280-2P3893

Method: 6010B pre5aration: 300PA **Total Recoverable** 

MS Lab Sample ID: 280-62687-D-1-B MS Client Matrix: Water Dilution: 1.0 Analysis Date: 12/01/2014 0403

Prep Date: 11/20/2014 1400 Analysis Batch: 280-255260 Instrument ID: MT\_026 Prep Batch: 280-253873 Lab File ID: 26d113014.asc

> Initial Weight/Volume: 50 mL 50 mL Final Weight/Volume:

Leach Date:

MSD Lab Sample ID: 280-62687-D-1-C MSD Client Matrix: Water

Dilution: 1.0 12/01/2014 0406 Analysis Date:

Prep Date: 11/20/2014 1400

Leach Date: N/A Analysis Batch: 280-255260 Instrument ID: MT\_026 Prep Batch: 280-253873 Lab File ID: 26d113014.asc

Leach Batch: N/A Initial Weight/Volume: 50 mL Final Weight/Volume: 50 mL

% Rec.

Analyte MS MSD Limit **RPD RPD Limit** MS Qual MSD Qual Cobalt. Total 107 102 82 - 119 4 20 52 - 155 Iron, Total 213 163 4 20 4 4

Client: Waste Management Job Number: 280-62688-1

Matrix S5ike/
Matrix S5ike Du5licate Recovery Re5ort - Batch: 280-2P3893

Method: 6010B pre5aration: 300PA Total Recoverable

MS Lab Sample ID:

280-62687-D-1-B MS

Units: mg/L

MSD Lab Sample ID: 2

280-62687-D-1-C MSD

Client Matrix:

Water 1.0 Client Matrix:

Water

Dilution: Analysis Date:

12/01/2014 0403

Dilution: 1.0 Analysis Date: 12/0

12/01/2014 0406

Prep Date:

11/20/2014 1400

Prep Date:

11/20/2014 1400

Leach Date:

N/A

Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qu	ıal	MSD Result/Qu	ual
Cobalt, Total Iron, Total	ND 11	0.500 1.00	0.500 1.00	0.535 12.8	4	0.512 12.3	4

Method Blank - Batch: 280-2P3869

Method: 6020 pre5aration: 300PA **Total Recoverable** 

Lab Sample ID: MB 280-253867/1-A Client Matrix: Water

Dilution: 1.0 Analysis Date: 11/20/2014 1851

Prep Date: 11/20/2014 0815

Leach Date: N/A Analysis Batch: 280-254233 Prep Batch: 280-253867 Leach Batch: N/A Units: mg/L

Instrument ID: MT\_024 Lab File ID: 045 BLK.D Initial Weight/Volume: 50 mL

Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL	RL
Antimony, Dissolved	ND		0.0010	0.0010
Barium, Dissolved	ND		0.0010	0.0010
Beryllium, Dissolved	ND		0.0010	0.0010
Cadmium, Dissolved	ND		0.00020	0.00020
Chromium, Dissolved	ND		0.0030	0.0030
Copper, Dissolved	ND		0.0020	0.0020
Lead, Dissolved	ND		0.0010	0.0010
Manganese, Dissolved	ND		0.0010	0.0010
Nickel, Dissolved	ND		0.0040	0.0040
Selenium, Dissolved	ND		0.0010	0.0010
Silver, Dissolved	ND		0.0020	0.0020
Thallium, Dissolved	ND		0.0010	0.0010
Vanadium, Dissolved	ND		0.0020	0.0020
Zinc, Dissolved	ND		0.0050	0.0050

Lab Control Sam5le - Batch: 280-2P3869

Method: 6020 pre5aration: 300PA **Total Recoverable** 

Lab Sample ID: LCS 280-253867/2-A

Client Matrix: Water Dilution: 1.0 11/20/2014 1854 Analysis Date:

Prep Date: 11/20/2014 0815

Leach Date: N/A

Analysis Batch: 280-254233 Prep Batch: 280-253867 Leach Batch: N/A Units: mg/L

MT\_024 Instrument ID: Lab File ID: 046\_LCS.D Initial Weight/Volume: 50 mL Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Antimony, Dissolved	0.0400	0.0375	94	85 - 115	
Barium, Dissolved	0.0400	0.0419	105	85 - 118	
Beryllium, Dissolved	0.0400	0.0409	102	80 - 125	
Cadmium, Dissolved	0.0400	0.0408	102	85 - 115	
Chromium, Dissolved	0.0400	0.0404	101	84 - 121	
Copper, Dissolved	0.0400	0.0413	103	85 - 119	
ead, Dissolved	0.0400	0.0431	108	85 - 118	
Manganese, Dissolved	0.0400	0.0413	103	85 - 117	
Nickel, Dissolved	0.0400	0.0409	102	85 - 119	
Selenium, Dissolved	0.0400	0.0447	112	77 - 122	
Silver, Dissolved	0.0400	0.0406	101	85 - 115	
Thallium, Dissolved	0.0400	0.0422	106	85 - 118	
/anadium, Dissolved	0.0400	0.0389	97	85 - 120	
Zinc, Dissolved	0.0400	0.0436	109	83 - 122	

Matrix S5ike/
Matrix S5ike Du5licate Recovery Re5ort - Batch: 280-2P3869

Method: 6020 pre5aration: 300PA

Dissolved

MS Lab Sample ID: 280 Client Matrix: Water Dilution: 1.0

 280-62688-6
 Analysis Batch:
 280-254233

 ater
 Prep Batch:
 280-253867

 Leach Batch:
 N/A

94

94

Instrument ID: MT\_024
Lab File ID: 059\_MS.D
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analysis Date: 11/20/2014 1933 Prep Date: 11/20/2014 0815

Leach Date: N/A

MSD Lab Sample ID: 280-62688-6 Client Matrix: Water Dilution: 1.0

Analysis Date: 11/20/2014 1936 Prep Date: 11/20/2014 0815

Leach Date: N/A

Zinc, Dissolved

 Analysis Batch:
 280-254233
 Instrument ID:
 MT\_024

 Prep Batch:
 280-253867
 Lab File ID:
 060\_MSD.D

 Leach Batch:
 N/A
 Initial Weight/Volume:
 50 mL

 Final Weight/Volume:
 50 mL

% Rec. RPD **RPD** Limit Analyte MS MSD Limit MS Qual MSD Qual Antimony, Dissolved 85 - 115 96 97 1 20 Barium, Dissolved 105 105 85 - 118 1 20 104 103 80 - 125 1 20

Beryllium, Dissolved Cadmium, Dissolved 103 101 85 - 115 1 20 Chromium, Dissolved 100 99 84 - 121 1 20 Copper, Dissolved 102 102 85 - 119 0 20 2 20 Lead, Dissolved 105 103 85 - 118 Manganese, Dissolved 240 82 85 - 117 3 20 2 20 Nickel, Dissolved 103 101 85 - 119 Selenium, Dissolved 111 111 77 - 122 1 20 85 - 115 1 20 Silver, Dissolved 99 99 1 20 Thallium, Dissolved 105 103 85 - 118 0 Vanadium, Dissolved 101 100 85 - 120 20

83 - 122

0

20

Client: Waste Management Job Number: 280-62688-1

Units: mg/L

Matrix S5ike/
Matrix S5ike Du5licate Recovery Re5ort - Batch: 280-2P3869

Method: 6020 pre5aration: 300PA

Dissolved

MS Lab Sample ID: 280-62688-6

Client Matrix: Water Dilution: 1.0

Analysis Date: 11/20/2014 1933 Prep Date: 11/20/2014 0815

Leach Date: N/A

MSD Lab Sample ID: 280-62688-6
Client Matrix: Water
Dilution: 1.0

Analysis Date: 11/20/2014 1936 Prep Date: 11/20/2014 0815

Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Antimony, Dissolved	ND	0.0400	0.0400	0.0385	0.0388
Barium, Dissolved	0.013	0.0400	0.0400	0.0553	0.0550
Beryllium, Dissolved	ND	0.0400	0.0400	0.0414	0.0410
Cadmium, Dissolved	ND	0.0400	0.0400	0.0411	0.0405
Chromium, Dissolved	ND	0.0400	0.0400	0.0402	0.0398
Copper, Dissolved	ND	0.0400	0.0400	0.0408	0.0406
Lead, Dissolved	ND	0.0400	0.0400	0.0422	0.0413
Manganese, Dissolved	2.1	0.0400	0.0400	2.24 4	2.17 4
Nickel, Dissolved	ND	0.0400	0.0400	0.0411	0.0404
Selenium, Dissolved	ND	0.0400	0.0400	0.0446	0.0442
Silver, Dissolved	ND	0.0400	0.0400	0.0398	0.0394
Thallium, Dissolved	ND	0.0400	0.0400	0.0419	0.0413
Vanadium, Dissolved	ND	0.0400	0.0400	0.0402	0.0401
Zinc, Dissolved	0.012	0.0400	0.0400	0.0494	0.0493

Client: Waste Management Job Number: 280-62688-1

Method Blank - Batch: 280-2P389P

Method: 6020 pre5aration: 300PA **Total Recoverable** 

Lab Sample ID: MB 280-253875/1-A Client Matrix: Water

Dilution: 1.0

Analysis Date: 11/21/2014 1953 Prep Date: 11/20/2014 1400

Leach Date: N/A Analysis Batch: 280-254546 Prep Batch: 280-253875

Leach Batch: N/A Units: mg/L

Instrument ID: MT\_024 Lab File ID: 051 BLK.D Initial Weight/Volume: 50 mL

Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL	RL
Antimony, Total	ND		0.0010	0.0010
Barium, Total	ND		0.0010	0.0010
Beryllium, Total	ND		0.0010	0.0010
Cadmium, Total	ND		0.00020	0.00020
Chromium, Total	ND		0.0030	0.0030
Copper, Total	ND		0.0020	0.0020
Lead, Total	ND		0.0010	0.0010
Manganese, Total	ND		0.0010	0.0010
Nickel, Total	ND		0.0040	0.0040
Selenium, Total	ND		0.0010	0.0010
Silver, Total	ND		0.0020	0.0020
Thallium, Total	ND		0.0010	0.0010
Vanadium, Total	ND		0.0020	0.0020

Method Blank - Batch: 280-2P389P Method: 6020 pre5aration: 300PA

**Total Recoverable** 

Lab Sample ID: MB 280-253875/1-A Client Matrix: Water Dilution: 1.0 Analysis Date: 11/24/2014 2229

Prep Date: 11/20/2014 1400

Leach Date: N/A Analysis Batch: 280-254731 MT\_024 Instrument ID: Prep Batch: 280-253875 Lab File ID: 082\_BLK.D Leach Batch: N/A Initial Weight/Volume: 50 mL Units: Final Weight/Volume: 50 mL mg/L

Analyte Result Qual RL RL Zinc, Total ND 0.0050 0.0050

Client: Waste Management Job Number: 280-62688-1

Lab Control Sam5le - Batch: 280-2P389P

LCS 280-253875/2-A

Method: 6020 pre5aration: 300PA **Total Recoverable** 

Client Matrix: Water Dilution: 1.0 Analysis Date: 11/21/2014 1956 11/20/2014 1400

Analysis Batch: Prep Batch: Leach Batch: Units:

280-254546 280-253875 N/A mg/L

Instrument ID: MT\_024 Lab File ID: 052 LCS.D Initial Weight/Volume: 50 mL Final Weight/Volume: 50 mL

Prep Date:

Leach Date: N/A

Lab Sample ID:

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Antimony, Total	0.0400	0.0402	101	85 - 115	
Barium, Total	0.0400	0.0450	112	85 - 118	
Beryllium, Total	0.0400	0.0431	108	80 - 125	
Cadmium, Total	0.0400	0.0426	107	85 - 115	
Chromium, Total	0.0400	0.0423	106	84 - 121	
Copper, Total	0.0400	0.0435	109	85 - 119	
Lead, Total	0.0400	0.0443	111	85 - 118	
Manganese, Total	0.0400	0.0432	108	85 - 117	
Nickel, Total	0.0400	0.0430	107	85 - 119	
Selenium, Total	0.0400	0.0459	115	77 - 122	
Silver, Total	0.0400	0.0432	108	85 - 115	
Thallium, Total	0.0400	0.0441	110	85 - 118	
Vanadium, Total	0.0400	0.0413	103	85 - 120	

Lab Control Sam5le - Batch: 280-2P389P

Method: 6020 pre5aration: 300PA **Total Recoverable** 

Lab Sample ID: Client Matrix: Dilution: Analysis Date: Prep Date:

LCS 280-253875/2-A Water 1.0

11/24/2014 2232

11/20/2014 1400

Analysis Batch: 280-254731 Prep Batch: 280-253875 Leach Batch: N/A Units: mg/L

Instrument ID: MT\_024 Lab File ID: 083\_LCS.D Initial Weight/Volume: 50 mL Final Weight/Volume: 50 mL

Qual

Leach Date: N/A

Analyte Spike Amount Result % Rec. Limit Zinc, Total 0.0400 0.0465 116 83 - 122

Job Number: 280-62688-1 Client: Waste Management

Matrix S5ike/ Matrix S5ike Du5licate Recovery Re5ort - Batch: 280-2P389P Method: 6020 pre5aration: 300PA **Total Recoverable** 

280-62688-6 MS Lab Sample ID: Client Matrix: Dilution:

Water 1.0

11/21/2014 2030

11/20/2014 1400

Leach Date: N/A

Analysis Date:

Prep Date:

280-62688-6 MSD Lab Sample ID: Client Matrix: Water Dilution: 1.0

Analysis Date: 11/21/2014 2033 Prep Date: 11/20/2014 1400

Leach Date: N/A

Analysis Batch: 280-254546 Prep Batch: 280-253875

N/A

Leach Batch: N/A

Analysis Batch:

Prep Batch:

Leach Batch:

Instrument ID: MT\_024 Lab File ID: 063 MS.D Initial Weight/Volume: 50 mL

Final Weight/Volume: 50 mL

Instrument ID: 280-254546 MT\_024 Lab File ID: 280-253875 064 MSD.D Initial Weight/Volume: 50 mL

Final Weight/Volume: 50 mL

% Rec. RPD **RPD** Limit Analyte MS MSD Limit MS Qual MSD Qual Antimony, Total 85 - 115 102 105 2 20 Barium, Total 110 112 85 - 118 1 20 Beryllium, Total 108 107 80 - 125 0 20 3 Cadmium, Total 106 109 85 - 115 20 Chromium, Total 105 104 84 - 121 0 20 Copper, Total 107 107 85 - 119 0 20 0 20 Lead, Total 85 - 118 110 110 Manganese, Total 263 233 85 - 117 1 20 2 20 Nickel, Total 108 106 85 - 119 Selenium, Total 114 113 77 - 122 1 20 85 - 115 2 20 Silver, Total 104 106 0 20 Thallium, Total 109 109 85 - 118 Vanadium, Total 108 107 85 - 120 1 20

Client: Waste Management Job Number: 280-62688-1

Matrix S5ike/ Matrix S5ike Du5licate Recovery Re5ort - Batch: 280-2P389P Method: 6020 pre5aration: 300PA **Total Recoverable** 

Final Weight/Volume:

Initial Weight/Volume:

Final Weight/Volume:

**RPD** Limit

20

MS Lab Sample ID: Client Matrix:

Water 1.0

280-62688-6 Analysis Batch: Prep Batch: Leach Batch:

280-254731 280-253875 N/A

Instrument ID: Lab File ID: Initial Weight/Volume: MT\_024 094 MS.D 50 mL

50 mL

Analysis Date: Prep Date: Leach Date:

Client Matrix:

Dilution:

11/24/2014 2306 11/20/2014 1400

N/A

MSD Lab Sample ID: 280-62688-6

Water 1.0

Dilution: 11/24/2014 2309 Analysis Date: Prep Date: 11/20/2014 1400

Leach Date:

Analysis Batch: Prep Batch: Leach Batch:

280-254731 280-253875 N/A

Instrument ID: Lab File ID:

MT\_024 095 MSD.D 50 mL 50 mL

MS Qual

MSD Qual

N/A

% Rec.

Analyte Zinc, Total

Limit RPD MS MSD 105 101 83 - 122 4

Client: Waste Management Job Number: 280-62688-1

Units: mg/L

Matrix S5ike/
Matrix S5ike Du5licate Recovery Re5ort - Batch: 280-2P389P

Method: 6020 pre5aration: 300PA Total Recoverable

MS Lab Sample ID: 280-62688-6

Client Matrix: Water Dilution: 1.0

Analysis Date: 11/21/2014 2030 Prep Date: 11/20/2014 1400

Leach Date: N/A

MSD Lab Sample ID: 280-62688-6

Client Matrix: Water Dilution: 1.0

Analysis Date: 11/21/2014 2033 Prep Date: 11/20/2014 1400

Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Antimony, Total	ND	0.0400	0.0400	0.0409	0.0418
Barium, Total	0.014	0.0400	0.0400	0.0585	0.0591
Beryllium, Total	ND	0.0400	0.0400	0.0431	0.0429
Cadmium, Total	ND	0.0400	0.0400	0.0426	0.0436
Chromium, Total	ND	0.0400	0.0400	0.0419	0.0418
Copper, Total	ND	0.0400	0.0400	0.0427	0.0426
Lead, Total	ND	0.0400	0.0400	0.0440	0.0438
Manganese, Total	2.2	0.0400	0.0400	2.34 4	2.33 4
Nickel, Total	ND	0.0400	0.0400	0.0431	0.0423
Selenium, Total	ND	0.0400	0.0400	0.0457	0.0452
Silver, Total	ND	0.0400	0.0400	0.0416	0.0424
Thallium, Total	ND	0.0400	0.0400	0.0438	0.0437
Vanadium, Total	ND	0.0400	0.0400	0.0433	0.0428

Matrix S5ike/

Matrix S5ike Du5licate Recovery Re5ort - Batch: 280-2P389P

Method: 6020 pre5aration: 300PA Total Recoverable

MS Lab Sample ID: 280-62688-6

Client Matrix: Water Dilution: 1.0

Analysis Date: 11/24/2014 2306 Prep Date: 11/20/2014 1400

Leach Date: N/A

MSD Lab Sample ID: 280-62688-6
Client Matrix: Water
Dilution: 1.0

Analysis Date: 11/24/2014 2309 Prep Date: 11/20/2014 1400

Leach Date: N/A

Amelista	Sample	MS Spike	MSD Spike	MS	MSD
Analyte	Result/Qual	Amount	Amount	Result/Qual	Result/Qual
Zinc, Total	0.0053	0.0400	0.0400	0.0475	0.0458

Units: mg/L

Client: Waste Management Job Number: 280-62688-1

Method Blank - Batch: 280-2P6264 Method: 6020

pre5aration: 300PA
Total Recoverable

Final Weight/Volume:

50 mL

Lab Sample ID: MB 280-256264/1-A Analysis Batch: 280-256387 Instrument ID:

MT\_077 Client Matrix: Water Prep Batch: 280-256264 Lab File ID: 208 BLK.d Dilution: Leach Batch: N/A Initial Weight/Volume: 50 mL 1.0 12/09/2014 0127 Units: Final Weight/Volume: 50 mL Analysis Date: mg/L

Prep Date: 12/08/2014 1330

Leach Date: N/A

 Analyte
 Result
 Qual
 RL
 RL

 Zinc, Total
 ND
 0.0050
 0.0050

Lab Control Sam5le - Batch: 280-2P6264 Method: 6020 pre5aration: 300PA Total Recoverable

LCS 280-256264/2-A Analysis Batch: 280-256387 MT 077 Lab Sample ID: Instrument ID: Client Matrix: Prep Batch: 280-256264 Lab File ID: 209 LCS.d Water Dilution: Leach Batch: Initial Weight/Volume: 50 mL 1.0 N/A 12/09/2014 0131 Units: mg/L Final Weight/Volume: 50 mL

Analysis Date: 12/09/2014 0131 Prep Date: 12/08/2014 1330

Leach Date: N/A

 Analyte
 Spike Amount
 Result
 % Rec.
 Limit
 Qual

 Zinc, Total
 0.0400
 0.0446
 112
 83 - 122

ZIIIC, 10tal 0.0400 0.0440 112 63 - 122

Matrix S5ike/ Method: 6020
Matrix S5ike Du5licate Recovery Re5ort - Batch: 280-2P6264 pre5aration: 300PA

MS Lab Sample ID: 280-62688-4 Analysis Batch: 280-256387 Instrument ID: MT\_077

Client Matrix: Water Prep Batch: 280-256264 Lab File ID: 212SMPL.d Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 50 mL Analysis Date: 12/09/2014 0142 Final Weight/Volume: 50 mL

Prep Date: 12/08/2014 1330

Leach Date: N/A

MSD Lab Sample ID: 280-62688-4 Analysis Batch: 280-256387 Instrument ID: MT 077 Client Matrix: Prep Batch: 213SMPL.d Water 280-256264 Lab File ID: Dilution: Leach Batch: N/A Initial Weight/Volume: 50 mL

Analysis Date: 12/09/2014 0146 Prep Date: 12/08/2014 1330

Leach Date: N/A

 MS
 MSD
 Limit
 RPD
 RPD Limit
 MS Qual
 MSD Qual

 Zinc, Total
 115
 110
 83 - 122
 5
 20

Client: Waste Management Job Number: 280-62688-1

Matrix S5ike/ Method: 6020 Matrix S5ike Du5licate Recovery Re5ort - Batch: 280-2P6264 pre5aration: 300PA

**Total Recoverable** 

MS Lab Sample ID: 280-62688-4 Units: mg/L MSD Lab Sample ID: 280-62688-4 Client Matrix: Water Client Matrix: Water Dilution: 1.0 Dilution: 1.0

Analysis Date: 12/09/2014 0142 Analysis Date: 12/09/2014 0146 Prep Date: 12/08/2014 1330 Prep Date: 12/08/2014 1330

Leach Date: N/A Leach Date: N/A

Analyte	Sample	MS Spike	MSD Spike	MS	MSD
	Result/Qual	Amount	Amount	Result/Qual	Result/Qual
Zinc, Total	ND	0.0400	0.0400	0.0460	0.0439

25 uL

25 uL

Client: Waste Management Job Number: 280-62688-1

Method Blank - Batch: 280-2P470P

Method: 300.0 pre5aration: N/A

Lab Sample ID: MB 280-254905/13 Analysis Batch: 280-254905 Instrument ID: WC\_lonChrom11

Client Matrix: Water Prep Batch: N/A Lab File ID: 0013.d N/A Dilution: 1.0 Leach Batch: Initial Weight/Volume: 5 mL Analysis Date: 11/26/2014 1146 Units: Final Weight/Volume: 5 mL mg/L

Prep Date: N/A Leach Date: N/A

 Analyte
 Result
 Qual
 RL
 RL

 Chloride
 ND
 1.0
 1.0

 Sulfate
 ND
 1.0
 1.0

Method Re5orting Limit Check - Batch: 280-2P470P Method: 300.0 pre5aration: N/A

Lab Sample ID: MRL 280-254905/10 Analysis Batch: 280-254905 Instrument ID: WC IonChrom11

Water Client Matrix: Prep Batch: N/A Lab File ID: 0010.d Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 5 mL 11/26/2014 1046 Units: 5 mL Analysis Date: mg/L Final Weight/Volume:

Prep Date: N/A Leach Date: N/A

Sulfate

Qual Analyte Spike Amount Result % Rec. Limit Chloride ND 2.50 92 50 - 150 Sulfate 2.50 ND95 50 - 150

Lab Control Sam5le/ Method: 300.0
Lab Control Sam5le Du5licate Recovery Re5ort - Batch: 280-2P470P pre5aration: N/A

LCS Lab Sample ID: LCS 280-254905/11 Analysis Batch: 280-254905 Instrument ID: WC\_IonChrom11

Client Matrix: N/A 0011.d Water Prep Batch: Lab File ID: Leach Batch: Initial Weight/Volume: 5 mL Dilution: 1.0 N/A Analysis Date: 11/26/2014 1106 Units: Final Weight/Volume: 5 mL mg/L

Prep Date: N/A
Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-254905/12 Analysis Batch: 280-254905 Instrument ID: WC\_lonChrom11

Client Matrix: Water Prep Batch: N/A Lab File ID: 0012.d Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 5 mL 11/26/2014 1126 Units: Final Weight/Volume: 5 mL Analysis Date: mg/L

Prep Date: N/A Leach Date: N/A

 Analyte
 Kec.

 LCS
 LCSD
 Limit
 RPD
 RPD Limit
 LCS Qual
 LCSD Qual

 Chloride
 97
 97
 90 - 110
 0
 10

90 - 110

0

10

95

95

Client: Waste Management Job Number: 280-62688-1

**Laboratory Control/** 

Laboratory Du5licate Data Re5ort - Batch: 280-2P470P

Method: 300.0 pre5aration: N/A

LCS Lab Sample ID:

LCS 280-254905/11

Units: mg/L

LCSD Lab Sample ID:

LCSD 280-254905/12

Client Matrix: Dilution:

Water 1.0

Client Matrix: Water Dilution: 1.0

Analysis Date:

11/26/2014 1106

Analysis Date: Prep Date:

11/26/2014 1126

Prep Date: Leach Date:

N/A N/A

N/A Leach Date: N/A

Analyte	LCS Spike	LCSD Spike	LCS	LCSD
	Amount	Amount	Result/Qual	Result/Qual
Chloride	100	100	97.0	97.0
Sulfate	100	100	94.8	94.8

Matrix S5ike/

Matrix S5ike Du5licate Recovery Re5ort - Batch: 280-2P470P

Method: 300.0 pre5aration: N/A

MS Lab Sample ID: Client Matrix:

280-63015-A-10 MS Water

Analysis Batch: Prep Batch:

280-254905

Instrument ID:

WC IonChrom11

Dilution:

Leach Batch:

N/A N/A

Lab File ID: Initial Weight/Volume: 0030.d

11/26/2014 2132 Analysis Date: Prep Date: N/A

Leach Date: N/A

5 mL Final Weight/Volume: 5 mL

25 uL

Client Matrix:

Sulfate

280-63015-A-10 MSD MSD Lab Sample ID:

Analysis Batch: Prep Batch:

77

280-254905 N/A

Instrument ID: Lab File ID:

WC\_lonChrom11 0031.d

Dilution: Analysis Date: Water 1.0 11/26/2014 2152

Leach Batch:

N/A

Limit

Initial Weight/Volume: Final Weight/Volume:

5 mL 5 mL

Prep Date: Leach Date:

N/A N/A

**RPD Limit** 

25 uL

F1

% Rec

Analyte Chloride	70	Rec.
	MS	MSD
Chloride	101	101

101 80 - 120 80 - 120 77

0 20 0 20

**RPD** 

MS Qual MSD Qual

F1

Client: Waste Management Job Number: 280-62688-1

Matrix S5ike/ Method: 300.0 Matrix S5ike Du5licate Recovery Re5ort - Batch: 280-2P470P pre5aration: N/A

MS Lab Sample ID:

280-63015-A-10 MS

Units: mg/L

MSD Lab Sample ID: 280-63015-A-10 MSD

Client Matrix: Water Client Matrix:

Water

Dilution: 1.0

Dilution:

1.0

Analysis Date: 11/26/2014 2132

Analysis Date:

11/26/2014 2152

Prep Date: Leach Date: N/A N/A

Prep Date: Leach Date: N/A N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Q	ual	MSD Result/Qua	al
Chloride	18	25.0	25.0	42.8		42.9	
Sulfate	17	25.0	25.0	36.2	F1	36.2	F1

Du5licate - Batch: 280-2P470P

Method: 300.0 pre5aration: N/A

Lab Sample ID:

280-63015-A-10 DU

Analysis Batch: 280-254905 Instrument ID:

WC\_lonChrom11

Client Matrix: Dilution:

Water 1.0

N/A Prep Batch: Leach Batch: N/A Lab File ID: Initial Weight/Volume: Final Weight/Volume:

0029.d 5 mL

Analysis Date:

11/26/2014 2112

Units:

mg/L

5 mL

Prep Date: N/A 25 uL

Leach Date:	N/A
A maluda	

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Chloride	18	17.6	0.4	15	
Sulfate	17	12.9	28	15	F3

Job Number: 280-62688-1 Client: Waste Management

Method Blank - Batch: 280-2P4128 Method: 3P0.1 pre5aration: N/A

Lab Sample ID: MB 280-254128/107 Analysis Batch: WC\_Alp 3 Client Matrix: Water Prep Batch: N/A Lab File ID: E:\FLOW 4\112014A.RST

280-254128

Instrument ID:

1.0 N/A Dilution: Leach Batch: Initial Weight/Volume: 10 mL 11/20/2014 1246 Units: Final Weight/Volume: 10 mL Analysis Date: mg/L

Prep Date: N/A Leach Date: N/A

Analyte Result Qual RL RL

Ammonia (as N) ND 0.030 0.030

Method: 3P0.1 Lab Control Sam5le/ Lab Control Sam5le Du5licate Recovery Re5ort - Batch: 280-2P4128 pre5aration: N/A

Analysis Batch: LCS 280-254128/105 280-254128 Instrument ID: LCS Lab Sample ID: WC Alp 3

Client Matrix: Prep Batch: Lab File ID: E:\FLOW 4\112014A.RST N/A

Dilution: Leach Batch: N/A Initial Weight/Volume: 100 mL 1.0 11/20/2014 1242 Units: Final Weight/Volume: 100 mL

Analysis Date: mg/L Prep Date: N/A Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-254128/106 Analysis Batch: 280-254128 Instrument ID: WC\_Alp 3

Client Matrix: Water Prep Batch: N/A Lab File ID: E:\FLOW\_4\112014A.RST

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 100 mL

Analysis Date: 11/20/2014 1244 Units: mg/L Final Weight/Volume: 100 mL Prep Date: N/A

Leach Date: N/A

% Rec.

LCS RPD LCSD Qual Analyte LCSD Limit **RPD Limit** LCS Qual

Ammonia (as N) 104 100 90 - 110 10

**Laboratory Control/** Method: 3P0.1 Laboratory Du5licate Data Re5ort - Batch: 280-2P4128 pre5aration: N/A

LCS Lab Sample ID: LCS 280-254128/105 Units: mg/L LCSD Lab Sample ID: LCSD 280-254128/106

Client Matrix: Water Client Matrix: Water Dilution: 1 0 Dilution: 1 0

Analysis Date: 11/20/2014 1242 Analysis Date: 11/20/2014 1244

Prep Date: N/A Prep Date: N/A Leach Date: N/A Leach Date: N/A

LCS LCSD LCS Spike LCSD Spike Analyte Amount Result/Qual Result/Qual Amount Ammonia (as N) 2.50 2.50 2.60 2.50

Client: Waste Management Job Number: 280-62688-1

Matrix S5ike/ Method: 3P0.1

Matrix S5ike Du5licate Recovery Re5ort - Batch: 280-2P4128 pre5aration: N/A

MS Lab Sample ID: 280-62688-3 Analysis Batch: 280-254128 Instrument ID: WC\_Alp 3

Client Matrix: Water Prep Batch: N/A Lab File ID: E:\FLOW\_4\112014A.RST

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 10 mL

Analysis Date: 11/20/2014 1328 Final Weight/Volume: 10 mL Prep Date: N/A

Prep Date: N/A
Leach Date: N/A

MSD Lab Sample ID: 280-62688-3 Analysis Batch: 280-254128 Instrument ID: WC\_Alp 3

Client Matrix: Water Prep Batch: N/A Lab File ID: E:\FLOW\_4\112014A.RST

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 10 mL

Analysis Date: 11/20/2014 1330 Final Weight/Volume: 10 mL

Prep Date: N/A
Leach Date: N/A

Analyte MS MSD Limit RPD RPD Limit MS Qual MSD Qual

Ammonia (as N) 110 110 90 - 110 1 10

Matrix S5ike/ Method: 3P0.1

Matrix S5ike Du5licate Recovery Re5ort - Batch: 280-2P4128 pre5aration: N/A

MS Lab Sample ID: 280-62688-3 Units: mg/L MSD Lab Sample ID: 280-62688-3

Client Matrix: Water Client Matrix: Water
Dilution: 1.0 Dilution: 1.0

Analysis Date: 11/20/2014 1328 Analysis Date: 11/20/2014 1330

Prep Date:N/APrep Date:N/ALeach Date:N/ALeach Date:N/A

Sample MS Spike MSD Spike MS MSD Result/Qual Amount Amount Result/Qual Result/Qual Analyte Ammonia (as N) 0.30 1.00 1.00 1.39 1.40

Client: Waste Management Job Number: 280-62688-1

Method Blank - Batch: 280-2PP077 Method: 3P3.2 pre5aration: N/A

Lab Sample ID: MB 280-255099/1 Analysis Batch: 280-255099 Instrument ID: No Equipment Assigned

Client Matrix: Water Prep Batch: N/A Lab File ID: N/A

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 11/28/2014 0957 Units: mg/L Final Weight/Volume: Prep Date: N/A

Leach Date: N/A

Analyte Result Qual RL RL

Nitrate as N ND 0.050 0.050

Client: Waste Management Job Number: 280-62688-1

Method Blank - Batch: 280-2P4P03 Method: SM 2320B pre5aration: N/A

Lab Sample ID: MB 280-254503/6 Analysis Batch: 280-254503 Instrument ID: WC-AT3

Client Matrix: Water Prep Batch: N/A Lab File ID: 112114.TXT

Client Matrix: Water Prep Batch: N/A Lab File ID: 112114.TXT Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 11/21/2014 1500 Units: mg/L Final Weight/Volume: Prep Date: N/A

Leach Date: N/A

 Analyte
 Result
 Qual
 RL
 RL

 Alkalinity, Total (As CaCO3)
 ND
 5.0
 5.0

 Alkalinity, Bicarbonate (As CaCO3)
 ND
 5.0
 5.0

Lab Control Sam5le/ Method: SM 2320B
Lab Control Sam5le Du5licate Recovery Re5ort - Batch: 280-2P4P03 pre5aration: N/A

LCS Lab Sample ID: LCS 280-254503/4 Analysis Batch: 280-254503 Instrument ID: WC-AT3

Client Matrix: Water Prep Batch: N/A Lab File ID: 112114.TXT

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: Analysis Date: 11/21/2014 1450 Units: mg/L Final Weight/Volume:

Analysis Date: 11/21/2014 1450 Units: mg/L Final Weight/Volume: Prep Date: N/A
Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-254503/5 Analysis Batch: 280-254503 Instrument ID: WC-AT3

Client Matrix: Water Prep Batch: N/A Lab File ID: 112114.TXT

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 11/21/2014 1456 Units: mg/L Final Weight/Volume: Prep Date: N/A

% Rec.

Analyte LCS LCSD Limit RPD RPD Limit LCS Qual LCSD Qual

Alkalinity, Total (As CaCO3) 97 95 90 - 110 2 10

Laboratory Control/ Method: SM 2320B

Laboratory Du5licate Data Re5ort - Batch: 280-2P4P03 pre5aration: N/A

LCS Lab Sample ID: LCS 280-254503/4 Units: mg/L LCSD Lab Sample ID: LCSD 280-254503/5

Client Matrix:WaterClient Matrix:WaterDilution:1.0Dilution:1.0

Analysis Date: 11/21/2014 1450 Analysis Date: 11/21/2014 1456

 Prep Date:
 N/A
 Prep Date:
 N/A

 Leach Date:
 N/A
 Leach Date:
 N/A

Analyte LCS Spike Amount LCS Spike LCSD Spike Result/Qual Result/Qual

Alkalinity, Total (As CaCO3) 200 200 193 190

Leach Date:

N/A

Client: Waste Management Job Number: 280-62688-1

Du5licate - Batch: 280-2P4P03 Method: SM 2320B pre5aration: N/A

Lab Sample ID:240-44224-N-2 DUAnalysis Batch:280-254503Instrument ID:WC-AT3Client Matrix:WaterPrep Batch:N/ALab File ID:112114.TXTDilution:1.0Leach Batch:N/AInitial Weight/Volume:

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: Analysis Date: 11/21/2014 1510 Units: mg/L Final Weight/Volume:

Analysis Date: 11/21/2014 1510 Units: mg/L Final Weignt/Volul
Prep Date: N/A
Leach Date: N/A

Analyte Sample Result/Qual Result RPD Limit Qual
Alkalinity, Total (As CaCO3) 59 63.2 6 10

Client: Waste Management Job Number: 280-62688-1

Method Blank - Batch: 280-2P4049 Method: SM 2P40C pre5aration: N/A

Lab Sample ID: MB 280-254047/1 Analysis Batch: 280-254047 Instrument ID: WC\_Cond\_Orion

Client Matrix: Water Prep Batch: N/A Lab File ID: N/A 1.0 N/A Dilution: Leach Batch: Initial Weight/Volume: 100 mL 11/20/2014 1421 Units: Final Weight/Volume: 100 mL Analysis Date: mg/L

Prep Date: N/A Leach Date: N/A

Analyte Result Qual RL RL

Total Dissolved Solids (TDS) ND 5.0 5.0

Lab Control Sam5le/ Method: SM 2P40C
Lab Control Sam5le Du5licate Recovery Re5ort - Batch: 280-2P4049 pre5aration: N/A

LCS Lab Sample ID: LCS 280-254047/2 Analysis Batch: 280-254047 Instrument ID: WC\_Cond\_Orion

Client Matrix: Prep Batch: Lab File ID: N/A N/A Dilution: Leach Batch: N/A Initial Weight/Volume: 100 mL 1.0 11/20/2014 1421 Analysis Date: Units: mg/L Final Weight/Volume: 100 mL

Prep Date: N/A Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-254047/3 Analysis Batch: 280-254047 Instrument ID: WC\_Cond\_Orion

Client Matrix: Water Prep Batch: N/A Lab File ID: Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 100 mL Analysis Date: 11/20/2014 1421 Units: mg/L Final Weight/Volume: 100 mL

Prep Date: N/A Leach Date: N/A

<u>% Rec.</u>

Analyte LCS LCSD Limit RPD RPD Limit LCS Qual LCSD Qual

Total Dissolved Solids (TDS) 100 100 86 - 110 1 20

Laboratory Control/

Method: SM 2P40C

Laboratory Du5licate Data Re5ort - Batch: 280-2P4049 pre5aration: N/A

LCS Lab Sample ID: LCS 280-254047/2 Units: mg/L LCSD Lab Sample ID: LCSD 280-254047/3

Client Matrix:WaterClient Matrix:WaterDilution:1.0Dilution:1.0

Analysis Date: 11/20/2014 1421 Analysis Date: 11/20/2014 1421

Prep Date:N/APrep Date:N/ALeach Date:N/ALeach Date:N/A

Analyte LCS Spike LCSD Spike LCS Result/Qual Result/Qual

Total Dissolved Solids (TDS) 501 501 499 502

Client: Waste Management Job Number: 280-62688-1

Du5licate - Batch: 280-2P4049 Method: SM 2P40C pre5aration: N/A

Lab Sample ID: 280-62676-C-1 DU Analysis Batch: 280-254047 Instrument ID: WC\_Cond\_Orion

Client Matrix: Water Prep Batch: N/A Lab File ID: Dilution: Leach Batch: N/A Initial Weight/Volume: 1.0 100 mL Final Weight/Volume: Analysis Date: 11/20/2014 1421 Units: mg/L 100 mL

Prep Date: N/A Leach Date: N/A

Analyte Sample Result/Qual Result RPD Limit Qual

Total Dissolved Solids (TDS) 1900 1940 0.7 10

Client: Waste Management Job Number: 280-62688-1

Method Blank - Batch: 280-2P4108 Method: SM 2P40D pre5aration: N/A

Lab Sample ID: MB 280-254108/3 Analysis Batch: 280-254108 Instrument ID: No Equipment Assigned

Client Matrix: Water Prep Batch: N/A Lab File ID: N/A Dilution: Leach Batch: Initial Weight/Volume: 250 mL 1.0 11/20/2014 1700 Units: Final Weight/Volume: 250 mL Analysis Date: mg/L

Prep Date: N/A Leach Date: N/A

Analyte Result Qual RL RL

Total Suspended Solids ND 4.0 4.0

Lab Control Sam5le/ Method: SM 2P40D
Lab Control Sam5le Du5licate Recovery Re5ort - Batch: 280-2P4108 pre5aration: N/A

LCS Lab Sample ID: LCS 280-254108/1 Analysis Batch: 280-254108 Instrument ID: No Equipment Assigned

Client Matrix: Prep Batch: Lab File ID: N/A N/A Dilution: Leach Batch: N/A Initial Weight/Volume: 100 mL 1.0 11/20/2014 1700 Analysis Date: Units: mg/L Final Weight/Volume: 250 mL

Prep Date: N/A
Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-254108/2 Analysis Batch: 280-254108 Instrument ID: No Equipment Assigned

Client Matrix: Water Prep Batch: N/A Lab File ID: N/A Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 100 mL Analysis Date: 11/20/2014 1700 Units: mg/L Final Weight/Volume: 250 mL

Prep Date: N/A Leach Date: N/A

% Rec.

Analyte LCS LCSD Limit RPD RPD Limit LCS Qual LCSD Qual

Total Suspended Solids 91 93 86 - 114 2 20

Laboratory Control/
Laboratory Du5licate Data Re5ort - Batch: 280-2P4108

Method: SM 2P40D
pre5aration: N/A

LCS Lab Sample ID: LCS 280-254108/1 Units: mg/L LCSD Lab Sample ID: LCSD 280-254108/2

Client Matrix: Water Client Matrix: Water
Dilution: 1.0 Dilution: 1.0

Analysis Date: 11/20/2014 1700 Analysis Date: 11/20/2014 1700

Prep Date:N/APrep Date:N/ALeach Date:N/ALeach Date:N/A

Analyte LCS Spike LCSD Spike LCS Result/Qual Result/Qual

Total Suspended Solids 100 100 91.0 93.0

Client: Waste Management Job Number: 280-62688-1

Du5licate - Batch: 280-2P4108 Method: SM 2P40D pre5aration: N/A

Lab Sample ID: 280-62688-1 Analysis Batch: 280-254108 Instrument ID: No Equipment Assigned

Client Matrix: Water Prep Batch: N/A Lab File ID: N/A

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 100 mL

Analysis Date: 11/20/2014 1700 Units: mg/L Final Weight/Volume: 250 mL

Analysis Date: 11/20/2014 1700 Units: mg/L Final Weight/Volume: Prep Date: N/A

Analyte Sample Result/Qual Result RPD Limit Qual

Total Suspended Solids 170 172 1 10

Leach Date:

N/A

Client: Waste Management Job Number: 280-62688-1

Method Blank - Batch: 280-2P4238 Method: SM P310B pre5aration: N/A

Lab Sample ID: MB 280-254238/5 Analysis Batch: 280-254238 Instrument ID: WC\_SHI3

Client Matrix: Water Prep Batch: N/A Lab File ID: 112014.txt Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 11/20/2014 1656 Units: mg/L Final Weight/Volume:

Prep Date: N/A Leach Date: N/A

Analyte Result Qual RL RL

Total Organic Carbon - Average ND 1.0 1.0

Lab Control Sam5le/ Method: SM P310B
Lab Control Sam5le Du5licate Recovery Re5ort - Batch: 280-2P4238 pre5aration: N/A

LCS Lab Sample ID: LCS 280-254238/3 Analysis Batch: 280-254238 Instrument ID: WC\_SHI3

Client Matrix: Water Prep Batch: N/A Lab File ID: 112014.txt

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 11/20/2014 1627 Units: mg/L Final Weight/Volume: 200 mL
Prep Date: N/A

Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-254238/4 Analysis Batch: 280-254238 Instrument ID: WC\_SHI3

Client Matrix: Water Prep Batch: N/A Lab File ID: 112014.txt

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 11/20/2014 1641 Units: mg/L Final Weight/Volume: 200 mL Prep Date: N/A

Leach Date: N/A

 % Rec.

 Analyte
 LCS
 LCSD
 Limit
 RPD
 RPD Limit
 LCS Qual
 LCSD Qual

Total Organic Carbon - Average 102 102 88 - 112 0 15

Laboratory Control/ Method: SM P310B
Laboratory Du5licate Data Re5ort - Batch: 280-2P4238 pre5aration: N/A

LCS Lab Sample ID: LCS 280-254238/3 Units: mg/L LCSD Lab Sample ID: LCSD 280-254238/4

Client Matrix:WaterClient Matrix:WaterDilution:1.0Dilution:1.0

Analysis Date: 11/20/2014 1627 Analysis Date: 11/20/2014 1641

Prep Date:N/APrep Date:N/ALeach Date:N/ALeach Date:N/A

Analyte LCS Spike LCSD Spike LCS Result/Qual Result/Qual

Total Organic Carbon - Average 25.0 25.0 25.4 25.5

Client: Waste Management Job Number: 280-62688-1

Matrix S5ike/ Method: SM P310B

Matrix S5ike Du5licate Recovery Re5ort - Batch: 280-2P4238 pre5aration: N/A

MS Lab Sample ID: 280-62748-F-13 MS Analysis Batch: 280-254238 Instrument ID: WC\_SHI3
Client Matrix: Water Prep Batch: N/A Lab File ID: 112014.txt

Dilution: 1.0 Leach Batch: N/A Lab File ID: 112014.txl

Analysis Date: 11/20/2014 2116 Final Weight/Volume: 50 mL

Prep Date: N/A
Leach Date: N/A

MSD Lab Sample ID: 280-62748-F-13 MSD Analysis Batch: 280-254238 Instrument ID: WC\_SHI3
Client Matrix: Water Prep Batch: N/A Lab File ID: 112014.txt

Client Matrix: Water Prep Batch: N/A Lab File ID: 112014.txt

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 11/20/2014 2131 Final Weight/Volume: 50 mL

Prep Date: N/A
Leach Date: N/A

Analyte WSD Limit RPD RPD Limit MS Qual MSD Qual

 Total Organic Carbon - Average
 100
 100
 88 - 112
 0
 15

Matrix S5ike/ Method: SM P310B

Matrix S5ike Du5licate Recovery Re5ort - Batch: 280-2P4238 pre5aration: N/A

MS Lab Sample ID: 280-62748-F-13 MS Units: mg/L MSD Lab Sample ID: 280-62748-F-13 MSD

Client Matrix:WaterClient Matrix:WaterDilution:1.0Dilution:1.0

Analysis Date: 11/20/2014 2116 Analysis Date: 11/20/2014 2131

 Prep Date:
 N/A
 Prep Date:
 N/A

 Leach Date:
 N/A
 Leach Date:
 N/A

Sample MS Spike MSD Spike MS MSD Result/Qual Amount Amount Result/Qual Result/Qual Analyte Total Organic Carbon - Average 3.9 25.0 25.0 28.9 28.8

# **Laboratory Chronicle**

Lab ID: 280-62688-1 Client ID: MW-42

Sample Date/Time: 11/18/2014 14:55 Received Date/Time: 11/19/2014 09:45

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:5030C	280-62688-F-1		480-216516		12/01/2014 13:22	1	TAL BUF	EDB
A:8260C	280-62688-F-1		480-216516		12/01/2014 13:22	1	TAL BUF	EDB
P:5030C	280-62688-K-1		480-215763		11/25/2014 04:30	1	TAL BUF	RAS
A:8260C SIM	280-62688-K-1		480-215763		11/25/2014 04:30	1	TAL BUF	RAS
P:3005A	280-62688-D-1-B		280-255260	280-253873	11/20/2014 14:00	1	TAL DEN	WAW
A:6010B	280-62688-D-1-B		280-255260	280-253873	12/01/2014 03:31	1	TAL DEN	SJS
P:3005A	280-62688-E-1-A		280-255599	280-253866	11/20/2014 08:15	1	TAL DEN	WDS
A:6010B	280-62688-E-1-A		280-255599	280-253866	12/03/2014 12:13	1	TAL DEN	LRD
P:3005A	280-62688-E-1-A		280-255719	280-253866	11/20/2014 08:15	1	TAL DEN	WDS
A:6010B	280-62688-E-1-A		280-255719	280-253866	12/03/2014 20:55	1	TAL DEN	LLB
P:3005A	280-62688-E-1-B		280-254233	280-253867	11/20/2014 08:15	1	TAL DEN	WDS
A:6020	280-62688-E-1-B		280-254233	280-253867	11/20/2014 19:03	1	TAL DEN	JM
P:3005A	280-62688-D-1-C		280-254546	280-253875	11/20/2014 14:00	1	TAL DEN	WAW
A:6020	280-62688-D-1-C		280-254546	280-253875	11/21/2014 19:59	1	TAL DEN	JM
P:3005A	280-62688-D-1-C		280-254731	280-253875	11/20/2014 14:00	1	TAL DEN	WAW
A:6020	280-62688-D-1-C		280-254731	280-253875	11/24/2014 22:35	1	TAL DEN	JM
A:300.0	280-62688-B-1		280-254905		11/26/2014 22:32	1	TAL DEN	TLP
A:350.1	280-62688-C-1		280-254128		11/20/2014 13:22	2	TAL DEN	CML
A:353.2	280-62688-A-1		280-255099		11/28/2014 09:57	1	TAL DEN	AJA
A:SM 2320B	280-62688-A-1		280-254503		11/21/2014 16:06	1	TAL DEN	CCJ
A:SM 2540C	280-62688-A-1		280-254047		11/20/2014 14:21	1	TAL DEN	SVC
A:SM 2540D	280-62688-B-1		280-254108		11/20/2014 17:00	1	TAL DEN	MW1
A:SM 5310B	280-62688-C-1		280-254238		11/20/2014 22:29	1	TAL DEN	CCJ

Lab ID: 280-62688-1 DU Client ID: MW-42

Sample Date/Time: 11/18/2014 14:55 Received Date/Time: 11/19/2014 09:45

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
A:SM 2540D	280-62688-B-1 DU		280-254108		11/20/2014 17:00	1	TAL DEN	MW1

TestAmerica Denver A = Analytical Method P = Prep Method

# **Laboratory Chronicle**

Lab ID: 280-62688-2 Client ID: MW-29A

Sample Date/Time: 11/18/2014 14:02 Received Date/Time: 11/19/2014 09:45

			A a b b		Data Davis and I			
Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	280-62688-F-2		480-216516	-	12/01/2014 13:44	1	TAL BUF	EDB
A:8260C	280-62688-F-2		480-216516		12/01/2014 13:44	1	TAL BUF	EDB
P:5030C	280-62688-K-2		480-215763		11/25/2014 04:54	1	TAL BUF	RAS
A:8260C SIM	280-62688-K-2		480-215763		11/25/2014 04:54	1	TAL BUF	RAS
P:3005A	280-62688-D-2-B		280-255260	280-253873	11/20/2014 14:00	1	TAL DEN	WAW
A:6010B	280-62688-D-2-B		280-255260	280-253873	12/01/2014 03:34	1	TAL DEN	SJS
P:3005A	280-62688-E-2-A		280-255598	280-253866	11/20/2014 08:15	1	TAL DEN	WDS
A:6010B	280-62688-E-2-A		280-255598	280-253866	12/03/2014 08:53	1	TAL DEN	LRD
P:3005A	280-62688-E-2-A		280-255719	280-253866	11/20/2014 08:15	1	TAL DEN	WDS
A:6010B	280-62688-E-2-A		280-255719	280-253866	12/03/2014 20:57	1	TAL DEN	LLB
P:3005A	280-62688-E-2-B		280-254233	280-253867	11/20/2014 08:15	1	TAL DEN	WDS
A:6020	280-62688-E-2-B		280-254233	280-253867	11/20/2014 19:06	1	TAL DEN	JM
P:3005A	280-62688-D-2-C		280-254546	280-253875	11/20/2014 14:00	1	TAL DEN	WAW
A:6020	280-62688-D-2-C		280-254546	280-253875	11/21/2014 20:02	1	TAL DEN	JM
P:3005A	280-62688-D-2-C		280-254731	280-253875	11/20/2014 14:00	1	TAL DEN	WAW
A:6020	280-62688-D-2-C		280-254731	280-253875	11/24/2014 22:38	1	TAL DEN	JM
A:300.0	280-62688-B-2		280-254905		11/26/2014 22:52	1	TAL DEN	TLP
A:350.1	280-62688-C-2		280-254128		11/20/2014 13:24	1	TAL DEN	CML
A:353.2	280-62688-A-2		280-255099		11/28/2014 09:57	1	TAL DEN	AJA
A:SM 2320B	280-62688-A-2		280-254503		11/21/2014 16:11	1	TAL DEN	CCJ
A:SM 2540C	280-62688-A-2		280-254047		11/20/2014 14:21	1	TAL DEN	SVC
A:SM 2540D	280-62688-B-2		280-254108		11/20/2014 17:00	1	TAL DEN	MW1
A:SM 5310B	280-62688-C-2		280-254238		11/20/2014 23:16	1	TAL DEN	CCJ

#### **Laboratory Chronicle**

Lab ID: 280-62688-3 Client ID: MW-39

Sample Date/Time: 11/18/2014 10:05 Received Date/Time: 11/19/2014 09:45

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:5030C	280-62688-F-3		480-216516		12/01/2014 14:06	1	TAL BUF	EDB
A:8260C	280-62688-F-3		480-216516		12/01/2014 14:06	1	TAL BUF	EDB
P:5030C	280-62688-K-3		480-215763		11/25/2014 05:18	1	TAL BUF	RAS
A:8260C SIM	280-62688-K-3		480-215763		11/25/2014 05:18	1	TAL BUF	RAS
P:3005A	280-62688-D-3-B		280-255260	280-253873	11/20/2014 14:00	1	TAL DEN	WAW
A:6010B	280-62688-D-3-B		280-255260	280-253873	12/01/2014 03:37	1	TAL DEN	SJS
P:3005A	280-62688-E-3-A		280-255598	280-253866	11/20/2014 08:15	1	TAL DEN	WDS
A:6010B	280-62688-E-3-A		280-255598	280-253866	12/03/2014 08:55	1	TAL DEN	LRD
P:3005A	280-62688-E-3-A		280-255719	280-253866	11/20/2014 08:15	1	TAL DEN	WDS
A:6010B	280-62688-E-3-A		280-255719	280-253866	12/03/2014 21:00	1	TAL DEN	LLB
P:3005A	280-62688-E-3-B		280-254233	280-253867	11/20/2014 08:15	1	TAL DEN	WDS
A:6020	280-62688-E-3-B		280-254233	280-253867	11/20/2014 19:09	1	TAL DEN	JM
P:3005A	280-62688-D-3-C		280-254546	280-253875	11/20/2014 14:00	1	TAL DEN	WAW
A:6020	280-62688-D-3-C		280-254546	280-253875	11/21/2014 20:05	1	TAL DEN	JM
P:3005A	280-62688-D-3-C		280-254731	280-253875	11/20/2014 14:00	1	TAL DEN	WAW
A:6020	280-62688-D-3-C		280-254731	280-253875	11/24/2014 22:41	1	TAL DEN	JM
A:300.0	280-62688-B-3		280-254905		11/26/2014 23:11	1	TAL DEN	TLP
A:350.1	280-62688-C-3		280-254128		11/20/2014 13:26	1	TAL DEN	CML
A:353.2	280-62688-A-3		280-255099		11/28/2014 09:57	1	TAL DEN	AJA
A:SM 2320B	280-62688-A-3		280-254503		11/21/2014 16:15	1	TAL DEN	CCJ
A:SM 2540C	280-62688-A-3		280-254047		11/20/2014 14:21	1	TAL DEN	SVC
A:SM 2540D	280-62688-B-3		280-254108		11/20/2014 17:00	1	TAL DEN	MW1
A:SM 5310B	280-62688-C-3		280-254238		11/20/2014 23:32	1	TAL DEN	CCJ

Lab ID: 280-62688-3 MS Client ID: MW-39

Sample Date/Time: 11/18/2014 10:05 Received Date/Time: 11/19/2014 09:45

**Analysis** Date Prepared / Batch Analyzed Method Bottle ID Run **Prep Batch** Dil Lab Analyst A:350.1 280-62688-C-3 MS 280-254128 11/20/2014 13:28 TAL DEN CML

Lab ID: 280-62688-3 MSD Client ID: MW-39

Sample Date/Time: 11/18/2014 10:05 Received Date/Time: 11/19/2014 09:45

**Analysis** Date Prepared / Analyzed Batch Method **Bottle ID** Run **Prep Batch** Dil Lab Analyst A:350.1 280-62688-C-3 MSD 280-254128 11/20/2014 13:30 TAL DEN CML

# **Laboratory Chronicle**

Lab ID: 280-62688-4 Client ID: MW-16

Sample Date/Time: 11/18/2014 09:06 Received Date/Time: 11/19/2014 09:45

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:5030C	280-62688-F-4		480-216516		12/01/2014 14:29	1	TAL BUF	EDB
A:8260C	280-62688-F-4		480-216516		12/01/2014 14:29	1	TAL BUF	EDB
P:5030C	280-62688-K-4		480-215763		11/25/2014 05:43	1	TAL BUF	RAS
A:8260C SIM	280-62688-K-4		480-215763		11/25/2014 05:43	1	TAL BUF	RAS
P:3005A	280-62688-D-4-B		280-255260	280-253873	11/20/2014 14:00	1	TAL DEN	WAW
A:6010B	280-62688-D-4-B		280-255260	280-253873	12/01/2014 03:39	1	TAL DEN	SJS
P:3005A	280-62688-E-4-A		280-255598	280-253866	11/20/2014 08:15	1	TAL DEN	WDS
A:6010B	280-62688-E-4-A		280-255598	280-253866	12/03/2014 08:58	1	TAL DEN	LRD
P:3005A	280-62688-E-4-A		280-255719	280-253866	11/20/2014 08:15	1	TAL DEN	WDS
A:6010B	280-62688-E-4-A		280-255719	280-253866	12/03/2014 21:03	1	TAL DEN	LLB
P:3005A	280-62688-E-4-B		280-254233	280-253867	11/20/2014 08:15	1	TAL DEN	WDS
A:6020	280-62688-E-4-B		280-254233	280-253867	11/20/2014 19:12	1	TAL DEN	JM
P:3005A	280-62688-D-4-C		280-254546	280-253875	11/20/2014 14:00	1	TAL DEN	WAW
A:6020	280-62688-D-4-C		280-254546	280-253875	11/21/2014 20:08	1	TAL DEN	JM
P:3005A	280-62688-E-4-C		280-256387	280-256264	12/08/2014 13:30	1	TAL DEN	CGG
A:6020	280-62688-E-4-C		280-256387	280-256264	12/09/2014 01:35	1	TAL DEN	LMT
A:300.0	280-62688-B-4		280-254905		11/27/2014 00:11	1	TAL DEN	TLP
A:350.1	280-62688-C-4		280-254128		11/20/2014 13:34	1	TAL DEN	CML
A:353.2	280-62688-A-4		280-255099		11/28/2014 09:57	1	TAL DEN	AJA
A:SM 2320B	280-62688-A-4		280-254503		11/21/2014 16:19	1	TAL DEN	CCJ
A:SM 2540C	280-62688-A-4		280-254047		11/20/2014 14:21	1	TAL DEN	SVC
A:SM 2540D	280-62688-B-4		280-254108		11/20/2014 17:00	1	TAL DEN	MW1
A:SM 5310B	280-62688-C-4		280-254238		11/20/2014 23:47	1	TAL DEN	CCJ

Lab ID: 280-62688-4 MS Client ID: MW-16

Sample Date/Time: 11/18/2014 09:06 Received Date/Time: 11/19/2014 09:45

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:3005A	280-62688-E-4-D MS		280-256387	280-256264	12/08/2014 13:30	1	TAL DEN	CGG
A:6020	280-62688-E-4-D MS		280-256387	280-256264	12/09/2014 01:42	1	TAL DEN	LMT

Lab ID: 280-62688-4 MSD Client ID: MW-16

Sample Date/Time: 11/18/2014 09:06 Received Date/Time: 11/19/2014 09:45

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:3005A	280-62688-E-4-E MSD		280-256387	280-256264	12/08/2014 13:30	1	TAL DEN	CGG
A:6020	280-62688-E-4-E MSD		280-256387	280-256264	12/09/2014 01:46	1	TAL DEN	LMT

# **Laboratory Chronicle**

Lab ID: 280-62688-5 Client ID: MW-43

Sample Date/Time: 11/18/2014 13:15 Received Date/Time: 11/19/2014 09:45

			Amalonia		Data Duamanad (			
Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	280-62688-F-5		480-216516	-	12/01/2014 14:51	1	TAL BUF	EDB
A:8260C	280-62688-F-5		480-216516		12/01/2014 14:51	1	TAL BUF	EDB
P:5030C	280-62688-K-5		480-215763		11/25/2014 06:07	1	TAL BUF	RAS
A:8260C SIM	280-62688-K-5		480-215763		11/25/2014 06:07	1	TAL BUF	RAS
P:3005A	280-62688-D-5-B		280-255260	280-253873	11/20/2014 14:00	1	TAL DEN	WAW
A:6010B	280-62688-D-5-B		280-255260	280-253873	12/01/2014 03:42	1	TAL DEN	SJS
P:3005A	280-62688-E-5-A		280-255598	280-253866	11/20/2014 08:15	1	TAL DEN	WDS
A:6010B	280-62688-E-5-A		280-255598	280-253866	12/03/2014 09:01	1	TAL DEN	LRD
P:3005A	280-62688-E-5-A		280-255719	280-253866	11/20/2014 08:15	1	TAL DEN	WDS
A:6010B	280-62688-E-5-A		280-255719	280-253866	12/03/2014 21:05	1	TAL DEN	LLB
P:3005A	280-62688-E-5-B		280-254233	280-253867	11/20/2014 08:15	1	TAL DEN	WDS
A:6020	280-62688-E-5-B		280-254233	280-253867	11/20/2014 19:15	1	TAL DEN	JM
P:3005A	280-62688-D-5-C		280-254546	280-253875	11/20/2014 14:00	1	TAL DEN	WAW
A:6020	280-62688-D-5-C		280-254546	280-253875	11/21/2014 20:11	1	TAL DEN	JM
P:3005A	280-62688-D-5-C		280-254731	280-253875	11/20/2014 14:00	1	TAL DEN	WAW
A:6020	280-62688-D-5-C		280-254731	280-253875	11/24/2014 22:48	1	TAL DEN	JM
A:300.0	280-62688-B-5		280-254905		11/27/2014 00:31	1	TAL DEN	TLP
A:350.1	280-62688-C-5		280-254128		11/20/2014 13:50	1	TAL DEN	CML
A:353.2	280-62688-A-5		280-255099		11/28/2014 09:57	1	TAL DEN	AJA
A:SM 2320B	280-62688-A-5		280-254503		11/21/2014 16:23	1	TAL DEN	CCJ
A:SM 2540C	280-62688-A-5		280-254047		11/20/2014 14:21	1	TAL DEN	SVC
A:SM 2540D	280-62688-B-5		280-254108		11/20/2014 17:00	1	TAL DEN	MW1
A:SM 5310B	280-62688-C-5		280-254238		11/21/2014 00:04	1	TAL DEN	CCJ

# **Laboratory Chronicle**

Lab ID: 280-62688-6 Client ID: MW-23A

Sample Date/Time: 11/18/2014 11:45 Received Date/Time: 11/19/2014 09:45

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:5030C	280-62688-F-6		480-216695		12/02/2014 12:42	1	TAL BUF	EDB
A:8260C	280-62688-F-6		480-216695		12/02/2014 12:42	1	TAL BUF	EDB
P:5030C	280-62688-K-6		480-215763		11/25/2014 06:31	1	TAL BUF	RAS
A:8260C SIM	280-62688-K-6		480-215763		11/25/2014 06:31	1	TAL BUF	RAS
P:3005A	280-62688-D-6-D		280-255260	280-253873	11/20/2014 14:00	1	TAL DEN	WAW
A:6010B	280-62688-D-6-D		280-255260	280-253873	12/01/2014 03:55	1	TAL DEN	SJS
P:3005A	280-62688-E-6-A		280-255598	280-253866	11/20/2014 08:15	1	TAL DEN	WDS
A:6010B	280-62688-E-6-A		280-255598	280-253866	12/03/2014 09:03	1	TAL DEN	LRD
P:3005A	280-62688-E-6-A		280-255719	280-253866	11/20/2014 08:15	1	TAL DEN	WDS
A:6010B	280-62688-E-6-A		280-255719	280-253866	12/03/2014 21:08	1	TAL DEN	LLB
P:3005A	280-62688-E-6-B		280-254233	280-253867	11/20/2014 08:15	1	TAL DEN	WDS
A:6020	280-62688-E-6-B		280-254233	280-253867	11/20/2014 19:24	1	TAL DEN	JM
P:3005A	280-62688-D-6-E		280-254546	280-253875	11/20/2014 14:00	1	TAL DEN	WAW
A:6020	280-62688-D-6-E		280-254546	280-253875	11/21/2014 20:21	1	TAL DEN	JM
P:3005A	280-62688-D-6-E		280-254731	280-253875	11/20/2014 14:00	1	TAL DEN	WAW
A:6020	280-62688-D-6-E		280-254731	280-253875	11/24/2014 22:57	1	TAL DEN	JM
A:300.0	280-62688-B-6		280-254905		11/27/2014 00:51	1	TAL DEN	TLP
A:350.1	280-62688-C-6		280-254128		11/20/2014 13:52	1	TAL DEN	CML
A:353.2	280-62688-A-6		280-255099		11/28/2014 09:57	1	TAL DEN	AJA
A:SM 2320B	280-62688-A-6		280-254503		11/21/2014 16:28	1	TAL DEN	CCJ
A:SM 2540C	280-62688-A-6		280-254047		11/20/2014 14:21	1	TAL DEN	SVC
A:SM 2540D	280-62688-B-6		280-254108		11/20/2014 17:00	1	TAL DEN	MW1
A:SM 5310B	280-62688-C-6		280-254238		11/21/2014 00:21	1	TAL DEN	CCJ

Lab ID: 280-62688-6 MS Client ID: MW-23A

Sample Date/Time: 11/18/2014 11:45 Received Date/Time: 11/19/2014 09:45

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:3005A	280-62688-E-6-C MS		280-254233	280-253867	11/20/2014 08:15	1	TAL DEN	WDS
A:6020	280-62688-E-6-C MS		280-254233	280-253867	11/20/2014 19:33	1	TAL DEN	JM
P:3005A	280-62688-D-6-F MS		280-254546	280-253875	11/20/2014 14:00	1	TAL DEN	WAW
A:6020	280-62688-D-6-F MS		280-254546	280-253875	11/21/2014 20:30	1	TAL DEN	JM
P:3005A	280-62688-D-6-F MS		280-254731	280-253875	11/20/2014 14:00	1	TAL DEN	WAW
A:6020	280-62688-D-6-F MS		280-254731	280-253875	11/24/2014 23:06	1	TAL DEN	JM

# **Laboratory Chronicle**

Lab ID: 280-62688-6 MSD Client ID: MW-23A

Sample Date/Time: 11/18/2014 11:45 Received Date/Time: 11/19/2014 09:45

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:3005A	280-62688-E-6-D MSD		280-254233	280-253867	11/20/2014 08:15	1	TAL DEN	WDS
A:6020	280-62688-E-6-D MSD		280-254233	280-253867	11/20/2014 19:36	1	TAL DEN	JM
P:3005A	280-62688-D-6-G MSD		280-254546	280-253875	11/20/2014 14:00	1	TAL DEN	WAW
A:6020	280-62688-D-6-G MSD		280-254546	280-253875	11/21/2014 20:33	1	TAL DEN	JM
P:3005A	280-62688-D-6-G MSD		280-254731	280-253875	11/20/2014 14:00	1	TAL DEN	WAW
A:6020	280-62688-D-6-G MSD		280-254731	280-253875	11/24/2014 23:09	1	TAL DEN	JM

Lab ID: 280-62688-7 Client ID: TRIP BLANK

Sample Date/Time: 11/18/2014 00:00 Received Date/Time: 11/19/2014 09:45

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:5030C	280-62688-A-7		480-216695		12/02/2014 13:05	1	TAL BUF	EDB
A:8260C	280-62688-A-7		480-216695		12/02/2014 13:05	1	TAL BUF	EDB

TestAmerica Denver A = Analytical Method P = Prep Method

# **Laboratory Chronicle**

Lab ID: MB Client ID: N/A

Sample Date/Time: N/A Received Date/Time: N/A

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:5030C	MB 480-216516/7		480-216516		12/01/2014 12:47	1	TAL BUF	EDB
A:8260C	MB 480-216516/7		480-216516		12/01/2014 12:47	1	TAL BUF	EDB
P:5030C	MB 480-216695/11		480-216695		12/02/2014 12:04	1	TAL BUF	EDB
A:8260C	MB 480-216695/11		480-216695		12/02/2014 12:04	1	TAL BUF	EDB
P:5030C	MB 480-215763/7		480-215763		11/25/2014 02:50	1	TAL BUF	RAS
A:8260C SIM	MB 480-215763/7		480-215763		11/25/2014 02:50	1	TAL BUF	RAS
P:3005A	MB 280-253873/1-A		280-255260	280-253873	11/20/2014 14:00	1	TAL DEN	WAW
A:6010B	MB 280-253873/1-A		280-255260	280-253873	12/01/2014 03:18	1	TAL DEN	SJS
P:3005A	MB 280-253866/1-A		280-255598	280-253866	11/20/2014 08:15	1	TAL DEN	WDS
A:6010B	MB 280-253866/1-A		280-255598	280-253866	12/03/2014 08:21	1	TAL DEN	LRD
P:3005A	MB 280-253867/1-A		280-254233	280-253867	11/20/2014 08:15	1	TAL DEN	WDS
A:6020	MB 280-253867/1-A		280-254233	280-253867	11/20/2014 18:51	1	TAL DEN	JM
P:3005A	MB 280-253875/1-A		280-254546	280-253875	11/20/2014 14:00	1	TAL DEN	WAW
A:6020	MB 280-253875/1-A		280-254546	280-253875	11/21/2014 19:53	1	TAL DEN	JM
P:3005A	MB 280-253875/1-A		280-254731	280-253875	11/20/2014 14:00	1	TAL DEN	WAW
A:6020	MB 280-253875/1-A		280-254731	280-253875	11/24/2014 22:29	1	TAL DEN	JM
P:3005A	MB 280-256264/1-A		280-256387	280-256264	12/08/2014 13:30	1	TAL DEN	CGG
A:6020	MB 280-256264/1-A		280-256387	280-256264	12/09/2014 01:27	1	TAL DEN	LMT
A:300.0	MB 280-254905/13		280-254905		11/26/2014 11:46	1	TAL DEN	TLP
A:350.1	MB 280-254128/107		280-254128		11/20/2014 12:46	1	TAL DEN	CML
A:353.2	MB 280-255099/1		280-255099		11/28/2014 09:57	1	TAL DEN	AJA
A:SM 2320B	MB 280-254503/6		280-254503		11/21/2014 15:00	1	TAL DEN	CCJ
A:SM 2540C	MB 280-254047/1		280-254047		11/20/2014 14:21	1	TAL DEN	SVC
A:SM 2540D	MB 280-254108/3		280-254108		11/20/2014 17:00	1	TAL DEN	MW1
A:SM 5310B	MB 280-254238/5		280-254238		11/20/2014 16:56	1	TAL DEN	CCJ

TestAmerica Denver A = Analytical Method P = Prep Method

# **Laboratory Chronicle**

Lab ID: LCS Client ID: N/A

Sample Date/Time: N/A Received Date/Time: N/A

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:5030C	LCS 480-216516/39		480-216516		12/01/2014 11:40	1	TAL BUF	EDB
A:8260C	LCS 480-216516/39		480-216516		12/01/2014 11:40	1	TAL BUF	EDB
P:5030C	LCS 480-216695/8		480-216695		12/02/2014 11:19	1	TAL BUF	EDB
A:8260C	LCS 480-216695/8		480-216695		12/02/2014 11:19	1	TAL BUF	EDB
P:5030C	LCS 480-215763/5		480-215763		11/25/2014 01:38	1	TAL BUF	RAS
A:8260C SIM	LCS 480-215763/5		480-215763		11/25/2014 01:38	1	TAL BUF	RAS
P:3005A	LCS 280-253873/2-A		280-255260	280-253873	11/20/2014 14:00	1	TAL DEN	WAW
A:6010B	LCS 280-253873/2-A		280-255260	280-253873	12/01/2014 03:21	1	TAL DEN	SJS
P:3005A	LCS 280-253866/2-A		280-255598	280-253866	11/20/2014 08:15	1	TAL DEN	WDS
A:6010B	LCS 280-253866/2-A		280-255598	280-253866	12/03/2014 08:24	1	TAL DEN	LRD
P:3005A	LCS 280-253867/2-A		280-254233	280-253867	11/20/2014 08:15	1	TAL DEN	WDS
A:6020	LCS 280-253867/2-A		280-254233	280-253867	11/20/2014 18:54	1	TAL DEN	JM
P:3005A	LCS 280-253875/2-A		280-254546	280-253875	11/20/2014 14:00	1	TAL DEN	WAW
A:6020	LCS 280-253875/2-A		280-254546	280-253875	11/21/2014 19:56	1	TAL DEN	JM
P:3005A	LCS 280-253875/2-A		280-254731	280-253875	11/20/2014 14:00	1	TAL DEN	WAW
A:6020	LCS 280-253875/2-A		280-254731	280-253875	11/24/2014 22:32	1	TAL DEN	JM
P:3005A	LCS 280-256264/2-A		280-256387	280-256264	12/08/2014 13:30	1	TAL DEN	CGG
A:6020	LCS 280-256264/2-A		280-256387	280-256264	12/09/2014 01:31	1	TAL DEN	LMT
A:300.0	LCS 280-254905/11		280-254905		11/26/2014 11:06	1	TAL DEN	TLP
A:350.1	LCS 280-254128/105		280-254128		11/20/2014 12:42	1	TAL DEN	CML
A:SM 2320B	LCS 280-254503/4		280-254503		11/21/2014 14:50	1	TAL DEN	CCJ
A:SM 2540C	LCS 280-254047/2		280-254047		11/20/2014 14:21	1	TAL DEN	SVC
A:SM 2540D	LCS 280-254108/1		280-254108		11/20/2014 17:00	1	TAL DEN	MW1
A:SM 5310B	LCS 280-254238/3		280-254238		11/20/2014 16:27	1	TAL DEN	CCJ

Lab ID: LCSD Client ID: N/A

Sample Date/Time: N/A Received Date/Time: N/A

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:5030C	LCSD 480-215763/6		480-215763		11/25/2014 02:02	1	TAL BUF	RAS
A:8260C SIM	LCSD 480-215763/6		480-215763		11/25/2014 02:02	1	TAL BUF	RAS
A:300.0	LCSD 280-254905/12		280-254905		11/26/2014 11:26	1	TAL DEN	TLP
A:350.1	LCSD 280-254128/106		280-254128		11/20/2014 12:44	1	TAL DEN	CML
A:SM 2320B	LCSD 280-254503/5		280-254503		11/21/2014 14:56	1	TAL DEN	CCJ
A:SM 2540C	LCSD 280-254047/3		280-254047		11/20/2014 14:21	1	TAL DEN	SVC
A:SM 2540D	LCSD 280-254108/2		280-254108		11/20/2014 17:00	1	TAL DEN	MW1
A:SM 5310B	LCSD 280-254238/4		280-254238		11/20/2014 16:41	1	TAL DEN	CCJ

# **Laboratory Chronicle**

Lab ID: MRL Client ID: N/A

Sample Date/Time: N/A Received Date/Time: N/A

Analysis Date Prepared / Batch Method **Bottle ID** Run Prep Batch Analyzed Dil Analyst Lab A:300.0 MRL 280-254905/10 280-254905 11/26/2014 10:46 TAL DEN TLP

Lab ID: MS Client ID: N/A

Sample Date/Time: 11/23/2014 13:10 Received Date/Time: 11/25/2014 15:00

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:5030C	480-71963-B-2 MS		480-216516		12/01/2014 21:09	40	TAL BUF	EDB
A:8260C	480-71963-B-2 MS		480-216516		12/01/2014 21:09	40	TAL BUF	EDB
P:5030C	480-71779-F-7 MS		480-216695		12/02/2014 16:47	1	TAL BUF	EDB
A:8260C	480-71779-F-7 MS		480-216695		12/02/2014 16:47	1	TAL BUF	EDB
P:3005A	280-62687-D-1-B MS		280-255260	280-253873	11/20/2014 14:00	1	TAL DEN	WAW
A:6010B	280-62687-D-1-B MS		280-255260	280-253873	12/01/2014 04:03	1	TAL DEN	SJS
P:3005A	280-62682-H-2-B MS		280-255598	280-253866	11/20/2014 08:15	1	TAL DEN	WDS
A:6010B	280-62682-H-2-B MS		280-255598	280-253866	12/03/2014 08:32	1	TAL DEN	LRD
A:300.0	280-63015-A-10 MS		280-254905		11/26/2014 21:32	1	TAL DEN	TLP
A:SM 5310B	280-62748-F-13 MS		280-254238		11/20/2014 21:16	1	TAL DEN	CCJ

Lab ID: MSD Client ID: N/A

Sample Date/Time: 11/23/2014 13:10 Received Date/Time: 11/25/2014 15:00

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:5030C	480-71963-B-2 MSD		480-216516		12/01/2014 21:32	40	TAL BUF	EDB
A:8260C	480-71963-B-2 MSD		480-216516		12/01/2014 21:32	40	TAL BUF	EDB
P:5030C	480-71779-F-7 MSD		480-216695		12/02/2014 17:09	1	TAL BUF	EDB
A:8260C	480-71779-F-7 MSD		480-216695		12/02/2014 17:09	1	TAL BUF	EDB
P:3005A	280-62687-D-1-C MSD		280-255260	280-253873	11/20/2014 14:00	1	TAL DEN	WAW
A:6010B	280-62687-D-1-C MSD		280-255260	280-253873	12/01/2014 04:06	1	TAL DEN	SJS
P:3005A	280-62682-H-2-C MSD		280-255598	280-253866	11/20/2014 08:15	1	TAL DEN	WDS
A:6010B	280-62682-H-2-C MSD		280-255598	280-253866	12/03/2014 08:34	1	TAL DEN	LRD
A:300.0	280-63015-A-10 MSD		280-254905		11/26/2014 21:52	1	TAL DEN	TLP
A:SM 5310B	280-62748-F-13 MSD		280-254238		11/20/2014 21:31	1	TAL DEN	CCJ

Client: Waste Management Job Number: 280-62688-1

# **Laboratory Chronicle**

Lab ID: DU Client ID: N/A

Sample Date/Time: 11/25/2014 10:00 Received Date/Time: 11/26/2014 10:20

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
A:300.0	280-63015-A-10 DU		280-254905		11/26/2014 21:12	1	TAL DEN	TLP
A:SM 2320B	240-44224-N-2 DU		280-254503		11/21/2014 15:10	1	TAL DEN	CCJ
A:SM 2540C	280-62676-C-1 DU		280-254047		11/20/2014 14:21	1	TAL DEN	SVC

#### Lab References:

TAL BUF = TestAmerica Buffalo
TAL DEN = TestAmerica Denver

**TestAmerica** T - TSP Dodecahydrate Special Instructions/Note: U - Acetone
V - MCAA
W - ph 4-5
Z - other (specify) Arsenic - Direct sub to ARI M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - N2SSSO3 S - H2SO4 Short Hold: NO3(cad) . L204024 0 Months 記記 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Mont Company COC No: 280-17318-3224.1 Preservation Cod A - HCL
B - NaOH
C - Zn Acetate
D - Nitro Acid
E - Nah SO4
F - MeOH
G - Amchlor
H - Ascorbic Acid Page: 1 of I - Ice J - DI Water K - EDTA L - EDA Total Number of containers Date/Time: Method of Shipment 280-62688 Chain of Custody Analysis Requested Total Arsenic (direct sub to ARI) Cooler Temperature(s) °C and Other Remarks Dissolved Arsenic (direct sub to ARI) Special Instructions/QC Requirements elala Metals Lab PM: 280-6268
Sara, Betsy A
E-Mail:
betsy.sara@testamericainc.com (olishua AT) Miz 80858 (olsflug AT) tell gnol - 80858 Received by: Received by: Chain of Custo DS/AIKS/CI/SO4/NO3(csq) Perform MS/MSD (Yes or No) Field Filtered Sample (Yes or No) BT=Tissue, A=Ak Matrix Preservation Code Сотрапу Radiological (C=comp, G=grab) Sample Shrada 20 Type 0 Sh5-182 52 bu Sampler: At O'HON 2010 402 Sample MSS 200 Time 3 7 Due Date Requested: < Unknown TAT Requested (days): 17 Sample Date Project #: 28002692 138 Date/Time: TestAmerica Denver 0.9, 5, 1 to, 5 ITS WO#: Poison B Chert Contact:
Mr. Charles Luckie Fron Egyl/PE Som Event Desc. Quarterly GW Appl/II - Mar Jun Sep Dec Skin Irritant Deliverable Requested: I, II, III, IV, Other (specify) Phone (303) 736-0100 Fax (303) 431-7171 Custody Seal No. Project Name:WA02jOlympic View Sandary LF 9300 Southwest Barney White Road Flammable Possible Hazard Identification 425-289-5454 Olympic View Transfer Station Empty Kit Relinquished by: Custody Seals Intact: Client Information Sample Identification 9 Arvada, CO 80002 A Yes A No Non-Hazard slinquished by: State, Zip: WA, 98312 City: Bremerton Washington 3/5 M 3

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# **Login Sample Receipt Checklist**

Client: Waste Management Job Number: 280-62688-1

Login Number: 62688 List Source: TestAmerica Denver

List Number: 1

Creator: Conquest, Tyler W

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

# **Login Sample Receipt Checklist**

Client: Waste Management Job Number: 280-62688-1

List Source: TestAmerica Buffalo
List Number: 2
List Creation: 11/22/14 07:57 AM

Creator: Kinecki, Kenneth P

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	



# **ANALYTICAL REPORT**

Job Number: 280-62813-1

Job Description: WA02|Olympic View Sanitary LF

For:

Waste Management Sun Valley Hauling 9081 Tujunga Avenue Sun Valley, CA 91352

Attention: Mr. Phil Perley

Betsy Sara

Approved for release. Betsy A Sara Project Manager II 12/19/2014 11:30 AM

Betsy A Sara, Project Manager II 4955 Yarrow Street, Arvada, CO, 80002 (303)736-0189 betsy.sara@testamericainc.com 12/19/2014

cc: Mr. Sam Adlington Mr. Matt O'Hare Ms. Elena Ramirez Mr. Dan Venchiarutti

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is 4025.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

TestAmerica Laboratories, Inc.

TestAmerica Denver 4955 Yarrow Street, Arvada, CO 80002 Tel (303) 736-0100 Fax (303) 431-7171 <u>www.testamericainc.com</u>



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#### **CASE NARRATIVE**

**Client: Waste Management** 

Project: WA02|Olympic View Sanitary LF

Report Number: 280-62813-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

This report may include reporting limits (RLs) less than TestAmerica's standard reporting limit. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

#### Sample Receiving

The samples were received on 11/20/2014 and 11/21/2014; the samples arrived in good condition, properly preserved and on ice. The temperatures of the coolers at receipt were 1.8° C and 3.1° C.

Samples MW-34C, MW-34A and MW-33A arrived without the chain of custody on 11/20/2014 at a temperature of 1.8 C. Samples MW-33C, MW-15R and MW36C arrived with the chain of custody on 11/21/2014 at a temperature of 3.1 C.

Due to the lack of a chain of custody, the laboratory did not proceed with the analyses on 11/20/2014. The nitrate holding times for samples MW-34C and MW-34A were missed. The client was notified.

#### **Holding Times**

The Nitrate result was derived from a calculation and the analysis date/time reflects when the calculation was performed. Nitrate+Nitrite and Nitrite results were required for the calculation. Nitrate+Nitrite analysis has a 28-day holding time. Nitrite analysis has a 48-hour holding time, and due to a FedEx delay, the associated Nitrite analysis was performed outside of the 48-hour holding time for the samples MW-34C, MW-34A and MW-33A.

All other holding times were within established control limits.

#### **Method Blanks**

All Method Blank recoveries were within established control limits.

#### **Laboratory Control Samples (LCS)**

The Method 8260C laboratory control sample (LCS) for batch 216556 recovered outside control limits for p-Chlorotoluene and p-Cymene. These were not requested spike compounds; therefore, the data have been qualified and reported.

All other Laboratory Control Samples were within established control limits.

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

The Matrix Spike and Matrix Spike Duplicate performed on a sample from another client exhibited recoveries outside control limits for 1,1-Dichloroethene, 1,2,4-Trimethylbenzene and Ethylbenzene Method 8260C. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, this anomaly may be due to matrix interference and no corrective action was taken.

The percent recoveries and/or relative percent difference of the MS/MSD performed on a sample from another client were outside control limits for Dissolved Potassium Method 6010B because the sample concentration was greater than four times the spike amount. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, no corrective action was taken.

The percent recoveries and/or relative percent difference of the MS/MSD performed on sample MW-32 (62814) were outside control limits for Dissolved Manganese Method 6020 because the sample concentration was greater than four times the spike amount. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, no corrective action was taken.

All other MS and MSD samples were within established control limits.

#### **Organics**

The Method 8260C SIM surrogate TBA-d9 exhibited recoveries above the upper control limits during the analysis of the samples MW-34C and MW-15R. Because the surrogate TBA-d9 is not associated with the target compounds detected in the samples MW-34C and MW-15R, corrective action was deemed unnecessary.

The Method 8260C continuing calibration verification (CCV) was outside the method criteria for Chlorodifluoromethane. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

#### Metals

The bracketing Continuing Calibration Verification Samples (CCV) surrounding the Method Blank were above control limits for Dissolved Sodium during Method 6010B analysis. Because the data are considered to be biased high and Dissolved Sodium was not detected in the Method Blank sample above the reporting limit, corrective action was deemed unnecessary.

#### **General Comments**

The analyses for Volatile Organics by Method 8260C and Volatile Organics by Method 8260C SIM were performed by TestAmerica Buffalo. Their address and phone number are:

TestAmerica Buffalo 10 Hazelwood Drive, Suite 106 Amherst, NY 14228 716-691-2600

Lab Sample ID Client Sample ID Analyte	Result	Qualifier	Reporting Limit	Units	Method
280-62813-1 MW-34C					
Vinyl chloride	0.12		0.020	ug/L	8260C SIM
Chloride	4.0		1.0	mg/L	300.0
Sulfate	5.1		1.0	mg/L	300.0
Alkalinity, Total (As CaCO3)	110		5.0	mg/L	SM 2320B
Alkalinity, Bicarbonate (As CaCO3)	110		5.0	mg/L	SM 2320B
Total Dissolved Solids (TDS)	190		5.0	mg/L	SM 2540C
Total Suspended Solids	32		6.7	mg/L	SM 2540D
Dissolved					
Calcium, Dissolved	25		0.040	mg/L	6010B
Iron, Dissolved	0.59		0.060	mg/L	6010B
Magnesium, Dissolved	11		0.050	mg/L	6010B
Potassium, Dissolved	2.4		1.0	mg/L	6010B
Sodium, Dissolved	15		1.0	mg/L	6010B
Barium, Dissolved	0.025		0.0010	mg/L	6020
Copper, Dissolved	0.0033		0.0020	mg/L	6020
Manganese, Dissolved	1.3		0.0010	mg/L	6020
Total Recoverable					
Iron, Total	4.9		0.060	mg/L	6010B
Barium, Total	0.026		0.0010	mg/L	6020
Copper, Total	0.0028		0.0020	mg/L	6020
Manganese, Total	1.2		0.0010	mg/L	6020
280-62813-2 MW-34A					
Chlorodifluoromethane	3.6	٨	1.0	ug/L	8260C
Chloride	3.0		1.0	mg/L	300.0
Sulfate	2.0		1.0	mg/L	300.0
Nitrate as N	0.77		0.050	mg/L	353.2
Alkalinity, Total (As CaCO3)	79		5.0	mg/L	SM 2320B
Alkalinity, Potal (As CaCO3)	79		5.0	mg/L	SM 2320B
Total Dissolved Solids (TDS)	140		5.0	mg/L	SM 2540C
Dissolved					
Calcium, Dissolved	17		0.040	mg/L	6010B
Magnesium, Dissolved	8.5		0.050	mg/L	6010B
Sodium, Dissolved	11		1.0	mg/L	6010B
Barium, Dissolved	0.0044		0.0010	mg/L	6020
Chromium, Dissolved	0.0048		0.0030	mg/L	6020
Vanadium, Dissolved	0.0043		0.0020	mg/L	6020
Total Recoverable					
Barium, Total	0.0044		0.0010	mg/L	6020
Chromium, Total	0.0043		0.0030	mg/L	6020
Vanadium, Total	0.0038		0.0020	mg/L	6020

Lab Sample ID Client Sample ID Analyte	Result	Qualifier	Reporting Limit	Units	Method
280-62813-3 MW-33C					
Chloride	2.8		1.0	mg/L	300.0
Sulfate	7.7		1.0	mg/L	300.0
Alkalinity, Total (As CaCO3)	66		5.0	mg/L	SM 2320B
Alkalinity, Bicarbonate (As CaCO3)	66		5.0	mg/L	SM 2320B
Total Dissolved Solids (TDS)	110		5.0	mg/L	SM 2540C
Total Suspended Solids	5.6		4.0	mg/L	SM 2540D
Dissolved					
Calcium, Dissolved	18		0.040	mg/L	6010B
Iron, Dissolved	0.38		0.060	mg/L	6010B
Magnesium, Dissolved	7.4		0.050	mg/L	6010B
Potassium, Dissolved	1.5		1.0	mg/L	6010B
Sodium, Dissolved	4.5		1.0	mg/L	6010B
Barium, Dissolved	0.0047		0.0010	mg/L	6020
Manganese, Dissolved	0.20		0.0010	mg/L	6020
Total Recoverable					
Iron, Total	0.38		0.060	mg/L	6010B
Barium, Total	0.0049		0.0010	mg/L	6020
Manganese, Total	0.20		0.0010	mg/L	6020
280-62813-4 MW-15R					
Vinyl chloride	0.0069	J	0.020	ug/L	8260C SIM
Chloride	2.3		1.0	mg/L	300.0
Sulfate	5.0		1.0	mg/L	300.0
Alkalinity, Total (As CaCO3)	84		5.0	mg/L	SM 2320B
Alkalinity, Bicarbonate (As CaCO3)	84		5.0	mg/L	SM 2320B
Total Dissolved Solids (TDS)	110		5.0	mg/L	SM 2540C
Dissolved					
Calcium, Dissolved	18		0.040	mg/L	6010B
Magnesium, Dissolved	11		0.050	mg/L	6010B
Sodium, Dissolved	6.1		1.0	mg/L	6010B
Barium, Dissolved	0.0051		0.0010	mg/L	6020
Manganese, Dissolved	0.0015		0.0010	mg/L	6020
Vanadium, Dissolved	0.0037		0.0020	mg/L	6020
Total Recoverable	0.00=4		0.0046	,,	0000
Barium, Total	0.0051		0.0010	mg/L	6020
Manganese, Total	0.0058		0.0010	mg/L	6020
Vanadium, Total	0.0036		0.0020	mg/L	6020

Lab Sample ID Client Sample ID Analyte	Result	Qualifier	Reporting Limit	Units	Method
280-62813-5 MW-36A					
Chloride	1.5		1.0	mg/L	300.0
Sulfate	2.7		1.0	mg/L	300.0
Nitrate as N	0.94		0.050	mg/L	353.2
Alkalinity, Total (As CaCO3)	56		5.0	mg/L	SM 2320B
Alkalinity, Bicarbonate (As CaCO3)	56		5.0	mg/L	SM 2320B
Total Dissolved Solids (TDS)	110		5.0	mg/L	SM 2540C
Dissolved					
Calcium, Dissolved	11		0.040	mg/L	6010B
Iron, Dissolved	0.066		0.060	mg/L	6010B
Magnesium, Dissolved	7.2		0.050	mg/L	6010B
Potassium, Dissolved	1.1		1.0	mg/L	6010B
Sodium, Dissolved	6.5		1.0	mg/L	6010B
Barium, Dissolved	0.0021		0.0010	mg/L	6020
Chromium, Dissolved	0.0093		0.0030	mg/L	6020
Vanadium, Dissolved	0.0025		0.0020	mg/L	6020
Total Recoverable					
Barium, Total	0.0024		0.0010	mg/L	6020
Chromium, Total	0.0085		0.0030	mg/L	6020
Manganese, Total	0.0020		0.0010	mg/L	6020
Vanadium, Total	0.0023		0.0020	mg/L	6020

Lab Sample ID Client Sample ID Analyte	Result	Qualifier	Reporting Limit	Units	Method
280-62813-7 MW-33A					
Chloride	1.7		1.0	mg/L	300.0
Sulfate	1.4		1.0	mg/L	300.0
Ammonia (as N)	0.21		0.030	mg/L	350.1
Alkalinity, Total (As CaCO3)	36		5.0	mg/L	SM 2320B
Alkalinity, Bicarbonate (As CaCO3)	36		5.0	mg/L	SM 2320B
Total Dissolved Solids (TDS)	73		5.0	mg/L	SM 2540C
Total Suspended Solids	13		4.0	mg/L	SM 2540D
Total Organic Carbon - Average	3.0		1.0	mg/L	SM 5310B
Dissolved					
Calcium, Dissolved	9.1		0.040	mg/L	6010B
Iron, Dissolved	5.1		0.060	mg/L	6010B
Magnesium, Dissolved	4.1		0.050	mg/L	6010B
Sodium, Dissolved	3.3		1.0	mg/L	6010B
Barium, Dissolved	0.0037		0.0010	mg/L	6020
Manganese, Dissolved	0.11		0.0010	mg/L	6020
Vanadium, Dissolved	0.0030		0.0020	mg/L	6020
Total Recoverable					
Iron, Total	5.0		0.060	mg/L	6010B
Barium, Total	0.0036		0.0010	mg/L	6020
Manganese, Total	0.10		0.0010	mg/L	6020
Vanadium, Total	0.0027		0.0020	mg/L	6020

#### **METHOD SUMMARY**

Client: Waste Management Job Number: 280-62847-4

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Metals 1(CI P I reparation, ) otal Recoverable or Lissolved Metals	) TALDN ) TALDN	EW8S6 6040B	EW8\$6 7003T
Metals 1(CI P I reparation, ) otal Recoverable or Lissolved Metals Eample 5iltration, 5ield	) TALDN ) TALDN	EW8\$6 6040B	EW8S6 7003T 5(DAL F5A) RL
Metals 1(CI _MEP I reparation, ) otal Recoverable or Lissolved Metals	) TALDN ) TALDN	EW8S6 6020	EW8S6 7003T
Metals 1(CI _MEP I reparation, ) otal Recoverable or Lissolved Metals Eample 5iltration, 5ield	) TALDN ) TALDN	EW8\$6 6020	EW8S6 7003T 5(DAL F5A) RL
Tnions, (on C/ romatograp/ h	) TALDN	MCTWW 700y0	
Nitrogen, Tmmonia	) TALDN	MCTWW 730y4	
Nitrate	) TALDN	DI T 737y2	
TI. alinith	) TALDN	EM EM 2720B	
Eolids, ) otal L issolved 1) L EP	) TALDN	EM EM 23S0C	
Eolids, ) otal Euspended 1) EEP	) TALDN	EM EM 23S0L	
k rganic Carbon, ) otal 1) k CP	) TALDN	EM EM 3740B	
Colatile k rganic Compounds bh V C_ME I urge and ) rap	) TA BG5 ) TA BG5	EW8S6 8260C	EW8S6 3070C
Colatile k rganic Compounds 1V C_MEP I urge and ) rap	) TA BG5 ) TA BG5	EW8S6 8260C E	E(M EW8S6 3070C

#### Lab References:

) TABG5 U) estTmerica Bu=alo

) TALDN U) estTmerica Lenver

#### **Method References:**

DI T UGE Dnvironmental I rotection Tgench

MCTWW UfMet/ ods 5or C/ emical Tnalhsis k =Water Tnd Wastesf, DI T-600\_S-" 9-020, Marc/ 4987 Tnd Eubsequent Revisionsy

EM UfEtandard Met/ ods 5or ) / e Dxamination k =Water Tnd Wastewaterf

EW8S6 Uf) est Met/ ods 5or Dvaluating Eolid Waste, I / hsical\_C/ emical Met/ odsf, ) / ird Ddition, November 4986 Tnd (ts Gpdatesy

# METHOD / ANALYST SUMMARY

Method	Analyst	Analyst ID
SW846 8260C	Goliszek, Gregory T	GTG
SW846 8260C SIM	Cwiklinski, Charles D	CDC
SW846 6010B SW846 6010B	Broander, Laura L Scott, Samantha J	LLB SJS
SW846 6020	Mooney, Joseph C	JM
MCAWW 300.0	Sripen, Phuriya	PS1
MCAWW 350.1	Lawrence, Caitlyn M	CML
EPA 353.2	Sullivan, Roxanne K	RKS
SM SM 2320B	Jewell, Connie C	CCJ
SM SM 2540C	Cherry, Scott V	SVC
SM SM 2540D	Woolley, Mark -	MW1
SM SM 5310B	Jewell, Connie C	CCJ

# **SAMPLE SUMMARY**

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-62847-4	MW-71C	Water	4434532041 4007	4432432041 4010
280-62847-2	MW-71/	Water	4434532041 4019	4432432041 4010
280-62847-7	MW-77C	Water	4434532041 4744	4432432041 4010
280-62847-1	MW-49A	Water	4434532041 4122	4432432041 4010
280-62847-9	MW-76/	Water	4434532041 4905	4432432041 4010
280-62847-6BT	BAR TP/ NL	Water	4434532041 0000	4432432041 4010
280-62847-K	MW-77/	Water	4434532041 4276	4432432041 4010

# **SAMPLE RESULTS**

Client Sample ID: MW-34C

Lab Sample ID: 280-62813-1 Date Sampled: 11/19/2014 1003

Client Matrix: Water Date Received: 11/21/2014 1040

## 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-216556 Instrument ID: HP5973N Prep Method: 5030C Prep Batch: N/A Lab File ID: N2314.D Dilution: Initial Weight/Volume: 1.0 5 mL

Analysis Date: 12/01/2014 1446 Final Weight/Volume: 5 mL

nalyte	Result (ug/L)	Qualifier	MDL	RL
,1,1,2-Tetrachloroethane	ND		0.35	1.0
,1,1-Trichloroethane	ND		0.82	1.0
,1,2,2-Tetrachloroethane	ND		0.21	1.0
,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
,1,2-Trichloroethane	ND		0.23	1.0
,1-Dichloroethane	ND		0.38	1.0
,1-Dichloroethene	ND		0.29	1.0
,1-Dichloropropene	ND		0.72	1.0
,2,3-Trichlorobenzene	ND		0.41	1.0
,2,3-Trichloropropane	ND		0.89	1.0
,2,4-Trichlorobenzene	ND		0.41	1.0
,2,4-Trimethylbenzene	ND		0.75	1.0
,2-Dibromo-3-Chloropropane	ND		0.39	1.0
,2-Dibromoethane (EDB)	ND		0.73	1.0
,2-Dichlorobenzene	ND		0.79	1.0
,2-Dichloroethane	ND		0.21	1.0
,2-Dichloroethene, Total	ND		0.81	2.0
,2-Dichloropropane	ND		0.72	1.0
,3,5-Trichlorobenzene	ND		0.23	1.0
,3,5-Trimethylbenzene	ND		0.77	1.0
3-Dichlorobenzene	ND		0.78	1.0
3-Dichloropropane	ND		0.75	1.0
4-Dichlorobenzene	ND		0.84	1.0
4-Dioxane	ND		9.3	40
,2-Dichloropropane	ND		0.40	1.0
-Butanone (MEK)	ND		1.3	10
-Chloroethyl vinyl ether	ND		0.96	5.0
-Hexanone	ND		1.2	5.0
-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
cetone	ND		3.0	10
cetonitrile	ND		4.9	15
crolein	ND		0.91	20
crylonitrile	ND		0.83	5.0
enzene	ND		0.41	1.0
romobenzene	ND		0.80	1.0
romochloromethane	ND		0.87	1.0
romodichloromethane	ND		0.39	1.0
romoform	ND		0.26	1.0
romomethane	ND		0.69	1.0
utyl alcohol, n-	ND		8.9	40
utyl alcohol, tert-	ND		3.3	10
arbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
hlorobenzene	ND		0.75	1.0
Chlorodifluoromethane	ND		0.26	1.0
			v.=v	

Client Sample ID: MW-34C

Lab Sample ID: 280-62813-1 Date Sampled: 11/19/2014 1003

Client Matrix: Water Date Received: 11/21/2014 1040

## 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-216556 Instrument ID: HP5973N Prep Method: 5030C Prep Batch: N/A Lab File ID: N2314.D Dilution: Initial Weight/Volume: 1.0 5 mL

Analysis Date: 12/01/2014 1446 Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dibromochloromethane	ND		0.32	1.0
Dibromomethane	ND		0.41	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Dichlorofluoromethane	ND		0.34	1.0
Ethyl acetate	ND		0.66	1.0
Ethyl ether	ND		0.72	1.0
Ethyl tert-butyl ether	ND		0.29	1.0
Ethylbenzene	ND		0.74	1.0
Hexachlorobutadiene	ND		0.28	1.0
Hexane	ND		0.40	10
lodomethane	ND		0.30	1.0
Isobutanol	ND		4.8	25
Isopropyl ether	ND		0.59	1.0
Isopropylbenzene	ND		0.79	1.0
Methacrylonitrile	ND		0.69	5.0
Methyl acetate	ND		0.50	2.5
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
m-Xylene & p-Xylene	ND		0.66	2.0
Naphthalene	ND		0.43	1.0
n-Butylbenzene	ND		0.64	1.0
N-Propylbenzene	ND		0.69	1.0
o-Chlorotoluene	ND		0.86	1.0
o-Xylene	ND		0.76	1.0
p-Chlorotoluene	ND	*	0.84	1.0
p-Cymene	ND	*	0.31	1.0
sec-Butylbenzene	ND		0.75	1.0
Styrene	ND		0.73	1.0
Tert-amyl methyl ether	ND		0.73	1.0
tert-Butylbenzene	ND		0.27	1.0
Tetrachloroethene	ND		0.36	1.0
			1.3	
Tetrahydrofuran Toluene	ND ND			5.0
	ND ND		0.51	1.0
trans-1,2-Dichloroethene	ND ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
trans-1,4-Dichloro-2-butene	ND		0.22	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0
Vinyl acetate	ND		0.85	5.0
Vinyl chloride	ND		0.90	1.0

Client: Waste Management Job Number: 280-62813-1

Client Sample ID: MW-34C

Lab Sample ID: 280-62813-1 Date Sampled: 11/19/2014 1003

Client Matrix: Water Date Received: 11/21/2014 1040

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-216556 Instrument ID: HP5973N Prep Method: 5030C Prep Batch: N/A Lab File ID: N2314.D Dilution: 1.0 Initial Weight/Volume: 5 mL

Dilution: 1.0 Initial Weight/Volume: 5 mL

Analysis Date: 12/01/2014 1446 Final Weight/Volume: 5 mL

Prep Date: 12/01/2014 1446

Surrogate%RecQualifierAcceptance Limits1,2-Dichloroethane-d4 (Surr)10466 - 1374-Bromofluorobenzene (Surr)10073 - 120Toluene-d8 (Surr)9971 - 126

Client: Waste Management Job Number: 280-62813-1

Client Sample ID: MW-34C

Lab Sample ID: 280-62813-1 Date Sampled: 11/19/2014 1003

Client Matrix: Water Date Received: 11/21/2014 1040

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-216556 Instrument ID: HP5973N Prep Method: 5030C Prep Batch: N/A Lab File ID: N2314.D

Dilution: 1.0 Initial Weight/Volume: 5 mL

Analysis Date: 12/01/2014 1446 Final Weight/Volume: 5 mL

Prep Date: 12/01/2014 1446

**Targeted Tentatively Identified Compounds** 

Cas Number Analyte Est. Result (ug/L) Qualifier

67-72-1 Hexachloroethane TIC ND

Job Number: 280-62813-1 Client: Waste Management

Client Sample ID: MW-34A

Lab Sample ID: 280-62813-2 Date Sampled: 11/19/2014 1045 Client Matrix:

Date Received: 11/21/2014 1040 Water

## 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-216556 Instrument ID: HP5973N Prep Method: 5030C Prep Batch: N/A Lab File ID: N2315.D Dilution: Initial Weight/Volume: 1.0 5 mL

Analysis Date: 12/01/2014 1510 Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	ND		0.35	1.0
I,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
I,1,2-Trichloroethane	ND		0.23	1.0
I,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,1-Dichloropropene	ND		0.72	1.0
1,2,3-Trichlorobenzene	ND		0.41	1.0
1,2,3-Trichloropropane	ND		0.89	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
I,2,4-Trimethylbenzene	ND		0.75	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
I,2-Dibromoethane (EDB)	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloroethene, Total	ND		0.81	2.0
1,2-Dichloropropane	ND		0.72	1.0
1,3,5-Trichlorobenzene	ND		0.23	1.0
1,3,5-Trimethylbenzene	ND		0.77	1.0
I,3-Dichlorobenzene	ND		0.78	1.0
1,3-Dichloropropane	ND		0.75	1.0
I,4-Dichlorobenzene	ND		0.84	1.0
I,4-Dioxane	ND		9.3	40
2,2-Dichloropropane	ND		0.40	1.0
2-Butanone (MEK)	ND		1.3	10
2-Chloroethyl vinyl ether	ND		0.96	5.0
2-Hexanone	ND		1.2	5.0
1-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Acetonitrile	ND		4.9	15
Acrolein	ND		0.91	20
Acrylonitrile	ND		0.83	5.0
Benzene	ND		0.41	1.0
Bromobenzene	ND		0.80	1.0
Bromochloromethane	ND		0.87	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Butyl alcohol, n-	ND		8.9	40
Butyl alcohol, tert-	ND		3.3	10
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Chlorodifluoromethane	3.6	٨	0.26	1.0
anorogniuoromenane				

Job Number: 280-62813-1 Client: Waste Management

Client Sample ID: MW-34A

Lab Sample ID: 280-62813-2 Date Sampled: 11/19/2014 1045

Client Matrix: Date Received: 11/21/2014 1040 Water

## 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-216556 Instrument ID: HP5973N Prep Method: 5030C Prep Batch: N/A Lab File ID: N2315.D Dilution: Initial Weight/Volume: 1.0 5 mL 5 mL

Analysis Date: 12/01/2014 1510 Final Weight/Volume:

Analyte	Result (ug/L)	Qualifier	MDL	RL
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dibromochloromethane	ND		0.32	1.0
Dibromomethane	ND		0.41	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Dichlorofluoromethane	ND		0.34	1.0
Ethyl acetate	ND		0.66	1.0
Ethyl ether	ND		0.72	1.0
Ethyl tert-butyl ether	ND		0.29	1.0
Ethylbenzene	ND		0.74	1.0
Hexachlorobutadiene	ND		0.28	1.0
Hexane	ND		0.40	10
lodomethane	ND		0.30	1.0
Isobutanol	ND		4.8	25
Isopropyl ether	ND		0.59	1.0
Isopropylbenzene	ND		0.79	1.0
Methacrylonitrile	ND		0.69	5.0
Methyl acetate	ND		0.50	2.5
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
m-Xylene & p-Xylene	ND		0.66	2.0
Naphthalene	ND		0.43	1.0
n-Butylbenzene	ND		0.64	1.0
N-Propylbenzene	ND		0.69	1.0
o-Chlorotoluene	ND		0.86	1.0
o-Xylene	ND		0.76	1.0
p-Chlorotoluene	ND	*	0.84	1.0
p-Cymene	ND	*	0.31	1.0
sec-Butylbenzene	ND		0.75	1.0
Styrene	ND		0.73	1.0
Tert-amyl methyl ether	ND		0.27	1.0
tert-Butylbenzene	ND		0.81	1.0
Tetrachloroethene	ND ND		0.36	1.0
Tetrahydrofuran	ND		1.3	5.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
	ND		0.90	1.0
trans-1,3-Dichloropropene				
trans-1,4-Dichloro-2-butene	ND ND		0.22	1.0
Trichloroethene	ND ND		0.46	1.0
Trichlorofluoromethane	ND ND		0.88	1.0
Vinyl actate	ND ND		0.85	5.0
Vinyl chloride	ND		0.90	1.0

Client: Waste Management Job Number: 280-62813-1

Client Sample ID: MW-34A

Lab Sample ID: 280-62813-2 Date Sampled: 11/19/2014 1045

Client Matrix: Water Date Received: 11/21/2014 1040

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-216556 Instrument ID: HP5973N Prep Method: 5030C Prep Batch: N/A Lab File ID: N2315.D Dilution: 1.0 Initial Weight/Volume: 5 mL

Dilution: 1.0 Initial Weight/Volume: 5 mL Analysis Date: 12/01/2014 1510 Final Weight/Volume: 5 mL

Prep Date: 12/01/2014 1510

Surrogate%RecQualifierAcceptance Limits1,2-Dichloroethane-d4 (Surr)9966 - 1374-Bromofluorobenzene (Surr)9873 - 120Toluene-d8 (Surr)9971 - 126

Client: Waste Management Job Number: 280-62813-1

Client Sample ID: MW-34A

Lab Sample ID: 280-62813-2 Date Sampled: 11/19/2014 1045

Client Matrix: Water Date Received: 11/21/2014 1040

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-216556 Instrument ID: HP5973N Prep Method: 5030C Prep Batch: N/A Lab File ID: N2315.D

Dilution: 1.0 Initial Weight/Volume: 5 mL

Analysis Date: 12/01/2014 1510 Final Weight/Volume: 5 mL

Prep Date: 12/01/2014 1510

**Targeted Tentatively Identified Compounds** 

Cas Number Analyte Est. Result (ug/L) Qualifier

67-72-1 Hexachloroethane TIC ND

Client Sample ID: MW-33C

 Lab Sample ID:
 280-62813-3
 Date Sampled: 11/19/2014 1311

 Client Matrix:
 Water
 Date Received: 11/21/2014 1040

## 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-216556 Instrument ID: HP5973N Prep Method: 5030C Prep Batch: N/A Lab File ID: N2316.D Dilution: Initial Weight/Volume: 1.0 5 mL

Analysis Date: 12/01/2014 1534 Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	ND		0.35	1.0
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,1-Dichloropropene	ND		0.72	1.0
1,2,3-Trichlorobenzene	ND		0.41	1.0
1,2,3-Trichloropropane	ND		0.89	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2,4-Trimethylbenzene	ND		0.75	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane (EDB)	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloroethene, Total	ND		0.81	2.0
1,2-Dichloropropane	ND		0.72	1.0
1,3,5-Trichlorobenzene	ND		0.23	1.0
1,3,5-Trimethylbenzene	ND		0.77	1.0
I,3-Dichlorobenzene	ND		0.78	1.0
,3-Dichloropropane	ND		0.75	1.0
I,4-Dichlorobenzene	ND		0.84	1.0
,4-Dioxane	ND		9.3	40
2,2-Dichloropropane	ND		0.40	1.0
2-Butanone (MEK)	ND		1.3	10
2-Chloroethyl vinyl ether	ND		0.96	5.0
2-Hexanone	ND		1.2	5.0
1-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Acetonitrile	ND		4.9	15
Acrolein	ND		0.91	20
Acrylonitrile	ND		0.83	5.0
Benzene	ND		0.41	1.0
Bromobenzene	ND		0.80	1.0
Bromochloromethane	ND		0.87	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Butyl alcohol, n-	ND		8.9	40
Butyl alcohol, tert-	ND		3.3	10
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Chlorodifluoromethane	ND		0.26	1.0
Chloroethane	ND		0.32	1.0

Client Sample ID: MW-33C

Lab Sample ID: 280-62813-3 Date Sampled: 11/19/2014 1311

Client Matrix: Water Date Received: 11/21/2014 1040

## 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-216556 Instrument ID: HP5973N Prep Method: 5030C Prep Batch: N/A Lab File ID: N2316.D Dilution: Initial Weight/Volume: 1.0 5 mL

Analysis Date: 12/01/2014 1534 Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL	
Chloroform	ND		0.34	1.0	
Chloromethane	ND		0.35	1.0	
cis-1,2-Dichloroethene	ND		0.81	1.0	
cis-1,3-Dichloropropene	ND		0.36	1.0	
Cyclohexane	ND		0.18	1.0	
Dibromochloromethane	ND		0.32	1.0	
Dibromomethane	ND		0.41	1.0	
Dichlorodifluoromethane	ND		0.68	1.0	
Dichlorofluoromethane	ND		0.34	1.0	
Ethyl acetate	ND		0.66	1.0	
Ethyl ether	ND		0.72	1.0	
Ethyl tert-butyl ether	ND		0.29	1.0	
Ethylbenzene	ND		0.74	1.0	
Hexachlorobutadiene	ND		0.28	1.0	
Hexane	ND		0.40	10	
Iodomethane	ND		0.30	1.0	
Isobutanol	ND		4.8	25	
Isopropyl ether	ND		0.59	1.0	
Isopropylbenzene	ND		0.79	1.0	
Methacrylonitrile	ND		0.69	5.0	
Methyl acetate	ND		0.50	2.5	
Methyl tert-butyl ether	ND		0.16	1.0	
Methylcyclohexane	ND		0.16	1.0	
Methylene Chloride	ND		0.44	1.0	
m-Xylene & p-Xylene	ND		0.66	2.0	
Naphthalene	ND		0.43	1.0	
n-Butylbenzene	ND		0.64	1.0	
N-Propylbenzene	ND		0.69	1.0	
o-Chlorotoluene	ND		0.86	1.0	
o-Xylene	ND		0.76	1.0	
p-Chlorotoluene	ND	*	0.84	1.0	
p-Cymene	ND	*	0.31	1.0	
sec-Butylbenzene	ND		0.75	1.0	
Styrene	ND		0.73	1.0	
Tert-amyl methyl ether	ND		0.27	1.0	
tert-Butylbenzene	ND		0.81	1.0	
Tetrachloroethene	ND		0.36	1.0	
Tetrahydrofuran	ND		1.3	5.0	
Toluene	ND		0.51	1.0	
trans-1,2-Dichloroethene	ND		0.90	1.0	
trans-1,3-Dichloropropene	ND		0.37	1.0	
trans-1,4-Dichloro-2-butene	ND		0.22	1.0	
Trichloroethene	ND ND		0.46	1.0	
Trichlorofluoromethane	ND		0.88	1.0	
Vinyl acetate	ND ND		0.85	5.0	
Vinyl chloride	ND ND		0.90	1.0	
viriyi Giliolide	ND		0.90	1.0	

HP5973N

N2316.D

Client: Waste Management Job Number: 280-62813-1

Client Sample ID: MW-33C

Lab Sample ID: 280-62813-3 Date Sampled: 11/19/2014 1311

Client Matrix: Water Date Received: 11/21/2014 1040

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-216556 Instrument ID:
Prep Method: 5030C Prep Batch: N/A Lab File ID:
Dilution: 1.0 Initial Weight/Volument ID:

Dilution: 1.0 Initial Weight/Volume: 5 mL Analysis Date: 12/01/2014 1534 Final Weight/Volume: 5 mL

Prep Date: 12/01/2014 1534

Surrogate%RecQualifierAcceptance Limits1,2-Dichloroethane-d4 (Surr)10366 - 1374-Bromofluorobenzene (Surr)9873 - 120Toluene-d8 (Surr)9971 - 126

Client: Waste Management Job Number: 280-62813-1

Client Sample ID: MW-33C

Lab Sample ID: 280-62813-3 Date Sampled: 11/19/2014 1311

Client Matrix: Water Date Received: 11/21/2014 1040

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-216556 Instrument ID: HP5973N Prep Method: 5030C Prep Batch: N/A Lab File ID: N2316.D

Dilution: 1.0 Initial Weight/Volume: 5 mL

Analysis Date: 12/01/2014 1534 Final Weight/Volume: 5 mL

Prep Date: 12/01/2014 1534

**Targeted Tentatively Identified Compounds** 

Cas Number Analyte Est. Result (ug/L) Qualifier

67-72-1 Hexachloroethane TIC ND

Client Sample ID: MW-15R

 Lab Sample ID:
 280-62813-4
 Date Sampled: 11/19/2014 1422

 Client Matrix:
 Water
 Date Received: 11/21/2014 1040

## 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-216556 Instrument ID: HP5973N Prep Method: 5030C Prep Batch: N/A Lab File ID: N2317.D Dilution: Initial Weight/Volume: 1.0 5 mL

Analysis Date: 12/01/2014 1559 Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	ND		0.35	1.0
I,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
I,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,1-Dichloropropene	ND		0.72	1.0
1,2,3-Trichlorobenzene	ND		0.41	1.0
1,2,3-Trichloropropane	ND		0.89	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2,4-Trimethylbenzene	ND		0.75	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane (EDB)	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloroethene, Total	ND		0.81	2.0
1,2-Dichloropropane	ND		0.72	1.0
1,3,5-Trichlorobenzene	ND		0.23	1.0
1,3,5-Trimethylbenzene	ND		0.77	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,3-Dichloropropane	ND		0.75	1.0
I,4-Dichlorobenzene	ND		0.84	1.0
I,4-Dioxane	ND		9.3	40
2,2-Dichloropropane	ND		0.40	1.0
2-Butanone (MEK)	ND		1.3	10
2-Chloroethyl vinyl ether	ND		0.96	5.0
2-Hexanone	ND		1.2	5.0
1-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Acetonitrile	ND		4.9	15
Acrolein	ND		0.91	20
Acrylonitrile	ND		0.83	5.0
Benzene	ND		0.41	1.0
Bromobenzene	ND		0.80	1.0
Bromochloromethane	ND		0.87	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Butyl alcohol, n-	ND		8.9	40
Butyl alcohol, tert-	ND		3.3	10
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Chlorodifluoromethane	ND		0.26	1.0

Client Sample ID: MW-15R

Lab Sample ID: 280-62813-4 Date Sampled: 11/19/2014 1422

Client Matrix: Water Date Received: 11/21/2014 1040

## 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-216556 Instrument ID: HP5973N Prep Method: 5030C Prep Batch: N/A Lab File ID: N2317.D Dilution: Initial Weight/Volume: 1.0 5 mL

Analysis Date: 12/01/2014 1559 Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dibromochloromethane	ND		0.32	1.0
Dibromomethane	ND		0.41	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Dichlorofluoromethane	ND		0.34	1.0
Ethyl acetate	ND		0.66	1.0
Ethyl ether	ND		0.72	1.0
Ethyl tert-butyl ether	ND		0.29	1.0
Ethylbenzene	ND		0.74	1.0
Hexachlorobutadiene	ND		0.28	1.0
Hexane	ND ND		0.40	10
Iodomethane	ND ND		0.30	1.0
Isobutanol	ND		4.8	25
Isopropyl ether	ND		0.59	1.0
Isopropylbenzene	ND ND		0.79	1.0
Methacrylonitrile	ND		0.69	5.0
Methyl acetate	ND		0.50	2.5
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
m-Xylene & p-Xylene	ND		0.66	2.0
Naphthalene	ND		0.43	1.0
n-Butylbenzene	ND		0.64	1.0
N-Propylbenzene	ND		0.69	1.0
o-Chlorotoluene	ND		0.86	1.0
o-Xylene	ND		0.76	1.0
p-Chlorotoluene	ND	*	0.84	1.0
p-Cymene	ND	*	0.31	1.0
sec-Butylbenzene	ND		0.75	1.0
Styrene	ND		0.73	1.0
Tert-amyl methyl ether	ND		0.27	1.0
tert-Butylbenzene	ND		0.81	1.0
Tetrachloroethene	ND		0.36	1.0
Tetrahydrofuran	ND		1.3	5.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
trans-1,4-Dichloro-2-butene	ND		0.22	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0
Vinyl acetate	ND		0.85	5.0
Vinyl chloride	ND		0.90	1.0
viriyi officiac	ND		0.00	1.0

Client: Waste Management Job Number: 280-62813-1

Client Sample ID: MW-15R

Lab Sample ID: 280-62813-4 Date Sampled: 11/19/2014 1422

Client Matrix: Water Date Received: 11/21/2014 1040

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-216556 Instrument ID: HP5973N Prep Method: 5030C Prep Batch: N/A Lab File ID: N2317.D Dilution: 1.0 Initial Weight/Volume: 5 mL

Dilution: 1.0 Initial Weight/Volume: 5 mL Analysis Date: 12/01/2014 1559 Final Weight/Volume: 5 mL

Prep Date: 12/01/2014 1559

Surrogate%RecQualifierAcceptance Limits1,2-Dichloroethane-d4 (Surr)10366 - 1374-Bromofluorobenzene (Surr)9873 - 120Toluene-d8 (Surr)10071 - 126

Client: Waste Management Job Number: 280-62813-1

Client Sample ID: MW-15R

Lab Sample ID: 280-62813-4 Date Sampled: 11/19/2014 1422

Client Matrix: Water Date Received: 11/21/2014 1040

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-216556 Instrument ID: HP5973N Prep Method: 5030C Prep Batch: N/A Lab File ID: N2317.D

Prep Method: 5030C Prep Batch: N/A Lab File ID: N2317.D Dilution: 1.0 Initial Weight/Volume: 5 mL

Analysis Date: 12/01/2014 1559 Final Weight/Volume: 5 mL

Prep Date: 12/01/2014 1559

**Targeted Tentatively Identified Compounds** 

Cas Number Analyte Est. Result (ug/L) Qualifier

67-72-1 Hexachloroethane TIC ND

Client Sample ID: MW-36A

Lab Sample ID: 280-62813-5 Date Sampled: 11/19/2014 1509

Client Matrix: Water Date Received: 11/21/2014 1040

## 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-216556 Instrument ID: HP5973N Prep Method: 5030C Prep Batch: N/A Lab File ID: N2318.D Dilution: Initial Weight/Volume: 1.0 5 mL

Analysis Date: 12/01/2014 1623 Final Weight/Volume: 5 mL

nalyte	Result (ug/L)	Qualifier	MDL	RL
,1,1,2-Tetrachloroethane	ND		0.35	1.0
,1,1-Trichloroethane	ND		0.82	1.0
,1,2,2-Tetrachloroethane	ND		0.21	1.0
,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
,1,2-Trichloroethane	ND		0.23	1.0
,1-Dichloroethane	ND		0.38	1.0
,1-Dichloroethene	ND		0.29	1.0
,1-Dichloropropene	ND		0.72	1.0
,2,3-Trichlorobenzene	ND		0.41	1.0
,2,3-Trichloropropane	ND		0.89	1.0
,2,4-Trichlorobenzene	ND		0.41	1.0
,2,4-Trimethylbenzene	ND		0.75	1.0
,2-Dibromo-3-Chloropropane	ND		0.39	1.0
,2-Dibromoethane (EDB)	ND		0.73	1.0
,2-Dichlorobenzene	ND		0.79	1.0
,2-Dichloroethane	ND		0.21	1.0
,2-Dichloroethene, Total	ND		0.81	2.0
,2-Dichloropropane	ND		0.72	1.0
,3,5-Trichlorobenzene	ND		0.23	1.0
,3,5-Trimethylbenzene	ND		0.77	1.0
,3-Dichlorobenzene	ND		0.78	1.0
,3-Dichloropropane	ND		0.75	1.0
,4-Dichlorobenzene	ND		0.84	1.0
,4-Dioxane	ND		9.3	40
,2-Dichloropropane	ND		0.40	1.0
-Butanone (MEK)	ND		1.3	10
-Chloroethyl vinyl ether	ND		0.96	5.0
-Hexanone	ND		1.2	5.0
-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
cetone	ND		3.0	10
cetonitrile	ND		4.9	15
Acrolein	ND		0.91	20
crylonitrile	ND		0.83	5.0
Benzene	ND		0.41	1.0
dromobenzene	ND		0.80	1.0
Bromochloromethane	ND		0.87	1.0
Bromodichloromethane	ND		0.39	1.0
romoform	ND		0.26	1.0
romomethane	ND		0.69	1.0
Butyl alcohol, n-	ND		8.9	40
Butyl alcohol, tert-	ND		3.3	10
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.19	1.0
Chlorobenzene	ND		0.75	1.0
Chlorodifluoromethane	ND		0.75	1.0

Client Sample ID: MW-36A

Lab Sample ID: 280-62813-5 Date Sampled: 11/19/2014 1509

Client Matrix: Water Date Received: 11/21/2014 1040

## 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-216556 Instrument ID: HP5973N Prep Method: 5030C Prep Batch: N/A Lab File ID: N2318.D Dilution: Initial Weight/Volume: 1.0 5 mL

Analysis Date: 12/01/2014 1623 Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dibromochloromethane	ND		0.32	1.0
Dibromomethane	ND		0.41	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Dichlorofluoromethane	ND		0.34	1.0
Ethyl acetate	ND		0.66	1.0
Ethyl ether	ND		0.72	1.0
Ethyl tert-butyl ether	ND		0.29	1.0
Ethylbenzene	ND		0.74	1.0
Hexachlorobutadiene	ND		0.28	1.0
Hexane	ND		0.40	10
lodomethane	ND		0.30	1.0
Isobutanol	ND		4.8	25
Isopropyl ether	ND		0.59	1.0
Isopropylbenzene	ND		0.79	1.0
Methacrylonitrile	ND		0.69	5.0
Methyl acetate	ND		0.50	2.5
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
m-Xylene & p-Xylene	ND		0.66	2.0
Naphthalene	ND		0.43	1.0
n-Butylbenzene	ND		0.64	1.0
N-Propylbenzene	ND		0.69	1.0
o-Chlorotoluene	ND		0.86	1.0
o-Xylene	ND		0.76	1.0
p-Chlorotoluene	ND	*	0.84	1.0
p-Cymene	ND	*	0.31	1.0
sec-Butylbenzene	ND		0.75	1.0
Styrene	ND		0.73	1.0
Tert-amyl methyl ether	ND		0.73	1.0
•	ND		0.27	1.0
tert-Butylbenzene Tetrachloroethene	ND ND		0.36	1.0
Tetrahydrofuran	ND ND		1.3	5.0
Toluene				
	ND ND		0.51	1.0
trans-1,2-Dichloroethene	ND ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
trans-1,4-Dichloro-2-butene	ND		0.22	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0
Vinyl acetate	ND		0.85	5.0
Vinyl chloride	ND		0.90	1.0

HP5973N

Client: Waste Management Job Number: 280-62813-1

Client Sample ID: MW-36A

Lab Sample ID: 280-62813-5 Date Sampled: 11/19/2014 1509

Client Matrix: Water Date Received: 11/21/2014 1040

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-216556 Instrument ID: Prep Method: 5030C Prep Batch: N/A Lab File ID: Dilution: 1.0 Initial Weight/V

ep Batch: N/A Lab File ID: N2318.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analysis Date: 12/01/2014 1623 Final Weight/Volume: 5 Prep Date: 12/01/2014 1623

Surrogate %Rec Qualifier Acceptance Limits
1,2-Dichloroethane-d4 (Surr) 103 66 - 137
4-Bromofluorobenzene (Surr) 98 73 - 120
Toluene-d8 (Surr) 97 71 - 126

Client: Waste Management Job Number: 280-62813-1

Client Sample ID: MW-36A

Lab Sample ID: 280-62813-5 Date Sampled: 11/19/2014 1509

Client Matrix: Water Date Received: 11/21/2014 1040

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-216556 Instrument ID: HP5973N Prep Method: 5030C Prep Batch: N/A Lab File ID: N2318.D

Dilution: 1.0 Prep Batch. N/A Lab File ID. N2516.D

Analysis Date: 12/01/2014 1623 Final Weight/Volume: 5 mL
Prep Date: 12/01/2014 1623

Targeted Tentatively Identified Compounds

Cas Number Analyte Est. Result (ug/L) Qualifier

67-72-1 Hexachloroethane TIC ND

Client Sample ID: TRIP BLANK

Lab Sample ID: 280-62813-6TB Date Sampled: 11/19/2014 0000

Client Matrix: Water Date Received: 11/21/2014 1040

## 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-216556 Instrument ID: HP5973N Prep Method: 5030C Prep Batch: N/A Lab File ID: N2319.D Dilution: Initial Weight/Volume: 1.0 5 mL

Analysis Date: 12/01/2014 1647 Initial Weight/Volume: 5 mL Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
,1,1,2-Tetrachloroethane	ND		0.35	1.0
,1,1-Trichloroethane	ND		0.82	1.0
,1,2,2-Tetrachloroethane	ND		0.21	1.0
,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
,1,2-Trichloroethane	ND		0.23	1.0
,1-Dichloroethane	ND		0.38	1.0
,1-Dichloroethene	ND		0.29	1.0
,1-Dichloropropene	ND		0.72	1.0
,2,3-Trichlorobenzene	ND		0.41	1.0
,2,3-Trichloropropane	ND		0.89	1.0
,2,4-Trichlorobenzene	ND		0.41	1.0
,2,4-Trimethylbenzene	ND		0.75	1.0
,2-Dibromo-3-Chloropropane	ND		0.39	1.0
,2-Dibromoethane (EDB)	ND		0.73	1.0
,2-Dichlorobenzene	ND		0.79	1.0
,2-Dichloroethane	ND		0.21	1.0
,2-Dichloroethene, Total	ND		0.81	2.0
,2-Dichloropropane	ND		0.72	1.0
,3,5-Trichlorobenzene	ND		0.23	1.0
,3,5-Trimethylbenzene	ND		0.77	1.0
,3-Dichlorobenzene	ND		0.78	1.0
3-Dichloropropane	ND		0.75	1.0
,4-Dichlorobenzene	ND		0.84	1.0
4-Dioxane	ND		9.3	40
2-Dichloropropane	ND		0.40	1.0
-Butanone (MEK)	ND		1.3	10
-Chloroethyl vinyl ether	ND		0.96	5.0
-Hexanone	ND		1.2	5.0
-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
cetone	ND		3.0	10
cetonie	ND ND		4.9	15
crolein	ND ND		0.91	20
crylonitrile	ND ND		0.83	5.0
enzene	ND ND		0.63	1.0
romobenzene	ND		0.41	1.0
	ND ND		0.87	
romochloromethane romodichloromethane	ND ND		0.87	1.0
				1.0
romoform	ND ND		0.26	1.0
romomethane	ND		0.69	1.0
utyl alcohol, n-	ND		8.9	40
utyl alcohol, tert-	ND		3.3	10
arbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
hlorobenzene	ND		0.75	1.0
Chlorodifluoromethane	ND		0.26	1.0
Chloroethane	ND		0.32	1.0

Client Sample ID: TRIP BLANK

Lab Sample ID: 280-62813-6TB Date Sampled: 11/19/2014 0000

Client Matrix: Water Date Received: 11/21/2014 1040

Final Weight/Volume:

5 mL

## 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-216556 Instrument ID: HP5973N Prep Method: 5030C Prep Batch: N/A Lab File ID: N2319.D Dilution: Initial Weight/Volume: 1.0 5 mL

Analysis Date: 12/01/2014 1647

Analyte	Result (ug/L)	Qualifier	MDL	RL
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dibromochloromethane	ND		0.32	1.0
Dibromomethane	ND		0.41	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Dichlorofluoromethane	ND		0.34	1.0
Ethyl acetate	ND		0.66	1.0
Ethyl ether	ND		0.72	1.0
Ethyl tert-butyl ether	ND		0.29	1.0
Ethylbenzene	ND		0.74	1.0
Hexachlorobutadiene	ND		0.28	1.0
Hexane	ND		0.40	10
Iodomethane	ND		0.30	1.0
Isobutanol	ND		4.8	25
Isopropyl ether	ND ND		0.59	1.0
	ND		0.79	1.0
Isopropylbenzene			0.79	
Methacrylonitrile	ND ND			5.0
Methyl acetate	ND ND		0.50	2.5
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
m-Xylene & p-Xylene	ND		0.66	2.0
Naphthalene	ND		0.43	1.0
n-Butylbenzene	ND		0.64	1.0
N-Propylbenzene	ND		0.69	1.0
o-Chlorotoluene	ND		0.86	1.0
o-Xylene	ND		0.76	1.0
p-Chlorotoluene	ND	*	0.84	1.0
p-Cymene	ND	*	0.31	1.0
sec-Butylbenzene	ND		0.75	1.0
Styrene	ND		0.73	1.0
Tert-amyl methyl ether	ND		0.27	1.0
tert-Butylbenzene	ND		0.81	1.0
Tetrachloroethene	ND		0.36	1.0
Tetrahydrofuran	ND		1.3	5.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
trans-1,4-Dichloro-2-butene	ND		0.22	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0
Vinyl acetate	ND ND		0.85	5.0
Vinyl acetate Vinyl chloride	ND		0.90	1.0
viriyi dilidilde	IND		0.50	1.0

Client: Waste Management Job Number: 280-62813-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 280-62813-6TB Date Sampled: 11/19/2014 0000

Client Matrix: Water Date Received: 11/21/2014 1040

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Prep Method: 5030C

Dilution: 1.0

Analysis Date: 12/01/2014 1647 Prep Date: 12/01/2014 1647 Analysis Batch: 480-216556 Instrument ID: HP5973N Prep Batch: N/A Lab File ID: N2319.D

Initial Weight/Volume: 5 mL Final Weight/Volume: 5 mL

Acceptance Limits

Surrogate %Rec Qualifier

 1,2-Dichloroethane-d4 (Surr)
 102
 66 - 137

 4-Bromofluorobenzene (Surr)
 97
 73 - 120

 Toluene-d8 (Surr)
 101
 71 - 126

Client: Waste Management Job Number: 280-62813-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 280-62813-6TB Date Sampled: 11/19/2014 0000

Client Matrix: Water Date Received: 11/21/2014 1040

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-216556 Instrument ID: HP5973N Prep Method: 5030C Prep Batch: N/A Lab File ID: N2319.D

Dilution: 1.0 Initial Weight/Volume: 5 mL

Analysis Date: 12/01/2014 1647 Final Weight/Volume: 5 mL

Prep Date: 12/01/2014 1647

**Targeted Tentatively Identified Compounds** 

Cas Number Analyte Est. Result (ug/L) Qualifier

67-72-1 Hexachloroethane TIC ND

Client Sample ID: MW-33A

Lab Sample ID: 280-62813-7 Date Sampled: 11/19/2014 1236

Client Matrix: Water Date Received: 11/21/2014 1040

## 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-216556 Instrument ID: HP5973N Prep Method: 5030C Prep Batch: N/A Lab File ID: N2320.D Dilution: Initial Weight/Volume: 1.0 5 mL

Analysis Date: 12/01/2014 1711 Final Weight/Volume: 5 mL

nalyte	Result (ug/L)	Qualifier	MDL	RL
,1,1,2-Tetrachloroethane	ND		0.35	1.0
,1,1-Trichloroethane	ND		0.82	1.0
,1,2,2-Tetrachloroethane	ND		0.21	1.0
,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
,1,2-Trichloroethane	ND		0.23	1.0
,1-Dichloroethane	ND		0.38	1.0
,1-Dichloroethene	ND		0.29	1.0
,1-Dichloropropene	ND		0.72	1.0
2,3-Trichlorobenzene	ND		0.41	1.0
2,3-Trichloropropane	ND		0.89	1.0
2,4-Trichlorobenzene	ND		0.41	1.0
2,4-Trimethylbenzene	ND		0.75	1.0
,2-Dibromo-3-Chloropropane	ND		0.39	1.0
2-Dibromoethane (EDB)	ND		0.73	1.0
,2-Dichlorobenzene	ND		0.79	1.0
,2-Dichloroethane	ND		0.21	1.0
,2-Dichloroethene, Total	ND		0.81	2.0
,2-Dichloropropane	ND		0.72	1.0
3,5-Trichlorobenzene	ND		0.23	1.0
3,5-Trimethylbenzene	ND		0.77	1.0
3-Dichlorobenzene	ND		0.78	1.0
3-Dichloropropane	ND		0.75	1.0
4-Dichlorobenzene	ND		0.84	1.0
4-Dioxane	ND		9.3	40
,2-Dichloropropane	ND		0.40	1.0
-Butanone (MEK)	ND		1.3	10
-Chloroethyl vinyl ether	ND		0.96	5.0
-Hexanone	ND		1.2	5.0
-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
cetone	ND		3.0	10
cetonitrile	ND		4.9	15
crolein	ND		0.91	20
crylonitrile	ND		0.83	5.0
enzene	ND		0.41	1.0
romobenzene	ND		0.80	1.0
romochloromethane	ND		0.87	1.0
romodichloromethane	ND		0.39	1.0
romoform	ND		0.26	1.0
romomethane	ND		0.69	1.0
utyl alcohol, n-	ND		8.9	40
utyl alcohol, tert-	ND		3.3	10
arbon disulfide	ND		0.19	1.0
arbon tetrachloride	ND		0.27	1.0
hlorobenzene	ND		0.75	1.0
hlorodifluoromethane	ND		0.26	1.0
hloroethane	ND		0.32	1.0

5 mL

Client: Waste Management Job Number: 280-62813-1

Client Sample ID: MW-33A

Lab Sample ID: 280-62813-7 Date Sampled: 11/19/2014 1236

Client Matrix: Water Date Received: 11/21/2014 1040

## 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-216556 Instrument ID: HP5973N Prep Method: 5030C Prep Batch: N/A Lab File ID: N2320.D Dilution: Initial Weight/Volume: 1.0 5 mL

Analysis Date: 12/01/2014 1711 Final Weight/Volume:

Analyte	Result (ug/L)	Qualifier	MDL	RL	
Chloroform	ND		0.34	1.0	
Chloromethane	ND		0.35	1.0	
cis-1,2-Dichloroethene	ND		0.81	1.0	
cis-1,3-Dichloropropene	ND		0.36	1.0	
Cyclohexane	ND		0.18	1.0	
Dibromochloromethane	ND		0.32	1.0	
Dibromomethane	ND		0.41	1.0	
Dichlorodifluoromethane	ND		0.68	1.0	
Dichlorofluoromethane	ND		0.34	1.0	
Ethyl acetate	ND		0.66	1.0	
Ethyl ether	ND		0.72	1.0	
Ethyl tert-butyl ether	ND		0.29	1.0	
Ethylbenzene	ND		0.74	1.0	
Hexachlorobutadiene	ND		0.28	1.0	
Hexane	ND		0.40	10	
Iodomethane	ND		0.30	1.0	
Isobutanol	ND		4.8	25	
Isopropyl ether	ND		0.59	1.0	
Isopropylbenzene	ND		0.79	1.0	
Methacrylonitrile	ND		0.69	5.0	
Methyl acetate	ND		0.50	2.5	
Methyl tert-butyl ether	ND		0.16	1.0	
Methylcyclohexane	ND		0.16	1.0	
Methylene Chloride	ND		0.44	1.0	
m-Xylene & p-Xylene	ND		0.66	2.0	
Naphthalene	ND		0.43	1.0	
n-Butylbenzene	ND		0.64	1.0	
N-Propylbenzene	ND		0.69	1.0	
o-Chlorotoluene	ND		0.86	1.0	
o-Xylene	ND		0.76	1.0	
p-Chlorotoluene	ND	*	0.84	1.0	
p-Cymene	ND	*	0.31	1.0	
sec-Butylbenzene	ND		0.75	1.0	
Styrene	ND		0.73	1.0	
Tert-amyl methyl ether	ND		0.27	1.0	
tert-Butylbenzene	ND		0.81	1.0	
Tetrachloroethene	ND		0.36	1.0	
Tetrahydrofuran	ND		1.3	5.0	
Toluene	ND		0.51	1.0	
trans-1,2-Dichloroethene	ND		0.90	1.0	
trans-1,3-Dichloropropene	ND		0.37	1.0	
trans-1,4-Dichloro-2-butene	ND		0.22	1.0	
Trichloroethene	ND ND		0.46	1.0	
Trichlorofluoromethane	ND		0.88	1.0	
Vinyl acetate	ND ND		0.85	5.0	
Vinyl chloride	ND ND		0.90	1.0	
viriyi Giliolide	ND		0.90	1.0	

HP5973N

N2320.D

Client: Waste Management Job Number: 280-62813-1

Client Sample ID: MW-33A

Lab Sample ID: 280-62813-7 Date Sampled: 11/19/2014 1236

Client Matrix: Water Date Received: 11/21/2014 1040

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-216556 Instrument ID: Prep Method: 5030C Prep Batch: N/A Lab File ID: Dilution: 1.0 Initial Weight/V

Initial Weight/Volume: 5 mL

Analysis Date: 12/01/2014 1711 Final Weight/Volume: 5 mL

Prep Date: 12/01/2014 1711

Surrogate%RecQualifierAcceptance Limits1,2-Dichloroethane-d4 (Surr)10566 - 1374-Bromofluorobenzene (Surr)10073 - 120Toluene-d8 (Surr)9771 - 126

Client: Waste Management Job Number: 280-62813-1

Client Sample ID: MW-33A

Lab Sample ID: 280-62813-7 Date Sampled: 11/19/2014 1236

Client Matrix: Water Date Received: 11/21/2014 1040

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-216556 Instrument ID: HP5973N Prep Method: 5030C Prep Batch: N/A Lab File ID: N2320.D

Dilution: 1.0 Initial Weight/Volume: 5 mL

Analysis Date: 12/01/2014 1711 Final Weight/Volume: 5 mL

 Analysis Date:
 12/01/2014 1711
 Final Weight/Volume:
 5

 Prep Date:
 12/01/2014 1711

**Targeted Tentatively Identified Compounds** 

Cas Number Analyte Est. Result (ug/L) Qualifier

67-72-1 Hexachloroethane TIC ND

Client: Waste Management Job Number: 280-62813-1

Client Sample ID: MW-34C

Lab Sample ID: 280-62813-1 Date Sampled: 11/19/2014 1003

Client Matrix: Water Date Received: 11/21/2014 1040

8260C SIM Volatile Organic Compounds (GC/MS)

Analysis Method: 8260C SIM Analysis Batch: 480-215927 Instrument ID: HP5973J Prep Method: 5030C Prep Batch: N/A Lab File ID: J4169.D Dilution: 1.0 Initial Weight/Volume: 25 mL

Dilution: 1.0 Initial Weight/Volume: 25 mL Analysis Date: 11/25/2014 1838 Final Weight/Volume: 25 mL

Prep Date: 11/25/2014 1838

 Analyte
 Result (ug/L)
 Qualifier
 MDL
 RL

 Vinyl chloride
 0.12
 0.0040
 0.020

Surrogate%RecQualifierAcceptance LimitsDibromofluoromethane (Surr)9650 - 150TBA-d9 (Surr)153X50 - 150

50 - 150

Client: Waste Management Job Number: 280-62813-1

Client Sample ID: MW-34A

Lab Sample ID: 280-62813-2 Date Sampled: 11/19/2014 1045

Client Matrix: Water Date Received: 11/21/2014 1040

8260C SIM Volatile Organic Compounds (GC/MS)

Analysis Method: 8260C SIM Analysis Batch: 480-215927 Instrument ID: HP5973J Prep Method: 5030C Prep Batch: N/A Lab File ID: J4170.D Dilution: 1.0 Initial Weight/Volume: 25 mL

Dilution: 1.0 Initial Weight/Volume: 25 mL Analysis Date: 11/25/2014 1902 Final Weight/Volume: 25 mL

Prep Date: 11/25/2014 1902

TBA-d9 (Surr)

 Analyte
 Result (ug/L)
 Qualifier
 MDL
 RL

 Vinyl chloride
 ND
 0.0040
 0.020

Surrogate%RecQualifierAcceptance LimitsDibromofluoromethane (Surr)9650 - 150

143

Client: Waste Management Job Number: 280-62813-1

Client Sample ID: MW-33C

Lab Sample ID: 280-62813-3 Date Sampled: 11/19/2014 1311

Client Matrix: Water Date Received: 11/21/2014 1040

8260C SIM Volatile Organic Compounds (GC/MS)

Analysis Method: 8260C SIM Analysis Batch: 480-215927 Instrument ID: HP5973J Prep Method: 5030C Prep Batch: N/A Lab File ID: J4171.D Dilution: 1.0 Initial Weight/Volume: 25 mL

Dilution: 1.0 Initial Weight/Volume: 25 mL Analysis Date: 11/25/2014 1926 Final Weight/Volume: 25 mL

Prep Date: 11/25/2014 1926

 Analyte
 Result (ug/L)
 Qualifier
 MDL
 RL

 Vinyl chloride
 ND
 0.0040
 0.020

Surrogate%RecQualifierAcceptance LimitsDibromofluoromethane (Surr)9650 - 150TBA-d9 (Surr)11750 - 150

Client: Waste Management Job Number: 280-62813-1

Client Sample ID: MW-15R

Lab Sample ID: 280-62813-4 Date Sampled: 11/19/2014 1422

Client Matrix: Water Date Received: 11/21/2014 1040

480-215927

8260C SIM Volatile Organic Compounds (GC/MS)

Analysis Method: 8260C SIM Prep Method: 5030C

Dilution:

Analysis Date: 11/25/2014 1950

Prep Date: 11/25/2014 1950

Prep Batch: N/A Lab File ID: J4172.D Initial Weight/Volume: 1.0 25 mL

Analysis Batch:

25 mL

HP5973J

Final Weight/Volume:

Instrument ID:

Analyte Result (ug/L) Qualifier MDL RL Vinyl chloride 0.0069 0.0040 0.020

Surrogate %Rec Qualifier Acceptance Limits 50 - 150 Dibromofluoromethane (Surr) 97 50 - 150 TBA-d9 (Surr) 153 Χ

Client: Waste Management Job Number: 280-62813-1

Client Sample ID: MW-36A

Lab Sample ID: 280-62813-5 Date Sampled: 11/19/2014 1509

Client Matrix: Water Date Received: 11/21/2014 1040

8260C SIM Volatile Organic Compounds (GC/MS)

Analysis Method: 8260C SIM Analysis Batch: 480-215927 Instrument ID: HP5973J Prep Method: 5030C Prep Batch: N/A Lab File ID: J4173.D

Dilution: 1.0 Initial Weight/Volume: 25 mL Analysis Date: 11/25/2014 2015 Final Weight/Volume: 25 mL

Prep Date: 11/25/2014 2015

 Analyte
 Result (ug/L)
 Qualifier
 MDL
 RL

 Vinyl chloride
 ND
 0.0040
 0.020

Surrogate%RecQualifierAcceptance LimitsDibromofluoromethane (Surr)9550 - 150TBA-d9 (Surr)14650 - 150

HP5973J

J4174.D

25 mL

25 mL

Client: Waste Management Job Number: 280-62813-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 280-62813-6TB Date Sampled: 11/19/2014 0000

Client Matrix: Water Date Received: 11/21/2014 1040

N/A

480-215927

Instrument ID:

Initial Weight/Volume:

Final Weight/Volume:

Lab File ID:

8260C SIM Volatile Organic Compounds (GC/MS)

Analysis Method: 8260C SIM
Prep Method: 5030C

Dilution: 1.0

Analysis Date: 11/25/2014 2039

Prep Date: 11/25/2014 2039

 Analyte
 Result (ug/L)
 Qualifier
 MDL
 RL

 Vinyl chloride
 ND
 0.0040
 0.020

Analysis Batch:

Prep Batch:

Surrogate%RecQualifierAcceptance LimitsDibromofluoromethane (Surr)10050 - 150TBA-d9 (Surr)11450 - 150

Client: Waste Management Job Number: 280-62813-1

Client Sample ID: MW-33A

Lab Sample ID: 280-62813-7 Date Sampled: 11/19/2014 1236

Client Matrix: Water Date Received: 11/21/2014 1040

8260C SIM Volatile Organic Compounds (GC/MS)

Analysis Method: 8260C SIM Analysis Batch: 480-215927 Instrument ID: HP5973J Prep Method: 5030C Prep Batch: N/A Lab File ID: J4175.D Dilution: 1.0 Initial Weight/Volume: 25 mL

Dilution: 1.0 Initial Weight/Volume: 25 mL Analysis Date: 11/25/2014 2103 Final Weight/Volume: 25 mL

Prep Date: 11/25/2014 2103

 Analyte
 Result (ug/L)
 Qualifier
 MDL
 RL

 Vinyl chloride
 ND
 0.0040
 0.020

Surrogate %Rec Qualifier Acceptance Limits

Dibromofluoromethane (Surr) 94 50 - 150

TBA-d9 (Surr) 144 50 - 150

Client Sample ID: MW-34C

Lab Sample ID: 280-62813-1 Date Sampled: 11/19/2014 1003

Client Matrix: Water Date Received: 11/21/2014 1040

6010B Metals (ICP)-Total Recoverable

 Analysis Method:
 6010B
 Analysis Batch:
 280-255927
 Instrument ID:
 MT\_026

 Prep Method:
 3005A
 Prep Batch:
 280-254437
 Lab File ID:
 26d120414.asc

Dilution: 1.0 Initial Weight/Volume: 50 mL

Analysis Date: 12/05/2014 0243 Final Weight/Volume: 50 mL

Prep Date: 11/24/2014 1245

 Analyte
 Result (mg/L)
 Qualifier
 RL
 RL

 Cobalt, Total
 ND
 0.0030
 0.0030

 Iron, Total
 4.9
 0.060
 0.060

6010B Metals (ICP)-Dissolved

Analysis Method: 6010B Analysis Batch: 280-257020 Instrument ID: MT\_026

Prep Method: 3005A Prep Batch: 280-254416 Lab File ID: 26A121214E.asc

Dilution: 1.0 Initial Weight/Volume: 50 mL

Analysis Date: 12/13/2014 0711 Final Weight/Volume: 50 ml

Analysis Date: 12/13/2014 0711 Final Weight/Volume: 50 mL Prep Date: 11/24/2014 1245

15

Analyte Result (mg/L) Qualifier RL RL Calcium, Dissolved 25 0.040 0.040 ND Cobalt, Dissolved 0.0030 0.0030 0.59 0.060 0.060 Iron, Dissolved 0.050 11 0.050 Magnesium, Dissolved 2.4 1.0 Potassium, Dissolved 1.0

6020 Metals (ICP/MS)-Total Recoverable

1.0

0.0050

1.0

0.0050

Analysis Method: 6020 Analysis Batch: 280-254731 Instrument ID: MT\_024
Prep Method: 3005A Prep Batch: 280-254429 Lab File ID: 114SMPL.D

Dilution: 1.0 Initial Weight/Volume: 50 mL

Analysis Date: 11/25/2014 0008 Final Weight/Volume: 50 mL
Prep Date: 11/23/2014 1531

Qualifier RL Analyte Result (mg/L) RL 0.0010 0.0010 Antimony, Total ND 0.026 0.0010 0.0010 Barium, Total Beryllium, Total ND 0.0010 0.0010 Cadmium, Total ND 0.00020 0.00020 Chromium, Total ND 0.0030 0.0030 Copper, Total 0.0028 0.0020 0.0020 Lead, Total ND 0.0010 0.0010 Manganese, Total 1.2 0.0010 0.0010 Nickel, Total ND 0.0040 0.0040 Selenium, Total ND 0.0010 0.0010 Silver, Total ND 0.0020 0.0020 Thallium, Total ND 0.0010 0.0010 Vanadium, Total ND 0.0020 0.0020

ND

Zinc, Total

Sodium, Dissolved

Client: Waste Management Job Number: 280-62813-1

Client Sample ID: MW-34C

Lab Sample ID: 280-62813-1 Date Sampled: 11/19/2014 1003

Client Matrix: Water Date Received: 11/21/2014 1040

6020 Metals (ICP/MS)-Dissolved

Analysis Method: 6020 Analysis Batch: 280-254731 Instrument ID: MT\_024
Prep Method: 3005A Prep Batch: 280-254469 Lab File ID: 184SMPL.D
Dilution: 1.0 Initial Weight/Volume: 50 mL

Dilution: 1.0 Initial Weight/Volume: 50 mL Analysis Date: 11/25/2014 0345 Final Weight/Volume: 50 mL

Prep Date: 11/24/2014 1245

Analyte	Result (mg/L)	Qualifier	RL	RL
Antimony, Dissolved	ND		0.0010	0.0010
Barium, Dissolved	0.025		0.0010	0.0010
Beryllium, Dissolved	ND		0.0010	0.0010
Cadmium, Dissolved	ND		0.00020	0.00020
Chromium, Dissolved	ND		0.0030	0.0030
Copper, Dissolved	0.0033		0.0020	0.0020
Lead, Dissolved	ND		0.0010	0.0010
Manganese, Dissolved	1.3		0.0010	0.0010
Nickel, Dissolved	ND		0.0040	0.0040
Selenium, Dissolved	ND		0.0010	0.0010
Silver, Dissolved	ND		0.0020	0.0020
Thallium, Dissolved	ND		0.0010	0.0010
Vanadium, Dissolved	ND		0.0020	0.0020
Zinc, Dissolved	ND		0.0050	0.0050

Client Sample ID: MW-34A

Lab Sample ID: 280-62813-2 Date Sampled: 11/19/2014 1045

Client Matrix: Water Date Received: 11/21/2014 1040

6010B Metals (ICP)-Total Recoverable

Analysis Method: 6010B Analysis Batch: 280-257019 Instrument ID: MT\_026

Prep Method: 3005A Prep Batch: 280-254436 Lab File ID: 26A121214D.asc

 Dilution:
 1.0
 Initial Weight/Volume:
 50 mL

 Analysis Date:
 12/13/2014 0504
 Final Weight/Volume:
 50 mL

Prep Date: 11/25/2014 0715

 Analyte
 Result (mg/L)
 Qualifier
 RL
 RL

 Cobalt, Total
 ND
 0.0030
 0.0030

 Cobalt, Total
 ND
 0.0030
 0.0030

 Iron, Total
 ND
 0.060
 0.060

6010B Metals (ICP)-Dissolved

Analysis Method: 6010B Analysis Batch: 280-257020 Instrument ID: MT\_026

Prep Method: 3005A Prep Batch: 280-254414 Lab File ID: 26A121214E.asc

Dilution: 1.0 Initial Weight/Volume: 50 mL

Analysis Date: 12/13/2014 0822 Final Weight/Volume: 50 mL Prep Date: 11/24/2014 1245

Analyte Result (mg/L) Qualifier RL RL Calcium, Dissolved 17 0.040 0.040 ND Cobalt, Dissolved 0.0030 0.0030 ND 0.060 0.060 Iron, Dissolved

 Magnesium, Dissolved
 8.5
 0.050
 0.050

 Potassium, Dissolved
 ND
 1.0
 1.0

 Sodium, Dissolved
 11
 1.0
 1.0

6020 Metals (ICP/MS)-Total Recoverable

Analysis Method: 6020 Analysis Batch: 280-254731 Instrument ID: MT\_024
Prep Method: 3005A Prep Batch: 280-254429 Lab File ID: 117AREF.D

Dilution: 1.0 Initial Weight/Volume: 50 mL

Analysis Date: 11/25/2014 0017 Final Weight/Volume: 50 mL Prep Date: 11/23/2014 1531

RL Analyte Result (mg/L) Qualifier RL 0.0010 0.0010 Antimony, Total ND 0.0044 0.0010 0.0010 Barium, Total Beryllium, Total ND 0.0010 0.0010 Cadmium, Total ND 0.00020 0.00020 Chromium, Total 0.0043 0.0030 0.0030 Copper, Total ND 0.0020 0.0020 ND 0.0010 0.0010

Lead, Total Manganese, Total ND 0.0010 0.0010 Nickel, Total ND 0.0040 0.0040 Selenium, Total ND 0.0010 0.0010 Silver, Total ND 0.0020 0.0020 Thallium, Total ND 0.0010 0.0010

Client: Waste Management Job Number: 280-62813-1

Client Sample ID: MW-34A

Lab Sample ID: 280-62813-2 Date Sampled: 11/19/2014 1045

Client Matrix: Water Date Received: 11/21/2014 1040

6020 Metals (ICP/MS)-Dissolved

Analysis Method: 6020 Analysis Batch: 280-254731 Instrument ID: MT\_024
Prep Method: 3005A Prep Batch: 280-254469 Lab File ID: 185SMPL.D
Dilution: 1.0 Initial Weight/Volume: 50 mL

Dilution: 1.0 Initial Weight/Volume: 50 mL Analysis Date: 11/25/2014 0348 Final Weight/Volume: 50 mL

Prep Date: 11/24/2014 1245

Analyte	Result (mg/L)	Qualifier	RL	RL
Antimony, Dissolved	ND		0.0010	0.0010
Barium, Dissolved	0.0044		0.0010	0.0010
Beryllium, Dissolved	ND		0.0010	0.0010
Cadmium, Dissolved	ND		0.00020	0.00020
Chromium, Dissolved	0.0048		0.0030	0.0030
Copper, Dissolved	ND		0.0020	0.0020
Lead, Dissolved	ND		0.0010	0.0010
Manganese, Dissolved	ND		0.0010	0.0010
Nickel, Dissolved	ND		0.0040	0.0040
Selenium, Dissolved	ND		0.0010	0.0010
Silver, Dissolved	ND		0.0020	0.0020
Thallium, Dissolved	ND		0.0010	0.0010
Vanadium, Dissolved	0.0043		0.0020	0.0020
Zinc, Dissolved	ND		0.0050	0.0050

Client: Waste Management Job Number: 280-62813-1

Client Sample ID: MW-33C

Lab Sample ID: 280-62813-3 Date Sampled: 11/19/2014 1311

Client Matrix: Date Received: 11/21/2014 1040 Water

6010B Metals (ICP)-Total Recoverable

6010B 280-257019 Instrument ID: MT\_026 Analysis Method: Analysis Batch:

Prep Method: 3005A Prep Batch: 280-254436 Lab File ID: 26A121214D.asc

> Initial Weight/Volume: 50 mL

Analysis Date: 12/13/2014 0507 Final Weight/Volume: 50 mL

Prep Date: 11/25/2014 0715

1.0

Dilution:

Qualifier RL Analyte Result (mg/L) RL Cobalt, Total ND 0.0030 0.0030

Iron, Total 0.38 0.060 0.060

6010B Metals (ICP)-Dissolved

Analysis Method: 6010B Analysis Batch: 280-257020 Instrument ID: MT\_026

Prep Method: 3005A Prep Batch: 280-254414 Lab File ID: 26A121214E.asc

Dilution: 1.0 Initial Weight/Volume: 50 mL

Analysis Date: 12/13/2014 0824 Final Weight/Volume: 50 mL Prep Date: 11/24/2014 1245

Analyte Result (mg/L) Qualifier RL RL Calcium, Dissolved 18 0.040 0.040 ND Cobalt, Dissolved 0.0030 0.0030 0.38 0.060 0.060 Iron, Dissolved

7.4 0.050 0.050 Magnesium, Dissolved 1.5 1.0 Potassium, Dissolved 1.0

Sodium, Dissolved 4.5 1.0 1.0

6020 Metals (ICP/MS)-Total Recoverable

6020 280-254731 Instrument ID: MT 024 Analysis Method: Analysis Batch: Prep Method: 3005A Prep Batch: 280-254429 Lab File ID: 122SMPL.D

Dilution: 1.0 Initial Weight/Volume: 50 mL

Analysis Date: 11/25/2014 0032 Final Weight/Volume: 50 mL 11/23/2014 1531 Prep Date:

Qualifier RL Analyte Result (mg/L) RL 0.0010 0.0010 Antimony, Total ND 0.0049 0.0010 0.0010 Barium, Total Beryllium, Total ND 0.0010 0.0010 Cadmium, Total ND 0.00020 0.00020 Chromium, Total ND 0.0030 0.0030 Copper, Total ND 0.0020 0.0020 Lead, Total ND 0.0010 0.0010 Manganese, Total 0.20 0.0010 0.0010 Nickel, Total ND 0.0040 0.0040 Selenium, Total ND 0.0010 0.0010 Silver, Total ND 0.0020 0.0020 Thallium, Total ND 0.0010 0.0010

0.0020

0.0050

0.0020

0.0050

ND

ND

Vanadium, Total

Zinc, Total

Client: Waste Management Job Number: 280-62813-1

Client Sample ID: MW-33C

Lab Sample ID: 280-62813-3 Date Sampled: 11/19/2014 1311

Client Matrix: Water Date Received: 11/21/2014 1040

6020 Metals (ICP/MS)-Dissolved

280-254731 MT\_024 Analysis Method: 6020 Analysis Batch: Instrument ID: Prep Method: 3005A Prep Batch: 186SMPL.D 280-254469 Lab File ID: Dilution: 1.0 Initial Weight/Volume: 50 mL

Dilution: 1.0 Initial Weight/Volume: 50 mL

Analysis Date: 11/25/2014 0351 Final Weight/Volume: 50 mL

Prep Date: 11/24/2014 1245

Analyte	Result (mg/L)	Qualifier	RL	RL
Antimony, Dissolved	ND		0.0010	0.0010
Barium, Dissolved	0.0047		0.0010	0.0010
Beryllium, Dissolved	ND		0.0010	0.0010
Cadmium, Dissolved	ND		0.00020	0.00020
Chromium, Dissolved	ND		0.0030	0.0030
Copper, Dissolved	ND		0.0020	0.0020
Lead, Dissolved	ND		0.0010	0.0010
Manganese, Dissolved	0.20		0.0010	0.0010
Nickel, Dissolved	ND		0.0040	0.0040
Selenium, Dissolved	ND		0.0010	0.0010
Silver, Dissolved	ND		0.0020	0.0020
Thallium, Dissolved	ND		0.0010	0.0010
Vanadium, Dissolved	ND		0.0020	0.0020
Zinc, Dissolved	ND		0.0050	0.0050

Client Sample ID: MW-15R

Lab Sample ID: 280-62813-4 Date Sampled: 11/19/2014 1422

Client Matrix: Water Date Received: 11/21/2014 1040

6010B Metals (ICP)-Total Recoverable

Analysis Method: 6010B Analysis Batch: 280-257019 Instrument ID: MT\_026

Prep Method: 3005A Prep Batch: 280-254436 Lab File ID: 26A121214D.asc

Initial Weight/Volume: 50 mL

Analysis Date: 12/13/2014 0509 Final Weight/Volume: 50 mL

Prep Date: 11/25/2014 0715

1.0

Dilution:

 Analyte
 Result (mg/L)
 Qualifier
 RL
 RL

 Cobalt, Total
 ND
 0.0030
 0.0030

 Iron, Total
 ND
 0.060
 0.060

6010B Metals (ICP)-Dissolved

Analysis Method: 6010B Analysis Batch: 280-257020 Instrument ID: MT\_026

Prep Method: 3005A Prep Batch: 280-254414 Lab File ID: 26A121214E.asc

Dilution: 1.0 Initial Weight/Volume: 50 mL

Analysis Date: 12/13/2014 0827 Final Weight/Volume: 50 mL Prep Date: 11/24/2014 1245

 Analyte
 Result (mg/L)
 Qualifier
 RL
 RL

 Calcium, Dissolved
 18
 0.040
 0.040

 Cobalt, Dissolved
 ND
 0.0030
 0.0030

ND 0.060 0.060 Iron, Dissolved 0.050 0.050 Magnesium, Dissolved 11 ND 1.0 Potassium, Dissolved 1.0 Sodium, Dissolved 6.1 1.0 1.0

6020 Metals (ICP/MS)-Total Recoverable

Analysis Method: 6020 Analysis Batch: 280-254731 Instrument ID: MT\_024
Prep Method: 3005A Prep Batch: 280-254429 Lab File ID: 123SMPL.D

Dilution: 1.0 Initial Weight/Volume: 50 mL

Analysis Date: 11/25/2014 0035 Final Weight/Volume: 50 mL Prep Date: 11/23/2014 1531

Qualifier RL Analyte Result (mg/L) RL 0.0010 0.0010 Antimony, Total ND 0.0010 0.0010 Barium, Total 0.0051 Beryllium, Total ND 0.0010 0.0010 Cadmium, Total ND 0.00020 0.00020 Chromium, Total ND 0.0030 0.0030 ND 0.0020 0.0020

Copper, Total Lead, Total ND 0.0010 0.0010 Manganese, Total 0.0058 0.0010 0.0010 Nickel, Total ND 0.0040 0.0040 Selenium, Total ND 0.0010 0.0010 Silver, Total ND 0.0020 0.0020

 Silver, Total
 ND
 0.0020
 0.0020

 Thallium, Total
 ND
 0.0010
 0.0010

 Vanadium, Total
 0.0036
 0.0020
 0.0020

 Zinc, Total
 ND
 0.0050
 0.0050

Client: Waste Management Job Number: 280-62813-1

Client Sample ID: MW-15R

Lab Sample ID: 280-62813-4 Date Sampled: 11/19/2014 1422

Client Matrix: Water Date Received: 11/21/2014 1040

6020 Metals (ICP/MS)-Dissolved

Analysis Method: 6020 Analysis Batch: 280-254731 Instrument ID: MT\_024

Prep Method: 3005A Prep Batch: 280-254469 Lab File ID: 187SMPL.D

Dilution: 1.0 Initial Weight/Volume: 50 mL Analysis Date: 11/25/2014 0354 Final Weight/Volume: 50 mL

Prep Date: 11/24/2014 1245

	5 " ( " )	0 115	5.	51
Analyte	Result (mg/L)	Qualifier	RL	RL
Antimony, Dissolved	ND		0.0010	0.0010
Barium, Dissolved	0.0051		0.0010	0.0010
Beryllium, Dissolved	ND		0.0010	0.0010
Cadmium, Dissolved	ND		0.00020	0.00020
Chromium, Dissolved	ND		0.0030	0.0030
Copper, Dissolved	ND		0.0020	0.0020
Lead, Dissolved	ND		0.0010	0.0010
Manganese, Dissolved	0.0015		0.0010	0.0010
Nickel, Dissolved	ND		0.0040	0.0040
Selenium, Dissolved	ND		0.0010	0.0010
Silver, Dissolved	ND		0.0020	0.0020
Thallium, Dissolved	ND		0.0010	0.0010
Vanadium, Dissolved	0.0037		0.0020	0.0020
Zinc, Dissolved	ND		0.0050	0.0050

Client Sample ID: MW-36A

Lab Sample ID: 280-62813-5 Date Sampled: 11/19/2014 1509

Client Matrix: Water Date Received: 11/21/2014 1040

6010B Metals (ICP)-Total Recoverable

Analysis Method: 6010B Analysis Batch: 280-257019 Instrument ID: MT\_026

Prep Method: 3005A Prep Batch: 280-254436 Lab File ID: 26A121214D.asc

Initial Weight/Volume: 50 mL

Analysis Date: 12/13/2014 0512 Final Weight/Volume: 50 mL

Prep Date: 11/25/2014 0715

1.0

Dilution:

 Analyte
 Result (mg/L)
 Qualifier
 RL
 RL

 Cobalt, Total
 ND
 0.0030
 0.0030

Iron, Total ND 0.060 0.060

6010B Metals (ICP)-Dissolved

Analysis Method: 6010B Analysis Batch: 280-257020 Instrument ID: MT\_026

Prep Method: 3005A Prep Batch: 280-254414 Lab File ID: 26A121214E.asc

Dilution: 1.0 Initial Weight/Volume: 50 mL

Analysis Date: 12/13/2014 0830 Final Weight/Volume: 50 mL Prep Date: 11/24/2014 1245

 Analyte
 Result (mg/L)
 Qualifier
 RL
 RL

 Calcium, Dissolved
 11
 0.040
 0.040

 Cobalt, Dissolved
 ND
 0.0030
 0.0030

0.066 0.060 0.060 Iron, Dissolved 0.050 7.2 0.050 Magnesium, Dissolved 1.0 Potassium, Dissolved 1.1 1.0 Sodium, Dissolved 6.5 1.0 1.0

6020 Metals (ICP/MS)-Total Recoverable

Analysis Method: 6020 Analysis Batch: 280-254731 Instrument ID: MT\_024
Prep Method: 3005A Prep Batch: 280-254429 Lab File ID: 124SMPL.D

Dilution: 1.0 Initial Weight/Volume: 50 mL

Analysis Date: 11/25/2014 0038 Final Weight/Volume: 50 mL

 Prep Date:
 11/23/2014 1531

 Analyte
 Result (mg/L)
 Qualifier
 RL
 RL

 Antimony, Total
 ND
 0.0010
 0.0010

Antimony, Total 0.0024 0.0010 0.0010 Barium, Total Beryllium, Total ND 0.0010 0.0010 Cadmium, Total ND 0.00020 0.00020 Chromium, Total 0.0085 0.0030 0.0030 Copper, Total ND 0.0020 0.0020 Lead, Total ND 0.0010 0.0010 Manganese, Total 0.0020 0.0010 0.0010 Nickel, Total ND 0.0040 0.0040 Selenium, Total ND 0.0010 0.0010 Silver, Total ND 0.0020 0.0020 Thallium, Total ND 0.0010 0.0010 Vanadium, Total 0.0023 0.0020 0.0020

0.0050

0.0050

ND

Zinc, Total

Client: Waste Management Job Number: 280-62813-1

Client Sample ID: MW-36A

Lab Sample ID: 280-62813-5 Date Sampled: 11/19/2014 1509

Client Matrix: Water Date Received: 11/21/2014 1040

6020 Metals (ICP/MS)-Dissolved

Analysis Method: 6020 Analysis Batch: 280-254731 Instrument ID: MT\_024
Prep Method: 3005A Prep Batch: 280-254469 Lab File ID: 188SMPL.D
Dilution: 1.0 Initial Weight/Volume: 50 mL

Dilution: 1.0 Initial Weight/Volume: 50 mL Analysis Date: 11/25/2014 0357 Final Weight/Volume: 50 mL

Prep Date: 11/24/2014 1245

Analyte	Result (mg/L)	Qualifier	RL	RL
Antimony, Dissolved	ND		0.0010	0.0010
Barium, Dissolved	0.0021		0.0010	0.0010
Beryllium, Dissolved	ND		0.0010	0.0010
Cadmium, Dissolved	ND		0.00020	0.00020
Chromium, Dissolved	0.0093		0.0030	0.0030
Copper, Dissolved	ND		0.0020	0.0020
Lead, Dissolved	ND		0.0010	0.0010
Manganese, Dissolved	ND		0.0010	0.0010
Nickel, Dissolved	ND		0.0040	0.0040
Selenium, Dissolved	ND		0.0010	0.0010
Silver, Dissolved	ND		0.0020	0.0020
Thallium, Dissolved	ND		0.0010	0.0010
Vanadium, Dissolved	0.0025		0.0020	0.0020
Zinc, Dissolved	ND		0.0050	0.0050

Client Sample ID: MW-33A

Lab Sample ID: 280-62813-7 Date Sampled: 11/19/2014 1236

Client Matrix: Water Date Received: 11/21/2014 1040

6010B Metals (ICP)-Total Recoverable

Analysis Method: 6010B Analysis Batch: 280-257019 Instrument ID: MT\_026

Prep Method: 3005A Prep Batch: 280-254436 Lab File ID: 26A121214D.asc

Initial Weight/Volume: 50 mL

Analysis Date: 12/13/2014 0515 Final Weight/Volume: 50 mL

Prep Date: 11/25/2014 0715

1.0

Dilution:

 Analyte
 Result (mg/L)
 Qualifier
 RL
 RL

 Cobalt, Total
 ND
 0.0030
 0.0030

Iron, Total 5.0 0.060 0.060

6010B Metals (ICP)-Dissolved

Analysis Method: 6010B Analysis Batch: 280-257020 Instrument ID: MT\_026

Prep Method: 3005A Prep Batch: 280-254414 Lab File ID: 26A121214E.asc

Dilution: 1.0 Initial Weight/Volume: 50 mL

Analysis Date: 12/13/2014 0832 Final Weight/Volume: 50 mL Prep Date: 11/24/2014 1245

 Analyte
 Result (mg/L)
 Qualifier
 RL
 RL

 Calcium, Dissolved
 9.1
 0.040
 0.040

 Cobalt, Dissolved
 ND
 0.0030
 0.0030

5.1 0.060 0.060 Iron, Dissolved 0.050 4.1 0.050 Magnesium, Dissolved ND 1.0 Potassium, Dissolved 1.0 Sodium, Dissolved 3.3 1.0 1.0

6020 Metals (ICP/MS)-Total Recoverable

Analysis Method: 6020 Analysis Batch: 280-254731 Instrument ID: MT\_024
Prep Method: 3005A Prep Batch: 280-254429 Lab File ID: 125SMPL.D

Dilution: 1.0 Initial Weight/Volume: 50 mL

Analysis Date: 11/25/2014 0041 Final Weight/Volume: 50 mL

Prep Date: 11/23/2014 1531

RL Analyte Result (mg/L) Qualifier RL 0.0010 0.0010 Antimony, Total ND 0.0036 0.0010 0.0010 Barium, Total Beryllium, Total ND 0.0010 0.0010 Cadmium, Total ND 0.00020 0.00020 Chromium, Total ND 0.0030 0.0030 Copper, Total ND 0.0020 0.0020 Lead, Total ND 0.0010 0.0010 Manganese, Total 0.10 0.0010 0.0010 Nickel, Total ND 0.0040 0.0040 Selenium, Total ND 0.0010 0.0010 Silver, Total ND 0.0020 0.0020 Thallium, Total ND 0.0010 0.0010

0.0020

0.0050

0.0020

0.0050

0.0027

ND

Vanadium, Total

Zinc, Total

Client: Waste Management Job Number: 280-62813-1

Client Sample ID: MW-33A

Lab Sample ID: 280-62813-7 Date Sampled: 11/19/2014 1236

Client Matrix: Water Date Received: 11/21/2014 1040

6020 Metals (ICP/MS)-Dissolved

Analysis Method: 6020 Analysis Batch: 280-254731 Instrument ID: MT\_024
Prep Method: 3005A Prep Batch: 280-254469 Lab File ID: 189SMPL.D
Dilution: 1.0 Initial Weight/Volume: 50 mL

Dilution: 1.0 Initial Weight/Volume: 50 mL Analysis Date: 11/25/2014 0400 Final Weight/Volume: 50 mL

Prep Date: 11/24/2014 1245

Analyte	Result (mg/L)	Qualifier	RL	RL
Antimony, Dissolved	ND		0.0010	0.0010
Barium, Dissolved	0.0037		0.0010	0.0010
Beryllium, Dissolved	ND		0.0010	0.0010
Cadmium, Dissolved	ND		0.00020	0.00020
Chromium, Dissolved	ND		0.0030	0.0030
Copper, Dissolved	ND		0.0020	0.0020
Lead, Dissolved	ND		0.0010	0.0010
Manganese, Dissolved	0.11		0.0010	0.0010
Nickel, Dissolved	ND		0.0040	0.0040
Selenium, Dissolved	ND		0.0010	0.0010
Silver, Dissolved	ND		0.0020	0.0020
Thallium, Dissolved	ND		0.0010	0.0010
Vanadium, Dissolved	0.0030		0.0020	0.0020
Zinc, Dissolved	ND		0.0050	0.0050

#### **General Chemistry**

Client Sample ID: MW-34C

Lab Sample ID: 280-62813-1 Date Sampled: 11/19/2014 1003

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Chloride	4.0		mg/L	1.0	1.0	1.0	300.0
Analysi	s Batch: 280-255045	Analysis Date:	11/27/2014	1 1314			
Sulfate	5.1		mg/L	1.0	1.0	1.0	300.0
Analysi	s Batch: 280-255045	Analysis Date:	11/27/2014	1 1314			
Ammonia (as N)	ND		mg/L	0.030	0.030	1.0	350.1
Analysi	s Batch: 280-254661	Analysis Date:	11/24/2014	1 1402			
Nitrate as N	ND		mg/L	0.050	0.050	1.0	353.2
Analysi	s Batch: 280-255377	Analysis Date:	11/21/2014	1 2243			
Alkalinity, Total (As CaCO3	) 110		mg/L	5.0	5.0	1.0	SM 2320B
Analysi	s Batch: 280-254675	Analysis Date:	11/24/2014	1 2002			
Alkalinity, Bicarbonate (As 0	CaCO3) 110		mg/L	5.0	5.0	1.0	SM 2320B
Analysi	s Batch: 280-254675	Analysis Date:	11/24/2014	1 2002			
Total Dissolved Solids (TDS	S) 190		mg/L	5.0	5.0	1.0	SM 2540C
Analysi	s Batch: 280-254584	Analysis Date:	11/24/2014	1 1422			
Total Suspended Solids	32		mg/L	6.7	6.7	1.0	SM 2540D
Analysi	s Batch: 280-254309	Analysis Date:	11/22/2014	1 1025			
Total Organic Carbon - Ave	rage ND		mg/L	1.0	1.0	1.0	SM 5310B
Analysi	s Batch: 280-254746	Analysis Date:	11/24/2014	1 2130			

#### **General Chemistry**

Client Sample ID: MW-34A

Lab Sample ID: 280-62813-2 Date Sampled: 11/19/2014 1045

	Б "	0 1		DI	DI	D.1	
Analyte	Result	Qual	Units	RL	RL	Dil	Method
Chloride	3.0		mg/L	1.0	1.0	1.0	300.0
Analysis Batch:	280-255045	Analysis Date:	11/27/2014	1330			
Sulfate	2.0		mg/L	1.0	1.0	1.0	300.0
Analysis Batch:	280-255045	Analysis Date:	11/27/2014	1330			
Ammonia (as N)	ND		mg/L	0.030	0.030	1.0	350.1
Analysis Batch:	280-254661	Analysis Date:	11/24/2014	1408			
litrate as N	0.77		mg/L	0.050	0.050	1.0	353.2
Analysis Batch:	280-255377	Analysis Date:	11/21/2014	2243			
Alkalinity, Total (As CaCO3)	79		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch:	280-254675	Analysis Date:	11/24/2014	1944			
Alkalinity, Bicarbonate (As CaCO3)	79		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch:	280-254675	Analysis Date:	11/24/2014	1944			
otal Dissolved Solids (TDS)	140		mg/L	5.0	5.0	1.0	SM 2540C
Analysis Batch:	280-254584	Analysis Date:	11/24/2014	1422			
otal Suspended Solids	ND		mg/L	4.0	4.0	1.0	SM 2540D
Analysis Batch:	280-254309	Analysis Date:	11/22/2014	1025			
otal Organic Carbon - Average	ND	-	mg/L	1.0	1.0	1.0	SM 5310B
Analysis Batch:	280-254746	Analysis Date:	•	2145			

#### **General Chemistry**

Client Sample ID: MW-33C

Lab Sample ID: 280-62813-3 Date Sampled: 11/19/2014 1311

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Chloride	2.8		mg/L	1.0	1.0	1.0	300.0
Analysis Batch: 28	0-255045	Analysis Date:	11/27/2014	1431			
Sulfate	7.7		mg/L	1.0	1.0	1.0	300.0
Analysis Batch: 28	0-255045	Analysis Date:	11/27/2014	1431			
Ammonia (as N)	ND		mg/L	0.030	0.030	1.0	350.1
Analysis Batch: 28	0-254661	Analysis Date:	11/24/2014	1410			
Nitrate as N	ND		mg/L	0.050	0.050	1.0	353.2
Analysis Batch: 28	0-255377	Analysis Date:	11/21/2014	2243			
Alkalinity, Total (As CaCO3)	66		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 28	0-254675	Analysis Date:	11/24/2014	1936			
Alkalinity, Bicarbonate (As CaCO3)	66		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 28	0-254675	Analysis Date:	11/24/2014	1936			
Total Dissolved Solids (TDS)	110		mg/L	5.0	5.0	1.0	SM 2540C
Analysis Batch: 28	0-254584	Analysis Date:	11/24/2014	1422			
Total Suspended Solids	5.6		mg/L	4.0	4.0	1.0	SM 2540D
Analysis Batch: 28	80-254309	Analysis Date:	11/22/2014	1025			
Fotal Organic Carbon - Average	ND		mg/L	1.0	1.0	1.0	SM 5310B
Analysis Batch: 28	0-254746	Analysis Date:	11/24/2014	2227			

#### **General Chemistry**

Client Sample ID: MW-15R

Lab Sample ID: 280-62813-4 Date Sampled: 11/19/2014 1422

	Б "	0 1		DI	DI	Б.:	
Analyte	Result	Qual	Units	RL	RL	Dil	Method
Chloride	2.3		mg/L	1.0	1.0	1.0	300.0
Analysis Batch:	280-255045	Analysis Date:	11/27/2014	1447			
Sulfate	5.0		mg/L	1.0	1.0	1.0	300.0
Analysis Batch:	280-255045	Analysis Date:	11/27/2014	1447			
Ammonia (as N)	ND		mg/L	0.030	0.030	1.0	350.1
Analysis Batch:	280-254661	Analysis Date:	11/24/2014	1412			
Nitrate as N	ND		mg/L	0.050	0.050	1.0	353.2
Analysis Batch:	280-255377	Analysis Date:	11/21/2014	2243			
Alkalinity, Total (As CaCO3)	84		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch:	280-254675	Analysis Date:	11/24/2014	1931			
Alkalinity, Bicarbonate (As CaCO3)	84		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch:	280-254675	Analysis Date:	11/24/2014	1931			
Total Dissolved Solids (TDS)	110		mg/L	5.0	5.0	1.0	SM 2540C
Analysis Batch:	280-254584	Analysis Date:	11/24/2014	1422			
Total Suspended Solids	ND		mg/L	4.0	4.0	1.0	SM 2540D
Analysis Batch:	280-254309	Analysis Date:	11/22/2014	1025			
Total Organic Carbon - Average	ND		mg/L	1.0	1.0	1.0	SM 5310B
Analysis Batch:	280-254746	Analysis Date:	Ū	2252			

#### **General Chemistry**

Client Sample ID: MW-36A

Lab Sample ID: 280-62813-5 Date Sampled: 11/19/2014 1509

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Chloride	1.5		mg/L	1.0	1.0	1.0	300.0
Analysis E	Batch: 280-255045	Analysis Date:	11/27/2014	1502			
Sulfate	2.7		mg/L	1.0	1.0	1.0	300.0
Analysis E	Batch: 280-255045	Analysis Date:	11/27/2014	1502			
Ammonia (as N)	ND		mg/L	0.030	0.030	1.0	350.1
Analysis E	Batch: 280-254661	Analysis Date:	11/24/2014	1414			
Nitrate as N	0.94		mg/L	0.050	0.050	1.0	353.2
Analysis E	Batch: 280-255377	Analysis Date:	11/21/2014	2243			
Alkalinity, Total (As CaCO3)	56		mg/L	5.0	5.0	1.0	SM 2320B
Analysis E	Batch: 280-254675	Analysis Date:	11/24/2014	1940			
Alkalinity, Bicarbonate (As Ca	CO3) 56		mg/L	5.0	5.0	1.0	SM 2320B
Analysis E	Batch: 280-254675	Analysis Date:	11/24/2014	1940			
Total Dissolved Solids (TDS)	110		mg/L	5.0	5.0	1.0	SM 2540C
Analysis E	Batch: 280-254584	Analysis Date:	11/24/2014	1422			
Total Suspended Solids	ND		mg/L	4.0	4.0	1.0	SM 2540D
Analysis E	Batch: 280-254309	Analysis Date:	11/22/2014	1025			
Total Organic Carbon - Averag	ge ND	-	mg/L	1.0	1.0	1.0	SM 5310B
	Batch: 280-254746	Analysis Date:	Ü	2306			

#### **General Chemistry**

Client Sample ID: MW-33A

Lab Sample ID: 280-62813-7 Date Sampled: 11/19/2014 1236

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Chloride	1.7		mg/L	1.0	1.0	1.0	300.0
Analysis Batch	n: 280-255045	Analysis Date:	11/27/2014	1518			
Sulfate	1.4		mg/L	1.0	1.0	1.0	300.0
Analysis Batch	n: 280-255045	Analysis Date:	11/27/2014	1518			
Ammonia (as N)	0.21		mg/L	0.030	0.030	1.0	350.1
Analysis Batch	n: 280-254661	Analysis Date:	11/24/2014	1430			
Nitrate as N	ND		mg/L	0.050	0.050	1.0	353.2
Analysis Batch	n: 280-255377	Analysis Date:	11/21/2014	2243			
Alkalinity, Total (As CaCO3)	36		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch	n: 280-254675	Analysis Date:	11/24/2014	1958			
Alkalinity, Bicarbonate (As CaCO3	36		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch	n: 280-254675	Analysis Date:	11/24/2014	1958			
Total Dissolved Solids (TDS)	73		mg/L	5.0	5.0	1.0	SM 2540C
Analysis Batch	n: 280-254584	Analysis Date:	11/24/2014	1422			
Total Suspended Solids	13		mg/L	4.0	4.0	1.0	SM 2540D
Analysis Batch	n: 280-254309	Analysis Date:	11/22/2014	1025			
Total Organic Carbon - Average	3.0		mg/L	1.0	1.0	1.0	SM 5310B
Analysis Batch	n: 280-255070	Analysis Date:	11/26/2014	1911			

# **DATA REPORTING QUALIFIERS**

Client: Waste Management Job Number: 280-62813-1

Lab Section	Qualifier	Description
GC/MS VOA		
	٨	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.
	*	LCS or LCSD exceeds the control limits
	F1	MS and/or MSD Recovery exceeds the control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	X	Surrogate is outside control limits
Metals		
	٨	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.
	4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

# **QUALITY CONTROL RESULTS**

# **QC Association Summary**

		Report			
Lab Sample ID	Client Sample ID	Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:480-215	927				
LCS 480-215927/5	Lab Control Sample	Т	Water	8260C SIM	
LCSD 480-215927/6	Lab Control Sample Duplicate	Т	Water	8260C SIM	
MB 480-215927/8	Method Blank	Т	Water	8260C SIM	
280-62813-1	MW-34C	Т	Water	8260C SIM	
280-62813-2	MW-34A	Т	Water	8260C SIM	
280-62813-3	MW-33C	Т	Water	8260C SIM	
280-62813-4	MW-15R	Т	Water	8260C SIM	
280-62813-5	MW-36A	Т	Water	8260C SIM	
280-62813-6TB	TRIP BLANK	Т	Water	8260C SIM	
280-62813-7	MW-33A	Т	Water	8260C SIM	
Analysis Batch:480-216	556				
LCS 480-216556/28	Lab Control Sample	Т	Water	8260C	
MB 480-216556/7	Method Blank	Т	Water	8260C	
280-62813-1	MW-34C	Т	Water	8260C	
280-62813-2	MW-34A	Т	Water	8260C	
280-62813-3	MW-33C	Т	Water	8260C	
280-62813-4	MW-15R	Т	Water	8260C	
280-62813-5	MW-36A	Т	Water	8260C	
280-62813-6TB	TRIP BLANK	Т	Water	8260C	
280-62813-7	MW-33A	Т	Water	8260C	
480-71667-N-1 MS	Matrix Spike	Т	Water	8260C	
480-71667-N-1 MSD	Matrix Spike Duplicate	Т	Water	8260C	

# Report Basis

T = Total

# **QC Association Summary**

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-254414					
LCS 280-254414/2-A	Lab Control Sample	R	Water	3005A	
MB 280-254414/1-A	Method Blank	R	Water	3005A	
280-62813-2	MW-34A	D	Water	3005A	
280-62813-3	MW-33C	D	Water	3005A	
280-62813-4	MW-15R	D	Water	3005A	
280-62813-5	MW-36A	D	Water	3005A	
280-62813-7	MW-33A	D	Water	3005A	
280-62814-D-6-B MS	Matrix Spike	D	Water	3005A	
280-62814-D-6-C MSD	Matrix Spike Duplicate	D	Water	3005A	
200-020 14-D-0-C W3D	маттх Эріке Биріісате	Б	vvalei	3003A	
Prep Batch: 280-254416					
LCS 280-254416/2-A	Lab Control Sample	R	Water	3005A	
MB 280-254416/1-A	Method Blank	R	Water	3005A	
280-62813-1	MW-34C	D	Water	3005A	
280-62907-F-1-B MS	Matrix Spike	D	Water	3005A	
280-62907-F-1-B MS ^5	Matrix Spike	D	Water	3005A	
280-62907-F-1-C MSD	Matrix Spike Duplicate	D	Water	3005A	
280-62907-F-1-C MSD ^5	Matrix Spike Duplicate	D	Water	3005A	
Dron Potobi 200 254420					
<b>Prep Batch: 280-254429</b> LCS 280-254429/2-A	Lab Control Sample	R	Water	3005A	
MB 280-254429/1-A	Method Blank	R	Water	3005A	
280-62813-1	MW-34C	R	Water	3005A	
280-62813-2	MW-34A	R	Water	3005A 3005A	
280-62813-2MS		R	Water	3005A 3005A	
280-62813-2MSD	Matrix Spike Duplicate	R	Water	3005A 3005A	
	Matrix Spike Duplicate	R	Water		
280-62813-3	MW-33C	R		3005A	
280-62813-4	MW-15R		Water	3005A	
280-62813-5	MW-36A	R R	Water	3005A	
280-62813-7	MW-33A	K	Water	3005A	
Prep Batch: 280-254436					
LCS 280-254436/2-A	Lab Control Sample	R	Water	3005A	
MB 280-254436/1-A	Method Blank	R	Water	3005A	
280-62813-2	MW-34A	R	Water	3005A	
280-62813-3	MW-33C	R	Water	3005A	
280-62813-4	MW-15R	R	Water	3005A	
280-62813-5	MW-36A	R	Water	3005A	
280-62813-7	MW-33A	R	Water	3005A	
280-62814-E-1-C MS	Matrix Spike	R	Water	3005A	
280-62814-E-1-D MSD	Matrix Spike Duplicate	R	Water	3005A	

# **QC Association Summary**

	011 ( 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Report Basis	011 / 15 / 1		
Lab Sample ID	Client Sample ID	Dasis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-254437					
LCS 280-254437/2-A	Lab Control Sample	R	Water	3005A	
MB 280-254437/1-A	Method Blank	R	Water	3005A	
280-62810-N-1-C MS	Matrix Spike	R	Water	3005A	
280-62810-N-1-D MSD	Matrix Spike Duplicate	R	Water	3005A	
280-62813-1	MW-34C	R	Water	3005A	
Prep Batch: 280-254469					
LCS 280-254469/2-A	Lab Control Sample	R	Water	3005A	
MB 280-254469/1-A	Method Blank	R	Water	3005A	
280-62813-1	MW-34C	D	Water	3005A	
280-62813-2	MW-34A	D	Water	3005A	
280-62813-3	MW-33C	D	Water	3005A	
280-62813-4	MW-15R	D	Water	3005A	
280-62813-5	MW-36A	D	Water	3005A	
280-62813-7	MW-33A	D	Water	3005A	
280-62814-D-2-C MS	Matrix Spike	D	Water	3005A	
280-62814-D-2-D MSD	Matrix Spike Duplicate	D	Water	3005A	
Analysis Batch:280-254731					
LCS 280-254429/2-A	Lab Control Sample	R	Water	6020	280-254429
MB 280-254429/1-A	Method Blank	R	Water	6020	280-254429
LCS 280-254469/2-A	Lab Control Sample	R	Water	6020	280-254469
MB 280-254469/1-A	Method Blank	R	Water	6020	280-254469
280-62813-1	MW-34C	R	Water	6020	280-254429
280-62813-1	MW-34C	D	Water	6020	280-254469
280-62813-2	MW-34A	R	Water	6020	280-254429
280-62813-2MS	Matrix Spike	R	Water	6020	280-254429
280-62813-2MSD	Matrix Spike Duplicate	R	Water	6020	280-254429
280-62813-2	MW-34A	D	Water	6020	280-254469
280-62813-3	MW-33C	R	Water	6020	280-254429
280-62813-3	MW-33C	D	Water	6020	280-254469
280-62813-4	MW-15R	R	Water	6020	280-254429
280-62813-4	MW-15R	D	Water	6020	280-254469
280-62813-5	MW-36A	R	Water	6020	280-254429
280-62813-5	MW-36A	D	Water	6020	280-254469
280-62813-7	MW-33A	R	Water	6020	280-254429
280-62813-7	MW-33A	D	Water	6020	280-254469
280-62814-D-2-C MS	Matrix Spike	D	Water	6020	280-254469
280-62814-D-2-D MSD	Matrix Spike Duplicate	D	Water	6020	280-254469

# **QC Association Summary**

		Report			
Lab Sample ID	Client Sample ID	Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:280-25592	27				
LCS 280-254437/2-A	Lab Control Sample	R	Water	6010B	280-254437
MB 280-254437/1-A	Method Blank	R	Water	6010B	280-254437
280-62810-N-1-C MS	Matrix Spike	R	Water	6010B	280-254437
280-62810-N-1-D MSD	Matrix Spike Duplicate	R	Water	6010B	280-254437
280-62813-1	MW-34C	R	Water	6010B	280-254437
Analysis Batch:280-25701	9				
LCS 280-254436/2-A	Lab Control Sample	R	Water	6010B	280-254436
MB 280-254436/1-A	Method Blank	R	Water	6010B	280-254436
280-62813-2	MW-34A	R	Water	6010B	280-254436
280-62813-3	MW-33C	R	Water	6010B	280-254436
280-62813-4	MW-15R	R	Water	6010B	280-254436
280-62813-5	MW-36A	R	Water	6010B	280-254436
280-62813-7	MW-33A	R	Water	6010B	280-254436
280-62814-E-1-C MS	Matrix Spike	R	Water	6010B	280-254436
280-62814-E-1-D MSD	Matrix Spike Duplicate	R	Water	6010B	280-254436
Analysis Batch:280-25702	20				
LCS 280-254414/2-A	Lab Control Sample	R	Water	6010B	280-254414
MB 280-254414/1-A	Method Blank	R	Water	6010B	280-254414
LCS 280-254416/2-A	Lab Control Sample	R	Water	6010B	280-254416
MB 280-254416/1-A	Method Blank	R	Water	6010B	280-254416
280-62813-1	MW-34C	D	Water	6010B	280-254416
280-62813-2	MW-34A	D	Water	6010B	280-254414
280-62813-3	MW-33C	D	Water	6010B	280-254414
280-62813-4	MW-15R	D	Water	6010B	280-254414
280-62813-5	MW-36A	D	Water	6010B	280-254414
280-62813-7	MW-33A	D	Water	6010B	280-254414
280-62814-D-6-B MS	Matrix Spike	D	Water	6010B	280-254414
280-62814-D-6-C MSD	Matrix Spike Duplicate	D	Water	6010B	280-254414
280-62907-F-1-B MS	Matrix Spike	D	Water	6010B	280-254416
280-62907-F-1-C MSD	Matrix Spike Duplicate	D	Water	6010B	280-254416
Analysis Batch:280-25716	53				
280-62907-F-1-B MS ^5	Matrix Spike	D	Water	6010B	280-254416
280-62907-F-1-C MSD ^5	Matrix Spike Duplicate	D	Water	6010B	280-254416

#### Report Basis

D = Dissolved

R = Total Recoverable

# **QC Association Summary**

		Report			
Lab Sample ID	Client Sample ID	Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-25430	09				
LCS 280-254309/1	Lab Control Sample	Т	Water	SM 2540D	
LCSD 280-254309/2	Lab Control Sample Duplicate	Т	Water	SM 2540D	
MB 280-254309/3	Method Blank	Т	Water	SM 2540D	
280-62813-1	MW-34C	Т	Water	SM 2540D	
280-62813-1DU	Duplicate	Т	Water	SM 2540D	
280-62813-2	MW-34A	Т	Water	SM 2540D	
280-62813-3	MW-33C	Т	Water	SM 2540D	
280-62813-4	MW-15R	Т	Water	SM 2540D	
280-62813-5	MW-36A	Т	Water	SM 2540D	
280-62813-7	MW-33A	Т	Water	SM 2540D	
Analysis Batch:280-25458	84				
_CS 280-254584/2	Lab Control Sample	Т	Water	SM 2540C	
CSD 280-254584/3	Lab Control Sample Duplicate	Т	Water	SM 2540C	
MB 280-254584/1	Method Blank	Т	Water	SM 2540C	
280-62813-1	MW-34C	Т	Water	SM 2540C	
280-62813-1DU	Duplicate	Т	Water	SM 2540C	
280-62813-2	MW-34A	Т	Water	SM 2540C	
280-62813-3	MW-33C	Т	Water	SM 2540C	
280-62813-4	MW-15R	Т	Water	SM 2540C	
280-62813-5	MW-36A	Т	Water	SM 2540C	
280-62813-7	MW-33A	Т	Water	SM 2540C	
Analysis Batch:280-25466	61				
_CS 280-254661/156	Lab Control Sample	Т	Water	350.1	
_CSD 280-254661/157	Lab Control Sample Duplicate	Т	Water	350.1	
MB 280-254661/158	Method Blank	Т	Water	350.1	
280-62813-1	MW-34C	Т	Water	350.1	
280-62813-1MS	Matrix Spike	Т	Water	350.1	
280-62813-1MSD	Matrix Spike Duplicate	Ť	Water	350.1	
280-62813-2	MW-34A	Ť	Water	350.1	
280-62813-3	MW-33C	Ť	Water	350.1	
280-62813-4	MW-15R	T.	Water	350.1	
280-62813-5	MW-36A	Ť	Water	350.1	
280-62813-7	MW-33A	T.	Water	350.1	

# **QC Association Summary**

Seneral Chemistry			Report			
Analysis Batch: 280-254675	Lab Sample ID	Client Sample ID	Basis	Client Matrix	Method	Prep Batch
CS 280-254678/31	General Chemistry					
CSD 280-254675/32         Lab Control Sample Duplicate         T         Water         SM 232DB           W80-280-254675/33         Method Blank         T         Water         SM 232DB           280-62811-A:3 DU         Duplicate         T         Water         SM 232DB           280-62813-2         MW-34A         T         Water         SM 232DB           280-62813-3         MW-33C         T         Water         SM 232DB           280-62813-4         MW-15R         T         Water         SM 232DB           280-62813-5         MW-36A         T         Water         SM 232DB           280-62813-7         MW-33A         T         Water         SM 232DB           280-62813-7         MW-36A         T         Water         SM 232DB           Analysis Batch:280-254746/3         Lab Control Sample         T         Water         SM 5310B           CS 280-254746/3         Lab Control Sample         T         Water         SM 5310B           CS 280-254746/5         Mb 240-254746/5         Web 240-254746/5         Web 250-254746/5           280-62813-2         MW-34A         T         Water         SM 5310B           280-62813-2         MW-34A         T         Water         SM	Analysis Batch:280-2546	75				
MB 280-254675/33   Method Blank	LCS 280-254675/31	Lab Control Sample	Т	Water	SM 2320B	
MB 280-254675/33   Method Blank	LCSD 280-254675/32	Lab Control Sample Duplicate	Т	Water	SM 2320B	
280 - 62813-1         MW-34C         T         Water         SM 2320B           280 - 62813-2         MW-34A         T         Water         SM 2320B           280 - 62813-3         MW-33C         T         Water         SM 2320B           280 - 62813-4         MW-15R         T         Water         SM 2320B           280 - 62813-5         MW-36A         T         Water         SM 2320B           Analysis Batch: 280-254746         Lab Control Sample         T         Water         SM 5310B           CS2 280-254746/3         Lab Control Sample Duplicate         T         Water         SM 5310B           ME 200-254746/5         Method Blank         T         Water         SM 5310B           ME 200-254746/5         Method Blank         T         Water         SM 5310B           280-62813-1         MW-34C         T         Water         SM 5310B           280-62813-2         MW-34A         T         Water         SM 5310B           280-62813-2         MW-34A         T         Water         SM 5310B           280-62813-2         MW-34A         T         Water         SM 5310B           280-62813-2 MS         Matrix Spike Duplicate         T         Water         SM 53	MB 280-254675/33		Т	Water	SM 2320B	
280 62813-2 MW-34A T Water SM 2320B 280 62813-3 MW-33C T Water SM 2320B 280 62813-4 MW-15R T Water SM 2320B 280 62813-5 MW-36A T Water SM 2320B 280 62813-5 MW-33A T Water SM 2320B 280 62813-7 MW-33A T Water SM 2320B 280 62813-7 MW-33A T Water SM 2320B 280 62813-7 MW-33A T Water SM 2320B  Analysis Batch: 280 -254746 CS 280 -254746/3 Lab Control Sample Duplicate T Water SM 5310B ME 280 -254746/5 Method Blank T Water SM 5310B ME 280 -254746/5 Method Blank T Water SM 5310B 280 -62813-1 MW-34C T Water SM 5310B 280 -62813-2 MW-34A T Water SM 5310B 280 -62813-2 MW-33C T Water SM 5310B 280 -62813-3 MW-33C T Water SM 5310B 280 -62813-3 MW-33C T Water SM 5310B 280 -62813-4 MW-15R T Water SM 5310B 280 -62813-5 MW-36A T Water SM 5310B Analysis Batch: 280 -255045 Lab Control Sample T Water SM 5310B Analysis Batch: 280 -255045/4 Lab Control Sample Duplicate T Water SM 5310B 280 -62813-1 MW-36A T Water SM 5310B 280 -62813-1 MW-36A T Water SM 5310B 280 -62813-2 MW-36A T Water SM 5310B 280 -62813-1 MW-36A T Water SM 5310B 280 -62813-1 MW-36A T Water SM 5310B 280 -62813-1 MW-36A T Water SM 5310B 280 -62813-1 MW-36A T Water SM 5310B 280 -62813-1 MW-36A T Water 300.0 280 -62813-2 MS Method Blank T Water 300.0 280 -62813-2 MS Matrix Spike T Water 300.0 280 -62813-2 MS Matrix Spike T Water 300.0 280 -62813-2 MS Matrix Spike T Water 300.0 280 -62813-2 MS Matrix Spike T Water 300.0 280 -62813-2 MS Matrix Spike T Water 300.0 280 -62813-3 MW-33C T Water 300.0 280 -62813-4 MW-15R T Water 300.0 280 -62813-5 MW-33A T Water 300.0 280 -62813-6 MW-33C T Water 300.0 280 -62813-6 MW-33C T Water 300.0 280 -62813-6 MW-33C T Water 300.0 280 -62813-7 MW-33A T Water 300.0 280 -62813-7 MW-33A T Water SM 5310B 280 -62813-7 MW-33A T Water SM 5310B 280 -62813-7 MW-33A T Water SM 5310B	280-62811-A-3 DU	Duplicate	Т	Water	SM 2320B	
280-62813-3	280-62813-1	MW-34C	Т	Water	SM 2320B	
280-62813-4 MW-15R T Water SM 2320B 280-62813-5 MW-36A T Water SM 2320B 280-62813-7 MW-33A T Water SM 5310B 280-254746/3 Lab Control Sample T Water SM 5310B 280-254746/5 Method Blank T Water SM 5310B 280-62813-1 MW-34C T Water SM 5310B 280-62813-2 MW-34A T Water SM 5310B 280-62813-2 MM-34A T Water SM 5310B 280-62813-3 MM-33C T Water SM 5310B 280-62813-3 MM-33C T Water SM 5310B 280-62813-3 MW-36A T Water SM 5310B 280-62813-3 MW-36A T Water SM 5310B 280-62813-1 MW-34C T Water SM 5310B 280-62813-1 MW-34C T Water SM 5310B 280-62813-1 MW-36C T Water SM 5310B 280-62813-1 MW-36A T Water SM 5310B 280-62813-1 MW-36A T Water SM 5310B 280-62813-1 MW-36A T Water SM 5310B 280-62813-1 MW-34A T Water SM 5310B 280-62813-1 MW-34A T Water SM 5310B 280-62813-2 MW-34A T Water SM 5310B 280-62813-2 MW-34A T Water SM 5310B 280-62813-3 MW-34A T Water 300.0 280-62813-2 MW-34A T Water 300.0 280-62813-3 MW-34A T Water 300.0 280-62813-2 MW-34A T Water 300.0 280-62813-2 MW-34A T Water 300.0 280-62813-2 MW-34A T Water 300.0 280-62813-2 MW-34A T Water 300.0 280-62813-2 MW-34A T Water 300.0 280-62813-2 MM-34A T Water 300.0 280-62813-3 MW-36C T Water 300.0 280-62813-3 MW-36A T Water 300.0 280-62813-3 MW-36A T Water 300.0 280-62813-3 MW-36A T Water 300.0 280-62813-3 MW-36A T Water 300.0 280-62813-3 MW-36A T Water 300.0 280-62813-3 MW-36A T Water 300.0 280-62813-3 MW-36A T Water 300.0 280-62813-3 MW-36A T Water 300.0 280-62813-3 MW-36A T Water 300.0 280-62813-3 MW-36A T Water 300.0 280-62813-3 MW-36A T Water 300.0 280-62813-3 MW-36A T Water 300.0 280-62813-3 MW-36A T Water 300.0 280-62813-3 MW-36A T Water 300.0 280-62813-3 MW-36A T Water 300.0 280-62813-3 MW-36A T Water 300.0 280-62813-3 MW-36A T Water 300.0 280-62813-3 MW-36A T Water 300.0 280-62813-3 MW-36A T Water SM 5310B 280-62813-7 MW-36A T Water SM 5310B	280-62813-2	MW-34A	Т	Water	SM 2320B	
280-62813-5 MW-36A T Water SM 2320B 280-62813-7 MW-33A T Water SM 2320B 280-62813-7 MW-33A T Water SM 2320B 280-62813-7 MW-33A T Water SM 2320B  Analysis Batch:280-2547464  LS 280-254746473 Lab Control Sample T Water SM 5310B 280-62813-1 MW-34C T Water SM 5310B 280-62813-2 MW-34A T Water SM 5310B 280-62813-3 MW-33C T Water SM 5310B 280-62813-3 MW-36A T Water SM 5310B 280-62813-5 MW-36A T Water SM 5310B 280-62813-1 MW-36A T Water SM 5310B 280-62813-1 MW-36A T Water SM 5310B 280-62813-1 MW-36A T Water SM 5310B 280-62813-1 MW-36A T Water SM 5310B 280-62813-1 MW-36A T Water SM 5310B 280-62813-1 MW-36A T Water SM 5310B 280-62813-2 MW-36A T Water SM 5310B 280-62813-2 MW-36A T Water SM 5310B 280-62813-2 MW-36A T Water SM 5310B 280-62813-2 MW-36A T Water SM 5310B 280-62813-2 MW-36A T Water 300.0 280-62813-2 MW-34A T Water 300.0 280-62813-3 MW-33A T Water 300.0 280-62813-5 MW-33A T Water 300.0 280-62813-7 MW-33A T Water SM 5310B 280-62813-7 MW-33A T Water SM 5310B 280-62813-7 MW-33A T Water SM 5310B	280-62813-3	MW-33C	Т	Water	SM 2320B	
### Analysis Batch:280-254746  ### Analysis Batch:280-254746/3  ### Lab Control Sample	280-62813-4	MW-15R	Т	Water	SM 2320B	
Analysis Batch:280-254746/3  Lab Control Sample  CS 280-254746/4  Lab Control Sample  Duplicate  T Water SM 5310B  MB 280-254746/5  Method Blank  T Water SM 5310B  280-62813-1  MW-34C  T Water SM 5310B  280-62813-2  MW-34A  T Water SM 5310B  280-62813-2  MW-34A  T Water SM 5310B  280-62813-2MSD  Matrix Spike Duplicate  T Water SM 5310B  280-62813-3  MW-33C  T Water SM 5310B  280-62813-3  MW-33C  T Water SM 5310B  280-62813-3  MW-36A  T Water SM 5310B  Analysis Batch:280-255045  CS 280-255045/6  Lab Control Sample  T Water SM 5310B  Analysis Batch:280-255045  CS 280-255045/6  Method Blank  T Water 300.0  MB 280-62813-1  MW-34C  T Water 300.0  MB 280-62813-2  MW-34A  T Water 300.0  MB 280-62813-3  MW-33C  T Water 300.0  MB 280-62813-3  MW-34C  T Water 300.0  MB 280-62813-3  MW-34A  T Water 300.0  MB 280-62813-3  MW-34A  T Water 300.0  Matrix Spike Duplicate  T Water SM 5310B  Matrix Spike Duplic	280-62813-5	MW-36A	Т	Water	SM 2320B	
LCS 280-254746/3 Lab Control Sample T Water SM 5310B  CSD 280-254746/4 Lab Control Sample Duplicate T Water SM 5310B  Method Blank T Water SM 5310B  280-62813-1 MW-34C T Water SM 5310B  280-62813-2 MW-34A T Water SM 5310B  280-62813-2MSD Matrix Spike Duplicate T Water SM 5310B  280-62813-3 MW-33C T Water SM 5310B  280-62813-3 MW-33C T Water SM 5310B  280-62813-3 MW-35C T Water SM 5310B  280-62813-3 MW-36A T Water SM 5310B  Analysis Batch: 280-255045/5 Lab Control Sample Duplicate T Water SM 5310B  Analysis Analysis Batch: 280-258045/6 Method Blank T Water SM 5310B  280-62813-2 MW-34A T Water 300.0  280-62813-3 MW-33C T Water 300.0  280-62813-3 MW-33C T Water 300.0  280-62813-3 MW-33C T Water 300.0  280-62813-3 MW-33C T Water 300.0  280-62813-4 MW-36A T Water 300.0  280-62813-5 MW-36A T Water 300.0  280-62813-7 MW-33A T Water 300.0  Analysis Batch: 280-255070/4 Lab Control Sample Duplicate T Water SM 5310B  ME 280-255070/5 Method Blank T Water SM 5310B  ME 280-255070/5 Method Blank T Water SM 5310B  ME 280-62813-7 MW-33A T Water SM 5310B	280-62813-7	MW-33A	Т	Water	SM 2320B	
LCS 280-254746/3 Lab Control Sample T Water SM 5310B  CSD 280-254746/4 Lab Control Sample Duplicate T Water SM 5310B  Method Blank T Water SM 5310B  280-62813-1 MW-34C T Water SM 5310B  280-62813-2 MW-34A T Water SM 5310B  280-62813-2MSD Matrix Spike Duplicate T Water SM 5310B  280-62813-3 MW-33C T Water SM 5310B  280-62813-3 MW-33C T Water SM 5310B  280-62813-3 MW-35C T Water SM 5310B  280-62813-3 MW-36A T Water SM 5310B  Analysis Batch: 280-255045/5 Lab Control Sample Duplicate T Water SM 5310B  Analysis Analysis Batch: 280-258045/6 Method Blank T Water SM 5310B  280-62813-2 MW-34A T Water 300.0  280-62813-3 MW-33C T Water 300.0  280-62813-3 MW-33C T Water 300.0  280-62813-3 MW-33C T Water 300.0  280-62813-3 MW-33C T Water 300.0  280-62813-4 MW-36A T Water 300.0  280-62813-5 MW-36A T Water 300.0  280-62813-7 MW-33A T Water 300.0  Analysis Batch: 280-255070/4 Lab Control Sample Duplicate T Water SM 5310B  ME 280-255070/5 Method Blank T Water SM 5310B  ME 280-255070/5 Method Blank T Water SM 5310B  ME 280-62813-7 MW-33A T Water SM 5310B	Analysis Batch:280-2547	46				
LCSD 280-254746/4 Lab Control Sample Duplicate T Water SM 5310B MB 280-254746/5 Method Blank T Water SM 5310B 280-62813-1 MW-34C T Water SM 5310B 280-62813-2 MW-34A T Water SM 5310B 280-62813-2 MS Matrix Spike T Water SM 5310B 280-62813-3 MW-33C T Water SM 5310B 280-62813-3 MW-36A T Water SM 5310B 280-62813-5 MW-36A T Water SM 5310B 280-62813-5 MW-36A T Water SM 5310B 280-62813-1 Water SM 5310B 280-62813-1 Water SM 5310B 280-62813-1 Water SM 5310B 280-62813-1 Water SM 5310B 280-62813-1 Water SM 5310B 280-62813-1 Water SM 5310B 280-62813-1 Water SM 5310B 280-62813-1 WW-36A T Water SM 5310B 280-62813-1 Water SM 5310B 280-62813-1 Water SM 5310B 280-62813-1 Water SM 5310B 280-62813-1 Water SM 5310B 280-62813-1 Water 300.0 Water 300.	LCS 280-254746/3		Т	Water	SM 5310B	
MB 280-254746/5 Method Blank T Water SM 5310B 280-62813-1 MW-34C T Water SM 5310B 280-62813-2 MW-34A T Water SM 5310B 280-62813-2 MW-34A T Water SM 5310B 280-62813-2MS Matrix Spike T Water SM 5310B 280-62813-2MSD Matrix Spike Duplicate T Water SM 5310B 280-62813-3 MW-33C T Water SM 5310B 280-62813-4 MW-15R T Water SM 5310B 280-62813-5 MW-36A T Water SM 5310B 280-62813-5 MW-36A T Water SM 5310B 280-62813-5 MW-36A T Water SM 5310B 280-62813-5 MW-36A T Water SM 5310B 280-62813-5 MW-36A T Water SM 5310B 280-62813-2 MW-34C T Water 300.0 MS 280-62813-1 MW-34C T Water 300.0 MS 280-62813-2 MW-34A T Water 300.0 MS 280-62813-2 MW-34A T Water 300.0 MS 280-62813-2 MW-34A T Water 300.0 MS 280-62813-2 MW-34A T Water 300.0 MS 280-62813-2MS Matrix Spike Duplicate T Water 300.0 MS 280-62813-2MS Matrix Spike T Water 300.0 MS 280-62813-3 MW-33C T Water 300.0 MS 280-62813-3 MW-33C T Water 300.0 MS 280-62813-3 MW-33C T Water 300.0 MS 280-62813-5 MW-36A T Water 300.0 MS 280-62813-5 MW-36A T Water 300.0 MS 280-62813-5 MW-36A T Water 300.0 MS 280-62813-5 MW-36A T Water 300.0 MS 280-62813-5 MW-36A T Water 300.0 MS 280-62813-5 MW-36A T Water 300.0 MS 280-62813-5 MW-36A T Water 300.0 MS 280-62813-5 MW-36A T Water 300.0 MS 280-62813-5 MW-36A T Water 300.0 MS 280-62813-7 MW-33A T Water SM 5310B MS 280-62813-7 MW-33A T Water SM 5310B MS 280-6280-7-7 MS MS 310B MS 31	LCSD 280-254746/4		Т	Water	SM 5310B	
280-62813-2 MW-34A T Water SM 5310B 280-62813-2MS Matrix Spike T Water SM 5310B 280-62813-2MSD Matrix Spike Duplicate T Water SM 5310B 280-62813-3 MW-33C T Water SM 5310B 280-62813-4 MW-15R T Water SM 5310B 280-62813-5 MW-36A T Water SM 5310B 280-62813-5 MW-36A T Water SM 5310B 280-62813-6 MW-36A T Water SM 5310B 280-62813-5 MW-36A T Water SM 5310B 280-62813-5 MW-36A T Water SM 5310B 280-62813-5 MW-36A T Water 300.0 280-255045/4 Lab Control Sample Duplicate T Water 300.0 280-62813-1 MW-34C T Water 300.0 280-62813-1 MW-34A T Water 300.0 280-62813-2 MW-34A T Water 300.0 280-62813-2DU Duplicate T Water 300.0 280-62813-2DU Duplicate T Water 300.0 280-62813-2MS Matrix Spike T Water 300.0 280-62813-2MS Matrix Spike T Water 300.0 280-62813-3 MW-33C T Water 300.0 280-62813-3 MW-33C T Water 300.0 280-62813-4 MW-35C T Water 300.0 280-62813-5 MW-36A T Water 300.0 280-62813-5 MW-36A T Water 300.0 280-62813-5 MW-36A T Water 300.0 280-62813-5 MW-36A T Water 300.0 280-62813-7 MW-33A T Water 300.0 280-62813-7 MW-33A T Water SM 5310B 2CSD 280-255070/4 Lab Control Sample T Water SM 5310B 2CSD 280-255070/5 Method Blank T Water SM 5310B 280-62905-F-7 MS Matrix Spike T Water SM 5310B 280-62905-F-7 MS Matrix Spike T Water SM 5310B	MB 280-254746/5		Т	Water	SM 5310B	
Matrix Spike	280-62813-1	MW-34C	Т	Water	SM 5310B	
280-62813-2MSD       Matrix Spike Duplicate       T       Water       SM 5310B         280-62813-3       MW-33C       T       Water       SM 5310B         280-62813-4       MW-15R       T       Water       SM 5310B         280-62813-5       MW-36A       T       Water       SM 5310B         Analysis Batch:280-255045         LCS 280-255045/4       Lab Control Sample       T       Water       300.0         LCS 280-255045/5       Lab Control Sample Duplicate       T       Water       300.0         MB 280-255045/6       Method Blank       T       Water       300.0         280-62813-1       MW-34C       T       Water       300.0         280-62813-2       MW-34A       T       Water       300.0         280-62813-2DU       Duplicate       T       Water       300.0         280-62813-2MS       Matrix Spike       T       Water       300.0         280-62813-2MSD       Matrix Spike Duplicate       T       Water       300.0         280-62813-3       MW-33C       T       Water       300.0         280-62813-4       MW-15R       T       Water       300.0         280-62813-5       MW-33A <td< td=""><td>280-62813-2</td><td>MW-34A</td><td>Т</td><td>Water</td><td>SM 5310B</td><td></td></td<>	280-62813-2	MW-34A	Т	Water	SM 5310B	
280-62813-2MSD       Matrix Spike Duplicate       T       Water       SM 5310B         280-62813-3       MW-33C       T       Water       SM 5310B         280-62813-4       MW-15R       T       Water       SM 5310B         280-62813-5       MW-36A       T       Water       SM 5310B         Analysis Batch:280-255045         LCS 280-255045/4       Lab Control Sample       T       Water       300.0         LCS 280-255045/5       Lab Control Sample Duplicate       T       Water       300.0         MB 280-255045/6       Method Blank       T       Water       300.0         280-62813-1       MW-34C       T       Water       300.0         280-62813-2       MW-34A       T       Water       300.0         280-62813-2DU       Duplicate       T       Water       300.0         280-62813-2MS       Matrix Spike       T       Water       300.0         280-62813-2MSD       Matrix Spike Duplicate       T       Water       300.0         280-62813-3       MW-33C       T       Water       300.0         280-62813-4       MW-15R       T       Water       300.0         280-62813-5       MW-33A <td< td=""><td>280-62813-2MS</td><td>Matrix Spike</td><td>Т</td><td>Water</td><td>SM 5310B</td><td></td></td<>	280-62813-2MS	Matrix Spike	Т	Water	SM 5310B	
280-62813-3 MW-33C T Water SM 5310B 280-62813-4 MW-15R T Water SM 5310B 280-62813-5 MW-36A T Water SM 5310B 280-62813-5 MW-36A T Water SM 5310B 280-62813-5 MW-36A T Water SM 5310B 280-62813-5 MW-36A T Water 300.0 Metabolicate T Water SM 5310B Metabolicate T Water SM 5310B Metabolicate T Water SM 5310B Metabolicate T Water SM 5310B Metabolicate T Water SM 5310B Metabolicate MW-33A T Water SM 5310B Metabolicate SM Metabolicate T Water SM 5310B Metabolicate SM Metabolicate T Water SM 5310B Metabolicate SM Metabolicate T Water SM 5310B Metabolicate SM Metabolicate T Water SM 5310B Metabolicate SM Metabolicate T Water SM 5310B Metabolicate SM Metabolicate T Water SM 5310B Metabolicate SM Metabolicate T Water SM 5310B Metabolicate SM 5310B Metabolicate T Water SM 5310B Metabolicate SM Metabolicate T Water SM 5310B Metabolicate SM Metabolicate T Water SM 5310B Metabolicate SM Metabolicate T Water SM 5310B Metabolicate SM Metabolicate T Water SM 5310B Metabolicate SM Metabolicate T Wate	280-62813-2MSD		Т	Water		
280-62813-4 MW-15R T Water SM 5310B 280-62813-5 MW-36A T Water SM 5310B  Analysis Batch:280-255045  LCS 280-255045/4 Lab Control Sample T Water 300.0  LCSD 280-255045/5 Lab Control Sample Duplicate T Water 300.0  MB 280-255045/6 Method Blank T Water 300.0  280-62813-1 MW-34C T Water 300.0  280-62813-2 MW-34A T Water 300.0  280-62813-2DU Duplicate T Water 300.0  280-62813-2BN Matrix Spike T Water 300.0  280-62813-2MS Matrix Spike T Water 300.0  280-62813-2MS Matrix Spike T Water 300.0  280-62813-3 MW-33C T Water 300.0  280-62813-3 MW-33C T Water 300.0  280-62813-5 MW-36A T Water 300.0  280-62813-5 MW-36A T Water 300.0  Analysis Batch:280-255070/3 Lab Control Sample T Water SM 5310B  MB 280-255070/5 Method Blank T Water SM 5310B  MB 280-255070/5 Method Blank T Water SM 5310B  MB 280-62905-F-7 MS Matrix Spike T Water SM 5310B	280-62813-3	· · · · · · · · · · · · · · · · · · ·	Т	Water	SM 5310B	
Analysis Batch:280-255045  LCS 280-255045/4 Lab Control Sample T Water 300.0  LCSD 280-255045/5 Lab Control Sample Duplicate T Water 300.0  MB 280-255045/6 Method Blank T Water 300.0  280-62813-1 MW-34C T Water 300.0  280-62813-2 MW-34A T Water 300.0  280-62813-2DU Duplicate T Water 300.0  280-62813-2DU Duplicate T Water 300.0  280-62813-2MS Matrix Spike T Water 300.0  280-62813-2MSD Matrix Spike Duplicate T Water 300.0  280-62813-2MSD Matrix Spike Duplicate T Water 300.0  280-62813-3 MW-33C T Water 300.0  280-62813-4 MW-15R T Water 300.0  280-62813-5 MW-36A T Water 300.0  280-62813-5 MW-36A T Water 300.0  Analysis Batch:280-255070  LCS 280-255070/3 Lab Control Sample T Water SM 5310B  MB 280-62813-7 Method Blank T Water SM 5310B  MB 280-62813-7 MW-33A T Water SM 5310B  MB 280-62905-F-7 MS Matrix Spike T Water SM 5310B	280-62813-4	MW-15R	Т	Water	SM 5310B	
LCS 280-255045/4	280-62813-5	MW-36A	Т	Water	SM 5310B	
LCS 280-255045/4	Analysis Batch:280-2550	45				
Lab Control Sample Duplicate T Water 300.0  MB 280-255045/6 Method Blank T Water 300.0  280-62813-1 MW-34C T Water 300.0  280-62813-2 MW-34A T Water 300.0  280-62813-2DU Duplicate T Water 300.0  280-62813-2MS Matrix Spike T Water 300.0  280-62813-2MSD Matrix Spike Duplicate T Water 300.0  280-62813-3 MW-33C T Water 300.0  280-62813-4 MW-15R T Water 300.0  280-62813-5 MW-36A T Water 300.0  280-62813-7 MW-33A T Water 300.0  Analysis Batch: 280-255070/4 Lab Control Sample Duplicate T Water SM 5310B  MB 280-255070/5 Method Blank T Water SM 5310B  280-62813-7 MW-33A T Water SM 5310B  280-62813-7 MW-33A T Water SM 5310B  280-62813-7 MW-33A T Water SM 5310B  MB 280-255070/5 Method Blank T Water SM 5310B  280-62813-7 MW-33A T Water SM 5310B  280-62813-7 MW-33A T Water SM 5310B	LCS 280-255045/4	Lab Control Sample	Т	Water	300.0	
MB 280-255045/6 Method Blank T Water 300.0 280-62813-1 MW-34C T Water 300.0 280-62813-2 MW-34A T Water 300.0 280-62813-2DU Duplicate T Water 300.0 280-62813-2MS Matrix Spike T Water 300.0 280-62813-2MS Matrix Spike Duplicate T Water 300.0 280-62813-2MSD Matrix Spike Duplicate T Water 300.0 280-62813-3 MW-33C T Water 300.0 280-62813-4 MW-15R T Water 300.0 280-62813-5 MW-36A T Water 300.0 280-62813-7 MW-33A T Water 300.0  Analysis Batch:280-255070/3 Lab Control Sample T Water SM 5310B 280-62813-7 Method Blank T Water SM 5310B 280-62813-7 MW-33A T Water SM 5310B 280-62813-7 MW-33A T Water SM 5310B 280-62813-7 MW-33A T Water SM 5310B 280-62813-7 MW-33A T Water SM 5310B 280-62905-F-7 MS Matrix Spike T Water SM 5310B	LCSD 280-255045/5		Т	Water	300.0	
280-62813-2 MW-34A T Water 300.0 280-62813-2DU Duplicate T Water 300.0 280-62813-2MS Matrix Spike T Water 300.0 280-62813-2MSD Matrix Spike Duplicate T Water 300.0 280-62813-3 MW-33C T Water 300.0 280-62813-4 MW-15R T Water 300.0 280-62813-5 MW-36A T Water 300.0 280-62813-7 MW-33A T Water 300.0  Analysis Batch:280-255070  LCS 280-255070/3 Lab Control Sample T Water SM 5310B LCSD 280-255070/5 Method Blank T Water SM 5310B 280-62813-7 MW-33A T Water SM 5310B 280-62813-7 MW-33A T Water SM 5310B 280-62813-7 MW-33A T Water SM 5310B 280-62813-7 MW-33A T Water SM 5310B 280-62905-F-7 MS Matrix Spike T Water SM 5310B	MB 280-255045/6	Method Blank	Т	Water	300.0	
280-62813-2DU       Duplicate       T       Water       300.0         280-62813-2MS       Matrix Spike       T       Water       300.0         280-62813-2MSD       Matrix Spike Duplicate       T       Water       300.0         280-62813-3       MW-33C       T       Water       300.0         280-62813-4       MW-15R       T       Water       300.0         280-62813-5       MW-36A       T       Water       300.0         280-62813-7       MW-33A       T       Water       300.0         Analysis Batch:280-255070/3       Lab Control Sample       T       Water       SM 5310B         LCSD 280-255070/4       Lab Control Sample Duplicate       T       Water       SM 5310B         MB 280-255070/5       Method Blank       T       Water       SM 5310B         280-62813-7       MW-33A       T       Water       SM 5310B         280-62905-F-7 MS       Matrix Spike       T       Water       SM 5310B	280-62813-1	MW-34C	Т	Water	300.0	
280-62813-2MS Matrix Spike T Water 300.0 280-62813-2MSD Matrix Spike Duplicate T Water 300.0 280-62813-3 MW-33C T Water 300.0 280-62813-4 MW-15R T Water 300.0 280-62813-5 MW-36A T Water 300.0 280-62813-7 MW-33A T Water 300.0  Analysis Batch:280-255070  Lab Control Sample T Water SM 5310B  Lab Control Sample Duplicate T Water SM 5310B  MB 280-255070/5 Method Blank T Water SM 5310B  280-62813-7 MW-33A T Water SM 5310B  MB 280-62813-7 MW-33A T Water SM 5310B  MB 280-62813-7 MW-33A T Water SM 5310B  MB 380-62905-F-7 MS Matrix Spike T Water SM 5310B	280-62813-2	MW-34A	Т	Water	300.0	
280-62813-2MSD Matrix Spike Duplicate T Water 300.0 280-62813-3 MW-33C T Water 300.0 280-62813-4 MW-15R T Water 300.0 280-62813-5 MW-36A T Water 300.0 280-62813-7 MW-33A T Water 300.0  Analysis Batch:280-255070  LCS 280-255070/3 Lab Control Sample T Water SM 5310B  LCSD 280-255070/4 Lab Control Sample Duplicate T Water SM 5310B  MB 280-255070/5 Method Blank T Water SM 5310B  280-62813-7 MW-33A T Water SM 5310B  280-62905-F-7 MS Matrix Spike T Water SM 5310B	280-62813-2DU	Duplicate	Т	Water	300.0	
280-62813-3 MW-33C T Water 300.0 280-62813-4 MW-15R T Water 300.0 280-62813-5 MW-36A T Water 300.0 280-62813-7 MW-33A T Water 300.0  Analysis Batch:280-255070  LCS 280-255070/3 Lab Control Sample T Water SM 5310B  LCSD 280-255070/4 Lab Control Sample Duplicate T Water SM 5310B  MB 280-255070/5 Method Blank T Water SM 5310B  280-62813-7 MW-33A T Water SM 5310B  280-62905-F-7 MS Matrix Spike T Water SM 5310B	280-62813-2MS	Matrix Spike	Т	Water	300.0	
280-62813-4 MW-15R T Water 300.0 280-62813-5 MW-36A T Water 300.0 280-62813-7 MW-33A T Water 300.0  Analysis Batch:280-255070  LCS 280-255070/3 Lab Control Sample T Water SM 5310B  LCSD 280-255070/4 Lab Control Sample Duplicate T Water SM 5310B  MB 280-255070/5 Method Blank T Water SM 5310B  280-62813-7 MW-33A T Water SM 5310B  280-62905-F-7 MS Matrix Spike T Water SM 5310B	280-62813-2MSD	Matrix Spike Duplicate	Т	Water	300.0	
280-62813-5 MW-36A T Water 300.0 280-62813-7 MW-33A T Water 300.0  Analysis Batch:280-255070  LCS 280-255070/3 Lab Control Sample T Water SM 5310B  LCSD 280-255070/4 Lab Control Sample Duplicate T Water SM 5310B  MB 280-255070/5 Method Blank T Water SM 5310B  280-62813-7 MW-33A T Water SM 5310B  280-62905-F-7 MS Matrix Spike T Water SM 5310B	280-62813-3	MW-33C	Т	Water	300.0	
Analysis Batch:280-255070  LCS 280-255070/3	280-62813-4	MW-15R	Т	Water	300.0	
Analysis Batch:280-255070  LCS 280-255070/3 Lab Control Sample T Water SM 5310B  LCSD 280-255070/4 Lab Control Sample Duplicate T Water SM 5310B  MB 280-255070/5 Method Blank T Water SM 5310B  280-62813-7 MW-33A T Water SM 5310B  280-62905-F-7 MS Matrix Spike T Water SM 5310B	280-62813-5	MW-36A	Т	Water	300.0	
LCS 280-255070/3       Lab Control Sample       T       Water       SM 5310B         LCSD 280-255070/4       Lab Control Sample Duplicate       T       Water       SM 5310B         MB 280-255070/5       Method Blank       T       Water       SM 5310B         280-62813-7       MW-33A       T       Water       SM 5310B         280-62905-F-7 MS       Matrix Spike       T       Water       SM 5310B	280-62813-7	MW-33A	Т	Water	300.0	
LCSD 280-255070/4       Lab Control Sample Duplicate       T       Water       SM 5310B         MB 280-255070/5       Method Blank       T       Water       SM 5310B         280-62813-7       MW-33A       T       Water       SM 5310B         280-62905-F-7 MS       Matrix Spike       T       Water       SM 5310B	Analysis Batch:280-2550	70				
LCSD 280-255070/4       Lab Control Sample Duplicate       T       Water       SM 5310B         MB 280-255070/5       Method Blank       T       Water       SM 5310B         280-62813-7       MW-33A       T       Water       SM 5310B         280-62905-F-7 MS       Matrix Spike       T       Water       SM 5310B	LCS 280-255070/3	Lab Control Sample	Т	Water	SM 5310B	
MB 280-255070/5       Method Blank       T       Water       SM 5310B         280-62813-7       MW-33A       T       Water       SM 5310B         280-62905-F-7 MS       Matrix Spike       T       Water       SM 5310B	LCSD 280-255070/4		Т	Water	SM 5310B	
280-62905-F-7 MS Matrix Spike T Water SM 5310B	MB 280-255070/5	Method Blank	Т	Water	SM 5310B	
· ·	280-62813-7	MW-33A	Т	Water	SM 5310B	
280-62905-F-7 MSD Matrix Spike Duplicate T Water SM 5310B	280-62905-F-7 MS	Matrix Spike	Т	Water	SM 5310B	
	280-62905-F-7 MSD	Matrix Spike Duplicate	T	Water	SM 5310B	

# **Quality Control Results**

Client: Waste Management Job Number: 280-62813-1

# **QC Association Summary**

		Report			
Lab Sample ID	Client Sample ID	Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-255	377				
MB 280-255377/1	Method Blank	Т	Water	353.2	
280-62813-1	MW-34C	Т	Water	353.2	
280-62813-2	MW-34A	Т	Water	353.2	
280-62813-3	MW-33C	Т	Water	353.2	
280-62813-4	MW-15R	Т	Water	353.2	
280-62813-5	MW-36A	Т	Water	353.2	
280-62813-7	MW-33A	Т	Water	353.2	

Report Basis

T = Total

# **Surrogate Recovery Report**

#### 8260C Volatile Organic Compounds by GC/MS

#### Client Matrix: Water

		DCA	BFB	TOL
Lab Sample ID	Client Sample ID	%Rec	%Rec	%Rec
280-62813-1	MW-34C	104	100	99
280-62813-2	MW-34A	99	98	99
280-62813-3	MW-33C	103	98	99
280-62813-4	MW-15R	103	98	100
280-62813-5	MW-36A	103	98	97
280-62813-6	TRIP BLANK	102	97	101
280-62813-7	MW-33A	105	100	97
MB 480-216556/7		102	100	101
LCS 480-216556/28		102	101	101
480-71667-N-1 MS		105	98	101
480-71667-N-1 MSD		100	98	98

Surrogate	Acceptance Limits
DCA = 1,2-Dichloroethane-d4 (Surr)	66-137
BFB = 4-Bromofluorobenzene (Surr)	73-120
TOL = Toluene-d8 (Surr)	71-126

# **Surrogate Recovery Report**

### 8260C SIM Volatile Organic Compounds (GC/MS)

### Client Matrix: Water

		DBFM	TBA
Lab Sample ID	Client Sample ID	%Rec	%Rec
280-62813-1	MW-34C	96	153X
280-62813-2	MW-34A	96	143
280-62813-3	MW-33C	96	117
280-62813-4	MW-15R	97	153X
280-62813-5	MW-36A	95	146
280-62813-6	TRIP BLANK	100	114
280-62813-7	MW-33A	94	144
MB 480-215927/8		97	112
LCS 480-215927/5		107	109
LCSD 480-215927/6		100	120

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane (Surr)	50-150
TBA = TBA-d9 (Surr)	50-150

#### Method Blank - Batch: 480-216PP6

Method: 8260C pre5aration: P030C

Lab Sample ID: Analysis Batch: 480-216556 Instrument ID: HP5973N MB 480-216556/7 Client Matrix: Water Prep Batch: N/A Lab File ID: N2313.D Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 5 mL Units: Final Weight/Volume: Analysis Date: 12/01/2014 1411 ug/L 5 mL Prep Date: 12/01/2014 1411

Leach Date: N/A

Analyte	Result	Qual	MDL	RL
1,1,1,2-Tetrachloroethane	ND		0.35	1.0
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,1-Dichloropropene	ND		0.72	1.0
1,2,3-Trichlorobenzene	ND		0.41	1.0
1,2,3-Trichloropropane	ND		0.89	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2,4-Trimethylbenzene	ND		0.75	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane (EDB)	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloroethene, Total	ND		0.81	2.0
	ND		0.72	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3,5-Trichlorobenzene				
1,3,5-Trimethylbenzene	ND		0.77	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,3-Dichloropropane	ND		0.75	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
1,4-Dioxane	ND		9.3	40
2,2-Dichloropropane	ND		0.40	1.0
2-Butanone (MEK)	ND		1.3	10
2-Chloroethyl vinyl ether	ND		0.96	5.0
2-Hexanone	ND		1.2	5.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Acetonitrile	ND		4.9	15
Acrolein	ND		0.91	20
Acrylonitrile	ND		0.83	5.0
Benzene	ND		0.41	1.0
Bromobenzene	ND		0.80	1.0
Bromochloromethane	ND		0.87	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Butyl alcohol, n-	ND		8.9	40
Butyl alcohol, tert-	ND		3.3	10
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Chlorodifluoromethane	ND		0.26	1.0
Chiorodinacionicularic	מאו		0.20	1.0

#### Method Blank - Batch: 480-216PP6

Method: 8260C pre5aration: P030C

Lab Sample ID: Analysis Batch: 480-216556 Instrument ID: HP5973N MB 480-216556/7 Client Matrix: Water Prep Batch: N/A Lab File ID: N2313.D Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 5 mL Units: Final Weight/Volume: Analysis Date: 12/01/2014 1411 ug/L 5 mL Prep Date: 12/01/2014 1411

Leach Date: N/A

Chloroethane Chloroform Chloromethane cis-1,2-Dichloroethene cis-1,3-Dichloropropene Cyclohexane Dibromochloromethane	ND ND ND ND ND ND ND ND ND ND ND	0.32 0.34 0.35 0.81 0.36 0.18	1.0 1.0 1.0 1.0 1.0
Chloromethane cis-1,2-Dichloroethene cis-1,3-Dichloropropene Cyclohexane	ND ND ND ND ND ND ND	0.35 0.81 0.36 0.18 0.32	1.0 1.0 1.0 1.0
cis-1,2-Dichloroethene cis-1,3-Dichloropropene Cyclohexane	ND ND ND ND ND ND	0.81 0.36 0.18 0.32	1.0 1.0 1.0
cis-1,3-Dichloropropene Cyclohexane	ND ND ND ND ND	0.36 0.18 0.32	1.0 1.0
Cyclohexane	ND ND ND ND	0.18 0.32	1.0
Cyclohexane	ND ND ND	0.32	
\ibramachlaramathana	ND ND		
Dibromochioromethane	ND		1.0
Dibromomethane		0.41	1.0
Dichlorodifluoromethane		0.68	1.0
Dichlorofluoromethane	ND	0.34	1.0
Ethyl acetate	ND	0.66	1.0
Ethyl ether	ND	0.72	1.0
Ethyl tert-butyl ether	ND	0.29	1.0
Ethylbenzene	ND	0.74	1.0
Hexachlorobutadiene	ND	0.28	1.0
Hexane	ND	0.40	10
odomethane	ND	0.30	1.0
sobutanol	ND	4.8	25
sopropyl ether	ND	0.59	1.0
sopropylbenzene	ND	0.79	1.0
Methacrylonitrile	ND	0.69	5.0
Methyl acetate	ND	0.50	2.5
Methyl tert-butyl ether	ND	0.16	1.0
Methylcyclohexane	ND	0.16	1.0
Methylene Chloride	ND	0.44	1.0
n-Xylene & p-Xylene	ND	0.66	2.0
Naphthalene	ND	0.43	1.0
n-Butylbenzene	ND	0.64	1.0
N-Propylbenzene	ND	0.69	1.0
p-Chlorotoluene	ND	0.86	1.0
o-Xylene	ND	0.76	1.0
o-Chlorotoluene	ND	0.84	1.0
o-Cymene	ND	0.31	1.0
ec-Butylbenzene	ND	0.75	1.0
Styrene	ND	0.73	1.0
ert-amyl methyl ether	ND	0.27	1.0
ert-Butylbenzene	ND	0.81	1.0
etrachloroethene	ND	0.36	1.0
etrabydrofuran	ND	1.3	5.0
oluene	ND	0.51	1.0
rans-1,2-Dichloroethene	ND	0.90	1.0
rans-1,3-Dichloropropene	ND	0.37	1.0
rans-1,4-Dichloro-2-butene	ND	0.22	1.0
richloroethene	ND	0.46	1.0
richlorofluoromethane	ND	0.88	1.0

Client: Waste Management Job Number: 280-62813-1

Method Blank - Batch: 480-216PP6

Method: 8260C pre5aration: P030C

Lab Sample ID: MB 480-216556/7 Client Matrix: Water Dilution: 1.0 Analysis Date: 12/01/2014 1411 Prep Date: 12/01/2014 1411 N/A

Analysis Batch: 480-216556 Prep Batch: N/A Leach Batch: N/A Units: ug/L

Instrument ID: HP5973N Lab File ID: N2313.D Initial Weight/Volume: 5 mL Final Weight/Volume: 5 mL

Leach Date:

Analyte Result Qual MDL RL Vinyl acetate ND 0.85 5.0 Vinyl chloride ND 0.90 1.0

Surrogate % Rec Acceptance Limits 1,2-Dichloroethane-d4 (Surr) 102 66 - 137 4-Bromofluorobenzene (Surr) 100 73 - 120 Toluene-d8 (Surr) 101 71 - 126

Method Blank TICs- Batch: 480-216PP6

RT Cas Number Analyte Est. Result (ug/L Qual 67-72-1 Hexachloroethane TIC 0.00 ND

HP5973N

N2311.D

5 mL

5 mL

Client: Waste Management Job Number: 280-62813-1

#### Lab Control Sam5le - Batch: 480-216PP6

Method: 8260C pre5aration: P030C

Lab Sample ID: Instrument ID: LCS 480-216556/28 Analysis Batch: 480-216556 Client Matrix: Water Prep Batch: N/A Lab File ID: Dilution: Leach Batch: N/A Initial Weight/Volume: 1.0 Final Weight/Volume: Analysis Date: 12/01/2014 1323 Units: ug/L Prep Date: 12/01/2014 1323

Leach Date: N/A

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1-Dichloroethane	25.0	29.0	116	71 - 129	
1,1-Dichloroethene	25.0	28.8	115	58 - 121	
1,2,4-Trimethylbenzene	25.0	30.0	120	76 - 121	
1,2-Dichlorobenzene	25.0	28.9	115	80 - 124	
1,2-Dichloroethane	25.0	28.0	112	75 - 127	
Benzene	25.0	28.7	115	71 - 124	
Chlorobenzene	25.0	29.0	116	72 - 120	
cis-1,2-Dichloroethene	25.0	27.5	110	74 - 124	
Ethylbenzene	25.0	30.5	122	77 - 123	
Methyl tert-butyl ether	25.0	27.3	109	64 - 127	
m-Xylene & p-Xylene	25.0	29.4	118	76 - 122	
o-Xylene	25.0	29.6	119	76 - 122	
Tetrachloroethene	25.0	29.3	117	74 - 122	
Toluene	25.0	28.8	115	80 - 122	
trans-1,2-Dichloroethene	25.0	29.3	117	73 - 127	
Trichloroethene	25.0	29.2	117	74 - 123	
Surrogate	%	% Rec		Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)	1	02		66 - 137	
4-Bromofluorobenzene (Surr)	1	01		73 - 120	
Toluene-d8 (Surr)	1	01	71 - 126		

Matrix S5ike/ Method: 8260C
Matrix S5ike Du5licate Recovery Re5ort - Batch: 480-216PP6 pre5aration: P030C

MS Lab Sample ID: Client Matrix: Dilution: Analysis Date: Prep Date: Leach Date:	480-71667-N-1 MS Water 4.0 12/01/2014 2156 12/01/2014 2156 N/A	Prep	lysis Batch: Batch: ch Batch:	480-216556 N/A N/A			HP5973N N2332.D 5 mL 5 mL 5 mL	
MSD Lab Sample ID Client Matrix: Dilution: Analysis Date: Prep Date: Leach Date:	Water 4.0 12/01/2014 2221 12/01/2014 2221 N/A	Prep	ysis Batch: ) Batch: ch Batch:	480-216556 N/A N/A			HP5973N N2333.D 5 mL 5 mL 5 mL	
		<u>%</u>	Rec.					
Analyte		MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
1,1-Dichloroethane		121	118	71 - 129	2	20		
1,1-Dichloroethene		126	122	58 - 121	3	16	F1	F1
1,2,4-Trimethylbenz		123	123	76 - 121	0	20	F1	F1
1,2-Dichlorobenzene	9	119	119	80 - 124	0	20		
1,2-Dichloroethane		116	113	75 - 127	3	20		
Benzene		120	114	71 - 124	4	13		
Chlorobenzene		120	117	72 - 120	3	25		
cis-1,2-Dichloroethe	ne	119	112	74 - 124	6	15		
Ethylbenzene		124	120	77 - 123	3	15	F1	
m-Xylene & p-Xylene	е	119	115	76 - 122	3	16		
o-Xylene		122	118	76 - 122	4	16		
Tetrachloroethene		122	115	74 - 122	6	20		
Toluene		120	114	80 - 122	6	15		
trans-1,2-Dichloroetl	hene	124	121	73 - 127	2	20		
Trichloroethene		122	119	74 - 123	2	16		
Surrogate			MS % Rec	MSD 9	% Rec	Acc	eptance Limits	3
1,2-Dichloroethane-	d4 (Surr)		105	100		(	66 - 137	
4-Bromofluorobenze	ene (Surr)		98	98		7	73 - 120	
Toluene-d8 (Surr)			101	98		-	71 - 126	

Client: Waste Management Job Number: 280-62813-1

Matrix S5ike/ Method: 8260C
Matrix S5ike Du5licate Recovery Re5ort - Batch: 480-216PP6 pre5aration: P030C

Units: ug/L

MS Lab Sample ID: 480-71667-N-1 MS

Client Matrix: Water Dilution: 4.0

Analysis Date: 12/01/2014 2156 Prep Date: 12/01/2014 2156

Leach Date: N/A

MSD Lab Sample ID: 480-71667-N-1 MSD

Client Matrix: Water Dilution: 4.0

Analysis Date: 12/01/2014 2221 Prep Date: 12/01/2014 2221

Leach Date: N/A

Analyte	Sample Result/Q	ual	MS Spike Amount	MSD Spike Amount	MS Result/	Qual	MSD Result/G	Qual
1,1-Dichloroethane	ND		100	100	121		118	
1,1-Dichloroethene	ND		100	100	126	F1	122	F1
1,2,4-Trimethylbenzene	ND		100	100	123	F1	123	F1
1,2-Dichlorobenzene	ND		100	100	119		119	
1,2-Dichloroethane	ND		100	100	116		113	
Benzene	5.1		100	100	125		120	
Chlorobenzene	ND		100	100	120		117	
cis-1,2-Dichloroethene	ND		100	100	119		112	
Ethylbenzene	ND		100	100	124	F1	120	
m-Xylene & p-Xylene	3.2	J	100	100	123		119	
o-Xylene	ND		100	100	122		118	
Tetrachloroethene	ND		100	100	122		115	
Toluene	ND		100	100	120		114	
trans-1,2-Dichloroethene	ND		100	100	124		121	
Trichloroethene	ND		100	100	122		119	

25 mL

Client: Waste Management Job Number: 280-62813-1

Method Blank - Batch: 480-21P729 Method: 8260C SIM pre5aration: P030C

Lab Sample ID: MB 480-215927/8 480-215927 Instrument ID: HP5973J Analysis Batch: Client Matrix: Water Prep Batch: N/A Lab File ID: J4167.D N/A Dilution: 1.0 Leach Batch: Initial Weight/Volume: 25 mL Analysis Date: 11/25/2014 1734 Units: Final Weight/Volume: 25 mL ug/L

Prep Date: 11/25/2014 1734

Leach Date: N/A

Analyte Result Qual MDL RL Vinyl chloride ND 0.0040 0.020 Surrogate % Rec Acceptance Limits Dibromofluoromethane (Surr) 97 50 - 150 TBA-d9 (Surr) 50 - 150 112

Lab Control Sam5le/ Method: 8260C SIM Lab Control Sam5le Du5licate Recovery Re5ort - Batch: 480-21P729 pre5aration: P030C

LCS Lab Sample ID: Instrument ID: LCS 480-215927/5 Analysis Batch: 480-215927 HP5973J Client Matrix: Water Prep Batch: N/A Lab File ID: J4164.D Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 25 mL Analysis Date: 11/25/2014 1516 Units: ug/L Final Weight/Volume: 25 mL 25 mL

Prep Date: 11/25/2014 1516

Leach Date: N/A

LCSD Lab Sample ID: LCSD 480-215927/6 Analysis Batch: 480-215927 Instrument ID: HP5973J Client Matrix: Water Prep Batch: N/A Lab File ID: J4165.D Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 25 mL Analysis Date: 11/25/2014 1540 Units: ug/L Final Weight/Volume: 25 mL

Prep Date: 11/25/2014 1540

Leach Date: N/A

% Rec. LCS LCSD RPD LCS Qual LCSD Qual Analyte Limit **RPD Limit** Vinyl chloride 133 129 50 - 150 20 3 Surrogate LCS % Rec LCSD % Rec Acceptance Limits Dibromofluoromethane (Surr) 100 107 50 - 150 50 - 150 TBA-d9 (Surr) 109 120

Client: Waste Management Job Number: 280-62813-1

Laboratory Control/ Method: 8260C SIM Laboratory Du5licate Data Re5ort - Batch: 480-21P729 pre5aration: P030C

LCS Lab Sample ID: LCS 480-215927/5 Units: ug/L LCSD Lab Sample ID: LCSD 480-215927/6

Client Matrix:WaterClient Matrix:WaterDilution:1.0Dilution:1.0

Analysis Date: 11/25/2014 1516 Analysis Date: 11/25/2014 1540

Prep Date: 11/25/2014 1516 Prep Date: 11/25/2014 1540

Leach Date: N/A Leach Date: N/A

Analyte LCS Spike LCSD Spike LCS LCSD
Amount Amount Result/Qual Result/Qual

Vinyl chloride 0.200 0.200 0.266 0.258

Client: Waste Management Job Number: 280-62813-1

Method Blank - Batch: 280-2P4414

Method: 6010B pre5aration: 300PA **Total Recoverable** 

Lab Sample ID: MB 280-254414/1-A

Client Matrix: Water

Dilution: 1.0 Analysis Date: 12/13/2014 0817 Prep Date: 11/24/2014 1245

Leach Date: N/A Analysis Batch: 280-257020 Prep Batch: 280-254414

> Leach Batch: N/A Units: mg/L

Instrument ID: MT\_026

Lab File ID: 26A121214E.asc

Initial Weight/Volume: 50 mL Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL	RL
Calcium, Dissolved	ND		0.040	0.040
Cobalt, Dissolved	ND		0.0030	0.0030
Iron, Dissolved	ND		0.060	0.060
Magnesium, Dissolved	ND		0.050	0.050
Potassium, Dissolved	ND		1.0	1.0
Sodium, Dissolved	ND		1.0	1.0

Lab Control Sam5le - Batch: 280-2P4414

Method: 6010B pre5aration: 300PA **Total Recoverable** 

Lab Sample ID: LCS 280-254414/2-A Client Matrix: Water

Dilution: 1.0 Analysis Date: 12/13/2014 0819 Prep Date: 11/24/2014 1245

Leach Date: N/A

Analysis Batch: 280-257020 Prep Batch: 280-254414 Leach Batch: N/A Units:

mg/L

Instrument ID: MT\_026 Lab File ID: 26A121214E.asc

50 mL Initial Weight/Volume: Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Calcium, Dissolved	50.0	53.5	107	90 - 111	
Cobalt, Dissolved	0.500	0.531	106	89 - 111	
Iron, Dissolved	1.00	1.07	107	89 - 115	
Magnesium, Dissolved	50.0	52.0	104	90 - 113	
Potassium, Dissolved	50.0	53.0	106	89 - 114	
Sodium, Dissolved	50.0	55.4	111	90 - 115	

Client: Waste Management Job Number: 280-62813-1

Matrix S5ike/

Matrix S5ike Du5licate Recovery Re5ort - Batch: 280-2P4414

Method: 6010B pre5aration: 300PA

Dissolved

MS Lab Sample ID:

280-62814-D-6-B MS

Analysis Batch:

280-257020 Instrument ID:

MT\_026

Client Matrix: Dilution:

Water

Prep Batch:

280-254414 Lab File ID: 26A121214E.asc

Analysis Date:

1.0

Leach Batch:

N/A

Initial Weight/Volume: Final Weight/Volume:

50 mL 50 mL

Prep Date:

12/13/2014 0904 11/24/2014 1245

Leach Date:

N/A

MSD Lab Sample ID: 280-62814-D-6-C MSD

Client Matrix:

Water

Analysis Batch: Prep Batch:

280-257020 280-254414 Instrument ID: Lab File ID:

MT 026 26A121214E.asc

Qual

MSD Qual

Dilution: Analysis Date: 1.0

12/13/2014 0907

Prep Date: 11/24/2014 1245 Leach Batch: N/A Initial Weight/Volume: 50 mL Final Weight/Volume: 50 mL

Leach Date:

N/A

% Doo

	70	Rec.				
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS
Calcium, Dissolved	106	105	48 - 153	1	20	
Cobalt, Dissolved	107	106	82 - 119	1	20	
Iron, Dissolved	108	107	52 - 155	1	20	
Magnesium, Dissolved	105	103	62 - 146	2	20	
Potassium, Dissolved	107	106	76 - 132	1	20	
Sodium, Dissolved	112	111	70 - 203	0	20	

Matrix S5ike/

Matrix S5ike Du5licate Recovery Re5ort - Batch: 280-2P4414

Method: 6010B pre5aration: 300PA

Dissolved

MS Lab Sample ID:

280-62814-D-6-B MS

Units: mg/L

MSD Lab Sample ID:

280-62814-D-6-C MSD

Client Matrix: Water

Dilution: 1.0

Analysis Date: 12/13/2014 0904

11/24/2014 1245 Prep Date:

Leach Date: N/A

Water

Client Matrix: Dilution:

1.0

Analysis Date: 12/13/2014 0907 Prep Date: 11/24/2014 1245

Leach Date: N/A

	Sample	MS Spike	MSD Spike	MS	MSD
Analyte	Result/Qual	Amount	Amount	Result/Qual	Result/Qual
Calcium, Dissolved	25	50.0	50.0	78.4	77.7
Cobalt, Dissolved	ND	0.500	0.500	0.535	0.528
Iron, Dissolved	ND	1.00	1.00	1.08	1.07
Magnesium, Dissolved	15	50.0	50.0	66.8	65.8
Potassium, Dissolved	3.1	50.0	50.0	56.6	56.1
Sodium, Dissolved	9.0	50.0	50.0	64.9	64.5

Client: Waste Management Job Number: 280-62813-1

Method Blank - Batch: 280-2P4416

Method: 6010B pre5aration: 300PA Total Recoverable

Lab Sample ID: MB 280-254416/1-A

Client Matrix: Water

 Dilution:
 1.0

 Analysis Date:
 12/13/2014 0618

 Prep Date:
 11/24/2014 1245

Leach Date: N/A

Total Recoverable

Analysis Batch: 280-257020 Instrument ID:

Prep Batch: 280-254416 Leach Batch: N/A

Units: mg/L

nstrument ID: MT\_026

Lab File ID: 26A121214E.asc

Initial Weight/Volume: 50 mL Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL	RL
Calcium, Dissolved	ND		0.040	0.040
Cobalt, Dissolved	ND		0.0030	0.0030
Iron, Dissolved	ND		0.060	0.060
Magnesium, Dissolved	ND		0.050	0.050
Potassium, Dissolved	ND		1.0	1.0
Sodium, Dissolved	ND	۸	1.0	1.0

Lab Control Sam5le - Batch: 280-2P4416

Method: 6010B pre5aration: 300PA Total Recoverable

Lab Sample ID: LCS 280-254416/2-A Client Matrix: Water

 Dilution:
 1.0

 Analysis Date:
 12/13/2014 0620

 Prep Date:
 11/24/2014 1245

Leach Date: N/A

Analysis Batch: 280-257020
Prep Batch: 280-254416
Leach Batch: N/A
Units: mg/L

Instrument ID: MT\_026
Lab File ID: 26A121214E.asc

Initial Weight/Volume: 50 mL Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Calcium, Dissolved	50.0	55.4	111	90 - 111	
Cobalt, Dissolved	0.500	0.545	109	89 - 111	
Iron, Dissolved	1.00	1.11	111	89 - 115	
Magnesium, Dissolved	50.0	53.9	108	90 - 113	
Potassium, Dissolved	50.0	54.9	110	89 - 114	
Sodium, Dissolved	50.0	57.1	114	90 - 115	

MT\_026

4

Job Number: 280-62813-1 Client: Waste Management

Matrix S5ike/ Matrix S5ike Du5licate Recovery Re5ort - Batch: 280-2P4416 Method: 6010B pre5aration: 300PA

**Dissolved** 

280-62907-F-1-B MS Instrument ID: MS Lab Sample ID: Analysis Batch: 280-257020

Client Matrix: Water Prep Batch: 280-254416 Lab File ID: 26A121214E.asc

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 50 mL

Analysis Date: 12/13/2014 0702 Final Weight/Volume: 50 mL

Prep Date: 11/24/2014 1245 Leach Date: N/A

N/A

N/A

Instrument ID: MT 026 280-62907-F-1-C MSD 280-257020

MSD Lab Sample ID: Analysis Batch: Lab File ID: 26A121214E.asc Client Matrix: Water Prep Batch: 280-254416

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 50 mL

Analysis Date: 12/13/2014 0705 Final Weight/Volume: 50 mL

Prep Date: 11/24/2014 1245

% Rec. **RPD RPD Limit** Analyte MS MSD Limit MS Qual MSD Qual Calcium, Dissolved 48 - 153 103 106 1 20 Cobalt, Dissolved 104 104 82 - 119 0 20 Iron, Dissolved 110 123 52 - 155 2 20 4 4 Magnesium, Dissolved 101 106 62 - 146 1 20

70 - 203

1

20

Matrix S5ike/ Method: 6010B

120

63

Matrix S5ike Du5licate Recovery Re5ort - Batch: 280-2P4416 pre5aration: 300PA **Dissolved** 

280-257163 Instrument ID: MT\_026 MS Lab Sample ID: 280-62907-F-1-B MS ^5 Analysis Batch:

Client Matrix: Water Prep Batch: 280-254416 Lab File ID: 26b121414.asc Dilution: Leach Batch: Initial Weight/Volume: 5.0 N/A 50 mL

12/14/2014 2059 Final Weight/Volume: Analysis Date: 50 mL

166

11/24/2014 1245 Prep Date:

Leach Date: N/A

MSD Lab Sample ID: 280-62907-F-1-C MSD ^5 Analysis Batch: 280-257163 Instrument ID: MT\_026 Water 280-254416 Lab File ID:

Client Matrix: Prep Batch: 26b121414.asc Dilution: Leach Batch: N/A Initial Weight/Volume: 5.0 50 mL

Analysis Date: 12/14/2014 2102 Final Weight/Volume: 50 mL

11/24/2014 1245 Prep Date:

94

% Rec. MS RPD Analyte MSD Limit **RPD Limit** MS Qual MSD Qual

76 - 132

3

20

Potassium. Dissolved

Leach Date:

Leach Date:

Sodium, Dissolved

Client: Waste Management Job Number: 280-62813-1

Units: mg/L

Matrix S5ike/ Matrix S5ike Du5licate Recovery Re5ort - Batch: 280-2P4416 Method: 6010B pre5aration: 300PA

Dissolved

MS Lab Sample ID:

280-62907-F-1-B MS

MSD Lab Sample ID:

280-62907-F-1-C MSD

Client Matrix:

Water

Client Matrix:

Water

Dilution:

Dilution:

1.0

Analysis Date:

1.0

Analysis Date:

12/13/2014 0705

Prep Date:

12/13/2014 0702 11/24/2014 1245

Prep Date:

11/24/2014 1245

Leach Date:

N/A

Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/C	Qual	MSD Result/Q	ual
Calcium, Dissolved	140	50.0	50.0	190		192	
Cobalt, Dissolved	0.025	0.500	0.500	0.545		0.544	
Iron, Dissolved	5.2	1.00	1.00	6.30	4	6.44	4
Magnesium, Dissolved	140	50.0	50.0	195		198	
Sodium, Dissolved	1600	50.0	50.0	1670	4	1700	4

Matrix S5ike/

Matrix S5ike Du5licate Recovery Re5ort - Batch: 280-2P4416

Method: 6010B pre5aration: 300PA

**Dissolved** 

MS Lab Sample ID:

280-62907-F-1-B MS ^5

MSD Lab Sample ID:

280-62907-F-1-C MSD ^5

Client Matrix:

Water

Client Matrix:

MS Spike

Water 5.0

Dilution: Analysis Date: 5.0

Analysis Date:

Dilution:

12/14/2014 2102

Prep Date:

12/14/2014 2059

Prep Date:

11/24/2014 1245

Leach Date:

11/24/2014 1245 N/A

Leach Date:

N/A

MSD Spike

MS

MSD

Analyte Potassium, Dissolved Result/Qual Amount 470 50.0

Units: mg/L

Sample

Amount 50.0

Result/Qual 499

Result/Qual 514

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Job Number: 280-62813-1 Client: Waste Management

Method Blank - Batch: 280-2P4436

Method: 6010B pre5aration: 300PA **Total Recoverable** 

Final Weight/Volume:

Lab Sample ID: MB 280-254436/1-A

Client Matrix: Water

Dilution: 1.0 12/13/2014 0459 Analysis Date: Prep Date: 11/25/2014 0715

Leach Date: N/A

280-257019 Analysis Batch:

Prep Batch: 280-254436 Leach Batch: N/A

Units: mg/L

MT\_026 Instrument ID:

Lab File ID: 26A121214D.asc Initial Weight/Volume: 50 mL

50 mL

50 mL

50 mL

Analyte Result Qual RL RL Cobalt, Total ND 0.0030 0.0030 Iron. Total ND 0.060 0.060

Lab Control Sam5le - Batch: 280-2P4436

Method: 6010B pre5aration: 300PA **Total Recoverable** 

Lab Sample ID: LCS 280-254436/2-A Client Matrix: Water Dilution: 1.0

12/13/2014 0502 Analysis Date: Prep Date: 11/25/2014 0715 Analysis Batch: 280-257019 Instrument ID: MT 026 Prep Batch: 280-254436 Lab File ID: 26A121214D.asc

Leach Batch: N/A Initial Weight/Volume: 50 mL Units: 50 mL mg/L Final Weight/Volume:

Leach Date: N/A

Analyte Spike Amount Result % Rec. Limit Qual Cobalt, Total 0.500 0.537 107 89 - 111 Iron, Total 1.00 1.10 110 89 - 115

Matrix S5ike/

Matrix S5ike Du5licate Recovery Re5ort - Batch: 280-2P4436

Method: 6010B pre5aration: 300PA **Total Recoverable** 

Initial Weight/Volume:

Final Weight/Volume:

MS Lab Sample ID: 280-62814-E-1-C MS Analysis Batch: 280-257019 Instrument ID: MT\_026 Client Matrix: Water Prep Batch: 280-254436 Lab File ID: 26A121214D.asc

Leach Batch:

Dilution: 1.0 Analysis Date: 12/13/2014 0533

Prep Date: 11/25/2014 0715

Leach Date:

MSD Lab Sample ID: 280-62814-E-1-D MSD Analysis Batch: 280-257019 Instrument ID: MT\_026 Client Matrix: Water Prep Batch: 280-254436 Lab File ID: 26A121214D.asc

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 50 mL Analysis Date:

113

112

Prep Date: 11/25/2014 0715

Leach Date: N/A

12/13/2014 0536 Final Weight/Volume: 50 mL

N/A

% Rec. Analyte MS MSD Limit **RPD RPD Limit** MS Qual MSD Qual Cobalt. Total 106 107 82 - 119 1 20

52 - 155

0

20

Iron, Total

Client: Waste Management Job Number: 280-62813-1

Matrix S5ike/ Matrix S5ike Du5licate Recovery Re5ort - Batch: 280-2P4436 Method: 6010B pre5aration: 300PA **Total Recoverable** 

MS Lab Sample ID:

280-62814-E-1-C MS

Units: mg/L

MSD Lab Sample ID: 280-62814-E-1-D MSD

Client Matrix:

Water

Client Matrix: Water

Dilution: 1.0 Dilution: 1.0

Analysis Date: 12/13/2014 0533 Prep Date: 11/25/2014 0715 Analysis Date: 12/13/2014 0536 Prep Date: 11/25/2014 0715

Leach Date: N/A Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual	
Cobalt, Total	ND	0.500	0.500	0.530	0.535	
Iron, Total	ND	1.00	1.00	1.12	1.13	

Job Number: 280-62813-1 Client: Waste Management

Method Blank - Batch: 280-2P4439

Method: 6010B pre5aration: 300PA **Total Recoverable** 

Lab Sample ID: MB 280-254437/1-A

Client Matrix: Water

Dilution: 1.0 12/05/2014 0145 Analysis Date: Prep Date: 11/24/2014 1245

Leach Date: N/A

280-255927 Instrument ID: Analysis Batch: Prep Batch: 280-254437

Leach Batch: N/A Units: mg/L Lab File ID: 26d120414.asc Initial Weight/Volume: Final Weight/Volume: 50 mL

50 mL

MT\_026

Analyte Result Qual RL RL Cobalt, Total ND 0.0030 0.0030 Iron. Total ND 0.060 0.060

Lab Control Sam5le - Batch: 280-2P4439

Method: 6010B pre5aration: 300PA **Total Recoverable** 

Lab Sample ID: LCS 280-254437/2-A Water Client Matrix: Dilution: 1.0

12/05/2014 0147 Analysis Date: Prep Date: 11/24/2014 1245

Leach Date: N/A

Analysis Batch: 280-255927 Prep Batch: 280-254437 Leach Batch: N/A

Units: mg/L

Analysis Batch:

Prep Batch:

Leach Batch:

MT 026 Instrument ID: Lab File ID: 26d120414.asc

Initial Weight/Volume: 50 mL 50 mL Final Weight/Volume:

Analyte Spike Amount Result % Rec. Limit Qual Cobalt, Total 0.546 0.500 109 89 - 111 Iron, Total 1.00 1.09 109 89 - 115

280-255927

280-254437

N/A

Matrix S5ike/

MS Lab Sample ID:

Matrix S5ike Du5licate Recovery Re5ort - Batch: 280-2P4439

280-62810-N-1-C MS

Method: 6010B pre5aration: 300PA **Total Recoverable** 

Client Matrix: Water Dilution: 1.0 Analysis Date: 12/05/2014 0206

Prep Date: 11/24/2014 1245

Leach Date:

Client Matrix:

Dilution: 1.0 Leach Batch:

12/05/2014 0209 Analysis Date: Prep Date: 11/24/2014 1245

Leach Date: N/A Instrument ID: MT\_026

Lab File ID: 26d120414.asc Initial Weight/Volume: 50 mL 50 mL Final Weight/Volume:

MSD Lab Sample ID: 280-62810-N-1-D MSD Analysis Batch: 280-255927 Instrument ID: MT\_026 Water Prep Batch: 280-254437 Lab File ID: 26d120414.asc

N/A Initial Weight/Volume: 50 mL Final Weight/Volume: 50 mL

% Rec. Analyte MS MSD Limit **RPD RPD Limit** MS Qual MSD Qual Cobalt. Total 104 104 82 - 119 1 20 52 - 155 Iron, Total 109 107 1 20

Client: Waste Management Job Number: 280-62813-1

Matrix S5ike/ Matrix S5ike Du5licate Recovery Re5ort - Batch: 280-2P4439 Method: 6010B pre5aration: 300PA **Total Recoverable** 

MS Lab Sample ID:

280-62810-N-1-C MS

Units: mg/L

MSD Lab Sample ID: 280-62810-N-1-D MSD

Client Matrix:

Water

Client Matrix: Water

Dilution: 1.0 Analysis Date:

Dilution: 1.0 Analysis Date: 12/05/2014 0209

12/05/2014 0206 Prep Date: 11/24/2014 1245

Prep Date: 11/24/2014 1245

Leach Date: N/A Leach Date: N/A

Analyte	Sample	MS Spike	MSD Spike	MS	MSD
	Result/Qual	Amount	Amount	Result/Qual	Result/Qual
Cobalt, Total	ND	0.500	0.500	0.522	0.519
Iron, Total	ND	1.00	1.00	1.09	1.07

Method Blank - Batch: 280-2P4427

Method: 6020 pre5aration: 300PA Total Recoverable

Lab Sample ID: MB 280-254429/1-A

Client Matrix: Water
Dilution: 1.0
Analysis Date: 11/24/2014 2318

Prep Date: 11/23/2014 1531

Leach Date: N/A

Analysis Batch: 280-254731 Ins Prep Batch: 280-254429 La

Leach Batch: N/A
Units: mg/L

Instrument ID: MT\_024
Lab File ID: 098\_BLK.D
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL	RL
Antimony, Total	ND		0.0010	0.0010
Barium, Total	ND		0.0010	0.0010
Beryllium, Total	ND		0.0010	0.0010
Cadmium, Total	ND		0.00020	0.00020
Chromium, Total	ND		0.0030	0.0030
Copper, Total	ND		0.0020	0.0020
Lead, Total	ND		0.0010	0.0010
Manganese, Total	ND		0.0010	0.0010
Nickel, Total	ND		0.0040	0.0040
Selenium, Total	ND		0.0010	0.0010
Silver, Total	ND		0.0020	0.0020
Thallium, Total	ND		0.0010	0.0010
Vanadium, Total	ND		0.0020	0.0020
Zinc, Total	ND		0.0050	0.0050

Lab Control Sam5le - Batch: 280-2P4427

Method: 6020 pre5aration: 300PA Total Recoverable

Lab Sample ID: LCS 280-254429/2-A

 Client Matrix:
 Water

 Dilution:
 1.0

 Analysis Date:
 11/24/2014 2321

 Prep Date:
 11/23/2014 1531

Leach Date: N/A

Analysis Batch: 280-254731
Prep Batch: 280-254429
Leach Batch: N/A
Units: mg/L

Instrument ID: MT\_024
Lab File ID: 099\_LCS.D
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

analyte	Spike Amount	Result	% Rec.	Limit	Qual
Antimony, Total	0.0400	0.0380	95	85 - 115	
Barium, Total	0.0400	0.0412	103	85 - 118	
Beryllium, Total	0.0400	0.0408	102	80 - 125	
admium, Total	0.0400	0.0401	100	85 - 115	
Chromium, Total	0.0400	0.0380	95	84 - 121	
copper, Total	0.0400	0.0408	102	85 - 119	
ead, Total	0.0400	0.0409	102	85 - 118	
langanese, Total	0.0400	0.0395	99	85 - 117	
ickel, Total	0.0400	0.0398	100	85 - 119	
elenium, Total	0.0400	0.0434	109	77 - 122	
ilver, Total	0.0400	0.0391	98	85 - 115	
hallium, Total	0.0400	0.0407	102	85 - 118	
anadium, Total	0.0400	0.0377	94	85 - 120	
inc, Total	0.0400	0.0440	110	83 - 122	

Job Number: 280-62813-1 Client: Waste Management

Matrix S5ike/ Matrix S5ike Du5licate Recovery Re5ort - Batch: 280-2P4427 Method: 6020 pre5aration: 300PA **Total Recoverable** 

280-62813-2 MS Lab Sample ID: Client Matrix: Dilution:

Water 1.0

11/25/2014 0026 11/23/2014 1531

Leach Date: N/A

Analysis Date:

Prep Date:

280-62813-2 MSD Lab Sample ID: Client Matrix: Water Dilution: 1.0

Analysis Date: 11/25/2014 0029 Prep Date: 11/23/2014 1531

Leach Date: N/A

Instrument ID:

280-254731 Analysis Batch: Prep Batch: 280-254429

Leach Batch: N/A

Prep Batch:

Leach Batch:

280-254731

Lab File ID: Initial Weight/Volume:

MT\_024 120 MS.D 50 mL

Final Weight/Volume: 50 mL

Analysis Batch: MT\_024 Lab File ID: 280-254429 121 MSD.D N/A Initial Weight/Volume: 50 mL Final Weight/Volume: 50 mL

Instrument ID:

% Rec. RPD **RPD** Limit Analyte MS MSD Limit MS Qual MSD Qual Antimony, Total 85 - 115 8 20 98 106 Barium, Total 104 113 85 - 118 7 20 Beryllium, Total 102 113 80 - 125 10 20 Cadmium, Total 99 103 85 - 115 4 20 94 101 84 - 121 6 20

Chromium, Total Copper, Total 99 106 85 - 119 7 20 8 20 Lead, Total 98 106 85 - 118 85 - 117 Manganese, Total 101 107 6 20 7 20 Nickel, Total 105 112 85 - 119 77 - 122 Selenium, Total 111 119 7 20 85 - 115 7 20 Silver, Total 96 102 8 20 Thallium, Total 99 107 85 - 118 Vanadium, Total 95 101 85 - 120 5 20 Zinc, Total 110 116 83 - 122 5 20

Client: Waste Management Job Number: 280-62813-1

Units: mg/L

Matrix S5ike/
Matrix S5ike Du5licate Recovery Re5ort - Batch: 280-2P4427

Method: 6020 pre5aration: 300PA Total Recoverable

MS Lab Sample ID: 280-62813-2 Client Matrix: Water

Client Matrix: Wat Dilution: 1.0

Analysis Date: 11/25/2014 0026 Prep Date: 11/23/2014 1531

Leach Date: N/A

MSD Lab Sample ID: 280-62813-2 Client Matrix: Water Dilution: 1.0

Analysis Date: 11/25/2014 0029 Prep Date: 11/23/2014 1531

Leach Date: N/A

	Sample	MS Spike	MSD Spike	MS	MSD
Analyte	Result/Qual	Amount	Amount	Result/Qual	Result/Qual
Antimony, Total	ND	0.0400	0.0400	0.0392	0.0423
Barium, Total	0.0044	0.0400	0.0400	0.0461	0.0496
Beryllium, Total	ND	0.0400	0.0400	0.0407	0.0451
Cadmium, Total	ND	0.0400	0.0400	0.0397	0.0412
Chromium, Total	0.0043	0.0400	0.0400	0.0421	0.0449
Copper, Total	ND	0.0400	0.0400	0.0395	0.0425
Lead, Total	ND	0.0400	0.0400	0.0391	0.0425
Manganese, Total	ND	0.0400	0.0400	0.0406	0.0429
Nickel, Total	ND	0.0400	0.0400	0.0420	0.0449
Selenium, Total	ND	0.0400	0.0400	0.0445	0.0478
Silver, Total	ND	0.0400	0.0400	0.0382	0.0409
Thallium, Total	ND	0.0400	0.0400	0.0395	0.0427
Vanadium, Total	0.0038	0.0400	0.0400	0.0420	0.0444
Zinc, Total	ND	0.0400	0.0400	0.0442	0.0464

Method Blank - Batch: 280-2P4467

Method: 6020 pre5aration: 300PA Total Recoverable

Lab Sample ID: MB 280-254469/1-A

Client Matrix: Water
Dilution: 1.0
Analysis Date: 11/25/2014 0338

Prep Date: 11/24/2014 1245

Leach Date: N/A

Analysis Batch: 280-254731 Prep Batch: 280-254469

Leach Batch: N/A
Units: mg/L

Instrument ID: MT\_024
Lab File ID: 182\_BLK.D
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte Result Qual RL RL Antimony, Dissolved ND 0.0010 0.0010 Barium, Dissolved ND 0.0010 0.0010 Beryllium, Dissolved ND 0.0010 0.0010 Cadmium, Dissolved ND 0.00020 0.00020 Chromium, Dissolved ND 0.0030 0.0030 Copper, Dissolved ND 0.0020 0.0020 Lead, Dissolved ND 0.0010 0.0010 Manganese, Dissolved ND 0.0010 0.0010 Nickel, Dissolved ND 0.0040 0.0040 Selenium, Dissolved ND 0.0010 0.0010 Silver, Dissolved ND 0.0020 0.0020 Thallium, Dissolved ND 0.0010 0.0010 Vanadium, Dissolved ND 0.0020 0.0020 Zinc, Dissolved ND 0.0050 0.0050

Lab Control Sam5le - Batch: 280-2P4467

Method: 6020 pre5aration: 300PA Total Recoverable

Lab Sample ID: LCS 280-254469/2-A

Client Matrix: Water
Dilution: 1.0
Analysis Date: 11/25/2014 0341

Prep Date: 11/24/2014 1245

Leach Date: N/A

Analysis Batch: 280-254731
Prep Batch: 280-254469
Leach Batch: N/A
Units: mg/L

Instrument ID: MT\_024
Lab File ID: 183\_LCS.D
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Antimony, Dissolved	0.0400	0.0368	92	85 - 115	
Barium, Dissolved	0.0400	0.0398	100	85 - 118	
Beryllium, Dissolved	0.0400	0.0397	99	80 - 125	
Cadmium, Dissolved	0.0400	0.0396	99	85 - 115	
Chromium, Dissolved	0.0400	0.0392	98	84 - 121	
Copper, Dissolved	0.0400	0.0410	103	85 - 119	
Lead, Dissolved	0.0400	0.0395	99	85 - 118	
Manganese, Dissolved	0.0400	0.0400	100	85 - 117	
Nickel, Dissolved	0.0400	0.0405	101	85 - 119	
Selenium, Dissolved	0.0400	0.0423	106	77 - 122	
Silver, Dissolved	0.0400	0.0403	101	85 - 115	
Thallium, Dissolved	0.0400	0.0395	99	85 - 118	
Vanadium, Dissolved	0.0400	0.0387	97	85 - 120	
Zinc, Dissolved	0.0400	0.0424	106	83 - 122	

Job Number: 280-62813-1 Client: Waste Management

280-254731

280-254469

N/A

Analysis Batch:

Prep Batch:

Leach Batch:

Matrix S5ike/ Matrix S5ike Du5licate Recovery Re5ort - Batch: 280-2P4467 Method: 6020 pre5aration: 300PA

MS Lab Sample ID: 280-62814-D-2-C MS Client Matrix: Water

1.0

11/25/2014 0421

11/24/2014 1245

Leach Date: N/A

Dilution:

Analysis Date:

Prep Date:

MSD Lab Sample ID: 280-62814-D-2-D MSD

Client Matrix: Water Dilution: 1.0

Analysis Date: 11/25/2014 0424 Prep Date: 11/24/2014 1245

Leach Date: N/A

Dissolved

Instrument ID: MT\_024 Lab File ID: 196 MS.D Initial Weight/Volume: 50 mL

Final Weight/Volume: 50 mL

Instrument ID: Analysis Batch: 280-254731 MT 024 Lab File ID: Prep Batch: 280-254469 197 MSD.D Leach Batch: N/A Initial Weight/Volume: 50 mL

Final Weight/Volume: 50 mL

% Rec. RPD **RPD** Limit Analyte MS MSD Limit MS Qual MSD Qual Antimony, Dissolved 85 - 115 102 101 1 20 Barium, Dissolved 106 101 85 - 118 4 20 Beryllium, Dissolved 104 102 80 - 125 2 20 Cadmium, Dissolved 101 101 85 - 115 1 20 Chromium, Dissolved 104 101 84 - 121 3 20 Copper, Dissolved 106 102 85 - 119 4 20 3 20 Lead, Dissolved 101 98 85 - 118 Manganese, Dissolved 288 62 85 - 117 4 20 3 20 Nickel, Dissolved 107 104 85 - 119 Selenium, Dissolved 110 106 77 - 122 4 20 85 - 115 2 20 100 Silver, Dissolved 102 2 20 Thallium, Dissolved 102 100 85 - 118 Vanadium, Dissolved 105 102 85 - 120 3 20 Zinc, Dissolved 101 96 83 - 122 4 20

Client: Waste Management Job Number: 280-62813-1

Matrix S5ike/ Matrix S5ike Du5licate Recovery Re5ort - Batch: 280-2P4467 Method: 6020 pre5aration: 300PA

Dissolved

MS Lab Sample ID:

Prep Date:

280-62814-D-2-C MS

Units: mg/L

MSD Lab Sample ID: 280-62814-D-2-D MSD

Client Matrix: Water Client Matrix:

Water

Dilution: 1.0 Analysis Date:

Dilution: 1.0

11/25/2014 0421 Analysis Date: 11/24/2014 1245 Prep Date:

11/25/2014 0424 11/24/2014 1245

Leach Date: N/A Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Antimony, Dissolved	ND	0.0400	0.0400	0.0408	0.0402
Barium, Dissolved	0.0060	0.0400	0.0400	0.0484	0.0464
Beryllium, Dissolved	ND	0.0400	0.0400	0.0415	0.0406
Cadmium, Dissolved	ND	0.0400	0.0400	0.0405	0.0402
Chromium, Dissolved	ND	0.0400	0.0400	0.0416	0.0405
Copper, Dissolved	ND	0.0400	0.0400	0.0424	0.0408
Lead, Dissolved	ND	0.0400	0.0400	0.0403	0.0392
Manganese, Dissolved	2.4	0.0400	0.0400	2.51 4	2.42 4
Nickel, Dissolved	ND	0.0400	0.0400	0.0428	0.0415
Selenium, Dissolved	ND	0.0400	0.0400	0.0439	0.0424
Silver, Dissolved	ND	0.0400	0.0400	0.0407	0.0398
Thallium, Dissolved	ND	0.0400	0.0400	0.0408	0.0399
Vanadium, Dissolved	ND	0.0400	0.0400	0.0420	0.0409
Zinc, Dissolved	0.0055	0.0400	0.0400	0.0459	0.0441

Job Number: 280-62813-1 Client: Waste Management

Method Blank - Batch: 280-2PP04P

Method: 300.0 pre5aration: N/A

280-255045 Lab Sample ID: Instrument ID: MB 280-255045/6 Analysis Batch:

WC\_lonChrom10 Client Matrix: Water Prep Batch: N/A Lab File ID: Info 2 DENPC179 Anions

N/A Dilution: Leach Batch: Initial Weight/Volume: 5 mL 1.0 11/27/2014 1120 Units: Final Weight/Volume: 5 mL Analysis Date: mg/L

Prep Date: N/A Leach Date: N/A

Analyte Result Qual RL RL Chloride ND 1.0 1.0 Sulfate ND 1.0 1.0

Method Re5orting Limit Check - Batch: 280-2PP04P

Method: 300.0 pre5aration: N/A

5 uL

Analysis Batch: 280-255045 WC IonChrom10 Lab Sample ID: MRL 280-255045/3 Instrument ID:

Client Matrix: Prep Batch: N/A Lab File ID: Info 2\_DENPC179\_Anions Water

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 5 mL 11/27/2014 1034 Units: 5 mL Analysis Date: mg/L Final Weight/Volume:

Prep Date: N/A Leach Date: N/A

Sulfate

Analyte Spike Amount Result % Rec. Limit Qual Chloride 2.50 ND 94 50 - 150 Sulfate 2.50 ND 93 50 - 150

Lab Control Sam5le/ Method: 300.0

Lab Control Sam5le Du5licate Recovery Re5ort - Batch: 280-2PP04P pre5aration: N/A

LCS Lab Sample ID: LCS 280-255045/4 Analysis Batch: 280-255045 Instrument ID: WC\_IonChrom10

Client Matrix: N/A Water Prep Batch: Lab File ID: Info 2\_DENPC179\_Anions

Leach Batch: 5 mL Dilution: 1.0 N/A Initial Weight/Volume: Analysis Date: 11/27/2014 1049 Units: Final Weight/Volume: 5 mL mg/L 5 uL

Prep Date: N/A Leach Date: N/A

280-255045 LCSD Lab Sample ID: LCSD 280-255045/5 Analysis Batch: Instrument ID: WC\_IonChrom10

Client Matrix: Water Prep Batch: N/A Lab File ID: Info 2\_DENPC179\_Anions

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 5 mL 11/27/2014 1105 Final Weight/Volume: 5 mL Analysis Date: Units: mg/L

Prep Date: N/A Leach Date: N/A

98

% Rec. Analyte LCS **LCSD** Limit **RPD RPD Limit** LCS Qual LCSD Qual Chloride 99 99 90 - 110 0 10

90 - 110

0

10

98

Client: Waste Management Job Number: 280-62813-1

Method: 300.0

Laboratory Control/

Laboratory Du5licate Data Re5ort - Batch: 280-2PP04P pre5aration: N/A

LCS Lab Sample ID: LCS 280-255045/4 Units: mg/L LCSD Lab Sample ID: LCSD 280-255045/5

Client Matrix:WaterClient Matrix:WaterDilution:1.0Dilution:1.0

Analysis Date: 11/27/2014 1049 Analysis Date: 11/27/2014 1105

 Prep Date:
 N/A
 Prep Date:
 N/A

 Leach Date:
 N/A
 Leach Date:
 N/A

LCS Spike LCSD Spike LCS **LCSD** Analyte Amount Amount Result/Qual Result/Qual Chloride 100 100 99.4 99.1 Sulfate 100 100 98.3 98.3

Matrix S5ike/ Method: 300.0

Matrix S5ike Du5licate Recovery Re5ort - Batch: 280-2PP04P pre5aration: N/A

MS Lab Sample ID: 280-62813-2 Analysis Batch: 280-255045 Instrument ID: WC\_lonChrom10

Client Matrix: Water Prep Batch: N/A Lab File ID: Info 2\_DENPC179\_Anions

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 5 mL

Analysis Date: 11/27/2014 1401 Final Weight/Volume: 5 mL

Analysis Date: 11/2//2014 1401 Final Weight/Volume: 5 mL
Prep Date: N/A
Leach Date: N/A

MSD Lab Sample ID: 280-62813-2 Analysis Batch: 280-255045 Instrument ID: WC\_lonChrom10

Client Matrix: Water Prep Batch: N/A Lab File ID: Info 2\_DENPC179\_Anions.

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 5 mL

Analysis Date: 11/27/2014 1416 Final Weight/Volume: 5 mL

Prep Date: N/A 5 uL
Leach Date: N/A

Analyte MS MSD Limit RPD RPD Limit MS Qual MSD Qual

 Chloride
 107
 111
 80 - 120
 3
 20

 Sulfate
 106
 110
 80 - 120
 3
 20

Client: Waste Management Job Number: 280-62813-1

Matrix S5ike/ Method: 300.0

Matrix S5ike Du5licate Recovery Re5ort - Batch: 280-2PP04P pre5aration: N/A

MS Lab Sample ID: 280-62813-2 Client Matrix: Water

Dilution: 1.0
Analysis Date: 11/27/2014 1401

Prep Date: N/A Leach Date: N/A Units: mg/L MSD Lab Sample ID: 280-62813-2 Client Matrix: Water

Dilution: 1.0

Analysis Date: 11/27/2014 1416

Prep Date: N/A Leach Date: N/A

Sample MS Spike MSD Spike MS MSD Result/Qual Amount Amount Result/Qual Result/Qual Analyte Chloride 3.0 25.0 25.0 29.8 30.7 Sulfate 2.0 25.0 25.0 28.5 29.5

Du5licate - Batch: 280-2PP04P Method: 300.0

pre5aration: N/A

Lab Sample ID: 280-62813-2 Analysis Batch: 280-255045 Instrument ID: WC\_lonChrom10

Client Matrix: Water Prep Batch: N/A Lab File ID: Info 2\_DENPC179\_Anions

Client Matrix: Water Prep Batch: N/A Lab File ID: Info 2\_D
Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 5 mL
Analysis Date: 11/27/2014 1345 Units: mg/L Final Weight/Volume: 5 mL

Prep Date: N/A 5 uL

Leach Date: N/A

Analyte **RPD** Limit Qual Sample Result/Qual Result Chloride 3.0 3.02 0.5 15 Sulfate 2.0 2.00 0.3 15

Client: Waste Management Job Number: 280-62813-1

Method Blank - Batch: 280-2P4661

Method: 3P0.1 pre5aration: N/A

Lab Sample ID: MB 280-254661/158 Analysis Batch: 280-254661 Instrument ID: WC\_Alp 3

Client Matrix: Water Prep Batch: N/A Lab File ID: E:\FLOW\_4\112414.RST

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 10 mL Analysis Date: 11/24/2014 1400 Units: mg/L Final Weight/Volume: 10 mL

Prep Date: N/A Leach Date: N/A

Analyte Result Qual RL RL

Ammonia (as N) ND 0.030 0.030

Lab Control Sam5le/ Method: 3P0.1
Lab Control Sam5le Du5licate Recovery Re5ort - Batch: 280-2P4661 pre5aration: N/A

LCS Lab Sample ID: LCS 280-254661/156 Analysis Batch: 280-254661 Instrument ID: WC\_Alp 3

Client Matrix: Water Prep Batch: N/A Lab File ID: E:\FLOW\_4\112414.RST

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 100 mL Analysis Date: 11/24/2014 1356 Units: mg/L Final Weight/Volume: 100 mL

Prep Date: N/A
Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-254661/157 Analysis Batch: 280-254661 Instrument ID: WC\_Alp 3

Client Matrix: Water Prep Batch: N/A Lab File ID: E:\FLOW\_4\112414.RST

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 100 mL

Analysis Date: 11/24/2014 1358 Units: mg/L Final Weight/Volume: 100 mL Prep Date: N/A

Leach Date: N/A

<u>% Rec.</u>

Analyte LCS LCSD Limit RPD RPD Limit LCS Qual LCSD Qual

Ammonia (as N) 101 101 90 - 110 0 10

Laboratory Control/ Method: 3P0.1
Laboratory Du5licate Data Re5ort - Batch: 280-2P4661 pre5aration: N/A

LCS Lab Sample ID: LCS 280-254661/156 Units: mg/L LCSD Lab Sample ID: LCSD 280-254661/157

Client Matrix: Water Client Matrix: Water
Dilution: 1.0 Dilution: 1.0

Analysis Date: 11/24/2014 1356 Analysis Date: 11/24/2014 1358

Prep Date:N/APrep Date:N/ALeach Date:N/ALeach Date:N/A

Analyte LCS Spike LCSD Spike LCS LCSD
Amount Amount Result/Qual Result/Qual

Ammonia (as N) 2.50 2.50 2.53 2.54

Client: Waste Management Job Number: 280-62813-1

Matrix S5ike/ Method: 3P0.1 Matrix S5ike Du5licate Recovery Re5ort - Batch: 280-2P4661 pre5aration: N/A

280-62813-1 280-254661 Instrument ID: MS Lab Sample ID: Analysis Batch: WC\_Alp 3

Client Matrix: Water Prep Batch: N/A Lab File ID: E:\FLOW 4\112414.RST

Dilution: N/A 10 mL 1.0 Leach Batch: Initial Weight/Volume:

Analysis Date: 11/24/2014 1404 Final Weight/Volume: 10 mL

N/A Prep Date: Leach Date: N/A

MSD Lab Sample ID: 280-62813-1 Instrument ID: Analysis Batch: 280-254661 WC\_Alp 3

Client Matrix: Lab File ID: E:\FLOW 4\112414.RST Water Prep Batch: N/A

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 10 mL

11/24/2014 1406 Final Weight/Volume: Analysis Date: 10 mL Prep Date: N/A

% Rec. Limit RPD **RPD** Limit Analyte MS MSD MS Qual MSD Qual

Ammonia (as N) 90 - 110 104 105 1 10

Matrix S5ike/ Method: 3P0.1

ND

Matrix S5ike Du5licate Recovery Re5ort - Batch: 280-2P4661 pre5aration: N/A

MS Lab Sample ID: 280-62813-1 Units: mg/L MSD Lab Sample ID: 280-62813-1

Client Matrix: Water Client Matrix: Water Dilution: 1.0 Dilution: 1.0

11/24/2014 1406 Analysis Date: 11/24/2014 1404 Analysis Date:

Prep Date: N/A Prep Date: N/A Leach Date: N/A Leach Date: N/A

Sample MS Spike MSD Spike MS MSD Result/Qual Amount Amount Result/Qual Result/Qual Analyte

1.00

1.00

1.04

1.05

Ammonia (as N)

Leach Date:

N/A

RL

Client: Waste Management Job Number: 280-62813-1

Method Blank - Batch: 280-2PP399 Method: 3P3.2 pre5aration: N/A

Lab Sample ID: MB 280-255377/1 280-255377 Instrument ID: Analysis Batch: No Equipment Assigned Client Matrix: Water Prep Batch: N/A Lab File ID:

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Units: Final Weight/Volume: Analysis Date: 11/21/2014 2243 mg/L Prep Date: N/A

Leach Date: N/A

Result

Analyte Nitrate as N ND 0.050 0.050

Qual

RL

Final Weight/Volume:

Job Number: 280-62813-1 Client: Waste Management

Method Blank - Batch: 280-2P469P Method: SM 2320B pre5aration: N/A

Units:

Lab Sample ID: WC-AT3 MB 280-254675/33 Analysis Batch: 280-254675 Instrument ID:

Client Matrix: Water Prep Batch: N/A Lab File ID: 112414c.TXT Dilution: Leach Batch: N/A Initial Weight/Volume: 1.0

Prep Date: N/A Leach Date: N/A

Analysis Date:

Leach Date:

N/A

11/24/2014 1856

Analyte Result Qual RL RL Alkalinity, Total (As CaCO3) ND 5.0 5.0 Alkalinity, Bicarbonate (As CaCO3) ND 5.0 5.0

mg/L

Lab Control Sam5le/ Method: SM 2320B Lab Control Sam5le Du5licate Recovery Re5ort - Batch: 280-2P469P pre5aration: N/A

LCS Lab Sample ID: LCS 280-254675/31 Analysis Batch: 280-254675 Instrument ID: WC-AT3

Client Matrix: Water Prep Batch: N/A Lab File ID: 112414c.TXT

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

11/24/2014 1847 Analysis Date: Units: mg/L Final Weight/Volume: Prep Date: N/A

LCSD Lab Sample ID: LCSD 280-254675/32 Analysis Batch: 280-254675 Instrument ID: WC-AT3

112414c.TXT Client Matrix: Water Prep Batch: N/A Lab File ID:

Leach Batch: N/A Initial Weight/Volume: Dilution: 1.0 Analysis Date: 11/24/2014 1852 Units: Final Weight/Volume: mg/L

Prep Date: N/A Leach Date: N/A

% Rec. LCS LCSD **RPD** LCSD Qual Analyte Limit **RPD Limit** LCS Qual

Alkalinity, Total (As CaCO3) 97 94 90 - 110 3 10

Method: SM 2320B Laboratory Control/ Laboratory Du5licate Data Re5ort - Batch: 280-2P469P pre5aration: N/A

LCS Lab Sample ID: LCS 280-254675/31 LCSD Lab Sample ID: LCSD 280-254675/32 Units: mg/L Client Matrix: Water Client Matrix: Water Dilution: 1.0 Dilution: 1.0

11/24/2014 1847 11/24/2014 1852 Analysis Date: Analysis Date:

Prep Date: N/A Prep Date: N/A Leach Date: N/A Leach Date: N/A

LCS Spike LCSD Spike LCS **LCSD** Analyte Amount Amount Result/Qual Result/Qual 200 200 189 Alkalinity, Total (As CaCO3) 195

Client: Waste Management Job Number: 280-62813-1

Du5licate - Batch: 280-2P469P Method: SM 2320B

pre5aration: N/A

Lab Sample ID:280-62811-A-3 DUAnalysis Batch:280-254675Instrument ID:WC-AT3Client Matrix:WaterPrep Batch:N/ALab File ID:112414c.TXT

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 11/24/2014 1906 Units: mg/L Final Weight/Volume: Prep Date: N/A

Analyte Sample Result/Qual Result RPD Limit Qual
Alkalinity, Total (As CaCO3) 86 89.3 3 10

Leach Date:

N/A

Client: Waste Management Job Number: 280-62813-1

Method Blank - Batch: 280-2P4P84 Method: SM 2P40C pre5aration: N/A

Lab Sample ID: MB 280-254584/1 Analysis Batch: 280-254584 Instrument ID: WC\_Cond\_Orion

Client Matrix: Water Prep Batch: N/A Lab File ID: N/A N/A Dilution: Leach Batch: Initial Weight/Volume: 1.0 100 mL 11/24/2014 1422 Units: Final Weight/Volume: 100 mL Analysis Date: mg/L

Prep Date: N/A Leach Date: N/A

Analyte Result Qual RL RL

Total Dissolved Solids (TDS) ND 5.0 5.0

Lab Control Sam5le/ Method: SM 2P40C
Lab Control Sam5le Du5licate Recovery Re5ort - Batch: 280-2P4P84 pre5aration: N/A

LCS Lab Sample ID: LCS 280-254584/2 Analysis Batch: 280-254584 Instrument ID: WC\_Cond\_Orion

Client Matrix: Prep Batch: Lab File ID: N/A N/A Dilution: Leach Batch: N/A Initial Weight/Volume: 100 mL 1.0 11/24/2014 1422 Analysis Date: Units: mg/L Final Weight/Volume: 100 mL

Prep Date: N/A Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-254584/3 Analysis Batch: 280-254584 Instrument ID: WC\_Cond\_Orion

Client Matrix: Water Prep Batch: N/A Lab File ID: Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 100 mL Analysis Date: 11/24/2014 1422 Units: mg/L Final Weight/Volume: 100 mL

Prep Date: N/A Leach Date: N/A

% Rec.

Analyte LCS LCSD Limit RPD RPD Limit LCS Qual LCSD Qual

Total Dissolved Solids (TDS) 101 101 86 - 110 1 20

Laboratory Control/
Laboratory Du5licate Data Re5ort - Batch: 280-2P4P84

Method: SM 2P40C
pre5aration: N/A

LCS Lab Sample ID: LCS 280-254584/2 Units: mg/L LCSD Lab Sample ID: LCSD 280-254584/3

Client Matrix:WaterClient Matrix:WaterDilution:1.0Dilution:1.0

Analysis Date: 11/24/2014 1422 Analysis Date: 11/24/2014 1422

Prep Date:N/APrep Date:N/ALeach Date:N/ALeach Date:N/A

Analyte LCS Spike LCSD Spike LCS LCSD
Amount Amount Result/Qual Result/Qual

Total Dissolved Solids (TDS) 500 500 506 503

Client: Waste Management Job Number: 280-62813-1

Du5licate - Batch: 280-2P4P84 Method: SM 2P40C pre5aration: N/A

Lab Sample ID: Instrument ID: 280-62813-1 Analysis Batch: 280-254584 WC\_Cond\_Orion Client Matrix: Water Prep Batch: N/A Lab File ID: Dilution: Leach Batch: N/A Initial Weight/Volume: 1.0 100 mL Final Weight/Volume: Analysis Date: 11/24/2014 1422 Units: mg/L 100 mL

Prep Date: N/A Leach Date: N/A

Analyte Sample Result/Qual Result RPD Limit Qual

Total Dissolved Solids (TDS) 190 190 1 100

Client: Waste Management Job Number: 280-62813-1

Method Blank - Batch: 280-2P4307 Method: SM 2P40D pre5aration: N/A

Lab Sample ID: MB 280-254309/3 Analysis Batch: 280-254309 Instrument ID: No Equipment Assigned

Client Matrix: Water Prep Batch: N/A Lab File ID: N/A Dilution: Leach Batch: Initial Weight/Volume: 250 mL 1.0 11/22/2014 1025 Units: Final Weight/Volume: 250 mL Analysis Date: mg/L

Prep Date: N/A Leach Date: N/A

Analyte Result Qual RL RL

Total Suspended Solids ND 4.0 4.0

Lab Control Sam5le/ Method: SM 2P40D
Lab Control Sam5le Du5licate Recovery Re5ort - Batch: 280-2P4307 pre5aration: N/A

LCS Lab Sample ID: LCS 280-254309/1 Analysis Batch: 280-254309 Instrument ID: No Equipment Assigned

Client Matrix: Prep Batch: Lab File ID: N/A N/A Dilution: Leach Batch: N/A Initial Weight/Volume: 100 mL 1.0 11/22/2014 1025 Analysis Date: Units: mg/L Final Weight/Volume: 250 mL

Prep Date: N/A Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-254309/2 Analysis Batch: 280-254309 Instrument ID: No Equipment Assigned

Client Matrix: Water Prep Batch: N/A Lab File ID: N/A Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 100 mL Analysis Date: 11/22/2014 1025 Units: mg/L Final Weight/Volume: 250 mL

Prep Date: N/A Leach Date: N/A

% Rec.

Analyte LCS LCSD Limit RPD RPD Limit LC

Analyte LCS LCSD Limit RPD RPD Limit LCS Qual LCSD Qual

Total Suspended Solids 91 88 86 - 114 3 20

Laboratory Control/
Laboratory Du5licate Data Re5ort - Batch: 280-2P4307

Method: SM 2P40D
pre5aration: N/A

LCS Lab Sample ID: LCS 280-254309/1 Units: mg/L LCSD Lab Sample ID: LCSD 280-254309/2

Client Matrix: Water Client Matrix: Water
Dilution: 1.0 Dilution: 1.0

Analysis Date: 11/22/2014 1025 Analysis Date: 11/22/2014 1025

Prep Date:N/APrep Date:N/ALeach Date:N/ALeach Date:N/A

Analyte LCS Spike LCSD Spike LCS Result/Qual Result/Qual

Total Suspended Solids 100 100 91.0 88.0

Client: Waste Management Job Number: 280-62813-1

Du5licate - Batch: 280-2P4307 Method: SM 2P40D pre5aration: N/A

Lab Sample ID: 280-62813-1 Analysis Batch: 280-254309 Instrument ID: No Equipment Assigned

Client Matrix: Water Prep Batch: N/A Lab File ID: N/A

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 150 mL

Analysis Date: 11/22/2014 1025 Units: mg/L Final Weight/Volume: 250 mL

Analysis Date: 11/22/2014 1025 Units: mg/L Final Weight/Volume: Prep Date: N/A
Leach Date: N/A

Analyte Sample Result/Qual Result RPD Limit Qual

Total Suspended Solids 32 31.3 2 10

Client: Waste Management Job Number: 280-62813-1

Method Blank - Batch: 280-2P4946 Method: SM P310B pre5aration: N/A

Lab Sample ID: MB 280-254746/5 Analysis Batch: 280-254746 Instrument ID: WC\_SHI2
Client Matrix: Water Prop Batch: N/A Lab File ID: 112414 tvt

Client Matrix: Water Prep Batch: N/A Lab File ID: 112414.txt Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: Analysis Date: 11/24/2014 1702 Units: mg/L Final Weight/Volume:

Prep Date: N/A Leach Date: N/A

Analyte Result Qual RL RL

Total Organic Carbon - Average ND 1.0 1.0

Lab Control Sam5le/ Method: SM P310B
Lab Control Sam5le Du5licate Recovery Re5ort - Batch: 280-2P4946 pre5aration: N/A

LCS Lab Sample ID: LCS 280-254746/3 Analysis Batch: 280-254746 Instrument ID: WC\_SHI2

Client Matrix: Water Prep Batch: N/A Lab File ID: 112414.txt

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 11/24/2014 1622 Units: mg/L Final Weight/Volume: 200 mL
Prep Date: N/A

Leach Date: N/A

N/A

LCSD Lab Sample ID: LCSD 280-254746/4 Analysis Batch: 280-254746 Instrument ID: WC\_SHI2 Client Matrix: Water Prep Batch: N/A Lab File ID: 112414.txt

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 11/24/2014 1640 Units: mg/L Final Weight/Volume: 200 mL

Prep Date: N/A
Leach Date: N/A

% Rec.

Analyte LCS LCSD Limit RPD RPD Limit LCS Qual LCSD Qual

Total Organic Carbon - Average 97 98 88 - 112 1 15

Laboratory Control/ Method: SM P310B
Laboratory Du5licate Data Re5ort - Batch: 280-2P4946 pre5aration: N/A

LCS Lab Sample ID:LCS 280-254746/3Units:mg/LLCSD Lab Sample ID:LCSD 280-254746/4Client Matrix:WaterClient Matrix:WaterDilution:1.0Dilution:1.0

Analysis Date: 11/24/2014 1622 Analysis Date: 11/24/2014 1640

Prep Date:N/APrep Date:N/ALeach Date:N/ALeach Date:N/A

Analyte LCS Spike LCSD Spike LCS LCSD
Amount Amount Result/Qual Result/Qual

Client: Waste Management Job Number: 280-62813-1

Matrix S5ike/ Method: SM P310B

Matrix S5ike Du5licate Recovery Re5ort - Batch: 280-2P4946 pre5aration: N/A

MS Lab Sample ID: 280-62813-2 Analysis Batch: 280-254746 Instrument ID: WC\_SHI2 Client Matrix: Water Prep Batch: N/A Lab File ID: 112414.txt

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 11/24/2014 2200 Final Weight/Volume: 50 mL Prep Date: N/A

Leach Date: N/A

MSD Lab Sample ID: 280-62813-2 Analysis Batch: 280-254746 Instrument ID: WC\_SHI2 Client Matrix: Water Prep Batch: N/A Lab File ID: 112414.txt

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 11/24/2014 2217 Final Weight/Volume: 50 mL Prep Date: N/A

 ½ Rec.

 Analyte
 MS
 MSD
 Limit
 RPD
 RPD Limit
 MS Qual
 MSD Qual

Total Organic Carbon - Average 99 99 88 - 112 1 15

Matrix S5ike/ Method: SM P310B
Matrix S5ike Du5licate Recovery Re5ort - Batch: 280-2P4946 pre5aration: N/A

MS Lab Sample ID: 280-62813-2 Units: mg/L MSD Lab Sample ID: 280-62813-2

Client Matrix: Water Client Matrix: Water

Dilution: 1.0 Dilution: 1.0

Analysis Date: 11/24/2014 2200 Analysis Date: 11/24/2014 2217

 Prep Date:
 N/A
 Prep Date:
 N/A

 Leach Date:
 N/A
 Leach Date:
 N/A

Sample MS Spike MSD Spike MS MSD Result/Qual Amount Amount Result/Qual Result/Qual Analyte Total Organic Carbon - Average ND 25.0 25.0 24.7 24.9

Leach Date:

N/A

Client: Waste Management Job Number: 280-62813-1

Method Blank - Batch: 280-2PP090 Method: SM P310B pre5aration: N/A

Lab Sample ID: MB 280-255070/5 Analysis Batch: 280-255070 Instrument ID: WC\_SHI2
Client Matrix: Water Prep Batch: N/A Lab File ID: 112614 tvt

Client Matrix: Water Prep Batch: N/A Lab File ID: 112614.txt Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 11/26/2014 1514 Units: mg/L Final Weight/Volume:

Prep Date: N/A Leach Date: N/A

 Analyte
 Result
 Qual
 RL
 RL

 Total Organic Carbon - Average
 ND
 1.0
 1.0

Lab Control Sam5le/ Method: SM P310B

Lab Control Sam5le Du5licate Recovery Re5ort - Batch: 280-2PP090 pre5aration: N/A

LCS Lab Sample ID: LCS 280-255070/3 Analysis Batch: 280-255070 Instrument ID: WC\_SHI2

Client Matrix: Water Prep Batch: N/A Lab File ID: 112614.txt

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 11/26/2014 1438 Units: mg/L Final Weight/Volume: 200 mL Prep Date: N/A

Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-255070/4 Analysis Batch: 280-255070 Instrument ID: WC\_SHI2

Client Matrix: Water Prep Batch: N/A Lab File ID: 112614.txt

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 11/26/2014 1455 Units: mg/L Final Weight/Volume: 200 mL

Prep Date: N/A
Leach Date: N/A

Leach Date: N/A % Rec.

Analyte LCS LCSD Limit RPD RPD Limit LCS Qual LCSD Qual

Total Organic Carbon - Average 99 98 88 - 112 0 15

Laboratory Control/ Method: SM P310B
Laboratory Du5licate Data Re5ort - Batch: 280-2PP090 pre5aration: N/A

LCS Lab Sample ID: LCS 280-255070/3 Units: mg/L LCSD Lab Sample ID: LCSD 280-255070/4

Client Matrix:WaterClient Matrix:WaterDilution:1.0Dilution:1.0

Analysis Date: 11/26/2014 1438 Analysis Date: 11/26/2014 1455

Prep Date:N/APrep Date:N/ALeach Date:N/ALeach Date:N/A

Analyte LCS Spike LCSD Spike LCS LCSD Spike Result/Qual Result/Qual Total Organic Carbon - Average 25.0 25.0 24.7 24.6

Client: Waste Management Job Number: 280-62813-1

Matrix S5ike/ Method: SM P310B

Matrix S5ike Du5licate Recovery Re5ort - Batch: 280-2PP090 pre5aration: N/A

MS Lab Sample ID: 280-62905-F-7 MS Analysis Batch: 280-255070 Instrument ID: WC\_SHI2 Client Matrix: Water Prep Batch: N/A Lab File ID: 112614.txt

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 11/26/2014 1603 Final Weight/Volume: 50 mL

Prep Date: N/A
Leach Date: N/A

MSD Lab Sample ID: 280-62905-F-7 MSD Analysis Batch: 280-255070 Instrument ID: WC\_SHI2

Client Matrix: Water Prep Batch: N/A Lab File ID: 112614.txt

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 11/26/2014 1620 Final Weight/Volume: 50 mL

Prep Date: N/A
Leach Date: N/A

Analyte \( \frac{\% \text{Rec.}}{\text{MSD}} \) Limit \( \text{RPD} \) RPD Limit \( \text{MS Qual} \) MSD Qual

 Total Organic Carbon - Average
 100
 99
 88 - 112
 1
 15

Matrix S5ike/ Method: SM P310B
Matrix S5ike Du5licate Recovery Re5ort - Batch: 280-2PP090 pre5aration: N/A

MS Lab Sample ID: 280-62905-F-7 MS Units: mg/L MSD Lab Sample ID: 280-62905-F-7 MSD

Client Matrix:WaterClient Matrix:WaterDilution:1.0Dilution:1.0

Analysis Date: 11/26/2014 1603 Analysis Date: 11/26/2014 1620

 Prep Date:
 N/A
 Prep Date:
 N/A

 Leach Date:
 N/A
 Leach Date:
 N/A

Sample MS Spike MSD Spike MS MSD Result/Qual Amount Amount Result/Qual Result/Qual Analyte Total Organic Carbon - Average 11 25.0 25.0 36.3 36.0

# **Laboratory Chronicle**

Lab ID: 280-62847-4 Client ID: M1 -7WC

Sample Date/Time: 11/19/2014 10:03 Received Date/Time: 11/21/2014 10:40

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:5030C	280-62813-G-1		480-216556		12/01/2014 14:46	1	TAL BUF	GTG
A:8260C	280-62813-G-1		480-216556		12/01/2014 14:46	1	TAL BUF	GTG
P:5030C	280-62813-K-1		480-215927		11/25/2014 18:38	1	TAL BUF	CDC
A:8260C SIM	280-62813-K-1		480-215927		11/25/2014 18:38	1	TAL BUF	CDC
P:3005A	280-62813-C-1-B		280-255927	280-254437	11/24/2014 12:45	1	TAL DEN	CGG
A:6010B	280-62813-C-1-B		280-255927	280-254437	12/05/2014 02:43	1	TAL DEN	LLB
P:3005A	280-62813-D-1-A		280-257020	280-254416	11/24/2014 12:45	1	TAL DEN	CGG
A:6010B	280-62813-D-1-A		280-257020	280-254416	12/13/2014 07:11	1	TAL DEN	SJS
P:3005A	280-62813-C-1-A		280-254731	280-254429	11/23/2014 15:31	1	TAL DEN	CGG
A:6020	280-62813-C-1-A		280-254731	280-254429	11/25/2014 00:08	1	TAL DEN	JM
P:3005A	280-62813-D-1-B		280-254731	280-254469	11/24/2014 12:45	1	TAL DEN	CGG
A:6020	280-62813-D-1-B		280-254731	280-254469	11/25/2014 03:45	1	TAL DEN	JM
A:300.0	280-62813-A-1		280-255045		11/27/2014 13:14	1	TAL DEN	PS1
A:350.1	280-62813-E-1		280-254661		11/24/2014 14:02	1	TAL DEN	CML
A:353.2	280-62813-A-1		280-255377		11/21/2014 22:43	1	TAL DEN	RKS
A:SM 2320B	280-62813-B-1		280-254675		11/24/2014 20:02	1	TAL DEN	CCJ
A:SM 2540C	280-62813-A-1		280-254584		11/24/2014 14:22	1	TAL DEN	SVC
A:SM 2540D	280-62813-B-1		280-254309		11/22/2014 10:25	1	TAL DEN	MW1
A:SM 5310B	280-62813-E-1		280-254746		11/24/2014 21:30	1	TAL DEN	CCJ

Lab ID: 280-62847-4 M3 Client ID: M1 -7WC

Sample Date/Time: 11/19/2014 10:03 Received Date/Time: 11/21/2014 10:40

Date Prepared / **Analysis** Batch Analyzed Method Bottle ID Run **Prep Batch** Dil Lab Analyst A:350.1 280-62813-E-1 MS 280-254661 11/24/2014 14:04 TAL DEN CML

Lab ID: 280-62847-4 M3 D Client ID: M1 -7WC

Sample Date/Time: 11/19/2014 10:03 Received Date/Time: 11/21/2014 10:40

Date Prepared / **Analysis** Analyzed Method **Bottle ID** Batch **Prep Batch** Run Dil Lab Analyst A:350.1 280-62813-E-1 MSD 280-254661 11/24/2014 14:06 TAL DEN CML

Lab ID: 280-62847-4 D5 Client ID: M1 -7WC

Sample Date/Time: 11/19/2014 10:03 Received Date/Time: 11/21/2014 10:40

Date Prepared / **Analysis** Analyzed Method Bottle ID Run Batch **Prep Batch** Dil Lab Analyst A:SM 2540C 11/24/2014 14:22 SVC 280-62813-A-1 DU 280-254584 TAL DEN A:SM 2540D 280-62813-B-1 DU 280-254309 11/22/2014 10:25 TAL DEN MW1 1

# **Laboratory Chronicle**

Lab ID: 280-62847-2 Client ID: M1 -7WA

Sample Date/Time: 11/19/2014 10:45 Received Date/Time: 11/21/2014 10:40

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:5030C	280-62813-I-2		480-216556		12/01/2014 15:10	1	TAL BUF	GTG
A:8260C	280-62813-I-2		480-216556		12/01/2014 15:10	1	TAL BUF	GTG
P:5030C	280-62813-K-2		480-215927		11/25/2014 19:02	1	TAL BUF	CDC
A:8260C SIM	280-62813-K-2		480-215927		11/25/2014 19:02	1	TAL BUF	CDC
P:3005A	280-62813-C-2-D		280-257019	280-254436	11/25/2014 07:15	1	TAL DEN	CGG
A:6010B	280-62813-C-2-D		280-257019	280-254436	12/13/2014 05:04	1	TAL DEN	SJS
P:3005A	280-62813-D-2-A		280-257020	280-254414	11/24/2014 12:45	1	TAL DEN	CGG
A:6010B	280-62813-D-2-A		280-257020	280-254414	12/13/2014 08:22	1	TAL DEN	SJS
P:3005A	280-62813-C-2-A		280-254731	280-254429	11/23/2014 15:31	1	TAL DEN	CGG
A:6020	280-62813-C-2-A		280-254731	280-254429	11/25/2014 00:17	1	TAL DEN	JM
P:3005A	280-62813-D-2-B		280-254731	280-254469	11/24/2014 12:45	1	TAL DEN	CGG
A:6020	280-62813-D-2-B		280-254731	280-254469	11/25/2014 03:48	1	TAL DEN	JM
A:300.0	280-62813-A-2		280-255045		11/27/2014 13:30	1	TAL DEN	PS1
A:350.1	280-62813-E-2		280-254661		11/24/2014 14:08	1	TAL DEN	CML
A:353.2	280-62813-A-2		280-255377		11/21/2014 22:43	1	TAL DEN	RKS
A:SM 2320B	280-62813-B-2		280-254675		11/24/2014 19:44	1	TAL DEN	CCJ
A:SM 2540C	280-62813-A-2		280-254584		11/24/2014 14:22	1	TAL DEN	SVC
A:SM 2540D	280-62813-B-2		280-254309		11/22/2014 10:25	1	TAL DEN	MW1
A:SM 5310B	280-62813-E-2		280-254746		11/24/2014 21:45	1	TAL DEN	CCJ

Lab ID: 280-62847-2 M3 Client ID: M1 -7WA

Sample Date/Time: 11/19/2014 10:45 Received Date/Time: 11/21/2014 10:40

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:3005A	280-62813-C-2-B MS		280-254731	280-254429	11/23/2014 15:31	1	TAL DEN	CGG
A:6020	280-62813-C-2-B MS		280-254731	280-254429	11/25/2014 00:26	1	TAL DEN	JM
A:300.0	280-62813-A-2 MS		280-255045		11/27/2014 14:01	1	TAL DEN	PS1
A:SM 5310B	280-62813-E-2 MS		280-254746		11/24/2014 22:00	1	TAL DEN	CCJ

Lab ID: 280-62847-2 M3D Client ID: M1 -7WA

Sample Date/Time: 11/19/2014 10:45 Received Date/Time: 11/21/2014 10:40

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:3005A	280-62813-C-2-C MSD		280-254731	280-254429	11/23/2014 15:31	1	TAL DEN	CGG
A:6020	280-62813-C-2-C MSD		280-254731	280-254429	11/25/2014 00:29	1	TAL DEN	JM
A:300.0	280-62813-A-2 MSD		280-255045		11/27/2014 14:16	1	TAL DEN	PS1
A:SM 5310B	280-62813-E-2 MSD		280-254746		11/24/2014 22:17	1	TAL DEN	CCJ

# **Laboratory Chronicle**

Lab ID: 280-62847-2 D5 Client ID: M1 -7WA

Sample Date/Time: 11/19/2014 10:45 Received Date/Time: 11/21/2014 10:40

Analysis Date Prepared / Batch Analyzed Method **Bottle ID** Run Prep Batch Dil Lab Analyst A:300.0 280-62813-A-2 DU 280-255045 11/27/2014 13:45 TAL DEN PS1

Lab ID: 280-62847-7 Client ID: M1 -77C

Sample Date/Time: 11/19/2014 13:11 Received Date/Time: 11/21/2014 10:40

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:5030C	280-62813-F-3		480-216556		12/01/2014 15:34	1	TAL BUF	GTG
A:8260C	280-62813-F-3		480-216556		12/01/2014 15:34	1	TAL BUF	GTG
P:5030C	280-62813-K-3		480-215927		11/25/2014 19:26	1	TAL BUF	CDC
A:8260C SIM	280-62813-K-3		480-215927		11/25/2014 19:26	1	TAL BUF	CDC
P:3005A	280-62813-C-3-B		280-257019	280-254436	11/25/2014 07:15	1	TAL DEN	CGG
A:6010B	280-62813-C-3-B		280-257019	280-254436	12/13/2014 05:07	1	TAL DEN	SJS
P:3005A	280-62813-D-3-A		280-257020	280-254414	11/24/2014 12:45	1	TAL DEN	CGG
A:6010B	280-62813-D-3-A		280-257020	280-254414	12/13/2014 08:24	1	TAL DEN	SJS
P:3005A	280-62813-C-3-A		280-254731	280-254429	11/23/2014 15:31	1	TAL DEN	CGG
A:6020	280-62813-C-3-A		280-254731	280-254429	11/25/2014 00:32	1	TAL DEN	JM
P:3005A	280-62813-D-3-B		280-254731	280-254469	11/24/2014 12:45	1	TAL DEN	CGG
A:6020	280-62813-D-3-B		280-254731	280-254469	11/25/2014 03:51	1	TAL DEN	JM
A:300.0	280-62813-A-3		280-255045		11/27/2014 14:31	1	TAL DEN	PS1
A:350.1	280-62813-E-3		280-254661		11/24/2014 14:10	1	TAL DEN	CML
A:353.2	280-62813-A-3		280-255377		11/21/2014 22:43	1	TAL DEN	RKS
A:SM 2320B	280-62813-B-3		280-254675		11/24/2014 19:36	1	TAL DEN	CCJ
A:SM 2540C	280-62813-A-3		280-254584		11/24/2014 14:22	1	TAL DEN	SVC
A:SM 2540D	280-62813-B-3		280-254309		11/22/2014 10:25	1	TAL DEN	MW1
A:SM 5310B	280-62813-E-3		280-254746		11/24/2014 22:37	1	TAL DEN	CCJ

# **Laboratory Chronicle**

Lab ID: 280-62847-W Client ID: M1 -4SR

Sample Date/Time: 11/19/2014 14:22 Received Date/Time: 11/21/2014 10:40

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:5030C	280-62813-H-4		480-216556		12/01/2014 15:59	1	TAL BUF	GTG
A:8260C	280-62813-H-4		480-216556		12/01/2014 15:59	1	TAL BUF	GTG
P:5030C	280-62813-K-4		480-215927		11/25/2014 19:50	1	TAL BUF	CDC
A:8260C SIM	280-62813-K-4		480-215927		11/25/2014 19:50	1	TAL BUF	CDC
P:3005A	280-62813-C-4-B		280-257019	280-254436	11/25/2014 07:15	1	TAL DEN	CGG
A:6010B	280-62813-C-4-B		280-257019	280-254436	12/13/2014 05:09	1	TAL DEN	SJS
P:3005A	280-62813-D-4-A		280-257020	280-254414	11/24/2014 12:45	1	TAL DEN	CGG
A:6010B	280-62813-D-4-A		280-257020	280-254414	12/13/2014 08:27	1	TAL DEN	SJS
P:3005A	280-62813-C-4-A		280-254731	280-254429	11/23/2014 15:31	1	TAL DEN	CGG
A:6020	280-62813-C-4-A		280-254731	280-254429	11/25/2014 00:35	1	TAL DEN	JM
P:3005A	280-62813-D-4-B		280-254731	280-254469	11/24/2014 12:45	1	TAL DEN	CGG
A:6020	280-62813-D-4-B		280-254731	280-254469	11/25/2014 03:54	1	TAL DEN	JM
A:300.0	280-62813-A-4		280-255045		11/27/2014 14:47	1	TAL DEN	PS1
A:350.1	280-62813-E-4		280-254661		11/24/2014 14:12	1	TAL DEN	CML
A:353.2	280-62813-A-4		280-255377		11/21/2014 22:43	1	TAL DEN	RKS
A:SM 2320B	280-62813-B-4		280-254675		11/24/2014 19:31	1	TAL DEN	CCJ
A:SM 2540C	280-62813-A-4		280-254584		11/24/2014 14:22	1	TAL DEN	SVC
A:SM 2540D	280-62813-B-4		280-254309		11/22/2014 10:25	1	TAL DEN	MW1
A:SM 5310B	280-62813-E-4		280-254746		11/24/2014 22:52	1	TAL DEN	CCJ

TestAmerica Denver A = Analytical Method P = Prep Method

# **Laboratory Chronicle**

Lab ID: 280-62847-S Client ID: M1 -76A

Sample Date/Time: 11/19/2014 15:09 Received Date/Time: 11/21/2014 10:40

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:5030C	280-62813-H-5		480-216556		12/01/2014 16:23	1	TAL BUF	GTG
A:8260C	280-62813-H-5		480-216556		12/01/2014 16:23	1	TAL BUF	GTG
P:5030C	280-62813-K-5		480-215927		11/25/2014 20:15	1	TAL BUF	CDC
A:8260C SIM	280-62813-K-5		480-215927		11/25/2014 20:15	1	TAL BUF	CDC
P:3005A	280-62813-C-5-B		280-257019	280-254436	11/25/2014 07:15	1	TAL DEN	CGG
A:6010B	280-62813-C-5-B		280-257019	280-254436	12/13/2014 05:12	1	TAL DEN	SJS
P:3005A	280-62813-D-5-A		280-257020	280-254414	11/24/2014 12:45	1	TAL DEN	CGG
A:6010B	280-62813-D-5-A		280-257020	280-254414	12/13/2014 08:30	1	TAL DEN	SJS
P:3005A	280-62813-C-5-A		280-254731	280-254429	11/23/2014 15:31	1	TAL DEN	CGG
A:6020	280-62813-C-5-A		280-254731	280-254429	11/25/2014 00:38	1	TAL DEN	JM
P:3005A	280-62813-D-5-B		280-254731	280-254469	11/24/2014 12:45	1	TAL DEN	CGG
A:6020	280-62813-D-5-B		280-254731	280-254469	11/25/2014 03:57	1	TAL DEN	JM
A:300.0	280-62813-A-5		280-255045		11/27/2014 15:02	1	TAL DEN	PS1
A:350.1	280-62813-E-5		280-254661		11/24/2014 14:14	1	TAL DEN	CML
A:353.2	280-62813-A-5		280-255377		11/21/2014 22:43	1	TAL DEN	RKS
A:SM 2320B	280-62813-B-5		280-254675		11/24/2014 19:40	1	TAL DEN	CCJ
A:SM 2540C	280-62813-A-5		280-254584		11/24/2014 14:22	1	TAL DEN	SVC
A:SM 2540D	280-62813-B-5		280-254309		11/22/2014 10:25	1	TAL DEN	MW1
A:SM 5310B	280-62813-E-5		280-254746		11/24/2014 23:06	1	TAL DEN	CCJ

Lab ID: 280-62847-6 Client ID: URIP BLAT N

Sample Date/Time: 11/19/2014 00:00 Received Date/Time: 11/21/2014 10:40

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:5030C	280-62813-A-6		480-216556		12/01/2014 16:47	1	TAL BUF	GTG
A:8260C	280-62813-A-6		480-216556		12/01/2014 16:47	1	TAL BUF	GTG
P:5030C	280-62813-B-6		480-215927		11/25/2014 20:39	1	TAL BUF	CDC
A:8260C SIM	280-62813-B-6		480-215927		11/25/2014 20:39	1	TAL BUF	CDC

# **Laboratory Chronicle**

Lab ID: 280-62847-K Client ID: M1 -77A

Sample Date/Time: 11/19/2014 12:36 Received Date/Time: 11/21/2014 10:40

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:5030C	280-62813-H-7		480-216556		12/01/2014 17:11	1	TAL BUF	GTG
A:8260C	280-62813-H-7		480-216556		12/01/2014 17:11	1	TAL BUF	GTG
P:5030C	280-62813-K-7		480-215927		11/25/2014 21:03	1	TAL BUF	CDC
A:8260C SIM	280-62813-K-7		480-215927		11/25/2014 21:03	1	TAL BUF	CDC
P:3005A	280-62813-C-7-B		280-257019	280-254436	11/25/2014 07:15	1	TAL DEN	CGG
A:6010B	280-62813-C-7-B		280-257019	280-254436	12/13/2014 05:15	1	TAL DEN	SJS
P:3005A	280-62813-D-7-A		280-257020	280-254414	11/24/2014 12:45	1	TAL DEN	CGG
A:6010B	280-62813-D-7-A		280-257020	280-254414	12/13/2014 08:32	1	TAL DEN	SJS
P:3005A	280-62813-C-7-A		280-254731	280-254429	11/23/2014 15:31	1	TAL DEN	CGG
A:6020	280-62813-C-7-A		280-254731	280-254429	11/25/2014 00:41	1	TAL DEN	JM
P:3005A	280-62813-D-7-B		280-254731	280-254469	11/24/2014 12:45	1	TAL DEN	CGG
A:6020	280-62813-D-7-B		280-254731	280-254469	11/25/2014 04:00	1	TAL DEN	JM
A:300.0	280-62813-A-7		280-255045		11/27/2014 15:18	1	TAL DEN	PS1
A:350.1	280-62813-E-7		280-254661		11/24/2014 14:30	1	TAL DEN	CML
A:353.2	280-62813-A-7		280-255377		11/21/2014 22:43	1	TAL DEN	RKS
A:SM 2320B	280-62813-B-7		280-254675		11/24/2014 19:58	1	TAL DEN	CCJ
A:SM 2540C	280-62813-A-7		280-254584		11/24/2014 14:22	1	TAL DEN	SVC
A:SM 2540D	280-62813-B-7		280-254309		11/22/2014 10:25	1	TAL DEN	MW1
A:SM 5310B	280-62813-E-7		280-255070		11/26/2014 19:11	1	TAL DEN	CCJ

TestAmerica Denver A = Analytical Method P = Prep Method

# **Laboratory Chronicle**

Lab ID: MB Client ID: T/A

Sample Date/Time: N/A Received Date/Time: N/A

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:5030C	MB 480-216556/7		480-216556		12/01/2014 14:11	1	TAL BUF	GTG
A:8260C	MB 480-216556/7		480-216556		12/01/2014 14:11	1	TAL BUF	GTG
P:5030C	MB 480-215927/8		480-215927		11/25/2014 17:34	1	TAL BUF	CDC
A:8260C SIM	MB 480-215927/8		480-215927		11/25/2014 17:34	1	TAL BUF	CDC
P:3005A	MB 280-254437/1-A		280-255927	280-254437	11/24/2014 12:45	1	TAL DEN	CGG
A:6010B	MB 280-254437/1-A		280-255927	280-254437	12/05/2014 01:45	1	TAL DEN	LLB
P:3005A	MB 280-254436/1-A		280-257019	280-254436	11/25/2014 07:15	1	TAL DEN	CGG
A:6010B	MB 280-254436/1-A		280-257019	280-254436	12/13/2014 04:59	1	TAL DEN	SJS
P:3005A	MB 280-254416/1-A		280-257020	280-254416	11/24/2014 12:45	1	TAL DEN	CGG
A:6010B	MB 280-254416/1-A		280-257020	280-254416	12/13/2014 06:18	1	TAL DEN	SJS
P:3005A	MB 280-254414/1-A		280-257020	280-254414	11/24/2014 12:45	1	TAL DEN	CGG
A:6010B	MB 280-254414/1-A		280-257020	280-254414	12/13/2014 08:17	1	TAL DEN	SJS
P:3005A	MB 280-254429/1-A		280-254731	280-254429	11/23/2014 15:31	1	TAL DEN	CGG
A:6020	MB 280-254429/1-A		280-254731	280-254429	11/24/2014 23:18	1	TAL DEN	JM
P:3005A	MB 280-254469/1-A		280-254731	280-254469	11/24/2014 12:45	1	TAL DEN	CGG
A:6020	MB 280-254469/1-A		280-254731	280-254469	11/25/2014 03:38	1	TAL DEN	JM
A:300.0	MB 280-255045/6		280-255045		11/27/2014 11:20	1	TAL DEN	PS1
A:350.1	MB 280-254661/158		280-254661		11/24/2014 14:00	1	TAL DEN	CML
A:353.2	MB 280-255377/1		280-255377		11/21/2014 22:43	1	TAL DEN	RKS
A:SM 2320B	MB 280-254675/33		280-254675		11/24/2014 18:56	1	TAL DEN	CCJ
A:SM 2540C	MB 280-254584/1		280-254584		11/24/2014 14:22	1	TAL DEN	SVC
A:SM 2540D	MB 280-254309/3		280-254309		11/22/2014 10:25	1	TAL DEN	MW1
A:SM 5310B	MB 280-254746/5		280-254746		11/24/2014 17:02	1	TAL DEN	CCJ
A:SM 5310B	MB 280-255070/5		280-255070		11/26/2014 15:14	1	TAL DEN	CCJ

TestAmerica Denver A = Analytical Method P = Prep Method

# **Laboratory Chronicle**

Lab ID: LC3 Client ID: T/A

Sample Date/Time: N/A Received Date/Time: N/A

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:5030C	LCS 480-216556/28		480-216556		12/01/2014 13:23	1	TAL BUF	GTG
A:8260C	LCS 480-216556/28		480-216556		12/01/2014 13:23	1	TAL BUF	GTG
P:5030C	LCS 480-215927/5		480-215927		11/25/2014 15:16	1	TAL BUF	CDC
A:8260C SIM	LCS 480-215927/5		480-215927		11/25/2014 15:16	1	TAL BUF	CDC
P:3005A	LCS 280-254437/2-A		280-255927	280-254437	11/24/2014 12:45	1	TAL DEN	CGG
A:6010B	LCS 280-254437/2-A		280-255927	280-254437	12/05/2014 01:47	1	TAL DEN	LLB
P:3005A	LCS 280-254436/2-A		280-257019	280-254436	11/25/2014 07:15	1	TAL DEN	CGG
A:6010B	LCS 280-254436/2-A		280-257019	280-254436	12/13/2014 05:02	1	TAL DEN	SJS
P:3005A	LCS 280-254416/2-A		280-257020	280-254416	11/24/2014 12:45	1	TAL DEN	CGG
A:6010B	LCS 280-254416/2-A		280-257020	280-254416	12/13/2014 06:20	1	TAL DEN	SJS
P:3005A	LCS 280-254414/2-A		280-257020	280-254414	11/24/2014 12:45	1	TAL DEN	CGG
A:6010B	LCS 280-254414/2-A		280-257020	280-254414	12/13/2014 08:19	1	TAL DEN	SJS
P:3005A	LCS 280-254429/2-A		280-254731	280-254429	11/23/2014 15:31	1	TAL DEN	CGG
A:6020	LCS 280-254429/2-A		280-254731	280-254429	11/24/2014 23:21	1	TAL DEN	JM
P:3005A	LCS 280-254469/2-A		280-254731	280-254469	11/24/2014 12:45	1	TAL DEN	CGG
A:6020	LCS 280-254469/2-A		280-254731	280-254469	11/25/2014 03:41	1	TAL DEN	JM
A:300.0	LCS 280-255045/4		280-255045		11/27/2014 10:49	1	TAL DEN	PS1
A:350.1	LCS 280-254661/156		280-254661		11/24/2014 13:56	1	TAL DEN	CML
A:SM 2320B	LCS 280-254675/31		280-254675		11/24/2014 18:47	1	TAL DEN	CCJ
A:SM 2540C	LCS 280-254584/2		280-254584		11/24/2014 14:22	1	TAL DEN	SVC
A:SM 2540D	LCS 280-254309/1		280-254309		11/22/2014 10:25	1	TAL DEN	MW1
A:SM 5310B	LCS 280-254746/3		280-254746		11/24/2014 16:22	1	TAL DEN	CCJ
A:SM 5310B	LCS 280-255070/3		280-255070		11/26/2014 14:38	1	TAL DEN	CCJ

Lab ID: LC3D Client ID: T/A

Sample Date/Time: N/A Received Date/Time: N/A

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:5030C	LCSD 480-215927/6		480-215927		11/25/2014 15:40	1	TAL BUF	CDC
A:8260C SIM	LCSD 480-215927/6		480-215927		11/25/2014 15:40	1	TAL BUF	CDC
A:300.0	LCSD 280-255045/5		280-255045		11/27/2014 11:05	1	TAL DEN	PS1
A:350.1	LCSD		280-254661		11/24/2014 13:58	1	TAL DEN	CML
	280-254661/157							
A:SM 2320B	LCSD 280-254675/32		280-254675		11/24/2014 18:52	1	TAL DEN	CCJ
A:SM 2540C	LCSD 280-254584/3		280-254584		11/24/2014 14:22	1	TAL DEN	SVC
A:SM 2540D	LCSD 280-254309/2		280-254309		11/22/2014 10:25	1	TAL DEN	MW1
A:SM 5310B	LCSD 280-254746/4		280-254746		11/24/2014 16:40	1	TAL DEN	CCJ
A:SM 5310B	LCSD 280-255070/4		280-255070		11/26/2014 14:55	1	TAL DEN	CCJ

# **Laboratory Chronicle**

Lab ID: MRL Client ID: T/A

Sample Date/Time: N/A Received Date/Time: N/A

Date Prepared / Analysis Batch Analyzed Method **Bottle ID** Run Prep Batch Dil Lab Analyst A:300.0 MRL 280-255045/3 280-255045 11/27/2014 10:34 TAL DEN PS1

Lab ID: M3 Client ID: T/A

Sample Date/Time: 11/19/2014 11:30 Received Date/Time: 11/20/2014 10:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	480-71667-N-1 MS		480-216556		12/01/2014 21:56	4	TAL BUF	GTG
A:8260C	480-71667-N-1 MS		480-216556		12/01/2014 21:56	4	TAL BUF	GTG
P:3005A	280-62810-N-1-C MS		280-255927	280-254437	11/24/2014 12:45	1	TAL DEN	CGG
A:6010B	280-62810-N-1-C MS		280-255927	280-254437	12/05/2014 02:06	1	TAL DEN	LLB
P:3005A	280-62814-E-1-C MS		280-257019	280-254436	11/25/2014 07:15	1	TAL DEN	CGG
A:6010B	280-62814-E-1-C MS		280-257019	280-254436	12/13/2014 05:33	1	TAL DEN	SJS
P:3005A	280-62907-F-1-B MS		280-257020	280-254416	11/24/2014 12:45	1	TAL DEN	CGG
A:6010B	280-62907-F-1-B MS		280-257020	280-254416	12/13/2014 07:02	1	TAL DEN	SJS
P:3005A	280-62814-D-6-B MS		280-257020	280-254414	11/24/2014 12:45	1	TAL DEN	CGG
A:6010B	280-62814-D-6-B MS		280-257020	280-254414	12/13/2014 09:04	1	TAL DEN	SJS
P:3005A	280-62907-F-1-B MS ^5		280-257163	280-254416	11/24/2014 12:45	5	TAL DEN	CGG
A:6010B	280-62907-F-1-B MS ^5		280-257163	280-254416	12/14/2014 20:59	5	TAL DEN	LLB
P:3005A	280-62814-D-2-C MS		280-254731	280-254469	11/24/2014 12:45	1	TAL DEN	CGG
A:6020	280-62814-D-2-C MS		280-254731	280-254469	11/25/2014 04:21	1	TAL DEN	JM
A:SM 5310B	280-62905-F-7 MS		280-255070		11/26/2014 16:03	1	TAL DEN	CCJ

# **Laboratory Chronicle**

Lab ID: M3D Client ID: T/A

Sample Date/Time: 11/19/2014 11:30 Received Date/Time: 11/20/2014 10:00

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:5030C	480-71667-N-1 MSD		480-216556		12/01/2014 22:21	4	TAL BUF	GTG
A:8260C	480-71667-N-1 MSD		480-216556		12/01/2014 22:21	4	TAL BUF	GTG
P:3005A	280-62810-N-1-D MSD		280-255927	280-254437	11/24/2014 12:45	1	TAL DEN	CGG
A:6010B	280-62810-N-1-D MSD		280-255927	280-254437	12/05/2014 02:09	1	TAL DEN	LLB
P:3005A	280-62814-E-1-D MSD		280-257019	280-254436	11/25/2014 07:15	1	TAL DEN	CGG
A:6010B	280-62814-E-1-D MSD		280-257019	280-254436	12/13/2014 05:36	1	TAL DEN	SJS
P:3005A	280-62907-F-1-C MSD		280-257020	280-254416	11/24/2014 12:45	1	TAL DEN	CGG
A:6010B	280-62907-F-1-C MSD		280-257020	280-254416	12/13/2014 07:05	1	TAL DEN	SJS
P:3005A	280-62814-D-6-C MSD		280-257020	280-254414	11/24/2014 12:45	1	TAL DEN	CGG
A:6010B	280-62814-D-6-C MSD		280-257020	280-254414	12/13/2014 09:07	1	TAL DEN	SJS
P:3005A	280-62907-F-1-C MSD ^5		280-257163	280-254416	11/24/2014 12:45	5	TAL DEN	CGG
A:6010B	280-62907-F-1-C MSD ^5		280-257163	280-254416	12/14/2014 21:02	5	TAL DEN	LLB
P:3005A	280-62814-D-2-D MSD		280-254731	280-254469	11/24/2014 12:45	1	TAL DEN	CGG
A:6020	280-62814-D-2-D MSD		280-254731	280-254469	11/25/2014 04:24	1	TAL DEN	JM
A:SM 5310B	280-62905-F-7 MSD		280-255070		11/26/2014 16:20	1	TAL DEN	CCJ

Lab ID: D5 Client ID: T/A

Sample Date/Time: 11/19/2014 14:35 Received Date/Time: 11/21/2014 10:40

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
A:SM 2320B	280-62811-A-3 DU		280-254675		11/24/2014 19:06	1	TAL DEN	CCJ

#### Lab References:

TAL BUF = TestAmerica Buffalo

TAL DEN = TestAmerica Denver

Transford By ProJuly M - Hexane
N - None
O - AsNaCo2
P - Na2O4S
Q - Na2O5S
Q - Na2SS2S03
S - T2SC4
T - TSP Dodecahydrate
U - Acetine
U - Acetine
W - ph 4-5
Z - other (specify) LEADER IN ENVIRONMENTAL 12STING stAmerico Special Instructions/Note: Arsenic - Direct sub to ARI Short Hold: NO3(cad) Months Company 750405 HO Sompany Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client

A pisposal By Lab

Return To Client 17318-3224.1 ct E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid C - Zn Acetate D - Nitric Acid I - Ice J - DI Water K - EDTA L - EDA 10.7 Cooler Temperature(s) "C and Other Remarks: 1. 3, 2. ( 1 NS +0. S Date/Time: Total Number of containers Date/Time: Method of Shipment: 280-62813 Chain of Custody Analysis Requested [NA of due toenic (direct sub to ARI) (IRA of due trenic (direct sub to ARI) Special Instructions/QC Requirements: Total Metals (oistfuel AT) Mis 80058 betsy.sara@testamericainc.com (olsflud AT) 1sil gnol - 808Si Received by: Chain of Custody Received by: Received by Lab PM: Sara, Betsy A TDS/Alks/CI/SO4/NO3(cad) Perform MS/MSD (Yes or No) E-Mail: BT=Tissue, A=Air Preservation Code: Matrix (W=water, S=solid, D=waste/oil 3 Company 3 3 Radiological G=grab) Due Date Requested: 5 mg cvr. Sample (C=comp, 284-5452 Type 0 0 MATEO'HUR 0 0 0 1236 1003 Shol 1472 1509 9 Sample 1311 Poison B Unknown TAT Requested (days) 7 Sample Date ST Manue 11 19 14 11/19/14 11/19/14 1119114 2 11/19/14 1119114 Project #: 28002692 SSOW#: Date/Tane: WO# Email:
OKWWA, 1 にそし (も えんらいで, 1 4 2 1 ほ・6 ひへ)
Project Name:WAD2!OVmpic View Sanidry LF
Event Desc: Quarterly GW Appl/II - Mar Jun Sep Dec Skin Irritant Deliverable Requested: I, III, IV, Other (specify) Custody Seal No. Aryada > CO 80002 Phone (303) 736-0100 Fax (303) 431-7171 MATCHARIES LICKIE CLENA RUMIEL Address: 9300 Southwest Barney White Road Non-Hazard Flammable Possible Hazard Identification 425-289-5454 **TestAmerica Denver** Olympic View Transfer Station Empty Kit Relinquished by: Custody Seals Intact: ろどろ Client Information Sample Identification 4955 Yarrow Street elinquished by: State, Zip: WA, 98312 Washington City: Bremerton MM MA 17.

# **Login Sample Receipt Checklist**

Client: Waste Management Job Number: 280-62813-1

Login Number: 62813 List Source: TestAmerica Denver

List Number: 1

Creator: Dedio, Michael T

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

# **Login Sample Receipt Checklist**

Client: Waste Management Job Number: 280-62813-1

List Source: TestAmerica Buffalo
List Number: 2
List Source: TestAmerica Buffalo
List Number: 2

Creator: Robison, Zachary J

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.9 C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	



# ANALYTICAL REPORT

Job Number: 280-62814-1

Job Description: WA02|Olympic View Sanitary LF

For:

Waste Management Sun Valley Hauling 9081 Tujunga Avenue Sun Valley, CA 91352

Attention: Mr. Phil Perley

Betsy Sara

Approved for release. Betsy A Sara Project Manager II 12/19/2014 11:49 AM

Betsy A Sara, Project Manager II 4955 Yarrow Street, Arvada, CO, 80002 (303)736-0189 betsy.sara@testamericainc.com 12/19/2014

cc: Mr. Sam Adlington Mr. Matt O'Hare Ms. Elena Ramirez Mr. Dan Venchiarutti

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is 4025.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

TestAmerica Laboratories, Inc.

TestAmerica Denver 4955 Yarrow Street, Arvada, CO 80002 Tel (303) 736-0100 Fax (303) 431-7171 <a href="https://www.testamericainc.com">www.testamericainc.com</a>



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#### **CASE NARRATIVE**

Client: Waste Management

Project: WA02|Olympic View Sanitary LF

Report Number: 280-62814-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

This report may include reporting limits (RLs) less than TestAmerica's standard reporting limit. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

#### Sample Receiving

The samples were received on 11/21/2014; the samples arrived in good condition, properly preserved and on ice. The temperatures of the coolers at receipt were  $2.4^{\circ}$  C,  $4.0^{\circ}$  C and  $4.1^{\circ}$  C.

#### **Holding Times**

All holding times were within established control limits.

#### **Method Blanks**

All Method Blank recoveries were within established control limits.

#### **Laboratory Control Samples (LCS)**

The Method 8260C laboratory control sample (LCS) recovered outside control limits for Methyl acetate and Vinyl acetate. These were not requested spike compounds; therefore, the data have been qualified and reported.

All other Laboratory Control Samples were within established control limits.

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

The Matrix Spike and Matrix Spike Duplicate performed on a sample from another client exhibited recoveries outside control limits for m-Xylene & p-Xylene Method 8260C. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, this anomaly may be due to matrix interference and no corrective action was taken.

The percent recoveries and/or relative percent difference of the MS/MSD performed on sample MW-32 were outside control limits for Total Manganese and Dissolved Manganese Method 6020 because the sample concentration was greater than four times the spike amount. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, no corrective action was taken.

All other MS and MSD samples were within established control limits.

#### **Organics**

The Method 8260C SIM surrogate TBA-d9 exhibited recoveries above the upper control limits during the analysis of the samples MW-32 and DUP2. Because the surrogate TBA-d9 is not associated with the target compounds detected in the samples MW-32 and DUP2, corrective action was deemed unnecessary.

The Method 8260C continuing calibration verification (CCV) recovered above the upper control limit for Vinyl Acetate. The samples associated with this CCV were non-detect for the Vinyl Acetate; therefore, the data have been reported.

The Method 8260C continuing calibration verification (CCV) was outside the method criteria for Chlorodifluoromethane. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

#### **General Comments**

The analyses for Volatile Organics by Method 8260C and Volatile Organics by Method 8260C SIM were performed by TestAmerica Buffalo. Their address and phone number are:

TestAmerica Buffalo
10 Hazelwood Drive, Suite 106

Amherst, NY 14228
716-691-2600

Lab Sample ID Client Sample ID Analyte	Result	Qualifier	Reporting Limit	Units	Method
280-62814-1 MW-4					
Acetone	4.1	J	10	ug/L	8260C
Methylene Chloride	0.55	J	1.0	ug/L	8260C
Vinyl chloride	0.017	J	0.020	ug/L	8260C SIM
Chloride	1.8		1.0	mg/L	300.0
Sulfate	2.8		1.0	mg/L	300.0
Alkalinity, Total (As CaCO3)	47		5.0	mg/L	SM 2320B
Alkalinity, Bicarbonate (As CaCO3)	47		5.0	mg/L	SM 2320B
Total Dissolved Solids (TDS)	75		5.0	mg/L	SM 2540C
Dissolved					
Calcium, Dissolved	9.4		0.040	mg/L	6010B
Magnesium, Dissolved	4.7		0.050	mg/L	6010B
Sodium, Dissolved	5.5		1.0	mg/L	6010B
Barium, Dissolved	0.0022		0.0010	mg/L	6020
Manganese, Dissolved	0.29		0.0010	mg/L	6020
Total Recoverable					
Barium, Total	0.0024		0.0010	mg/L	6020
Manganese, Total	0.35		0.0010	mg/L	6020
280-62814-2 MW-32					
Trichloroethene	0.49	J	1.0	ug/L	8260C
Vinyl chloride	0.39		0.020	ug/L	8260C SIM
Chloride	12		1.0	mg/L	300.0
Sulfate	16		1.0	mg/L	300.0
Alkalinity, Total (As CaCO3)	130		5.0	mg/L	SM 2320B
Alkalinity, Bicarbonate (As CaCO3)	130		5.0	mg/L	SM 2320B
Total Dissolved Solids (TDS)	220		5.0	mg/L	SM 2540C
Total Organic Carbon - Average	1.1		1.0	mg/L	SM 5310B
Dissolved					
Calcium, Dissolved	32		0.040	mg/L	6010B
Iron, Dissolved	0.87		0.060	mg/L	6010B
Magnesium, Dissolved	16		0.050	mg/L	6010B
Potassium, Dissolved	1.3		1.0	mg/L	6010B
Sodium, Dissolved	17		1.0	mg/L	6010B
Barium, Dissolved	0.0060		0.0010	mg/L	6020
Manganese, Dissolved	2.4		0.0010	mg/L	6020
Zinc, Dissolved	0.0055		0.0050	mg/L	6020
Total Recoverable	c c=		0.000		00405
Iron, Total	0.87		0.060	mg/L	6010B
Barium, Total	0.0059		0.0010	mg/L	6020
Manganese, Total	2.4		0.0010	mg/L	6020

Lab Sample ID Client Sample ID Analyte	Result	Qualifier	Reporting Limit	Units	Method
280-62814-3 MW-19C					
2-Butanone (MEK)	1.5	J	10	ug/L	8260C
Trichloroethene	1.3		1.0	ug/L	8260C
Vinyl chloride	0.090		0.020	ug/L	8260C SIM
Chloride	2.6		1.0	mg/L	300.0
Sulfate	4.4		1.0	mg/L	300.0
Ammonia (as N)	0.60		0.030	mg/L	350.1
Alkalinity, Total (As CaCO3)	70		5.0	mg/L	SM 2320B
Alkalinity, Bicarbonate (As CaCO3)	70		5.0	mg/L	SM 2320B
Total Dissolved Solids (TDS)	100		5.0	mg/L	SM 2540C
Dissolved					
Calcium, Dissolved	14		0.040	mg/L	6010B
Iron, Dissolved	0.13		0.060	mg/L	6010B
Magnesium, Dissolved	7.2		0.050	mg/L	6010B
Potassium, Dissolved	1.5		1.0	mg/L	6010B
Sodium, Dissolved	6.1		1.0	mg/L	6010B
Barium, Dissolved	0.0039		0.0010	mg/L	6020
Manganese, Dissolved	1.2		0.0010	mg/L	6020
Total Recoverable					
Iron, Total	0.16		0.060	mg/L	6010B
Barium, Total	0.0033		0.0010	mg/L	6020
Manganese, Total	1.1		0.0010	mg/L	6020
280-62814-4 MW-24					
Chloride	2.8		1.0	mg/L	300.0
Sulfate	4.2		1.0	mg/L	300.0
Alkalinity, Total (As CaCO3)	62		5.0	mg/L	SM 2320B
Alkalinity, Bicarbonate (As CaCO3)	62		5.0	mg/L	SM 2320B
Total Dissolved Solids (TDS)	96		5.0	mg/L	SM 2540C
Total Suspended Solids	4.4		4.0	mg/L	SM 2540D
Dissolved					
Calcium, Dissolved	14		0.040	mg/L	6010B
Magnesium, Dissolved	8.0		0.050	mg/L	6010B
Sodium, Dissolved	5.4		1.0	mg/L	6010B
Manganese, Dissolved	0.22		0.0010	mg/L	6020
Total Recoverable	0.45		0.000		CO4.0D
Iron, Total	0.45		0.060	mg/L	6010B
Barium, Total	0.0042		0.0010	mg/L	6020
Manganese, Total	1.0		0.0010	mg/L	6020
Vanadium, Total	0.0021		0.0020	mg/L	6020

Lab Sample ID Client Sample ID Analyte	Result	Qualifier	Reporting Limit	Units	Method
280-62814-5 MW-2B1					
Chloride	1.0		1.0	mg/L	300.0
Sulfate	2.7		1.0	mg/L	300.0
Ammonia (as N)	0.063		0.030	mg/L	350.1
Nitrate as N	0.29		0.050	mg/L	353.2
Alkalinity, Total (As CaCO3)	37		5.0	mg/L	SM 2320B
Alkalinity, Bicarbonate (As CaCO3)	37		5.0	mg/L	SM 2320B
Total Dissolved Solids (TDS)	60		5.0	mg/L	SM 2540C
Dissolved					
Calcium, Dissolved	8.7		0.040	mg/L	6010B
Magnesium, Dissolved	3.1		0.050	mg/L	6010B
Potassium, Dissolved	1.1		1.0	mg/L	6010B
Sodium, Dissolved	3.3		1.0	mg/L	6010B
Barium, Dissolved	0.0029		0.0010	mg/L	6020
Manganese, Dissolved	0.47		0.0010	mg/L	6020
Total Recoverable					
Iron, Total	0.17		0.060	mg/L	6010B
Barium, Total	0.0032		0.0010	mg/L	6020
Manganese, Total	0.51		0.0010	mg/L	6020
Zinc, Total	0.0056		0.0050	mg/L	6020
280-62814-6 MW-20					
Vinyl chloride	0.054		0.020	ug/L	8260C SIM
Chloride	9.5		1.0	mg/L	300.0
Sulfate	5.7		1.0	mg/L	300.0
Ammonia (as N)	0.031		0.030	mg/L	350.1
Nitrate as N	2.7		0.050	mg/L	353.2
Alkalinity, Total (As CaCO3)	100		5.0	mg/L	SM 2320B
Alkalinity, Bicarbonate (As CaCO3)	100		5.0	mg/L	SM 2320B
Total Dissolved Solids (TDS)	160		5.0	mg/L	SM 2540C
Dissolved					
Calcium, Dissolved	25		0.040	mg/L	6010B
Magnesium, Dissolved	15		0.050	mg/L	6010B
Potassium, Dissolved	3.1		1.0	mg/L	6010B
Sodium, Dissolved	10		1.0	mg/L	6010B
Barium, Dissolved	0.0063		0.0010	mg/L	6020
Manganese, Dissolved	0.16		0.0010	mg/L	6020
Vanadium, Dissolved	0.0020		0.0020	mg/L	6020
Total Recoverable					
Barium, Total	0.0057		0.0010	mg/L	6020
Manganese, Total	0.15		0.0010	mg/L	6020

Lab Sample ID Client Sample ID Analyte	Result	Qualifier	Reporting Limit	Units	Method
280-62814-7FD DUP1					
Trichloroethene	0.47	J	1.0	ug/L	8260C
Vinyl chloride	0.064		0.020	ug/L	8260C SIM
Chloride	9.3		1.0	mg/L	300.0
Sulfate	5.7		1.0	mg/L	300.0
Ammonia (as N)	0.038		0.030	mg/L	350.1
Nitrate as N	2.6		0.050	mg/L	353.2
Alkalinity, Total (As CaCO3)	99		5.0	mg/L	SM 2320B
Alkalinity, Bicarbonate (As CaCO3)	99		5.0	mg/L	SM 2320B
Total Dissolved Solids (TDS)	170		5.0	mg/L	SM 2540C
Total Organic Carbon - Average	1.0		1.0	mg/L	SM 5310B
Dissolved					
Calcium, Dissolved	24		0.040	mg/L	6010B
Magnesium, Dissolved	14		0.050	mg/L	6010B
Potassium, Dissolved	3.0		1.0	mg/L	6010B
Sodium, Dissolved	8.4		1.0	mg/L	6010B
Barium, Dissolved	0.0064		0.0010	mg/L	6020
Manganese, Dissolved	0.16		0.0010	mg/L	6020
Total Recoverable					
Barium, Total	0.0061		0.0010	mg/L	6020
Manganese, Total	0.15		0.0010	mg/L	6020

Lab Sample ID Client Sample ID Analyte	Result	Qualifier	Reporting Limit	Units	Method
280-62814-8FD DUP2					
Trichloroethene	0.51	J	1.0	ug/L	8260C
Vinyl chloride	0.42		0.020	ug/L	8260C SIM
Chloride	12		1.0	mg/L	300.0
Sulfate	17		1.0	mg/L	300.0
Ammonia (as N)	0.033		0.030	mg/L	350.1
Alkalinity, Total (As CaCO3)	130		5.0	mg/L	SM 2320B
Alkalinity, Bicarbonate (As CaCO3)	130		5.0	mg/L	SM 2320B
Total Dissolved Solids (TDS)	230		5.0	mg/L	SM 2540C
Total Organic Carbon - Average	1.1		1.0	mg/L	SM 5310B
Dissolved					
Calcium, Dissolved	33		0.040	mg/L	6010B
Iron, Dissolved	0.83		0.060	mg/L	6010B
Magnesium, Dissolved	16		0.050	mg/L	6010B
Potassium, Dissolved	1.4		1.0	mg/L	6010B
Sodium, Dissolved	17		1.0	mg/L	6010B
Barium, Dissolved	0.0061		0.0010	mg/L	6020
Manganese, Dissolved	2.5		0.0010	mg/L	6020
Total Recoverable					
Iron, Total	0.82		0.060	mg/L	6010B
Barium, Total	0.0049		0.0010	mg/L	6020
Manganese, Total	2.3		0.0010	mg/L	6020

#### **METHOD SUMMARY**

Client: Waste Management Job Number: 280-62847-4

Description	Lab Location	Method P	Preparation Method
Matrix: Water			
Metals 1(CI P I reBarationp) otal , eRocerable or Lissolcev Metals	) TALDN ) TALDN	EW876 6040S	EW876 d003T
Metals 1(CLP L reBarationp) otal, eRocerable or Lissolcev Metals EamBle 5iltrationp5ielv	) TALDN ) TALDN		EW876 d003T (DAL F5A) , L
Metals 1(CI _MEP I reBarationp) otal , eRocerable or Lissolcev Metals	) TALDN ) TALDN	EW876 6020	EW876 d003T
Metals 1(CI _MEP I reBarationp) otal , eRocerable or L issolcev Metals EamBle 5iltrationp5ielv	) TA L DN ) TA L DN		EW876 d003T G(DAL F5A) , L
Tnionsp(on C/ romatograB/ h	) TALDN	MCTWW d00y0	
NitrogenpTmmonia	) TALDN	MCTWW d30y4	
Nitrate	) TALDN	DIT d3dy2	
TI. alinith	) TALDN	EM EM 2d20S	
Eolivsp) otal Lissolcev 1) LEP	) TALDN	EM EM 2370C	
Eolivsp) otal EusBenvev 1) EEP	) TALDN	EM EM 2370L	
k rganiRCarbonp) otal 1) k CP	) TALDN	EM EM 3d40S	
Oolatile k rganiRComBounvs bh VC_ME I urge anv ) raB	) TA SG5 ) TA SG5	EW876 8260C	EW876 30d0C
Colatile k rganiRComBounvs 1VC_MEP I urge anv) raB	) TA SG5 ) TA SG5	EW876 8260C E(M E	EW876 30d0C

#### Lab References:

) TA SG5 U) estTmeriRa Su=alo

) TALDN U) estTmeriRa Lencer

#### **Method References:**

DI T UGE Dncironmental I roteRtion TgenRh

MCTWW UfMet/ ovs 5or C/ emiRal Tnalhsis k =Water Tnv WastesfpDI T-600\_7-" 9-020pMarR 498d Tnv Eubsequent, ecisionsy

EM UfEtanvarv Met/ ovs 5or ) / e Dxamination k =Water Tnv Wastewaterf

EW876 Uf) est Met/ ovs 5or Dcaluating Eoliv Wastepl / hsiRal\_C/ emiRal Met/ ovsfp) / irv DvitionpNocember 4986 Tnv (ts GBvatesy

# METHOD / ANALYST SUMMARY

Method	Analyst	Analyst ID
SW846 8260C SW846 8260C	Boldt, Erik D Goliszek, Gregory T	EDB GTG
SW846 8260C SIM	Cwiklinski, Charles D	CDC
SW846 6010B	Scott, Samantha J	SJS
SW846 6020 SW846 6020	Mooney, Joseph C Trudell, Lynn-Anne M	JM LMT
MCAWW 300.0	Sripen, Phuriya	PS1
MCAWW 350.1	Lawrence, Caitlyn M	CML
EPA 353.2	Sullivan, Roxanne K	RKS
SM SM 2320B	Jewell, Connie C	CCJ
SM SM 2540C SM SM 2540C	Cherry, Scott V Schultz, Cassandra M	SVC CMS
SM SM 2540D	Woolley, Mark -	MW1
SM SM 5310B	Jewell, Connie C	CCJ

# **SAMPLE SUMMARY**

			Date/Time	Date/Time
Lab Sample ID	Client Sample ID	Client Matrix	Sampled	Received
280-62814-1	MW-4	Water	11/20/2014 0939	11/21/2014 1040
280-62814-2	MW-32	Water	11/20/2014 1124	11/21/2014 1040
280-62814-3	MW-19C	Water	11/20/2014 1202	11/21/2014 1040
280-62814-4	MW-24	Water	11/20/2014 1106	11/21/2014 1040
280-62814-5	MW-2B1	Water	11/20/2014 1012	11/21/2014 1040
280-62814-6	MW-20	Water	11/20/2014 0910	11/21/2014 1040
280-62814-7FD	DUP1	Water	11/20/2014 0920	11/21/2014 1040
280-62814-8FD	DUP2	Water	11/20/2014 1124	11/21/2014 1040
280-62814-9TB	TRIP BLANK	Water	11/20/2014 0000	11/21/2014 1040

# **SAMPLE RESULTS**

Client Sample ID: MW-4

 1ab LamSle pl :
 280-62847-4
 I ate LamSlex: 44@0@047 0/5/

 Client MatriD
 Water
 I ate Receivex: 44@4@047 4070

## 8260C Volatile Organic Compounds by GC/MS

 Analysis MetFox:
 8260C
 Analysis BatcF:
 780-246/ 20
 pnstrument pl :
 HP9/ ŒV

 PreS MetFox:
 9050C
 PreS BatcF:
 NdA
 1ab . ile pl :
 V 56/ ©93

 I ilution:
 430
 pnitial WeigFtch olume:
 9 m1

pnitial WeigFtdnolume: 9 m1 . inal WeigFtdnolume: 9 m1

Analysis I ate: 4205@047 4892 PreS I ate: 4205@047 4892

Analyte	Result (ugďi)	Qualifier	MI 1	R1
4,4,4,2-TetracFloroetFane	NI		0359	430
4,4,4-TricFloroetFane	NI		0382	430
4,4,2,2-TetracFloroetFane	NI		0324	430
4,4,2-TricFloro-4,2,2-trifluoroetFane	NI		0354	430
4,4,2-TricFloroetFane	NI		0325	430
4,4-I icFloroetFane	NI		0358	430
4,4-l icFloroetFene	NI		032/	430
4,4-l icFloroSroSene	NI		03G2	430
4,2,5-TricFlorobenzene	NI		0374	430
4,2,5-TricFloroSroSane	NI		038/	430
4,2,7-TricFlorobenzene	NI		0374	430
4,2,7-TrimetFylbenzene	NI		0339	430
4,2-I ibromo-5-CFloroSroSane	NI		035/	430
4,2-I ibromoetFane (EI B)	NI		0335	430
4,2-I icFlorobenzene	NI		03G	430
4,2-I icFloroetFane	NI		0324	430
4,2-I icFloroetFene, Total	NI		0384	230
4,2-l icFloroSroSane	NI		03G2	430
4,5,9-TricFlorobenzene	NI		0325	430
4,5,9-TrimetFylbenzene	NI		033G	430
4,5-l icFlorobenzene	NI		03338	430
4,5-l icFloroSroSane	NI		0339	430
4,7-l icFlorobenzene	NI		0387	430
4,7-l ioDane	NI		/ 35	70
2,2-I icFloroSroSane	NI		0370	430
2-Butanone (MEK)	NI		435	40
2-CFloroetFyl vinyl etFer	NI		03 6	930
2-HeDanone	NI		432	930
7-MetFyl-2-Sentanone (MpBK)	NI		234	930
Acetone	734	J	530	40
Acetonitrile	NI		73	49
Acrolein	NI		03 4	20
Acrylonitrile	NI		0385	930
Benzene	NI		0374	430
Bromobenzene	NI		0380	430
BromocFlorometFane BromoxicFlorometFane	NI		038G	430 430
	NI NI		035/ 0326	430
Bromoform BromometFane	NI		036/	430
Butyl alcoFol, n-	NI		83	70
Butyl alcoFol, tert-	NI		535	40
Carbon xisulfixe	NI		034/	430
Carbon tetracFlorixe	NI		032G	430
CFlorobenzene	NI		0339	430
CFloroxifluorometFane	NI		0326	430
CFloroetFane	NI		0352	430
or lorder unit	. ***		002	700

Client Sample ID: MW-4

 1ab LamSle pl :
 280-62847-4
 I ate LamSlex: 44@0@047 0/ 5/

 Client MatriD
 Water
 I ate Receivex: 44@4@047 4070

## 8260C Volatile Organic Compounds by GC/MS

Analysis MetFox: 8260C Analysis BatcF: 780-246/20 pnstrument p: HP9/ G5V PreS MetFox: 9050C PreS BatcF: NdA 1ab . ile p: V56/ G93

I ilution: 430 pnitial WeigFtdholume: 9 m1

Analysis I ate: 42\Omega5d2047 4892 . inal WeigFtdholume: 9 m1

PreSI ate: 42d05d2047 4892

Analyte	Result (ugdl)	Qualifier	MI 1	R1
CFloroform	NI		0357	430
CFlorometFane	NI		0359	430
cis-4,2-I icFloroetFene	NI		0384	430
cis-4,5-I icFloroSroSene	NI		0356	430
CycloFeDane	NI		0348	430
I ibromocFlorometFane	NI		0352	430
I ibromometFane	NI		0374	430
I icFloroxifluorometFane	NI		0368	430
I icFlorofluorometFane	NI		0357	430
EtFyl acetate	NI		0366	430
EtFyl etFer	NI		0332	430
EtFyl tert-butyl etFer	NI		032/	430
EtFylbenzene	NI		03 <b>G</b> 7	430
HeDacFlorobutaxiene	NI		0328	430
HeDane	NI		0370	40
poxometFane	NI		0350	430
psobutanol	NI		738	29
psoSroSyl etFer	NI		039/	430
psoSroSylbenzene	NI		033	430
MetFacrylonitrile	NI		036/	930
MetFyl acetate	NI	X	0390	239
MetFyl tert-butyl etFer	NI		0346	430
MetFylcycloFeDane	NI		0346	430
MetFylene CFlorixe	0399	J	0377	430
m-&ylene %S-&ylene	NI		0366	230
NaSFtFalene	NI		0375	430
n-Butylbenzene	NI		0367	430
N-ProSylbenzene	NI		036/	430
o-CFlorotoluene	NI		0386	430
o-&ylene	NI		0336	430
S-CFlorotoluene	NI		0387	430
S-Cymene	NI		0354	430
sec-Butylbenzene	NI		0339	430
Ltyrene	NI		0335	430
Tert-amyl metFyl etFer	NI		032G	430
tert-Butylbenzene	NI		0384	430
TetracFloroetFene	NI		0356	430
TetraFyxrofuran	NI		435	930
Toluene	NI		0394	430
trans-4,2-l icFloroetFene	NI		03 0	430
trans-4,5-l icFloroSroSene	NI		035G	430
trans-4,7-I icFloro-2-butene	NI		0322	430
TricFloroetFene	NI		0376	430
TricFlorofluorometFane	NI		0388	430
hinyl acetate	NI	X	0389	930
hinyl cFlorixe	NI		03 0	430

# **Analytical Data**

Client: Waste Management Job Number: 280-62847-4

Client Sample ID: MW-4

1ab LamSle pl: 280-62847-4 I ate LamSlex: 44d20d2047 0/ 5/ Client MatriD Water

I ate Receivex: 44d24d2047 4070

## 8260C Volatile Organic Compounds by GC/MS

Analysis MetFox: Analysis BatcF: 780-246/ 20 HP9/ ŒV 8260C postrument pl: PreS MetFox: 9050C PreS BatcF: NdA1ab . ile pl : V56/ @3 mitial WeigFtdholume: I ilution: 430 9 m1

. inal WeigFtdholume: 9 m1

PreSI ate: 4200502047 4892

4200502047 4892

Analysis I ate:

\_ Rec Lurrogate Qualifier AcceStance 1imits 66 - 45G 4,2-I icFloroetFane-x7 (Lurr) 404 406 C5 - 420 7-Bromofluorobenzene (Lurr) Toluene-x8 (Lurr) 402 G4 - 426

# **Analytical Data**

Client: Waste Management Job Number: 280-62847-4

Client Sample ID: MW-4

Client MatriD Water I ate Receivex: 44\textcal{Q}4\textcal{Q}047 4070

8260C Volatile Organic Compounds by GC/MS

Analysis MetFox: 8260C Analysis BatcF: 780-246/20 pnstrument pl : HP9/  $\times$  V PreS MetFox: 9050C PreS BatcF: NdA 1ab . ile pl : V56/  $\times$  3

I ilution: 430 pnitial WeigFtth olume: 9 m1

Analysis I ate: 42005d2047 4892 . inal WeigFtth olume: 9 m1

Analysis I ate: 42@5@047 4892 . inal WeigFtdholume:
PreS I ate: 42@5@047 4892

**Targeted Tentatively Identified Compounds** 

Cas Number Analyte Est3Result (ugdl) Qualifier

6G-Q2-4 HeDacFloroetFane TpC NI

Client Sample ID: MW-32

 1ab LamSle pl :
 280-62847-2
 I ate LamSlex: 44@0@047 4427

 Client MatriD
 Water
 I ate Receivex: 44@4@047 4070

## 8260C Volatile Organic Compounds by GC/MS

Analysis MetFox: 8260C Analysis BatcF: 780-246/20 pnstrument pl: HP9/ G5V PreS MetFox: 9050C PreS BatcF: NdA 1ab . ile pl: V56/ G63

I ilution: 430 pnitial WeigFtcholume: 9 m1
Analysis I ate: 42:05:02:047 4/47 . inal WeigFtcholume: 9 m1

PreSI ate: 4200502047 4/47

Analyte	Result (ugdl)	Qualifier	MI 1	R1
4,4,4,2-TetracFloroetFane	NI		0359	430
4,4,4-TricFloroetFane	NI		0382	430
4,4,2,2-TetracFloroetFane	NI		0324	430
4,4,2-TricFloro-4,2,2-trifluoroetFane	NI		0354	430
4,4,2-TricFloroetFane	NI		0325	430
4,4-I icFloroetFane	NI		0358	430
4,4-I icFloroetFene	NI		032/	430
4,4-I icFloroSroSene	NI		03G2	430
4,2,5-TricFlorobenzene	NI		0374	430
4,2,5-TricFloroSroSane	NI		038/	430
4,2,7-TricFlorobenzene	NI		0374	430
4,2,7-TrimetFylbenzene	NI		0339	430
4,2-I ibromo-5-CFloroSroSane	NI		035/	430
4,2-I ibromoetFane (EI B)	NI		0335	430
4,2-I icFlorobenzene	NI		033	430
4,2-I icFloroetFane	NI		0324	430
4,2-I icFloroetFene, Total	NI		0384	230
4,2-I icFloroSroSane	NI		03G2	430
4,5,9-TricFlorobenzene	NI		0325	430
4,5,9-TrimetFylbenzene	NI		033G	430
4,5-l icFlorobenzene	NI		03338	430
4,5-l icFloroSroSane	NI		0339	430
4,7-l icFlorobenzene	NI		0387	430
4,7-l ioDane	NI		/ 35	70
2,2-l icFloroSroSane	NI		0370	430
2-Butanone (MEK)	NI		435	40
2-CFloroetFyl vinyl etFer	NI		03 6	930
2-HeDanone	NI		432	930
7-MetFyl-2-Sentanone (MpBK)	NI		234	930
Acetone	NI		530	40
Acetonitrile	NI		73	49
Acrolein	NI		03 4	20
Acrylonitrile	NI		0385	930
Benzene	NI		0374	430
Bromobenzene	NI		0380	430
BromocFlorometFane	NI		038G	430
BromoxicFlorometFane	NI		035/	430
Bromoform	NI		0326	430
BromometFane	NI		036/	430
Butyl alcoFol, n-	NI NI		83 535	70 40
Butyl alcoFol, tert- Carbon xisulfixe	NI NI			
Carbon xisuifixe Carbon tetracFlorixe	NI NI		034/	430
CFlorobenzene	NI NI		032G 0339	430
CFloroxifluorometFane	NI NI		0326	430 430
CFloroetFane CFloroetFane	NI		0352	430
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Client Sample ID: MW-32

 1ab LamSle pl :
 280-62847-2
 I ate LamSlex: 44@0@047 4427

 Client MatriD
 Water
 I ate Receivex: 44@4@047 4070

## 8260C Volatile Organic Compounds by GC/MS

 Analysis MetFox:
 8260C
 Analysis BatcF:
 780-246/20
 pnstrument pl:
 HP9/ G5V

 PreS MetFox:
 9050C
 PreS BatcF:
 NdA
 1ab . ile pl:
 V 56/ G63

 I ilution:
 430
 pnitial WeigFtch olume:
 9 m1

I ilution: 430 pnitial WeigFtch olume: 9 m1

Analysis I ate: 4205c2047 4/47 . inal WeigFtch olume: 9 m1

PreSI ate: 42d05d2047 4/47

Analyte	Result (ugdl)	Qualifier	MI 1	R1
CFloroform	NI		0357	430
CFlorometFane	NI		0359	430
cis-4,2-I icFloroetFene	NI		0384	430
cis-4,5-l icFloroSroSene	NI		0356	430
CycloFeDane	NI		0348	430
I ibromocFlorometFane	NI		0352	430
I ibromometFane	NI		0374	430
I icFloroxifluorometFane	NI		0368	430
I icFlorofluorometFane	NI		0357	430
EtFyl acetate	NI		0366	430
EtFyl etFer	NI		03G2	430
EtFyl tert-butyl etFer	NI		032/	430
EtFylbenzene	NI		0337	430
HeDacFlorobutaxiene	NI		0328	430
HeDane	NI		0370	40
	NI		0350	430
poxometFane				
psobutanol	NI		738	29
psoSroSyl etFer	NI 		039/	430
psoSroSylbenzene	NI		033	430
MetFacrylonitrile	NI		036/	930
MetFyl acetate	NI	X	0390	239
MetFyl tert-butyl etFer	NI		0346	430
MetFylcycloFeDane	NI		0346	430
MetFylene CFlorixe	NI		0377	430
m-&ylene %S-&ylene	NI		0366	230
NaSFtFalene	NI		0375	430
n-Butylbenzene	NI		0367	430
N-ProSylbenzene	NI		036/	430
o-CFlorotoluene	NI		0386	430
o-&ylene	NI		0336	430
S-CFlorotoluene	NI		0387	430
S-Cymene	NI		0354	430
sec-Butylbenzene	NI		0339	430
Ltyrene	NI		0335	430
Tert-amyl metFyl etFer	NI		032G	430
tert-Butylbenzene	NI		0384	430
TetracFloroetFene	NI		0356	430
TetraFyxrofuran	NI		435	930
Toluene	NI		0394	430
trans-4,2-I icFloroetFene	NI		03 0	430
trans-4,5-1 icFloroSroSene	NI		035G	430
trans-4,7-1 icFloro-2-butene	NI		0322	430
TricFloroetFene	037/	J	0376	430
TricFlorofluorometFane	NI	J	03/8	430
hinyl acetate	NI	X	0389	930
		^	03/0	
hinyl cFlorixe	NI		03 0	430

Client: Waste Management Job Number: 280-62847-4

Client Sample ID: MW-32

 1ab LamSle pl :
 280-62847-2
 I ate LamSlex: 44@0@047 4427

 Client MatriD
 Water
 I ate Receivex: 44@4@047 4070

8260C Volatile Organic Compounds by GC/MS

Analysis MetFox: 8260C Analysis BatcF: 780-246/20 pnstrument pl : HP9/ G6V PreS MetFox: 9050C PreS BatcF: NdA 1ab . ile pl : V56/ G63

I ilution: 43 pnitial WeigFtdholume: 9 m1

Analysis I ate: 4205d2047 4/47 . inal WeigFtdholume: 9 m1

PreSI ate: 42@5@047 4/47

 Lurrogate
 \_ Rec
 Qualifier
 AcceStance 1 mits

 4,2-I icFloroetFane-x7 (Lurr)
 405
 66 - 45G

 7-Bromofluorobenzene (Lurr)
 409
 & 5- 420

 Toluene-x8 (Lurr)
 404
 G4 - 426

Client: Waste Management Job Number: 280-62847-4

Client Sample ID: MW-32

1ab LamSle pt : 280-62847-2 I ate LamSlex: 44@0@047 4427

Client MatriD Water I ate Receivex: 44\pi24\pi0047 4070

8260C Volatile Organic Compounds by GC/MS

Analysis MetFox: 8260C Analysis BatcF: 780-246/20 pnstrument pl : HP9/ G5V PreS MetFox: 9050C PreS BatcF: NdA 1ab . ile pl : V56/ G63

I ilution: 430 pnitial WeigFtdholume: 9 m1

Analysis I ate: 42\Omega5\Delta 047 4/47 . inal WeigFtdholume: 9 m1

PreS I ate: 42005d2047 4/47

**Targeted Tentatively Identified Compounds** 

Cas Number Analyte Est3Result (ugdl) Qualifier

6GQ2-4 HeDacFloroetFane TpC NI

Client Sample ID: MW-19C

 1ab LamSle pl :
 280-62847-5
 I ate LamSlex: 44@0@047 4202

 Client MatriD
 Water
 I ate Receivex: 44@4@047 4070

### 8260C Volatile Organic Compounds by GC/MS

 Analysis MetFox:
 8260C
 Analysis BatcF:
 780-24G406
 pnstrument pl :
 HP9/ G5V

 PreS MetFox:
 9050C
 PreS BatcF:
 NdA
 1ab . ile pl :
 V 56/ / 03

 I ilution:
 430
 pnitial WeigFtch olume:
 9 m1

I ilution: 430 pnitial WeigFtch olume: 9 m1

Analysis I ate: 42:07:02047 0058 . inal WeigFtch olume: 9 m1

PreSI ate: 42d07d2047 0058

Analyte	Result (ugdl)	Qualifier	MI 1	R1
4,4,4,2-TetracFloroetFane	NI		0359	430
4,4,4-TricFloroetFane	NI		0382	430
4,4,2,2-TetracFloroetFane	NI		0324	430
4,4,2-TricFloro-4,2,2-trifluoroetFane	NI		0354	430
4,4,2-TricFloroetFane	NI		0325	430
4,4-I icFloroetFane	NI		0358	430
4,4-I icFloroetFene	NI		032/	430
4,4-I icFloroSroSene	NI		03G2	430
4,2,5-TricFlorobenzene	NI		0374	430
4,2,5-TricFloroSroSane	NI		038/	430
4,2,7-TricFlorobenzene	NI		0374	430
4,2,7-TrimetFylbenzene	NI		0339	430
4,2-I ibromo-5-CFloroSroSane	NI		035/	430
4,2-I ibromoetFane (EI B)	NI		0335	430
4,2-I icFlorobenzene	NI		03G	430
4,2-I icFloroetFane	NI		0324	430
4,2-I icFloroetFene, Total	NI		0384	230
4,2-l icFloroSroSane	NI		03G2	430
4,5,9-TricFlorobenzene	NI		0325	430
4,5,9-TrimetFylbenzene	NI		033G	430
4,5-I icFlorobenzene	NI		0333	430
4,5-I icFloroSroSane	NI		0339	430
4.7-I icFlorobenzene	NI		0387	430
4,7-I ioDane	NI		/ 35	70
2,2-I icFloroSroSane	NI		0370	430
2-Butanone (MEK)	439	J	435	40
2-CFloroetFyl vinyl etFer	NI		03 6	930
2-HeDanone	NI		432	930
7-MetFyl-2-Sentanone (MpBK)	NI		234	930
Acetone	NI		530	40
Acetonitrile	NI		73	49
Acrolein	NI		03 4	20
Acrylonitrile	NI		0385	930
Benzene	NI		0374	430
Bromobenzene	NI		0380	430
BromocFlorometFane	NI		038G	430
BromoxicFlorometFane	NI		035/	430
Bromoform	NI		0326	430
BromometFane	NI		036/	430
Butyl alcoFol, n-	NI		83	70
Butyl alcoFol, tert-	NI		535	40
Carbon xisulfixe	NI		034/	430
Carbon tetracFlorixe	NI		032G	430
CFlorobenzene	NI		0339	430
CFloroxifluorometFane	NI		0326	430
CFloroetFane	NI		0352	430
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Client Sample ID: MW-19C

1ab LamSle pt : 280-62847-5 | late LamSlex: 44@0@047 4202

Client MatriD Water I ate Receivex: 44d24d2047 4070

### 8260C Volatile Organic Compounds by GC/MS

Analysis MetFox: 8260C Analysis BatcF: 780-24G406 pnstrument pl : HP9/ GV PreS MetFox: 9050C PreS BatcF: NdA 1ab . ile pl : V56/ / 03

I ilution: 430 pnitial WeigFtch olume: 9 m1

Analysis I ate: 42:07:02047 0058 . inal WeigFtch olume: 9 m1

Analysis I ate: 4207@047 0058 PreS I ate: 4207@047 0058

Analyte	Result (ugdl)	Qualifier	MI 1	R1
CFloroform	NI		0357	430
CFlorometFane	NI		0359	430
cis-4,2-I icFloroetFene	NI		0384	430
cis-4,5-l icFloroSroSene	NI		0356	430
CycloFeDane	NI		0348	430
I ibromocFlorometFane	NI		0352	430
I ibromometFane	NI		0374	430
I icFloroxifluorometFane	NI		0368	430
I icFlorofluorometFane	NI		0357	430
EtFyl acetate	NI		0366	430
EtFyl etFer	NI		03G2	430
EtFyl tert-butyl etFer	NI		032/	430
EtFylbenzene	NI		03G7	430
HeDacFlorobutaxiene	NI		0328	430
HeDane	NI		0370	40
poxometFane	NI		0350	430
psobutanol	NI		738	29
psoSroSyl etFer	NI		039/	430
psoSroSylbenzene	NI		033	430
MetFacrylonitrile	NI		036/	930
MetFyl acetate	NI		0390	239
MetFyl tert-butyl etFer	NI		0346	430
MetFylcycloFeDane	NI		0346	430
MetFylene CFlorixe	NI		0377	430
m-&ylene %S-&ylene	NI		0366	230
NaSFtFalene	NI		0375	430
n-Butylbenzene	NI		0367	430
N-ProSylbenzene	NI		036/	430
o-CFlorotoluene	NI		0386	430
o-&ylene	NI		0336	430
S-CFlorotoluene	NI		0387	430
S-Cymene	NI		0354	430
sec-Butylbenzene	NI		0339	430
Ltyrene	NI		0335	430
Tert-amyl metFyl etFer	NI		032G	430
tert-Butylbenzene	NI		0384	430
TetracFloroetFene	NI		0356	430
TetraFyxrofuran	NI		435	930
Toluene	NI		0394	430
trans-4,2-l icFloroetFene	NI		03 0	430
trans-4,5-l icFloroSroSene	NI		035G	430
trans-4,7-l icFloro-2-butene	NI		0322	430
TricFloroetFene	435		0376	430
TricFlorofluorometFane	NI		0388	430
hinyl acetate	NI	X	0389	930
hinyl cFlorixe				430
hinyl cFlorixe	NI		03 0	430

Client: Waste Management Job Number: 280-62847-4

Client Sample ID: MW-19C

Client MatriD Water I ate Receivex: 44\pi24\pi0047 4070

8260C Volatile Organic Compounds by GC/MS

Analysis MetFox: 8260C Analysis BatcF: 780-24G406 pnstrument pl : HP9/ G5V PreS MetFox: 9050C PreS BatcF: NdA 1ab . ile pl : V56//03

I ilution: 430 pnitial WeigFtch olume: 9 m1

Analysis I ate: 42d07d2047 0058 inal WeigFtdholume: 9 m1

PreSI ate: 42d07d2047 0058

 Lurrogate
 \_ Rec
 Qualifier
 AcceStance 1 mits

 4,2-I icFloroetFane-x7 (Lurr)
 402
 66 - 45G

 7-Bromofluorobenzene (Lurr)
 405
 Ø5 - 420

 Toluene-x8 (Lurr)
 400
 G4 - 426

Client: Waste Management Job Number: 280-62847-4

Client Sample ID: MW-19C

1ab LamSle pt : 280-62847-5 I ate LamSlex: 44@0@047 4202

Client MatriD Water I ate Receivex: 44\pi24\pi0047 4070

8260C Volatile Organic Compounds by GC/MS

Analysis MetFox: 8260C Analysis BatcF: 780-24G406 pnstrument p: HP9/ E05V PreS MetFox: 9050C PreS BatcF: NdA 1ab . ile p: V56/ / 03

I ilution: 430 pnitial WeigFtdholume: 9 m1

Analysis I ate: 42007¢2047 0058 . inal WeigFtdholume: 9 m1

Analysis I ate: 42007c2047 0058

PreS I ate: 42007c2047 0058

**Targeted Tentatively Identified Compounds** 

Cas Number Analyte Est3Result (ugdl) Qualifier

6GQ2-4 HeDacFloroetFane TpC NI

Client Sample ID: MW-24

 1ab LamSle pl :
 280-62847-7
 I ate LamSlex: 44c20c2047 4406

 Client MatriD
 Water
 I ate Receivex: 44c24c2047 4070

### 8260C Volatile Organic Compounds by GC/MS

Analysis MetFox: 8260C Analysis BatcF: 780-24G406 pnstrument pl : HP9/ G5V PreS MetFox: 9050C PreS BatcF: NdA 1ab . ile pl : V56/ / 43

I ilution: 430 pnitial WeigFtcholume: 9 m1

Analysis I ate: 42:07:02:047 04:00 . inal WeigFtcholume: 9 m1

PreSI ate: 42007d2047 0400

nalyte	Result (ugdl)	Qualifier	MI 1	R1
,4,4,2-TetracFloroetFane	NI		0359	430
,4,4-TricFloroetFane	NI		0382	430
,4,2,2-TetracFloroetFane	NI		0324	430
,4,2-TricFloro-4,2,2-trifluoroetFane	NI		0354	430
,4,2-TricFloroetFane	NI		0325	430
,4-I icFloroetFane	NI		0358	430
,4-I icFloroetFene	NI		032/	430
,4-I icFloroSroSene	NI		0332	430
,2,5-TricFlorobenzene	NI		0374	430
,2,5-TricFloroSroSane	NI		038/	430
,2,7-TricFlorobenzene	NI		0374	430
,2,7-TrimetFylbenzene	NI		0339	430
,2-I ibromo-5-CFloroSroSane	NI		035/	430
,2-I ibromoetFane (EI B)	NI		0335	430
,2-I icFlorobenzene	NI		03G	430
,2-I icFloroetFane	NI		0324	430
,2-I icFloroetFene, Total	NI		0384	230
,2-I icFloroSroSane	NI		0332	430
,5,9-TricFlorobenzene	NI		0325	430
,5,9-TrimetFylbenzene	NI		033G	430
,5-I icFlorobenzene	NI		03338	430
,5-I icFloroSroSane	NI		0339	430
,7-I icFlorobenzene	NI		0387	430
,7-I ioDane	NI		/ 35	70
,2-I icFloroSroSane	NI		0370	430
-Butanone (MEK)	NI		435	40
-CFloroetFyl vinyl etFer	NI		036	930
-HeDanone	NI		432	930
-MetFyl-2-Sentanone (MpBK)	NI		234	930
cetone	NI		530	40
cetonitrile	NI		73	49
crolein	NI		03 4	20
crylonitrile	NI		0385	930
enzene	NI		0374	430
romobenzene	NI		0380	430
romocFlorometFane	NI		038G	430
romoxicFlorometFane	NI		035/	430
romoform	NI		0326	430
romometFane	NI		036/	430
utyl alcoFol, n-	NI		83	70
utyl alcoFol, tert-	NI		535	40
Carbon xisulfixe	NI		034/	430
Carbon tetracFlorixe	NI		032G	430
Florobenzene	NI		0339	430
FloroxifluorometFane	NI		0326	430
FloroetFane	NI		0352	430

Client Sample ID: MW-24

1ab LamSle pt : 280-62847-7 | late LamSlex: 44@0@047 4406

Client MatriD Water I ate Receivex: 44d24d2047 4070

### 8260C Volatile Organic Compounds by GC/MS

Analysis MetFox: 8260C Analysis BatcF: 780-24G406 pnstrument p: HP9/ G5V PreS MetFox: 9050C PreS BatcF: NdA 1ab . ile p: V56/ / 43

I ilution: 430 pnitial WeigFtcholume: 9 m1

Analysis I ate: 42:07:02:047 04:00 . inal WeigFtcholume: 9 m1

PreSI ate: 42d07d2047 0400

Analyte	Result (ugdl)	Qualifier	MI 1	R1
CFloroform	NI		0357	430
CFlorometFane	NI		0359	430
cis-4,2-I icFloroetFene	NI		0384	430
cis-4,5-I icFloroSroSene	NI		0356	430
CycloFeDane	NI		0348	430
I ibromocFlorometFane	NI		0352	430
I ibromometFane	NI		0374	430
I icFloroxifluorometFane	NI		0368	430
I icFlorofluorometFane	NI		0357	430
EtFyl acetate	NI		0366	430
EtFyl etFer	NI		03G2	430
EtFyl tert-butyl etFer	NI		032/	430
EtFylbenzene	NI		03G7	430
HeDacFlorobutaxiene	NI		0328	430
HeDane	NI		0370	40
poxometFane	NI		0350	430
psobutanol	NI		738	29
psoSroSyl etFer	NI		039/	430
psoSroSylbenzene	NI		03G	430
MetFacrylonitrile	NI		036/	930
MetFyl acetate	NI		0390	239
MetFyl tert-butyl etFer	NI		0346	430
MetFylcycloFeDane	NI		0346	430
MetFylene CFlorixe	NI		0377	430
m-&ylene %S-&ylene	NI		0366	230
NaSFtFalene	NI		0375	430
n-Butylbenzene	NI		0367	430
N-ProSylbenzene	NI		036/	430
o-CFlorotoluene	NI		0386	430
o-&ylene	NI		0336	430
S-CFlorotoluene	NI		0387	430
S-Cymene	NI		0354	430
sec-Butylbenzene	NI		0339	430
Ltyrene	NI		0335	430
Tert-amyl metFyl etFer	NI		032G	430
tert-Butylbenzene	NI		0384	430
TetracFloroetFene	NI		0356	430
TetraFyxrofuran	NI		435	930
Toluene	NI		0394	430
trans-4,2-l icFloroetFene	NI		03 0	430
trans-4,5-l icFloroSroSene	NI		0 <b>3</b> 5G	430
trans-4,7-I icFloro-2-butene	NI		0322	430
TricFloroetFene	NI		0376	430
TricFlorofluorometFane	NI		0388	430
hinyl acetate	NI	X	0389	930
hinyl cFlorixe	NI		03 0	430

Client: Waste Management Job Number: 280-62847-4

Client Sample ID: MW-24

 1ab LamSle pl :
 280-62847-7
 I ate LamSlex: 44@0@047 4406

 Client MatriD
 Water
 I ate Receivex: 44@4@047 4070

8260C Volatile Organic Compounds by GC/MS

Analysis MetFox: 8260C Analysis BatcF: 780-24G406 pnstrument pl : HP9/ G5V PreS MetFox: 9050C PreS BatcF: NdA 1ab . ile pl : V56//43

I ilution: 43 pnitial WeigFtdholume: 9 m1

Analysis I ate: 4207d2047 0400 . inal WeigFtdholume: 9 m1

PreSI ate: 42d07d2047 0400

 Lurrogate
 \_ Rec
 Qualifier
 AcceStance 1 imits

 4,2-1 icFloroetFane-x7 (Lurr)
 400
 66 - 45G

 7-Bromofluorobenzene (Lurr)
 406
 Ø5 - 420

 Tolluene-x8 (Lurr)
 404
 Ø4 - 426

Client: Waste Management Job Number: 280-62847-4

Client Sample ID: MW-24

1ab LamSle pt : 280-62847-7 I ate LamSlex: 44@0@047 4406

Client MatriD Water I ate Receivex: 44\textcal{Q}4\textcal{Q}047 4070

8260C Volatile Organic Compounds by GC/MS

Analysis MetFox: 8260C Analysis BatcF: 780-24G406 pnstrument p: HP9/ E05V PreS MetFox: 9050C PreS BatcF: NdA 1ab . ile p: V56/ / 43

I ilution: 430 pnitial WeigFtch olume: 9 m1

Analysis I ate: 42007d2047 0400 . inal WeigFtdholume: 9 m1
PreS I ate: 42007d2047 0400

**Targeted Tentatively Identified Compounds** 

Cas Number Analyte Est3Result (ugdl ) Qualifier

6G-Q2-4 HeDacFloroetFane TpC NI

Client Sample ID: MW-2B1

 1ab LamSle pl :
 280-62847-9
 I ate LamSlex: 44c20c2047 4042

 Client MatriD
 Water
 I ate Receivex: 44c24c2047 4070

### 8260C Volatile Organic Compounds by GC/MS

Analysis MetFox: 8260C Analysis BatcF: 780-24G406 pnstrument pl: HP9/ G5V PreS MetFox: 9050C PreS BatcF: NdA 1ab . ile pl: V56/ / 23

I ilution: 430 pnitial WeigFtdholume: 9 m1

Analysis I ate: 42007d2047 0425 . inal WeigFtdholume: 9 m1

PreSI ate: 42d07d2047 0425

Analyte	Result (ugdl)	Qualifier	MI 1	R1
,4,4,2-TetracFloroetFane	NI		0359	430
,4,4-TricFloroetFane	NI		0382	430
4,4,2,2-TetracFloroetFane	NI		0324	430
,4,2-TricFloro-4,2,2-trifluoroetFane	NI		0354	430
4,4,2-TricFloroetFane	NI		0325	430
-,4-I icFloroetFane	NI		0358	430
-,4-I icFloroetFene	NI		032/	430
-,4-I icFloroSroSene	NI		03G2	430
,2,5-TricFlorobenzene	NI		0374	430
,2,5-TricFloroSroSane	NI		038/	430
	NI		0374	430
-,2,7-TrimetFylbenzene	NI		0339	430
1,2-I ibromo-5-CFloroSroSane	NI		035/	430
F,2-I ibromoetFane (EI B)	NI		0335	430
I,2-I icFlorobenzene	NI		033	430
I,2-I icFloroetFane	NI		0324	430
k,2-I icFloroetFene, Total	NI		0384	230
I,2-I icFloroSroSane	NI		03G2	430
k,5,9-TricFlorobenzene	NI		0325	430
k,5,9-TrimetFylbenzene	NI		033G	430
I,5-I icFlorobenzene	NI		033	430
I,5-I icFloroSroSane	NI		0339	430
I,7-I icFlorobenzene	NI		0387	430
k,7-I ioDane	NI		/ 35	70
2,2-l icFloroSroSane	NI		0370	430
2-Butanone (MEK)	NI		435	40
2-CFloroetFyl vinyl etFer	NI		03 6	930
2-HeDanone	NI		432	930
'-MetFyl-2-Sentanone (MpBK)	NI		234	930
Acetone	NI		530	40
Acetonitrile	NI		73	49
Acrolein	NI		03 4	20
Acrylonitrile	NI		0385	930
Benzene	NI		0374	430
Bromobenzene	NI		0380	430
BromocFlorometFane	NI		038G	430
BromoxicFlorometFane	NI		035/	430
Bromoform	NI		0326	430
BromometFane	NI		036/	430
Butyl alcoFol, n-	NI		83	70
Butyl alcoFol, tert-	NI		535	40
Carbon xisulfixe	NI		034/	430
Carbon tetracFlorixe	NI		032G	430
	NI		0329	430
Plorohenzene				
CFlorobenzene CFloroxifluorometFane	NI		0326	430

Client Sample ID: MW-2B1

 1ab LamSle pl :
 280-62847-9
 I ate LamSlex: 44c20c2047 4042

 Client MatriD
 Water
 I ate Receivex: 44c24c2047 4070

## 8260C Volatile Organic Compounds by GC/MS

Analysis MetFox: 8260C Analysis BatcF: 780-24G406 pnstrument p: HP9/ G5V PreS MetFox: 9050C PreS BatcF: NdA 1ab . ile p: V56/ / 23

I ilution: 430 pnitial WeigFtdholume: 9 m1

Analysis I ate: 42007d2047 0425 . inal WeigFtdholume: 9 m1

PreSI ate: 42d07d2047 0425

	<b>5</b> ( %)	0 115		D.
Analyte	Result (ugdl)	Qualifier	MI 1	R1
CFloroform	NI		0357	430
CFlorometFane	NI		0359	430
cis-4,2-l icFloroetFene	NI		0384	430
cis-4,5-l icFloroSroSene	NI		0356	430
CycloFeDane	NI		0348	430
l ibromocFlorometFane	NI		0352	430
l ibromometFane	NI		0374	430
l icFloroxifluorometFane	NI		0368	430
l icFlorofluorometFane	NI		0357	430
EtFyl acetate	NI		0366	430
EtFyl etFer	NI		0332	430
EtFyl tert-butyl etFer	NI		032/	430
EtFylbenzene	NI		03G7	430
HeDacFlorobutaxiene	NI		0328	430
HeDane	NI		0370	40
poxometFane	NI		0350	430
psobutanol	NI		738	29
psoSroSyl etFer	NI		039/	430
psoSroSylbenzene	NI		033	430
MetFacrylonitrile	NI		036/	930
MetFyl acetate	NI		0390	239
MetFyl tert-butyl etFer	NI		0346	430
MetFylcycloFeDane	NI		0346	430
MetFylene CFlorixe	NI		0377	430
m-&ylene %S-&ylene	NI		0366	230
NaSFtFalene	NI		0375	430
n-Butylbenzene	NI		0367	430
N-ProSylbenzene	NI		036/	430
o-CFlorotoluene	NI		0386	430
o-&ylene	NI		0336	430
S-CFlorotoluene	NI		0387	430
S-Cymene	NI		0354	430
sec-Butylbenzene	NI		0339	430
Ltyrene	NI		0335	430
Tert-amyl metFyl etFer	NI		032G	430
tert-Butylbenzene	NI		0384	430
TetracFloroetFene	NI		0356	430
TetraFyxrofuran	NI		435	930
Toluene	NI		0394	430
trans-4,2-l icFloroetFene	NI		03.0	430
trans-4,5-l icFloroSroSene	NI		035G	430
trans-4,7-l icFloro-2-butene	NI		0322	430
TricFloroetFene	NI		0376	430
TricFlorofluorometFane	NI		0388	430
hinyl acetate	NI	Χ	0389	930
hinyl cFlorixe	NI		03.0	430

Client: Waste Management Job Number: 280-62847-4

Client Sample ID: MW-2B1

Client MatriD Water I ate Receivex: 44\pi24\pi0047 4070

8260C Volatile Organic Compounds by GC/MS

Analysis MetFox: 8260C Analysis BatcF: 780-24G406 pnstrument p: HP9/ G5V PreS MetFox: 9050C PreS BatcF: NdA 1ab . ile p1 : V56// 23

I ilution: 430 pnitial WeigFtch olume: 9 m1

Analysis I ate: 42@7@047 0425 . inal WeigFtdholume: 9 m1
PreS I ate: 42@7@047 0425

 Lurrogate
 \_ Rec
 Qualifier
 AcceStance 1 imits

 4,2-I icFloroetFane-x7 (Lurr)
 / 8
 66 - 45G

 7-Bromofluorobenzene (Lurr)
 405
 Ø5 - 420

 Toluene-x8 (Lurr)
 / /
 G4 - 426

Client: Waste Management Job Number: 280-62847-4

Client Sample ID: MW-2B1

1ab LamSle pt : 280-62847-9 I ate LamSlex: 44@0@047 4042

Client MatriD Water I ate Receivex: 44\pi24\pi0047 4070

8260C Volatile Organic Compounds by GC/MS

Analysis MetFox: 8260C Analysis BatcF: 780-24G406 pnstrument p: HP9/ G5V PreS MetFox: 9050C PreS BatcF: NdA 1ab . ile p: V56/ / 23

I ilution: 430 pnitial WeigFtch olume: 9 m1

Analysis I ate: 42@7@047 0425 . inal WeigFtdholume: 9 m1
PreS I ate: 42@7@047 0425

**Targeted Tentatively Identified Compounds** 

Cas Number Analyte Est3Result (ugdl) Qualifier

6GC2-4 HeDacFloroetFane TpC NI

Job Number: 280-62847-4 Client: Waste Management

Client Sample ID: MW-20

1ab LamSle pl: 280-62847-6 I ate LamSlex: 44d20d2047 0/40 Client MatriD

Water I ate Receivex: 44d24d2047 4070

### 8260C Volatile Organic Compounds by GC/MS

Analysis MetFox: 8260C Analysis BatcF: 780-24G406 postrument pl: HP9/ 05V PreS MetFox: 9050C PreS BatcF: NdA1ab . ile pl : V56//53

mitial WeigFtdnolume: I ilution: 430 9 m1 Analysis I ate: 42d07d2047 0479 . inal WeigFtdholume: 9 m1

PreSI ate: 42d07d2047 0479

Analyte	Result (ugdl)	Qualifier	MI 1	R1
1,4,4,2-TetracFloroetFane	NI		0359	430
1,4,4-TricFloroetFane	NI		0382	430
1,4,2,2-TetracFloroetFane	NI		0324	430
1,4,2-TricFloro-4,2,2-trifluoroetFane	NI		0354	430
1,4,2-TricFloroetFane	NI		0325	430
1,4-l icFloroetFane	NI		0358	430
1,4-l icFloroetFene	NI		032/	430
1,4-l icFloroSroSene	NI		0332	430
1,2,5-TricFlorobenzene	NI		0374	430
1,2,5-TricFloroSroSane	NI		038/	430
1,2,7-TricFlorobenzene	NI		0374	430
1,2,7-TrimetFylbenzene	NI		0339	430
1,2-l ibromo-5-CFloroSroSane	NI		035/	430
1,2-I ibromoetFane (EI B)	NI		0335	430
1,2-l icFlorobenzene	NI		033	430
1,2-l icFloroetFane	NI		0324	430
1,2-l icFloroetFene, Total	NI		0384	230
1,2-l icFloroSroSane	NI		03G2	430
1,5,9-TricFlorobenzene	NI		0325	430
1,5,9-TrimetFylbenzene	NI		033G	430
1,5-l icFlorobenzene	NI		03338	430
1,5-l icFloroSroSane	NI		0339	430
1,7-l icFlorobenzene	NI		0387	430
1,7-l ioDane	NI		/ 35	70
2,2-l icFloroSroSane	NI		0370	430
2-Butanone (MEK)	NI		435	40
2-CFloroetFyl vinyl etFer	NI		036	930
2-HeDanone	NI		432	930
7-MetFyl-2-Sentanone (MpBK)	NI		234	930
Acetone	NI		530	40
Acetonitrile	NI		73	49
Acrolein	NI		03 4	20
Acrylonitrile	NI		0385	930
Benzene	NI		0374	430
Bromobenzene	NI		0380	430
3romocFlorometFane	NI		0 <b>3</b> 8G	430
BromoxicFlorometFane	NI		035/	430
Bromoform	NI		0326	430
BromometFane	NI		036/	430
Butyl alcoFol, n-	NI		83	70
Butyl alcoFol, tert-	NI		535	40
Carbon xisulfixe	NI		034/	430
Carbon tetracFlorixe	NI		032G	430
CFlorobenzene	NI		0339	430
CFloroxifluorometFane	NI		0326	430
CFloroetFane	NI		0352	430

Job Number: 280-62847-4 Client: Waste Management

Client Sample ID: MW-20

1ab LamSle pl: 280-62847-6 I ate LamSlex: 44d20d2047 0/40 Client MatriD Water I ate Receivex: 44d24d2047 4070

### 8260C Volatile Organic Compounds by GC/MS

Analysis MetFox: 8260C Analysis BatcF: 780-24G406 postrument pl: HP9/ 05V PreS MetFox: 9050C PreS BatcF: NdA1ab . ile pl : V56//53

mitial WeigFtdnolume: I ilution: 430 9 m1 Analysis I ate: 42d07d2047 0479 . inal WeigFtdholume: 9 m1

PreSI ate: 42d07d2047 0479

CFloroform	Analyte	Result (ugdi)	Qualifier	MI 1	R1
cis-4_2-1 icFloroerSene         NI         034         43           cis-4_5-1 icFlorosoSene         NI         036         43           CycloFeEne         NI         038         43           I ibromoeFloromelFane         NI         0374         43           I icFloroxiflucrometFane         NI         038         43           I icFloroxiflucrometFane         NI         035         43           I icFloroxiflucrometFane         NI         035         43           I icFloroxiflucrometFane         NI         035         43           EiFyl eterter         NI         036         43           EiFyl eterbuty etFer         NI         032         43           EiFyl terbuty etFer         NI         032         43           EiFyl terbuty etFer         NI         037         43           EiFyl terbuty etFer         NI         037         43           HebDacFlorobutaxiene         NI         037         43           HebDacFlorobutaxiene         NI         033         43           HebDacFlorobutaxiene         NI         037         40           DaxomeFane         NI         037         43           Boxbostack	CFloroform	NI		0357	430
cis-4,5-i icFloroSroSene         NI         0.36         4.30           CycloFeDre         NI         0.38         4.30           I ibromocFloromelFane         NI         0.32         4.3           I ibromocFloromelFane         NI         0.338         4.30           I icFloroxifurometFane         NI         0.357         4.3           EiFyl acetate         NI         0.357         4.3           EiFyl etFer         NI         0.32         4.3           HeEDarlogbutaviene         NI         0.37         4.3           HeEDarlogbutaviene         NI         0.30         4.3           HeEDarlogbutaviene         NI         0.30         4.3           pxxmetFane         NI         0.37         4.3           pxxmetFane         NI         0.35         4.3           pxxmetFane         NI         0.33         4.3           pxxmetFane         NI         0.33         <	CFlorometFane	NI		0359	430
CycloFeEne         NI         0348         430           I ibromocFlorometFane         NI         0352         430           I icirconxifluorometFane         NI         0368         430           I icirconxifluorometFane         NI         0377         430           EiFyl acetate         NI         0366         430           EiFyl terfer         NI         0326         430           EiFyl terf-butyl etFer         NI         0327         430           EiFyl terf-butyl etFer         NI         0327         430           EiFyl terf-butyl etFer         NI         0327         430           EiFyl terf-butyl etFer         NI         0337         430           EiFyl terf-butyl etFer         NI         0337         43           HeEDacFlorobutaxiene         NI         0330         43           HeEDacFlorobutaxiene         NI         0330         43           Bobutanlo         NI         0330         43           Bobutanlo         NI         0330         43           Bobutanlo         NI         0330         43           Bockrosyl etFer         NI         0337         43           Bockrosyl etFer         N	cis-4,2-I icFloroetFene	NI		0384	430
IbromocFlorometFane	cis-4,5-l icFloroSroSene	NI		0356	430
IbromomelFane	CycloFeDane	NI		0348	430
IcFloroxifluorometFane	I ibromocFlorometFane	NI		0352	430
LicFlorofluorometFane	I ibromometFane	NI		0374	430
ElFyl acetate         NI         036         43           ElFyl elfer         NI         032         43           ElFyl tert-butyl elfer         NI         037         43           ElFylbenzene         NI         0337         43           HeBacFlorobutaxiene         NI         038         43           HebBarFlorobutaxiene         NI         0370         40           pxometFane         NI         0350         43           pxobutanol         NI         0350         43           pxoSroSyl etFer         NI         039/         43           pxoSroSylbenzene         NI         039/         43           welFacrylontrile         NI         033         43           MetFacrylontrile         NI         036         43           MetFylip acetate         NI         036         23           MasStrialene         NI         036         23	I icFloroxifluorometFane	NI		0368	430
ElFyl etFer         NI         032         430           ElFyl tert-buty etFer         NI         0327         430           ElFybenzene         NI         0337         443           HeBacFlorobutaxiene         NI         0328         43           HeBane         NI         0350         43           psobratene         NI         0350         43           psobroSyl etFer         NI         0357         43           psoSroSyl etFer         NI         0337         43           psoSroSyl etFer         NI         0337         43           psoSroSyl etFer         NI         0337         43           psoSroSylenzene         NI         0337         43           MetFylacetate         NI         036         43           MetFylacetate         NI         036         43           MetFylenzerene         NI         036         43           MetFylene CFlorize         NI         036         43           m-Sylene %-Sylene         NI         037         43           n-Sylene %-Sylene         NI         037         43           n-ProSylbenzene         NI         036         43 <tr< td=""><td>I icFlorofluorometFane</td><td>NI</td><td></td><td>0357</td><td>430</td></tr<>	I icFlorofluorometFane	NI		0357	430
EIFyl tert-butyl etFer         NI         032/         43           EIFylbenzene         NI         0337         43           HeBacProrobutaxiene         NI         038         43           Hebane         NI         030         40           pxometFane         NI         030         43           pxometFane         NI         030         43           pxoSroSyl etFer         NI         034/         43           pxoSroSylbenzene         NI         033/         43           MetFacrylonitrile         NI         036/         93           MetFacrylonitrile         NI         036         43           MetFyleractate         NI         030         23           MetFyleractrubyl etFer         NI         036         43           MetFyleractrubyl etFer         NI         037         43           Na         037         43         43           Na StFtFalene         NI         036         43	EtFyl acetate	NI			430
EtFylbenzene         NI         0337         430           HeBacFlorobutaxiene         NI         028         430           HeBane         NI         0370         40           pxometFane         NI         0350         430           psobustanol         NI         73         29           psoSroSyletFer         NI         039/         430           psoSroSylbenzene         NI         039/         430           MetFalecryfonitrile         NI         039/         23           MetFyl tert-butyl etFer         NI         039/         23           MetFyl tert-butyl etFer         NI         036         43           MetFylcycloFeDane         NI         036         43           MetFylcycloFeDane         NI         036         43           MetFylcycloFeDane         NI         037         43           m&fylchen &S-Skylene         NI         037         43           m&fylchen &S-Skylene         NI         036         23           NaSFtFalene         NI         036         23           NaStFylene &S-Skylene         NI         036         43           N-ProSylbenzene         NI         036	EtFyl etFer	NI		0332	430
HeDacFlorobutaxiene	EtFyl tert-butyl etFer	NI			430
HeDane	EtFylbenzene	NI		0337	430
DiscometFane   NI	HeDacFlorobutaxiene	NI			430
Psobutanol   NI	HeDane	NI		0370	40
BoSroSyl etFer   NI	poxometFane	NI			430
BOSTOSylbenzene   NI	psobutanol				29
MetFacrylonitrile         NI         036/         93           MetFyl acetate         NI         030         23           MetFyl tert-butyl etFer         NI         0346         43           MetFylcycloFeDane         NI         036         43           MetFylene CFlorixe         NI         0377         43           MetFylene CFlorixe         NI         036         23           NaSFIFalene         NI         036         23           NaSFIFalene         NI         0375         43           NaFiFalene         NI         037         43           NaFiFalene         NI         036         23           NaSFIFalene         NI         037         43           NaFiFalene         NI         037         43           NaFiFalene         NI         036         23           NaFiFalene         NI         036         43           o-CFlorotoluene         NI         036         43           S-CFlorotoluene         NI         037         43           S-Cymene         NI         034         43           sec-Butylbenzene         NI         035         43           tert-Butylb	psoSroSyl etFer			039/	430
MetFyl acetate         NI         0390         23           MetFyl tert-butyl etFer         NI         0346         43           MetFylcycloFeDane         NI         0346         43           MetFylene CFlorixe         NI         0377         43           m-&ylene %S-&ylene         NI         0366         23           NaS*Falene         NI         036         23           n-Butylbenzene         NI         0375         43           N-ProSylbenzene         NI         0367         43           N-ProSylbenzene         NI         036         43           o-CFlorotoluene         NI         036         43           S-Cymene         NI         036         43           S-Cymene         NI         037         43           S-Cymene         NI         036         43           Sec-Butylbenzene         NI         036         43           L tyrene         NI         036         43           Tert-amyl metFyl etFer         NI         036         43           TetracFloroetFene         NI         036         43           TetracFloroetFene         NI         0394         43	psoSroSylbenzene				430
MetFyl tert-butyl etFer         NI         0346         430           MetFylcycloFeDane         NI         0346         430           MetFylene CFlorixe         NI         0377         430           m-&ylene %S-&ylene         NI         0366         230           NaSFtFalene         NI         036         230           n-Butylbenzene         NI         0367         430           N-ProSylbenzene         NI         036         430           o-CFlorotoluene         NI         036         430           o-Bylene         NI         036         430           S-CFlorotoluene         NI         036         430           S-Criorotoluene         NI         036         430           S-Cymene         NI         0337         430           S-Cymene         NI         0334         430           S-Cymene         NI         0339         430           L tyrene         NI         0339         430           Tert-amyl metFyl etFer         NI         0326         430           tert-Butylbenzene         NI         0336         430           TetraFyxrofuran         NI         036         430 </td <td>MetFacrylonitrile</td> <td>NI</td> <td></td> <td></td> <td>930</td>	MetFacrylonitrile	NI			930
MetFylorycloFeDane         NI         0346         43           MetFylene CFlorixe         NI         0377         43           m-&ylene %S-&ylene         NI         0366         23           NaSFtFalene         NI         0375         43           n-Butylbenzene         NI         0367         43           N-ProSylbenzene         NI         036         43           o-CFlorotoluene         NI         036         43           o-&ylene         NI         0336         43           S-CFlorotoluene         NI         0336         43           S-Crymene         NI         034         43           S-Cymene         NI         034         43           S-Cymene         NI         034         43           S-Cymene         NI         0336         43           S-Cymene         NI         0336         43           Ltyrene         NI         0336         43           Tertaryl metFyl etFer         NI         036         43           tert-Butylbenzene         NI         036         43           TetracFloroetFene         NI         036         43           TetracFloroetF		NI		0390	239
MetFylene CFlorixe         NI         0377         430           m-&ylene %S-&ylene         NI         0366         230           NaSFTalene         NI         0375         430           n-Butylbenzene         NI         0367         43           N-ProSylbenzene         NI         036/         430           o-CFlorotoluene         NI         0386         43           o-&ylene         NI         0336         43           S-CFlorotoluene         NI         0336         43           S-Cymene         NI         0337         43           S-Cymene         NI         0334         43           S-Cymene         NI         0339         43           S-Cymene         NI         0339         43           S-Cymene         NI         0336         43           S-Cymene         NI         0339         43           Ltyrene         NI         0336         43           Ltyrene         NI         0326         43           Tert-amyl metFyl etFer         NI         034         43           TetraEptyxrofuran         NI         43         93           Toluene         N	MetFyl tert-butyl etFer	NI		0346	430
m-&ylene %S-&ylene         NI         0366         23           NaSFtFalene         NI         0375         43           n-Butylbenzene         NI         0367         43           N-ProSylbenzene         NI         036         43           o-CFlorotoluene         NI         036         43           o-&ylene         NI         036         43           S-CFlorotoluene         NI         037         43           S-Cymene         NI         037         43           S-Cymene         NI         034         43           sec-Butylbenzene         NI         039         43           Ltyrene         NI         035         43           Tert-amyl metFyl etFer         NI         036         43           tert-Butylbenzene         NI         036         43           TetracFloroetFene         NI         036         43           Tetras-Lyxrofuran         NI         036         43           Trans-4,2-I icFloroetFene         NI         030         43           trans-4,5-I icFloroetFene         NI         030         43           trans-4,7-I icFloro-2-butene         NI         036         43	MetFylcycloFeDane	NI			430
NaSrtFalene         NI         0375         430           n-Butylbenzene         NI         0367         430           N-ProSylbenzene         NI         036         430           o-CFlorotoluene         NI         0386         430           o-&ylene         NI         0336         430           S-CFlorotoluene         NI         0387         430           S-Cymene         NI         034         430           S-Cymene         NI         039         430           Ltyrene         NI         039         430           Ltyrene         NI         039         430           Tert-amyl metFyl etFer         NI         032G         430           tert-Butylbenzene         NI         0384         430           TetracFloroetFene         NI         0366         430           Tetras-LoroetFene         NI         0394         430           Trans-4,2-I icFloroetFene         NI         030         430           trans-4,5-I icFloroetFene         NI         030         430           trans-4,7-I icFloro-2-butene         NI         032         430           TricFloroetFene         NI         038 <t< td=""><td>MetFylene CFlorixe</td><td></td><td></td><td></td><td></td></t<>	MetFylene CFlorixe				
n-Butylbenzene         NI         0367         430           N-ProSylbenzene         NI         036/         430           o-CFlorotoluene         NI         0366         430           o-&ylene         NI         0336         430           S-CFlorotoluene         NI         0337         430           S-Cymene         NI         034         430           S-Cymene         NI         034         430           sec-Butylbenzene         NI         0339         430           Ltyrene         NI         0336         430           Tert-amyl metFyl etFer         NI         032G         430           tert-Butylbenzene         NI         034         430           TetracFloroetFene         NI         036         430           TetraFyxrofuran         NI         036         430           Toluene         NI         0394         430           trans-4,2-I icFloroetFene         NI         030         430           trans-4,5-I icFlorosroSene         NI         036         430           trans-4,7-I icFloro-2-butene         NI         0376         430           TricFloroetFene         NI         038					
N-ProSylbenzene         NI         036/         430           o-CFlorotoluene         NI         0386         430           o-&ylene         NI         0336         430           S-CFlorotoluene         NI         0387         430           S-Cymene         NI         0354         430           S-Cymene         NI         0339         430           sec-Butylbenzene         NI         0335         430           Ltyrene         NI         0326         430           Tert-amyl metFyl etFer         NI         036         430           tert-Butylbenzene         NI         036         430           TetracFloroetFene         NI         036         430           TetracFloroetFene         NI         036         430           Toluene         NI         0394         430           trans-4,2-I icFloroetFene         NI         030         430           trans-4,5-I icFloroevFene         NI         030         430           trans-4,7-I icFloro-2-butene         NI         036         430           TricFloroetFene         NI         0376         430           TricFloroetFene         NI         0388					
o-CFlorotoluene         NI         0386         43           o-&ylene         NI         0336         43           S-CFlorotoluene         NI         0387         43           S-Cymene         NI         0354         43           sec-Butylbenzene         NI         039         43           Ltyrene         NI         035         43           Tert-amyl metFyl etFer         NI         02G         43           tert-Butylbenzene         NI         034         43           TetracFloroetFene         NI         036         43           TetracFyxrofuran         NI         43         93           Toluene         NI         0394         43           trans-4,2-1 icFloroetFene         NI         03G         43           trans-4,5-1 icFloroSroSene         NI         03G         43           trans-4,7-1 icFloro-2-butene         NI         0322         43           TricFloroetFene         NI         0376         43           TricFlorofluorometFane         NI         0388         43           hinyl acetate         NI         X         0389         93					
o-&ylene       NI       0336       430         S-CFlorotoluene       NI       0387       430         S-Cymene       NI       0354       430         sec-Butylbenzene       NI       0339       430         Ltyrene       NI       0335       430         Tert-amyl metFyl etFer       NI       032G       430         tert-Butylbenzene       NI       0384       430         TetracFloroetFene       NI       0366       430         TetraFyxrofuran       NI       435       930         Toluene       NI       0394       430         trans-4,2-I icFloroetFene       NI       035G       430         trans-4,5-I icFloroSroSene       NI       035G       430         trans-4,7-I icFloro-2-butene       NI       0376       430         TricFloroetFene       NI       0376       430         TricFlorofluorometFane       NI       0388       430         hinyl acetate       NI       X       0389       930					
S-CFlorotoluene       NI       0387       430         S-Cymene       NI       0354       430         sec-Butylbenzene       NI       0339       430         Ltyrene       NI       0336       430         Tert-amyl metFyl etFer       NI       032G       430         tert-Butylbenzene       NI       0384       430         TetracFloroetFene       NI       0356       430         TetraFyxrofuran       NI       435       930         Toluene       NI       0394       430         trans-4,2-I icFloroetFene       NI       030       430         trans-4,5-I icFloroSroSene       NI       035G       430         trans-4,7-I icFloro-2-butene       NI       0322       430         TricFloroetFene       NI       0376       430         TricFlorofluorometFane       NI       0388       430         hinyl acetate       NI       X       0389       930					
S-Cymene       NI       0354       43         sec-Butylbenzene       NI       0339       43         L tyrene       NI       035       43         Tert-amyl metFyl etFer       NI       032G       43         tert-Butylbenzene       NI       034       43         TetracFloroetFene       NI       036       43         TetraFyxrofuran       NI       43       93         Toluene       NI       0394       43         trans-4,2-I icFloroetFene       NI       03 0       43         trans-4,5-I icFloroSroSene       NI       036G       43         trans-4,7-I icFloro-2-butene       NI       032       43         TricFloroetFene       NI       036       43         TricFlorofluorometFane       NI       038       43         hinyl acetate       NI       X       038       93					
sec-Butylbenzene       NI       0339       430         L tyrene       NI       0336       430         Tert-amyl metFyl etFer       NI       032G       430         tert-Butylbenzene       NI       0384       430         TetracFloroetFene       NI       036       430         TetraFyxrofuran       NI       435       930         Toluene       NI       0394       430         trans-4,2-I icFloroetFene       NI       03 0       430         trans-4,5-I icFloroSroSene       NI       036G       430         trans-4,7-I icFloro-2-butene       NI       0322       430         TricFloroetFene       NI       0376       430         TricFlorofluorometFane       NI       0388       430         hinyl acetate       NI       X       0389       930					
L tyrene       NI       0335       430         Tert-amyl metFyl etFer       NI       032G       430         tert-Butylbenzene       NI       0384       430         TetracFloroetFene       NI       0356       430         TetraFyxrofuran       NI       435       930         Toluene       NI       0394       430         trans-4,2-I icFloroetFene       NI       03 0       430         trans-4,5-I icFloroSroSene       NI       036G       430         trans-4,7-I icFloro-2-butene       NI       0322       430         TricFloroetFene       NI       0376       430         TricFlorofluorometFane       NI       0388       430         hinyl acetate       NI       X       0389       930					
Tert-amyl metFyl etFer         NI         03G         430           tert-Butylbenzene         NI         0384         430           TetracFloroetFene         NI         0366         430           TetraFyxrofuran         NI         435         930           Toluene         NI         0394         430           trans-4,2-I icFloroetFene         NI         03 0         430           trans-4,5-I icFloroSroSene         NI         03G         430           trans-4,7-I icFloro-2-butene         NI         0322         430           TricFloroetFene         NI         0376         430           TricFlorofluorometFane         NI         0388         430           hinyl acetate         NI         X         0389         930					
tert-Butylbenzene       NI       0384       430         TetracFloroetFene       NI       0366       430         TetraFyxrofuran       NI       435       930         Toluene       NI       0394       430         trans-4,2-I icFloroetFene       NI       03 0       430         trans-4,5-I icFloroSroSene       NI       03G       430         trans-4,7-I icFloro-2-butene       NI       0322       430         TricFloroetFene       NI       0376       430         TricFlorofluorometFane       NI       0388       430         hinyl acetate       NI       X       0389       930					
TetracFloroetFene         NI         0356         430           TetraFyxrofuran         NI         435         930           Toluene         NI         0394         430           trans-4,2-I icFloroetFene         NI         03 0         430           trans-4,5-I icFloroSroSene         NI         035G         430           trans-4,7-I icFloro-2-butene         NI         0322         430           TricFloroetFene         NI         0376         430           TricFlorofluorometFane         NI         0388         430           h inyl acetate         NI         X         0389         930					
TetraFyxrofuran         NI         435         930           Toluene         NI         0394         430           trans-4,2-I icFloroetFene         NI         03 0         430           trans-4,5-I icFloroSroSene         NI         035G         430           trans-4,7-I icFloro-2-butene         NI         0322         430           TricFloroetFene         NI         0376         430           TricFlorofluorometFane         NI         0388         430           hinyl acetate         NI         X         0389         930					
Toluene         NI         0394         430           trans-4,2-I icFloroetFene         NI         03 0         430           trans-4,5-I icFloroSroSene         NI         035G         430           trans-4,7-I icFloro-2-butene         NI         0322         430           TricFloroetFene         NI         0376         430           TricFlorofluorometFane         NI         0388         430           hinyl acetate         NI         X         0389         930					
trans-4,2-l icFloroetFene       NI       03 0       430         trans-4,5-l icFloroSroSene       NI       035G       430         trans-4,7-l icFloro-2-butene       NI       0322       430         TricFloroetFene       NI       0376       430         TricFlorofluorometFane       NI       038       430         h inyl acetate       NI       X       0389       930					
trans-4,5-1 icFloroSroSene         NI         03G         430           trans-4,7-1 icFloro-2-butene         NI         0322         430           TricFloroetFene         NI         0376         430           TricFlorofluorometFane         NI         038         430           hinyl acetate         NI         X         0389         930					
trans-4,7-1 icFloro-2-butene         NI         0322         430           TricFloroetFene         NI         0376         430           TricFlorofluorometFane         NI         038         430           hinyl acetate         NI         X         039         930					
TricFloroetFene         NI         0376         430           TricFlorofluorometFane         NI         0388         430           hinyl acetate         NI         X         0389         930					
TricFlorofluorometFaneNI0388430hinyl acetateNIX0389930	•				
hinyl acetate NI X 0389 930					
hinyl cFlorixe NI 03 0 430			X		
	hinyl cFlorixe	NI		03 0	430

Client: Waste Management Job Number: 280-62847-4

Client Sample ID: MW-20

1ab LamSle pl: 280-62847-6 I ate LamSlex: 44d20d2047 0/40 Client MatriD

Water I ate Receivex: 44d24d2047 4070

8260C Volatile Organic Compounds by GC/MS

Analysis MetFox: Analysis BatcF: 780-24G406 HP9/ ŒV 8260C postrument pl: PreS MetFox: 9050C PreS BatcF: NdA1ab . ile pl : V56//53

mitial WeigFtdholume: I ilution: 430 9 m1 Analysis I ate: 42d07d2047 0479 . inal WeigFtdholume: 9 m1

PreSI ate: 42d07d2047 0479

Lurrogate \_ Rec Qualifier AcceStance 1imits / 6 66 - 45G 4,2-I icFloroetFane-x7 (Lurr) 402 C5 - 420 7-Bromofluorobenzene (Lurr) Toluene-x8 (Lurr) 11 G4 - 426

Client: Waste Management Job Number: 280-62847-4

Client Sample ID: MW-20

1ab LamSle pt : 280-62847-6 I ate LamSlex: 44d20d2047 0/ 40

Client MatriD Water I ate Receivex: 44\textcal{Q}4\textcal{Q}047 4070

8260C Volatile Organic Compounds by GC/MS

Analysis MetFox: 8260C Analysis BatcF: 780-24G406 pnstrument p: HP9/ E05V PreS MetFox: 9050C PreS BatcF: NdA 1ab . ile p: V 56/ / 53

I ilution: 430 pnitial WeigFtch olume: 9 m1

Analysis I ate: 42007c0047 0479 . inal WeigFtcholume: 9 m1
PreS I ate: 42007c0047 0479

**Targeted Tentatively Identified Compounds** 

Cas Number Analyte Est3Result (ugdl) Qualifier

6GQ2-4 HeDacFloroetFane TpC NI

Client Sample ID: DUP1

1ab LamSle pl : 280-62847-G I I ate LamSlex: 44d20d2047 0/ 20

Client MatriD Water I ate Receivex: 44d24d2047 4070

### 8260C Volatile Organic Compounds by GC/MS

Analysis MetFox: 8260C Analysis BatcF: 780-24G406 pnstrument p: HP9/ G5V PreS MetFox: 9050C PreS BatcF: NdA 1ab . ile p: V56/ / 73

I ilution: 430 pnitial WeigFtcholume: 9 m1

Analysis I ate: 42:07:02047 0208 . inal WeigFtcholume: 9 m1

Analysis I ate: 42@7@047 0208 PreS I ate: 42@7@047 0208

nalyte	Result (ugdl)	Qualifier	MI 1	R1
,4,4,2-TetracFloroetFane	NI		0359	430
-,4,4-TricFloroetFane	NI		0382	430
-,4,2,2-TetracFloroetFane	NI		0324	430
.,4,2-TricFloro-4,2,2-trifluoroetFane	NI		0354	430
-,4,2-TricFloroetFane	NI		0325	430
,4-I icFloroetFane	NI		0358	430
-,4-I icFloroetFene	NI		032/	430
-,4-I icFloroSroSene	NI		03G2	430
-,2,5-TricFlorobenzene	NI		0374	430
,2,5-TricFloroSroSane	NI		038/	430
-,2,7-TricFlorobenzene	NI		0374	430
-,2,7-TrimetFylbenzene	NI		0339	430
,2-I ibromo-5-CFloroSroSane	NI		035/	430
,2-I ibromoetFane (EI B)	NI		0335	430
,2-I icFlorobenzene	NI		03 <b>3</b>	430
,2-I icFloroetFane	NI		0324	430
,2-I icFloroetFene, Total	NI		0384	230
,2-I icFloroSroSane	NI		0332	430
,5,9-TricFlorobenzene	NI		0325	430
,5,9-TrimetFylbenzene	NI		033G	430
-,5-I icFlorobenzene	NI		03338	430
-,5-I icFloroSroSane	NI		0339	430
-,7-I icFlorobenzene	NI		0387	430
-,7-I ioDane	NI		/ 35	70
2,2-I icFloroSroSane	NI		0370	430
-Butanone (MEK)	NI		435	40
-CFloroetFyl vinyl etFer	NI		036	930
-HeDanone	NI		432	930
'-MetFyl-2-Sentanone (MpBK)	NI		234	930
Acetone	NI		530	40
Acetonitrile	NI		73	49
Acrolein	NI		03 4	20
Acrylonitrile	NI		0385	930
Benzene	NI		0374	430
Bromobenzene	NI		0380	430
BromocFlorometFane	NI		038G	430
BromoxicFlorometFane	NI		035/	430
Bromoform	NI		0326	430
BromometFane	NI		036/	430
Butyl alcoFol, n-	NI		83	70
Butyl alcoFol, tert-	NI		535	40
Carbon xisulfixe	NI		034/	430
Carbon tetracFlorixe	NI		032G	430
CFlorobenzene	NI		0339	430
CFloroxifluorometFane	NI		0326	430
CFloroetFane	NI		0352	430

Client Sample ID: DUP1

1ab LamSle pt : 280-62847-G I I ate LamSlex: 44@0@047 0/ 20

Client MatriD Water I ate Receivex: 44d24d2047 4070

### 8260C Volatile Organic Compounds by GC/MS

Analysis MetFox: 8260C Analysis BatcF: 780-24G406 pnstrument p: HP9/ G5V PreS MetFox: 9050C PreS BatcF: NdA 1ab . ile p: V56/ / 73

I ilution: 430 pnitial WeigFtdh olume: 9 m1

Analysis I ate: 42@7@047 0208 . inal WeigFtdholume: 9 m1
PreS I ate: 42@7@047 0208

Analyte	Result (ugďi)	Qualifier	MI 1	R1
CFloroform	NI		0357	430
CFlorometFane	NI		0359	430
cis-4,2-l icFloroetFene	NI		0384	430
cis-4,5-l icFloroSroSene	NI		0356	430
CycloFeDane	NI		0348	430
I ibromocFlorometFane	NI		0352	430
I ibromometFane	NI		0374	430
I icFloroxifluorometFane	NI		0368	430
I icFlorofluorometFane	NI		0357	430
EtFyl acetate	NI		0366	430
EtFyl etFer	NI		0332	430
EtFyl tert-butyl etFer	NI		032/	430
EtFylbenzene	NI		0337	430
HeDacFlorobutaxiene	NI		0328	430
HeDane	NI		0370	40
poxometFane	NI		0350	430
psobutanol	NI		738	29
psoSroSyl etFer	NI		039/	430
psoSroSylbenzene	NI		033	430
MetFacrylonitrile	NI		036/	930
MetFyl acetate	NI		0390	239
MetFyl tert-butyl etFer	NI		0346	430
MetFylcycloFeDane	NI		0346	430
MetFylene CFlorixe	NI		0377	430
m-&ylene %S-&ylene	NI		0366	230
NaSFtFalene	NI		0375	430
n-Butylbenzene	NI		0367	430
N-ProSylbenzene	NI		036/	430
o-CFlorotoluene	NI		0386	430
o-&ylene	NI		0336	430
S-CFlorotoluene	NI		0387	430
S-Cymene	NI		0354	430
sec-Butylbenzene	NI		0339	430
L tyrene	NI		0395	430
Tert-amyl metFyl etFer	NI		032G	430
tert-Butylbenzene	NI		0384	430
TetracFloroetFene	NI NI		0356 435	430 930
TetraFyxrofuran Toluene			0394	430
	NI NI		03 0	430
trans-4,2-I icFloroetFene trans-4,5-I icFloroSroSene	NI		035G	430
trans-4,5-1 icFloro-3rosene trans-4,7-1 icFloro-2-butene	NI		0322	430
TricFloroetFene	037G	1	0376	430
TricFlorofluorometFane	NI	J	0388	430
hinyl acetate	NI	X	0389	930
hinyl cFlorixe	NI	^	03.0	430
minyr or ionixo	141		0.0	<del></del>

Client: Waste Management Job Number: 280-62847-4

Client Sample ID: DUP1

1ab LamSle pt : 280-62847-G I I ate LamSlex: 44@0@047 0/ 20

Client MatriD Water I ate Receivex: 44\textcal{Q}4\textcal{Q}047 4070

8260C Volatile Organic Compounds by GC/MS

Analysis MetFox: 8260C Analysis BatcF: 780-24G406 pnstrument p: HP9/ C5V PreS MetFox: 9050C PreS BatcF: NdA 1ab . ile p: V 56/ / 73

I ilution: 430 pritial WeigFtch olume: 9 m1

Analysis I ate: 42:07:02047 0208 . inal WeigFtch olume: 9 m1

Analysis I ate: 42007c2047 0208 . inal WeigFtcholume: PreS I ate: 42007c2047 0208

Lurrogate\_ RecQualifierAcceStance 1 imits4,2-I icFloroetFane-x7 (Lurr)//66 - 45G7-Bromofluorobenzene (Lurr)407G5 - 420Toluene-x8 (Lurr)400G4 - 426

Client: Waste Management Job Number: 280-62847-4

Client Sample ID: DUP1

1ab LamSle pt : 280-62847-G I I ate LamSlex: 44d20d2047 0/ 20

Client MatriD Water I ate Receivex: 44\textcal{Q}4\textcal{Q}047 4070

8260C Volatile Organic Compounds by GC/MS

 Analysis MetFox:
 8260C
 Analysis BatcF:
 780-24G406
 pnstrument pl :
 HP9/ c6V

 PreS MetFox:
 9050C
 PreS BatcF:
 NdA
 1ab . ile pl :
 V56/ / 73

Fres Metrox: 9050C Pres Batcr: Not Table p : V 56/ 7/3

I ilution: 430 pnitial WeigFtch olume: 9 m1

Analysis I ate: 42007c2047 0208 . inal WeigFtcholume: 9 m1
PreS I ate: 42007c2047 0208

**Targeted Tentatively Identified Compounds** 

Cas Number Analyte Est3Result (ugdl) Qualifier

6GQ2-4 HeDacFloroetFane TpC NI

Client Sample ID: DUP2

Client MatriD Water I ate Receivex: 44d24d2047 4070

### 8260C Volatile Organic Compounds by GC/MS

Analysis MetFox: 8260C Analysis BatcF: 780-24G406 pnstrument p: HP9/ G5V PreS MetFox: 9050C PreS BatcF: NdA 1ab . ile p: V56// 93

I ilution: 430 pnitial WeigFtcholume: 9 m1

Analysis I ate: 42007c0047 0250 . inal WeigFtcholume: 9 m1

Analysis I ate: 42@7@047 0250
PreS I ate: 42@7@047 0250

A.4.2-FlaracFloroelFane	Result (ugdl)	Qualifier	MI 1	R1
A.2.2 TriceTrorelFane	NI		0359	430
4,2-TricFloro+2,2-IrfillurorelFane         NI         0.354         43           4,4-1 CiFloroetFane         NI         0.358         43           4,4 I CFloroetFane         NI         0.32         43           4,4 I CFloroetFane         NI         0.32         43           4,4 I CFlorostOsene         NI         0.32         43           2,5-TricFlorobenzene         NI         0.374         43           2,5-TricFlorobenzene         NI         0.374         43           2,7-TrincFlorobenzene         NI         0.374         43           2,7-TrincFlorobenzene         NI         0.374         43           2,7-TrincFlorobenzene         NI         0.339         43           2,7-TrincFlorobenzene         NI         0.357         43           2,1 brono-S-CFloroSroSane         NI         0.356         43           2,1 brono-S-CFloroSroSane         NI         0.335         43           2,1 brono-S-CFlorosene         NI         0.334         43           2,1 brono-SroSane         NI         0.334         43           2,1 brono-SroSane         NI         0.325         43           3,5 9-TrincFlybenzene         NI         0.333         43 <td>NI</td> <td></td> <td>0382</td> <td>430</td>	NI		0382	430
4.2 TricFloroetFane         NI         0.358         43           4.41 icFloroetFane         NI         0.368         43           4.41 icFloroetFene         NI         0.327         43           4.41 icFloroSroSene         NI         0.322         43           4.41 icFlorobenzene         NI         0.374         43           2.5-TricFlorobenzene         NI         0.394         43           2.7-TricFlorobenzene         NI         0.334         43           2.7-TricFlorobenzene         NI         0.339         43           2-1 ibromoe-ScPloroSroSane         NI         0.339         43           2-1 ibrome-ScPlorosroSane         NI         0.336         43           2-1 icFlorobenzene         NI         0.337         43           2-1 icFlorobenzene         NI         0.336         43           2-1 icFlorobenzene         NI         0.337         43           2-1 icFlorobenzene         NI         0.332         43           3-5 1-Gridorobenzene         NI         0.332         43           5-9 Tricflorobenzene         NI         0.333         43           5-1 icFlorobenzene         NI         0.333         43	NI		0324	430
A-I IcPloroelFane	NI		0354	430
Al-IcFlorosProSene	NI		0325	430
Al-IcPloroSroSene	NI		0358	430
2,5-TricFlorobenzene	NI		032/	430
2.5-TricFlorobenzene	NI		03G2	430
2,7-TricFlorobenzene	NI		0374	430
2,7-TricFlorobenzene	NI			430
2,7-TimetFythenzene				430
2-1 ibromo-5-CFloroSroSane				
2-1 ibromoetFane (El B)				
2-1 icFlorobenzene				
2-1 icFloroetFane   NI   0324   430   231   2-1 icFloroetFane   Total   NI   0384   230   2-1 icFloroSroSane   NI   0322   430   332   430   332   343   343   355   357   TotFlorobenzene   NI   0325   430   333   430   355   5-1 icFlorobenzene   NI   0333   430   333   430   355   icFloroSroSane   NI   0339   430   337   430   355   icFloroSroSane   NI   0339   430   357   icFlorobenzene   NI   0337   430   357   icFlorobenzene   NI   0337   430   357   icFlorobenzene   NI   0337   430   357   icFloroSroSane   NI   0337   430   357   icFloroSroSane   NI   0337   430   357   icFloroSroSane   NI   035   357   3				
.2-1 icFlorosfoSane       NI       0384       23         .2-1 icFlorosfoSane       NI       0322       43         .5-9-TrineFlorobenzene       NI       0333       43         .5-9-TrineFlylbenzene       NI       0333       43         .5-1 icFlorobenzene       NI       0339       43         .5-1 icFloroSroSane       NI       0387       43         .7-1 icFlorobenzene       NI       0387       43         .7-1 icFloroSroSane       NI       0370       43         .9-2-1 icFloroSroSane       NI       036       43         .9-2-1 icFloroSroSane       NI       036       43         .9-2-1 icFloroSroSane       NI       036       43         .9-2-1 icFlor				
,2-1 icFloroSroSane       NI       032       43         ,5,9-Trineftroptenzene       NI       035       43         ,5,9-TrimetFylbenzene       NI       0333       43         ,5-1 icFlorobenzene       NI       0339       43         ,5-1 icFloroSroSane       NI       0399       43         ,7-1 icDane       NI       037       43         ,7-1 icDane       NI       037       43         ,8-1 icFloroSroSane       NI       036       93         ,8-1 icFloroSroSane       NI       036       93         ,8-1 icFloroSroSane       NI       036       93         ,8-1 icFloroSroSane       NI       43       93         ,8-1 icFloroSroSane       NI       43       93         ,8-1 icFloroSroSane       NI       034				
5,9-TricFlorobenzene       NI       0.25       43         5,9-TrimetFylbenzene       NI       0.336       43         5,9-I icFloroSroSane       NI       0.339       43         5,5-I icFloroSroSane       NI       0.367       43         7,7-I icFlorobenzene       NI       0.367       43         7,7-I icDane       NI       0.367       43         8-Uatanone (MEK)       NI       0.370       43         8-Butanone (MEK)       NI       0.36       93         93-HelDanone       NI       4.2       93         MetFyl-2-Sentanone (MBK)       NI       23       93         cetone       NI       5.30       40         cetonitrile       NI       73       49         crolein       NI       0.34       20         crylonitrile       NI       0.35       93         enzene       NI       0.36       43         romochrometFane       NI       0.36       43         romocylicFlorometFane       NI       0.36       43         romoform       NI       0.36       43         romoform       NI       0.36       43         romoform <td></td> <td></td> <td></td> <td></td>				
5.9-TrimetFylbenzene       NI       0333       430         5.5-I icFlorobenzene       NI       0339       430         5.7-I icFloroSnoSane       NI       0387       430         7.7-I icFlorobenzene       NI       0387       430         7.7-I ioDane       NI       0370       430         .2-I icFloroSroSane       NI       0370       430         .Butanone (MEK)       NI       435       40         .CFloroetFyl vinyl etFer       NI       036       930         .HetDanone       NI       42       930         .HetPyl-2-Sentanone (MgK)       NI       234       930         .eetonier       NI       530       40         .eetonitrile       NI       73       49         .ertonitrile       NI       034       20         .erylonitrile       NI       034       20         .erylonitrile       NI       034       43         .eromocFlorometFane       NI       0374       43         .eromocFlorometFane       NI       036       43         .eromocFlorometFane       NI       036       43         .eromocFlorometFane       NI       036       43				
S-1 icFlorobenzene   NI   0338   430   151-16				
5-1 icFloroSroSane       NI       0339       430         7-1 icFlorobenzene       NI       0387       430         7-1 ioDane       NI       /35       70         2-1 icFloroSroSane       NI       0370       430         -Butanone (MEK)       NI       435       40         -CFloroetFyl vinyl etFer       NI       03 6       930         -HetBanone       NI       432       93         -MetFyl-2-Sentanone (MßK)       NI       234       93         cetone       NI       530       40         cetone       NI       73       49         crolein       NI       034       20         crylonitrile       NI       034       20         crylonitrile       NI       034       20         cromoterane       NI       035       93         romocelloromete       NI       0380       43         romocelloromete       NI       0380       43         romocelloromete       NI       036       43         romocelloromete       NI       036       43         romocelloromete       NI       036       43         romocelloromete <t< td=""><td></td><td></td><td></td><td></td></t<>				
,7-1 icFlorobenzene       NI       0387       430         ,7-1 ioDane       NI       /35       70         ,2-1 icFloroSroSane       NI       0370       430         Butanone (MEK)       NI       435       40         -CFloroetFyl vinyl etFer       NI       03 6       93         -HeBanone       NI       42       93         -MetFyl-2-Sentanone (MpBK)       NI       234       93         cetone       NI       53       40         cetonitrile       NI       73       49         crolein       NI       03 4       20         crylonitrile       NI       034       20         enzene       NI       0385       93         enzene       NI       036       43         romobenzene       NI       036       43         romocFlorometFane       NI				
7-1 ioDane       NI       / 35       70         ,2-1 icFloroSroSane       NI       0370       430         Butanone (MEK)       NI       435       40         -CFloroetFyl vinyl etFer       NI       03 6       930         -HeDanone       NI       42       930         -MetFyl-2-Sentanone (MpBK)       NI       234       930         cetone       NI       53       40         cetone       NI       73       49         crolein       NI       03 4       20         crylonitrile       NI       034       20         enzene       NI       034       43         enzenee       NI       034       43         romocharea       NI       036       43         romocyciplorometFane       NI       036       43         romomocyciplorometFane       NI       036       43         romomometFane       NI       036       43         romomometFane       NI       036       43         romomometFane       NI       33       70         utyl alcoFol, tert-       NI       034       43         arbon xisulfixe       NI				
,2-I icFloroSroSane       NI       0370       430         -Butanone (MEK)       NI       435       40         -C-FloroetFyl vinyl etFer       NI       03 6       930         -HeDanone       NI       432       930         -MetFyl-2-Sentanone (MpBK)       NI       234       930         cetone       NI       530       40         cetonitrile       NI       73       49         crolein       NI       03 4       20         crylonitrile       NI       035       93         enzene       NI       036       43         romocplorometFane       NI       0380       43         romoxicFlorometFane       NI       036       43         romomoxicFlorometFane       NI       036       43         romomometFane       NI       036       43         romomometFane       NI       036       43         romomometFane       NI       036       43         utyl alcoFol, n-       NI       535       40         arbon xisulfixe       NI       034/       43         arbon xisulfixe       NI       0329       43         iFlorobenzene				
Butanone (MEK)         NI         435         40           -CFloroetFyl vinyl etFer         NI         03 6         93           -HeDanone         NI         42         93           -MetFyl-2-Sentanone (MrBK)         NI         234         93           cetone         NI         53         40           cetonitrile         NI         73         49           crolein         NI         03 4         20           crylonitrile         NI         034         20           enzene         NI         034         43           romobenzene         NI         034         43           romocFlorometFane         NI         036         43           romoxicFlorometFane         NI         036         43           romometFane         NI         036         43           romometFane         NI         036         43           romometFane         NI         83         70           utyl alcoFol, n         NI         034         43           ratbon xisulfixe         NI         034         43           rarbon tetracFlorixe         NI         039         43           Florobenzene<				
-CFloroetFyl vinyl etFer NI 03 6 93 - HeDanone NI 42 93 - HeDanone NI 42 93 - HeDanone NI 42 93 - HeDanone (MpBK) NI 234 93 - HetFyl-2-Sentanone (MpBK) NI 234 93 - HetFyl-2-Sentanone (MpBK) NI 234 93 - HeDanone NI 234 93 - HeDanone NI 235 93 - HeDanone NI 24 20 - HeDanone NI 25 25 20 - HeDanone NI 25 25 25 25 25 25 25 25 25 25 25 25 25				
HeBanone         NI         432         930           -MetFyl-2-Sentanone (MpBK)         NI         234         930           cetone         NI         530         40           cetonitrile         NI         73         49           crolein         NI         03 4         20           crylonitrile         NI         035         93           enzene         NI         0374         43           romobenzene         NI         0380         43           romocFlorometFane         NI         036         430           romocform         NI         035/         430           romoform         NI         036/         430           romometFane         NI         036/         430           utyl alcoFol, n-         NI         83         70           utyl alcoFol, tert-         NI         53         40           arbon xisulfixe         NI         034/         430           arbon tetracFlorixe         NI         039         430           iFloroxifluorometFane         NI         039         430				
MetFyl-2-Sentanone (MpBK)         NI         234         930           cetone         NI         530         40           cetonitrile         NI         73         49           crolein         NI         03 4         20           crylonitrile         NI         0385         930           enzene         NI         0374         430           romobenzene         NI         0380         430           romocFlorometFane         NI         035/         430           romosicFlorometFane         NI         036/         430           romoform         NI         036/         430           romometFane         NI         036/         430           utyl alcoFol, n-         NI         83         70           utyl alcoFol, tert-         NI         535         40           rarbon xisulfixe         NI         034/         430           rarbon tetracFlorixe         NI         032G         430           reflorobenzene         NI         0339         430				
cetone         NI         530         40           cetonitrile         NI         73         49           crolein         NI         03 4         20           crylonitrile         NI         0385         93           enzene         NI         0374         43           romobenzene         NI         0380         43           romocFlorometFane         NI         036         43           romoxicFlorometFane         NI         035/         43           romoform         NI         036/         43           romometFane         NI         036/         43           utyl alcoFol, n-         NI         83         70           utyl alcoFol, tert-         NI         535         40           rarbon xisulfixe         NI         034/         430           rarbon tetracFlorixe         NI         032G         430           risloroxifluorometFane         NI         032G         430				
cetonitrile         NI         73         49           crolein         NI         03 4         20           crylonitrile         NI         0385         93           enzene         NI         0374         43           romobenzene         NI         0380         43           romocFlorometFane         NI         035/         43           romoform         NI         035/         43           romometFane         NI         036/         43           utyl alcoFol, n-         NI         83         70           utyl alcoFol, tert-         NI         535         40           arbon xisulfixe         NI         034/         43           arbon tetracFlorixe         NI         032G         43           Eflorobenzene         NI         0339         43           EfloroxifluorometFane         NI         036         43				
crolein         NI         03 4         20           crylonitrile         NI         0385         930           enzene         NI         0374         430           romobenzene         NI         0380         430           romocFlorometFane         NI         035/         430           romoform         NI         036/         430           romometFane         NI         036/         430           utyl alcoFol, n-         NI         83         70           utyl alcoFol, tert-         NI         535         40           arbon xisulfixe         NI         034/         430           arbon tetracFlorixe         NI         032G         430           Florobenzene         NI         0339         430           FloroxifluorometFane         NI         0326         430				
crylonitrile       NI       0385       930         enzene       NI       0374       430         romobenzene       NI       0380       430         romocFlorometFane       NI       036       430         romoform       NI       035/       430         romometFane       NI       036/       430         utyl alcoFol, n-       NI       83       70         utyl alcoFol, tert-       NI       535       40         sarbon xisulfixe       NI       034/       430         sarbon tetracFlorixe       NI       032G       430         Florobenzene       NI       0339       430         FloroxifluorometFane       NI       0326       430				
enzene NI 0374 430 cromobenzene NI 0380 430 cromobenzene NI 038G 430 cromocFlorometFane NI 036G 430 cromocromotFane NI 035/ 430 cromoform NI 0366 430 cromometFane NI 0366 430 cromometFane NI 036/ 430 cromometFane NI 036/ 430 cromometFane NI 036/ 430 cromometFane NI 036/ 430 cromometFane NI 036/ 430 cromometFane NI 036/ 430 cromometFane NI 034/ 430 cromometFane NI 034/ 430 cromometFane NI 036G 430 cromometFane NI 036G 430 cromometFane NI 036G 430 cromometFane NI 036G 430 cromometFane NI 036G 430 cromometFane				
romobenzene         NI         0380         430           romocFlorometFane         NI         036         430           romoxicFlorometFane         NI         035/         430           romoform         NI         026         430           romometFane         NI         036/         430           utyl alcoFol, n-         NI         83         70           utyl alcoFol, tert-         NI         535         40           arbon xisulfixe         NI         034/         430           arbon tetracFlorixe         NI         02G         430           Florobenzene         NI         039         430           FloroxifluorometFane         NI         026         430				
romocFlorometFane       NI       038G       430         romoxicFlorometFane       NI       035/       430         romoform       NI       026       430         romometFane       NI       035/       430         utyl alcoFol, n-       NI       83       70         utyl alcoFol, tert-       NI       535       40         arbon xisulfixe       NI       034/       430         arbon tetracFlorixe       NI       02G       430         Florobenzene       NI       039       430         FloroxifluorometFane       NI       026       430				
romoxicFlorometFane       NI       035/       430         romoform       NI       036       430         romometFane       NI       036/       430         utyl alcoFol, n-       NI       83       70         utyl alcoFol, tert-       NI       535       40         arbon xisulfixe       NI       034/       430         arbon tetracFlorixe       NI       02G       430         Florobenzene       NI       0339       430         FloroxifluorometFane       NI       026       430				
romoform       NI       036       430         romometFane       NI       036/       430         utyl alcoFol, n-       NI       83       70         utyl alcoFol, tert-       NI       535       40         sarbon xisulfixe       NI       034/       430         sarbon tetracFlorixe       NI       02G       430         Florobenzene       NI       0339       430         FloroxifluorometFane       NI       026       430				
romometFane NI 036/ 430 utyl alcoFol, n- utyl alcoFol, tert- All 034/ 430 utyl alcoFol, tert- All 034/ 430 arbon xisulfixe NI 034/ 430 arbon tetracFlorixe NI 032G 430 EFloroxifluorometFane NI 0326 430				
utyl alcoFol, n-     NI     83     70       utyl alcoFol, tert-     NI     535     40       sarbon xisulfixe     NI     034/     430       sarbon tetracFlorixe     NI     032G     430       Florobenzene     NI     0339     430       FloroxifluorometFane     NI     026     430				
utyl alcoFol, tert-     NI     535     40       sarbon xisulfixe     NI     034/     430       sarbon tetracFlorixe     NI     032G     430       Florobenzene     NI     0339     430       FloroxifluorometFane     NI     0326     430				
For oxifluor ometFane     NI     034/     430       934/     430       935/     430       936/     430       939/     430       939/     430       939/     430       939/     430       939/     430       939/     430       939/     430				
FloroxifluorometFane         NI         032G         430           9339         430           1000				
Florobenzene         NI         0339         430           FloroxifluorometFane         NI         0326         430				
FloroxifluorometFane NI 0326 430				
FIGURE 10 Page 1				430
FloroetFane		NI NI NI NI NI NI NI NI NI NI NI NI NI N	NI NI NI NI NI NI NI NI NI NI NI NI NI N	NI 0369 NI 0382 NI 0382 NI 0384 NI 0384 NI 0385 NI 0388 NI 0392 NI 0392 NI 0374 NI 0374 NI 0399 NI 0399 NI 0397 NI 0397 NI 0397 NI 0397 NI 0398 NI 0396 NI 0397

Client Sample ID: DUP2

1ab LamSle pt : 280-62847-8. I I ate LamSlex: 44@0@047 4427

Client MatriD Water I ate Receivex: 44d24d2047 4070

### 8260C Volatile Organic Compounds by GC/MS

Analysis MetFox: 8260C Analysis BatcF: 780-24G406 pnstrument p: HP9/ G5V PreS MetFox: 9050C PreS BatcF: NdA 1ab . ile p: V56// 93

I ilution: 430 pnitial WeigFtdholume: 9 m1

Analysis I ate: 42007d2047 0250 . inal WeigFtdholume: 9 m1

Analysis I ate: 42007c2047 0250 PreS I ate: 42007c2047 0250

Analyte	Result (ugdl)	Qualifier	MI 1	R1
CFloroform	NI		0357	430
CFlorometFane	NI		0359	430
cis-4,2-I icFloroetFene	NI		0384	430
cis-4,5-I icFloroSroSene	NI		0356	430
CycloFeDane	NI		0348	430
I ibromocFlorometFane	NI		0352	430
I ibromometFane	NI		0374	430
l icFloroxifluorometFane	NI		0368	430
l icFlorofluorometFane	NI		0357	430
EtFyl acetate	NI		0366	430
EtFyl etFer	NI		03G2	430
EtFyl tert-butyl etFer	NI		032/	430
EtFylbenzene	NI		03G7	430
HeDacFlorobutaxiene	NI		0328	430
HeDane	NI		0370	40
poxometFane	NI		0350	430
psobutanol	NI		738	29
psoSroSyl etFer	NI		039/	430
psoSroSylbenzene	NI		03G	430
MetFacrylonitrile	NI		036/	930
MetFyl acetate	NI		0390	239
MetFyl tert-butyl etFer	NI		0346	430
MetFylcycloFeDane	NI		0346	430
MetFylene CFlorixe	NI		03/7	430
m-&ylene %S-&ylene	NI		0366	230
NaSFtFalene	NI		0375	430
n-Butylbenzene	NI		0367	430
N-ProSylbenzene	NI		036/	430
o-CFlorotoluene	NI		0386	430
o-&ylene	NI		0336	430
S-CFlorotoluene	NI		0387	430
S-Cymene	NI		0354	430
sec-Butylbenzene	NI		0339	430
Ltyrene	NI		0335	430
Tert-amyl metFyl etFer	NI		032G	430
tert-Butylbenzene	NI		0384	430
TetracFloroetFene	NI		0356	430
TetraFyxrofuran	NI		435	930
Toluene	NI		0394	430
trans-4,2-l icFloroetFene	NI		03 0	430
trans-4,5-l icFloroSroSene	NI		035G	430
trans-4,7-l icFloro-2-butene	NI		0322	430
TricFloroetFene	0394	J	0376	430
TricFlorofluorometFane	NI		0388	430
hinyl acetate	NI	X	0389	930
hinyl cFlorixe	NI		03.0	430

Client: Waste Management Job Number: 280-62847-4

Client Sample ID: DUP2

1ab LamSle pi : 280-62847-8. I I ate LamSlex: 44@0@047 4427

Client MatriD Water I ate Receivex: 44\pi24\pi0047 4070

8260C Volatile Organic Compounds by GC/MS

Analysis MetFox: 8260C Analysis BatcF: 780-24G406 pnstrument pl : HP9/ G5V PreS MetFox: 9050C PreS BatcF: NdA 1ab . ile pl : V56//93

I ilution: 430 pnitial WeigFtch olume: 9 m1

Analysis I ate: 42007c0047 0250 . inal WeigFtcholume: 9 m1
PreS I ate: 42007c0047 0250

 Lurrogate
 \_ Rec
 Qualifier
 AcceStance 1 imits

 4,2-I icFloroetFane-x7 (Lurr)
 404
 66 - 45G

 7-Bromofluorobenzene (Lurr)
 407
 65 - 420

 Toluene-x8 (Lurr)
 400
 G4 - 426

Client: Waste Management Job Number: 280-62847-4

Client Sample ID: DUP2

1ab LamSle pt : 280-62847-8. I I ate LamSlex: 44@0@047 4427

Client MatriD Water I ate Receivex: 44@4@047 4070

8260C Volatile Organic Compounds by GC/MS

Analysis MetFox: 8260C Analysis BatcF: 780-24G406 pnstrument p: HP9/ C5V PreS MetFox: 9050C PreS BatcF: NdA 1ab . ile p1 : V56// 93

I ilution: 430 pnitial WeigFtch olume: 9 m1

Analysis I ate: 42007c0047 0250 . inal WeigFtcholume: 9 m1
PreS I ate: 42007c0047 0250

Targeted Tentatively Identified Compounds

Cas Number Analyte Est3Result (ugdl ) Qualifier

6G-Q2-4 HeDacFloroetFane TpC NI

Client Sample ID: TRIP BLANK

1ab LamSle pt : 280-62847-/ TB I ate LamSlex: 44@0@047 0000

Client MatriD Water I ate Receivex: 44d24d2047 4070

### 8260C Volatile Organic Compounds by GC/MS

Analysis MetFox: 8260C Analysis BatcF: 780-24G406 pnstrument p: HP9/ G5V PreS MetFox: 9050C PreS BatcF: NdA 1ab . ile p: V56/ / 63

I ilution: 430 pnitial WeigFtdholume: 9 m1

Analysis I ate: 42007d2047 0292 . inal WeigFtdholume: 9 m1

PreSI ate: 42d07d2047 0292

Analyte	Result (ugdl)	Qualifier	MI 1	R1
4,4,4,2-TetracFloroetFane	NI		0359	430
4,4,4-TricFloroetFane	NI		0382	430
4,4,2,2-TetracFloroetFane	NI		0324	430
4,4,2-TricFloro-4,2,2-trifluoroetFane	NI		0354	430
4,4,2-TricFloroetFane	NI		0325	430
4,4-I icFloroetFane	NI		0358	430
4,4-I icFloroetFene	NI		032/	430
4,4-I icFloroSroSene	NI		03G2	430
4,2,5-TricFlorobenzene	NI		0374	430
4,2,5-TricFloroSroSane	NI		038/	430
4,2,7-TricFlorobenzene	NI		0374	430
4,2,7-TrimetFylbenzene	NI		0339	430
4,2-I ibromo-5-CFloroSroSane	NI		035/	430
4,2-I ibromoetFane (EI B)	NI		0335	430
4,2-l icFlorobenzene	NI		033	430
4,2-l icFloroetFane	NI		0324	430
4,2-I icFloroetFene, Total	NI		0384	230
4,2-I icFloroSroSane	NI		03G2	430
4,5,9-TricFlorobenzene	NI		0325	430
4,5,9-TrimetFylbenzene	NI		033G	430
4,5-l icFlorobenzene	NI		0338	430
4,5-I icFloroSroSane	NI		0339	430
4,7-l icFlorobenzene	NI		0387	430
4,7-I ioDane	NI		/ 35	70
2,2-I icFloroSroSane	NI		0370	430
2-Butanone (MEK)	NI		435	40
2-CFloroetFyl vinyl etFer	NI		03 6	930
2-HeDanone	NI		432	930
7-MetFyl-2-Sentanone (MpBK)	NI		234	930
Acetone	NI		530	40
Acetonitrile	NI		73	49
Acrolein	NI		03 4	20
Acrylonitrile	NI		0385	930
Benzene	NI		0374	430
Bromobenzene	NI		0380	430
BromocFlorometFane	NI		038G	430
BromoxicFlorometFane	NI		035/	430
Bromoform	NI		0326	430
BromometFane	NI		036/	430
Butyl alcoFol, n-	NI		83	70
Butyl alcoFol, tert-	NI		535	40
Carbon xisulfixe	NI		034/	430
Carbon tetracFlorixe	NI		032G	430
CFlorobenzene	NI		0339	430
CFloroxifluorometFane	NI		0326	430
CFloroetFane	NI		0352	430

Client Sample ID: TRIP BLANK

1ab LamSle pl : 280-62847-/ TB I ate LamSlex: 44d20d2047 0000

Client MatriD Water I ate Receivex: 44d24d2047 4070

### 8260C Volatile Organic Compounds by GC/MS

Analysis MetFox: 8260C Analysis BatcF: 780-24G406 pnstrument  $\not p$ : HP9/  $\not G$ 5V PreS MetFox: 9050C PreS BatcF: NdA 1ab . ile  $\not p$ : V56/ / 63

I ilution: 430 pnitial WeigFtdholume: 9 m1

Analysis I ate: 42007d2047 0292 . inal WeigFtdholume: 9 m1

PreS I ate: 42d07d2047 0292

	<b>5</b>	0 115		D.4
Analyte	Result (ugdl)	Qualifier	MI 1	R1
CFloroform	NI		0357	430
CFlorometFane	NI		0359	430
cis-4,2-I icFloroetFene	NI		0384	430
cis-4,5-l icFloroSroSene	NI		0356	430
CycloFeDane	NI		0348	430
l ibromocFlorometFane	NI		0352	430
l ibromometFane	NI		0374	430
l icFloroxifluorometFane	NI		0368	430
I icFlorofluorometFane	NI		0357	430
EtFyl acetate	NI		0366	430
EtFyl etFer	NI		0332	430
EtFyl tert-butyl etFer	NI		032/	430
EtFylbenzene	NI		03G7	430
HeDacFlorobutaxiene	NI		0328	430
HeDane	NI		0370	40
poxometFane	NI		0350	430
psobutanol	NI		738	29
psoSroSyl etFer	NI		039/	430
psoSroSylbenzene	NI		03G	430
MetFacrylonitrile	NI		036/	930
MetFyl acetate	NI		0390	239
MetFyl tert-butyl etFer	NI		0346	430
MetFylcycloFeDane	NI		0346	430
MetFylene CFlorixe	NI		0377	430
m-&ylene %S-&ylene	NI		0366	230
NaSFtFalene	NI		0375	430
n-Butylbenzene	NI		0367	430
N-ProSylbenzene	NI		036/	430
o-CFlorotoluene	NI		0386	430
o-&ylene	NI		0336	430
S-CFlorotoluene	NI		0387	430
S-Cymene	NI		0354	430
sec-Butylbenzene	NI		03399	430
Ltyrene	NI		0335	430
Tert-amyl metFyl etFer	NI		032G	430
tert-Butylbenzene	NI		0384	430
TetracFloroetFene	NI		0356	430
TetraFyxrofuran	NI		435	930
Toluene	NI		0394	430
trans-4,2-I icFloroetFene	NI		03 0	430
trans-4,5-I icFloroSroSene	NI		035G	430
trans-4,7-I icFloro-2-butene	NI		0322	430
TricFloroetFene	NI		0376	430
TricFlorofluorometFane	NI		0388	430
hinyl acetate	NI	X	0389	930
hinyl cFlorixe	NI		03 0	430

Client: Waste Management Job Number: 280-62847-4

Client Sample ID: TRIP BLANK

 1ab LamSle p:
 280-62847-/ TB
 I ate LamSlex: 44d20d20470000 

Client MatriD Water I ate Receivex: 44\textcal{Q}4\textcal{Q}047 4070

8260C Volatile Organic Compounds by GC/MS

Analysis MetFox: 8260C Analysis BatcF: 780-24G406 pnstrument pl : HP9/ G5V PreS MetFox: 9050C PreS BatcF: NdA 1ab . ile pl : V56/ / 63

I ilution: 43 pnitial WeigFtdholume: 9 m1

Analysis I ate: 4207d2047 0292 . inal WeigFtdholume: 9 m1

PreSI ate: 42d07d2047 0292

 Lurrogate
 \_ Rec
 Qualifier
 AcceStance 1 imits

 4,2-I icFloroetFane-x7 (Lurr)
 404
 66 - 45G

 7-Bromofluorobenzene (Lurr)
 407
 65 - 420

 Tolluene-x8 (Lurr)
 404
 G4 - 426

Client: Waste Management Job Number: 280-62847-4

Client Sample ID: TRIP BLANK

 1ab LamSle p:
 280-62847-/ TB
 I ate LamSlex: 44d20d20470000 

Client MatriD Water I ate Receivex: 44\textcal{Q}4\textcal{Q}047 4070

8260C Volatile Organic Compounds by GC/MS

Analysis MetFox: 8260C Analysis BatcF: 780-24G406 pnstrument pl : HP9/ G5V PreS MetFox: 9050C PreS BatcF: NdA 1ab . ile pl : V56//63

I ilution: 430 pnitial WeigFtch olume: 9 m1

Analysis I ate: 42:07:02047 0292 . inal WeigFtdholume: 9 m1
PreS I ate: 42:007:02047 0292

**Targeted Tentatively Identified Compounds** 

Cas Number Analyte Est3Result (ugdl) Qualifier

6GQ-4 HeDacFloroetFane TpC NI

Client: Waste Management Job Number: 280-62847-4

Client Sample ID: MW-4

Client MatriD Water I ate Receivex: 44\pi24\pi0047 4070

8260C SIM Volatile Organic Compounds (GC/MS)

 Analysis MetFox:
 8260C L pM
 Analysis BatcF:
 780-249/ 2G
 pnstrument pl :
 HP9/ G5J

 PreS MetFox:
 9050C
 PreS BatcF:
 NdA
 1ab . ile pl :
 J74@63

I ilution:430mitial WeigFtch olume:29 m1Analysis I ate:44@9@047 242G. inal WeigFtch olume:29 m1

PreSI ate: 44d29d2047 242G

 Analyte
 Result (ugdl)
 Qualifier
 MI 1
 R1

 hinyl cFlorixe
 0304G
 J
 030070
 03020

Lurrogate\_ RecQualifierAcceStance 1 imitsI ibromofluorometFane (Lurr)40090 - 490TBA-x/ (Lurr)42090 - 490

Client: Waste Management Job Number: 280-62847-4

Client Sample ID: MW-32

1ab LamSle pt : 280-62847-2 I ate LamSlex: 44@0@047 4427

Client MatriD Water I ate Receivex: 44\textcal{Q}4\textcal{Q}047 4070

8260C SIM Volatile Organic Compounds (GC/MS)

 Analysis MetFox:
 8260C L pM
 Analysis BatcF:
 780-249/ 2G
 pnstrument pl :
 HP9/ G5J

 PreS MetFox:
 9050C
 PreS BatcF:
 NdA
 1ab . ile pl :
 J74G3

I ilution:430pnitial WeigFtth olume:29 m1Analysis I ate:44@9@047 2494. inal WeigFtth olume:29 m1

PreSI ate: 44d29d2047 2494

 Analyte
 Result (ugdl)
 Qualifier
 MI 1
 R1

 hinyl cFlorixe
 035/
 030070
 03020

 L urrogate
 \_ Rec
 Qualifier
 AcceStance 1 imits

 I ibromofluorometFane (Lurr)
 / 9
 90 - 490

TBA-x/ (Lurr) 462 & 90 - 490

Client: Waste Management Job Number: 280-62847-4

Client Sample ID: MW-19C

1ab LamSle pl : 280-62847-5 I ate LamSlex: 44d20d2047 4202

Client MatriD Water I ate Receivex: 44\textcal{Q}4\textcal{Q}047 4070

8260C SIM Volatile Organic Compounds (GC/MS)

Analysis MetFox: 8260C L pM Analysis BatcF: 780-249/ 2G pnstrument pl : HP9/  $\times$  G5J PreS MetFox: 9050C PreS BatcF: NdA 1ab . ile pl : J74 $\times$  3

I ilution:430mitial WeigFtth olume:29 m1Analysis I ate:44@9@047 2249. inal WeigFtth olume:29 m1

Analysis I ate: 44@9@047 2249 . inal WeigFtdholume: PreS I ate: 44@9@047 2249

 Analyte
 Result (ugdl)
 Qualifier
 MI 1
 R1

 hinyl cFlorixe
 030/0
 030070
 03020

 L urrogate
 \_ Rec
 Qualifier
 AcceStance 1 imits

 I ibromofluorometFane (L urr)
 400
 90 - 490

 TBA-x/ (Lurr)
 472
 90 - 490

Client: Waste Management Job Number: 280-62847-4

Client Sample ID: MW-24

1ab LamSle pt : 280-62847-7 I ate LamSlex: 44@0@047 4406

Client MatriD Water I ate Receivex: 44\textcal{Q}4\textcal{Q}047 4070

8260C SIM Volatile Organic Compounds (GC/MS)

Analysis MetFox: 8260C L pM Analysis BatcF: 780-249/ 2G pnstrument pl : HP9/ G5J PreS MetFox: 9050C PreS BatcF: NdA 1ab . ile pl : J74G' 3

I ilution:430mitial WeigFtch olume:29 m1Analysis I ate:44@9@047 225/. inal WeigFtch olume:29 m1

PreSI ate: 44d29d2047 225/

 Analyte
 Result (ugdl)
 Qualifier
 MI 1
 R1

 h inyl cFlorixe
 NI
 030070
 03020

Lurrogate\_ RecQualifierAcceStance 1 imitsI ibromofluorometFane (Lurr)//90 - 490TBA-x/ (Lurr)49090 - 490

Client: Waste Management Job Number: 280-62847-4

Client Sample ID: MW-2B1

1ab LamSle pt : 280-62847-9 I ate LamSlex: 44@0@047 4042

Client MatriD Water I ate Receivex: 44\pi24\pi0047 4070

8260C SIM Volatile Organic Compounds (GC/MS)

Analysis MetFox: 8260C L pM Analysis BatcF: 780-249/ 2G pnstrument pl : HP9/  $\times$  G5J PreS MetFox: 9050C PreS BatcF: NdA 1ab . ile pl : J74803

I ilution:430mitial WeigFtch olume:29 m1Analysis I ate:44@9@047 2505. inal WeigFtch olume:29 m1

PreSI ate: 44d29d2047 2505

 Analyte
 Result (ugdl)
 Qualifier
 MI 1
 R1

 h inyl cFlorixe
 NI
 030070
 03020

L urrogate\_ RecQualifierAcceStance 1 imitsI ibromofluorometFane (L urr)//90 - 490

TBA-x/ (Lurr) 47G 90 - 490

Client: Waste Management Job Number: 280-62847-4

Client Sample ID: MW-20

1ab LamSle pt : 280-62847-6 I ate LamSlex: 44@0@047 0/ 40

Client MatriD Water I ate Receivex: 44\textcal{Q}4\textcal{Q}047 4070

8260C SIM Volatile Organic Compounds (GC/MS)

Analysis MetFox: 8260C L pM Analysis BatcF: 780-249/ 2G pnstrument pl : HP9/  $G_{5}$  PreS MetFox: 9050C PreS BatcF: NdA 1ab . ile pl : J74843

I ilution:430mitial WeigFtth olume:29 m1Analysis I ate:44@9@047 2526. inal WeigFtth olume:29 m1

Analysis l'ate: 44@9@047 2526 . inal Weightoholi PreS l'ate: 44@9@047 2526 . inal Weightoholi

 Analyte
 Result (ugdl)
 Qualifier
 MI 1
 R1

 h inyl cFlorixe
 03097
 030070
 03020

Lurrogate \_ Rec Qualifier AcceStance 1imits

 I ibromofluorometFane (Lurr)
 409
 90 - 490

 TBA-x/ (Lurr)
 449
 90 - 490

Client: Waste Management Job Number: 280-62847-4

Client Sample ID: DUP1

 1ab LamSle p:
 280-62847-G I

 I ate LamSlex: 44d20d2047 0/20 

Client MatriD Water I ate Receivex: 44\pi24\pi0047 4070

8260C SIM Volatile Organic Compounds (GC/MS)

Analysis MetFox: 8260C L pM Analysis BatcF: 780-249/ 2G pnstrument pl : HP9/  $G_{5}J_{5}$  PreS MetFox: 9050C PreS BatcF: NdA 1ab . ile pl : J74823

I ilution:430pnitial WeigFtth olume:29 m1Analysis I ate:44@9@047 2594. inal WeigFtth olume:29 m1

PreSI ate: 44d29d2047 2594

 Analyte
 Result (ugdl)
 Qualifier
 MI 1
 R1

 hinyl cFlorixe
 03067
 03070
 03020

Lurrogate\_ RecQualifierAcceStance 1 imitsI ibromofluorometFane (Lurr)40490 - 490

TBA-x/ (Lurr) 475 90 - 490

Client: Waste Management Job Number: 280-62847-4

Client Sample ID: DUP2

1ab LamSle pl : 280-62847-8. I I ate LamSlex: 44d20d2047 4427

Client MatriD Water I ate Receivex: 44\textcal{Q}4\textcal{Q}047 4070

8260C SIM Volatile Organic Compounds (GC/MS)

Analysis MetFox: 8260C L pM Analysis BatcF: 780-249/ 2G pnstrument pl : HP9/  $\times$  G5J PreS MetFox: 9050C PreS BatcF: NdA 1ab . ile pl : J74853

I ilution:430pnitial WeigFtth olume:29 m1Analysis I ate:44@6@047 0049. inal WeigFtth olume:29 m1

PreSI ate: 44d26d2047 0049

 Analyte
 Result (ugdl)
 Qualifier
 MI 1
 R1

 hinyl cFlorixe
 03/2
 03/070
 03/020

 Lurrogate
 \_ Rec
 Qualifier
 AcceStance 1 imits

 I ibromofluorometFane (Lurr)
 //
 90 - 490

TBA-x/ (Lurr) 465 & 90 - 490

Client: Waste Management Job Number: 280-62847-4

Client Sample ID: TRIP BLANK

 1ab LamSle p:
 280-62847-/ TB

 I ate LamSlex: 44d20d20470000 

Client MatriD Water I ate Receivex: 44\textcal{Q}4\textcal{Q}047 4070

8260C SIM Volatile Organic Compounds (GC/MS)

 Analysis MetFox:
 8260C L pM
 Analysis BatcF:
 780-249/ 2G
 pnstrument pl :
 HP9/ G5J

 PreS MetFox:
 9050C
 PreS BatcF:
 NdA
 1ab . ile pl :
 J74873

I ilution:430pnitial WeigFtth olume:29 m1Analysis I ate:44@6@047 005/. inal WeigFtth olume:29 m1

PreSI ate: 44d26d2047 005/

 Analyte
 Result (ugdl)
 Qualifier
 MI 1
 R1

 hinyl cFlorixe
 NI
 030070
 03020

L urrogate\_ RecQualifierAcceStance 1 imitsI ibromofluorometFane (Lurr)//90 - 490

TBA-x/ (Lurr) 47/ 90 - 490

Client: Waste Management Job Number: 280-62847-4

Client Sample ID: MW-4

 1ab LamSle pt
 280-62847-4
 I ate LamSlex: 44@0@047 0/ 5/

 Client MatriD
 Water
 I ate Receivex: 44@4@047 4070

6010B Metals (ICP)-Total Recoverable

Analysis MetFox: 6040B Analysis BatcF: 280-29@4/ pnstrument pl : MTk026

PreS MetFox: 5009A PreS BatcF: 280-297756 1ab . ile pl : 26A4242471 3asc

I ilution: 430 pnitial WeigFtch olume: 90 m1

Analysis I ate: 42d45d2047 0928 . inal WeigFtdholume: 90 m1

PreSI ate: 44d29d2047 0G49

 Analyte
 Result (mgdl)
 Qualifier
 R1
 R1

 Cobalt, Total
 NI
 03050
 03050

 gron, Total
 NI
 03060
 03060

6010B Metals (ICP)-Dissolved

Analysis MetFox: 6040B Analysis BatcF: 280-29@20 pnstrument pl : MTk026

 $PreS \ MetFox: \qquad 5009A \qquad \qquad PreS \ BatcF: \qquad 280-297747 \qquad \qquad 1ab \ . \ ile \ p \ : \qquad \qquad 26A424247E \ asc$ 

 I ilution:
 430
 pnitial WeigFtch olume:
 90 m1

 Analysis I ate:
 42d#5d2047 0859
 . inal WeigFtch olume:
 90 m1

PreS I ate: 44@7@047 4279

Result (mgdl) Qualifier Analyte R1 R1 Calcium, I issolvex / 37 03070 03070 ΝI 030050 Cobalt, I issolvex 030050 NΙ 03060 03060 pron, I issolvex 03090 03090 73G Magnesium, I issolvex NI 430 Potassium, I issolvex 430 Loxium, I issolvex 939 430 430

6020 Metals (ICP/MS)-Total Recoverable

Analysis MetFox: 6020 Analysis BatcF: 280-299098 pnstrument p: MTk0 $\otimes$  PreS MetFox: 5009A PreS BatcF: 280-297728 1ab . ile p: 247LMP1 $\otimes$ 

I ilution: 430 pnitial WeigFtdh olume: 90 m1

Analysis I ate: 44¢26¢047 0298 . inal WeigFtdholume: 90 m1
PreS I ate: 44¢29¢047 0649

NI

Qualifier Analyte Result (mgdl) R1 R1 030040 030040 Antimony, Total NI Barium, Total 030027 030040 030040 Beryllium, Total ΝI 030040 030040 Caxmium, Total NI 0300020 0300020 CFromium, Total NI 030050 030050 CoSSer, Total ΝI 030020 030020 1eax, Total NΙ 030040 030040 Manganese, Total 0359 030040 030040 Lelenium, Total NI 030040 030040 TFallium, Total NI 030040 030040 hanaxium, Total NI 030020 030020

030090

030090

Zinc, Total

Client: Waste Management Job Number: 280-62847-4

Client Sample ID: MW-4

Client MatriD Water I ate Receivex: 44\textit{\$\textit{\$Q}\$4\textit{\$\textit{\$Q}\$047 4070}

6020 Metals (ICP/MS)-Total Recoverable

 Analysis MetFox:
 6020
 Analysis BatcF:
 280-29946G
 pnstrument pl:
 MTk0G8

 PreS MetFox:
 5009A
 PreS BatcF:
 280-297728
 1ab . ile pl:
 079L MP13x

I ilution: 430 pnitial WeigFtch olume: 90 m1

Analysis I ate: 44@8@047 4627 . inal WeigFtch olume: 90 m1

PreSI ate: 44d29d2047 0G49

 Analyte
 Result (mgdl)
 Qualifier
 R1
 R1

 NicUel, Total
 NI
 030070
 030070

 Lilver, Total
 NI
 030020
 030020

6020 Metals (ICP/MS)-Dissolved

 Analysis MetFox:
 6020
 Analysis BatcF:
 280-297654
 pnstrument pl :
 MTk027

 PreS MetFox:
 5009A
 PreS BatcF:
 280-29776/
 1ab . ile pl :
 4/ 0LMP13

I ilution: 430 pnitial WeigFtch olume: 90 m1

Analysis I ate: 44@9@047 0705 inal WeigFtch olume: 90 m1

Analysis I ate: 44@9@047 0705 . inal WeigFtdholume: 9
PreS I ate: 44@7@047 4279

Result (mgdl) Qualifier Analyte R1 R1 Antimony, I issolvex ΝI 030040 030040 Barium, I issolvex 030022 030040 030040 Beryllium, I issolvex NI 030040 030040 NI Caxmium, I issolvex 0300020 0300020 CFromium, I issolvex NI 030050 030050 CoSSer, I issolvex NI 030020 030020 1eax, I issolvex NI 030040 030040 032/ Manganese, I issolvex 030040 030040 NI 030070 030070 NicUel, I issolvex 030040 Lelenium, I issolvex NI 030040 Lilver, I issolvex NI 030020 030020 TFallium, I issolvex NI 030040 030040 hanaxium, I issolvex NI 030020 030020 030090 030090 Zinc, I issolvex NI

Client: Waste Management Job Number: 280-62847-4

Client Sample ID: MW-32

Client MatriD Water I ate Receivex: 44\textit{\$\alpha\$}4\text{\$\alpha\$}047 4070

6010B Metals (ICP)-Total Recoverable

Analysis MetFox: 6040B Analysis BatcF: 280-29@4/ pnstrument pl : MTk026

PreS MetFox: 5009A PreS BatcF: 280-297756 1ab . ile pl : 26A4242471 3asc

430 pnitial WeigFtdh olume: 90 m1

Analysis I ate: 42d45d2047 0958 . inal WeigFtdholume: 90 m1

PreSI ate: 44d29d2047 0G49

I ilution:

 Analyte
 Result (mgdl)
 Qualifier
 R1
 R1

 Cobalt, Total
 NI
 030050
 030050

 gron, Total
 0360
 03060
 03060

6010B Metals (ICP)-Dissolved

Analysis MetFox: 6040B Analysis BatcF: 280-29@20 pnstrument pl : MTk026

PreS MetFox: 5009A PreS BatcF: 280-297747 1ab . ile pl : 26A424247E3asc

I ilution: 430 pnitial WeigFtch olume: 90 m1
Analysis Late: 42d/5d047\_0858 inal WeigFtch olume: 90 m1

Analysis I ate: 42¢45¢2047 0858 . inal WeigFtch olume: 90 m1
PreS I ate: 44¢27¢2047 4279

4G

Qualifier Analyte Result (mgdl) R1 R1 Calcium, I issolvex 52 03070 03070 ΝI 030050 Cobalt, I issolvex 030050 038G 03060 03060 pron, I issolvex 46 03090 03090 Magnesium, I issolvex 435 430 Potassium, I issolvex 430

6020 Metals (ICP/MS)-Total Recoverable

430

030090

430

030090

Analysis MetFox: 6020 Analysis BatcF: 280-299098 pnstrument pl : MTk0 $\odot$ 8 PreS MetFox: 5009A PreS BatcF: 280-297728 1ab . ile pl : 249LMP1 $\odot$ 8 249LMP1 $\odot$ 8 249LMP1 $\odot$ 9 249LMP1 $\odot$ 8 249LMP1 $\odot$ 9 249LMP

I ilution: 430 pnitial WeigFtdh olume: 90 m1

Analysis I ate: 44¢26¢047 0502 . inal WeigFtdholume: 90 m1
PreS I ate: 44¢9¢047 0649

NI

Qualifier Analyte Result (mgdl) R1 R1 030040 030040 Antimony, Total NI Barium, Total 03009/ 030040 030040 Beryllium, Total ΝI 030040 030040 Caxmium, Total NI 0300020 0300020 CFromium, Total NI 030050 030050 CoSSer, Total ΝI 030020 030020 1eax, Total NΙ 030040 030040 Manganese, Total 237 030040 030040 Lelenium, Total NI 030040 030040 TFallium, Total NI 030040 030040 hanaxium, Total NI 030020 030020

Zinc, Total

Loxium, I issolvex

Client: Waste Management Job Number: 280-62847-4

Client Sample ID: MW-32

Client MatriD Water I ate Receivex: 44\textit{\$\alpha\$}4\text{\$\alpha\$}047 4070

6020 Metals (ICP/MS)-Total Recoverable

 Analysis MetFox:
 6020
 Analysis BatcF:
 280-29946G
 pnstrument pl :
 MTk0G3

 PreS MetFox:
 5009A
 PreS BatcF:
 280-297728
 1ab . ile pl :
 076LMP13x

I ilution: 43 pnitial WeigFtch olume: 90 m1

Analysis I ate: 44@8@047 462/ . inal WeigFtch olume: 90 m1

PreSI ate: 44d29d2047 0G49

 Analyte
 Result (mgdl)
 Qualifier
 R1
 R1

 NicUel, Total
 NI
 03070
 03070

 Lilver, Total
 NI
 03020
 03020

6020 Metals (ICP/MS)-Dissolved

Analysis MetFox: 6020 Analysis BatcF: 280-297 $\oplus$ 4 pnstrument pl : MTk027 PreS MetFox: 5009A PreS BatcF: 280-29776/ 1ab . ile pl : 4/5ARE. 3

I ilution: 43 pnitial WeigFtdholume: 90 m1

Analysis I ate: 44@9@047 0742 . inal WeigFtdholume: 90 m1

PreS I ate: 44@7@047 4279

Result (mgdl) Qualifier Analyte R1 R1 Antimony, I issolvex ΝI 030040 030040 Barium, I issolvex 030060 030040 030040 Beryllium, I issolvex NI 030040 030040 ΝI Caxmium, I issolvex 0300020 0300020 CFromium, I issolvex NI 030050 030050 CoSSer, I issolvex NI 030020 030020 1eax, I issolvex NI 030040 030040 237 030040 Manganese, I issolvex 030040 ΝI 030070 030070 NicUel, I issolvex NI 030040 Lelenium, I issolvex 030040 Lilver, I issolvex NI 030020 030020 TFallium, I issolvex NI 030040 030040 hanaxium, I issolvex ΝI 030020 030020 030099 030090 030090 Zinc, I issolvex

Client: Waste Management Job Number: 280-62847-4

Client Sample ID: MW-19C

Client MatriD Water I ate Receivex: 44\textit{\$\textit{\$Q}\$4\textit{\$\textit{\$Q}\$047 4070}

6010B Metals (ICP)-Total Recoverable

Analysis MetFox: 6040B Analysis BatcF: 280-29@4/ pnstrument pl : MTk026

PreS MetFox: 5009A PreS BatcF: 280-297756 1ab . ile pl : 26A4242471 3asc

pnitial WeigFtdnolume: 90 m1

Analysis I ate: 42d45d2047 0994 . inal WeigFtdholume: 90 m1

PreSI ate: 44d29d2047 0G49

430

I ilution:

 Analyte
 Result (mgdl)
 Qualifier
 R1
 R1

 Cobalt, Total
 NI
 03050
 03050

 gron, Total
 0346
 03060
 03060

6010B Metals (ICP)-Dissolved

Analysis MetFox: 6040B Analysis BatcF: 280-29@20 pnstrument pl : MTk026

 $PreS \ MetFox: \qquad 5009A \qquad \qquad PreS \ BatcF: \qquad 280-297747 \qquad \qquad 1ab \ . \ ile \ p \ : \qquad \qquad 26A424247E \ asc$ 

 I ilution:
 430
 pnitial WeigFtdh olume:
 90 m1

 Analysis I ate:
 42d#5d2047 0870
 . inal WeigFtdh olume:
 90 m1

PreSI ate: 44@7@047 4279

Qualifier Analyte Result (mgdl) R1 R1 Calcium, I issolvex 47 03070 03070 ΝI Cobalt, I issolvex 030050 030050 0345 03060 03060 pron, I issolvex G3203090 03090 Magnesium, I issolvex 439 Potassium, I issolvex 430 430 Loxium, I issolvex 634 430 430

6020 Metals (ICP/MS)-Total Recoverable

Analysis MetFox: 6020 Analysis BatcF: 280-299098 pnstrument pl : MTk0G8 PreS MetFox: 5009A PreS BatcF: 280-297728 1ab . ile pl : 222LMP13x

I ilution: 430 pnitial WeigFtch olume: 90 m1

Analysis I ate: 44@6@047 052G . inal WeigFtdholume: 90 m1
PreS I ate: 44@9@047 0G49

Qualifier Analyte Result (mgdl) R1 R1 030040 Antimony, Total NI 030040 030040 030040 Barium, Total 030055 Beryllium, Total NI 030040 030040 Caxmium, Total NI 0300020 0300020 CFromium, Total NI 030050 030050 CoSSer, Total ΝI 030020 030020 1eax, Total NΙ 030040 030040 Manganese, Total 434 030040 030040 Lelenium, Total NI 030040 030040 Lilver, Total NI 030020 030020 TFallium, Total NI 030040 030040 hanaxium, Total NI 030020 030020 Zinc, Total NI 030090 030090

030020

030040

030020

030040

Job Number: 280-62847-4 Client: Waste Management

Client Sample ID: MW-19C

1ab LamSle pl: 280-62847-5 I ate LamSlex: 44d20d2047 4202

Client MatriD. Water I ate Receivex: 44d24d2047 4070

6020 Metals (ICP/MS)-Total Recoverable

Analysis MetFox: 6020 Analysis BatcF: 280-29946G postrument pl: MTk0@ PreS MetFox: 5009A PreS BatcF: 280-297728 1ab . ile pl : 095LMP13x

mitial WeigFtdn olume: I ilution: 430 90 m1 Analysis I ate: 4442842047 4697 . inal WeigFtdholume: 90 m1

PreSI ate: 44d29d2047 0G49

Analyte Qualifier R1 R1 Result (mgdl) 030070 NicUel, Total ΝI 030070

6020 Metals (ICP/MS)-Dissolved

Analysis MetFox: 6020 Analysis BatcF: 280-297Œ4 postrument pl : MTk027 PreS MetFox: PreS BatcF: 5009A 280-29776/ 1ab . ile pl : 4/8LMP13

I ilution: 430 pnitial WeigFtdholume: 90 m1

Analysis I ate: 44d29d2047 072G . inal WeigFtdholume: 90 m1 PreSI ate: 44d27d2047 4279

Analyte Result (mgdl) Qualifier R1 R1 Antimony, I issolvex 030040 030040 NI 03005/ Barium, I issolvex 030040 030040 Beryllium, I issolvex NI 030040 030040 Caxmium, I issolvex NI 0300020 0300020 NI 030050 CFromium, I issolvex 030050 CoSSer, I issolvex NI 030020 030020 1eax, I issolvex NI 030040 030040 Manganese, I issolvex 432 030040 030040 NI NicUel, I issolvex 030070 030070 Lelenium, I issolvex NI 030040 030040

NI

NI

Lilver, I issolvex

03060

03060

030090

030090

Client: Waste Management Job Number: 280-62847-4

Client Sample ID: MW-24

 1ab LamSle pt
 280-62847-7
 I ate LamSlex: 44@0@047 4406

 Client MatriD
 Water
 I ate Receivex: 44@4@047 4070

6010B Metals (ICP)-Total Recoverable

Analysis MetFox: 6040B Analysis BatcF: 280-29@4/ pnstrument pl : MTk026

PreS MetFox: 5009A PreS BatcF: 280-297756 1ab . ile pl : 26A4242471 3asc

 I ilution:
 430
 pnitial WeigFtch olume:
 90 m1

 Analysis I ate:
 42d#5d2047 0997
 . inal WeigFtch olume:
 90 m1

PreSI ate: 44d29d2047 0G49

pron, Total

 Analyte
 Result (mgdl)
 Qualifier
 R1
 R1

 Cobalt, Total
 NI
 03050
 03050

6010B Metals (ICP)-Dissolved

Analysis MetFox: 6040B Analysis BatcF: 280-29@20 pnstrument pl : MTk026

0379

PreS MetFox: 5009A PreS BatcF: 280-297747 1ab . ile pl : 26A424247E3asc

I ilution: 430 pnitial WeigFtch olume: 90 m1

Analysis I ate: 42¢45¢2047 0895 . inal WeigFtdholume: 90 m1
PreS I ate: 44¢27¢2047 4279

 Analyte
 Result (mgdl)
 Qualifier
 R1
 R1

 Calcium, I issolvex
 47
 03070
 03070

 Cobalt, I issolvex
 NI
 03050
 03050

030050 NΙ 03060 03060 pron, I issolvex 03090 830 03090 Magnesium, I issolvex NI Potassium, I issolvex 430 430 Loxium, I issolvex 937 430 430

6020 Metals (ICP/MS)-Total Recoverable

Analysis MetFox: 6020 Analysis BatcF: 280-299098 pnstrument pl : MTk0 $\odot$ 8 PreS MetFox: 5009A PreS BatcF: 280-297728 1ab . ile pl : 225LMP1 $\odot$ 8

I ilution: 430 pnitial WeigFtth olume: 90 m1

Analysis I ate: 44@6@047 0554 . inal WeigFtdholume: 90 m1
PreS I ate: 44@9@047 0G49

NI

Qualifier Analyte Result (mgdl) R1 R1 030040 Antimony, Total NI 030040 030040 030040 Barium, Total 030072 Beryllium, Total ΝI 030040 030040 Caxmium, Total NI 0300020 0300020 CFromium, Total NI 030050 030050 CoSSer, Total ΝI 030020 030020 1eax, Total NI 030040 030040 Manganese, Total 430 030040 030040 Lelenium, Total NI 030040 030040 Lilver, Total ΝI 030020 030020 TFallium, Total ΝI 030040 030040 hanaxium, Total 030024 030020 030020

Zinc, Total

Client: Waste Management Job Number: 280-62847-4

Client Sample ID: MW-24

1ab LamSle pt : 280-62847-7 I ate LamSlex: 44@0@047 4406

Client MatriD Water I ate Receivex: 44\textit{\$\textit{\$Q}\$4\textit{\$\textit{\$Q}\$047 4070}

6020 Metals (ICP/MS)-Total Recoverable

Analysis MetFox: 6020 Analysis BatcF: 280-29946G pnstrument pl : MTk0 $\odot$ 8 PreS MetFox: 5009A PreS BatcF: 280-297728 1ab . ile pl : 097LMP1 $\odot$ 8 no preS MetFox: 097LMP1 $\odot$ 9 no preS MetFox: 097LMP1 $\odot$ 1 no preS MetFox: 097LMP1 $\odot$ 

I ilution: 430 pnitial WeigFtth olume: 90 m1

Analysis I ate: 44@8@047 469G inal WeigFtth olume: 90 m1

PreSI ate: 44d29d2047 0G49

 Analyte
 Result (mgdl)
 Qualifier
 R1
 R1

 Nic Uel, Total
 NI
 030070
 030070

6020 Metals (ICP/MS)-Dissolved

Analysis MetFox: 6020 Analysis BatcF: 280-297G54 pnstrument pl : MTk027

PreS MetFox: 5009A PreS BatcF: 280-29776/ 1ab . ile pl : 4//LMP13

I ilution: 430 pnitial WeigFtch olume: 90 m1

Analysis I ate: 44@9@047 0754 . inal WeigFtdholume: 90 m1

PreSI ate: 44d27d2047 4279

Analyte Result (mgdl) Qualifier R1 R1 Antimony, I issolvex 030040 030040 NI Barium, I issolvex NI 030040 030040 Beryllium, I issolvex NI 030040 030040 Caxmium, I issolvex NI 0300020 0300020 NI 030050 CFromium, I issolvex 030050 CoSSer, I issolvex NI 030020 030020 1eax, I issolvex NI 030040 030040 Manganese, I issolvex 0322 030040 030040 NI NicUel, I issolvex 030070 030070 NI 030040 030040 Lelenium, I issolvex NI 030020 Lilver, I issolvex 030020 TFallium, I issolvex NI 030040 030040 hanaxium, I issolvex NI 030020 030020 Zinc, I issolvex ΝI 030090 030090

Client Sample ID: MW-2B1

1ab LamSle pl: 280-62847-9 I ate LamSlex: 44d20d2047 4042 Client MatriD. Water I ate Receivex: 44d24d2047 4070

6010B Metals (ICP)-Total Recoverable

Analysis MetFox: 6040B 280-29@4/ MTk026 Analysis BatcF: postrument pl:

PreS MetFox: 5009A PreS BatcF: 280-297756 1ab . ile pl : 26A424247I 3asc

I ilution: 430 pnitial WeigFtdnolume: 90 m1

42d45d2047 0996 Analysis I ate: . inal WeigFtdholume: 90 m1

PreSI ate: 44d29d2047 0G49

Qualifier R1 Analyte Result (mgdl) R1 030050 Cobalt, Total NI 030050 034G 03060 03060 pron, Total

6010B Metals (ICP)-Dissolved

Analysis MetFox: 6040B Analysis BatcF: 280-29@20 postrument pl: MTk026

PreS BatcF: PreS MetFox: 5009A 280-297747 1ab . ile p : 26A424247E3asc

I ilution: 430 pnitial WeigFtdholume: 90 m1 m1

Analysis I ate: 42d45d2047 0896 . inal WeigFtdholume: 90 PreSI ate: 44@7@047 4279

535

Qualifier Analyte Result (mgdl) R1 R1 Calcium, I issolvex 83G 03070 03070 ΝI 030050 Cobalt, I issolvex 030050 NΙ 03060 03060 pron, I issolvex 534 03090 03090 Magnesium, I issolvex 434 Potassium, I issolvex 430 430

6020 Metals (ICP/MS)-Total Recoverable

430

430

6020 280-299098 MTk0@ Analysis MetFox: Analysis BatcF: postrument pl: PreS MetFox: 5009A PreS BatcF: 280-297728 1ab . ile pl : 227LMP13x

430 I ilution: pnitial WeigFtdholume: 90 m1

Analysis I ate: 44d26d2047 0557 . inal WeigFtdholume: 90 m1

PreSI ate: 44d29d2047 0G49

Qualifier Analyte Result (mgdl) R1 R1 030040 Antimony, Total NI 030040 030052 030040 030040 Barium, Total Beryllium, Total NI 030040 030040 Caxmium, Total NI 0300020 0300020 CFromium, Total NI 030050 030050 CoSSer, Total ΝI 030020 030020 1eax, Total NΙ 030040 030040 Manganese, Total 0394 030040 030040 Lelenium, Total NI 030040 030040 Lilver, Total NI 030020 030020 TFallium, Total NI 030040 030040 hanaxium, Total ΝI 030020 030020 Zinc, Total 030096 030090 030090

Loxium, I issolvex

Client: Waste Management Job Number: 280-62847-4

Client Sample ID: MW-2B1

1ab LamSle pt : 280-62847-9 I ate LamSlex: 44@0@047 4042

Client MatriD Water I ate Receivex: 44\textit{\$\alpha\$4\text{\$\alpha\$047 4070}}

6020 Metals (ICP/MS)-Total Recoverable

Analysis MetFox: 6020 Analysis BatcF: 280-29946G pnstrument pl : MTk0 $\odot$ 8 PreS MetFox: 5009A PreS BatcF: 280-297728 1ab . ile pl : 099LMP1 $\odot$ 8 O99LMP1 $\odot$ 9 C99LMP1 $\odot$ 8 O99LMP1 $\odot$ 9 C99LMP1 $\odot$ 1 C99LMP

I ilution: 43 pnitial WeigFtch olume: 90 m1

Analysis I ate: 44@8@047 4@04 . inal WeigFtch olume: 90 m1

PreSI ate: 44d29d2047 0G49

 Analyte
 Result (mgdl)
 Qualifier
 R1
 R1

 NicUel, Total
 NI
 030070
 030070

6020 Metals (ICP/MS)-Dissolved

 Analysis MetFox:
 6020
 Analysis BatcF:
 280-297654
 pnstrument pl :
 MTk027

 PreS MetFox:
 5009A
 PreS BatcF:
 280-29776/
 1ab . ile pl :
 200LMP13

I ilution: 430 pnitial WeigFtch olume: 90 m1

Analysis I ate: 44@9@047 0757 . inal WeigFtdholume: 90 m1

 PreS I ate:
 44@7@047 4279

 Analyte
 Result (mgdl)
 Qualifier
 R1
 R1

 Antimony, I issolvex
 NI
 03040
 03040

 Barium, I issolvex
 03002/
 03040
 03040

03002/ Barium, I issolvex 030040 030040 Beryllium, I issolvex NI 030040 030040 Caxmium, I issolvex NI 0300020 0300020 NI 030050 CFromium, I issolvex 030050 CoSSer, I issolvex NI 030020 030020 1eax, I issolvex NI 030040 030040 Manganese, I issolvex 037G 030040 030040 NI NicUel, I issolvex 030070 030070 Lelenium, I issolvex NI 030040 030040 NI 030020 Lilver, I issolvex 030020 TFallium, I issolvex NI 030040 030040 hanaxium, I issolvex NI 030020 030020 Zinc, I issolvex ΝI 030090 030090

Client: Waste Management Job Number: 280-62847-4

Client Sample ID: MW-20

1ab LamSle pl: 280-62847-6 I ate LamSlex: 44d20d2047 0/40 Client MatriD. I ate Receivex: 44d24d2047 4070

Water

6010B Metals (ICP)-Total Recoverable

Analysis MetFox: 6040B 280-29@4/ MTk026 Analysis BatcF: postrument pl:

PreS MetFox: 5009A PreS BatcF: 280-297756 1ab . ile pl : 26A424247I 3asc

> pnitial WeigFtdnolume: 90 m1

> > 430

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430

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42d45d2047 099/ Analysis I ate: . inal WeigFtdholume: 90 m1

PreSI ate: 44d29d2047 0G49

430

430

I ilution:

I ilution:

Loxium, I issolvex

Qualifier R1 Analyte Result (mgdl) R1 030050 Cobalt, Total ΝI 030050 ΝI 03060 03060 pron, Total

6010B Metals (ICP)-Dissolved

Analysis MetFox: 6040B Analysis BatcF: 280-29@20 postrument pl: MTk026

PreS BatcF: PreS MetFox: 5009A 280-297747 1ab . ile p : 26A424247E3asc

> pnitial WeigFtdholume: 90 m1

Analysis I ate: 42d45d2047 089/ . inal WeigFtdholume: 90 m1 PreSI ate: 44@7@047 4279

Analyte Result (mgdl) Qualifier R1 R1 Calcium, I issolvex 29 03070 03070 ΝI 030050 Cobalt, I issolvex 030050 ΝI 03060 03060 pron, I issolvex 49 03090 03090 Magnesium, I issolvex 534 Potassium, I issolvex 430 430

6020 Metals (ICP/MS)-Total Recoverable

6020 280-299098 MTk0@ Analysis MetFox: Analysis BatcF: postrument pl: PreS MetFox: 5009A PreS BatcF: 280-297728 1ab . ile pl : 229LMP13x

40

I ilution: 430 pnitial WeigFtdholume: 90 m1

Analysis I ate: 4442642047 0558 . inal WeigFtdholume: 90 m1 PreSI ate: 44d29d2047 0G49

Qualifier Analyte Result (mgdl) R1 R1 030040 Antimony, Total NI 030040 03009G 030040 030040 Barium, Total Beryllium, Total ΝI 030040 030040 Caxmium, Total NI 0300020 0300020 CFromium, Total NI 030050 030050 CoSSer, Total ΝI 030020 030020 1eax, Total NΙ 030040 030040 Manganese, Total 0349 030040 030040 Lelenium, Total NI 030040 030040 Lilver, Total NI 030020 030020 TFallium, Total NI 030040 030040

NI

NI

hanaxium, Total

Zinc, Total

Client: Waste Management Job Number: 280-62847-4

Client Sample ID: MW-20

1ab LamSle pl : 280-62847-6 | l ate LamSlex: 44@0@047 0/ 40

Client MatriD Water I ate Receivex: 44\textit{\$\alpha\$}4\text{\$\alpha\$}047 4070

6020 Metals (ICP/MS)-Total Recoverable

 Analysis MetFox:
 6020
 Analysis BatcF:
 280-29946G
 pnstrument pl:
 MTk0G8

 PreS MetFox:
 5009A
 PreS BatcF:
 280-297728
 1ab . ile pl:
 096L MP13x

I ilution: 43 pnitial WeigFtch olume: 90 m1

Analysis I ate: 44@8@047 4@07 . inal WeigFtch olume: 90 m1

PreSI ate: 44d29d2047 0G49

 Analyte
 Result (mgdl)
 Qualifier
 R1
 R1

 NicUel, Total
 NI
 030070
 030070

6020 Metals (ICP/MS)-Dissolved

Analysis MetFox: 6020 Analysis BatcF: 280-297Œ4 pnstrument pl : MTk027

PreS MetFox: 5009A PreS BatcF: 280-297Œ8 1ab . ile pl : 245LMP13

I ilution: 430 pnitial WeigFtch olume: 90 m1

Analysis I ate: 44@9@047 0945 . inal WeigFtdholume: 90 m1

PreS I ate: 44@7@047 4279

NΙ

NI

030020

Analyte Result (mgdl) Qualifier R1 R1 Antimony, I issolvex 030040 030040 NI 030065 Barium, I issolvex 030040 030040 Beryllium, I issolvex NI 030040 030040 Caxmium, I issolvex NI 0300020 0300020 NI 030050 CFromium, I issolvex 030050 CoSSer, I issolvex NI 030020 030020 1eax, I issolvex NI 030040 030040 Manganese, I issolvex 0346 030040 030040 NI NicUel, I issolvex 030070 030070 Lelenium, I issolvex ΝI 030040 030040 NI 030020 Lilver, I issolvex 030020

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TFallium, I issolvex

Zinc, I issolvex

hanaxium, I issolvex

Client: Waste Management Job Number: 280-62847-4

Client Sample ID: DUP1

1ab LamSle pl : 280-62847-G I I ate LamSlex: 44c20c2047 0/ 20

Client MatriD Water I ate Receivex: 44\textit{\$\alpha\$}4\text{\$\alpha\$}047 4070

6010B Metals (ICP)-Total Recoverable

Analysis MetFox: 6040B Analysis BatcF: 280-29@4/ pnstrument pl : MTk026

PreS MetFox: 5009A PreS BatcF: 280-297756 1ab . ile pl : 26A4242471 3asc

I ilution: 430 pnitial WeigFtch olume: 90 m1

Analysis I ate: 42d45d2047 0602 . inal WeigFtdholume: 90 m1

PreSI ate: 44d29d2047 0G49

 Analyte
 Result (mgdl)
 Qualifier
 R1
 R1

 Cobalt, Total
 NI
 03050
 03050

 gron, Total
 NI
 03060
 03060

6010B Metals (ICP)-Dissolved

Analysis MetFox: 6040B Analysis BatcF: 280-29@20 pnstrument pl : MTk026

PreS MetFox: 5009A PreS BatcF: 280-297747 1ab . ile pl : 26A424247E3asc

I ilution: 430 pnitial WeigFtch olume: 90 m1

Analysis Late: 42d/5d/047\_07\_07\_07

Analysis I ate: 42¢45¢2047 0/ 0/ . inal WeigFtch olume: 90 m1
PreS I ate: 44¢27¢2047 4279

Analyte Result (mgdl) Qualifier R1 R1 Calcium, I issolvex 27 03070 03070 ΝI 030050 Cobalt, I issolvex 030050 NΙ 03060 03060 pron, I issolvex 03090 47 03090 Magnesium, I issolvex 530 Potassium, I issolvex 430 430 Loxium, I issolvex 837 430 430

6020 Metals (ICP/MS)-Total Recoverable

 Analysis MetFox:
 6020
 Analysis BatcF:
 280-299098
 pnstrument pl :
 MTk0G3

 PreS MetFox:
 5009A
 PreS BatcF:
 280-297728
 1ab . ile pl :
 226LMP13x

I ilution: 430 pnitial WeigFtdholume: 90 m1

Analysis I ate: 4442642047 0574 . inal WeigFttholume: 90 m1

 PreS I ate:
 44d29d2047 0G49

 Analyte
 Result (mgdl)
 Qualifier
 R1
 R1

 Antimony, Total
 NI
 030040
 03040

030040 Antimony, Total NI 030040 030064 030040 030040 Barium, Total Beryllium, Total ΝI 030040 030040 Caxmium, Total NI 0300020 0300020 CFromium, Total NI 030050 030050 CoSSer, Total ΝI 030020 030020 1eax, Total NI 030040 030040 Manganese, Total 0349 030040 030040 Lelenium, Total NI 030040 030040 Lilver, Total NI 030020 030020 TFallium, Total NI 030040 030040 hanaxium, Total NI 030020 030020 Zinc, Total NI 030090 030090

Client: Waste Management Job Number: 280-62847-4

Client Sample ID: DUP1

1ab LamSle pl : 280-62847-G I I ate LamSlex: 44@0@047 0/ 20

Client MatriD Water I ate Receivex: 44\textit{\$\alpha\$4\text{\$\alpha\$047 4070}}

6020 Metals (ICP/MS)-Total Recoverable

 Analysis MetFox:
 6020
 Analysis BatcF:
 280-29946G
 pnstrument pl :
 MTk0G3

 PreS MetFox:
 5009A
 PreS BatcF:
 280-297728
 1ab . ile pl :
 09GL MP13x

I ilution: 43 pnitial WeigFtch olume: 90 m1

Analysis I ate: 44@8@047 4@8 . inal WeigFtch olume: 90 m1

PreSI ate: 44d29d2047 0G49

 Analyte
 Result (mgdl)
 Qualifier
 R1
 R1

 NicUel, Total
 NI
 030070
 030070

6020 Metals (ICP/MS)-Dissolved

 Analysis MetFox:
 6020
 Analysis BatcF:
 280-297€54
 pnstrument pl :
 MTk027

 PreS MetFox:
 5009A
 PreS BatcF:
 280-297768
 1ab . ile pl :
 247ARE. 3

I ilution: 430 pnitial WeigFtch olume: 90 m1

Analysis I ate: 44@9@047 0946 . inal WeigFtdholume: 90 m1

PreS I ate: 44@7@047 4279

NI

ΝI

Analyte Result (mgdl) Qualifier R1 R1 Antimony, I issolvex 030040 030040 NI 030067 Barium, I issolvex 030040 030040 Beryllium, I issolvex NI 030040 030040 Caxmium, I issolvex NI 0300020 0300020 NI 030050 CFromium, I issolvex 030050 CoSSer, I issolvex NI 030020 030020 1eax, I issolvex NI 030040 030040 Manganese, I issolvex 0346 030040 030040 NI NicUel, I issolvex 030070 030070 Lelenium, I issolvex NI 030040 030040 NI 030020 Lilver, I issolvex 030020 TFallium, I issolvex NI 030040 030040

030020

030090

030020

030090

hanaxium, I issolvex

Zinc, I issolvex

Client: Waste Management Job Number: 280-62847-4

Client Sample ID: DUP2

I ilution:

1ab LamSle pl: 280-62847-8. I I ate LamSlex: 44d20d2047 4427

Client MatriD. Water I ate Receivex: 44d24d2047 4070

6010B Metals (ICP)-Total Recoverable

Analysis MetFox: 6040B 280-29@4/ MTk026 Analysis BatcF: postrument pl:

PreS MetFox: 5009A PreS BatcF: 280-297756 1ab . ile pl : 26A424247I 3asc

> pnitial WeigFtdnolume: 90 m1

> > 430

430

42d45d2047 0607 Analysis I ate: . inal WeigFtdholume: 90 m1

PreSI ate: 44d29d2047 0G49

430

Qualifier R1 Analyte Result (mgdl) R1 030050 Cobalt, Total NI 030050

0382 03060 03060 pron, Total

6010B Metals (ICP)-Dissolved

Analysis MetFox: 6040B Analysis BatcF: 280-29@20 postrument pl: MTk026

PreS BatcF: PreS MetFox: 5009A 280-297747 1ab . ile p : 26A424247E3asc

I ilution: 430 pnitial WeigFtdholume: 90 m1

Analysis I ate: 42d45d2047 0/42 . inal WeigFtdholume: 90 m1 PreSI ate: 44@7@047 4279

4G

Qualifier Analyte Result (mgdl) R1 R1 Calcium, I issolvex 55 03070 03070 ΝI 030050 Cobalt, I issolvex 030050 0385 03060 03060 pron, I issolvex 46 03090 03090 Magnesium, I issolvex 437 Potassium, I issolvex 430 430

6020 Metals (ICP/MS)-Total Recoverable

6020 280-299098 MTk0@ Analysis MetFox: Analysis BatcF: postrument pl: PreS MetFox: 5009A PreS BatcF: 280-297728 1ab . ile pl : 22GLMP13x

430 I ilution: pnitial WeigFtdholume: 90 m1

Analysis I ate: 4442642047 0579 . inal WeigFtdholume: 90 m1 PreSI ate: 44d29d2047 0G49

Qualifier Analyte Result (mgdl) R1 R1 030040 Antimony, Total NI 030040 03007/ 030040 030040 Barium, Total Beryllium, Total NI 030040 030040 Caxmium, Total NI 0300020 0300020 CFromium, Total NI 030050 030050 CoSSer, Total ΝI 030020 030020 1eax, Total NΙ 030040 030040 235 030040 030040

Manganese, Total Lelenium, Total NI 030040 030040 Lilver, Total NI 030020 030020 TFallium, Total NI 030040 030040 hanaxium, Total NI 030020 030020 Zinc, Total NI 030090 030090

Loxium, I issolvex

Client: Waste Management Job Number: 280-62847-4

Client Sample ID: DUP2

 1ab LamSle pl :
 280-62847-8. I

 I ate LamSlex:
 44@0@047 4427

Client MatriD Water I ate Receivex: 44\textit{\$\alpha\$4\text{\$\alpha\$047 4070}}

6020 Metals (ICP/MS)-Total Recoverable

Analysis MetFox: 6020 Analysis BatcF: 280-29946G pnstrument pl : MTk0 $\odot$ 8 PreS MetFox: 5009A PreS BatcF: 280-297728 1ab . ile pl : 098L MP1 $\odot$ 8 no view of the control of

I ilution: 430 pnitial WeigFtch olume: 90 m1

Analysis I ate: 44@8@047 4G42 . inal WeigFtch olume: 90 m1

PreSI ate: 44d29d2047 0G49

 Analyte
 Result (mgdl)
 Qualifier
 R1
 R1

 Nic Uel, Total
 NI
 030070
 030070

6020 Metals (ICP/MS)-Dissolved

Analysis MetFox: 6020 Analysis BatcF: 280-297G54 pnstrument pl : MTk027

PreS MetFox: 5009A PreS BatcF: 280-297768 1ab . ile pl : 224LMP13

I ilution: 430 pnitial WeigFtch olume: 90 m1

NI

NI

ΝI

Analysis I ate: 44@9@047 0958 . inal WeigFtdholume: 90 m1

PreS I ate: 44@7@047 4279

Analyte Result (mgdl) Qualifier R1 R1 Antimony, I issolvex 030040 030040 NI 030064 Barium, I issolvex 030040 030040 Beryllium, I issolvex NI 030040 030040 Caxmium, I issolvex NI 0300020 0300020 ΝI 030050 CFromium, I issolvex 030050 CoSSer, I issolvex NI 030020 030020 1eax, I issolvex NI 030040 030040 Manganese, I issolvex 239 030040 030040 NicUel, I issolvex NI 030070 030070 Lelenium, I issolvex NI 030040 030040 NI 030020 Lilver, I issolvex 030020

030040

030020

030090

030040

030020

030090

TFallium, I issolvex

Zinc, I issolvex

hanaxium, I issolvex

#### **General Chemistry**

Client Sample ID: MW-4

Analysis BatcF: 280-297G76

 1ab LamSle pl :
 280-62847-4
 I ate LamSlex: 44@0@047 0/ 5/

 Client MatriD
 Water
 I ate Receivex: 44@4@047 4070

\* nits Analyte Result Qual R1 R1 Lil MetFox CFlorixe 430 430 50030 438 mgďl 430 Analysis BatcF: 280-299079 Analysis I ate: 44d2Gd2047 4955 Lulfate mgdl 430 430 50030 Analysis BatcF: 280-299079 Analysis I ate: 44d2Gd2047 4955 Ammonia (as N) NI mgďl 03050 03050 430 59034 Analysis BatcF: 280-297664 Analysis I ate: 44d27d2047 4976 Nitrate as N NI mgďl 03090 03090 430 59532 Analysis BatcF: 280-29960G Analysis I ate: 44d24d2047 2244 AlUalinity, Total (As CaCO5) 7G mgď 930 930 430 LM 2520B Analysis BatcF: 280-297@7 Analysis I ate: 44d29d2047 4420 AlUalinity, Bicarbonate (As CaCO5) LM 2520B mgďl 930 430 Analysis BatcF: 280-297G87 Analysis I ate: 44d29d2047 4420 LM 2970C Total I issolvex Lolixs (TI L) æ mgďl 930 930 430 Analysis I ate: 44d27d2047 2548 Analysis BatcF: 280-297660 Total LusSenxex Lolixs NI mgďl 730 730 430 LM 2970I Analysis BatcF: 280-297GG Analysis I ate: 44d29d2047 4796 Total Organic Carbon - Average mgďl 430 430 430 LM 9540B

Analysis I ate: 44d29d2047 0055

#### **General Chemistry**

Client Sample ID: MW-32

 1ab LamSle pl :
 280-62847-2
 I ate LamSlex: 44c20c2047 4427

 Client MatriD
 Water
 I ate Receivex: 44c24c2047 4070

\* nits Analyte Result Qual R1 R1 Lil MetFox CFlorixe 430 430 50030 42 mgďl 430 Analysis BatcF: 280-299079 Analysis I ate: 44d2Gd2047 4620 Lulfate mgdl 430 430 50030 Analysis BatcF: 280-299079 Analysis I ate: 44d2Gd2047 4620 Ammonia (as N) mgďl 03050 03050 430 59034 Analysis BatcF: 280-297664 Analysis I ate: 44d27d2047 4978 Nitrate as N NI mgďl 03090 03090 430 59532 Analysis BatcF: 280-29960G Analysis I ate: 44d24d2047 2244 AlUalinity, Total (As CaCO5) 450 mgď 930 930 430 LM 2520B Analysis BatcF: 280-297@7 Analysis I ate: 44d29d2047 4429 AlUalinity, Bicarbonate (As CaCO5) LM 2520B mgďl 930 430 Analysis BatcF: 280-297037 Analysis I ate: 44d29d2047 4429 930 LM 2970C Total I issolvex Lolixs (TI L) 220 mgďl 930 430 Analysis I ate: 44d27d2047 2548 Analysis BatcF: 280-297660 Total LusSenxex Lolixs NI mgďl 730 730 430 LM 2970I Analysis BatcF: 280-297GG Analysis I ate: 44d29d2047 4796 Total Organic Carbon - Average mgďl 430 430 430 LM 9540B Analysis BatcF: 280-297G76 Analysis I ate: 44@9@047 007/

Job Number: 280-62847-4 Client: Waste Management

#### **General Chemistry**

Client Sample ID: MW-19C

1ab LamSle pl : 280-62847-5 Client MatriD Water I ate LamSlex: 44d20d2047 4202

Client MatriD	Water					1	ate Receive	x: 44d24d2047 4070
Analyte		Result	Qual	* nits	R1	R1	l il	MetFox
CFlorixe		236		mgďl	430	430	430	50030
	Analysis BatcF: 2	80-299079	Analysis I ate:	44d2Gd2047	4659			
Lulfate		737		mgďl	430	430	430	50030
	Analysis BatcF: 2	80-299079	Analysis I ate:	44d2Gd2047	4659			
Ammonia (as N)		0360		mgďl	03050	03050	430	59034
	Analysis BatcF: 2	80-297664	Analysis I ate:	44d27d2047	4990			
Nitrate as N		NI		mgďl	03090	03090	430	59532
	Analysis BatcF: 2	80-29960G	Analysis I ate:	4442442047	7 2244			
AlUalinity, Total (	As CaCO5)	<b>G</b> 0		mgďl	930	930	430	LM 2520B
	Analysis BatcF: 2	80-297 <b>3</b> 7	Analysis I ate:	4442942047	7 445/			
Allalinity, Bicarbo	onate (As CaCO5)	<b>G</b> 0		mgďl	930	930	430	LM 2520B
	Analysis BatcF: 2	80-297087	Analysis I ate:	4442942047	7 445/			
Total I issolvex L	olixs (TIL)	400		mgďl	930	930	430	LM 2970C
	Analysis BatcF: 2	80-297660	Analysis I ate:	4402702047	7 2548			
Total LusSenxex	Lolixs	NI		mgďl	730	730	430	LM 2970I
	Analysis BatcF: 2	80-297 <b>03</b> G	Analysis I ate:	4402902047	7 4796			
Total Organic Ca	rbon - Average	NI		mgďl	430	430	430	LM 9540B
-	Analysis BatcF: 2	80-297 <i>G</i> 76	Analysis I ate:	4402902047	7 0409			

#### **General Chemistry**

Client Sample ID: MW-24

1ab LamSle pt : 280-62847-7 I ate LamSlex: 44@0@047 4406

Client MatriD Water I ate Receivex: 44¢24¢2047 4070

Analyte	Result	Qual	* nits	R1	R1	l il	MetFox
CFlorixe	238		mgďl	430	430	430	50030
Analysis Bato	F: 280-299079	Analysis I ate:	44d2Gd2047	4694			
Lulfate	732		mgďl	430	430	430	50030
Analysis Bato	F: 280-299079	Analysis I ate:	44d2Gd2047	4694			
Ammonia (as N)	NI		mgď	03050	03050	430	59034
Analysis Bato	F: 280-297664	Analysis I ate:	4442742047	4992			
Nitrate as N	NI		mgď	03090	03090	430	59532
Analysis Bato	F: 280-29960G	Analysis I ate:	4442442047	2244			
Alualinity, Total (As CaCO5)	62		mgď	930	930	430	LM 2520B
Analysis Bato	F: 280-297 <b>G</b> 87	Analysis I ate:	4442942047	4475			
Allulinity, Bicarbonate (As CaCO	5) 62		mgďl	930	930	430	LM 2520B
Analysis Bato	F: 280-297 <b>G</b> 87	Analysis I ate:	4442942047	4475			
Total I issolvex Lolixs (TI L)	/ 6		mgď	930	930	430	LM 2970C
Analysis Bato	F: 280-297660	Analysis I ate:	44ф27ф2047	2548			
Total LusSenxex Lolixs	737		mgď	730	730	430	LM 2970I
Analysis Bato	F: 280-297GG	Analysis I ate:	4442942047	4796			
Total Organic Carbon - Average	NI		mgďl	430	430	430	LM 9540B
Analysis Bato	F: 280-297G76	Analysis I ate:	4402902047	0796			

#### **General Chemistry**

Client Sample ID: MW-2B1

1ab LamSle pl : 280-62847-9 I ate LamSlex: 44d20d2047 4042

Client MatriD Water I ate Receivex: 44@4@047 4070

Cheffit Matrib	vvalei					1	ale Receive	x. 4402402047 4070
Analyte		Result	Qual	* nits	R1	R1	l il	MetFox
CFlorixe		430		mgďl	430	430	430	50030
	Analysis BatcF: 2	80-299079	Analysis I ate:	44d2Gd2047	4006			
Lulfate		23G		mgďl	430	430	430	50030
	Analysis BatcF: 2	80-299079	Analysis I ate:	44d2Gd2047	4006			
Ammonia (as N)		03065		mgďl	03050	03050	430	59034
	Analysis BatcF: 2	80-297664	Analysis I ate:	4402702047	4997			
Nitrate as N		032/		mgďl	03090	03090	430	59532
	Analysis BatcF: 2	80-29960G	Analysis I ate:	4442442047	2244			
Alualinity, Total (	As CaCO5)	5G		mgďl	930	930	430	LM 2520B
	Analysis BatcF: 2	80-297 <b>G</b> 87	Analysis I ate:	4402902047	4206			
Allalinity, Bicarb	onate (As CaCO5)	5G		mgďl	930	930	430	LM 2520B
•	Analysis BatcF: 2	80-297037	Analysis I ate:	4442942047	4206			
Total I issolvex I	Lolixs (TI L)	60	-	mgdl	930	930	430	LM 2970C
	Analysis BatcF: 2	80-297660	Analysis I ate:	4402702047	2548			
Total LusSenxex	Lolixs	NI		mgďl	730	730	430	LM 2970I
	Analysis BatcF: 2	80-297ŒG	Analysis I ate:	4402902047	4796			
Total Organic Ca	arbon - Average	NI	-	mgdl	430	430	430	LM 9540B
· ·	Analysis BatcF: 2	80-297 <i>G</i> 76	Analysis I ate:	J	0944			
	=		-					

#### **General Chemistry**

Client Sample ID: MW-20

1ab LamSle pl : 280-62847-6 I ate LamSlex: 44d20d2047 0/ 40

Client MatriD Water I ate Receivex: 44d24d2047 4070

nalyte		Result	Qual	* nits	R1	R1	l il	MetFox
Florixe		/ 39		mgďl	430	430	430	50030
An	alysis BatcF: 280-2	99079	Analysis I ate:	44d2Gd2047	4G22			
ulfate		93G		mgďl	430	430	430	50030
An	alysis BatcF: 280-2	99079	Analysis I ate:	44d2Gd2047	4G22			
mmonia (as N)		03054		mgďl	03050	03050	430	59034
An	alysis BatcF: 280-2	97664	Analysis I ate:	44ф27ф2047	4996			
itrate as N		23G		mgďl	03090	03090	430	59532
An	alysis BatcF: 280-2	9960G	Analysis I ate:	4442442047	2244			
lualinity, Total (As Ca	CO5)	400		mgďl	930	930	430	LM 2520B
An	alysis BatcF: 280-2	97087	Analysis I ate:	4442942047	4240			
lualinity, Bicarbonate	(As CaCO5)	400		mgďl	930	930	430	LM 2520B
An	alysis BatcF: 280-2	97687	Analysis I ate:	4442942047	4240			
otal I issolvex Lolixs	(TIL)	460		mgďl	930	930	430	LM 2970C
An	alysis BatcF: 280-2	97660	Analysis I ate:	44ф27ф2047	2548			
otal LusSenxex Lolix	3	NI		mgďl	730	730	430	LM 2970I
An	alysis BatcF: 280-2	.9703G	Analysis I ate:	4442942047	4796			
otal Organic Carbon -	Average	NI		mgďl	430	430	430	LM 9540B
Λ.,	alysis BatcF: 280-2	07676	Analysis I ate:	44404047	0026			

#### **General Chemistry**

Client Sample ID: DUP1

1ab LamSle pl : 280-62847-G I I ate LamSlex: 44d20d2047 0/ 20

Client MatriD Water I ate Receivex: 44d24d2047 4070

Analyte		Result	Qual	* nits	R1	R1	l il	MetFox
CFlorixe		/ 35		mgďl	430	430	430	50030
	Analysis BatcF: 280-299	9079	Analysis I ate:	44d2Gd2047	405G			
Lulfate	!	9 <b>3</b> G		mgďl	430	430	430	50030
	Analysis BatcF: 280-299	9079	Analysis I ate:	44d2Gd2047	405G			
Ammonia (as N)		03058		mgď	03050	03050	430	59034
	Analysis BatcF: 280-297	7664	Analysis I ate:	44ф27ф2047	4642			
Nitrate as N		236		mgď	03090	03090	430	59532
	Analysis BatcF: 280-299	960G	Analysis I ate:	4442442047	2244			
Allalinity, Total (A	As CaCO5)	/ /		mgď	930	930	430	LM 2520B
	Analysis BatcF: 280-297	7687	Analysis I ate:	4442942047	4247			
AlUalinity, Bicarbo	onate (As CaCO5)	11		mgď	930	930	430	LM 2520B
	Analysis BatcF: 280-297	7687	Analysis I ate:	4442942047	4247			
Total I issolvex L	olixs (TI L)	4 <b>C</b> O		mgďl	930	930	430	LM 2970C
	Analysis BatcF: 280-297	7660	Analysis I ate:	4442742047	2548			
Total LusSenxex	Lolixs	NI		mgď	730	730	430	LM 2970I
	Analysis BatcF: 280-297	703G	Analysis I ate:	4442942047	4796			
Total Organic Ca	rbon - Average	430		mgďl	430	430	430	LM 9540B
	Analysis BatcF: 280-297	7G76	Analysis I ate:	4442942047	0974			
	-		-					

#### **General Chemistry**

Client Sample ID: DUP2

1ab LamSle pl : 280-62847-8. I l ate LamSlex: 44d20d2047 4427

Client MatriD Water I ate Receivex: 44d24d2047 4070

Analysis BatcF: 280-297@87	Analyte		Result	Qual	* nits	R1	R1	l il	MetFox
Lulfate 4G mgdf 430 430 430 50030  Analysis BatcF: 280-299079 Analysis I ate: 4442G22047 4C95  Ammonia (as N) 03055 mgdf 03050 03050 430 59034  Analysis BatcF: 280-297664 Analysis I ate: 44427d2047 4647  Nitrate as N NI mgdf 03090 03090 430 59532  Analysis BatcF: 280-29960G Analysis I ate: 44424d2047 2244  AlLalinity, Total (As CaCO5) 450 mgdf 930 930 930 430 LM 252  Analysis BatcF: 280-297C87 Analysis I ate: 44429d2047 424/  Total I issolvex Lolixs (TI L) 250 mgdf 930 930 930 430 LM 297  Analysis BatcF: 280-297/C65 Analysis I ate: 44426d2047 494/  Total LusSenxex Lolixs NI mgdf 730 730 430 LM 297  Analysis BatcF: 280-297C3G Analysis I ate: 44429d2047 4796  Total Organic Carbon - Average 434 mgdf 430 430 430 LM 954	CFlorixe		42		mgďl	430	430	430	50030
Analysis BatcF: 280-299079		Analysis BatcF: 28	30-299079	Analysis I ate:	44d2Gd2047	4@5			
Ammonia (as N)  Analysis BatcF: 280-297664  Analysis I ate: 44\particle 27\particle 2047 4647  Nitrate as N  NI  mgdl  03090  03090  430  59034  Analysis BatcF: 280-29960G  Analysis I ate: 44\particle 27\particle 2047 4647  Allulalinity, Total (As CaCO5)  Analysis BatcF: 280-297\text{087}  Analysis I ate: 44\particle 24\particle 2047 424/  Allulalinity, Bicarbonate (As CaCO5)  Analysis BatcF: 280-297\text{087}  Analysis I ate: 44\particle 29\particle 2047 424/  Total I issolvex Lolixs (TI L)  Analysis BatcF: 280-297/\text{05}  Analysis I ate: 44\particle 2047 494/  Total LusSenxex Lolixs  NI  mgdl  730  730  430  LM 297  Analysis BatcF: 280-297\text{03G}  Analysis I ate: 44\particle 29\particle 2047 4796  Total Organic Carbon - Average  434  mgdl  430  430  LM 954	Lulfate		4G		mgďl	430	430	430	50030
Analysis BatcF: 280-297664 Analysis I ate: 44&27&2047 4647  Nitrate as N		Analysis BatcF: 28	30-299079	Analysis I ate:	44d2Gd2047	4@5			
Nitrate as N	Ammonia (as N)		03055		mgď	03050	03050	430	59034
Analysis BatcF: 280-29960G		Analysis BatcF: 28	30-297664	Analysis I ate:	44d27d2047	4647			
AlLalinity, Total (As CaCO5) 450 mgdl 930 930 430 LM 252 Analysis BatcF: 280-297@87 Analysis I ate: 44@9@047 424/ AlLalinity, Bicarbonate (As CaCO5) 450 mgdl 930 930 430 LM 252 Analysis BatcF: 280-297@87 Analysis I ate: 44@9@047 424/ Total I issolvex Lolixs (TI L) 250 mgdl 930 930 430 LM 297 Analysis BatcF: 280-297/@5 Analysis I ate: 44@6@047 494/ Total LusSenxex Lolixs NI mgdl 730 730 430 LM 297 Analysis BatcF: 280-297@3 Analysis I ate: 44@9@047 4796 Total Organic Carbon - Average 434 mgdl 430 430 430 LM 954	Nitrate as N		NI		mgď	03090	03090	430	59532
Analysis BatcF: 280-297@37		Analysis BatcF: 28	30-29960G	Analysis I ate:	4442442047	2244			
AlUalinity, Bicarbonate (As CaCO5) 450 mgdl 930 930 430 LM 252  Analysis BatcF: 280-297@87 Analysis I ate: 44@9@047 424/  Total I issolvex Lolixs (TI L) 250 mgdl 930 930 430 LM 297  Analysis BatcF: 280-297/@5 Analysis I ate: 44@6@047 494/  Total LusSenxex Lolixs NI mgdl 730 730 430 LM 297  Analysis BatcF: 280-297@G Analysis I ate: 44@9@047 4796  Total Organic Carbon - Average 434 mgdl 430 430 430 LM 954	Allalinity, Total (	As CaCO5)	450		mgď	930	930	430	LM 2520B
Analysis BatcF: 280-297@87		Analysis BatcF: 28	30-297687	Analysis I ate:	4442942047	424/			
Total I issolvex Lolixs (TI L)       250       mgdl       930       930       430       LM 297         Analysis BatcF: 280-297/ C5       Analysis I ate: 4402602047 494/       Total LusSenxex Lolixs       NI       mgdl       730       730       430       LM 297         Analysis BatcF: 280-297 CCG       Analysis I ate: 4402902047 4796       Total Organic Carbon - Average       434       mgdl       430       430       430       LM 954	Allalinity, Bicarb	onate (As CaCO5)	450		mgďl	930	930	430	LM 2520B
Analysis BatcF: 280-297/ G5		Analysis BatcF: 28	30-297637	Analysis I ate:	4442942047	424/			
Total LusSenxex Lolixs         NI         mgdl         730         730         430         LM 297           Analysis BatcF: 280-297GG         Analysis I ate: 44d29d2047 4796           Total Organic Carbon - Average         434         mgdl         430         430         430         430         LM 954	Total I issolvex I	Lolixs (TIL)	250		mgďl	930	930	430	LM 2970C
Analysis BatcF: 280-297G3G Analysis I ate: 44d29d2047 4796  Total Organic Carbon - Average 434 mgdl 430 430 430 LM 954		Analysis BatcF: 28	30-297/ Œ	Analysis I ate:	4442642047	494/			
Total Organic Carbon - Average 434 mgdl 430 430 430 LM 954	Total LusSenxex	Lolixs	NI		mgďl	730	730	430	LM 2970I
		Analysis BatcF: 28	30-297GGG	Analysis I ate:	4442942047	4796			
Analysis BatcF: 280-297G76 Analysis I ate: 44&9&047 0650	Total Organic Ca	arbon - Average	434		mgďl	430	430	430	LM 9540B
		Analysis BatcF: 28	30-297 <i>G</i> 76	Analysis I ate:	44d29d2047	0650			

# **DATA REPORTING QUALIFIERS**

Client: Waste Management Job Number: 280-62814-1

Lab Section	Qualifier	Description
GC/MS VOA		
	*	LCS or LCSD exceeds the control limits
	F1	MS and/or MSD Recovery exceeds the control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	X	Surrogate is outside control limits
Metals		
	4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

# **QUALITY CONTROL RESULTS**

# **QC Association Summary**

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:480-2159	927				
LCS 480-215927/5	Lab Control Sample	Т	Water	8260C SIM	
LCSD 480-215927/6	Lab Control Sample Duplicate	Т	Water	8260C SIM	
MB 480-215927/8	Method Blank	Т	Water	8260C SIM	
280-62814-1	MW-4	Т	Water	8260C SIM	
280-62814-2	MW-32	Т	Water	8260C SIM	
280-62814-3	MW-19C	Т	Water	8260C SIM	
280-62814-4	MW-24	Т	Water	8260C SIM	
280-62814-5	MW-2B1	Т	Water	8260C SIM	
280-62814-6	MW-20	Т	Water	8260C SIM	
280-62814-7FD	DUP1	Т	Water	8260C SIM	
280-62814-8FD	DUP2	Т	Water	8260C SIM	
280-62814-9TB	TRIP BLANK	Т	Water	8260C SIM	
Analysis Batch:480-2169	020				
LCS 480-216920/7	Lab Control Sample	Т	Water	8260C	
MB 480-216920/9	Method Blank	Т	Water	8260C	
280-62814-1	MW-4	Т	Water	8260C	
280-62814-2	MW-32	Т	Water	8260C	
480-71873-C-1 MS	Matrix Spike	Т	Water	8260C	
480-71873-C-1 MSD	Matrix Spike Duplicate	Т	Water	8260C	
Analysis Batch:480-2171	106				
LCS 480-217106/4	Lab Control Sample	Т	Water	8260C	
MB 480-217106/7	Method Blank	Т	Water	8260C	
280-62814-3	MW-19C	Т	Water	8260C	
280-62814-4	MW-24	Т	Water	8260C	
280-62814-5	MW-2B1	Т	Water	8260C	
280-62814-6	MW-20	Т	Water	8260C	
280-62814-7FD	DUP1	Т	Water	8260C	
280-62814-8FD	DUP2	Т	Water	8260C	
280-62814-9TB	TRIP BLANK	Т	Water	8260C	
480-71793-J-1 MS	Matrix Spike	Т	Water	8260C	
480-71793-J-1 MSD	Matrix Spike Duplicate	Т	Water	8260C	

#### Report Basis

T = Total

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-254414					
LCS 280-254414/2-A	Lab Control Sample	R	Water	3005A	
MB 280-254414/1-A	Method Blank	R	Water	3005A	
280-62814-1	MW-4	D	Water	3005A	
280-62814-2	MW-32	D	Water	3005A	
280-62814-3	MW-19C	D	Water	3005A	
280-62814-4	MW-24	D	Water	3005A	
280-62814-5	MW-2B1	D	Water	3005A	
280-62814-6	MW-20	D	Water	3005A	
280-62814-6MS	Matrix Spike	D	Water	3005A	
280-62814-6MSD	Matrix Spike Duplicate	D	Water	3005A	
280-62814-7FD	DUP1	D	Water	3005A	
280-62814-8FD	DUP2	D	Water	3005A	
Prep Batch: 280-254428					
_CS 280-254428/2-A	Lab Control Sample	R	Water	3005A	
MB 280-254428/1-A	Method Blank	R	Water	3005A	
280-62814-1	MW-4	R	Water	3005A	
280-62814-2	MW-32	R	Water	3005A	
280-62814-2MS	Matrix Spike	R	Water	3005A	
280-62814-2MSD	Matrix Spike Duplicate	R	Water	3005A	
280-62814-3	MW-19C	R	Water	3005A	
280-62814-4	MW-24	R	Water	3005A	
280-62814-5	MW-2B1	R	Water	3005A	
280-62814-6	MW-20	R	Water	3005A	
280-62814-7FD	DUP1	R	Water	3005A	
280-62814-8FD	DUP2	R	Water	3005A	
Prep Batch: 280-254436					
CS 280-254436/2-A	Lab Control Sample	R	Water	3005A	
MB 280-254436/1-A	Method Blank	R	Water	3005A	
280-62814-1	MW-4	R	Water	3005A	
280-62814-1MS	Matrix Spike	R	Water	3005A	
280-62814-1MSD	Matrix Spike Duplicate	R	Water	3005A	
280-62814-2	MW-32	R	Water	3005A	
280-62814-3	MW-19C	R	Water	3005A	
280-62814-4	MW-24	R	Water	3005A	
280-62814-5	MW-2B1	R	Water	3005A	
280-62814-6	MW-20	R	Water	3005A	
280-62814-7FD	DUP1	R	Water	3005A	
280-62814-8FD	DUP2	R	Water	3005A	

Lab Canada ID	Olivet Overelle ID	Report Basis	Olivert Market	Madead	David Datah
Lab Sample ID	Client Sample ID	Dasis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-254468					
LCS 280-254468/2-A	Lab Control Sample	R	Water	3005A	
MB 280-254468/1-A	Method Blank	R	Water	3005A	
280-62814-6	MW-20	D	Water	3005A	
280-62814-7FD	DUP1	D	Water	3005A	
280-62814-7MS	Matrix Spike	D	Water	3005A	
280-62814-7MSD	Matrix Spike Duplicate	D	Water	3005A	
280-62814-8FD	DUP2	D	Water	3005A	
Prep Batch: 280-254469					
LCS 280-254469/2-A	Lab Control Sample	R	Water	3005A	
MB 280-254469/1-A	Method Blank	R	Water	3005A	
280-62814-1	MW-4	D	Water	3005A	
280-62814-2	MW-32	D	Water	3005A	
280-62814-2MS	Matrix Spike	D	Water	3005A	
280-62814-2MSD	Matrix Spike Duplicate	D	Water	3005A	
280-62814-3	MW-19C	D	Water	3005A	
280-62814-4	MW-24	D	Water	3005A	
280-62814-5	MW-2B1	D	Water	3005A	
Analysis Batch:280-2547	31				
LCS 280-254468/2-A	Lab Control Sample	R	Water	6020	280-254468
MB 280-254468/1-A	Method Blank	R	Water	6020	280-254468
_CS 280-254469/2-A	Lab Control Sample	R	Water	6020	280-254469
MB 280-254469/1-A	Method Blank	R	Water	6020	280-254469
280-62814-1	MW-4	D	Water	6020	280-254469
280-62814-2	MW-32	D	Water	6020	280-254469
280-62814-2MS	Matrix Spike	D	Water	6020	280-254469
280-62814-2MSD	Matrix Spike Duplicate	D	Water	6020	280-254469
280-62814-3	MW-19C	D	Water	6020	280-254469
280-62814-4	MW-24	D	Water	6020	280-254469
280-62814-5	MW-2B1	D	Water	6020	280-254469
280-62814-6	MW-20	D	Water	6020	280-254468
280-62814-7FD	DUP1	D	Water	6020	280-254468
280-62814-7MS	Matrix Spike	D	Water	6020	280-254468
280-62814-7MSD	Matrix Spike Duplicate	D	Water	6020	280-254468
280-62814-8FD	DUP2	D	Water	6020	280-254468

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
	Onem Gample 15		Olicit Matrix	Motriou	Trop Baton
Metals					
Analysis Batch:280-2550		Б	10/-4	0000	200 254420
_CS 280-254428/2-A	Lab Control Sample	R	Water	6020	280-254428
MB 280-254428/1-A	Method Blank	R	Water	6020	280-254428
280-62814-1	MW-4	R	Water	6020	280-254428
280-62814-2	MW-32	R	Water	6020	280-254428
280-62814-2MS	Matrix Spike	R	Water	6020	280-254428
280-62814-2MSD	Matrix Spike Duplicate	R	Water	6020	280-254428
280-62814-3	MW-19C	R	Water	6020	280-254428
280-62814-4	MW-24	R	Water	6020	280-254428
280-62814-5	MW-2B1	R	Water	6020	280-254428
280-62814-6	MW-20	R	Water	6020	280-254428
280-62814-7FD	DUP1	R	Water	6020	280-254428
280-62814-8FD	DUP2	R	Water	6020	280-254428
Analysis Batch:280-255	167				
_CS 280-254428/2-A	Lab Control Sample	R	Water	6020	280-254428
MB 280-254428/1-A	Method Blank	R	Water	6020	280-254428
280-62814-1	MW-4	R	Water	6020	280-254428
280-62814-2	MW-32	R	Water	6020	280-254428
280-62814-3	MW-19C	R	Water	6020	280-254428
280-62814-4	MW-24	R	Water	6020	280-254428
280-62814-5	MW-2B1	R	Water	6020	280-254428
280-62814-6	MW-20	R	Water	6020	280-254428
280-62814-7FD	DUP1	R	Water	6020	280-254428
280-62814-8FD	DUP2	R	Water	6020	280-254428
Analysis Batch:280-2570	040				
_CS 280-254436/2-A	Lab Control Sample	R	Water	6010B	280-254436
MB 280-254436/1-A	Method Blank	R	Water	6010B	280-254436
280-62814-1	MW-4	R	Water	6010B	280-254436
		R R			
280-62814-1MS	Matrix Spike Duplicate	R R	Water	6010B	280-254436
280-62814-1MSD	Matrix Spike Duplicate		Water	6010B	280-254436
280-62814-2	MW-32	R	Water	6010B	280-254436
280-62814-3	MW-19C	R	Water	6010B	280-254436
280-62814-4	MW-24	R	Water	6010B	280-254436
280-62814-5	MW-2B1	R	Water	6010B	280-254436
280-62814-6	MW-20	R	Water	6010B	280-254436
280-62814-7FD	DUP1	R	Water	6010B	280-254436
280-62814-8FD	DUP2	R	Water	6010B	280-254436

# **QC Association Summary**

		Report			
Lab Sample ID	Client Sample ID	Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:280-2570	20				
LCS 280-254414/2-A	Lab Control Sample	R	Water	6010B	280-254414
MB 280-254414/1-A	Method Blank	R	Water	6010B	280-254414
280-62814-1	MW-4	D	Water	6010B	280-254414
280-62814-2	MW-32	D	Water	6010B	280-254414
280-62814-3	MW-19C	D	Water	6010B	280-254414
280-62814-4	MW-24	D	Water	6010B	280-254414
280-62814-5	MW-2B1	D	Water	6010B	280-254414
280-62814-6	MW-20	D	Water	6010B	280-254414
280-62814-6MS	Matrix Spike	D	Water	6010B	280-254414
280-62814-6MSD	Matrix Spike Duplicate	D	Water	6010B	280-254414
280-62814-7FD	DUP1	D	Water	6010B	280-254414
280-62814-8FD	DUP2	D	Water	6010B	280-254414

#### Report Basis

D = Dissolved

R = Total Recoverable

	Client Sample ID	Report			
Lab Sample ID		Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-25466	60				
LCS 280-254660/2	Lab Control Sample	Т	Water	SM 2540C	
LCSD 280-254660/3	Lab Control Sample Duplicate	Т	Water	SM 2540C	
MB 280-254660/1	Method Blank	Т	Water	SM 2540C	
280-62814-1	MW-4	Т	Water	SM 2540C	
280-62814-2	MW-32	Т	Water	SM 2540C	
280-62814-3	MW-19C	Т	Water	SM 2540C	
280-62814-4	MW-24	Т	Water	SM 2540C	
280-62814-5	MW-2B1	Т	Water	SM 2540C	
280-62814-6	MW-20	Т	Water	SM 2540C	
280-62814-7FD	DUP1	Т	Water	SM 2540C	
280-62814-7DU	Duplicate	T	Water	SM 2540C	
Analysis Batch:280-25466	61				
LCS 280-254661/197	Lab Control Sample	Т	Water	350.1	
LCSD 280-254661/198	Lab Control Sample Duplicate	Т	Water	350.1	
MB 280-254661/199	Method Blank	Т	Water	350.1	
280-62808-B-3 MS	Matrix Spike	Т	Water	350.1	
280-62808-B-3 MSD	Matrix Spike Duplicate	Т	Water	350.1	
280-62814-1	MW-4	Т	Water	350.1	
280-62814-2	MW-32	Т	Water	350.1	
280-62814-3	MW-19C	Т	Water	350.1	
280-62814-4	MW-24	Т	Water	350.1	
280-62814-5	MW-2B1	Т	Water	350.1	
280-62814-6	MW-20	Т	Water	350.1	
280-62814-7FD	DUP1	Т	Water	350.1	
280-62814-8FD	DUP2	Т	Water	350.1	

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry	·				
Analysis Batch:280-2547	746				
LCS 280-254746/3	Lab Control Sample	Т	Water	SM 5310B	
LCS 280-254746/35	Lab Control Sample	Т	Water	SM 5310B	
LCSD 280-254746/36	Lab Control Sample Duplicate	Т	Water	SM 5310B	
LCSD 280-254746/4	Lab Control Sample Duplicate	Т	Water	SM 5310B	
MB 280-254746/37	Method Blank	Т	Water	SM 5310B	
MB 280-254746/5	Method Blank	Т	Water	SM 5310B	
280-62813-E-2 MS	Matrix Spike	Т	Water	SM 5310B	
280-62813-E-2 MSD	Matrix Spike Duplicate	Т	Water	SM 5310B	
280-62814-1	MW-4	Т	Water	SM 5310B	
280-62814-2	MW-32	Т	Water	SM 5310B	
280-62814-3	MW-19C	Т	Water	SM 5310B	
280-62814-4	MW-24	Т	Water	SM 5310B	
280-62814-5	MW-2B1	Т	Water	SM 5310B	
280-62814-6	MW-20	Т	Water	SM 5310B	
280-62814-7FD	DUP1	Т	Water	SM 5310B	
280-62814-8FD	DUP2	Т	Water	SM 5310B	
280-62833-D-3 MS	Matrix Spike	Т	Water	SM 5310B	
280-62833-D-3 MSD	Matrix Spike Duplicate	Т	Water	SM 5310B	
Analysis Batch:280-2547	777				
LCS 280-254777/1	Lab Control Sample	Т	Water	SM 2540D	
LCSD 280-254777/2	Lab Control Sample Duplicate	Т	Water	SM 2540D	
MB 280-254777/3	Method Blank	Т	Water	SM 2540D	
280-62804-C-1 DU	Duplicate	Т	Water	SM 2540D	
280-62814-1	MW-4	Т	Water	SM 2540D	
280-62814-2	MW-32	Т	Water	SM 2540D	
280-62814-3	MW-19C	Т	Water	SM 2540D	
280-62814-4	MW-24	Т	Water	SM 2540D	
280-62814-5	MW-2B1	Т	Water	SM 2540D	
280-62814-6	MW-20	Т	Water	SM 2540D	
280-62814-7FD	DUP1	Т	Water	SM 2540D	
280-62814-8FD	DUP2	Т	Water	SM 2540D	

# **QC Association Summary**

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-254784	ļ				
LCS 280-254784/4	Lab Control Sample	Т	Water	SM 2320B	
LCSD 280-254784/5	Lab Control Sample Duplicate	Т	Water	SM 2320B	
MB 280-254784/6	Method Blank	Т	Water	SM 2320B	
280-62814-1	MW-4	Т	Water	SM 2320B	
280-62814-2	MW-32	Т	Water	SM 2320B	
280-62814-3	MW-19C	Т	Water	SM 2320B	
280-62814-4	MW-24	Т	Water	SM 2320B	
280-62814-5	MW-2B1	Т	Water	SM 2320B	
280-62814-6	MW-20	Т	Water	SM 2320B	
280-62814-7FD	DUP1	Т	Water	SM 2320B	
280-62814-8FD	DUP2	Т	Water	SM 2320B	
280-62887-A-13 DU	Duplicate	Т	Water	SM 2320B	
Analysis Batch:280-254973	3				
LCS 280-254973/2	Lab Control Sample	Т	Water	SM 2540C	
LCSD 280-254973/3	Lab Control Sample Duplicate	Т	Water	SM 2540C	
MB 280-254973/1	Method Blank	Т	Water	SM 2540C	
280-62814-8FD	DUP2	Т	Water	SM 2540C	
280-62814-8DU	Duplicate	Т	Water	SM 2540C	
Analysis Batch:280-255045	5				
LCS 280-255045/4	Lab Control Sample	T	Water	300.0	
LCSD 280-255045/5	Lab Control Sample Duplicate	Т	Water	300.0	
MB 280-255045/6	Method Blank	T	Water	300.0	
280-62814-1	MW-4	Т	Water	300.0	
280-62814-2	MW-32	T	Water	300.0	
280-62814-3	MW-19C	Т	Water	300.0	
280-62814-4	MW-24	Т	Water	300.0	
280-62814-5	MW-2B1	Т	Water	300.0	
280-62814-6	MW-20	Т	Water	300.0	
280-62814-7FD	DUP1	Т	Water	300.0	
280-62814-8FD	DUP2	Т	Water	300.0	
280-62814-8DU	Duplicate	Т	Water	300.0	
280-62814-8MS	Matrix Spike	Т	Water	300.0	
280-62814-8MSD	Matrix Spike Duplicate	Т	Water	300.0	

# **QC Association Summary**

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					. 100 2 3 10 1
Analysis Batch:280-255	5607				
MB 280-255607/1	Method Blank	Т	Water	353.2	
280-62814-1	MW-4	Т	Water	353.2	
280-62814-2	MW-32	Т	Water	353.2	
280-62814-3	MW-19C	Т	Water	353.2	
280-62814-4	MW-24	Т	Water	353.2	
280-62814-5	MW-2B1	Т	Water	353.2	
280-62814-6	MW-20	Т	Water	353.2	
280-62814-7FD	DUP1	Т	Water	353.2	
280-62814-8FD	DUP2	Т	Water	353.2	

Report Basis

T = Total

Job Number: 280-62814-1

# **Surrogate Recovery Report**

Client: Waste Management

# 8260C Volatile Organic Compounds by GC/MS

### Client Matrix: Water

Lab Sample ID	Client Sample ID	DCA %Rec	BFB %Rec	TOL %Rec
280-62814-1	MW-4	101	106	102
280-62814-2	MW-32	103	105	101
280-62814-3	MW-19C	102	103	100
280-62814-4	MW-24	100	106	101
280-62814-5	MW-2B1	98	103	99
280-62814-6	MW-20	96	102	99
280-62814-7	DUP1	99	104	100
280-62814-8	DUP2	101	104	100
280-62814-9	TRIP BLANK	101	104	101
MB 480-216920/9		99	106	102
MB 480-217106/7		101	103	100
LCS 480-216920/7		98	107	102
LCS 480-217106/4		106	106	101
480-71873-C-1 MS		100	108	102
480-71793-J-1 MS		101	103	101
480-71873-C-1 MSD		102	105	101
480-71793-J-1 MSD		103	105	101

Surrogate	Acceptance Limits
DCA = 1,2-Dichloroethane-d4 (Surr)	66-137
BFB = 4-Bromofluorobenzene (Surr)	73-120
TOL = Toluene-d8 (Surr)	71-126

# **Surrogate Recovery Report**

# 8260C SIM Volatile Organic Compounds (GC/MS)

### Client Matrix: Water

		DBFM	TBA
Lab Sample ID	Client Sample ID	%Rec	%Rec
280-62814-1	MW-4	100	120
280-62814-2	MW-32	95	162X
280-62814-3	MW-19C	100	142
280-62814-4	MW-24	99	150
280-62814-5	MW-2B1	99	147
280-62814-6	MW-20	105	115
280-62814-7	DUP1	101	143
280-62814-8	DUP2	99	163X
280-62814-9	TRIP BLANK	99	149
MB 480-215927/8		97	112
LCS 480-215927/5		107	109
LCSD 480-215927/6		100	120

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane (Surr)	50-150
TBA = TBA-d9 (Surr)	50-150

#### Method Blank - Batch: 480-216P20

Method: 8260C pre5aration: 30T0C

Lab Sample ID: MB 480-216920/9 480-216920 Instrument ID: HP5973G Analysis Batch: Client Matrix: Water Prep Batch: N/A Lab File ID: G36961.D Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 5 mL Units: Final Weight/Volume: Analysis Date: 12/03/2014 1320 ug/L 5 mL

Prep Date: 12/03/2014 1320

Leach Date: N/A

Analyte	Result	Qual	MDL	RL
1,1,1,2-Tetrachloroethane	ND		0.35	1.0
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,1-Dichloropropene	ND		0.72	1.0
1,2,3-Trichlorobenzene	ND		0.41	1.0
1,2,3-Trichloropropane	ND		0.89	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2,4-Trimethylbenzene	ND		0.75	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane (EDB)	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloroethene, Total	ND		0.81	2.0
1,2-Dichloropropane	ND		0.72	1.0
1,3,5-Trichlorobenzene	ND		0.23	1.0
1,3,5-Trimethylbenzene	ND		0.77	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,3-Dichloropropane	ND		0.75	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
1,4-Dioxane	ND		9.3	40
2,2-Dichloropropane	ND		0.40	1.0
2-Butanone (MEK)	ND		1.3	10
2-Chloroethyl vinyl ether	ND		0.96	5.0
2-Hexanone	ND		1.2	5.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Acetonitrile	ND		4.9	15
Acrolein	ND		0.91	20
Acrylonitrile	ND		0.83	5.0
Benzene	ND		0.41	1.0
Bromobenzene	ND		0.80	1.0
Bromochloromethane	ND		0.87	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Butyl alcohol, n-	ND		8.9	40
Butyl alcohol, tert-	ND		3.3	10
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Chlorodifluoromethane	ND		0.26	1.0

#### Method Blank - Batch: 480-216P20

Method: 8260C pre5aration: 30T0C

Lab Sample ID: Analysis Batch: 480-216920 Instrument ID: HP5973G MB 480-216920/9 Client Matrix: Water Prep Batch: N/A Lab File ID: G36961.D Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 5 mL Units: Final Weight/Volume: Analysis Date: 12/03/2014 1320 ug/L 5 mL Prep Date: 12/03/2014 1320

Leach Date: N/A

Analyte	Result	Qual	MDL	RL	
Chloroethane	ND		0.32	1.0	
Chloroform	ND		0.34	1.0	
Chloromethane	ND		0.35	1.0	
cis-1,2-Dichloroethene	ND		0.81	1.0	
cis-1,3-Dichloropropene	ND		0.36	1.0	
Cyclohexane	ND		0.18	1.0	
Dibromochloromethane	ND		0.32	1.0	
Dibromomethane	ND		0.41	1.0	
Dichlorodifluoromethane	ND		0.68	1.0	
Dichlorofluoromethane	ND		0.34	1.0	
Ethyl acetate	ND		0.66	1.0	
Ethyl ether	ND		0.72	1.0	
Ethyl tert-butyl ether	ND		0.29	1.0	
Ethylbenzene	ND		0.74	1.0	
Hexachlorobutadiene	ND		0.28	1.0	
Hexane	ND		0.40	10	
lodomethane	ND		0.30	1.0	
Isobutanol	ND		4.8	25	
Isopropyl ether	ND		0.59	1.0	
Isopropylbenzene	ND		0.79	1.0	
Methacrylonitrile	ND		0.69	5.0	
Methyl acetate	ND		0.50	2.5	
Methyl tert-butyl ether	ND		0.16	1.0	
Methylcyclohexane	ND		0.16	1.0	
Methylene Chloride	ND ND		0.16	1.0	
•	ND ND		0.66	2.0	
m-Xylene & p-Xylene					
Naphthalene	ND		0.43	1.0	
n-Butylbenzene	ND		0.64	1.0	
N-Propylbenzene	ND		0.69	1.0	
o-Chlorotoluene	ND		0.86	1.0	
o-Xylene	ND		0.76	1.0	
p-Chlorotoluene	ND		0.84	1.0	
p-Cymene	ND		0.31	1.0	
sec-Butylbenzene	ND		0.75	1.0	
Styrene	ND		0.73	1.0	
Tert-amyl methyl ether	ND		0.27	1.0	
tert-Butylbenzene	ND		0.81	1.0	
Tetrachloroethene	ND		0.36	1.0	
Tetrahydrofuran	ND		1.3	5.0	
Toluene	ND		0.51	1.0	
trans-1,2-Dichloroethene	ND		0.90	1.0	
trans-1,3-Dichloropropene	ND		0.37	1.0	
trans-1,4-Dichloro-2-butene	ND		0.22	1.0	
Trichloroethene	ND		0.46	1.0	
Trichlorofluoromethane	ND		0.88	1.0	

Client: Waste Management Job Number: 280-62814-1

Method Blank - Batch: 480-216P20

Method: 8260C pre5aration: 30T0C

Lab Sample ID:	MB 480-216920/9	Analys
Client Matrix:	Water	Prep B
Dilution:	1.0	Leach
Analysis Date:	12/03/2014 1320	Units:
Prep Date:	12/03/2014 1320	

480-216920 sis Batch: Batch: N/A Batch: N/A ug/L

Instrument ID: HP5973G Lab File ID: G36961.D Initial Weight/Volume: 5 mL Final Weight/Volume: 5 mL

Leach Date: N/A

Analyte	Result	Qual	MDL	RL
Vinyl acetate	ND		0.85	5.0
Vinyl chloride	ND		0.90	1.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	99	66 - 137
4-Bromofluorobenzene (Surr)	106	73 - 120
Toluene-d8 (Surr)	102	71 - 126

Method Blank ALCs- Batch: 480-216P20

Cas Number	Analyte	RT	Est. Result (ug/L	Qual
67-72-1	Hexachloroethane TIC	0.00	ND	

baS Control xaD 5le - Batch: 480-216P20

Method: 8260C pre5aration: 30T0C

 Lab Sample ID:
 LCS 480-216920/7

 Client Matrix:
 Water

 Dilution:
 1.0

 Analysis Date:
 12/03/2014 1235

 Prep Date:
 12/03/2014 1235

N/A

Leach Date:

Analysis Batch: Prep Batch: Leach Batch: Units: 480-216920 N/A N/A ug/L Instrument ID: HP5973G
Lab File ID: G36959.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1-Dichloroethane	25.0	23.7	95	71 - 129	
1,1-Dichloroethene	25.0	22.3	89	58 - 121	
1,2,4-Trimethylbenzene	25.0	22.3	89	76 - 121	
1,2-Dichlorobenzene	25.0	24.2	97	80 - 124	
1,2-Dichloroethane	25.0	23.6	94	75 - 127	
Benzene	25.0	23.7	95	71 - 124	
Chlorobenzene	25.0	24.7	99	72 - 120	
cis-1,2-Dichloroethene	25.0	25.1	101	74 - 124	
Ethylbenzene	25.0	23.6	94	77 - 123	
Methyl tert-butyl ether	25.0	24.4	97	64 - 127	
m-Xylene & p-Xylene	25.0	24.2	97	76 - 122	
o-Xylene	25.0	24.2	97	76 - 122	
Tetrachloroethene	25.0	24.5	98	74 - 122	
Toluene	25.0	23.4	94	80 - 122	
trans-1,2-Dichloroethene	25.0	22.5	90	73 - 127	
Trichloroethene	25.0	23.4	94	74 - 123	
Surrogate	%	Rec	А	cceptance Limits	
1,2-Dichloroethane-d4 (Surr)	9	8		66 - 137	
4-Bromofluorobenzene (Surr)	1	07		73 - 120	
Toluene-d8 (Surr)	1	02		71 - 126	

71 - 126

Client: Waste Management Job Number: 280-62814-1

Matri/ x5ike7 Method: 8260C
Matri/ x5ike v u5licate Recol ery Re5ort - Batch: 480-216P20 pre5aration: 30T0C

480-216920 Instrument ID: HP5973G MS Lab Sample ID: 480-71873-C-1 MS Analysis Batch: Client Matrix: Water Prep Batch: N/A Lab File ID: G36979.D Dilution: 100 Leach Batch: N/A Initial Weight/Volume: 5 mL Analysis Date: 12/03/2014 2021 Final Weight/Volume: 5 mL Prep Date: 12/03/2014 2021 5 mL

Instrument ID: MSD Lab Sample ID: 480-71873-C-1 MSD Analysis Batch: 480-216920 HP5973G Client Matrix: Lab File ID: Water Prep Batch: N/A G36980.D 5 mL Dilution: 100 Leach Batch: N/A Initial Weight/Volume: Analysis Date: 12/03/2014 2044 Final Weight/Volume: 5 mL Prep Date: 12/03/2014 2044 5 mL

Leach Date: N/A

Toluene-d8 (Surr)

N/A

Leach Date:

% Rec. Limit **RPD RPD Limit** Analyte MS MSD MS Qual MSD Qual 71 - 124 Benzene 95 93 2 13 Ethylbenzene 107 99 77 - 123 4 15 Methyl tert-butyl ether 100 100 64 - 127 0 37 m-Xylene & p-Xylene 133 115 76 - 122 5 16 F1 o-Xylene 101 96 76 - 122 4 16 Toluene 94 92 80 - 122 2 15 Surrogate MS % Rec MSD % Rec Acceptance Limits 1,2-Dichloroethane-d4 (Surr) 100 102 66 - 137 4-Bromofluorobenzene (Surr) 108 105 73 - 120

101

Matri/ x5ike7 Method: 8260C
Matri/ x5ike v u5licate Recol ery Re5ort - Batch: 480-216P20 pre5aration: 30T0C

MS Lab Sample ID: 480-71873-C-1 MS Units: ug/L MSD Lab Sample ID: 480-71873-C-1 MSD

Client Matrix:WaterClient Matrix:WaterDilution:100Dilution:100

102

Analysis Date: 12/03/2014 2021 Analysis Date: 12/03/2014 2044

Prep Date: 12/03/2014 2021 Prep Date: 12/03/2014 2044

Leach Date: N/A Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	I	MSD Result/Qual
Benzene	120	2500	2500	2500		2450
Ethylbenzene	2300	2500	2500	4970		4790
Methyl tert-butyl ether	ND	2500	2500	2500		2510
m-Xylene & p-Xylene	6500	2500	2500	9840	F1	9370
o-Xylene	580	2500	2500	3110		2980
Toluene	140	2500	2500	2500		2450

#### Method Blank - Batch: 480-219106

Method: 8260C pre5aration: 30T0C

Lab Sample ID: 480-217106 Instrument ID: HP5973G MB 480-217106/7 Analysis Batch: Client Matrix: Water Prep Batch: N/A Lab File ID: G36989.D Dilution: Leach Batch: N/A Initial Weight/Volume: 5 mL 1.0 Units: Final Weight/Volume: Analysis Date: 12/03/2014 2349 ug/L 5 mL Prep Date: 12/03/2014 2349

Leach Date: N/A

Analyte	Result	Qual	MDL	RL	
1,1,1,2-Tetrachloroethane	ND		0.35	1.0	
1,1,1-Trichloroethane	ND		0.82	1.0	
1,1,2,2-Tetrachloroethane	ND		0.21	1.0	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0	
1,1,2-Trichloroethane	ND		0.23	1.0	
1,1-Dichloroethane	ND		0.38	1.0	
1,1-Dichloroethene	ND		0.29	1.0	
1,1-Dichloropropene	ND		0.72	1.0	
1,2,3-Trichlorobenzene	ND		0.41	1.0	
1,2,3-Trichloropropane	ND		0.89	1.0	
1,2,4-Trichlorobenzene	ND		0.41	1.0	
1,2,4-Trimethylbenzene	ND		0.75	1.0	
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0	
1,2-Dibromoethane (EDB)	ND		0.73	1.0	
1,2-Dichlorobenzene	ND		0.79	1.0	
1,2-Dichloroethane	ND		0.21	1.0	
1,2-Dichloroethene, Total	ND		0.81	2.0	
1,2-Dichloropropane	ND		0.72	1.0	
1,3,5-Trichlorobenzene	ND		0.23	1.0	
1,3,5-Trimethylbenzene	ND		0.77	1.0	
1,3-Dichlorobenzene	ND		0.78	1.0	
1,3-Dichloropropane	ND		0.75	1.0	
1,4-Dichlorobenzene	ND		0.73	1.0	
1,4-Dioxane	ND		9.3	40	
2,2-Dichloropropane	ND		0.40	1.0	
2-Butanone (MEK)	ND		1.3	10	
2-Chloroethyl vinyl ether	ND		0.96	5.0	
2-Hexanone	ND		1.2	5.0	
4-Methyl-2-pentanone (MIBK)	ND ND		2.1	5.0	
Acetone	ND		3.0	10	
Acetonie	ND ND		4.9	15	
	ND ND			20	
Acrolein			0.91		
Acrylonitrile	ND		0.83	5.0	
Benzene	ND		0.41	1.0	
Bromobenzene	ND		0.80	1.0	
Bromochloromethane	ND		0.87	1.0	
Bromodichloromethane	ND		0.39	1.0	
Bromoform	ND		0.26	1.0	
Bromomethane	ND		0.69	1.0	
Butyl alcohol, n-	ND		8.9	40	
Butyl alcohol, tert-	ND		3.3	10	
Carbon disulfide	ND		0.19	1.0	
Carbon tetrachloride	ND		0.27	1.0	
Chlorobenzene	ND		0.75	1.0	
Chlorodifluoromethane	ND		0.26	1.0	

#### Method Blank - Batch: 480-219106

Method: 8260C pre5aration: 30T0C

Lab Sample ID: Analysis Batch: 480-217106 Instrument ID: HP5973G MB 480-217106/7 Client Matrix: Water Prep Batch: N/A Lab File ID: G36989.D Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 5 mL Units: Final Weight/Volume: Analysis Date: 12/03/2014 2349 ug/L 5 mL Prep Date: 12/03/2014 2349

Leach Date: N/A

Analyte	Result	Qual	MDL	RL	
Chloroethane	ND		0.32	1.0	
Chloroform	ND		0.34	1.0	
Chloromethane	ND		0.35	1.0	
cis-1,2-Dichloroethene	ND		0.81	1.0	
cis-1,3-Dichloropropene	ND		0.36	1.0	
Cyclohexane	ND		0.18	1.0	
Dibromochloromethane	ND		0.32	1.0	
Dibromomethane	ND		0.41	1.0	
Dichlorodifluoromethane	ND		0.68	1.0	
Dichlorofluoromethane	ND		0.34	1.0	
Ethyl acetate	ND		0.66	1.0	
Ethyl ether	ND		0.72	1.0	
Ethyl tert-butyl ether	ND		0.29	1.0	
Ethylbenzene	ND		0.74	1.0	
Hexachlorobutadiene	ND		0.28	1.0	
Hexane	ND		0.40	10	
Iodomethane	ND		0.30	1.0	
Isobutanol	ND		4.8	25	
Isopropyl ether	ND		0.59	1.0	
Isopropylbenzene	ND		0.79	1.0	
Methacrylonitrile	ND		0.69	5.0	
Methyl acetate	ND		0.50	2.5	
Methyl tert-butyl ether	ND		0.16	1.0	
Methylcyclohexane	ND		0.16	1.0	
Methylene Chloride	ND		0.44	1.0	
	ND		0.66	2.0	
m-Xylene & p-Xylene Naphthalene	ND ND		0.43	1.0	
	ND ND		0.43	1.0	
n-Butylbenzene					
N-Propylbenzene	ND		0.69	1.0	
o-Chlorotoluene	ND		0.86	1.0	
o-Xylene	ND		0.76	1.0	
p-Chlorotoluene	ND		0.84	1.0	
p-Cymene	ND		0.31	1.0	
sec-Butylbenzene	ND		0.75	1.0	
Styrene	ND		0.73	1.0	
Tert-amyl methyl ether	ND		0.27	1.0	
tert-Butylbenzene	ND		0.81	1.0	
Tetrachloroethene	ND		0.36	1.0	
Tetrahydrofuran	ND		1.3	5.0	
Toluene	ND		0.51	1.0	
trans-1,2-Dichloroethene	ND		0.90	1.0	
trans-1,3-Dichloropropene	ND		0.37	1.0	
trans-1,4-Dichloro-2-butene	ND		0.22	1.0	
Trichloroethene	ND		0.46	1.0	
Trichlorofluoromethane	ND		0.88	1.0	

HP5973G

G36989.D

5 mL

5 mL

Client: Waste Management Job Number: 280-62814-1

Method Blank - Batch: 480-219106

Method: 8260C pre5aration: 30T0C

Lab Sample ID: MB 480-217106/7 Analysis Batch: 480-217106 Instrument ID: Client Matrix: Water Prep Batch: N/A Lab File ID: Dilution: Leach Batch: N/A Initial Weight/Volume: 1.0 Analysis Date: 12/03/2014 2349 Units: ug/L Final Weight/Volume: Prep Date: 12/03/2014 2349

Leach Date: N/A

Analyte Result Qual MDL RL

Vinyl acetate ND 0.85 5.0

Vinyl chloride ND 0.90 1.0

 Surrogate
 % Rec
 Acceptance Limits

 1,2-Dichloroethane-d4 (Surr)
 101
 66 - 137

 4-Bromofluorobenzene (Surr)
 103
 73 - 120

 Toluene-d8 (Surr)
 100
 71 - 126

Method Blank ALCs- Batch: 480-219106

Cas Number Analyte RT Est. Result (ug/L Qual 67-72-1 Hexachloroethane TIC 0.00 ND

baS Control xaD 5le - Batch: 480-219106

Method: 8260C pre5aration: 30T0C

Lab Sample ID: LCS 480-217106/4 Client Matrix: Water Dilution: 1.0 Analysis Date: 12/03/2014 2243 Prep Date: 12/03/2014 2243

N/A

Analysis Batch: Prep Batch: Leach Batch: Units:

480-217106 N/A N/A ug/L

Instrument ID: HP5973G Lab File ID: G36986.D Initial Weight/Volume: 5 mL Final Weight/Volume: 5 mL

Leach Date:

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1-Dichloroethane	25.0	25.3	101	71 - 129	
1,1-Dichloroethene	25.0	22.9	92	58 - 121	
1,2,4-Trimethylbenzene	25.0	22.6	90	76 - 121	
1,2-Dichlorobenzene	25.0	24.9	99	80 - 124	
1,2-Dichloroethane	25.0	25.3	101	75 - 127	
Benzene	25.0	24.4	98	71 - 124	
Chlorobenzene	25.0	24.3	97	72 - 120	
cis-1,2-Dichloroethene	25.0	25.7	103	74 - 124	
Ethylbenzene	25.0	23.2	93	77 - 123	
Methyl tert-butyl ether	25.0	25.8	103	64 - 127	
m-Xylene & p-Xylene	25.0	23.6	94	76 - 122	
o-Xylene	25.0	24.3	97	76 - 122	
Tetrachloroethene	25.0	24.1	96	74 - 122	
Toluene	25.0	23.4	94	80 - 122	
trans-1,2-Dichloroethene	25.0	23.0	92	73 - 127	
Trichloroethene	25.0	25.1	100	74 - 123	
Surrogate	%	Rec	А	cceptance Limits	
1,2-Dichloroethane-d4 (Surr)	1	06		66 - 137	
4-Bromofluorobenzene (Surr)	1	06		73 - 120	

Matri/ x5ike7 Method: 8260C
Matri/ x5ike v u5licate Recol ery Re5ort - Batch: 480-219106 pre5aration: 30T0C

MS Lab Sample ID: Client Matrix: Dilution: Analysis Date: Prep Date: Leach Date:	480-71793-J-1 MS Water 5.0 12/04/2014 0657 12/04/2014 0657 N/A	Prep	lysis Batch: o Batch: ch Batch:	480-217106 N/A N/A			HP5973G G37008.D 5 mL 5 mL 5 mL	
MSD Lab Sample ID Client Matrix: Dilution: Analysis Date: Prep Date: Leach Date:	: 480-71793-J-1 MSD Water 5.0 12/04/2014 0719 12/04/2014 0719 N/A	Prep	lysis Batch: o Batch: ch Batch:	480-217106 N/A N/A			HP5973G G37009.D 5 mL 5 mL 5 mL	
		%	Rec.					
Analyte		MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
1,1-Dichloroethane		102	100	71 - 129	2	20		
1,1-Dichloroethene		97	97	58 - 121	0	16		
1,2-Dichlorobenzene	)	99	99	80 - 124	0	20		
1,2-Dichloroethane		98	99	75 - 127	1	20		
Benzene		100	98	71 - 124	2	13		
Chlorobenzene		99	97	72 - 120	2	25		
cis-1,2-Dichloroether	ne	104	101	74 - 124	3	15		
Ethylbenzene		96	93	77 - 123	3	15		
m-Xylene & p-Xylene	е	99	97	76 - 122	2	16		
o-Xylene		98	96	76 - 122	3	16		
Tetrachloroethene		96	95	74 - 122	2	20		
Toluene		95	94	80 - 122	1	15		
trans-1,2-Dichloroeth	nene	97	98	73 - 127	1	20		
Trichloroethene		99	98	74 - 123	2	16		
Surrogate			MS % Rec	MSD <sup>o</sup>	% Rec	Acc	eptance Limits	;
1,2-Dichloroethane-c	d4 (Surr)		101	103		(	66 - 137	
4-Bromofluorobenze	ne (Surr)		103	105			73 - 120	
Toluene-d8 (Surr)			101	101		-	71 - 126	

Client: Waste Management Job Number: 280-62814-1

Matri/ x5ike7 Method: 8260C Matri/ x5ike v u5licate Recol ery Re5ort - Batch: 480-219106 pre5aration: 30T0C

MS Lab Sample ID:

480-71793-J-1 MS

Units: ug/L

MSD Lab Sample ID: 480-71793-J-1 MSD

Client Matrix:

Water

Client Matrix: Water

Dilution: 5.0 Dilution: 5.0

Analysis Date: 12/04/2014 0657 Prep Date: 12/04/2014 0657

Analysis Date: 12/04/2014 0719 Prep Date: 12/04/2014 0719

Leach Date: N/A Leach Date: N/A

	Sample	MS Spike	MSD Spike	MS	MSD
Analyte	Result/Qual	Amount	Amount	Result/Qual	Result/Qual
1,1-Dichloroethane	ND	125	125	128	125
1,1-Dichloroethene	ND	125	125	121	121
1,2-Dichlorobenzene	ND	125	125	124	124
1,2-Dichloroethane	ND	125	125	122	123
Benzene	ND	125	125	125	122
Chlorobenzene	7.5	125	125	132	129
cis-1,2-Dichloroethene	ND	125	125	131	126
Ethylbenzene	ND	125	125	120	117
m-Xylene & p-Xylene	ND	125	125	124	122
o-Xylene	ND	125	125	123	120
Tetrachloroethene	ND	125	125	120	118
Toluene	ND	125	125	119	117
trans-1,2-Dichloroethene	ND	125	125	122	123
Trichloroethene	ND	125	125	124	122

Method Blank - Batch: 480-213P29 Method: 8260C x LM pre5aration: 30T0C

Lab Sample ID: MB 480-215927/8 480-215927 Instrument ID: HP5973J Analysis Batch: Client Matrix: Water Prep Batch: N/A Lab File ID: J4167.D N/A Dilution: 1.0 Leach Batch: Initial Weight/Volume: 25 mL Analysis Date: 11/25/2014 1734 Units: Final Weight/Volume: 25 mL ug/L

Prep Date: 11/25/2014 1734

Leach Date: N/A

Analyte Result Qual MDL RL Vinyl chloride ND 0.0040 0.020 Surrogate % Rec Acceptance Limits Dibromofluoromethane (Surr) 97 50 - 150 TBA-d9 (Surr) 50 - 150 112

baS Control xaD 5le7 Method: 8260C xLM baS Control xaD 5le v u5licate Recol ery Re5ort - Batch: 480-213P29 pre5aration: 30T0C

LCS Lab Sample ID: Instrument ID: LCS 480-215927/5 Analysis Batch: 480-215927 HP5973J Client Matrix: Water Prep Batch: N/A Lab File ID: J4164.D Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 25 mL Analysis Date: 11/25/2014 1516 Units: ug/L Final Weight/Volume: 25 mL Prep Date: 11/25/2014 1516 25 mL

Leach Date: N/A

LCSD Lab Sample ID: LCSD 480-215927/6 Analysis Batch: 480-215927 Instrument ID: HP5973J Client Matrix: Water Prep Batch: N/A Lab File ID: J4165.D Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 25 mL Analysis Date: 11/25/2014 1540 Units: ug/L Final Weight/Volume: 25 mL Prep Date: 11/25/2014 1540 25 mL

Leach Date: N/A

% Rec. LCS LCSD RPD LCS Qual LCSD Qual Analyte Limit **RPD Limit** Vinyl chloride 133 129 50 - 150 20 3 Surrogate LCS % Rec LCSD % Rec Acceptance Limits 100 Dibromofluoromethane (Surr) 107 50 - 150 50 - 150 TBA-d9 (Surr) 109 120

Client: Waste Management Job Number: 280-62814-1

baSoratory Control7 Method: 8260C x LM baSoratory v u5licate v ata Re5ort - Batch: 480-213P29 pre5aration: 30T0C

LCS Lab Sample ID: LCS 480-215927/5 Units: ug/L LCSD Lab Sample ID: LCSD 480-215927/6

Client Matrix:WaterClient Matrix:WaterDilution:1.0Dilution:1.0

 Analysis Date:
 11/25/2014
 1516
 Analysis Date:
 11/25/2014
 1540

 Prep Date:
 11/25/2014
 1516
 Prep Date:
 11/25/2014
 1540

Leach Date: N/A Leach Date: N/A

Analyte LCS Spike LCSD Spike LCS LCSD Amount Result/Qual Result/Qual Vinyl chloride 0.200 0.200 0.266 0.258

Client: Waste Management Job Number: 280-62814-1

Method Blank - Batch: 280-234414

Method: 6010B pre5aration: T003m Aotal Recol eraSle

Lab Sample ID: MB 280-254414/1-A

Client Matrix: Water

 Dilution:
 1.0

 Analysis Date:
 12/13/2014 0817

 Prep Date:
 11/24/2014 1245

Leach Date: N/A

Analysis Batch: 280-257020 Instrument ID:

Prep Batch: 280-254414 Leach Batch: N/A

Units: N/A mg/L

nstrument ID: MT\_026
\_ab File ID: 26A121214E.asc

Lab File ID: 26A12121
Initial Weight/Volume: 50 mL

Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL	RL
Calcium, Dissolved	ND		0.040	0.040
Cobalt, Dissolved	ND		0.0030	0.0030
Iron, Dissolved	ND		0.060	0.060
Magnesium, Dissolved	ND		0.050	0.050
Potassium, Dissolved	ND		1.0	1.0
Sodium, Dissolved	ND		1.0	1.0

baS Control xaD 5le - Batch: 280-234414

Method: 6010B pre5aration: T003m Aotal Recol eraSle

Lab Sample ID: LCS 280-254414/2-A Client Matrix: Water

Dilution: 1.0
Analysis Date: 12/13/2014 0819
Prep Date: 11/24/2014 1245

Leach Date: N/A

Analysis Batch: 280-257020
Prep Batch: 280-254414
Leach Batch: N/A
Units: mg/L

Instrument ID: MT\_026
Lab File ID: 26A121214E.asc
Initial Weight/Volume: 50 ml

Initial Weight/Volume: 50 mL Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Calcium, Dissolved	50.0	53.5	107	90 - 111	
Cobalt, Dissolved	0.500	0.531	106	89 - 111	
Iron, Dissolved	1.00	1.07	107	89 - 115	
Magnesium, Dissolved	50.0	52.0	104	90 - 113	
Potassium, Dissolved	50.0	53.0	106	89 - 114	
Sodium, Dissolved	50.0	55.4	111	90 - 115	

Client: Waste Management Job Number: 280-62814-1

Matri/ x5ike7

Matri/ x5ike v u5licate Recol ery Re5ort - Batch: 280-234414

Method: 6010B pre5aration: T003m

v issoll ed

MS Lab Sample ID:

280-62814-6 Water Analysis Batch:

280-257020 Instrument ID:

MT\_026

Client Matrix: Dilution:

1.0

Prep Batch: 280-254414

Lab File ID:

26A121214E.asc

Analysis Date:

1.0

Leach Batch:

N/A

Initial Weight/Volume: Final Weight/Volume:

50 mL 50 mL

Prep Date: Leach Date: 12/13/2014 0904 11/24/2014 1245

N/A

280-62814-6

Analysis Batch: 280-257020 Prep Batch: 280-254414 Instrument ID: MT\_026
Lab File ID: 26A121214E.asc

Client Matrix: Dilution:

MSD Lab Sample ID:

Water 1.0

Leach Batch:

atch: N/A

Initial Weight/Volume: 50 mL

Analysis Date: Prep Date: 12/13/2014 0907 11/24/2014 1245

Leach Date:

N/A

Final Weight/Volume: 50 mL

% Rec.

Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Calcium, Dissolved	106	105	48 - 153	1	20		
Cobalt, Dissolved	107	106	82 - 119	1	20		
Iron, Dissolved	108	107	52 - 155	1	20		
Magnesium, Dissolved	105	103	62 - 146	2	20		
Potassium, Dissolved	107	106	76 - 132	1	20		
Sodium, Dissolved	112	111	70 - 203	0	20		

Matri/ x5ike7

Matri/ x5ike vu5licate Recol ery Re5ort - Batch: 280-234414

Method: 6010B pre5aration: T003m

v issoll ed

MS Lab Sample ID:

280-62814-6

Client Matrix: Water Dilution: 1.0

Dilution: Analysis Date:

1.0 12/13/2014 0904

Prep Date:

11/24/2014 1245

Leach Date: N/A

Units: mg/L

MSD Lab Sample ID:

280-62814-6

Client Matrix: Dilution: Water 1.0

Analysis Date:

12/13/2014 0907

Prep Date:

11/24/2014 1245

Leach Date: N/A

Sample MS Spike MSD Spike MS MSD Result/Qual Amount Amount Result/Qual Result/Qual Analyte Calcium, Dissolved 25 50.0 50.0 78.4 77.7 Cobalt, Dissolved ND 0.500 0.500 0.535 0.528 Iron, Dissolved ND 1.00 1.00 1.08 1.07 Magnesium, Dissolved 15 50.0 50.0 66.8 65.8 Potassium, Dissolved 3.1 50.0 50.0 56.6 56.1 Sodium, Dissolved 9.0 50.0 50.0 64.9 64.5

Qual

Job Number: 280-62814-1 Client: Waste Management

Method Blank - Batch: 280-2344T6

Method: 6010B pre5aration: T003m Aotal Recol eraSle

Lab Sample ID: MB 280-254436/1-A

Client Matrix: Water

Dilution: 1.0 12/13/2014 0459 Analysis Date: Prep Date: 11/25/2014 0715

Leach Date: N/A

280-257019 Instrument ID: Analysis Batch:

Prep Batch: 280-254436 Leach Batch: N/A

Units: mg/L MT\_026

Lab File ID: 26A121214D.asc

Initial Weight/Volume: 50 mL Final Weight/Volume: 50 mL

Analyte Result Qual RL RL Cobalt, Total ND 0.0030 0.0030 Iron. Total ND 0.060 0.060

baS Control xaD 5le - Batch: 280-2344T6

Method: 6010B pre5aration: T003m Aotal Recol eraSle

Lab Sample ID: LCS 280-254436/2-A Client Matrix: Water Dilution: 1.0

12/13/2014 0502 Analysis Date: Prep Date: 11/25/2014 0715

Leach Date: N/A Analysis Batch: 280-257019 Instrument ID: MT 026 Prep Batch: 280-254436 26A121214D.asc Lab File ID:

Leach Batch: N/A Initial Weight/Volume: 50 mL Units: 50 mL mg/L Final Weight/Volume:

Analyte Spike Amount Result % Rec. Limit Cobalt, Total 0.500 0.537 107 89 - 111 Iron, Total 1.00 1.10 110 89 - 115

Matri/ x5ike7

Matri/ x5ike v u5licate Recol ery Re5ort - Batch: 280-2344T6

Method: 6010B pre5aration: T003m Aotal Recol eraSle

MS Lab Sample ID: 280-62814-1 Analysis Batch: 280-257019 Instrument ID: MT\_026 Client Matrix: Water Prep Batch: 280-254436 Lab File ID: 26A121214D.asc

Leach Batch: Dilution: 1.0 N/A Initial Weight/Volume: 50 mL 12/13/2014 0533 Final Weight/Volume: 50 mL

Analysis Date: Prep Date: 11/25/2014 0715

Leach Date:

MSD Lab Sample ID: 280-62814-1 Analysis Batch: 280-257019 Instrument ID: MT\_026

Client Matrix: Water Prep Batch: 280-254436 Lab File ID: 26A121214D.asc

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 50 mL

12/13/2014 0536 Final Weight/Volume: Analysis Date: 50 mL Prep Date: 11/25/2014 0715

Leach Date: N/A

% Rec. Analyte MS MSD Limit **RPD RPD Limit** MS Qual MSD Qual Cobalt. Total 106 107 82 - 119 1 20 52 - 155 Iron, Total 112 113 0 20

Client: Waste Management Job Number: 280-62814-1

Units: mg/L

Matri/ x5ike7 Matri/ x5ike v u5licate Recol ery Re5ort - Batch: 280-2344T6 Method: 6010B pre5aration: T003m Aotal Recol eraSle

MS Lab Sample ID: 280-62814-1 Client Matrix: Water

Dilution: Wate

Analysis Date: 12/13/2014 0533 Prep Date: 11/25/2014 0715

Leach Date: N/A

MSD Lab Sample ID: 280-62814-1
Client Matrix: Water
Dilution: 1.0

Analysis Date: 12/13/2014 0536 Prep Date: 11/25/2014 0715

Leach Date: N/A

Analyte	Sample	MS Spike	MSD Spike	MS	MSD
	Result/Qual	Amount	Amount	Result/Qual	Result/Qual
Cobalt, Total	ND	0.500	0.500	0.530	0.535
Iron, Total	ND	1.00	1.00	1.12	1.13

Client: Waste Management Job Number: 280-62814-1

mg/L

Method Blank - Batch: 280-234428

Method: 6020 pre5aration: T003m Aotal Recol eraSle

Lab Sample ID: MB 280-254428/1-A Client Matrix: Water Dilution:

1.0

Analysis Batch: 280-255058 Prep Batch: 280-254428 Leach Batch: N/A

Units:

Instrument ID: Lab File ID: Initial Weight/Volume: Final Weight/Volume:

MT\_078 212\_BLK.d 50 mL 50 mL

Analysis Date: 11/26/2014 0251 Prep Date: 11/25/2014 0715

Leach Date: N/A

Analyte	Result	Qual	RL	RL	
Antimony, Total	ND		0.0010	0.0010	
Barium, Total	ND		0.0010	0.0010	
Beryllium, Total	ND		0.0010	0.0010	
Cadmium, Total	ND		0.00020	0.00020	
Chromium, Total	ND		0.0030	0.0030	
Copper, Total	ND		0.0020	0.0020	
Lead, Total	ND		0.0010	0.0010	
Manganese, Total	ND		0.0010	0.0010	
Selenium, Total	ND		0.0010	0.0010	
Thallium, Total	ND		0.0010	0.0010	
Vanadium, Total	ND		0.0020	0.0020	
Zinc, Total	ND		0.0050	0.0050	

Method Blank - Batch: 280-234428

Method: 6020 pre5aration: T003m Aotal Recol eraSle

Lab Sample ID: MB 280-254428/1-A Client Matrix: Water Dilution: 1.0 Analysis Date: 11/28/2014 1617 Prep Date:

11/25/2014 0715

Analysis Batch: 280-255167 Prep Batch: 280-254428 Leach Batch: N/A Units: mg/L

Instrument ID: MT\_078 Lab File ID: 043\_BLK.d Initial Weight/Volume: 50 mL Final Weight/Volume: 50 mL

Leach Date: N/A

Analyte	Result	Qual	RL	RL
Nickel, Total	ND		0.0040	0.0040
Silver, Total	ND		0.0020	0.0020

baS Control xaD 5le - Batch: 280-234428

Method: 6020 pre5aration: T003m Aotal Recol eraSle

 Lab Sample ID:
 LCS 280-254428/2-A

 Client Matrix:
 Water

 Dilution:
 1.0

 Analysis Date:
 11/26/2014 0255

 Prep Date:
 11/25/2014 0715

Analysis Batch:
Prep Batch:
Leach Batch:
Units:

280-255058 280-254428 N/A mg/L Instrument ID: MT\_078
Lab File ID: 213\_LCS.d
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Leach Date: N/A

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Antimony, Total	0.0400	0.0382	95	85 - 115	
Barium, Total	0.0400	0.0388	97	85 - 118	
Beryllium, Total	0.0400	0.0414	103	80 - 125	
Cadmium, Total	0.0400	0.0382	95	85 - 115	
Chromium, Total	0.0400	0.0373	93	84 - 121	
Copper, Total	0.0400	0.0369	92	85 - 119	
Lead, Total	0.0400	0.0415	104	85 - 118	
Manganese, Total	0.0400	0.0391	98	85 - 117	
Selenium, Total	0.0400	0.0401	100	77 - 122	
Thallium, Total	0.0400	0.0410	103	85 - 118	
Vanadium, Total	0.0400	0.0376	94	85 - 120	
Zinc, Total	0.0400	0.0399	100	83 - 122	

baS Control xaD 5le - Batch: 280-234428

Method: 6020 pre5aration: T003m Aotal Recol eraSle

 Lab Sample ID:
 LCS 280-254428/2-A

 Client Matrix:
 Water

 Dilution:
 1.0

 Analysis Date:
 11/28/2014 1621

 Prep Date:
 11/25/2014 0715

 Leach Date:
 N/A

Analysis Batch: 280-255167
Prep Batch: 280-254428
Leach Batch: N/A
Units: mg/L

Instrument ID: MT\_078
Lab File ID: 044\_LCS.d
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Qual

 Analyte
 Spike Amount
 Result
 % Rec.
 Limit

 Nickel, Total
 0.0400
 0.0428
 107
 85 - 119

 Silver, Total
 0.0400
 0.0428
 107
 85 - 115

Matri/ x5ike - Batch: 280-234428

Method: 6020 pre5aration: T003m Aotal Recol eraSle

Lab Sample ID: 280-62814-2
Client Matrix: Water
Dilution: 1.0
Analysis Date: 11/26/2014 0309

Analysis Batch: 280-255058
Prep Batch: 280-254428
Leach Batch: N/A
Units: mg/L

Instrument ID: MT\_078
Lab File ID: 217SMPL.d
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Prep Date: 11/25/2014 0715 Leach Date: N/A

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Antimony, Total	ND	0.0400	0.0385	96	85 - 115	
Barium, Total	0.0062	0.0400	0.0453	98	85 - 118	
Beryllium, Total	ND	0.0400	0.0428	107	80 - 125	
Cadmium, Total	ND	0.0400	0.0375	94	85 - 115	
Chromium, Total	ND	0.0400	0.0371	93	84 - 121	
Copper, Total	ND	0.0400	0.0370	92	85 - 119	
Lead, Total	ND	0.0400	0.0403	101	85 - 118	
Manganese, Total	2.5	0.0400	2.43	-73	85 - 117	4
Selenium, Total	ND	0.0400	0.0394	98	77 - 122	
Thallium, Total	ND	0.0400	0.0404	101	85 - 118	
Vanadium, Total	ND	0.0400	0.0385	96	85 - 120	
Zinc, Total	0.0091	0.0400	0.0424	83	83 - 122	

Method Blank - Batch: 280-234468

Method: 6020 pre5aration: T003m Aotal Recol eraSle

Lab Sample ID: MB 280-254468/1-A

Client Matrix: Water Dilution: 1.0 Analysis Date: 11/25/2014 0507 Prep Date:

11/24/2014 1245

Leach Date: N/A

280-254731 Analysis Batch: Prep Batch: 280-254468 Leach Batch: N/A

Units: mg/L Instrument ID: MT\_024 Lab File ID: 211 BLK.D Initial Weight/Volume: 50 mL Final Weight/Volume: 50 mL

Analyte Result Qual RL RL Antimony, Dissolved ND 0.0010 0.0010 Barium, Dissolved ND 0.0010 0.0010 Beryllium, Dissolved ND 0.0010 0.0010 Cadmium, Dissolved ND 0.00020 0.00020 Chromium, Dissolved ND 0.0030 0.0030 Copper, Dissolved ND 0.0020 0.0020 Lead, Dissolved ND 0.0010 0.0010 Manganese, Dissolved ND 0.0010 0.0010 Nickel, Dissolved ND 0.0040 0.0040 Selenium, Dissolved ND 0.0010 0.0010 Silver, Dissolved ND 0.0020 0.0020 Thallium, Dissolved ND 0.0010 0.0010 Vanadium, Dissolved ND 0.0020 0.0020 Zinc, Dissolved ND 0.0050 0.0050

baS Control xaD 5le - Batch: 280-234468

Method: 6020 pre5aration: T003m Aotal Recol eraSle

Lab Sample ID: LCS 280-254468/2-A

Client Matrix: Water Dilution: 1.0 Analysis Date: 11/25/2014 0510

11/24/2014 1245 Prep Date:

Leach Date: N/A Analysis Batch: 280-254731 Prep Batch: 280-254468 Leach Batch: N/A Units: mg/L

Instrument ID: MT\_024 Lab File ID: 212\_LCS.D Initial Weight/Volume: 50 mL Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Antimony, Dissolved	0.0400	0.0393	98	85 - 115	
Barium, Dissolved	0.0400	0.0408	102	85 - 118	
Beryllium, Dissolved	0.0400	0.0416	104	80 - 125	
Cadmium, Dissolved	0.0400	0.0426	107	85 - 115	
Chromium, Dissolved	0.0400	0.0411	103	84 - 121	
Copper, Dissolved	0.0400	0.0431	108	85 - 119	
ead, Dissolved	0.0400	0.0426	107	85 - 118	
langanese, Dissolved	0.0400	0.0414	103	85 - 117	
lickel, Dissolved	0.0400	0.0428	107	85 - 119	
elenium, Dissolved	0.0400	0.0428	107	77 - 122	
silver, Dissolved	0.0400	0.0426	106	85 - 115	
hallium, Dissolved	0.0400	0.0422	105	85 - 118	
anadium, Dissolved	0.0400	0.0403	101	85 - 120	
Zinc, Dissolved	0.0400	0.0457	114	83 - 122	

Matri/ x5ike7

Matri/ x5ike v u5licate Recol ery Re5ort - Batch: 280-234468

Method: 6020 pre5aration: T003m

v issoll ed

MS Lab Sample ID: 280-62814-7
Client Matrix: Water
Dilution: 1.0

Analysis Batch: 280-254731
Prep Batch: 280-254468
Leach Batch: N/A

Instrument ID: MT\_024
Lab File ID: 217\_MS.D
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analysis Date: 11/25/2014 0526 Prep Date: 11/24/2014 1245

Leach Date: N/A

MSD Lab Sample ID: 280-62814-7 Client Matrix: Water Dilution: 1.0

Analysis Date: 11/25/2014 0529 Prep Date: 11/24/2014 1245

Leach Date: N/A

Vanadium, Dissolved

Zinc, Dissolved

Analysis Batch: 280-254731 Instrument ID: MT\_024

Prep Batch: 280-254468 Lab File ID: 218\_MSD.D

Leach Batch: N/A Initial Weight/Volume: 50 mL

Final Weight/Volume: 50 mL

% Rec. RPD **RPD** Limit Analyte MS MSD Limit MS Qual MSD Qual Antimony, Dissolved 85 - 115 106 104 2 20 Barium, Dissolved 105 105 85 - 118 0 20 Beryllium, Dissolved 109 106 80 - 125 2 20 2 Cadmium, Dissolved 107 105 85 - 115 20 Chromium, Dissolved 106 103 84 - 121 3 20 2 Copper, Dissolved 108 106 85 - 119 20 2 20 Lead, Dissolved 106 104 85 - 118 Manganese, Dissolved 113 102 85 - 117 2 20 2 20 Nickel, Dissolved 108 106 85 - 119 Selenium, Dissolved 110 106 77 - 122 3 20 85 - 115 3 20 Silver, Dissolved 107 104 1 20 Thallium, Dissolved 105 104 85 - 118

85 - 120

83 - 122

1

4

20

20

109

118

107

113

Client: Waste Management Job Number: 280-62814-1

Units: mg/L

Matri/ x5ike7

Matri/ x5ike v u5licate Recol ery Re5ort - Batch: 280-234468

Method: 6020 pre5aration: T003m

v issoll ed

MS Lab Sample ID: 280-62814-7

Client Matrix: Water Dilution: 1.0

Analysis Date: 11/25/2014 0526 Prep Date: 11/24/2014 1245

Leach Date: N/A

MSD Lab Sample ID: 280-62814-7 Client Matrix: Water Dilution: 1.0

Analysis Date: 11/25/2014 0529 Prep Date: 11/24/2014 1245

Leach Date: N/A

	Sample	MS Spike	MSD Spike	MS	MSD
Analyte	Result/Qual	Amount	Amount	Result/Qual	Result/Qual
Antimony, Dissolved	ND	0.0400	0.0400	0.0423	0.0415
Barium, Dissolved	0.0064	0.0400	0.0400	0.0485	0.0483
Beryllium, Dissolved	ND	0.0400	0.0400	0.0435	0.0426
Cadmium, Dissolved	ND	0.0400	0.0400	0.0429	0.0420
Chromium, Dissolved	ND	0.0400	0.0400	0.0424	0.0410
Copper, Dissolved	ND	0.0400	0.0400	0.0431	0.0425
Lead, Dissolved	ND	0.0400	0.0400	0.0425	0.0415
Manganese, Dissolved	0.16	0.0400	0.0400	0.203	0.198
Nickel, Dissolved	ND	0.0400	0.0400	0.0432	0.0423
Selenium, Dissolved	ND	0.0400	0.0400	0.0438	0.0426
Silver, Dissolved	ND	0.0400	0.0400	0.0428	0.0414
Thallium, Dissolved	ND	0.0400	0.0400	0.0421	0.0416
Vanadium, Dissolved	ND	0.0400	0.0400	0.0435	0.0429
Zinc, Dissolved	ND	0.0400	0.0400	0.0474	0.0454

Method Blank - Batch: 280-23446P

Method: 6020 pre5aration: T003m Aotal Recol eraSle

Lab Sample ID: MB 280-254469/1-A

Client Matrix: Water
Dilution: 1.0
Analysis Date: 11/25/2014 0338

Prep Date: 11/24/2014 1245

Leach Date: N/A

Analysis Batch: 280-254731 Prep Batch: 280-254469

Leach Batch: N/A
Units: mg/L

Instrument ID: MT\_024
Lab File ID: 182\_BLK.D
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte Result Qual RL RL Antimony, Dissolved ND 0.0010 0.0010 Barium, Dissolved ND 0.0010 0.0010 Beryllium, Dissolved ND 0.0010 0.0010 Cadmium, Dissolved ND 0.00020 0.00020 Chromium, Dissolved ND 0.0030 0.0030 Copper, Dissolved ND 0.0020 0.0020 Lead, Dissolved ND 0.0010 0.0010 Manganese, Dissolved ND 0.0010 0.0010 Nickel, Dissolved ND 0.0040 0.0040 Selenium, Dissolved ND 0.0010 0.0010 Silver, Dissolved ND 0.0020 0.0020 Thallium, Dissolved ND 0.0010 0.0010 Vanadium, Dissolved ND 0.0020 0.0020

ND

baS Control xaD 5le - Batch: 280-23446P

Method: 6020 pre5aration: T003m Aotal Recol eraSle

0.0050

0.0050

Lab Sample ID: LCS 280-254469/2-A

Client Matrix: Water
Dilution: 1.0
Analysis Date: 11/25/2014 0341

Prep Date: 11/24/2014 1245

Leach Date: N/A

Zinc, Dissolved

Analysis Batch: 280-254731 Instrument ID: MT\_024 Prep Batch: 280-254469 Lab File ID: 183\_LCS.D Leach Batch: N/A Initial Weight/Volume: 50 mL Units: mg/L Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Antimony, Dissolved	0.0400	0.0368	92	85 - 115	
Barium, Dissolved	0.0400	0.0398	100	85 - 118	
Beryllium, Dissolved	0.0400	0.0397	99	80 - 125	
Cadmium, Dissolved	0.0400	0.0396	99	85 - 115	
Chromium, Dissolved	0.0400	0.0392	98	84 - 121	
Copper, Dissolved	0.0400	0.0410	103	85 - 119	
Lead, Dissolved	0.0400	0.0395	99	85 - 118	
Manganese, Dissolved	0.0400	0.0400	100	85 - 117	
Nickel, Dissolved	0.0400	0.0405	101	85 - 119	
Selenium, Dissolved	0.0400	0.0423	106	77 - 122	
Silver, Dissolved	0.0400	0.0403	101	85 - 115	
Thallium, Dissolved	0.0400	0.0395	99	85 - 118	
Vanadium, Dissolved	0.0400	0.0387	97	85 - 120	
Zinc, Dissolved	0.0400	0.0424	106	83 - 122	

Job Number: 280-62814-1 Client: Waste Management

280-254731

280-254469

N/A

Analysis Batch:

Prep Batch:

Leach Batch:

Matri/ x5ike7

Matri/ x5ike v u5licate Recol ery Re5ort - Batch: 280-23446P

Method: 6020 pre5aration: T003m

280-62814-2 MS Lab Sample ID: Client Matrix: Water

Dilution: 1.0

Analysis Date: 11/25/2014 0421 Prep Date: 11/24/2014 1245

Leach Date: N/A

280-62814-2 MSD Lab Sample ID:

Client Matrix: Water Dilution: 1.0

Analysis Date: 11/25/2014 0424 Prep Date: 11/24/2014 1245

Leach Date: N/A

v issoll ed

Instrument ID: MT\_024 Lab File ID: 196 MS.D Initial Weight/Volume: 50 mL

Final Weight/Volume: 50 mL

Instrument ID: Analysis Batch: 280-254731 MT 024 Lab File ID: Prep Batch: 280-254469 197 MSD.D Leach Batch: N/A Initial Weight/Volume: 50 mL

Final Weight/Volume: 50 mL

% Rec. RPD **RPD** Limit Analyte MS MSD Limit MS Qual MSD Qual Antimony, Dissolved 85 - 115 102 101 1 20 Barium, Dissolved 106 101 85 - 118 4 20 Beryllium, Dissolved 104 102 80 - 125 2 20 Cadmium, Dissolved 101 101 85 - 115 1 20 Chromium, Dissolved 104 101 84 - 121 3 20 Copper, Dissolved 106 102 85 - 119 4 20 3 20 Lead, Dissolved 101 98 85 - 118 Manganese, Dissolved 288 62 85 - 117 4 20 3 20 Nickel, Dissolved 107 104 85 - 119 Selenium, Dissolved 110 106 77 - 122 4 20 85 - 115 2 20 100 Silver, Dissolved 102 2 20 Thallium, Dissolved 102 100 85 - 118 Vanadium, Dissolved 105 102 85 - 120 3 20 Zinc, Dissolved 101 96 83 - 122 4 20

Client: Waste Management Job Number: 280-62814-1

Units: mg/L

Matri/ x5ike7

Matri/ x5ike v u5licate Recol ery Re5ort - Batch: 280-23446P

Method: 6020 pre5aration: T003m

v issoll ed

MS Lab Sample ID: 280-62814-2

Client Matrix: Water Dilution: 1.0

Analysis Date: 11/25/2014 0421 Prep Date: 11/24/2014 1245

Leach Date: N/A

MSD Lab Sample ID: 280-62814-2 Client Matrix: Water Dilution: 1.0

Analysis Date: 11/25/2014 0424 Prep Date: 11/24/2014 1245

Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Antimony, Dissolved	ND	0.0400	0.0400	0.0408	0.0402
Barium, Dissolved	0.0060	0.0400	0.0400	0.0484	0.0464
Beryllium, Dissolved	ND	0.0400	0.0400	0.0415	0.0406
Cadmium, Dissolved	ND	0.0400	0.0400	0.0405	0.0402
Chromium, Dissolved	ND	0.0400	0.0400	0.0416	0.0405
Copper, Dissolved	ND	0.0400	0.0400	0.0424	0.0408
Lead, Dissolved	ND	0.0400	0.0400	0.0403	0.0392
Manganese, Dissolved	2.4	0.0400	0.0400	2.51 4	2.42 4
Nickel, Dissolved	ND	0.0400	0.0400	0.0428	0.0415
Selenium, Dissolved	ND	0.0400	0.0400	0.0439	0.0424
Silver, Dissolved	ND	0.0400	0.0400	0.0407	0.0398
Thallium, Dissolved	ND	0.0400	0.0400	0.0408	0.0399
Vanadium, Dissolved	ND	0.0400	0.0400	0.0420	0.0409
Zinc, Dissolved	0.0055	0.0400	0.0400	0.0459	0.0441

Job Number: 280-62814-1 Client: Waste Management

Method Blank - Batch: 280-233043 Method: T00.0 pre5aration: N7m

Lab Sample ID: MB 280-255045/6 280-255045 Instrument ID: Analysis Batch: WC\_lonChrom10

Client Matrix: Water Prep Batch: N/A Lab File ID: Info 2 DENPC179 Anions

N/A Dilution: Leach Batch: Initial Weight/Volume: 5 mL 1.0 11/27/2014 1120 Units: Final Weight/Volume: 5 mL Analysis Date: mg/L

Prep Date: N/A Leach Date: N/A

Analyte Result Qual RL RL Chloride ND 1.0 1.0 Sulfate ND 1.0 1.0

Method: T00.0 Method Re5orting biD it Check - Batch: 280-233043 pre5aration: N7m

Analysis Batch: 280-255045 WC IonChrom10 Lab Sample ID: MRL 280-255045/3 Instrument ID:

Client Matrix: Prep Batch: N/A Lab File ID: Info 2\_DENPC179\_Anions Water

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 5 mL 11/27/2014 1034 Units: 5 mL Analysis Date: mg/L Final Weight/Volume:

Prep Date: N/A Leach Date: N/A

Analyte Spike Amount Result % Rec. Limit Qual Chloride ND 2.50 94 50 - 150 Sulfate 2.50 ND93 50 - 150

baS Control xaD 5le7 Method: T00.0 baS Control xaD 5le v u5licate Recol ery Re5ort - Batch: 280-233043 pre5aration: N7m

LCS Lab Sample ID: LCS 280-255045/4 Analysis Batch: 280-255045 Instrument ID: WC\_IonChrom10

Client Matrix: N/A Water Prep Batch: Lab File ID: Info 2\_DENPC179\_Anions

Leach Batch: 5 mL Dilution: 1.0 N/A Initial Weight/Volume: Analysis Date: 11/27/2014 1049 Units: Final Weight/Volume: 5 mL mg/L

Prep Date: N/A 5 uL Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-255045/5 Analysis Batch: 280-255045 Instrument ID: WC\_IonChrom10

Client Matrix: Water Prep Batch: N/A Lab File ID: Info 2\_DENPC179\_Anions

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 5 mL 11/27/2014 1105 Final Weight/Volume: 5 mL Analysis Date: Units: mg/L 5 uL

Prep Date: N/A Leach Date: N/A

% Rec. Analyte LCS **LCSD** Limit **RPD RPD Limit** LCS Qual LCSD Qual Chloride 99 99 90 - 110 0 10

Sulfate 98 98 90 - 110 0 10

Job Number: 280-62814-1 Client: Waste Management

Method: T00.0

baSoratory Control7

baSoratory v u5licate v ata Re5ort - Batch: 280-233043 pre5aration: N7m

LCS Lab Sample ID: LCSD Lab Sample ID: LCS 280-255045/4 Units: mg/L LCSD 280-255045/5

Client Matrix: Water Client Matrix: Water Dilution: 1.0 Dilution: 1.0

Analysis Date: 11/27/2014 1049 Analysis Date: 11/27/2014 1105

Prep Date: N/A Prep Date: N/A N/A Leach Date: N/A Leach Date:

LCS Spike LCSD Spike LCS **LCSD** Analyte Amount Amount Result/Qual Result/Qual Chloride 100 100 99.4 99.1 Sulfate 100 100 98.3 98.3

Matri/ x5ike7 Method: T00.0 Matri/ x5ike v u5licate Recol ery Re5ort - Batch: 280-233043 pre5aration: N7m

MS Lab Sample ID: 280-62814-8 Analysis Batch: 280-255045 Instrument ID: WC IonChrom10

Client Matrix: Water N/A Lab File ID: Info 2\_DENPC179\_Anions Prep Batch:

Dilution: Leach Batch: N/A Initial Weight/Volume: 5 mL 11/27/2014 1824 Final Weight/Volume: 5 mL Analysis Date:

Prep Date: N/A 5 uL Leach Date: N/A

280-62814-8 Instrument ID: MSD Lab Sample ID: Analysis Batch: 280-255045 WC\_lonChrom10

Client Matrix: Lab File ID: Water Prep Batch: N/A Info 2\_DENPC179\_Anions Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 5 mL

Analysis Date: 11/27/2014 1839 Final Weight/Volume: 5 mL

5 uL Prep Date: N/A Leach Date: N/A

118

115

% Rec. Analyte MS MSD Limit **RPD RPD Limit** MS Qual MSD Qual Chloride 80 - 120 2 20 112 115

80 - 120

2

20

Sulfate

Client: Waste Management Job Number: 280-62814-1

Method: T00.0 Matri/ x5ike7 Matri/ x5ike v u5licate Recol ery Re5ort - Batch: 280-233043 pre5aration: N7m

MS Lab Sample ID: 280-62814-8 Water

Client Matrix: Dilution: 1.0

Analysis Date: 11/27/2014 1824

N/A Prep Date: Leach Date: N/A

MSD Lab Sample ID: 280-62814-8 Units: mg/L Water

Client Matrix: Dilution: 1.0

Analysis Date: 11/27/2014 1839

N/A Prep Date: Leach Date: N/A

Analyte	Sample	MS Spike	MSD Spike	MS	MSD
	Result/Qual	Amount	Amount	Result/Qual	Result/Qual
Chloride	12	25.0	25.0	40.4	41.2
Sulfate	17	25.0	25.0	45.8	46.7

vu5licate - Batch: 280-233043 Method: T00.0

pre5aration: N7m

Lab Sample ID: 280-255045 Instrument ID: WC\_lonChrom10 280-62814-8 Analysis Batch:

Client Matrix: Lab File ID: N/A Info 2\_DENPC179\_Anions Water Prep Batch:

Initial Weight/Volume: Dilution: 1.0 Leach Batch: N/A 5 mL Analysis Date: 11/27/2014 1808 Units: mg/L Final Weight/Volume: 5 mL

Prep Date: N/A 5 uL Leach Date: N/A

Analyte Result **RPD** Limit Qual Sample Result/Qual Chloride 12 12.5 0.07 15 Sulfate 17 17.1 0.02 15

Client: Waste Management Job Number: 280-62814-1

Method Blank - Batch: 280-234661 Method: T30.1 pre5aration: N7m

Lab Sample ID: MB 280-254661/199 Analysis Batch: 280-254661 Instrument ID: WC\_Alp 3

Client Matrix: Water Prep Batch: N/A Lab File ID: E:\FLOW 4\112414.RST

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 10 mL Analysis Date: 11/24/2014 1522 Units: mg/L Final Weight/Volume: 10 mL

Prep Date: N/A Leach Date: N/A

Analyte Result Qual RL RL

Ammonia (as N) ND 0.030 0.030

baS Control xaD 5le7 Method: T30.1 baS Control xaD 5le v u5licate Recol ery Re5ort - Batch: 280-234661 pre5aration: N7m

LCS Lab Sample ID: LCS 280-254661/197 Analysis Batch: 280-254661 Instrument ID: WC\_Alp 3

Client Matrix: Water Prep Batch: N/A Lab File ID: E:\FLOW\_4\112414.RST

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 100 mL Analysis Date: 11/24/2014 1518 Units: mg/L Final Weight/Volume: 100 mL

Analysis Date: 11/24/2014 1518 Units: mg/L Final Weight/Volume: 1977

Prep Date: N/A

LCSD Lab Sample ID: LCSD 280-254661/198 Analysis Batch: 280-254661 Instrument ID: WC\_Alp 3

Client Matrix: Water Prep Batch: N/A Lab File ID: E:\FLOW\_4\112414.RST

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 100 mL

Analysis Date: 11/24/2014 1520 Units: mg/L Final Weight/Volume: 100 mL Prep Date: N/A

Leach Date: N/A

N/A

Leach Date:

<u>% Rec.</u> Analyte LCS LCSD Limit F

Analyte LCS LCSD Limit RPD RPD Limit LCS Qual LCSD Qual

Ammonia (as N) 96 90 90 - 110 6 10

baSoratory Control7 Method: T30.1 baSoratory v u5licate v ata Re5ort - Batch: 280-234661 pre5aration: N7m

LCS Lab Sample ID: LCS 280-254661/197 Units: mg/L LCSD Lab Sample ID: LCSD 280-254661/198

Client Matrix: Water Client Matrix: Water
Dilution: 1.0 Dilution: 1.0

Analysis Date: 11/24/2014 1518 Analysis Date: 11/24/2014 1520

Prep Date:N/APrep Date:N/ALeach Date:N/ALeach Date:N/A

Analyte LCS Spike LCSD Spike LCS LCSD
Amount Amount Result/Qual Result/Qual

Ammonia (as N) 2.50 2.50 2.39 2.24

Client: Waste Management Job Number: 280-62814-1

Method: T30.1 Matri/ x5ike7 Matri/ x5ike v u5licate Recol ery Re5ort - Batch: 280-234661 pre5aration: N7m

280-62808-B-3 MS 280-254661 Instrument ID: MS Lab Sample ID: Analysis Batch: WC\_Alp 3

Client Matrix: Water Prep Batch: N/A Lab File ID: E:\FLOW 4\112414.RST

Dilution: N/A 10 mL 1.0 Leach Batch: Initial Weight/Volume:

Analysis Date: 11/24/2014 1540 Final Weight/Volume: 10 mL

N/A Prep Date: Leach Date: N/A

MSD Lab Sample ID: 280-62808-B-3 MSD Instrument ID: Analysis Batch: 280-254661 WC\_Alp 3

Client Matrix: Lab File ID: E:\FLOW 4\112414.RST Water Prep Batch: N/A

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 10 mL

11/24/2014 1542 Final Weight/Volume: Analysis Date: 10 mL Prep Date: N/A

% Rec. Limit RPD **RPD** Limit Analyte MS MSD MS Qual MSD Qual

Ammonia (as N) 90 - 110 90 91 1 10

Matri/ x5ike7 Method: T30.1 Matri/ x5ike v u5licate Recol ery Re5ort - Batch: 280-234661 pre5aration: N7m

0.044

MS Lab Sample ID: 280-62808-B-3 MS Units: mg/L MSD Lab Sample ID: 280-62808-B-3 MSD

Client Matrix: Water Client Matrix: Water Dilution: 1.0 Dilution: 1.0

Analysis Date: 11/24/2014 1540 Analysis Date: 11/24/2014 1542

Prep Date: N/A N/A Prep Date: Leach Date: N/A Leach Date: N/A

Sample MS Spike MSD Spike MS MSD Result/Qual Amount Amount Result/Qual Result/Qual Analyte

1.00

1.00

0.948

0.959

Ammonia (as N)

Leach Date:

N/A

RL

Client: Waste Management Job Number: 280-62814-1

Method Blank - Batch: 280-233609 Method: T3T.2 pre5aration: N7m

Lab Sample ID: MB 280-255607/1 280-255607 Instrument ID: Analysis Batch: No Equipment Assigned

Client Matrix: Water Prep Batch: N/A Lab File ID:

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Units: Final Weight/Volume: Analysis Date: 11/21/2014 2211 mg/L Prep Date: N/A

Leach Date: N/A

Result

Nitrate as N ND 0.050 0.050

Qual

RL

Analyte

Final Weight/Volume:

Client: Waste Management Job Number: 280-62814-1

Method Blank - Batch: 280-234984 Method: x M 2T20B pre5aration: N7m

Units:

Lab Sample ID: MB 280-254784/6 Analysis Batch: 280-254784 Instrument ID: WC-AT3
Client Matrix: Water Prep Batch: N/A Lab File ID: 112514a.TXT

Dilution: 1.0 Leach Batch: N/A Lab File ID: 112514a.TX

N/A Lab File ID: 112514a.TX

N/A Initial Weight/Volume:

Prep Date: N/A Leach Date: N/A

Analysis Date:

Leach Date:

N/A

11/25/2014 1038

 Analyte
 Result
 Qual
 RL
 RL

 Alkalinity, Total (As CaCO3)
 ND
 5.0
 5.0

 Alkalinity, Bicarbonate (As CaCO3)
 ND
 5.0
 5.0

mg/L

baS Control xaD 5le7 Method: x M 2T20B baS Control xaD 5le v u5licate Recol ery Re5ort - Batch: 280-234984 pre5aration: N7m

LCS Lab Sample ID: LCS 280-254784/4 Analysis Batch: 280-254784 Instrument ID: WC-AT3

Client Matrix: Water Prep Batch: N/A Lab File ID: 112514a.TXT

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 11/25/2014 1028 Units: mg/L Final Weight/Volume: Prep Date: N/A

LCSD Lab Sample ID: LCSD 280-254784/5 Analysis Batch: 280-254784 Instrument ID: WC-AT3

Client Matrix: Water Prep Batch: N/A Lab File ID: 112514a.TXT

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 11/25/2014 1034 Units: mg/L Final Weight/Volume: Prep Date: N/A
Leach Date: N/A

% Rec.

Analyte LCS LCSD Limit RPD RPD Limit LCS Qual LCSD Qual

Alkalinity, Total (As CaCO3) 95 97 90 - 110 2 10

baSoratory Control7 Method: x M 2T20B baSoratory v u5licate v ata Re5ort - Batch: 280-234984 pre5aration: N7m

LCS Lab Sample ID: LCS 280-254784/4 Units: mg/L LCSD Lab Sample ID: LCSD 280-254784/5

LCS Lab Sample ID:LCS 280-254784/4Units:mg/LLCSD Lab Sample ID:LCSDClient Matrix:WaterClient Matrix:WaterDilution:1.0Dilution:1.0

Analysis Date: 11/25/2014 1028 Analysis Date: 11/25/2014 1034

Prep Date:N/APrep Date:N/ALeach Date:N/ALeach Date:N/A

Analyte LCS Spike LCSD Spike LCS Result/Qual Result/Qual

Alkalinity, Total (As CaCO3) 200 200 190 194

Client: Waste Management Job Number: 280-62814-1

v u5licate - Batch: 280-234984 Method: x M 2T20B pre5aration: N7m

Lab Sample ID: 280-62887-A-13 DU Analysis Batch: 280-254784 Instrument ID: WC-AT3
Client Matrix: Water Prep Batch: N/A Lab File ID: 112514a TX

Client Matrix: Water Prep Batch: N/A Lab File ID: 112514a.TXT Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 11/25/2014 1053 Units: mg/L Final Weight/Volume: Prep Date: N/A

Analyte Sample Result/Qual Result RPD Limit Qual
Alkalinity, Total (As CaCO3) 570 566 0.9 10

Leach Date:

N/A

Client: Waste Management Job Number: 280-62814-1

Method Blank - Batch: 280-234660 Method: x M 2340C pre5aration: N7m

Lab Sample ID: MB 280-254660/1 Analysis Batch: 280-254660 Instrument ID: WC\_Cond\_Orion

Client Matrix: Water Prep Batch: N/A Lab File ID: N/A 1.0 N/A Dilution: Leach Batch: Initial Weight/Volume: 100 mL 11/24/2014 2318 Units: Final Weight/Volume: 100 mL Analysis Date: mg/L

Prep Date: N/A Leach Date: N/A

Analyte Result Qual RL RL

Total Dissolved Solids (TDS) ND 5.0 5.0

baS Control xaD 5le7 Method: xM 2340C baS Control xaD 5le v u5licate Recol ery Re5ort - Batch: 280-234660 pre5aration: N7m

LCS Lab Sample ID: LCS 280-254660/2 Analysis Batch: 280-254660 Instrument ID: WC\_Cond\_Orion

Client Matrix: Prep Batch: Lab File ID: N/A N/A Dilution: Leach Batch: N/A Initial Weight/Volume: 100 mL 1.0 11/24/2014 2318 Analysis Date: Units: mg/L Final Weight/Volume: 100 mL

Prep Date: N/A
Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-254660/3 Analysis Batch: 280-254660 Instrument ID: WC\_Cond\_Orion

Client Matrix: Water Prep Batch: N/A Lab File ID: Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 100 mL Analysis Date: 11/24/2014 2318 Units: mg/L Final Weight/Volume: 100 mL

Prep Date: N/A Leach Date: N/A

% Rec.

Analyte LCS LCSD Limit RPD RPD Limit LCS Qual LCSD Qual

Total Dissolved Solids (TDS) 99 99 86 - 110 0 20

baSoratory Control7 Method: x M 2340C baSoratory v u5licate v ata Re5ort - Batch: 280-234660 pre5aration: N7m

LCS Lab Sample ID: LCS 280-254660/2 Units: mg/L LCSD Lab Sample ID: LCSD 280-254660/3

Client Matrix: Water Client Matrix: Water
Dilution: 1.0 Dilution: 1.0

Analysis Date: 11/24/2014 2318 Analysis Date: 11/24/2014 2318

Prep Date:N/APrep Date:N/ALeach Date:N/ALeach Date:N/A

Analyte LCS Spike LCSD Spike LCS LCSD
Amount Amount Result/Qual Result/Qual

Total Dissolved Solids (TDS) 500 500 494 495

Client: Waste Management Job Number: 280-62814-1

v u5licate - Batch: 280-234660 Method: x M 2340C pre5aration: N7m

Lab Sample ID: 280-62814-7 Analysis Batch: 280-254660 Instrument ID: WC\_Cond\_Orion

Client Matrix: Water Prep Batch: N/A Lab File ID: N/A
Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 100 mL

Analysis Date: 11/24/2014 2318 Units: mg/L Final Weight/Volume: 100 mL Prep Date: N/A

Analyte Sample Result/Qual Result RPD Limit Qual
Total Dissolved Solids (TDS) 170 165 4 10

Leach Date:

N/A

Job Number: 280-62814-1 Client: Waste Management

280-254973

Instrument ID:

Method Blank - Batch: 280-234P9T Method: xM 2340C pre5aration: N7m

Lab Sample ID: Analysis Batch: WC\_Cond\_Orion Client Matrix: Water Prep Batch: N/A Lab File ID: N/A 1.0 N/A Dilution: Leach Batch: Initial Weight/Volume: 100 mL Final Weight/Volume: 100 mL

11/26/2014 1519 Units: Analysis Date: Prep Date: N/A

MB 280-254973/1

Leach Date: N/A

Analyte Result Qual RL RL Total Dissolved Solids (TDS) ND 5.0 5.0

mg/L

Method: x M 2340C baS Control xaD 5le7

baS Control xaD 5le v u5licate Recol ery Re5ort - Batch: 280-234P9T pre5aration: N7m

Analysis Batch: LCS 280-254973/2 280-254973 Instrument ID: LCS Lab Sample ID: WC Cond Orion

Client Matrix: Prep Batch: Lab File ID: N/A N/A Dilution: Leach Batch: N/A Initial Weight/Volume: 100 mL 1.0 11/26/2014 1519 Units: mg/L Final Weight/Volume: 100 mL

Analysis Date: Prep Date: N/A Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-254973/3 Analysis Batch: 280-254973 Instrument ID: WC\_Cond\_Orion

Client Matrix: Water Prep Batch: N/A Lab File ID: Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 100 mL Analysis Date: 11/26/2014 1519 Units: mg/L Final Weight/Volume: 100 mL

Prep Date: N/A Leach Date: N/A

% Rec. LCS RPD LCSD Qual Analyte **LCSD** Limit **RPD Limit** LCS Qual

Total Dissolved Solids (TDS) 99 99 86 - 110 1 20

baSoratory Control7 Method: xM 2340C baSoratory vu5licate vata Re5ort - Batch: 280-234P9T pre5aration: N7m

Units: mg/L LCS Lab Sample ID: LCS 280-254973/2 LCSD Lab Sample ID: LCSD 280-254973/3

Client Matrix: Water Client Matrix: Water Dilution: 1 0 Dilution: 1 0

Analysis Date: 11/26/2014 1519 Analysis Date: 11/26/2014 1519

Prep Date: N/A Prep Date: N/A Leach Date: N/A Leach Date: N/A

LCS LCSD LCS Spike LCSD Spike Analyte Amount Amount Result/Qual Result/Qual Total Dissolved Solids (TDS) 501 501 497 494

Client: Waste Management Job Number: 280-62814-1

v u5licate - Batch: 280-234P9T Method: x M 2340C pre5aration: N7m

Lab Sample ID: 280-62814-8 Analysis Batch: 280-254973 Instrument ID: WC\_Cond\_Orion

Client Matrix: Water Prep Batch: N/A Lab File ID: N/A

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 100 mL

Application Details 14/20/2014 1510 Matrix: Total Weight/Volume: 100 mL

Analysis Date: 11/26/2014 1519 Units: mg/L Final Weight/Volume: 100 mL Prep Date: N/A

Leach Date: N/A

Analyte Sample Result/Qual Result RPD Limit Qual

Total Dissolved Solids (TDS) 230 227 0 10

Client: Waste Management Job Number: 280-62814-1

Method Blank - Batch: 280-234999 Method: x M 2340v pre5aration: N7m

Lab Sample ID: MB 280-254777/3 Analysis Batch: 280-254777 Instrument ID: No Equipment Assigned

Client Matrix: Water Prep Batch: N/A Lab File ID: N/A Dilution: Leach Batch: Initial Weight/Volume: 250 mL 1.0 11/25/2014 1456 Units: Final Weight/Volume: 250 mL Analysis Date: mg/L

Prep Date: N/A Leach Date: N/A

Analyte Result Qual RL RL

Total Suspended Solids ND 4.0 4.0

baS Control xaD 5le7 Method: xM 2340v baS Control xaD 5le v u5licate Recol ery Re5ort - Batch: 280-234999 pre5aration: N7m

LCS Lab Sample ID: LCS 280-254777/1 Analysis Batch: 280-254777 Instrument ID: No Equipment Assigned

Client Matrix: Water Prep Batch: N/A Lab File ID: N/A
Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 100 mL
Analysis Date: 11/25/2014 1456 Units: mg/L Final Weight/Volume: 250 mL

Analysis Date: 11/25/2014 1456 Units: mg/L
Prep Date: N/A
Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-254777/2 Analysis Batch: 280-254777 Instrument ID: No Equipment Assigned

Client Matrix: Water Prep Batch: N/A Lab File ID: N/A
Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 100 mL

Analysis Date: 11/25/2014 1456 Units: mg/L Final Weight/Volume: 250 mL Prep Date: N/A
Leach Date: N/A

% Rec.

Analyte LCS LCSD Limit RPD RPD Limit LCS Qual LCSD Qual

Total Suspended Solids 91 92 86 - 114 1 20

baSoratory Control7 Method: x M 2340v baSoratory v u5licate v ata Re5ort - Batch: 280-234999 pre5aration: N7m

LCS Lab Sample ID: LCS 280-254777/1 Units: mg/L LCSD Lab Sample ID: LCSD 280-254777/2

Client Matrix: Water Client Matrix: Water
Dilution: 1.0 Dilution: 1.0

Analysis Date: 11/25/2014 1456 Analysis Date: 11/25/2014 1456

Prep Date:N/APrep Date:N/ALeach Date:N/ALeach Date:N/A

Analyte LCS Spike LCSD Spike LCS Result/Qual Result/Qual

Total Suspended Solids 100 100 91.0 92.0

Client: Waste Management Job Number: 280-62814-1

v u5licate - Batch: 280-234999 Method: x M 2340v pre5aration: N7m

Lab Sample ID: 280-62804-C-1 DU Analysis Batch: 280-254777 Instrument ID: No Equipment Assigned

Client Matrix: Water Prep Batch: N/A Lab File ID: N/A
Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 150 mL

Analysis Date: 11/25/2014 1456 Units: mg/L Final Weight/Volume: 250 mL

Prep Date: N/A Leach Date: N/A

Analyte Sample Result/Qual Result RPD Limit Qual

Total Suspended Solids 48 46.0 4 10

Client: Waste Management Job Number: 280-62814-1

Method Blank - Batch: 280-234946 Method: xM 3T10B

pre5aration: N7m

Lab Sample ID: MB 280-254746/5 Analysis Batch: 280-254746 Instrument ID: WC\_SHI2

Client Matrix: Water Prep Batch: N/A Lab File ID: 112414.txt Dilution: Leach Batch: N/A Initial Weight/Volume: 1.0

Analysis Date: 11/24/2014 1702 Units: mg/L Final Weight/Volume: Prep Date: N/A

Analyte Result Qual RL RL

Total Organic Carbon - Average ND 1.0 1.0

Method Blank - Batch: 280-234946 Method: xM 3T10B pre5aration: N7m

280-254746 WC\_SHI2 Lab Sample ID: MB 280-254746/37 Analysis Batch: Instrument ID:

Client Matrix: Water Prep Batch: N/A Lab File ID: 112414.txt Dilution: 1.0 Leach Batch: N/A

Initial Weight/Volume: 11/25/2014 0153 Units: Final Weight/Volume: mg/L

Analysis Date: Prep Date: N/A Leach Date: N/A

Analyte Result Qual RL RL Total Organic Carbon - Average ND 1.0 1.0

Leach Date:

N/A

Job Number: 280-62814-1 Client: Waste Management

baS Control xaD 5le7 Method: xM 3T10B baS Control xaD 5le v u5licate Recol ery Re5ort - Batch: 280-234946 pre5aration: N7m

LCS 280-254746/3 280-254746 Instrument ID: WC\_SHI2 LCS Lab Sample ID: Analysis Batch: Client Matrix: Water Prep Batch: N/A Lab File ID: 112414.txt

N/A Dilution: 1.0 Leach Batch: Initial Weight/Volume:

Analysis Date: 11/24/2014 1622 Units: Final Weight/Volume: 200 mL mg/L

N/A Prep Date: Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-254746/4 Instrument ID: WC SHI2 Analysis Batch: 280-254746 Client Matrix: Prep Batch: Lab File ID: Water N/A 112414.txt

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

11/24/2014 1640 Analysis Date: Units: mg/L Final Weight/Volume: 200 mL

Prep Date: N/A Leach Date: N/A

% <u>Rec.</u> **RPD** Analyte LCS **LCSD** Limit **RPD Limit** LCS Qual LCSD Qual

Total Organic Carbon - Average 97 98 88 - 112 1 15

baS Control xaD 5le7 Method: xM 3T10B baS Control xaD 5le v u5licate Recol ery Re5ort - Batch: 280-234946 pre5aration: N7m

LCS Lab Sample ID: LCS 280-254746/35 Analysis Batch: 280-254746 Instrument ID: WC SHI2

112414.txt Client Matrix: Water Prep Batch: N/A Lab File ID:

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Final Weight/Volume: Analysis Date: 11/25/2014 0120 Units: mg/L 200 mL Prep Date: N/A

Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-254746/36 Analysis Batch: 280-254746 Instrument ID: WC\_SHI2 Client Matrix: Water Prep Batch: N/A Lab File ID: 112414.txt

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

11/25/2014 0137 Final Weight/Volume: Analysis Date: Units: mg/L 200 mL

Prep Date: N/A

Leach Date: N/A

% Rec. Analyte LCS **LCSD** Limit **RPD RPD Limit** LCS Qual LCSD Qual

88 - 112 Total Organic Carbon - Average 97 99 2 15

Client: Waste Management Job Number: 280-62814-1

baSoratory VU5licate viata Po5ort - Ratch: 280-234946 Method: x M 3T10B

baSoratory v u5licate v ata Re5ort - Batch: 280-234946 pre5aration: N7m

LCS Lab Sample ID: LCS 280-254746/3 Units: mg/L LCSD Lab Sample ID: LCSD 280-254746/4

Client Matrix:WaterClient Matrix:WaterDilution:1.0Dilution:1.0

Analysis Date: 11/24/2014 1622 Analysis Date: 11/24/2014 1640

 Prep Date:
 N/A
 Prep Date:
 N/A

 Leach Date:
 N/A
 Leach Date:
 N/A

Analyte LCS Spike LCSD Spike LCS LCSD
Amount Amount Result/Qual Result/Qual

Total Organic Carbon - Average 25.0 25.0 24.2 24.4

baSoratory Control7 Method: x M 3T10B

baSoratory v u5licate v ata Re5ort - Batch: 280-234946 pre5aration: N7m

LCS Lab Sample ID: LCS 280-254746/35 Units: mg/L LCSD Lab Sample ID: LCSD 280-254746/36

Client Matrix: Water Client Matrix: Water

Dilution: 1.0 Dilution: 1.0

Analysis Date: 11/25/2014 0120 Analysis Date: 11/25/2014 0137

Prep Date:N/APrep Date:N/ALeach Date:N/ALeach Date:N/A

Analyte LCS Spike LCSD Spike LCS Result/Qual Result/Qual

Total Organic Carbon - Average 25.0 25.0 24.3 24.7

Client: Waste Management Job Number: 280-62814-1

Matri/ x5ike7 Method: xM 3T10B Matri/ x5ike v u5licate Recol ery Re5ort - Batch: 280-234946 pre5aration: N7m

MS Lab Sample ID: 280-62813-E-2 MS Analysis Batch: 280-254746 Instrument ID: WC\_SHI2 Client Matrix: Water Prep Batch: N/A Lab File ID: 112414.txt

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 11/24/2014 2200 Final Weight/Volume: 50 mL

Prep Date: N/A

MSD Lab Sample ID: 280-62813-E-2 MSD Analysis Batch: 280-254746 Instrument ID: WC\_SHI2 Client Matrix: Water Prep Batch: N/A Lab File ID: 112414.txt

Client Matrix: Water Prep Batch: N/A Lab File ID: 112414.txt
Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 11/24/2014 2217 Final Weight/Volume: 50 mL

Prep Date: N/A

Analyte \( \frac{\% \text{Rec.}}{\text{MSD}} \) Limit \( \text{RPD} \) RPD Limit \( \text{MS Qual} \) MSD Qual

Total Organic Carbon - Average 99 99 88 - 112 1 15

Matri/ x5ike7 Method: xM 3T10B Matri/ x5ike v u5licate Recol ery Re5ort - Batch: 280-234946 pre5aration: N7m

MS Lab Sample ID: 280-62833-D-3 MS Analysis Batch: 280-254746 Instrument ID: WC\_SHI2

Client Matrix: Water Prep Batch: N/A Lab File ID: 112414.txt

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 11/25/2014 0333 Final Weight/Volume: 50 mL Prep Date: N/A

Leach Date: N/A

MSD Lab Sample ID: 280-62833-D-3 MSD Analysis Batch: 280-254746 Instrument ID: WC\_SHI2

Client Matrix: Water Prep Batch: N/A Lab File ID: 112414.txt

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 11/25/2014 0350 Final Weight/Volume: 50 mL

Prep Date: N/A

Leach Date: N/A

 % Rec.

 Analyte
 MS
 MSD
 Limit
 RPD
 RPD Limit
 MS Qual
 MSD Qual

Total Organic Carbon - Average 97 97 88 - 112 0 15

Leach Date:

Leach Date:

N/A

N/A

Client: Waste Management Job Number: 280-62814-1

Matri/ x5ike7 Method: xM 3T10B
Matri/ x5ike v u5licate Recol ery Re5ort - Batch: 280-234946 pre5aration: N7m

MS Lab Sample ID: 280-62813-E-2 MS Units: mg/L MSD Lab Sample ID: 280-62813-E-2 MSD

Client Matrix: Water Client Matrix: Water

Dilution: 1.0 Dilution: 1.0

Analysis Date: 11/24/2014 2200 Analysis Date: 11/24/2014 2217

Prep Date: N/A
Leach Date: N/A
Leach Date: N/A

Sample MS Spike MSD Spike MS MSD
Analyte Result/Qual Amount Amount Result/Qual Result/Qual

Total Organic Carbon - Average ND 25.0 25.0 24.7 24.9

Matri/ x5ike7 Method: xM 3T10B
Matri/ x5ike v u5licate Recol ery Re5ort - Batch: 280-234946 pre5aration: N7m

MS Lab Sample ID: 280-62833-D-3 MS Units: mg/L MSD Lab Sample ID: 280-62833-D-3 MSD

Client Matrix: Water Client Matrix: Water
Dilution: 1.0 Dilution: 1.0

Analysis Date: 11/25/2014 0333 Analysis Date: 11/25/2014 0350

Prep Date:N/APrep Date:N/ALeach Date:N/ALeach Date:N/A

Sample MS Spike MSD Spike MS MSD Result/Qual Result/Qual Result/Qual Analyte Amount Amount Total Organic Carbon - Average 2.5 25.0 25.0 26.7 26.8

### **Laboratory Chronicle**

Lab ID: 280-6281W1 Client ID: M4 -W

/ am9le 3 ate 15 ime: 44 120 12047 ORcR SepeiDeT 3 ate 15 ime: 44 124 12047 40:70

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
v:d0c0C	280-62847-P-4		780-246R20		4210c12047 48:d2	4	5EB AL P	G5G
E:8260C	280-62847-P-4		780-246R20		4210c12047 48:d2	4	5EBALP	G5G
v:d0c0C	280-62847-U-4		780-24dR2F		4412d12047 24:2F	4	5EB AL P	C3 C
E:8260C / KM	280-62847-U-4		780-24dR2F		4412d12047 24:2F	4	5EBALP	C3C
v:c00dE	280-62847-I -4-A		280-2dF04R	280-2d77c6	4412d12047 0F:4d	4	5EB31 N	CGG
E:6040A	280-62847-I -4-A		280-2dF04R	280-2d77c6	4214c12047 0d:28	4	5EB31N	/ J/
v:c00dE	280-62847-3-4-E		280-2dF020	280-2d7747	4412712047 42:7d	4	5EB31N	CGG
E:6040A	280-62847-3-4-E		280-2dF020	280-2d7747	4214c12047 08:cd	4	5EB31N	/ J/
v:c00dE	280-62847-3-4-A		280-2d7Fc4	280-2d776R	4412712047 42:7d	4	5EB31 N	CGG
E:6020	280-62847-3-4-A		280-2d7Fc4	280-2d776R	4412d12047 07:0c	4	5EB31N	JM
v:c00dE	280-62847-I -4-E		280-2dd0d8	280-2d7728	4412d12047 0F:4d	4	5EB31N	CGG
E:6020	280-62847-I -4-E		280-2dd0d8	280-2d7728	4412612047 02:d8	4	5EB31N	BM5
v:c00dE	280-62847-I -4-E		280-2dd46F	280-2d7728	4412d12047 0F:4d	4	5EB31N	CGG
E:6020	280-62847-I -4-E		280-2dd46F	280-2d7728	4412812047 46:27	4	5EB31N	BM5
E:c00.0	280-62847-A-4		280-2dd07d		4412F12047 4d:cc	4	5EB31 N	v/ 4
E:cd0.4	280-62847-C-4		280-2d7664		4412712047 4d:76	4	5EB31 N	CMB
E:cdc.2	280-62847-E-4		280-2dd60F		4412412047 22:44	4	5EB31N	SU/
E:/ M 2c20A	280-62847-A-4		280-2d7F87		4412d12047 44:20	4	5EB31 N	CCJ
E:/ M 2d70C	280-62847-A-4		280-2d7660		4412712047 2c:48	4	5EB31 N	CM/
E:/ M 2d703	280-62847-A-4		280-2d7FFF		4412d12047 47:d6	4	5EB31N	MW4
E:/ M dc40A	280-62847-C-4		280-2d7F76		4412d12047 00:cc	4	5EB31 N	CCJ

Lab ID: 280-6281W1 MU Client ID: M4 -W

/ am9le 3 ate15ime: 4412012047 0RcR SepeiDeT 3 ate15ime: 4412412047 40:70

Date Prepared / **Analysis** Batch Analyzed Method Bottle ID Run Prep Batch Dil Lab Analyst v:c00dE 280-62847-I -4-C M/ 280-2dF04R 280-2d77c6 4412d12047 0F:4d 4 5EB31N CGG E:6040A 280-62847-I -4-C M/ 280-2dF04R 280-2d77c6 4214c12047 Od:cc 5EB31N 4 / J/

Lab ID: 280-6281W1 MUD Client ID: M4 -W

/ am9le 3 ate15ime: 4412012047 ORCR SepeiDeT 3 ate15ime: 4412412047 40:70

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
v:c00dE	280-62847-I -4-3 M/ 3		280-2dF04R	280-2d77c6	4412d12047 0F:4d	4	5EB31N	CGG
E:6040A	280-62847-I -4-3 M/ 3		280-2dF04R	280-2d77c6	4214c12047 0d:c6	4	5EB 31 N	/ J/

## **Laboratory Chronicle**

Lab ID: 280-6281W2 Client ID: M4 -92

/ am9le 3 ate 15 ime: 44 120 12047 44:27 SepeiDeT 3 ate 15 ime: 44 124 12047 40:70

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
v:d0c0C	280-62847-P-2		780-246R20		4210c12047 4R47	4	5EB AL P	G5G
E:8260C	280-62847-P-2		780-246R20		4210c12047 4R47	4	5EBALP	G5G
v:d0c0C	280-62847-U-2		780-24dR2F		4412d12047 24:d4	4	5EB AL P	C3 C
E:8260C / KM	280-62847-U-2		780-24dR2F		4412d12047 24:d4	4	5EBALP	C3 C
v:c00dE	280-62847-I -2-3		280-2dF04R	280-2d77c6	4412d12047 0F:4d	4	5EB31N	CGG
E:6040A	280-62847-I -2-3		280-2dF04R	280-2d77c6	4214c12047 0d:c8	4	5EB31N	/ J/
v:c00dE	280-62847-3-2-E		280-2dF020	280-2d7747	4412712047 42:7d	4	5EB31N	CGG
E:6040A	280-62847-3-2-E		280-2dF020	280-2d7747	4214c12047 08:c8	4	5EB31N	/ J/
v:c00dE	280-62847-3 <i>-</i> 2-A		280-2d7Fc4	280-2d776R	4412712047 42:7d	4	5EB31N	CGG
E:6020	280-62847-3-2-A		280-2d7Fc4	280-2d776R	4412d12047 07:42	4	5EB31N	JM
v:c00dE	280-62847-I -2-E		280-2dd0d8	280-2d7728	4412d12047 0F:4d	4	5EB31N	CGG
E:6020	280-62847-I -2-E		280-2dd0d8	280-2d7728	4412612047 Oc:02	4	5EB31N	BM5
v:c00dE	280-62847-I -2-E		280-2dd46F	280-2d7728	4412d12047 0F:4d	4	5EB31N	CGG
E:6020	280-62847-I -2-E		280-2dd46F	280-2d7728	4412812047 46:2R	4	5EB31N	BM5
E:c00.0	280-62847-A-2		280-2dd07d		4412F12047 46:20	4	5EB31N	v/ 4
E:cd0.4	280-62847-C-2		280-2d7664		4412712047 4d:78	4	5EB31N	CMB
E:cdc.2	280-62847-E-2		280-2dd60F		4412412047 22:44	4	5EB31N	SU/
E:/ M 2c20A	280-62847-A-2		280-2d7F87		4412d12047 44:2d	4	5EB31N	CCJ
E:/ M 2d70C	280-62847-A-2		280-2d7660		4412712047 2c:48	4	5EB31 N	CM/
E:/ M 2d703	280-62847-A-2		280-2d7FFF		4412d12047 47:d6	4	5EB31N	MW4
E:/ M dc40A	280-62847-C-2		280-2d7F76		4412d12047 00:7R	4	5EB31N	CCJ

Lab ID: 280-6281W2 MU Client ID: M4 -92

/ am9le 3 ate15ime: 4412012047 44:27 SepeiDeT 3 ate15ime: 4412412047 40:70

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
v:c00dE	280-62847-3-2-C M/		280-2d7Fc4	280-2d776R	4412712047 42:7d	4	5EB31N	CGG
E:6020	280-62847-3-2-C M/		280-2d7Fc4	280-2d776R	4412d12047 07:24	4	5EB31N	JM
v:c00dE	280-62847-I -2-A M/		280-2dd0d8	280-2d7728	4412d12047 0F:4d	4	5EB31N	CGG
E:6020	280-62847-I -2-A M/		280-2dd0d8	280-2d7728	4412612047 Oc:0R	4	5EB31N	BM5

Lab ID: 280-6281W2 MUD Client ID: M4 -92

/ am9le 3 ate 15 ime: 44 120 12047 44:27 SepeiDeT 3 ate 15 ime: 44 124 12047 40:70

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
v:c00dE	280-62847-3-2-3 M/ 3		280-2d7Fc4	280-2d776R	4412712047 42:7d	4	5EB31N	CGG
E:6020	280-62847-3-2-3 M/ 3		280-2d7Fc4	280-2d776R	4412d12047 07:27	4	5EB31N	JM
v:c00dE	280-62847-I -2-C M/ 3		280-2dd0d8	280-2d7728	4412d12047 0F:4d	4	5EB31N	CGG
E:6020	280-62847-I -2-C M/ 3		280-2dd0d8	280-2d7728	4412612047 Oc:4c	4	5EB31N	BM5

## **Laboratory Chronicle**

Lab ID: 280-6281W9 Client ID: M4 -13C

/ am9le 3 ate15ime: 4412012047 42:02 SepeiDeT 3 ate15ime: 4412412047 40:70

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
v:d0c0C	280-62847-P-c		780-24F406		4210712047 00:c8	4	5EB AL P	13A
E:8260C	280-62847-P-c		780-24F406		4210712047 00:c8	4	5EBALP	13A
v:d0c0C	280-62847-U-c		780-24dR2F		4412d12047 22:4d	4	5EB AL P	C3 C
E:8260C / KM	280-62847-U-c		780-24dR2F		4412d12047 22:4d	4	5EBALP	C3C
v:c00dE	280-62847-I -c-A		280-2dF04R	280-2d77c6	4412d12047 0F:4d	4	5EB31 N	CGG
E:6040A	280-62847-I -c-A		280-2dF04R	280-2d77c6	4214c12047 0d:d4	4	5EB31N	/ J/
v:c00dE	280-62847-3-c-E		280-2dF020	280-2d7747	4412712047 42:7d	4	5EB31N	CGG
E:6040A	280-62847-3-c-E		280-2dF020	280-2d7747	4214c12047 08:70	4	5EB31N	/ J/
v:c00dE	280-62847-3-c-A		280-2d7Fc4	280-2d776R	4412712047 42:7d	4	5EB31 N	CGG
E:6020	280-62847-3-c-A		280-2d7Fc4	280-2d776R	4412d12047 07:2F	4	5EB31N	JM
v:c00dE	280-62847-I -c-E		280-2dd0d8	280-2d7728	4412d12047 0F:4d	4	5EB31N	CGG
E:6020	280-62847-I -c-E		280-2dd0d8	280-2d7728	4412612047 Oc:2F	4	5EB31N	BM5
v:c00dE	280-62847-I -c-E		280-2dd46F	280-2d7728	4412d12047 0F:4d	4	5EB31N	CGG
E:6020	280-62847-I -c-E		280-2dd46F	280-2d7728	4412812047 46:d7	4	5EB31N	BM5
E:c00.0	280-62847-A-c		280-2dd07d		4412F12047 46:cd	4	5EB31 N	v/4
E:cd0.4	280-62847-C-c		280-2d7664		4412712047 4d:d0	4	5EB31 N	CMB
E:cdc.2	280-62847-E-c		280-2dd60F		4412412047 22:44	4	5EB31N	SU/
E:/ M 2c20A	280-62847-A-c		280-2d7F87		4412d12047 44:cR	4	5EB31N	CCJ
E:/ M 2d70C	280-62847-A-c		280-2d7660		4412712047 2c:48	4	5EB31N	CM/
E:/ M 2d703	280-62847-A-c		280-2d7FFF		4412d12047 47:d6	4	5EB31N	MW4
E:/ M dc40A	280-62847-C-c		280-2d7F76		4412d12047 04:0d	4	5EB31 N	CCJ

5estEmeripa 3 enDer E V Enal=tipal MetyoT v V v re9 MetyoT

## **Laboratory Chronicle**

Lab ID: 280-6281WW Client ID: M4 -2W

/ am9le 3 ate15ime: 4412012047 44:06 SepeiDeT 3 ate15ime: 4412412047 40:70

					Date Prepared /				
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst	
v:d0c0C	280-62847-P-7		780-24F406		4210712047 04:00	4	5EB AL P	13A	
E:8260C	280-62847-P-7		780-24F406		4210712047 04:00	4	5EBALP	13A	
v:d0c0C	280-62847-U-7		780-24dR2F		4412d12047 22:cR	4	5EB AL P	C3 C	
E:8260C / KM	280-62847-U-7		780-24dR2F		4412d12047 22:cR	4	5EBALP	C3C	
v:c00dE	280-62847-I -7-A		280-2dF04R	280-2d77c6	4412d12047 0F:4d	4	5EB31N	CGG	
E:6040A	280-62847-I -7-A		280-2dF04R	280-2d77c6	4214c12047 0d:d7	4	5EB31N	/ J/	
v:c00dE	280-62847-3-7-E		280-2dF020	280-2d7747	4412712047 42:7d	4	5EB31N	CGG	
E:6040A	280-62847-3-7-E		280-2dF020	280-2d7747	4214c12047 08:dc	4	5EB31N	/ J/	
v:c00dE	280-62847-3 <i>-</i> 7-A		280-2d7Fc4	280-2d776R	4412712047 42:7d	4	5EB31N	CGG	
E:6020	280-62847-3-7-A		280-2d7Fc4	280-2d776R	4412d12047 07:c4	4	5EB31N	JM	
v:c00dE	280-62847-I -7-E		280-2dd0d8	280-2d7728	4412d12047 0F:4d	4	5EB31N	CGG	
E:6020	280-62847-I -7-E		280-2dd0d8	280-2d7728	4412612047 Oc:c4	4	5EB31N	BM5	
v:c00dE	280-62847-I -7-E		280-2dd46F	280-2d7728	4412d12047 0F:4d	4	5EB31N	CGG	
E:6020	280-62847-I -7-E		280-2dd46F	280-2d7728	4412812047 46:dF	4	5EB31N	BM5	
E:c00.0	280-62847-A-7		280-2dd07d		4412F12047 46:d4	4	5EB31N	v/4	
E:cd0.4	280-62847-C-7		280-2d7664		4412712047 4d:d2	4	5EB31N	CMB	
E:cdc.2	280-62847-E-7		280-2dd60F		4412412047 22:44	4	5EB31N	SU/	
E:/ M 2c20A	280-62847-A-7		280-2d7F87		4412d12047 44:7c	4	5EB31N	CCJ	
E:/ M 2d70C	280-62847-A-7		280-2d7660		4412712047 2c:48	4	5EB31N	CM/	
E:/ M 2d703	280-62847-A-7		280-2d7FFF		4412d12047 47:d6	4	5EB31N	MW4	
E:/ M dc40A	280-62847-C-7		280-2d7F76		4412d12047 07:d6	4	5EB31N	CCJ	

5estEmeripa 3 enDer E V Enal=tipal MetyoT v V v re9 MetyoT

## **Laboratory Chronicle**

Lab ID: 280-6281WS Client ID: M4 -2B1

/ am9le 3 ate15ime: 4412012047 40:42 SepeiDeT 3 ate15ime: 4412412047 40:70

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
v:d0c0C	280-62847-P-d		780-24F406		4210712047 04:2c	4	5EB AL P	13A
E:8260C	280-62847-P-d		780-24F406		4210712047 04:2c	4	5EBALP	13A
v:d0c0C	280-62847-U-d		780-24dR2F		4412d12047 2c:0c	4	5EB AL P	C3 C
E:8260C / KM	280-62847-U-d		780-24dR2F		4412d12047 2c:0c	4	5EBALP	C3C
v:c00dE	280-62847-I -d-A		280-2dF04R	280-2d77c6	4412d12047 0F:4d	4	5EB31N	CGG
E:6040A	280-62847-I -d-A		280-2dF04R	280-2d77c6	4214c12047 0d:d6	4	5EB31N	/ J/
v:c00dE	280-62847-3-d-E		280-2dF020	280-2d7747	4412712047 42:7d	4	5EB31N	CGG
E:6040A	280-62847-3-d-E		280-2dF020	280-2d7747	4214c12047 08:d6	4	5EB31N	/ J/
v:c00dE	280-62847-3-d-A		280-2d7Fc4	280-2d776R	4412712047 42:7d	4	5EB31 N	CGG
E:6020	280-62847-3-d-A		280-2d7Fc4	280-2d776R	4412d12047 07:c7	4	5EB31N	JM
v:c00dE	280-62847-I -d-E		280-2dd0d8	280-2d7728	4412d12047 0F:4d	4	5EB31N	CGG
E:6020	280-62847-I -d-E		280-2dd0d8	280-2d7728	4412612047 Oc:c7	4	5EB31N	BM5
v:c00dE	280-62847-I -d-E		280-2dd46F	280-2d7728	4412d12047 0F:4d	4	5EB31N	CGG
E:6020	280-62847-I -d-E		280-2dd46F	280-2d7728	4412812047 4F:04	4	5EB31N	BM5
E:c00.0	280-62847-A-d		280-2dd07d		4412F12047 4F:06	4	5EB31 N	v/4
E:cd0.4	280-62847-C-d		280-2d7664		4412712047 4d:d7	4	5EB31 N	CMB
E:cdc.2	280-62847-E-d		280-2dd60F		4412412047 22:44	4	5EB31N	SU/
E:/ M 2c20A	280-62847-A-d		280-2d7F87		4412d12047 42:06	4	5EB31N	CCJ
E:/ M 2d70C	280-62847-A-d		280-2d7660		4412712047 2c:48	4	5EB31N	CM/
E:/ M 2d703	280-62847-A-d		280-2d7FFF		4412d12047 47:d6	4	5EB31N	MW4
E:/ M dc40A	280-62847-C-d		280-2d7F76		4412d12047 0d:44	4	5EB31 N	CCJ

## **Laboratory Chronicle**

Lab ID: 280-6281W6 Client ID: M4 -20

/ am9le 3 ate15ime: 4412012047 0R40 SepeiDeT 3 ate15ime: 4412412047 40:70

Method         Bottle ID         Run         Batch         Prep Batch         Analyzed         Dil         Lab         Analyst           v:d0c0C         280-62847-P-6         780-24F406         421072047         04:7d         4         5EB AL P         I 3A           E:8260C         280-62847-U-6         780-24F406         421072047         04:7d         4         5EB AL P         I 3A           v:d0c0C         280-62847-U-6         780-24GP2F         4412d2047         2c:26         4         5EB AL P         C3C           E:8260C / Mi         280-62847-U-6         280-24GP04F         280-24GP04F         4412d2047         2c:26         4         5EB AL P         C3C           v:c00dE         280-62847-I -6-A         280-24GP04F         280-24GF04F         4412d2047         0F:4d         4         5EB 31 N         CGG           E:6040A         280-62847-3 -6-B         280-24GF020         280-24T76F         4412d2047         0F:4d         4         5EB 31 N         CGG           E:6040A         280-62847-3 -6-B         280-24F020         280-24T76F         4216c2047         08:dR         4         5EB 31 N         J/J           v:c00dE         280-62847-3 -6-3         280-24T764         280-24T768         442T204				Analysis		Date Prepared /			
E:8260C 280-62847-P-6 780-24F406 42*D7*2047 04:7d 4 5EBALP I 3A V:d0c0C 280-62847-U-6 780-24dR2F 44*2d*2047 2c:26 4 5EBALP C3 C E:8260C / KM 280-62847-U-6 780-24dR2F 44*2d*2047 2c:26 4 5EBALP C3 C V:c00dE 280-62847-I -6-A 280-2dF04R 280-2d77c6 44*2d*2047 0F:4d 4 5EB3 I N CGG E:6040A 280-62847-3-6-E 280-2dF04R 280-2d77c6 42*Rc*2047 0d:dR 4 5EB3 I N CGG E:6040A 280-62847-3-6-E 280-2dF020 280-2d7747 42*Rc*2047 42:7d 4 5EB3 I N CGG E:6040A 280-62847-3-6-E 280-2dF020 280-2d7747 42*Rc*2047 08:dR 4 5EB3 I N CGG E:6040A 280-62847-3-6-E 280-2dF020 280-2d7747 42*Rc*2047 08:dR 4 5EB3 I N CGG E:6040A 280-62847-3-6-3 280-2d7Fc4 280-2d7768 44*Pc*2047 42:7d 4 5EB3 I N CGG E:6020 280-62847-3-6-3 280-2d7Fc4 280-2d7768 44*Pc*2047 08:dR 4 5EB3 I N CGG E:6020 280-62847-1 -6-E 280-2dd048 280-2d7728 44*Pc*2047 06:dc 4 5EB3 I N CGG E:6020 280-62847-1 -6-E 280-2dd048 280-2d7728 44*Pc*2047 06:c8 4 5EB3 I N CGG E:6020 280-62847-1 -6-E 280-2dd048 280-2d7728 44*Pc*2047 06:c8 4 5EB3 I N CGG E:6020 280-62847-1 -6-E 280-2dd046F 280-2d7728 44*Pc*2047 06:c8 4 5EB3 I N CGG E:6020 280-62847-1 -6-E 280-2dd046F 280-2d7728 44*Pc*2047 06:c8 4 5EB3 I N CGG E:6020 280-62847-1 -6-E 280-2dd046F 280-2d7728 44*Pc*2047 06:c4 4 5EB3 I N CGG E:6020 280-62847-1 -6-E 280-2dd046F 280-2d7728 44*Pc*2047 06:c4 4 5EB3 I N DM5 E:c00.0 280-62847-1 -6-E 280-2dd06F 280-2d7728 44*Pc*2047 46:d6 4 5EB3 I N CGG E:6020 280-62847-1 -6-E 280-2dd06F 280-2d7728 44*Pc*2047 46:d6 4 5EB3 I N CGG E:6020 280-62847-1 -6-E 280-2dd06F 44*Pc*2047 46:d6 4 5EB3 I N CMB E:cdc.2 280-62847-A-6 280-2d7660 44*Pc*2047 42:40 4 5EB3 I N CMB E:cdc.2 280-62847-A-6 280-2d7660 44*Pc*2047 42:40 4 5EB3 I N CM E:cdc.2 280-62847-A-6 280-2d7660 44*Pc*2047 42:40 4 5EB3 I N CM E:cdc.2 280-62847-A-6 280-2d7660 44*Pc*2047 42:40 4 5EB3 I N CM E:cdc.2 280-62847-A-6 280-2d7660 44*Pc*2047 42:40 4 5EB3 I N CM E:cdc.2 280-62847-A-6 280-2d7660 44*Pc*2047 42:40 4 5EB3 I N CM E:cdc.2 280-62847-A-6 280-2d7660 44*Pc*2047 42:40 4 5EB3 I N CM E:cdc.2 280-62847-A-6 280-2d7660 44*Pc*2047 42:40 4 5EB3 I N CM E:cdc.2 280-6284	Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
V:d0c0C         280-62847-U-6         780-24dR2F         44½d²2047         2c:26         4         5EB AL P C3 C           E:8260C / MM         280-62847-U-6         780-24dR2F         44½d²2047         2c:26         4         5EB AL P C3 C           V:c00dE         280-62847-I -6-A         280-2dF04R         280-2d77c6         44½d²2047         0F:4d         4         5EB 3I N CGG           E:6040A         280-62847-I -6-A         280-2dF04R         280-2d77c6         42½c²047         0d:dR         4         5EB 3I N CGG           E:6040A         280-62847-3 -6-E         280-2dF020         280-2d7747         44²c²2047         42.7d         4         5EB 3I N CGG           E:6040A         280-62847-3 -6-E         280-2dF020         280-2d7747         42½d²2047         08:dR         4         5EB 3I N CGG           E:6040A         280-62847-3 -6-3         280-2d7F04         280-2d7768         44½d²2047         42:7d         4         5EB 3I N CGG           E:6020         280-62847-3 -6-3         280-2d7F04         280-2d7768         44½d²2047         06:4d         4         5EB 3I N JM           V:c00dE         280-62847-1 -6-E         280-2d0d08         280-2d7728         44½d²2047         06:4d         4         5EB 3I N JM <t< td=""><td>v:d0c0C</td><td>280-62847-P-6</td><td></td><td>780-24F406</td><td></td><td>4210712047 04:7d</td><td>4</td><td>5EB AL P</td><td>13A</td></t<>	v:d0c0C	280-62847-P-6		780-24F406		4210712047 04:7d	4	5EB AL P	13A
E:8260C / MM 280-62847-U-6 780-24dF2F 4412d2047 2c:26 4 5EBAL P C3 C V:c00dE 280-62847-I -6-A 280-2dF04R 280-2d77c6 4412d2047 0F:4d 4 5EB3 I N CGG E:6040A 280-62847-3 -6-E 280-2dF04R 280-2d77c6 4214c12047 0d:dR 4 5EB3 I N CGG E:6040A 280-62847-3 -6-E 280-2dF020 280-2d7747 441272047 42:7d 4 5EB3 I N CGG E:6040A 280-62847-3 -6-E 280-2dF020 280-2d7747 4214c12047 08:dR 4 5EB3 I N CGG E:6040A 280-62847-3 -6-3 280-2dF020 280-2d7768 441272047 42:7d 4 5EB3 I N CGG E:6020 280-62847-3 -6-3 280-2d7Fc4 280-2d7768 441272047 42:7d 4 5EB3 I N CGG E:6020 280-62847-3 -6-3 280-2d7Fc4 280-2d7768 441272047 0d:4c 4 5EB3 I N CGG E:6020 280-62847-1 -6-E 280-2d0d8 280-2d7728 4412412047 0f:4d 4 5EB3 I N CGG E:6020 280-62847-1 -6-E 280-2d0d8 280-2d7728 4412612047 0f:4d 4 5EB3 I N CGG E:6020 280-62847-1 -6-E 280-2d0d8 280-2d7728 4412612047 0f:4d 4 5EB3 I N CGG E:6020 280-62847-1 -6-E 280-2d0d8 280-2d7728 4412612047 0f:4d 4 5EB3 I N CGG E:6020 280-62847-1 -6-E 280-2d0d6F 280-2d7728 4412612047 0f:4d 4 5EB3 I N CGG E:6020 280-62847-1 -6-E 280-2d0d6F 280-2d7728 4412612047 0f:4d 4 5EB3 I N CGG E:6020 280-62847-1 -6-E 280-2d0d6F 280-2d7728 4412612047 0f:4d 4 5EB3 I N CGG E:6020 280-62847-1 -6-E 280-2d0d6F 280-2d7728 4412612047 0f:4d 4 5EB3 I N CGG E:6020 280-62847-6 280-2d0d6F 280-2d7728 4412612047 4F:07 4 5EB3 I N CGG E:6020 280-62847-6 280-2d0d0f 441272047 4d:d6 4 5EB3 I N CMB E:cdc.2 280-62847-6 280-2d0f664 44127047 20:44 4 5EB3 I N CMB E:cdc.2 280-62847-6 280-2d660F 4412412047 22:44 4 5EB3 I N CM E:/ M 2c20A 280-62847-A-6 280-2d7660 44127047 20:48 4 5EB3 I N CM E:/ M 2c20A 280-62847-A-6 280-2d7660 44127047 20:48 4 5EB3 I N CM E:/ M 2c20A 280-62847-A-6 280-2d7660 44127047 20:48 4 5EB3 I N CM E:/ M 2c700 280-62847-A-6 280-2d7660 44127047 20:48 4 5EB3 I N CM E:/ M 2c700 280-62847-A-6 280-2d7660 44127047 20:48 4 5EB3 I N CM E:/ M 2c700 280-62847-A-6 280-2d7660 44127047 40:d6 4 5EB3 I N MW4	E:8260C	280-62847-P-6		780-24F406		4210712047 04:7d	4	5EBALP	13A
V:c00dE         280-62847-I -6-A         280-2dF04R         280-2d77c6         4472d72047 0F:4d         4         5EB3I N CGG           E:6040A         280-62847-I -6-A         280-2dF04R         280-2d77c6         427c72047 0d:dR         4         5EB3I N JJ           v:c00dE         280-62847-3 -6-E         280-2dF020         280-2d7747 4427c047 42:7d         4         5EB3I N CGG           E:6040A         280-62847-3 -6-E         280-2dF020         280-2d7747 421c047 08:dR         4         5EB3I N JJ           v:c00dE         280-62847-3 -6-3         280-2d7Fc4         280-2d7768 4427c047 42:7d         4         5EB3I N CGG           E:6020         280-62847-3 -6-3         280-2d7Fc4 280-2d7768 442d2047 0d:dc         4         5EB3I N JM           v:c00dE         280-62847-3 -6-3         280-2d0768 280-2d7728 442d2047 0d:dc         4         5EB3I N JM           v:c00dE         280-62847-1 -6-E         280-2d0d08 280-2d7728 442d2047 0d:dc         4         5EB3I N JM           v:c00dE         280-62847-1 -6-E         280-2dd46F         280-2d7728 442d2047 0d:dc         4         5EB3I N JM           E:6020         280-62847-1 -6-E         280-2dd46F         280-2d7728 442d2047 0f:dd         4         5EB3I N JM           E:6020         280-62847-A-6         280-2d664	v:d0c0C	280-62847-U-6		780-24dR2F		4412d12047 2c:26	4	5EB AL P	C3 C
E:6040A 280-62847-I -6-A 280-2dF04R 280-2d77c6 424c 2047 0d:dR 4 5EB 3I N / J/ v:c00dE 280-62847-3 -6-E 280-2dF020 280-2d7747 424c 2047 42:7d 4 5EB 3I N CGG E:6040A 280-62847-3 -6-E 280-2dF020 280-2d7747 424c 2047 08:dR 4 5EB 3I N / J/ v:c00dE 280-62847-3 -6-3 280-2d7Fc4 280-2d768 442c 2047 42:rd 4 5EB 3I N / J/ v:c00dE 280-62847-3 -6-3 280-2d7Fc4 280-2d7768 442c 2047 06:dc 4 5EB 3I N / J/ v:c00dE 280-62847-1 -6-E 280-2dd08 280-2d7728 442c 2047 0F:4d 4 5EB 3I N CGG E:6020 280-62847-I -6-E 280-2dd08 280-2d7728 442c 2047 0F:4d 4 5EB 3I N BM5 v:c00dE 280-62847-I -6-E 280-2dd08 280-2d7728 442c 2047 0F:4d 4 5EB 3I N CGG E:6020 280-62847-I -6-E 280-2dd46F 280-2d7728 442c 2047 0F:4d 4 5EB 3I N CGG E:6020 280-62847-I -6-E 280-2dd46F 280-2d7728 442c 2047 0F:4d 4 5EB 3I N CGG E:6020 280-62847-I -6-E 280-2dd46F 280-2d7728 442c 2047 4F:07 4 5EB 3I N BM5 E:c00.0 280-62847-A-6 280-2dd46F 280-2d7728 442c 2047 4F:07 4 5EB 3I N W/4 E:cd0.4 280-62847-C-6 280-2d0764 442c 2047 4d:d6 4 5EB 3I N CMB E:cdc.2 280-62847-A-6 280-2d60F 442c 2047 42c 4 5EB 3I N CMB E:cdc.2 280-62847-A-6 280-2d60F 442c 2047 42c 4 5EB 3I N CMJ E:/ M 2c20A 280-62847-A-6 280-2d7660 442c 2047 42c 4 5EB 3I N CMJ E:/ M 2d70C 280-62847-A-6 280-2d7660 442c 2047 4c 4 5EB 3I N CMJ E:/ M 2d70C 280-62847-A-6 280-2d7660 442c 2047 4c 4 5EB 3I N CMJ E:/ M 2d70C 280-62847-A-6 280-2d7660 442c 2047 4c 4 5EB 3I N CMJ E:/ M 2d70C 280-62847-A-6 280-2d7660 442c 2047 4c 4 5EB 3I N CMJ E:/ M 2d70C 280-62847-A-6 280-2d7660 442c 2047 4c 4 5EB 3I N CMJ E:/ M 2d70C 280-62847-A-6 280-2d7660 442c 2047 4c 4c 5EB 3I N MW4	E:8260C / KM	280-62847-U-6		780-24dR2F		4412d12047 2c:26	4	5EB AL P	C3C
V:C00dE         280-62847-3-6-E         280-2dF020         280-2d7747         44272047         42:7d         4         5EB3IN         CGG           E:6040A         280-62847-3-6-E         280-2dF020         280-2d7747         424c2047         08:dR         4         5EB3IN         / J/           v:c00dE         280-62847-3-6-3         280-2d7Fc4         280-2d7768         442d2047         42:7d         4         5EB3IN         CGG           E:6020         280-62847-3-6-3         280-2d7Fc4         280-2d7768         442d2047         0d:4c         4         5EB3IN         JM           v:c00dE         280-62847-1 -6-E         280-2dd0d8         280-2d7728         442d2047         0F:4d         4         5EB3IN         BM5           v:c00dE         280-62847-1 -6-E         280-2dd0d8         280-2d7728         442d2047         0F:4d         4         5EB3IN         BM5           v:c00dE         280-62847-1 -6-E         280-2dd46F         280-2d7728         442d2047         0F:4d         4         5EB3IN         CGG           E:6020         280-62847-A-6         280-2dd46F         280-2d7728         44282047         4F:2d         4         5EB3IN         W/4           E:cd0.4         280-62847-A-6	v:c00dE	280-62847-I -6-A		280-2dF04R	280-2d77c6	4412d12047 0F:4d	4	5EB31N	CGG
E:6040A 280-62847-3-6-E 280-2dF020 280-2d7747 424c 2047 08:dR 4 5EB31 N / J/ v:c00dE 280-62847-3-6-3 280-2d7Fc4 280-2d7768 44272047 42:7d 4 5EB31 N CGG E:6020 280-62847-3-6-3 280-2d0d8 280-2d7768 442d2047 0d:dc 4 5EB31 N JM v:c00dE 280-62847-1-6-E 280-2d0d8 280-2d7728 442d2047 0F:dd 4 5EB31 N CGG E:6020 280-62847-1-6-E 280-2d0d8 280-2d7728 442d2047 0F:dd 4 5EB31 N BM5 v:c00dE 280-62847-1-6-E 280-2dd0d8 280-2d7728 442d2047 0F:dd 4 5EB31 N CGG E:6020 280-62847-1-6-E 280-2dd46F 280-2d7728 442d2047 0F:dd 4 5EB31 N CGG E:6020 280-62847-1-6-E 280-2dd46F 280-2d7728 442d2047 0F:dd 4 5EB31 N CGG E:6020 280-62847-1-6-E 280-2dd46F 280-2d7728 44282047 4F:07 4 5EB31 N BM5 E:c00.0 280-62847-A-6 280-2dd07d 442F2047 4F:22 4 5EB31 N V/ 4 E:cd0.4 280-62847-C-6 280-2d7664 44272047 4d:d6 4 5EB31 N CMB E:cdc.2 280-62847-E-6 280-2d660F 44242047 42:40 4 5EB31 N CJ E:/ M 2c20A 280-62847-A-6 280-2d7660 44272047 42:40 4 5EB31 N CJ E:/ M 2d70C 280-62847-A-6 280-2d7660 44272047 42:40 4 5EB31 N CM/ E:/ M 2d703 280-62847-A-6 280-2d76FFF 442d2047 47:d6 4 5EB31 N MW4	E:6040A	280-62847-I -6-A		280-2dF04R	280-2d77c6	4214c12047 0d:dR	4	5EB31N	/ J/
V:c00dE         280-62847-3-6-3         280-2d7Fc4         280-2d7Fc8         4412712047         42:7d         4         5EB3IN         CGG           E:6020         280-62847-3-6-3         280-2d7Fc4         280-2d7768         4412d12047         0d:4c         4         5EB3IN         JM           V:c00dE         280-62847-I-6-E         280-2dd0d8         280-2d7728         4412d12047         0F:4d         4         5EB3IN         CGG           E:6020         280-62847-I-6-E         280-2dd0d8         280-2d7728         4412d12047         0F:4d         4         5EB3IN         BM5           V:c00dE         280-62847-I-6-E         280-2dd46F         280-2d7728         4412d12047         0F:4d         4         5EB3IN         CGG           E:6020         280-62847-I-6-E         280-2dd46F         280-2d7728         4412d12047         0F:4d         4         5EB3IN         CGG           E:6020         280-62847-I-6-E         280-2dd46F         280-2d7728         4412812047         4F:07         4         5EB3IN         BM5           E:c00.0         280-62847-A-6         280-2d07664         4412712047         4F:22         4         5EB3IN         V/4           E:d0.4         280-62847-A-6         280-2d07664	v:c00dE	280-62847-3-6-E		280-2dF020	280-2d7747	4412712047 42:7d	4	5EB31N	CGG
E:6020	E:6040A	280-62847-3-6-E		280-2dF020	280-2d7747	4214c12047 08:dR	4	5EB31N	/ J/
V:c00dE         280-62847-I -6-E         280-2dd0d8         280-2d7728         442d2047 0F:4d         4         5EB3I N CGG           E:6020         280-62847-I -6-E         280-2dd0d8         280-2d7728         442d2047 0F:4d         4         5EB3I N BM5           V:c00dE         280-62847-I -6-E         280-2dd46F         280-2d7728         442d2047 0F:4d         4         5EB3I N CGG           E:6020         280-62847-I -6-E         280-2dd46F         280-2d7728         44282047 4F:07         4         5EB3I N BM5           E:c00.0         280-62847-A-6         280-2dd07d         442F2047 4F:22         4         5EB3I N V/ 4           E:cd0.4         280-62847-C-6         280-2d7664         44272047 4d:d6         4         5EB3I N CMB           E:cdc.2         280-62847-E-6         280-2d60F         44242047 22:44         4         5EB3I N SU/           E:/ M 2c20A         280-62847-A-6         280-2d7660         442042047 42:40         4         5EB3I N CM/           E:/ M 2d70C         280-62847-A-6         280-2d7660         44272047 2c:48         4         5EB3I N CM/           E:/ M 2d703         280-62847-A-6         280-2d7FFF         442d2047 47:d6         4         5EB3I N MW4	v:c00dE	280-62847-3-6-3		280-2d7Fc4	280-2d7768	4412712047 42:7d	4	5EB31N	CGG
E:6020 280-62847-I -6-E 280-2dd0d8 280-2d7728 44262047 0c:c8 4 5EB3I N BM5 v:c00dE 280-62847-I -6-E 280-2dd46F 280-2d7728 442d2047 0F:4d 4 5EB3I N CGG E:6020 280-62847-I -6-E 280-2dd46F 280-2d7728 44282047 4F:07 4 5EB3I N BM5 E:c00.0 280-62847-A-6 280-2d07d 442F2047 4F:22 4 5EB3I N V/4 E:cd0.4 280-62847-C-6 280-2d7664 44272047 4d:d6 4 5EB3I N CMB E:cdc.2 280-62847-E-6 280-2dd60F 44242047 22:44 4 5EB3I N SU/ E:/ M 2c20A 280-62847-A-6 280-2d7660 44272047 42:40 4 5EB3I N CCJ E:/ M 2d70C 280-62847-A-6 280-2d7660 44272047 2c:48 4 5EB3I N CM/ E:/ M 2d703 280-62847-A-6 280-2d7FFF 442d2047 47:d6 4 5EB3I N MW4	E:6020	280-62847-3-6-3		280-2d7Fc4	280-2d7768	4412d12047 0d:4c	4	5EB31N	JM
V:c00dE       280-62847-I -6-E       280-2dd46F       280-2dd728       442d2047 0F:4d       4       5EB3I N CGG         E:6020       280-62847-I -6-E       280-2dd46F       280-2d7728       44282047 4F:07       4       5EB3I N BM5         E:c00.0       280-62847-A-6       280-2dd07d       442F2047 4F:22       4       5EB3I N V/4         E:cd0.4       280-62847-C-6       280-2d7664       44272047 4d:d6       4       5EB3I N CMB         E:cdc.2       280-62847-E-6       280-2dd60F       44242047 22:44       4       5EB3I N SU/         E:/ M 2c20A       280-62847-A-6       280-2d7660       44272047 42:40       4       5EB3I N CCJ         E:/ M 2d70C       280-62847-A-6       280-2d7660       44272047 2c:48       4       5EB3I N CM/         E:/ M 2d703       280-62847-A-6       280-2d7FFF       442d2047 47:d6       4       5EB3I N MW4	v:c00dE	280-62847-I -6-E		280-2dd0d8	280-2d7728	4412d12047 0F:4d	4	5EB31N	CGG
E:6020       280-62847-I -6-E       280-2dd46F       280-2d7728       44282047 4F:07 4       5EB3I N BM5         E:c00.0       280-62847-A-6       280-2dd07d       442F2047 4F:22 4       5EB3I N V/4         E:cd0.4       280-62847-C-6       280-2d7664       44272047 4d:d6 4       5EB3I N CMB         E:cdc.2       280-62847-E-6       280-2dd60F       44242047 22:44 4       5EB3I N SU/         E:/ M 2c20A       280-62847-A-6       280-2d7660       44272047 42:40 4       5EB3I N CM/         E:/ M 2d70C       280-62847-A-6       280-2d7660       44272047 2c:48 4       5EB3I N CM/         E:/ M 2d703       280-62847-A-6       280-2d7FFF       442d2047 47:d6 4       5EB3I N MW4	E:6020	280-62847-I -6-E		280-2dd0d8	280-2d7728	4412612047 Oc:c8	4	5EB31N	BM5
E:c00.0       280-62847-A-6       280-2dd07d       442F2047 4F:22       4       5EB31 N v/ 4         E:cd0.4       280-62847-C-6       280-2d7664       44272047 4d:d6       4       5EB31 N CMB         E:cdc.2       280-62847-E-6       280-2dd60F       44242047 22:44       4       5EB31 N SU/         E:/ M 2c20A       280-62847-A-6       280-2d7F87       442d2047 42:40       4       5EB31 N CCJ         E:/ M 2d70C       280-62847-A-6       280-2d7660       44272047 2c:48       4       5EB31 N CM/         E:/ M 2d703       280-62847-A-6       280-2d7FFF       442d2047 47:d6       4       5EB31 N MW4	v:c00dE	280-62847-I -6-E		280-2dd46F	280-2d7728	4412d12047 0F:4d	4	5EB31N	CGG
E:cd0.4       280-62847-C-6       280-2d7664       44272047 4d:d6       4       5EB31 N CMB         E:cdc.2       280-62847-E-6       280-2dd60F       44242047 22:44       4       5EB31 N SU/         E:/ M 2c20A       280-62847-A-6       280-2d7F87       442d2047 42:40       4       5EB31 N CCJ         E:/ M 2d70C       280-62847-A-6       280-2d7660       44272047 2c:48       4       5EB31 N CM/         E:/ M 2d703       280-62847-A-6       280-2d7FFF       442d2047 47:d6       4       5EB31 N MW4	E:6020	280-62847-I -6-E		280-2dd46F	280-2d7728	4412812047 4F:07	4	5EB31N	BM5
E:cdc.2       280-62847-E-6       280-2dd60F       44242047 22:44       4       5EB 3I N SU/         E:/ M 2c20A       280-62847-A-6       280-2d7F87       442d2047 42:40       4       5EB 3I N CCJ         E:/ M 2d70C       280-62847-A-6       280-2d7660       44272047 2c:48       4       5EB 3I N CM/         E:/ M 2d703       280-62847-A-6       280-2d7FFF       442d2047 47:d6       4       5EB 3I N MW4	E:c00.0	280-62847-A-6		280-2dd07d		4412F12047 4F:22	4	5EB31N	v / 4
E:/ M 2c20A       280-62847-A-6       280-2d7F87       442d2047 42:40       4       5EB31 N CCJ         E:/ M 2d70C       280-62847-A-6       280-2d7660       44272047 2c:48       4       5EB31 N CM/         E:/ M 2d703       280-62847-A-6       280-2d7FFF       442d2047 47:d6       4       5EB31 N MW4	E:cd0.4	280-62847-C-6		280-2d7664		4412712047 4d:d6	4	5EB31N	CMB
E:/ M 2d70C 280-62847-A-6 280-2d7660 44272047 2c:48 4 5EB 3I N CM/ E:/ M 2d703 280-62847-A-6 280-2d7FFF 442d2047 47:d6 4 5EB 3I N MW4	E:cdc.2	280-62847-E-6		280-2dd60F		4412412047 22:44	4	5EB31N	SU/
E:/ M 2d703 280-62847-A-6 280-2d7FFF 4412d12047 47:d6 4 5EB 31 N MW4	E:/ M 2c20A	280-62847-A-6		280-2d7F87		4412d12047 42:40	4	5EB31N	CCJ
	E:/ M 2d70C	280-62847-A-6		280-2d7660		4412712047 2c:48	4	5EB31N	CM/
E:/ M dc40A 280-62847-C-6 280-2d7F76 4412d12047 0d:26 4 5EB31 N CCJ	E:/ M 2d703	280-62847-A-6		280-2d7FFF		4412d12047 47:d6	4	5EB31N	MW4
	E:/ M dc40A	280-62847-C-6		280-2d7F76		4412d12047 0d:26	4	5EB31N	CCJ

Lab ID: 280-6281W6 MU Client ID: M4 -20

/ am9le 3 ate 15 ime: 44 120 120 47 OR40 Sepei DeT 3 ate 15 ime: 44 124 120 47 40:70

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
v:c00dE	280-62847-3-6-A M/		280-2dF020	280-2d7747	4412712047 42:7d	4	5EB31N	CGG
E:6040A	280-62847-3-6-A M/		280-2dF020	280-2d7747	4214c12047 0R07	4	5EB31N	/ J/

Lab ID: 280-6281W6 MUD Client ID: M4 -20

/ am9le 3 ate 5 ime: 44 20 2047 0R40 SepeiDeT 3 ate 5 ime: 44 24 2047 40:70

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
v:c00dE	280-62847-3-6-C M/ 3		280-2dF020	280-2d7747	4412712047 42:7d	4	5EB31 N	CGG
E:6040A	280-62847-3-6-C M/ 3		280-2dF020	280-2d7747	4214c12047 0R0F	4	5EB31N	/ J/

#### **Laboratory Chronicle**

Lab ID: 280-6281W5 Client ID: D7 P1

/ am9le 3 ate ът me: 4412012047 0R20 SepeiDeT 3 ate ът me: 4412412047 40:70

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
v:d0c0C	280-62847-P-F		780-24F406		4210712047 02:08	4	5EB AL P	13A
E:8260C	280-62847-P-F		780-24F406		4210712047 02:08	4	5EBALP	13A
v:d0c0C	280-62847-U-F		780-24dR2F		4412d12047 2c:d4	4	5EB AL P	C3 C
E:8260C / KM	280-62847-U-F		780-24dR2F		4412d12047 2c:d4	4	5EBALP	C3 C
v:c00dE	280-62847-I -F-A		280-2dF04R	280-2d77c6	4412d12047 0F:4d	4	5EB31N	CGG
E:6040A	280-62847-I -F-A		280-2dF04R	280-2d77c6	4214c12047 06:02	4	5EB31N	/ J/
v:c00dE	280-62847-3-F-E		280-2dF020	280-2d7747	4412712047 42:7d	4	5EB31N	CGG
E:6040A	280-62847-3-F-E		280-2dF020	280-2d7747	4214c12047 0R0R	4	5EB31N	/ J/
v:c00dE	280-62847-3-F-A		280-2d7Fc4	280-2d7768	4412712047 42:7d	4	5EB31N	CGG
E:6020	280-62847-3-F-A		280-2d7Fc4	280-2d7768	4412d12047 0d:46	4	5EB31N	JM
v:c00dE	280-62847-I -F-E		280-2dd0d8	280-2d7728	4412d12047 0F:4d	4	5EB31N	CGG
E:6020	280-62847-I -F-E		280-2dd0d8	280-2d7728	4412612047 Oc:74	4	5EB31N	BM5
v:c00dE	280-62847-I -F-E		280-2dd46F	280-2d7728	4412d12047 0F:4d	4	5EB31N	CGG
E:6020	280-62847-I -F-E		280-2dd46F	280-2d7728	4412812047 4F:08	4	5EB31N	BM5
E:c00.0	280-62847-A-F		280-2dd07d		4412F12047 4F:cF	4	5EB31N	v/ 4
E:cd0.4	280-62847-C-F		280-2d7664		4412712047 46:42	4	5EB31N	CMB
E:cdc.2	280-62847-E-F		280-2dd60F		4412412047 22:44	4	5EB31N	SU/
E:/ M 2c20A	280-62847-A-F		280-2d7F87		4412d12047 42:47	4	5EB31N	CCJ
E:/ M 2d70C	280-62847-A-F		280-2d7660		4412712047 2c:48	4	5EB31N	CM/
E:/ M 2d703	280-62847-A-F		280-2d7FFF		4412d12047 47:d6	4	5EB31N	MW4
E:/ M dc40A	280-62847-C-F		280-2d7F76		4412d12047 0d:74	4	5EB31 N	CCJ

Lab ID: 280-6281W5 MU Client ID: D7 P1

/ am9le 3 ate 15 ime: 44 120 120 47 0 R20 Sepei DeT 3 ate 15 ime: 44 124 120 47 40:70

Date Prepared / **Analysis** Batch Analyzed Method Bottle ID Run **Prep Batch** Dil Lab Analyst v:c00dE 280-62847-3-F-C M/ 280-2d7Fc4 280-2d7768 4412712047 42:7d 4 5EB31N CGG E:6020 280-62847-3-F-C M/ 280-2d7768 4412d12047 0d:26 280-2d7Fc4 4 5EB3IN JM

Lab ID: 280-6281W5 MUD Client ID: D7 P1

/ am9le 3 ate15ime: 4412012047 0R20 SepeiDeT 3 ate15ime: 4412412047 40:70

Date Prepared / **Analysis** Batch Analyzed Method Bottle ID Run Prep Batch Dil Lab Analyst v:c00dE 280-62847-3-F-3 280-2d7Fc4 280-2d7768 4412712047 42:7d 4 5EB31N CGG M/ 3 280-62847-3-F-3 E:6020 280-2d7Fc4 280-2d7768 4412d12047 0d:2R 4 5EB31N JM M/ 3

### **Laboratory Chronicle**

Lab ID: 280-6281W5 D7 Client ID: D7 P1

/ am9le 3 ate15ime: 4412012047 0R20 SepeiDeT 3 ate15ime: 4412412047 40:70

**Analysis** Date Prepared / Method Bottle ID Run **Batch Prep Batch** Analyzed Dil Lab Analyst E:/ M 2d70C 280-62847-A-F 3 L 280-2d7660 4412712047 2c:48 4 5EB3IN CM/

Lab ID: 280-6281W8 Client ID: D7 P2

/ am9le 3 ate15ime: 4412012047 44:27 SepeiDeT 3 ate15ime: 4412412047 40:70

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
v:d0c0C	280-62847-P-8		780-24F406		4210712047 02:c0	4	5EB AL P	13A
E:8260C	280-62847-P-8		780-24F406		4210712047 02:c0	4	5EBALP	13A
v:d0c0C	280-62847-U-8		780-24dR2F		4412612047 00:4d	4	5EB AL P	C3 C
E:8260C / KM	280-62847-U-8		780-24dR2F		4412612047 00:4d	4	5EBALP	C3C
v:c00dE	280-62847-I -8-A		280-2dF04R	280-2d77c6	4412d12047 0F:4d	4	5EB31N	CGG
E:6040A	280-62847-I -8-A		280-2dF04R	280-2d77c6	4214c12047 06:07	4	5EB31N	/ J/
v:c00dE	280-62847-3-8-E		280-2dF020	280-2d7747	4412712047 42:7d	4	5EB31N	CGG
E:6040A	280-62847-3-8-E		280-2dF020	280-2d7747	4214c12047 0R42	4	5EB31N	/ J/
v:c00dE	280-62847-3-8-A		280-2d7Fc4	280-2d7768	4412712047 42:7d	4	5EB31N	CGG
E:6020	280-62847-3-8-A		280-2d7Fc4	280-2d7768	4412d12047 0d:c8	4	5EB31N	JM
v:c00dE	280-62847-I -8-E		280-2dd0d8	280-2d7728	4412d12047 0F:4d	4	5EB31N	CGG
E:6020	280-62847-I -8-E		280-2dd0d8	280-2d7728	4412612047 Oc:7d	4	5EB31N	BM5
v:c00dE	280-62847-I -8-E		280-2dd46F	280-2d7728	4412d12047 0F:4d	4	5EB31N	CGG
E:6020	280-62847-I -8-E		280-2dd46F	280-2d7728	4412812047 4F:42	4	5EB31N	BM5
E:c00.0	280-62847-A-8		280-2dd07d		4412F12047 4F:dc	4	5EB31N	v/4
E:cd0.4	280-62847-C-8		280-2d7664		4412712047 46:47	4	5EB31N	CMB
E:cdc.2	280-62847-E-8		280-2dd60F		4412412047 22:44	4	5EB31N	SU/
E:/ M 2c20A	280-62847-A-8		280-2d7F87		4412d12047 42:4R	4	5EB31N	CCJ
E:/ M 2d70C	280-62847-A-8		280-2d7RFc		4412612047 4d:4R	4	5EB31N	/ hC
E:/ M 2d703	280-62847-A-8		280-2d7FFF		4412d12047 47:d6	4	5EB31N	MW4
E:/ M dc40A	280-62847-C-8		280-2d7F76		4412d12047 06:c0	4	5EB31N	CCJ

Lab ID: 280-6281W8 MU Client ID: D7 P2

/ am9le 3 ate 15 ime: 44 120 12047 44:27 SepeiDeT 3 ate 15 ime: 44 124 12047 40:70

Date Prepared / **Analysis** Batch Analyzed Method Bottle ID Run **Prep Batch** Dil Lab Analyst E:c00.0 280-62847-A-8 M/ 280-2dd07d 4412F12047 48:27 4 5EB3IN v/4

Lab ID: 280-6281W8 MUD Client ID: D7 P2

/ am9le 3 ate15ime: 4412012047 44:27 SepeiDeT 3 ate15ime: 4412412047 40:70

Date Prepared / **Analysis** Method Bottle ID Batch Analyzed Dil Run **Prep Batch** Analyst Lab E:c00.0 280-62847-A-8 M/ 3 280-2dd07d 4412F12047 48:cR 4 5EB3IN v/4

Client: Waste Management Job Number: 280-62847-4

### **Laboratory Chronicle**

Lab ID: 280-6281W8 D7 Client ID: D7 P2

/ am9le 3 ate15ime: 4412012047 44:27 SepeiDeT 3 ate15ime: 4412412047 40:70

Analysis Date Prepared / Batch Analyzed Method Bottle ID Run Prep Batch Dil Lab Analyst E:c00.0 280-62847-A-8 3 L 280-2dd07d 4412F12047 48:08 5EB31N 4 v/4 E:/ M 2d70C 280-62847-A-8 3 L 280-2d7RFc 4412612047 4d:4R 5EB31N /hC

Lab ID: 280-6281W3 Client ID: TRIP BLANK

/ am9le 3 ate15ime: 4412012047 00:00 SepeiDeT 3 ate15ime: 4412412047 40:70

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
v:d0c0C	280-62847-E-R		780-24F406		4210712047 02:d2	4	5EB AL P	13A
E:8260C	280-62847-E-R		780-24F406		4210712047 02:d2	4	5EBALP	13A
v:d0c0C	280-62847-I -R		780-24dR2F		4412612047 00:cR	4	5EB AL P	C3 C
E:8260C / KM	280-62847-I -R		780-24dR2F		4412612047 00:cR	4	5EBALP	C3C

5estEmeripa 3 enDer E V Enal=tipal MetyoT v V v re9 MetyoT

# **Laboratory Chronicle**

Lab ID: MB Client ID: N/A

/ am9le 3 ate 15 ime: NE SepeiDeT 3 ate 15 ime: NE

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
v:d0c0C	MA 780-246R201R		780-246R20		4210c12047 4c:20	4	5EB AL P	G5G
E:8260C	MA 780-246R201R		780-246R20		4210c12047 4c:20	4	5EBALP	G5G
v:d0c0C	MA 780-24F4061F		780-24F406		4210c12047 2c:7R	4	5EBALP	13A
E:8260C	MA 780-24F4061F		780-24F406		4210c12047 2c:7R	4	5EBALP	13A
v:d0c0C	MA 780-24dR2F18		780-24dR2F		4412d12047 4F:c7	4	5EB AL P	C3 C
E:8260C / KM	MA 780-24dR2F18		780-24dR2F		4412d12047 4F:c7	4	5EBALP	C3C
v:c00dE	MA 280-2d77c614-E		280-2dF04R	280-2d77c6	4412d12047 0F:4d	4	5EB31N	CGG
E:6040A	MA 280-2d77c614-E		280-2dF04R	280-2d77c6	4214c12047 07:dR	4	5EB31N	/ J/
v:c00dE	MA 280-2d774714-E		280-2dF020	280-2d7747	4412712047 42:7d	4	5EB31N	CGG
E:6040A	MA 280-2d774714-E		280-2dF020	280-2d7747	4214c12047 08:4F	4	5EB31N	/ J/
v:c00dE	MA 280-2d776R14-E		280-2d7Fc4	280-2d776R	4412712047 42:7d	4	5EB31N	CGG
E:6020	MA 280-2d776R14-E		280-2d7Fc4	280-2d776R	4412d12047 Oc:c8	4	5EB31N	JM
v:c00dE	MA 280-2d776814-E		280-2d7Fc4	280-2d7768	4412712047 42:7d	4	5EB31N	CGG
E:6020	MA 280-2d776814-E		280-2d7Fc4	280-2d7768	4412d12047 0d:0F	4	5EB31N	JM
v:c00dE	MA 280-2d772814-E		280-2dd0d8	280-2d7728	4412d12047 0F:4d	4	5EB31N	CGG
E:6020	MA 280-2d772814-E		280-2dd0d8	280-2d7728	4412612047 02:d4	4	5EB31N	BM5
v:c00dE	MA 280-2d772814-E		280-2dd46F	280-2d7728	4412d12047 0F:4d	4	5EB31N	CGG
E:6020	MA 280-2d772814-E		280-2dd46F	280-2d7728	4412812047 46:4F	4	5EB31N	BM5
E:c00.0	MA 280-2dd07d16		280-2dd07d		4412F12047 44:20	4	5EB31N	v/ 4
E:cd0.4	MA 280-2d766414RR		280-2d7664		4412712047 4d:22	4	5EB31N	CMB
E:cdc.2	MA 280-2dd60F14		280-2dd60F		4412412047 22:44	4	5EB31N	SU/
E:/ M 2c20A	MA 280-2d7F8716		280-2d7F87		4412d12047 40:c8	4	5EB31N	CCJ
E:/ M 2d70C	MA 280-2d766014		280-2d7660		4412712047 2c:48	4	5EB31N	CM/
E:/ M 2d70C	MA 280-2d7RFc14		280-2d7RFc		4412612047 4d:4R	4	5EB31N	/ hC
E:/ M 2d703	MA 280-2d7FFF1c		280-2d7FFF		4412d12047 47:d6	4	5EB31N	MW4
E:/ M dc40A	MA 280-2d7F761d		280-2d7F76		4412712047 4F:02	4	5EB31N	CCJ
E:/ M dc40A	MA 280-2d7F761cF		280-2d7F76		4412d12047 04:dc	4	5EB31N	CCJ

## **Laboratory Chronicle**

Lab ID: LCU Client ID: N/A

/ am9le 3 ate 15 ime: NE SepeiDeT 3 ate 15 ime: NE

Method         Bottle ID         Run         Batch         Prep Batch         Analyzed         Dil         Lab           v:d0c0C         BC/ 780-246R201F         780-246R20         42 10c 12047 42:cd         4 5EB AL P           E:8260C         BC/ 780-246R201F         780-246R20         42 10c 12047 42:cd         4 5EB AL P           v:d0c0C         BC/ 780-24F40617         780-24F406         42 10c 12047 22:7c         4 5EB AL P           E:8260C         BC/ 780-24F40617         780-24F406         42 10c 12047 22:7c         4 5EB AL P           v:d0c0C         BC/ 780-24dR2Ftl         780-24dR2F         44 12d 12047 4d:46         4 5EB AL P           E:8260C / KM         BC/ 780-24dR2Ftl         780-24dR2F         44 12d 12047 4d:46         4 5EB AL P	G5G G5G I 3A I 3A C3C C3C
E:8260C       BC/ 780-246R201F       780-246R20       4210c12047 42:cd       4       5EB AL P         v:d0c0C       BC/ 780-24F40617       780-24F406       4210c12047 22:7c       4       5EB AL P         E:8260C       BC/ 780-24F40617       780-24F406       4210c12047 22:7c       4       5EB AL P         v:d0c0C       BC/ 780-24dR2Ftl       780-24dR2F       4412d12047 4d:46       4       5EB AL P	G5G I 3A I 3A C3C C3C CGG
v:d0c0C       BC/ 780-24F40617       780-24F406       4210c12047 22:7c       4       5EB AL P         E:8260C       BC/ 780-24F40617       780-24F406       4210c12047 22:7c       4       5EB AL P         v:d0c0C       BC/ 780-24dR2Ftl       780-24dR2F       4412d12047 4d:46       4       5EB AL P	1 3 A 1 3 A C3 C C3 C
E:8260C         BC/ 780-24F40617         780-24F406         4210c12047 22:7c         4         5EB AL P           v:d0c0C         BC/ 780-24dR2Ftd         780-24dR2F         4412d12047 4d:46         4         5EB AL P	1 3 A C3 C C3 C CGG
v:d0c0C BC/ 780-24dR2Ftd 780-24dR2F 4412d12047 4d:46 4 5EB AL P	C3 C C3 C CGG
	C3 C CGG
E:8260C / KM BC/ 780-24dR2Ftd 780-24dR2F 4412d12047 4d:46 4 5EB AL P	CGG
v:c00dE BC/ 280-2d77c612-E 280-2dF04R 280-2d77c6 4412d12047 0F:4d 4 5EB31 N	/ 1/
E:6040A BC/ 280-2d77c612-E 280-2dF04R 280-2d77c6 4214c12047 0d:02 4 5EB31 N	/ J/
v:c00dE BC/ 280-2d774712-E 280-2dF020 280-2d7747 4412712047 42:7d 4 5EB31 N	CGG
E:6040A BC/ 280-2d774712-E 280-2dF020 280-2d7747 4214c12047 08:4R 4 5EB31 N	/ J/
v:c00dE BC/ 280-2d776Rt2-E 280-2d7Fc4 280-2d776R 4412712047 42:7d 4 5EB31 N	CGG
E:6020 BC/ 280-2d776R12-E 280-2d7Fc4 280-2d776R 4412d12047 0c:74 4 5EB31 N	JM
v:c00dE BC/ 280-2d776812-E 280-2d7Fc4 280-2d7768 4412712047 42:7d 4 5EB31 N	CGG
E:6020 BC/ 280-2d776812-E 280-2d7Fc4 280-2d7768 4412d12047 0d:40 4 5EB31 N	JM
v:c00dE BC/ 280-2d772812-E 280-2dd0d8 280-2d7728 4412d12047 0F:4d 4 5EB31 N	CGG
E:6020 BC/ 280-2d772812-E 280-2dd0d8 280-2d7728 4412612047 02:dd 4 5EB31 N	BM5
v:c00dE BC/ 280-2d772812-E 280-2dd46F 280-2d7728 4412d12047 0F:4d 4 5EB31 N	CGG
E:6020 BC/ 280-2d772812-E 280-2dd46F 280-2d7728 4412812047 46:24 4 5EB31 N	BM5
E:c00.0 BC/ 280-2dd07d17 280-2dd07d 4412F12047 40:7R 4 5EB31 N	v/ 4
E:cd0.4 BC/ 280-2d766414RF 280-2d7664 4412712047 4d:48 4 5EB31 N	CMB
E:/ M 2c20A BC/ 280-2d7F8717 280-2d7F87 4412d12047 40:28 4 5EB 3 I N	CCJ
E:/ M 2d70C BC/ 280-2d766012 280-2d7660 4412712047 2c:48 4 5EB 31 N	CM/
E:/ M 2d70C BC/ 280-2d7RFc12 280-2d7RFc 4412612047 4d:4R 4 5EB 31 N	/ hC
E:/ M 2d703 BC/ 280-2d7FFF14 280-2d7FFF 4412d12047 47:d6 4 5EB 31 N	MW4
E:/ M dc40A BC/ 280-2d7F76t 280-2d7F76 4412712047 46:22 4 5EB31 N	CCJ
E:/ M dc40A BC/ 280-2d7F76tcd 280-2d7F76 4412d12047 04:20 4 5EB31 N	CCJ

Lab ID: LCUD Client ID: N/A

/ am9le 3 ate15ime: N1E SepeiDeT 3 ate15ime: N1E

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
v:d0c0C	BC/ 3 780-24dR2F16		780-24dR2F		4412d12047 4d:70	4	5EB AL P	C3 C
E:8260C / KM	BC/ 3 780-24dR2F16		780-24dR2F		4412d12047 4d:70	4	5EBALP	C3C
E:c00.0	BC/ 3 280-2dd07d1d		280-2dd07d		4412F12047 44:0d	4	5EB31 N	v/ 4
E:cd0.4	BC/ 3 280-2d766414R8		280-2d7664		4412712047 4d:20	4	5EB31N	CMB
E:/ M 2c20A	BC/ 3 280-2d7F871d		280-2d7F87		4412d12047 40:c7	4	5EB31 N	CCJ
E:/ M 2d70C	BC/ 3 280-2d76601c		280-2d7660		4412712047 2c:48	4	5EB31 N	CM/
E:/ M 2d70C	BC/ 3 280-2d7RFc1c		280-2d7RFc		4412612047 4d:4R	4	5EB31N	/ hC
E:/ M 2d703	BC/ 3 280-2d7FFF12		280-2d7FFF		4412d12047 47:d6	4	5EB31 N	MW4
E:/ M dc40A	BC/ 3 280-2d7F7617		280-2d7F76		4412712047 46:70	4	5EB31 N	CCJ
E:/ M dc40A	BC/ 3 280-2d7F761c6		280-2d7F76		4412d12047 04:cF	4	5EB31 N	CCJ

### **Laboratory Chronicle**

Lab ID: MRL Client ID: N/A

/ am9le 3 ate15ime: N1E SepeiDeT 3 ate15ime: N1E

**Analysis** Date Prepared / Run Prep Batch Method Bottle ID **Batch** Analyzed Dil Analyst Lab MSB 280-2dd07d1c E:c00.0 280-2dd07d 4412F12047 40:c7 4 5EB3IN v / 4

Lab ID: MU Client ID: N/A

/ am9le 3 ate 5 ime: 44 20 2047 4d:c0 Sepei DeT 3 ate 5 ime: 44 27 2047 40:00

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
v:d0c0C	780-F48Fc-C-4 M/		780-246R20		4210c12047 20:24	400	5EB AL P	G5G
E:8260C	780-F48Fc-C-4 M/		780-246R20		4210c12047 20:24	400	5EB AL P	G5G
v:d0c0C	780-F4FRc-J-4 M/		780-24F406		4210712047 06:dF	d	5EB AL P	13A
E:8260C	780-F4FRc-J-4 M/		780-24F406		4210712047 06:dF	d	5EB AL P	13A
E:cd0.4	280-62808-A-c M/		280-2d7664		4412712047 4d:70	4	5EB31N	CMB
E:/ M dc40A	280-6284c-I -2 M/		280-2d7F76		4412712047 22:00	4	5EB31N	CCJ
E:/ M dc40A	280-628cc-3-c M/		280-2d7F76		4412d12047 0c:cc	4	5EB31N	CCJ

Lab ID: MUD Client ID: N/A

/ am9le 3 ate15ime: 4412012047 4d:c0 SepeiDeT 3 ate15ime: 4412712047 40:00

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
v:d0c0C	780-F48Fc-C-4 M/ 3		780-246R20		4210c12047 20:7	7 400	5EB AL P	G5G
E:8260C	780-F48Fc-C-4 M/ 3		780-246R20		4210c12047 20:7	7 400	5EB AL P	G5G
v:d0c0C	780-F4FRc-J-4 M/ 3		780-24F406		4210712047 0F:4	R d	5EB AL P	13A
E:8260C	780-F4FRc-J-4 M/ 3		780-24F406		4210712047 0F:4	R d	5EB AL P	13A
E:cd0.4	280-62808-A-c M/ 3		280-2d7664		4412712047 4d:7	2 4	5EB31N	CMB
E:/ M dc40A	280-6284c-I -2 M/ 3		280-2d7F76		4412712047 22:4	F 4	5EB31N	CCJ
E:/ M dc40A	280-628cc-3-c M/ 3		280-2d7F76		4412d12047 0c:d	0 4	5EB31N	CCJ

Lab ID: D7 Client ID: N/A

/ am9le 3 ate15ime: 4414Rt2047 40:26 SepeiDeT 3 ate15ime: 4412412047 40:70

**Analysis** Date Prepared / Batch Analyzed Method **Bottle ID** Run **Prep Batch** Dil Lab Analyst E:/ M 2c20A 280-6288F-E-4c 3 L 280-2d7F87 4412d12047 40:dc 4 5EB31N CCJ E:/ M 2d703 280-62807-C-4 3 L 280-2d7FFF 4412d12047 47:d6 5EB31N MW4 4

Lab References:

5EB AL P V 5estEmeripa Auffalo 5EB 3 I N V 5estEmeripa 3 enDer

#### Phone: 415 WA, 98312 Empty Kit Relinquished by: 3 Deliverable Requested: I, II, III, IV, Other (specify) Possible Hazard Identification Event Desc: Quarterly GW Appl/II - Mar Jun Sep Dec Relinquished by: Sample Identification 9300 Southwest Barney White Road Client Information Arvada, CO 80002 Phone (303) 736-0100 Fax (303) 431-7171 4955 Yarrow Street Bremertori Olympic View Transfer Station Mr. Charles Luekie TestAmerica Denver DUP. elinquished by: 3 Custody Seals Intact: 3 のないというというというできる oject Name:WA02|Olympic View Sanitary LF. synagmy: Non-Hazard Yes A 28/-2/6/ No 74 90 Flammable To Elene Custody Seal No.: ShS C Skin Irritant 825 50+ PE Con Poison B Project #: 28002692 Date/Time: #OW Due Date Requested SSOW#: PO# TAT Requested (days) 545-582-542 Sample Date Sime: 8 X F Unknown する古ん 0939 0910 0920 2011 1012 202 Sample W 124 74 W Radiological G=grab) (C=comp, Sample Preservation Code: Type 0 Chain of Custody Company Matrix Sara, Betsy A betsy.sara@testamericainc.com I Ime: Field Filtered Sample (Yes or No) Special Instructions/QC Requirements Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month) Return To Client Disposal By Lab Archive For Monte Perform MS/MSD (Yes or No) Cooler Temperature(s) °C and Other Remarks Received by: Received by: Received by: TDS/Alks/Cl/SO4/NO3(cad) Dissolved Metals Ammonia/TOC 8260B - long list (TA Buffalo) Analysis Requested 8260B SIM (TA Buffalo) 280-62814 Chain of Custody Total Metals TSS Dissolved Arsenic (direct sub to ARI) Method of Shipment Total Arsenic (direct sub to ARI) Date/Time: 23 Total Number of containers G - Amchlor H - Ascorbic Acid J - DI Water K - EDTA A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH I - Ice L-EDA Preservation Codes: 1040 0420 Special instructions/Note 7318-3224.1 LEADER IN ENVIRONMENTAL TESTING Arsenic - Direct sub to ARI Short Hold: NO3(cad) 0 M - Hexane N - None O - AsNaO2 P - NaZO4S Q - NaZSO3 R - NaZSO3 S - LYSO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 Z - other (specify) 0 Company Company Company 77. Months

# **Login Sample Receipt Checklist**

Client: Waste Management Job Number: 280-62814-1

Login Number: 62814 List Source: TestAmerica Denver

List Number: 1

Creator: Conquest, Tyler W

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

# **Login Sample Receipt Checklist**

Client: Waste Management Job Number: 280-62814-1

List Source: TestAmerica Buffalo
List Number: 2
List Source: TestAmerica Buffalo
List Number: 2

Creator: Robison, Zachary J

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.9 C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	



# **ANALYTICAL REPORT**

Job Number: 280-63425-1

Job Description: WA02|Olympic View Sanitary LF

For:

Waste Management Sun Valley Hauling 9081 Tujunga Avenue Sun Valley, CA 91352

Attention: Mr. Phil Perley

Approved for release. Stephanie D Sanders Project Manager I 12/23/2014 5:39 PM

Designee for
Betsy A Sara, Project Manager II
4955 Yarrow Street, Arvada, CO, 80002
(303)736-0189
betsy.sara@testamericainc.com
12/23/2014

Styphi Sh

cc: Mr. Sam Adlington Mr. Matt O'Hare

Ms. Elena Ramirez

Mr. Dan Venchiarutti

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is 4025.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

#### TestAmerica Laboratories, Inc.

TestAmerica Denver 4955 Yarrow Street, Arvada, CO 80002 Tel (303) 736-0100 Fax (303) 431-7171 <u>www.testamericainc.com</u>



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#### **CASE NARRATIVE**

Client: Waste Management

Project: WA02|Olympic View Sanitary LF

Report Number: 280-63425-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

This report may include reporting limits (RLs) less than TestAmerica's standard reporting limit. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards

#### Sample Receiving

The sample was received on 12/10/2014; the sample arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 1.1 C.

#### **Holding Times**

All holding times were within established control limits.

#### **Method Blanks**

All Method Blank recoveries were within established control limits.

#### **Laboratory Control Samples (LCS)**

The LCS/LCSD exhibited RPD data outside control limits for Ammonia Method 350.1. Because the corresponding MS/MSD and the Method Blank sample were within control limits no corrective action was taken.

All other Laboratory Control Samples were within established control limits.

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

The percent recoveries and/or relative percent difference of the MS/MSD performed on sample LP-LCD were outside control limits for Total Sodium Method 6010B because the sample concentration was greater than four times the spike amount. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, no corrective action was taken.

The Matrix Spike and Matrix Spike Duplicate performed on a sample from another client exhibited a recovery outside control limits for Chemical Oxygen Demand (COD) Method 410.4. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, this anomaly may be due to matrix interference and no corrective action was taken.

All other MS and MSD samples were within established control limits.

#### Metals

The continuing calibration verification (CCV) associated with batch 257812 recovered above the upper control limit for low line Sodium. The method blank associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

The instrument blank for analytical batch 257812 contained Sodium greater than the reporting limit (RL), and were not reanalyzed because associated method blank was non-detect and the LCS was with in control limits. The data have been qualified and reported.

#### **General Chemistry**

In batch 256630 all the dilutions failed to deplete the method-required 2mgO2/L for the following samples: (280-63425-1), LP-LCD (280-63425-1). Only a "less than" result could be calculated from the least dilute preparation.

### **EXECUTIVE SUMMARY - Detections**

Client: Waste Management Job Number: 280-63425-1

Lab Sample ID Client Sample ID Analyte	Result	Qualifier	Reporting Limit	Units	Method
000 00405 4					
280-63425-1 LP-LCD Specific Conductivity	3597.0			umhos/cm	Field Sampling
	10.39				, ,
Dissolved Oxygen				mg/L	Field Sampling
eH	117.1			millivolts	Field Sampling
Turbidity	8.06			NTU	Field Sampling
Temperature	10.37			Degrees C	Field Sampling
рН	7.15			SU	Field Sampling
Chloride	660		10	mg/L	300.0
Sulfate	250		10	mg/L	300.0
Ammonia (as N)	5.7		0.060	mg/L	350.1
Chemical Oxygen Demand (COD)	180		20	mg/L	410.4
Alkalinity	800		5.0	mg/L	SM 2320B
Bicarbonate Alkalinity as CaCO3	800		5.0	mg/L	SM 2320B
Total Dissolved Solids (TDS)	2500		10	mg/L	SM 2540C
Total Organic Carbon - Average	63		5.0	mg/L	SM 5310B
Total Recoverable					
Calcium, Total	57		0.040	mg/L	6010B
Iron, Total	0.55		0.060	mg/L	6010B
Magnesium, Total	36		0.050	mg/L	6010B
Manganese, Total	0.81		0.050	mg/L	6010B
Potassium, Total	72		1.0	mg/L	6010B
Sodium, Total	790		1.0	mg/L	6010B

#### **METHOD SUMMARY**

Client: Waste Management Job Number: 280-63425-1

Description	Lab Location	Method Preparation Method
Matrix: Water		
Metals (ICP)	TAL DEN	SW846 6010B
Preparation, Total Recoverable or Dissolved Metals	TAL DEN	SW846 3005A
Anions, Ion Chromatography	TAL DEN	MCAWW 300.0
Nitrogen, Ammonia	TAL DEN	MCAWW 350.1
COD	TAL DEN	MCAWW 410.4
Alkalinity	TAL DEN	SM SM 2320B
Solids, Total Dissolved (TDS)	TAL DEN	SM SM 2540C
Organic Carbon, Total (TOC)	TAL DEN	SM SM 5310B
BOD, 5 Day	TAL DEN	SM SM5210B
Field Sampling	TAL DEN	EPA Field Sampling

#### Lab References:

TAL DEN = TestAmerica Denver

#### Method References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

# METHOD / ANALYST SUMMARY

Client: Waste Management Job Number: 280-63425-1

Method	Analyst	Analyst ID
SW846 6010B	Scott, Samantha J	SJS
EPA Field Sampling	Saraubon, Phakchaya	PS
MCAWW 300.0	Benson, Alex F	AFB
MCAWW 350.1	Lawrence, Caitlyn M	CML
MCAWW 410.4	Shaheen, Scott W	sws
SM SM 2320B	Jewell, Connie C	CCJ
SM SM 2540C	Cherry, Scott V	SVC
SM SM 5310B	Jewell, Connie C	CCJ
SM SM5210B	Simons, Nicole A	NAS

### **SAMPLE SUMMARY**

Client: Waste Management Job Number: 280-63425-1

			Date/Time	Date/Time
Lab Sample ID	Client Sample ID	Client Matrix	Sampled	Received
280-63425-1	LP-LCD	Water	12/09/2014 0930	12/10/2014 0950

# **SAMPLE RESULTS**

# **Analytical Data**

Client: Waste Management Job Number: 280-63425-1

Client Sample ID: LP-LCD

Lab Sample ID: 280-63425-1 Date Sampled: 12/09/2014 0930 Client Matrix:

Water Date Received: 12/10/2014 0950

6010B Metals (ICP)-Total Recoverable

Analysis Method: 6010B Analysis Batch: 280-257812 Instrument ID: MT\_026

3005A Prep Method: Prep Batch: 280-256663 Lab File ID: 26g121814.asc

Dilution: 1.0 Initial Weight/Volume: 50 mL Analysis Date: 12/19/2014 0217 Final Weight/Volume: 50 mL

Prep Date: 12/11/2014 0930

Result (mg/L) Qualifier RL RL Analyte Calcium, Total 57 0.040 0.040 0.55 0.060 0.060 Iron, Total 0.050 Magnesium, Total 36 0.050 0.050 Manganese, Total 0.81 0.050 Potassium, Total 72 1.0 1.0 Sodium, Total 790 1.0 1.0

# **Analytical Data**

Client: Waste Management Job Number: 280-63425-1

#### **General Chemistry**

Client Sample ID: LP-LCD

Lab Sample ID: 280-63425-1 Date Sampled: 12/09/2014 0930

Client Matrix: Water Date Received: 12/10/2014 0950

nalyte	Result	Qual	Units	RL	RL	Dil	Method
hloride	660		mg/L	10	10	10	300.0
Analysis Batch: 280	)-257136	Analysis Date:	12/15/2014	2223			
ulfate	250		mg/L	10	10	10	300.0
Analysis Batch: 280	)-257136	Analysis Date:	12/15/2014	2223			
mmonia (as N)	5.7		mg/L	0.060	0.060	2.0	350.1
Analysis Batch: 280	)-256977	Analysis Date:	12/12/2014	1413			
hemical Oxygen Demand (COD)	180		mg/L	20	20	2.0	410.4
Analysis Batch: 280	)-256774	Analysis Date:	12/11/2014	1430			
lkalinity	800		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 280	)-256799	Analysis Date:	12/11/2014	1131			
icarbonate Alkalinity as CaCO3	800		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 280	)-256799	Analysis Date:	12/11/2014	1131			
otal Dissolved Solids (TDS)	2500		mg/L	10	10	1.0	SM 2540C
Analysis Batch: 280	)-256626	Analysis Date:	12/10/2014	1454			
otal Organic Carbon - Average	63		mg/L	5.0	5.0	5.0	SM 5310B
Analysis Batch: 280	)-256888	Analysis Date:	12/11/2014	2010			
iochemical Oxygen Demand	ND		mg/L	10	10	5.0	SM5210B
Analysis Batch: 280	)-256630	Analysis Date:	12/10/2014	1540			

#### Field Service / Mobile Lab

Client Sample ID: LP-LCD

Lab Sample ID: 280-63425-1 Date Sampled: 12/09/2014 0930 Client Matrix: Water

Date Received: 12/10/2014 0950

						Analysis	Date Analyzed
Analyte	Result	Qual	Units	Dil	Method	Batch	Date Prepared
Specific Conductivity	3597.0		umhos/cm	1.0	Field Sampling	280-256683	12/09/2014 1030
Dissolved Oxygen	10.39		mg/L	1.0	Field Sampling	280-256683	12/09/2014 1030
еН	117.1		millivolts	1.0	Field Sampling	280-256683	12/09/2014 1030
Turbidity	8.06		NTU	1.0	Field Sampling	280-256683	12/09/2014 1030
Temperature	10.37		Degrees C	1.0	Field Sampling	280-256683	12/09/2014 1030
рН	7.15		SU	1.0	Field Sampling	280-256683	12/09/2014 1030

# **DATA REPORTING QUALIFIERS**

Client: Waste Management Job Number: 280-63425-1

Lab Section	Qualifier	Description
Metals		
	٨	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.
	4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
General Chemistry		
	F1	MS and/or MSD Recovery exceeds the control limits
	*	RPD of the LCS and LCSD exceeds the control limits

# **QUALITY CONTROL RESULTS**

# **QC Association Summary**

		Report			
Lab Sample ID	Client Sample ID	Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-256663					
LCS 280-256663/2-A	Lab Control Sample	R	Water	3005A	
MB 280-256663/1-A	Method Blank	R	Water	3005A	
280-63425-1	LP-LCD	R	Water	3005A	
280-63425-1MS	Matrix Spike	R	Water	3005A	
280-63425-1MSD	Matrix Spike Duplicate	R	Water	3005A	
Analysis Batch:280-2578	12				
LCS 280-256663/2-A	Lab Control Sample	R	Water	6010B	280-256663
MB 280-256663/1-A	Method Blank	R	Water	6010B	280-256663
280-63425-1	LP-LCD	R	Water	6010B	280-256663
280-63425-1MS	Matrix Spike	R	Water	6010B	280-256663
280-63425-1MSD	Matrix Spike Duplicate	R	Water	6010B	280-256663
Report Basis					
R = Total Recoverable					
Field Service / Mobile La	b				
Analysis Batch:280-2566		<b>-</b>	10/-4	Field Commi	
280-63425-1	LP-LCD	Т	Water	Field Sampling	

#### Report Basis

T = Total

# **QC Association Summary**

		Report			
Lab Sample ID	Client Sample ID	Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-25662	6				
LCS 280-256626/2	Lab Control Sample	T	Water	SM 2540C	
LCSD 280-256626/3	Lab Control Sample Duplicate	T	Water	SM 2540C	
MB 280-256626/1	Method Blank	T	Water	SM 2540C	
280-63397-A-2 DU	Duplicate	T	Water	SM 2540C	
280-63425-1	LP-LCD	Т	Water	SM 2540C	
Analysis Batch:280-25663	0				
LCS 280-256630/3	Lab Control Sample	Т	Water	SM5210B	
LCSD 280-256630/5	Lab Control Sample Duplicate	Т	Water	SM5210B	
MB 280-256630/6	Method Blank	Т	Water	SM5210B	
280-63379-A-10 DU	Duplicate	Т	Water	SM5210B	
280-63425-1	LP-LCD	Т	Water	SM5210B	
Analysis Batch:280-25677	4				
_CS 280-256774/3	Lab Control Sample	Т	Water	410.4	
_CSD 280-256774/4	Lab Control Sample Duplicate	, T	Water	410.4	
MB 280-256774/5	Method Blank	Ť	Water	410.4	
280-63146-B-1 MS	Matrix Spike	, T	Water	410.4	
280-63146-B-1 MSD	Matrix Spike Duplicate	Ť	Water	410.4	
280-63425-1	LP-LCD	T	Water	410.4	
Analysis Batch:280-25679 LCS 280-256799/4	9 Lab Control Sample	Т	Water	SM 2320B	
_CSD 280-256799/5	Lab Control Sample Duplicate	T	Water	SM 2320B	
MB 280-256799/6	Method Blank	, T	Water	SM 2320B	
280-63425-1	LP-LCD	T T	Water	SM 2320B	
280-63464-D-1 DU	Duplicate	, T	Water	SM 2320B	
200-03404-D-1 D0	Duplicate	1	vvalei	3W 2320B	
Analysis Batch:280-25688		_		014 = 0.40	
_CS 280-256887/3	Lab Control Sample	T -	Water	SM 5310B	
CSD 280-256887/4	Lab Control Sample Duplicate	T	Water	SM 5310B	
MB 280-256887/5	Method Blank	T	Water	SM 5310B	
280-63425-1	LP-LCD	T	Water	SM 5310B	
280-63425-1MS	Matrix Spike	T	Water	SM 5310B	
280-63425-1MSD	Matrix Spike Duplicate	Т	Water	SM 5310B	
Analysis Batch:280-25688		_			
_CS 280-256888/3	Lab Control Sample	Т	Water	SM 5310B	
CSD 280-256888/4	Lab Control Sample Duplicate	Т	Water	SM 5310B	
MB 280-256888/5	Method Blank	Т	Water	SM 5310B	
280-63392-E-1 MS	Matrix Spike		Water	SM 5310B	
280-63392-E-1 MSD	Matrix Spike Duplicate		Water	SM 5310B	
280-63425-1	LP-LCD	T	Water	SM 5310B	
280-63425-1MS	Matrix Spike	Т	Water	SM 5310B	
280-63425-1MSD	Matrix Spike Duplicate	T	Water	SM 5310B	

# **QC Association Summary**

		Report			
Lab Sample ID	Client Sample ID	Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-2569	77				
LCS 280-256977/106	Lab Control Sample	Т	Water	350.1	
LCS 280-256977/19	Lab Control Sample	Т	Water	350.1	
LCSD 280-256977/107	Lab Control Sample Duplicate	Т	Water	350.1	
LCSD 280-256977/166	Lab Control Sample Duplicate	Т	Water	350.1	
_CSD 280-256977/20	Lab Control Sample Duplicate	Т	Water	350.1	
MB 280-256977/108	Method Blank	Т	Water	350.1	
MB 280-256977/21	Method Blank	Т	Water	350.1	
280-63423-B-5 MS	Matrix Spike	Т	Water	350.1	
280-63423-B-5 MSD	Matrix Spike Duplicate	Т	Water	350.1	
280-63425-1	LP-LCD	T	Water	350.1	
280-63517-B-4 MS	Matrix Spike	T	Water	350.1	
280-63517-B-4 MSD	Matrix Spike Duplicate	Т	Water	350.1	
Analysis Batch:280-2571	36				
LCS 280-257136/4	Lab Control Sample	Т	Water	300.0	
LCSD 280-257136/5	Lab Control Sample Duplicate	Т	Water	300.0	
MB 280-257136/6	Method Blank	Т	Water	300.0	
280-63423-A-3 DU	Duplicate	Т	Water	300.0	
280-63423-A-3 MS	Matrix Spike	Т	Water	300.0	
280-63423-A-3 MSD	Matrix Spike Duplicate	Т	Water	300.0	
280-63425-1	LP-LCD	Т	Water	300.0	
Analysis Batch:280-2574	12				
LCS 280-257412/19	Lab Control Sample	Т	Water	350.1	
LCSD 280-257412/20	Lab Control Sample Duplicate	Т	Water	350.1	
MB 280-257412/21	Method Blank	Т	Water	350.1	
280-63425-1	LP-LCD	Т	Water	350.1	
280-63484-E-2 MS	Matrix Spike	Т	Water	350.1	
280-63484-E-2 MSD	Matrix Spike Duplicate	Т	Water	350.1	

#### Report Basis

T = Total

Client: Waste Management Job Number: 280-63425-1

Method Blank - Batch: 280-256663

Method: 6010B Preparation: 3005A **Total Recoverable** 

Lab Sample ID: MB 280-256663/1-A Client Matrix: Water Dilution:

1.0 12/19/2014 0146

Analysis Batch: Prep Batch: Leach Batch: N/A Units: mg/L

280-257812 280-256663

Instrument ID: MT\_026 Lab File ID: 26g121814.asc

Initial Weight/Volume: 50 mL Final Weight/Volume: 50 mL

Prep Date: 12/11/2014 0930

Leach Date: N/A

Analysis Date:

Analyte	Result	Qual	RL	RL
Calcium, Total	ND		0.040	0.040
Iron, Total	ND		0.060	0.060
Magnesium, Total	ND		0.050	0.050
Manganese, Total	ND		0.050	0.050
Potassium, Total	ND		1.0	1.0
Sodium, Total	ND	۸	1.0	1.0

Lab Control Sample - Batch: 280-256663

Method: 6010B Preparation: 3005A **Total Recoverable** 

Lab Sample ID: LCS 280-256663/2-A Client Matrix: Water Dilution: 1.0 Analysis Date: 12/19/2014 0148 12/11/2014 0930 Prep Date:

Analysis Batch: Prep Batch: Leach Batch: Units:

280-257812 280-256663 N/A mg/L

Instrument ID: Lab File ID: Initial Weight/Volume: Final Weight/Volume:

MT\_026 26g121814.asc 50 mL 50 mL

Leach Date: N/A

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Calcium, Total	50.0	45.9	92	90 - 111	
Iron, Total	1.00	0.922	92	89 - 115	
Magnesium, Total	50.0	49.1	98	90 - 113	
Manganese, Total	0.500	0.518	104	90 - 110	
Potassium, Total	50.0	50.7	101	89 - 114	
Sodium, Total	50.0	50.0	100	90 - 115	

Job Number: 280-63425-1 Client: Waste Management

Analysis Batch:

Prep Batch:

Leach Batch:

Analysis Batch:

Matrix Spike/

Matrix Spike Duplicate Recovery Report - Batch: 280-256663

Method: 6010B Preparation: 3005A

MS Lab Sample ID: Client Matrix:

Dilution:

280-63425-1

Water 1.0

Analysis Date: 12/19/2014 0223 Prep Date: 12/11/2014 0930

Leach Date: N/A

280-63425-1 MSD Lab Sample ID: Client Matrix: Water Dilution: 1.0

Analysis Date: 12/19/2014 0226 Prep Date: 12/11/2014 0930

Leach Date: N/A **Total Recoverable** 

280-257812 Instrument ID: MT\_026 280-256663 Lab File ID: 26g121814.asc N/A

Initial Weight/Volume: 50 mL Final Weight/Volume: 50 mL

Lab File ID: 26g121814.asc Prep Batch: 280-256663 Leach Batch: N/A Initial Weight/Volume: 50 mL

Instrument ID:

Final Weight/Volume: 50 mL

MT 026

% Rec. RPD Analyte Limit **RPD Limit** MS MSD MS Qual MSD Qual Calcium, Total 91 48 - 153 20 90 1 Iron, Total 110 109 52 - 155 1 20 Magnesium, Total 95 96 62 - 146 1 20 79 - 121 0 20 Manganese, Total 101 102 Potassium, Total 99 101 76 - 132 1 20 Sodium, Total 65 76 70 - 203 1 20

280-257812

Matrix Spike/

Matrix Spike Duplicate Recovery Report - Batch: 280-256663

MS Lab Sample ID: 280-63425-1 Units: mg/L

Water Client Matrix: Dilution: 1.0

12/19/2014 0223 Analysis Date: 12/11/2014 0930 Prep Date:

Leach Date: N/A Method: 6010B Preparation: 3005A **Total Recoverable** 

MSD Lab Sample ID: 280-63425-1 Client Matrix: Water

Dilution: 1.0 Analysis Date:

12/19/2014 0226 12/11/2014 0930 Prep Date:

Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Calcium, Total	57	50.0	50.0	102	103
Iron, Total	0.55	1.00	1.00	1.64	1.63
Magnesium, Total	36	50.0	50.0	83.5	84.0
Manganese, Total	0.81	0.500	0.500	1.31	1.32
Potassium, Total	72	50.0	50.0	121	122
Sodium, Total	790	50.0	50.0	824 4	830 4

Client: Waste Management Job Number: 280-63425-1

Method Blank - Batch: 280-257136 Method: 300.0 Preparation: N/A

Lab Sample ID: MB 280-257136/6 Analysis Batch: 280-257136 Instrument ID: WC\_lonChrom10

Client Matrix: Water Prep Batch: N/A Lab File ID: Info 2\_DENPC179\_Anions
Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 5 mL

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 5 mL Analysis Date: 12/15/2014 1618 Units: mg/L Final Weight/Volume: 5 mL

Prep Date: N/A Leach Date: N/A

 Analyte
 Result
 Qual
 RL
 RL

 Chloride
 ND
 1.0
 1.0

 Sulfate
 ND
 1.0
 1.0

Method Reporting Limit Check - Batch: 280-257136 Method: 300.0 Preparation: N/A

Lab Sample ID: MRL 280-257136/3 Analysis Batch: 280-257136 Instrument ID: WC\_lonChrom10

Client Matrix: Water Prep Batch: N/A Lab File ID: Info 2\_DENPC179\_Anions

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 5 mL

Analysis Date: 12/15/2014 1532 Units: mg/L Final Weight/Volume: 5 mL

Prep Date: N/A Leach Date: N/A

Qual Analyte Spike Amount Result % Rec. Limit Chloride ND 50 - 150 2.50 97 Sulfate 2.50 ND 110 50 - 150

Lab Control Sample/ Method: 300.0

Lab Control Sample Duplicate Recovery Report - Batch: 280-257136 Preparation: N/A

LCS Lab Sample ID: LCS 280-257136/4 Analysis Batch: 280-257136 Instrument ID: WC\_lonChrom10

Client Matrix: Water Prep Batch: N/A Lab File ID: Info 2\_DENPC179\_Anions
Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 5 mL

Analysis Date: 12/15/2014 1547 Units: mg/L Final Weight/Volume: 5 mL
Prep Date: N/A 5 uL
Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-257136/5 Analysis Batch: 280-257136 Instrument ID: WC\_lonChrom10

Client Matrix: Water Prep Batch: N/A Lab File ID: Info 2\_DENPC179\_Anions

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 5 mL Analysis Date: 12/15/2014 1603 Units: mg/L Final Weight/Volume: 5 mL

Prep Date: N/A 5 uL
Leach Date: N/A

% Rec. RPD Analyte LCS **LCSD** Limit **RPD** Limit LCS Qual LCSD Qual Chloride 100 100 90 - 110 0 10 Sulfate 102 102 90 - 110 0 10

Job Number: 280-63425-1 Client: Waste Management

**Laboratory Control/** 

Laboratory Duplicate Data Report - Batch: 280-257136

Method: 300.0 Preparation: N/A

LCS Lab Sample ID:

LCS 280-257136/4

Units: mg/L

LCSD Lab Sample ID: LCSD 280-257136/5

Water

Client Matrix: Water Dilution:

Client Matrix:

1.0 Analysis Date: 12/15/2014 1547 Dilution: 1.0 Analysis Date: 12/15/2014 1603

Prep Date: N/A Leach Date: N/A

Prep Date: N/A Leach Date: N/A

Analyte	LCS Spike	LCSD Spike	LCS	LCSD
	Amount	Amount	Result/Qual	Result/Qual
Chloride	100	100	100	99.8
Sulfate	100	100	102	102

Matrix Spike/

Matrix Spike Duplicate Recovery Report - Batch: 280-257136

Method: 300.0 Preparation: N/A

MS Lab Sample ID: Client Matrix:

280-63423-A-3 MS Water

280-63423-A-3 MSD

Analysis Batch: Prep Batch:

280-257136 N/A

Instrument ID: Lab File ID:

WC IonChrom10

Dilution: Analysis Date:

12/15/2014 2035

Leach Batch:

N/A

Initial Weight/Volume: Final Weight/Volume:

Info 2\_DENPC179\_Anions 5 mL

Prep Date: N/A Leach Date: N/A

MSD Lab Sample ID:

Analysis Batch: Prep Batch:

280-257136 N/A

Instrument ID: Lab File ID:

WC\_IonChrom10

Client Matrix: Water Dilution: 1.0 Analysis Date: 12/15/2014 2050

Leach Batch: N/A Initial Weight/Volume:

Info 2\_DENPC179\_Anions 5 mL

MSD Qual

Prep Date: N/A Leach Date: N/A Final Weight/Volume: 5 mL

5 uL

MS Qual

5 mL

5 uL

% Rec. Analyto

Analyte	MS	MSD	Limit	RPD	RPD Limit
Chloride	97	99	80 - 120	1	20
Sulfate	99	101	80 - 120	1	20

Client: Waste Management Job Number: 280-63425-1

Matrix Spike/ Method: 300.0 Matrix Spike Duplicate Recovery Report - Batch: 280-257136 Preparation: N/A

MS Lab Sample ID:

280-63423-A-3 MS

Units: mg/L

MSD Lab Sample ID:

280-63423-A-3 MSD

Client Matrix:

Water

Client Matrix:

Water

Dilution:

1.0

Dilution:

1.0

Analysis Date:

12/15/2014 2035

Analysis Date:

12/15/2014 2050 N/A

Prep Date: Leach Date: N/A N/A

Prep Date:

Leach Date: N/A

Analyte	Sample	MS Spike	MSD Spike	MS	MSD
	Result/Qual	Amount	Amount	Result/Qual	Result/Qual
Chloride	22	25.0	25.0	46.7	47.1
Sulfate	3.6	25.0	25.0	28.4	28.8

Duplicate - Batch: 280-257136

Method: 300.0 Preparation: N/A

Lab Sample ID:

280-63423-A-3 DU

280-257136 Analysis Batch:

Instrument ID:

Client Matrix:

Water

WC\_lonChrom10

Dilution:

Prep Batch: N/A N/A Lab File ID:

Info 2\_DENPC179\_Anions 5 mL

Analysis Date:

1.0 12/15/2014 2019

Leach Batch: Units:

Initial Weight/Volume:

5 mL

Prep Date:

N/A

mg/L Final Weight/Volume:

5 uL

Leach Date:

N/A

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Chloride	22	22.5	0.08	15	
Sulfate	3.6	3.59	0.5	15	

Client: Waste Management Job Number: 280-63425-1

Method Blank - Batch: 280-256977 Method: 350.1 Preparation: N/A

Lab Sample ID: MB 280-256977/21 Analysis Batch: 280-256977 Instrument ID: WC\_Alp 3

Client Matrix: Water Prep Batch: N/A Lab File ID: E:\FLOW\_4\121214.RST

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 10 mL

Analysis Date: 12/12/2014 0946 Units: mg/L Final Weight/Volume: 10 mL Prep Date: N/A

Analyte Result Qual RL RL

Ammonia (as N) ND 0.030 0.030

Method Blank - Batch: 280-256977 Method: 350.1 Preparation: N/A

Leach Date:

N/A

Lab Sample ID: MB 280-256977/108 Analysis Batch: 280-256977 Instrument ID: WC\_Alp 3

Client Matrix: Water Prep Batch: N/A Lab File ID: E:\FLOW\_4\121214.RST

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 10 mL

Analysis Date: 12/12/2014 1240 Units: mg/L Final Weight/Volume: 10 mL Prep Date: N/A
Leach Date: N/A

Analyte Result Qual RL RL

Ammonia (as N) ND 0.030 0.030

Client: Waste Management Job Number: 280-63425-1

Lab Control Sample/ Method: 350.1
Lab Control Sample Duplicate Recovery Report - Batch: 280-256977 Preparation: N/A

LCS Lab Sample ID: LCS 280-256977/19 Analysis Batch: 280-256977 Instrument ID: WC\_Alp 3

Client Matrix: Water Prep Batch: N/A Lab File ID: E:\FLOW\_4\121214.RST

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 100 mL

Analysis Date: 12/12/2014 0942 Units: mg/L Final Weight/Volume: 100 mL

Prep Date: N/A
Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-256977/20 Analysis Batch: 280-256977 Instrument ID: WC\_Alp 3

Client Matrix: Water Prep Batch: N/A Lab File ID: E:\FLOW\_4\121214.RST

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 100 mL

Analysis Date: 12/12/2014 0944 Units: mg/L Final Weight/Volume: 100 mL

Prep Date: N/A
Leach Date: N/A

Ammonia (as N) 101 103 90 - 110 2 10

Lab Control Sample/ Method: 350.1
Lab Control Sample Duplicate Recovery Report - Batch: 280-256977 Preparation: N/A

LCS Lab Sample ID: LCS 280-256977/106 Analysis Batch: 280-256977 Instrument ID: WC\_Alp 3

Client Matrix: Water Prep Batch: N/A Lab File ID: E:\FLOW\_4\121214.RST

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 100 mL

Analysis Date: 12/12/2014 1236 Units: mg/L Final Weight/Volume: 100 mL Prep Date: N/A
Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-256977/107 Analysis Batch: 280-256977 Instrument ID: WC\_Alp 3

Client Matrix: Water Prep Batch: N/A Lab File ID: E:\FLOW\_4\121214.RST

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 100 mL

Analysis Date: 12/12/2014 1238 Units: mg/L Final Weight/Volume: 100 mL

Prep Date: N/A
Leach Date: N/A

% Rec.

Analyte LCS LCSD Limit RPD RPD Limit LCS Qual LCSD Qual

Ammonia (as N) 102 90 90 - 110 13 10 \*

Client: Waste Management Job Number: 280-63425-1

Laboratory Control/ Method: 350.1
Laboratory Duplicate Data Report - Batch: 280-256977 Preparation: N/A

LCS Lab Sample ID: LCS 280-256977/19 Units: mg/L LCSD Lab Sample ID: LCSD 280-256977/20

Client Matrix:WaterClient Matrix:WaterDilution:1.0Dilution:1.0

Analysis Date: 12/12/2014 0942 Analysis Date: 12/12/2014 0944

Prep Date:N/APrep Date:N/ALeach Date:N/ALeach Date:N/A

Analyte LCS Spike LCSD Spike LCS LCSD
Amount Amount Result/Qual Result/Qual

Ammonia (as N) 2.50 2.50 2.53 2.58

Laboratory Control/ Method: 350.1
Laboratory Duplicate Data Report - Batch: 280-256977 Preparation: N/A

LCS Lab Sample ID: LCS 280-256977/106 Units: mg/L LCSD Lab Sample ID: LCSD 280-256977/107

Client Matrix: Water Client Matrix: Water
Dilution: 1.0 Dilution: 1.0

Analysis Date: 12/12/2014 1236 Analysis Date: 12/12/2014 1238

Prep Date:N/APrep Date:N/ALeach Date:N/ALeach Date:N/A

Analyte LCS Spike LCSD Spike LCS Result/Qual Result/Qual

Amount 2.50 2.50 2.56 2.25 \*

Client: Waste Management Job Number: 280-63425-1

Matrix Spike/ Method: 350.1

Matrix Spike Duplicate Recovery Report - Batch: 280-256977 Preparation: N/A

Leach Date:

Leach Date:

Leach Date:

Leach Date:

Ammonia (as N)

N/A

N/A

N/A

N/A

MS Lab Sample ID: 280-63423-B-5 MS Analysis Batch: 280-256977 Instrument ID: WC\_Alp 3

Client Matrix: Water Prep Batch: N/A Lab File ID: E:\FLOW\_4\121214.RST

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 10 mL

Analysis Date: 12/12/2014 1026 Final Weight/Volume: 10 mL Prep Date: N/A

MSD Lab Sample ID: 280-63423-B-5 MSD Analysis Batch: 280-256977 Instrument ID: WC Alp 3

MSD Lab Sample ID: 280-63423-B-5 MSD Analysis Batch: 280-256977 Instrument ID: WC\_Alp 3
Client Matrix: Water Prep Batch: N/A Lab File ID: E:\FLOW\_4\121214.RST

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 10 mL

Analysis Date: 12/12/2014 1028 Final Weight/Volume: 10 mL Prep Date: N/A

% Rec.

Analyte MS MSD Limit RPD RPD Limit MS Qual MSD Qual

Ammonia (as N) 102 102 90 - 110 0 10

Matrix Spike/ Method: 350.1

Matrix Spike Duplicate Recovery Report - Batch: 280-256977 Preparation: N/A

MS Lab Sample ID: 280-63517-B-4 MS Analysis Batch: 280-256977 Instrument ID: WC\_Alp 3

Client Matrix: Water Prep Batch: N/A Lab File ID: E:\FLOW\_4\121214.RST

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 10 mL

Analysis Date: 12/12/2014 1322 Final Weight/Volume: 10 mL Prep Date: N/A

MSD Lab Sample ID: 280-63517-B-4 MSD Analysis Batch: 280-256977 Instrument ID: WC\_Alp 3

Client Matrix: Water Prep Batch: N/A Lab File ID: E:\FLOW\_4\121214.RST

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 10 mL

Analysis Date: 12/12/2014 1324 Final Weight/Volume: 10 mL

Prep Date: N/A

108

110

% Rec.

Analyte MS MSD Limit RPD RPD Limit MS Qual MSD Qual

90 - 110

2

10

Client: Waste Management Job Number: 280-63425-1

Matrix Spike/ Method: 350.1

Matrix Spike Duplicate Recovery Report - Batch: 280-256977 Preparation: N/A

MS Lab Sample ID: 280-63423-B-5 MS

Client Matrix: Water Dilution: 1.0

Analysis Date: 12/12/2014 1026

Prep Date: N/A Leach Date: N/A Units: mg/L MSD Lab Sample ID: 280-63423-B-5 MSD

Client Matrix: Water Dilution: 1.0

Analysis Date: 12/12/2014 1028

Prep Date: N/A Leach Date: N/A

Sample MS Spike MSD Spike MS MSD Analyte Result/Qual Amount Amount Result/Qual Result/Qual Ammonia (as N) 0.038 1.00 1.00 1.06 1.05

Matrix Spike/ Method: 350.1

Matrix Spike Duplicate Recovery Report - Batch: 280-256977 Preparation: N/A

MS Lab Sample ID: 280-63517-B-4 MS Units: mg/L MSD Lab Sample ID: 280-63517-B-4 MSD

Client Matrix:WaterClient Matrix:WaterDilution:1.0Dilution:1.0

Analysis Date: 12/12/2014 1322 Analysis Date: 12/12/2014 1324

Prep Date:N/APrep Date:N/ALeach Date:N/ALeach Date:N/A

Sample MS Spike MSD Spike MS MSD Result/Qual Result/Qual Result/Qual Analyte Amount Amount ND 1.00 1.00 1.10 1.08 Ammonia (as N)

Client: Waste Management Job Number: 280-63425-1

Method Blank - Batch: 280-257412 Method: 350.1 Preparation: N/A

Lab Sample ID: MB 280-257412/21 Analysis Batch: 280-257412 Instrument ID: WC\_Alp 3

Client Matrix: Water Prep Batch: N/A Lab File ID: E:\FLOW 4\121614.RST

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 10 mL Analysis Date: 12/16/2014 1134 Units: mg/L Final Weight/Volume: 10 mL

Prep Date: N/A Leach Date: N/A

Analyte Result Qual RL RL

Ammonia (as N) ND 0.030 0.030

Lab Control Sample/ Method: 350.1
Lab Control Sample Duplicate Recovery Report - Batch: 280-257412 Preparation: N/A

LCS Lab Sample ID: LCS 280-257412/19 Analysis Batch: 280-257412 Instrument ID: WC\_Alp 3

Client Matrix: Water Prep Batch: N/A Lab File ID: E:\FLOW\_4\121614.RST

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 100 mL

Analysis Date: 12/16/2014 1130 Units: mg/L Final Weight/Volume: 100 mL Prep Date: N/A

Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-257412/20 Analysis Batch: 280-257412 Instrument ID: WC\_Alp 3

Client Matrix: Water Prep Batch: N/A Lab File ID: E:\FLOW\_4\121614.RST

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 100 mL Analysis Date: 12/16/2014 1132 Units: mg/L Final Weight/Volume: 100 mL

Prep Date: N/A

Leach Date: N/A

% Rec.

Analyte LCS LCSD Limit RPD RPD Limit LCS Qual LCSD Qual

Ammonia (as N) 98 91 90 - 110 7 10

Laboratory Control/ Method: 350.1
Laboratory Duplicate Data Report - Batch: 280-257412 Preparation: N/A

LCS Lab Sample ID: LCS 280-257412/19 Units: mg/L LCSD Lab Sample ID: LCSD 280-257412/20

Client Matrix: Water Client Matrix: Water
Dilution: 1.0 Dilution: 1.0

Analysis Date: 12/16/2014 1130 Analysis Date: 12/16/2014 1132

Prep Date:N/APrep Date:N/ALeach Date:N/ALeach Date:N/A

Analyte LCS Spike LCSD Spike LCS LCSD
Amount Amount Result/Qual Result/Qual

Ammonia (as N) 2.50 2.50 2.44 2.29

Client: Waste Management Job Number: 280-63425-1

Method: 350.1 Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 280-257412 Preparation: N/A

280-63484-E-2 MS 280-257412 Instrument ID: MS Lab Sample ID: Analysis Batch: WC\_Alp 3

Client Matrix: Water Prep Batch: N/A Lab File ID: E:\FLOW 4\121614.RST

Dilution: Leach Batch: N/A Initial Weight/Volume: 1.0 10 mL

Analysis Date: 12/16/2014 1138 Final Weight/Volume: 10 mL

Prep Date: N/A Leach Date: N/A

MSD Lab Sample ID: 280-63484-E-2 MSD Instrument ID: Analysis Batch: 280-257412 WC\_Alp 3

Client Matrix: Prep Batch: Lab File ID: E:\FLOW 4\121614.RST Water N/A

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 10 mL

12/16/2014 1140 Final Weight/Volume: Analysis Date: 10 mL Prep Date: N/A

% Rec. Analyte Limit RPD **RPD** Limit MS MSD MS Qual MSD Qual

Ammonia (as N) 90 - 110 0 101 102 10

Matrix Spike/ Method: 350.1 Matrix Spike Duplicate Recovery Report - Batch: 280-257412 Preparation: N/A

Leach Date:

N/A

MS Lab Sample ID: 280-63484-E-2 MS Units: mg/L MSD Lab Sample ID: 280-63484-E-2 MSD

Client Matrix: Water Client Matrix: Water Dilution: 1.0 Dilution: 1.0

12/16/2014 1140 Analysis Date: 12/16/2014 1138 Analysis Date:

Prep Date: N/A N/A Prep Date: Leach Date: N/A Leach Date: N/A

Sample MS Spike MSD Spike MS MSD Result/Qual Amount Amount Result/Qual Result/Qual Analyte Ammonia (as N) 2.1 1.00 1.00 3.08 3.09

Client: Waste Management Job Number: 280-63425-1

Method Blank - Batch: 280-256774 Method: 410.4 Preparation: N/A

Lab Sample ID: MB 280-256774/5 Analysis Batch: 280-256774 Instrument ID: WC\_HACH SPEC

Client Matrix: Water Prep Batch: N/A Lab File ID: N/A N/A Dilution: 1.0 Leach Batch: Initial Weight/Volume: 2 mL Analysis Date: 12/11/2014 1430 Units: Final Weight/Volume: 2 mL mg/L

Prep Date: N/A Leach Date: N/A

Analyte Result Qual RL RL

Chemical Oxygen Demand (COD) ND 10 10

Lab Control Sample/ Method: 410.4
Lab Control Sample Duplicate Recovery Report - Batch: 280-256774 Preparation: N/A

LCS Lab Sample ID: LCS 280-256774/3 Analysis Batch: 280-256774 Instrument ID: WC\_HACH SPEC

Client Matrix: Prep Batch: N/A Lab File ID: N/A Dilution: Leach Batch: N/A Initial Weight/Volume: 100 mL 1.0 12/11/2014 1430 Analysis Date: Units: mg/L Final Weight/Volume: 100 mL

Prep Date: N/A
Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-256774/4 Analysis Batch: 280-256774 Instrument ID: WC\_HACH SPEC

Client Matrix: Water Prep Batch: N/A Lab File ID: Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 100 mL Analysis Date: 12/11/2014 1430 Units: mg/L Final Weight/Volume: 100 mL

Prep Date: N/A Leach Date: N/A

<u>% Rec.</u>

Analyte LCS LCSD Limit RPD RPD Limit LCS Qual LCSD Qual

Chemical Oxygen Demand (COD) 98 96 90 - 110 1 11

Laboratory Control/ Method: 410.4
Laboratory Duplicate Data Report - Batch: 280-256774 Preparation: N/A

LCS Lab Sample ID: LCS 280-256774/3 Units: mg/L LCSD Lab Sample ID: LCSD 280-256774/4

Client Matrix: Water Client Matrix: Water
Dilution: 1.0 Dilution: 1.0

Analysis Date: 12/11/2014 1430 Analysis Date: 12/11/2014 1430

Prep Date:N/APrep Date:N/ALeach Date:N/ALeach Date:N/A

Analyte LCS Spike LCSD Spike LCS LCSD
Amount Amount Result/Qual Result/Qual

Chemical Oxygen Demand (COD) 100 97.8 96.5

Client: Waste Management Job Number: 280-63425-1

Matrix Spike/ Method: 410.4

Matrix Spike Duplicate Recovery Report - Batch: 280-256774 Preparation: N/A

MS Lab Sample ID: 280-63146-B-1 MS Analysis Batch: 280-256774 Instrument ID: WC\_HACH SPEC

Client Matrix: Water Prep Batch: N/A Lab File ID: N/A

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 100 mL

Analysis Date: 12/11/2014 1430 Final Weight/Volume: 100 mL

Prep Date: N/A
Leach Date: N/A

MSD Lab Sample ID: 280-63146-B-1 MSD Analysis Batch: 280-256774 Instrument ID: WC\_HACH SPEC

Client Matrix:WaterPrep Batch:N/ALab File ID:N/ADilution:1.0Leach Batch:N/AInitial Weight/Volume:100mL

Analysis Date: 12/11/2014 1430 Final Weight/Volume: 100 mL

Leach Date: N/A % Rec.

Analyte Limit RPD **RPD** Limit MSD Qual MS MSD MS Qual Chemical Oxygen Demand (COD) 80 90 - 110 0 F1 F1 81 11

Matrix Spike/ Method: 410.4

Matrix Spike Duplicate Recovery Report - Batch: 280-256774 Preparation: N/A

Prep Date:

N/A

MS Lab Sample ID: 280-63146-B-1 MS Units: mg/L MSD Lab Sample ID: 280-63146-B-1 MSD

Client Matrix:WaterClient Matrix:WaterDilution:1.0Dilution:1.0

Analysis Date: 12/11/2014 1430 Analysis Date: 12/11/2014 1430

 Prep Date:
 N/A
 Prep Date:
 N/A

 Leach Date:
 N/A
 Leach Date:
 N/A

Sample MS Spike MSD Spike MS MSD Result/Qual Amount Amount Result/Qual Result/Qual Analyte Chemical Oxygen Demand (COD) 140 50.0 50.0 178 F1 177 F1

Client: Waste Management Job Number: 280-63425-1

Method Blank - Batch: 280-256799 Method: SM 2320B Preparation: N/A

Lab Sample ID: MB 280-256799/6 Analysis Batch: 280-256799 Instrument ID: WC-AT3
Client Matrix: Water Prep Batch: N/A Lab File ID: 121114.TXT

Dilution: 1.0 Leach Batch: N/A Lab File ID: 121114.TXT

Analysis Date: 12/11/2014 1056 Units: mg/L Final Weight/Volume: Prep Date: N/A

Leach Date: N/A

Analyte Result Qual RL

 Analyte
 Result
 Qual
 RL
 RL

 Alkalinity
 ND
 5.0
 5.0

 Bicarbonate Alkalinity as CaCO3
 ND
 5.0
 5.0

Lab Control Sample/ Method: SM 2320B
Lab Control Sample Duplicate Recovery Report - Batch: 280-256799 Preparation: N/A

LCS Lab Sample ID: LCS 280-256799/4 Analysis Batch: 280-256799 Instrument ID: WC-AT3

Client Matrix: Water Prep Batch: N/A Lab File ID: 121114.TXT

Client Matrix: Water Prep Batch: N/A Lab File ID: 121114.13

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 12/11/2014 1047 Units: mg/L Final Weight/Volume: Prep Date: N/A

Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-256799/5 Analysis Batch: 280-256799 Instrument ID: WC-AT3
Client Matrix: Water Prep Batch: N/A Lab File ID: 121114.TXT

Client Matrix: Water Prep Batch: N/A Lab File ID: 121114.TXT

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 12/11/2014 1053 Units: mg/L Final Weight/Volume:

Prep Date: N/A

Prep Date: N/A
Leach Date: N/A

% Rec.

Analyte LCS LCSD Limit RPD RPD Limit LCS Qual LCSD Qual

Alkalinity 97 97 90 - 110 1 10

Laboratory Control/ Method: SM 2320B

Laboratory Duplicate Data Report - Batch: 280-256799 Preparation: N/A

LCS Lab Sample ID: LCS 280-256799/4 Units: mg/L LCSD Lab Sample ID: LCSD 280-256799/5

Client Matrix:WaterClient Matrix:WaterDilution:1.0Dilution:1.0

Analysis Date: 12/11/2014 1047 Analysis Date: 12/11/2014 1053

Prep Date:N/APrep Date:N/ALeach Date:N/ALeach Date:N/A

Analyte LCS Spike LCSD Spike LCS Result/Qual Result/Qual

Alkalinity 200 200 195 193

Client: Waste Management Job Number: 280-63425-1

Duplicate - Batch: 280-256799 Method: SM 2320B Preparation: N/A

Lab Sample ID: 280-63464-D-1 DU Analysis Batch: 280-256799 Instrument ID: WC-AT3
Client Matrix: Water Prep Batch: N/A Lab File ID: 121114.TXT

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 12/11/2014 1106 Units: mg/L Final Weight/Volume: Prep Date: N/A

Leach Date:

N/A

Analyte Sample Result/Qual Result RPD Limit Qual
Alkalinity 380 379 0.9 10

Job Number: 280-63425-1 Client: Waste Management

Method Blank - Batch: 280-256626 Method: SM 2540C Preparation: N/A

Lab Sample ID: MB 280-256626/1 280-256626 Instrument ID: Analysis Batch: WC\_Cond\_Orion

Client Matrix: Water Prep Batch: N/A Lab File ID: N/A N/A Dilution: 1.0 Leach Batch: Initial Weight/Volume: 100 mL Analysis Date: 12/10/2014 1454 Units: Final Weight/Volume: 100 mL mg/L

Prep Date: N/A Leach Date: N/A

Analyte Result Qual RL RL

Total Dissolved Solids (TDS) ND 5.0 5.0

Lab Control Sample/ Method: SM 2540C Lab Control Sample Duplicate Recovery Report - Batch: 280-256626 Preparation: N/A

LCS 280-256626/2 Analysis Batch: 280-256626 Instrument ID: LCS Lab Sample ID: WC Cond Orion

Client Matrix: Prep Batch: Lab File ID: N/A N/A Dilution: Leach Batch: N/A Initial Weight/Volume: 100 mL 1.0 12/10/2014 1454 Analysis Date: Units: mg/L Final Weight/Volume: 100 mL

Prep Date: N/A Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-256626/3 Analysis Batch: 280-256626 Instrument ID: WC\_Cond\_Orion

Client Matrix: Water Prep Batch: N/A Lab File ID: Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 100 mL Analysis Date: 12/10/2014 1454 Units: mg/L Final Weight/Volume: 100 mL

Prep Date: N/A Leach Date: N/A

% Rec. LCS RPD LCSD Qual Analyte **LCSD** Limit **RPD Limit** LCS Qual

Total Dissolved Solids (TDS) 99 99 86 - 110 20

**Laboratory Control/** Method: SM 2540C

Laboratory Duplicate Data Report - Batch: 280-256626 Preparation: N/A

Units: mg/L LCS Lab Sample ID: LCS 280-256626/2 LCSD Lab Sample ID: LCSD 280-256626/3

Client Matrix: Water Client Matrix: Water Dilution: 1 0 Dilution: 1 0

Analysis Date: 12/10/2014 1454 Analysis Date: 12/10/2014 1454

Prep Date: N/A Prep Date: N/A Leach Date: N/A Leach Date: N/A

LCS LCSD LCS Spike LCSD Spike Analyte Amount Amount Result/Qual Result/Qual Total Dissolved Solids (TDS) 501 501 498 497

Client: Waste Management Job Number: 280-63425-1

Duplicate - Batch: 280-256626 Method: SM 2540C Preparation: N/A

Lab Sample ID: 280-63397-A-2 DU Analysis Batch: 280-256626 Instrument ID: WC\_Cond\_Orion

Client Matrix: Water Prep Batch: N/A Lab File ID: N/A

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 100 mL

Analysis Date: 12/10/2014 1454 Units: mg/L Final Weight/Volume: 100 mL

Analysis Date: 12/10/2014 1454 Units: mg/L Final Weight/Volume: 1977 Prep Date: N/A

Leach Date:

N/A

Analyte Sample Result/Qual Result RPD Limit Qual
Total Dissolved Solids (TDS) 440 435 0.9 10

Client: Waste Management Job Number: 280-63425-1

Method Blank - Batch: 280-256888 Method: SM 5310B Preparation: N/A

Lab Sample ID: MB 280-256888/5 Analysis Batch: 280-256888 Instrument ID: WC\_SHI2
Client Matrix: Water Prop Batch: N/A Lab File ID: 121114 tvt

Client Matrix: Water Prep Batch: N/A Lab File ID: 121114.txt Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 12/11/2014 1547 Units: mg/L Final Weight/Volume:

Prep Date: N/A Leach Date: N/A

Analyte Result Qual RL RL

Total Organic Carbon - Average ND 1.0 1.0

Lab Control Sample/ Method: SM 5310B
Lab Control Sample Duplicate Recovery Report - Batch: 280-256888 Preparation: N/A

LCS Lab Sample ID: LCS 280-256888/3 Analysis Batch: 280-256888 Instrument ID: WC\_SHI2

Client Matrix: Water Prep Batch: N/A Lab File ID: 121114.txt

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 12/11/2014 1514 Units: mg/L Final Weight/Volume: 200 mL
Prep Date: N/A

Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-256888/4 Analysis Batch: 280-256888 Instrument ID: WC\_SHI2
Client Matrix: Water Prep Batch: N/A Lab File ID: 121114.txt

Dilution: 1.0 Leach Batch: N/A Lab File ID: 121114.txt

Analysis Date: 12/11/2014 1531 Units: mg/L Final Weight/Volume: 200 mL

Prep Date: N/A
Leach Date: N/A

% Rec.

Analyte LCS LCSD Limit RPD RPD Limit LCS Qual LCSD Qual

Total Organic Carbon - Average 96 97 88 - 112 1 15

Laboratory Control/ Method: SM 5310B
Laboratory Duplicate Data Report - Batch: 280-256888 Preparation: N/A

LCS Lab Sample ID: LCS 280-256888/3 Units: mg/L LCSD Lab Sample ID: LCSD 280-256888/4

Client Matrix: Water Client Matrix: Water
Dilution: 1.0 Dilution: 1.0

Analysis Date: 12/11/2014 1514 Analysis Date: 12/11/2014 1531

Prep Date:N/APrep Date:N/ALeach Date:N/ALeach Date:N/A

Analyte LCS Spike LCSD Spike LCS LCSD
Amount Amount Result/Qual Result/Qual

Total Organic Carbon - Average 25.0 25.0 24.1 24.2

50 mL

Client: Waste Management Job Number: 280-63425-1

N/A

Initial Weight/Volume:

Final Weight/Volume:

Matrix Spike/ Method: SM 5310B

Matrix Spike Duplicate Recovery Report - Batch: 280-256888

MS Lab Sample ID: 280-63392-E-1 MS Analysis Batch: 280-256888 Instrument ID: WC\_SHI2 Client Matrix: Water Prep Batch: N/A Lab File ID: 121114.txt

Leach Batch:

Dilution: 1.0

Analysis Date: 12/11/2014 1655

Prep Date: N/A Leach Date: N/A

MSD Lab Sample ID: 280-63392-E-1 MSD Analysis Batch: 280-256888 Instrument ID: WC\_SHI2

Client Matrix: Water Prep Batch: N/A Lab File ID: 121114.txt

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

% Rec.

Analysis Date: 12/11/2014 1711 Final Weight/Volume: 50 mL

Prep Date: N/A Leach Date: N/A

Analyte MS MSD Limit RPD RPD Limit MS Qual MSD Qual

Total Organic Carbon - Average 100 101 88 - 112 1 15

Matrix Spike/ Method: SM 5310B

Matrix Spike Duplicate Recovery Report - Batch: 280-256888 Preparation: N/A

MS Lab Sample ID: 280-63425-1 Analysis Batch: 280-256888 Instrument ID: WC\_SHI2

Client Matrix: Water Prep Batch: N/A Lab File ID: 121114.txt

Dilution: 5.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 12/11/2014 2026 Final Weight/Volume: 50 mL

Prep Date: N/A
Leach Date: N/A

MSD Lab Sample ID: 280-63425-1 Analysis Batch: 280-256888 Instrument ID: WC\_SHI2

Client Matrix: Water Prep Batch: N/A Lab File ID: 121114.txt

Dilution: 5.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 12/11/2014 2044 Final Weight/Volume: 50 mL

Prep Date: N/A
Leach Date: N/A

% Rec.

Analyte MS MSD Limit RPD RPD Limit MS Qual MSD Qual

Total Organic Carbon - Average 97 96 88 - 112 0 15

Client: Waste Management Job Number: 280-63425-1

Matrix Spike/ Method: SM 5310B

Units: mg/L

Matrix Spike Duplicate Recovery Report - Batch: 280-256888

MS Lab Sample ID: 280-63392-E-1 MS

Client Matrix: Water Dilution: 1.0

Analysis Date: 12/11/2014 1655

Prep Date: N/A Leach Date: N/A

MSD Lab Sample ID: 280-63392-E-1 MSD

Water

Client Matrix: Dilution: 1.0

Analysis Date: 12/11/2014 1711

N/A Prep Date: Leach Date: N/A

Analyte	Sample	MS Spike	MSD Spike	MS	MSD
	Result/Qual	Amount	Amount	Result/Qual	Result/Qual
Total Organic Carbon - Average	ND	25.0	25.0	25.0	25.2

Matrix Spike/ Method: SM 5310B Matrix Spike Duplicate Recovery Report - Batch: 280-256888 Preparation: N/A

MS Lab Sample ID: 280-63425-1 Units: mg/L

Client Matrix: Water Dilution: 5.0

Analysis Date: 12/11/2014 2026

N/A Prep Date: Leach Date: N/A

MSD Lab Sample ID: 280-63425-1 Client Matrix: Water Dilution: 5.0

12/11/2014 2044 Analysis Date:

Prep Date: N/A Leach Date: N/A

	Sample	MS Spike	MSD Spike	MS	MSD
Analyte	Result/Qual	Amount	Amount	Result/Qual	Result/Qual
Total Organic Carbon - Average	63	125	125	184	184

Client: Waste Management Job Number: 280-63425-1

Method Blank - Batch: 280-256630 Method: SM5210B Preparation: N/A

Lab Sample ID: MB 280-256630/6 Analysis Batch: 280-256630 Instrument ID: No Equipment Assigned

Client Matrix: Water Prep Batch: N/A Lab File ID: N/A

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 12/10/2014 1540 Units: mg/L Final Weight/Volume: 300 mL

Prep Date: N/A Leach Date: N/A

Analyte Result Qual RL RL

Biochemical Oxygen Demand ND 2.0 2.0

Lab Control Sample/ Method: SM5210B
Lab Control Sample Duplicate Recovery Report - Batch: 280-256630 Preparation: N/A

LCS Lab Sample ID: LCS 280-256630/3 Analysis Batch: 280-256630 Instrument ID: No Equipment Assigned

Client Matrix: Water Prep Batch: N/A Lab File ID: N/A

Ciletti Matrix. Water Prep Batch. N/A Lab Frie ID. N/A

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 12/10/2014 1540 Units: mg/L Final Weight/Volume: 300 mL

Prep Date: N/A Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-256630/5 Analysis Batch: 280-256630 Instrument ID: No Equipment Assigned

Client Matrix: Water Prep Batch: N/A Lab File ID: N/A

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 12/10/2014 1540 Units: mg/L Final Weight/Volume: 300 mL

Prep Date: N/A Leach Date: N/A

each Date: N/A

<u>% Rec.</u>

Analyte LCS LCSD Limit RPD RPD Limit LCS Qual LCSD Qual

Biochemical Oxygen Demand 96 96 85 - 115 0 20

Laboratory Control/ Method: SM5210B
Laboratory Duplicate Data Report - Batch: 280-256630 Preparation: N/A

LCS Lab Sample ID: LCS 280-256630/3 Units: mg/L LCSD Lab Sample ID: LCSD 280-256630/5 Client Matrix: Water LCSD Lab Sample ID: LCSD 280-256630/5

Dilution: 1.0 Dilution: 1.0

Analysis Date: 12/10/2014 1540 Analysis Date: 12/10/2014 1540

Prep Date:N/APrep Date:N/ALeach Date:N/ALeach Date:N/A

Analyte LCS Spike LCSD Spike LCS Result/Qual Result/Qual

Biochemical Oxygen Demand 198 198 190 191

Client: Waste Management Job Number: 280-63425-1

Duplicate - Batch: 280-256630 Method: SM5210B Preparation: N/A

Lab Sample ID: 280-63379-A-10 DU Analysis Batch: 280-256630 Instrument ID: No Equipment Assigned

Client Matrix: Water Prep Batch: N/A Lab File ID: N/A

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 12/10/2014 0835 Units: mg/L Final Weight/Volume: 300 mL

Prep Date: N/A
Leach Date: N/A

Analyte Sample Result/Qual Result RPD Limit Qual
Biochemical Oxygen Demand ND ND NC 20

# **Laboratory Chronicle**

Lab ID: 280-63425-1 Client ID: LP-LCD

Sample Date/Time: 12/09/2014 09:30 Received Date/Time: 12/10/2014 09:50

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:3005A	280-63425-E-1-A		280-257812	280-256663	12/11/2014 09:30	1	TAL DEN	CGG
A:6010B	280-63425-E-1-A		280-257812	280-256663	12/19/2014 02:17	1	TAL DEN	SJS
A:300.0	280-63425-A-1		280-257136		12/15/2014 22:23	10	TAL DEN	AFB
A:350.1	280-63425-C-1		280-256977		12/12/2014 14:13	2	TAL DEN	CML
A:410.4	280-63425-C-1		280-256774		12/11/2014 14:30	2	TAL DEN	SWS
A:SM 2320B	280-63425-A-1		280-256799		12/11/2014 11:31	1	TAL DEN	CCJ
A:SM 2540C	280-63425-A-1		280-256626		12/10/2014 14:54	1	TAL DEN	SVC
A:SM 5310B	280-63425-D-1		280-256888		12/11/2014 20:10	5	TAL DEN	CCJ
A:SM5210B	280-63425-B-1		280-256630		12/10/2014 15:40	5	TAL DEN	NAS
A:Field Sampling	280-63425-A-1		280-256683		12/09/2014 10:30	1	TAL DEN	PS

Lab ID: 280-63425-1 MS Client ID: LP-LCD

Sample Date/Time: 12/09/2014 09:30 Received Date/Time: 12/10/2014 09:50

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:3005A	280-63425-E-1-B MS		280-257812	280-256663	12/11/2014 09:30	1	TAL DEN	CGG
A:6010B	280-63425-E-1-B MS		280-257812	280-256663	12/19/2014 02:23	1	TAL DEN	SJS
A:SM 5310B	280-63425-D-1 MS		280-256888		12/11/2014 20:26	5	TAL DEN	CCJ

Lab ID: 280-63425-1 MSD Client ID: LP-LCD

Sample Date/Time: 12/09/2014 09:30 Received Date/Time: 12/10/2014 09:50

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:3005A	280-63425-E-1-C MSD		280-257812	280-256663	12/11/2014 09:30	1	TAL DEN	CGG
A:6010B	280-63425-E-1-C MSD		280-257812	280-256663	12/19/2014 02:26	1	TAL DEN	SJS
A:SM 5310B	280-63425-D-1 MSD		280-256888		12/11/2014 20:44	5	TAL DEN	CCJ

TestAmerica Denver A = Analytical Method P = Prep Method

# **Laboratory Chronicle**

Lab ID: MB Client ID: N/A

Sample Date/Time: N/A Received Date/Time: N/A

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:3005A	MB 280-256663/1-A		280-257812	280-256663	12/11/2014 09:30	1	TAL DEN	CGG
A:6010B	MB 280-256663/1-A		280-257812	280-256663	12/19/2014 01:46	1	TAL DEN	SJS
A:300.0	MB 280-257136/6		280-257136		12/15/2014 16:18	1	TAL DEN	AFB
A:350.1	MB 280-256977/21		280-256977		12/12/2014 09:46	1	TAL DEN	CML
A:350.1	MB 280-256977/108		280-256977		12/12/2014 12:40	1	TAL DEN	CML
A:350.1	MB 280-257412/21		280-257412		12/16/2014 11:34	1	TAL DEN	CML
A:410.4	MB 280-256774/5		280-256774		12/11/2014 14:30	1	TAL DEN	SWS
A:SM 2320B	MB 280-256799/6		280-256799		12/11/2014 10:56	1	TAL DEN	CCJ
A:SM 2540C	MB 280-256626/1		280-256626		12/10/2014 14:54	1	TAL DEN	SVC
A:SM 5310B	MB 280-256888/5		280-256888		12/11/2014 15:47	1	TAL DEN	CCJ
A:SM5210B	MB 280-256630/6		280-256630		12/10/2014 15:40	1	TAL DEN	NAS

Lab ID: LCS Client ID: N/A

Sample Date/Time: N/A Received Date/Time: N/A

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:3005A	LCS 280-256663/2-A		280-257812	280-256663	12/11/2014 09:30	1	TAL DEN	CGG
A:6010B	LCS 280-256663/2-A		280-257812	280-256663	12/19/2014 01:48	1	TAL DEN	SJS
A:300.0	LCS 280-257136/4		280-257136		12/15/2014 15:47	1	TAL DEN	AFB
A:350.1	LCS 280-256977/19		280-256977		12/12/2014 09:42	1	TAL DEN	CML
A:350.1	LCS 280-256977/106		280-256977		12/12/2014 12:36	1	TAL DEN	CML
A:350.1	LCS 280-257412/19		280-257412		12/16/2014 11:30	1	TAL DEN	CML
A:410.4	LCS 280-256774/3		280-256774		12/11/2014 14:30	1	TAL DEN	SWS
A:SM 2320B	LCS 280-256799/4		280-256799		12/11/2014 10:47	1	TAL DEN	CCJ
A:SM 2540C	LCS 280-256626/2		280-256626		12/10/2014 14:54	1	TAL DEN	SVC
A:SM 5310B	LCS 280-256888/3		280-256888		12/11/2014 15:14	1	TAL DEN	CCJ
A:SM5210B	LCS 280-256630/3		280-256630		12/10/2014 15:40	1	TAL DEN	NAS

TestAmerica Denver A = Analytical Method P = Prep Method

# **Laboratory Chronicle**

Lab ID: LCSD Client ID: N/A

Sample Date/Time: N/A Received Date/Time: N/A

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
A:300.0	LCSD 280-257136/5		280-257136		12/15/2014 16:03	1	TAL DEN	AFB
A:350.1	LCSD 280-256977/20		280-256977		12/12/2014 09:44	1	TAL DEN	CML
A:350.1	LCSD 280-256977/107		280-256977		12/12/2014 12:38	1	TAL DEN	CML
A:350.1	LCSD 280-256977/166		280-256977		12/12/2014 14:49	1	TAL DEN	CML
A:350.1	LCSD 280-257412/20		280-257412		12/16/2014 11:32	1	TAL DEN	CML
A:410.4	LCSD 280-256774/4		280-256774		12/11/2014 14:30	1	TAL DEN	SWS
A:SM 2320B	LCSD 280-256799/5		280-256799		12/11/2014 10:53	1	TAL DEN	CCJ
A:SM 2540C	LCSD 280-256626/3		280-256626		12/10/2014 14:54	1	TAL DEN	SVC
A:SM 5310B	LCSD 280-256888/4		280-256888		12/11/2014 15:31	1	TAL DEN	CCJ
A:SM5210B	LCSD 280-256630/5		280-256630		12/10/2014 15:40	1	TAL DEN	NAS

Lab ID: MRL Client ID: N/A

Sample Date/Time: N/A Received Date/Time: N/A

Date Prepared / **Analysis** Batch Analyzed Method **Bottle ID** Run **Prep Batch** Dil Lab Analyst A:300.0 MRL 280-257136/3 280-257136 12/15/2014 15:32 TAL DEN AFB

Lab ID: MS Client ID: N/A

Sample Date/Time: 12/09/2014 10:03 Received Date/Time: 12/10/2014 09:50

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
A:300.0	280-63423-A-3 MS		280-257136		12/15/2014 20:35	1	TAL DEN	AFB
A:350.1	280-63423-B-5 MS		280-256977		12/12/2014 10:26	1	TAL DEN	CML
A:350.1	280-63517-B-4 MS		280-256977		12/12/2014 13:22	1	TAL DEN	CML
A:350.1	280-63484-E-2 MS		280-257412		12/16/2014 11:38	1	TAL DEN	CML
A:410.4	280-63146-B-1 MS		280-256774		12/11/2014 14:30	1	TAL DEN	SWS
A:SM 5310B	280-63392-E-1 MS		280-256888		12/11/2014 16:55	1	TAL DEN	CCJ

Lab ID: MSD Client ID: N/A

Sample Date/Time: 12/09/2014 10:03 Received Date/Time: 12/10/2014 09:50

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
A:300.0	280-63423-A-3 MSD		280-257136		12/15/2014 20:50	1	TAL DEN	AFB
A:350.1	280-63423-B-5 MSD		280-256977		12/12/2014 10:28	1	TAL DEN	CML
A:350.1	280-63517-B-4 MSD		280-256977		12/12/2014 13:24	1	TAL DEN	CML
A:350.1	280-63484-E-2 MSD		280-257412		12/16/2014 11:40	1	TAL DEN	CML
A:410.4	280-63146-B-1 MSD		280-256774		12/11/2014 14:30	1	TAL DEN	SWS
A:SM 5310B	280-63392-E-1 MSD		280-256888		12/11/2014 17:11	1	TAL DEN	CCJ

Client: Waste Management Job Number: 280-63425-1

# **Laboratory Chronicle**

Lab ID: DU Client ID: N/A

Sample Date/Time: 12/09/2014 10:03 Received Date/Time: 12/10/2014 09:50

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
A:300.0	280-63423-A-3 DU		280-257136		12/15/2014 20:19	1	TAL DEN	AFB
A:SM 2320B	280-63464-D-1 DU		280-256799		12/11/2014 11:06	1	TAL DEN	CCJ
A:SM 2540C	280-63397-A-2 DU		280-256626		12/10/2014 14:54	1	TAL DEN	SVC
A:SM5210B	280-63379-A-10 DU		280-256630		12/10/2014 08:35	1	TAL DEN	NAS

#### Lab References:

TAL DEN = TestAmerica Denver

TestAmerica Denver A = Analytical Method P = Prep Method

D.CO+0.5 1R-5 Transfer by CB

**TestAmerica Denver** 

4955 Yarrow Street

Chain of Cus

280-63425 Chain of Custody

**TestAmerica** 

M - Hexane
N - None
O - AsN3O2
P - Na2O4S
Q - Na2S03
R - Na2S203
S - H2SO4
T - TSP Dodecahydrate
U - Acetione
U - Acetione
W - ph 4-5
Z - other (specify) Special Instructions/Note: Company Months Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Mont Preservation Codes COC No: 280-17323-8080.1 A-HCL
B-NaOH
C-Zn Acetate
D-Nitric Acid
F-MaOH
G-Amchlor
H-Ascorbic Acid 950 Page: Page 1 of 1 I - Ice J - DI Water K - EDTA L - EDA Archive For Total Number of containers Date/Time: fethod of Shipment: Carrier Tracking No(s) **Analysis Requested** Special Instructions/QC Requirements: betsy.sara@testamericainc.com BOD mmonia/TOC/COD Lab PM: Sara, Betsy A E-Mail: MS/MSD (Yes or No) Time: Field Filtered Sample (Yes or No) Scs-F9 Company BT=Tissue, A=Air) (W=water, S=solid, O=waste/oil, Preservation Code: Matrix 7 Type (C=comp, G=grab) Radiological Sample Sample: Brodley Beach Phone: 360-703-8156 S 0 930 PO#: Purchase Order not required Sample Time 0430 Date: Unknown TAT Requested (days): Due Date Requested: Sample Date 12 9 14 Date/Time: 17/9/14 Project #: 28002692 SSOW#: Poison B Olympic View Transfer Station 9300 Southwest Barney White Ro Project Name:W402|Olympic View Sanitary LF Event Desc: Quarterly Leachate Appil - Mar Jun Sep D Skin Irritant Deliverable Requested: I, II, III, IV, Other (specify) 40-1204-19LD-04 Arvada, CO 60002 Phone (303) 736-0100 Fax (303) 431-7171 Rossible Hazard Identification Empty Kit Relinquished by: Client Information Sample Identification Waste Management Mr. Charles Luckie 303-914-1434(Tel) cluckie@wm.com elinquished by: State, Zip: WA, 98312 Washington Bremerton

elinquished by

elinquished by:

Date/Time:

Cooler Temperature(s) °C and Other Remarks:

Received by:

Company

Date/Time:

Custody Seals Intact: Custody Seal No.: 213 42.9

					FIELD INF	ORMA'	TION FOR	M	V	$\sqrt{\Lambda}\sqrt{\Lambda}$
Si	te OVSI				This Waste I	Management Field	Information Form is Requ	ired	WAS	TE MANAGEMENT
Si		Samp Poin	t: L	-	LCD submitted alcontainers (i.	ng with the Chain o	addition to any State Forms. of Custody Forms that accontact is returned to the laborate	npany the sample	Laboratory Use Only/I	ab ID:
20	0141209-LPLC	D - C	24	Samp	le ID				7 1 1	
PURGE	PURGE DATE (MM DD YY) Note: For Passive Samplin	ng, repla	(2400	GE TIN Hr Clo		Target and the second	WATER VOL IN CAS (Gallons) ing/Flow Cell and Tubing/F	(Ga	OL PURGED allons) ark changes, record fie	WELL VOLs PURGED eld data, below.
PURGE/SAMPLE	Purging and Sampling Ed Purging Device Sampling Device	quipmen	A-Submers B-Peristalt	sible P	2		and the second s	0.45 μ or A-In-line Disposable OB-Pressure	μ (circle o C-Vacuum X-Other	or fill in)
PURGE/	Sampling Device X-Other:		C-QED Bla			Sample T		A-Teflon	- T-	Other:
WELL DATA	Well Elevation (at TOC)			(ft/m	Depth to Water (DT	(W)		Groundwater Elevation (site datum, from TOC		(ft/msl)
MARKE	Total Well Depth (from TOC) Note: Total Well Depth, S	tick Up,	Casing Id. etc	(ft)	Stick Up (from ground elevational and can be from histori		(ft)	Casing (in)  Elevation, DTW, and Grou	Casing Material undwater Elevation me	ust be current.
	Sample Time Rate (2400 Hr Clock)	e/Unit	pH (std)	1 1	Conductance (SC/EC) (µmhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
- 8		1 st		1 <sup>st</sup>						
(lal)		2 <sup>nd</sup>		2 <sup>nd</sup>						
ption		3 <sup>rd</sup>		3 <sup>rd</sup>						
A (0		4 <sup>th</sup>	11	4 <sup>th</sup>		_1_1_				
DAT										
ON			11			111		11		
ATI			1-1							
ILIZ	1 1								III	111
STABILIZATION DATA (Optional)					1 1 1 1					
3										
	Suggested range for 3 consec. read note Permit/State requirements:	ings or	+/- 0.2		+/- 3%			+/- 10%	+/- 25 mV	Stabilize
	Stabilization Data Fields are C by State/Permit/Site. If a Data									
	SAMPLE DATE		pН		CONDUCTANCE	TEMP.	TURBIDITY	DO	eH/ORP	Other:
D D/	MM DD YY)	1	(std)	-	(umhos/cm @ 25°C)	(°C)	(ntu)	(mg/L-ppm)	(mV) U	Inits Tive
FIELD DATA	Final Field Readings are requ	ired (i.e	record field	l measu	rements, final stabilized rea	dings, passive san		ling for all field paramet	ters required by Stat	e/Permit/Site.
	Sample Appearance:	FFU		utid		odor: Sligh	t co	olor: Stm	Other:	
	Weather Conditions (requ	iired da	ily, or as co	ndition	s change): Dir	rection/Speed:	Outle	ook: WINL   Rais	N Precipitat	ion: Y or N
S	Specific Comments (inclu	ding p	urge/well v	olume	calculations if required					
COMMENTS								and the second		
MM								The same of the sa		
00								to de la constitución de la cons		
FIELD										
F	I certify that sampling proc	edures	were in acc	ordano	e with applicable FPA St	ate, and WM pro	tocols (if more than one	sampler all should sig	m):	
	12/9/14	P.	callan	0	ach	11	lat 1	/ C	IS- FC	
		1)	.Gles	7			1			
	Date	Nan		пто	. WHITE/ODICINAL ST	Signature	VELLOW Potential C	Comp	pany	
_			DISTRIE	OHON	: WHITE/ORIGINAL - St	ays with Sample, 1	ELLOW - Returned to C	nent. PINK - Field Copy	1	2/23/2014

### **Login Sample Receipt Checklist**

Client: Waste Management Job Number: 280-63425-1

Login Number: 63425 List Source: TestAmerica Denver

List Number: 1

Creator: Orfield, Tayler C

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	False	REFER TO CUR
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	



### **ANALYTICAL REPORT**

Job Number: 280-63441-1

Job Description: WA02|Olympic View Sanitary LF

For:

Waste Management Sun Valley Hauling 9081 Tujunga Avenue Sun Valley, CA 91352

Attention: Mr. Phil Perley

Betsy Sara

Approved for release. Betsy A Sara Project Manager II 12/10/2014 12:30 PM

Betsy A Sara, Project Manager II 4955 Yarrow Street, Arvada, CO, 80002 (303)736-0189 betsy.sara@testamericainc.com 12/10/2014

cc: Mr. Sam Adlington Mr. Charles Luckie Mr. Matt O'Hare Ms. Elena Ramirez

Mr. Dan Venchiarutti

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is 4025.



TestAmerica Denver 4955 Yarrow Street, Arvada, CO 80002 Tel (303) 736-0100 Fax (303) 431-7171 <u>www.testamericainc.com</u>



# **Table of Contents**

Cover Title Page	1
Subcontracted Data	3



5 December 2014

Betsy Sara Test America-Denver 4955 Yarrow Street Arvada, CO 80002

RE: Project: OVSL

ARI Job Nos.: ZM18, ZM19

Dear Betsy:

Please find enclosed the original Chain of Custody (COC) documentation and the final results for the samples from the project referenced above. Analytical Resources, Inc. (ARI) accepted twenty-three water samples on November 24, 2014. The samples were received in good condition. The samples were analyzed for total and dissolved arsenic as requested.

No analytical complications were noted for these analyses.

Copies of these reports and all associated raw data will be kept on file at ARI. If you have any questions or require additional information, please contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

Mark D. Harris
Project Manager
206/695-6210
markh@arilabs.com

Enclosures

cc: files ZM18, ZM19

MDH/mdh

# Chain of Custody Record & Laboratory Analysis Request

A611 South 13  206-695-6200  Direct s  TestAm  TestAm  Received by (Signature) Printed Name Company	7110								11/21/14	4	Analytical Chemists and Consultants	Consultant
Client Contact Elena Ramines	ARI Client Company: SCS Engineers		Phone: 425-7	746-4600		Page.	-	of		9	4611 South 134th Pla	4th Place, Surte 100 Tukwila, WA 98168
Client Project Name OVSL 4014 GW Sampling	Client Contact: Elena Ramirez					No. of Coolers:	Cb	Cooler Temps:	16,78		206-695-6200 206-6	95-6201 (fax
Client Project # O4204027 17   Samplers Matt O'Hare   Time   Matrix   No Cortainne   Project # O4204027 17   Samplers Matt O'Hare   Time   Matrix   No Cortainne   Project # O4204027 17   Time   Matrix   No Cortainne   Project # O4204027 17   Time   Matrix   No Cortainne   Project # O420402   No Cortainne   Project	Client Project Name: OVSL 4Q14 GW Samp	guildr						Anai	lysis Réqueste	þ	Notes/Cot	ments
MW-35	200	mplers Matt	O'Hare			pe						
MW-13A         11/17/2014         1250         W         2         X         X         X           MW-13B         11/17/2014         1360         W         2         X         X         X         X           MW-13B         11/18/2014         1005         W         2         X         X         X         X           MW-3A         11/18/2014         1105         W         2         X         X         X         X           MW-3A         11/18/2014         1315         W         2         X         X         X         X           MW-2BA         11/18/2014         1405         W         2         X         X         X         X           MW-3BA         11/18/2014         1405         W         2         X         X         X         X           MW-3BA         11/18/2014         1455         W         2         X         X         X         X           MW-42         11/18/2014         1509         W         2         X         X         X         X         X         X           MW-36A         11/18/2014         1509         W         2         X         X	Sample ID	Date	Time	Matrix		Dissolve						
MW-13B         11/17/2014         1340         W         2         X         X         X           MW-13B         11/18/2014         1600         W         2         X         X         X         X           MW-29         11/18/2014         1005         W         2         X         X         X         X           MW-29A         11/18/2014         1402         W         2         X         X         X         X           MW-42         11/18/2014         1455         W         2         X         X         X         X           MW-42         11/18/2014         1509         W         2         X         X         X         X         X           MW-42         11/18/2014         1509         W         2         X		/17/2014	1250	8	2	×	×				Direct sub fro	E
MW-13B         11/17/2014         1500         W         2         X         X           WW-16         11/18/2014         1005         W         2         X         X         X           MW-23A         11/18/2014         1145         W         2         X         X         X           MW-29A         11/18/2014         1402         W         2         X         X         X           MW-36A         11/18/2014         1402         W         2         X         X         X           MW-36A         11/18/2014         1402         W         2         X         X         X           MW-36A         11/18/2014         1509         W         2         X         X         X           MW-36A         11/19/2014         1509         W         2         X         X         X           MW-36A         11/19/2014         1509         W         2         X         X         X           MW-36A         11/19/2014         1509         W         2         X         X         X         X           Macawed W-1         (Signature)         Macawed W-1         (Signature)         Macawed W-1 <td< td=""><td></td><td>/17/2014</td><td>1340</td><td>3</td><td>2</td><td>×</td><td>×</td><td></td><td></td><td></td><td>TestAmerica</td><td></td></td<>		/17/2014	1340	3	2	×	×				TestAmerica	
MW-16         11/18/2014         906         W         2         X         X           MW-23A         11/18/2014         1145         W         2         X         X         X           MW-23A         11/18/2014         1315         W         2         X         X         X           MW-29A         11/18/2014         1402         W         2         X         X         X           MW-36A         11/19/2014         1509         W         2         X         X         X           MW-36A         11/19/2014         1509         W         2         X         X         X           MW-36A         11/19/2014         1509         W         2         X         X         X           Printed Name         Signature)         Michael Name         Aich         Aich         Aich         Aich           Company         Company         Aich         Aich         Aich         Aich         Aich         Aich		/17/2014	1500	×	2	×	×					
MW-39         11/18/2014         1005         W         2         X         X           mW-43         11/18/2014         11315         W         2         X         X         X           mW-29A         11/18/2014         1402         W         2         X         X         X           mW-36A         11/19/2014         1509         W         2         X         X         X           Signature)         Mm-3         X         X         X         X         X           Printed Marine         Mm-3         X         X         X         X         X           May 20         X         X         X         X         X         X           May 3         X         X         X         X         X         X           May 3         X         X         X         X<		/18/2014	906	×	2	×	×					
MW-23A 11/18/2014 1145 W 2 X X X X X X X X X X X X X X X X X X		/18/2014	1005	×	2	×	×					
mw-43         11/18/2014         1315         W         2         X         X           MW-29A         11/18/2014         1402         W         2         X         X           MW-36A         11/19/2014         1509         W         2         X         X           Comments/Special Instructions         Relinquished by (Signature)         Received by (Signature)         Received by (Signature)         Relinquished by (Signature)           Printed Name         Printed Name         Printed Name         Printed Name           Company         Company         Company         Company		/18/2014	1145	×	2	×	×					
MW-29A   11/18/2014   1402   W   2   X   X   X   X   X   X   X   X   X		/18/2014	1315	3	2	×	×					
MW-36A         11/19/2014         1455         W         2         X         X         X           Comments/Special Instructions Printed Name Printed Name         Relinquished by (Signature)         Relinquished by (Signature)         Relinquished by (Signature)         Relinquished by (Signature)           Printed Name         Printed Name         Rich (Mus)S:-A         Printed Name           Company         Company         RC		/18/2014	1402	8	2	×	×					
MW-36A         11/19/2014         1509         W         2         X         X           Comments/Special Instructions         Relinquished by (Signature)         Relinquished by (Signature)         Relinquished by (Signature)         Received by (Signature)         Relinquished by (Signature)           Printed Name         Printed Name         Rich (Mash)         Printed Name           Company         Rich (Mash)         Company		/18/2014	1455	>	2	×	×					
Comments/Special Instructions Relinquished by (Signature) Relinquished by (Signature) Relinquished by (Signature) Remainded Name Rich (Massix Company Rich (		/19/2014	1509	8	2	×	×					
Printed Name Printed Name Printed Name Printed Name Company Company RR (  Company		nqushed by	1		Received by (Signature)	K		Reli	nquished by		Received by	
Company AR ( Company	Prine	1	T.		Printed Name	Rich	Undsi		ted Name		Printed Name	
	Congression	3				ARI		Con	npany		Company	
Date & Time Date & Time 11/24/14   318 Date & Time 11/24/14   1310	Date	27	1318		Date & Time	(kajiei	1315	7.5 (c)	a & Time		Date & Time	

hardcopy data, whichever is longer. Sediment samples submitted under PSDDA/PSEP/SMS protocol will be stored frozen for up to one year and then discarded.

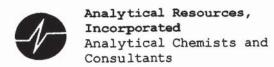


# **Cooler Receipt Form**

ARICHENT SCS Engineers	Project Name	OVSL	4014	GW Sa	impliery
COC No(s):	Delivered by:		ourier Hand De		
Assigned ARI Job No: 2M 18		_			
Preliminary Examination Phase:					_
Were intact, properly signed and dated custody seals atta	iched to the outside of to co	oler?		YES	CNO
Were custody papers included with the cooler?				YES	NO
Were custody papers properly filled out (ink, signed, etc.)				(ES)	NO
Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C Time: 1345	for chemistry) —			7.6	7.8
If cooler temperature is out of compliance fill out form 000	170F	aliu	Temp Gun		77950
Cooler Accepted by:	Date:	<u>ч ( Т</u> ті	me:13	10	
	forms and attach all ship	ping documen	ts		
Log-In Phase:			•		
Was a temperature blank included in the cooler?	*************			YES	NO
	ole Wrap Wet Ice Gel Pack		m Block Paper	Other:	
Was sufficient ice used (if appropriate)?			NA	YES	(NO)
Were all bottles sealed in individual plastic bags?				YES	ON
Did all bottles arrive in good condition (unbroken)?		*******		(YES)	NO
Were all bottle labels complete and legible?				(YES)	NO
Did the number of containers listed on COC match with ti				YES	NO
Did all bottle labels and tags agree with custody papers?				YES	NO
Were all bottles used correct for the requested analyses?			-	(YES)	NO
Do any of the analyses (bottles) require preservation? (al			. NA	YES	NO
Were all VOC vials free of air bubbles?			(NA)	YES	NO
Was sufficient amount of sample sent in each bottle?			(NA)	YES	NO
Date VOC Trip Blank was made at ARI			CNA	113	NO
		uipment:	(NA)	Split by:	
was sample split by ARI . INA TES Date/Tin	ne: Eq	uipment		Split by	
Samples Logged by:	Date:	4Time	755		
** Notify Project	Manager of discrepancies	or concerns *	*		
Sample ID on Bottle Sample ID on C	OC Sample II	on Bottle	Sar	mple ID on Co	oc
			<u> </u>	4 - 4 - 5 -	
		and the same of			
The second secon					
A detail and All de Discourse in a D					
Additional Notes, Discrepancies, & Resolutions:					1
By: Date:					
	Small → "sm" (<	2 mm)			
Small Air Bubbles Peabubbles' LARGE Air Bub2mm 2-4 mm > 4 mm	Peabubbles > "pb		)		
	Large → "lg" (4 to		<u> </u>		
	Headspace → "hs"		17.000 - 1000 - 12.00		
		,			

0016F 3/2/10 Cooler Receipt Form Page 5 of 81 Revision 014

ZM18:00003



00070F

# Zm18

# Cooler Temperature Compliance Form

Cooler#:T	emperature(°C):	
Sample ID	Bottle Count	Bottle Type
All samples associat	led	
with this job we	re	
received at a temp		
greater than 6°C	7.	
J		
		<del> </del>
O1#	Tomporatura/OC).	
Cooler#:T Sample ID	emperature(°C): Bottle Count	Bottle Type
Sample 10	Dottie Count	Bottle Type
*		
Name of the second seco		
Cooler#:T	emperature(°C):	
Sample ID	Bottle Count	Bottle Type
	<u> </u>	
	(00)	
Cooler#:T Sample ID	emperature(°C): Bottle Count	Dettia Tura
Sample ID	Bottle Count	Bottle Type
2011 1 Particular 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
ompleted by:	Date	e:\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\

Cooler Temperature Compliante Form

ZM18 Version 9901

PRESERVATION VERIFICATION 11/25/14

1 of 2 Page Inquiry Number: NONE Analysis Requested: 11/24/14

Contact: Sara, Betsy Client: Test America

Logged by: JM Sample Set Used: Yes-481 Validatable Package: No

Deliverables:

ANALYTICAL (C) RESOURCES (INCORPORATED

ARI Job No: ZM18

PC: Mark VTSR: 11/24/14

Project #: 04204027.17 Project: OVSL 4Q14 GW Sampling

Sample Site: SDG No:

Analytical Protocol: In-house

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	F0G <2	MET I	PHEN PHOS		TKN NO	NO23 T	TOC S2 <2 >9	: TPHD	Fe2+	DME	DMET DOC FLT FLT	PARAMETER	ADJUSTED TO	LOT	AMOUNT	DATE/BY
14-25686 <b>ZM18A</b>	MW-35						PT C														
14-25687 <b>ZM18B</b>	MW-13A						ā														
14-25688 <b>ZM18C</b>	MW-13B						<b>₽</b>														
14-25689	MW-16						Þ														
<b>a</b> 4-25690 <b>zm18</b> 2	MW-39						<b>(</b>														
<b>24</b> -25691 <b>ZM18F</b>	MW-23A						2)														
20 F4-25692 ZM18G	MW-43						2														
14-25693 <b>ZM18H</b>	MW-29A						6			2100											
14-25694 ZM18I	MW-42						0		50												
14-25695 <b>ZM18J</b>	MW-36A						2														
14-25696	MW-35						هـ								¥						
2M18L	MW-13A						ä								>-						
14-25698 ZM18M	MW-13B						2								Y						
5	MW-16						٩								Y						
105																0	Pas				

Checked By

PRESERVATION VERIFICATION 11/25/14

Client: Test America

Page

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: ZM18

Project #: 04204027.17 Project: OVSL 4Q14 GW Sampling

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	MAD NH3 >12 <2	COD <2	F0G	MET <2	MET PHEN	PHEN PHOS TKN <2 <2 <2	TKN <2	NO23 TOC <2 <2	-	\$2 T	PHD F	e2+ D	TPHD Fe2+ DMET DOC <2 <2 FLT FLT	PARAMETER	ADJUSTEI TO	ADJUSTED LOT TO NUMBER	AMOUNT	DATE/BY
14-25700 <b>ZM180</b>	MW-39						<b>E</b>									¥					
14-25701 <b>ZM18P</b>	MW-23A						\$			87						Y					
14-25702 <b>ZM18Q</b>	MW-43						Ps Ps									X.					
14-25703 ZM18R	MW-29A		33													X	-				
14-25704 <b>ZM18S</b>	MW-42			80.500 a												Y					
14-25705 <b>ZM18T</b>	MW-36A						6									Y					
,																					

Checked By M Date 11/29/

Page 8 of 81

### Sample ID Cross Reference Report



ARI Job No: ZM18
Client: Test America
Project Event: 04204027.17

Project Name: OVSL 4Q14 GW Sampling

		ARI	ARI			
	Sample ID	Lab ID	LIMS ID	Matrix	Sample Date/Time	VTSR
1.	MW-35	ZM18A	14-25686	Water	11/17/14 12:50	11/24/14 13:10
2.	MW-13A	ZM18B	14-25687	Water	11/17/14 13:40	11/24/14 13:10
3.	MW-13B	ZM18C	14-25688	Water	11/17/14 15:00	11/24/14 13:10
4.	MW-16	ZM18D	14-25689	Water	11/18/14 09:06	11/24/14 13:10
5.	MW-39	ZM18E	14-25690	Water	11/18/14 10:05	11/24/14 13:10
6.	MW-23A	ZM18F	14-25691	Water	11/18/14 11:45	11/24/14 13:10
7.	MW-43	ZM18G	14-25692	Water	11/18/14 13:15	11/24/14 13:10
8.	MW-29A	ZM18H	14-25693	Water	11/18/14 14:02	11/24/14 13:10
9.	MW-42	ZM18I	14-25694	Water	11/18/14 14:55	11/24/14 13:10
10.	MW-36A	ZM18J	14-25695	Water	11/19/14 15:09	11/24/14 13:10
11.	MW-35	ZM18K	14-25696	Water	11/17/14 12:50	11/24/14 13:10
12.	MW-13A	ZM18L	14-25697	Water	11/17/14 13:40	11/24/14 13:10
13.	MW-13B	ZM18M	14-25698	Water	11/17/14 15:00	11/24/14 13:10
14.	MW-16	ZM18N	14-25699	Water	11/18/14 09:06	11/24/14 13:10
15.	MW-39	ZM180	14-25700	Water	11/18/14 10:05	11/24/14 13:10
16.	MW-23A	ZM18P	14-25701	Water	11/18/14 11:45	11/24/14 13:10
17.	MW-43	ZM18Q	14-25702	Water	11/18/14 13:15	11/24/14 13:10
18.	MW-29A	ZM18R	14-25703	Water	11/18/14 14:02	11/24/14 13:10
19.	MW-42	ZM18S	14-25704	Water	11/18/14 14:55	11/24/14 13:10
20.	MW-36A	ZM18T	14-25705		11/19/14 15:09	11/24/14 13:10

Printed 11/25/14 Page 1 of 1

# Chain of Custody Record & Laboratory Analysis Request

oliani of Sustanty Necola & Eabolatory Alianysis Nequest	d & Labor	אווט ל וווי	aryono ive	hacst								
ARI Assigned Number: ZM   S	Turn-around Requested:	ednested:	Standard		Date:			11/	11/21/14	4	Analytical Resources, Incorporated Analytical Chemists and Consultants	40
ARI Client Company: SCS Engineers		Phone. 425-746-4600	746-4600		Page:	2	jo		<b>"</b>		4611 South 134th Place, Suite 100 Tukwila, WA 98168	~ ~
Client Contact: Elena Ramirez					No. of Coolers:	5	Cooler 7	1,9.	8 2		206-695-6200 206-695-6201 (fax)	_
Client Project Name OVSL 4Q14 GW Sampling	/ Sampling						Ana	Analysis Requested	iested		Notes/Comments	
Client Project #:04204027.17	Samplers:Matt O'Hare	O'Hare			pe	el senic						
Sample ID	Date	Time	Matrix	No Containers	vel wod ovlossiG oinestA	vəl-woJ 1A IstoT						
MW-15R	11/19/2014	1422	8	2	×	×					Direct sub from	
MW-33C	11/19/2014	1311	8	2	×	×					TestAmerica	T
MW-33A	11/19/2014	1236	×	2	×	×						7
MW-34A	11/19/2014	1045	Μ	2	×	×						_
MW-34C	11/19/2014	1003	Ν	2	×	×						_
MW-2B1	11/20/2014	1012	M	2	×	×						Ţ
MW-20	11/20/2014	910	Α	2	×	×						_
MW-24	11/20/2014	1106	8	2	×	×						_
MW-19C	11/20/2014	1202	Ν	2	×	×						7
MW-4	11/20/2014	939	Μ	2	×	×						_
Comments/Special Instructions	Relinqushed by (Signature)	pa		Received by (Signature)	1/1		Rel (Sig	Relinquished by (Signature)		Rece (Sign	Received by (Signature)	_
	Printed Name	101-100 BILLION		Printed Name	Rech	Helsin	Prir	Printed Name		Printe	Printed Name	
ZM	Company			Company	181		Cor	Company		Company	sany	
	Date Time   I	1 1310	(	Date & Time	14/24/14	1310		Date & Time		Date	Date & Time	

Services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client. Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program amount for said mets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said

Sample Retention Policy: Unless specified by workorder or contract, all water/soil samples submitted to ARI will be discarded or returned, no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer. Sediment samples submitted under PSDDA/PSEP/SMS protocol will be stored frozen for up to one year and then discarded.

# Chain of Custody Record & Laboratory Analysis Request

<b>=</b> 11	u & Labora	IOI y Alla	II yais ne	nest								
AKI Assigned Number. 2M [9]	i urn-around Kequested:	equested:	Standard		Date:	- 10		-	11/21/14		Analytical F	Analytical Resources, Incorporated Analytical Chemists and Consultants
ARI Client Company: SCS Engineers		Phone 425-746-4600	746-4600	i de la companya de l	Page:	3	of		e e		4611 Sou	4611 South 134th Place, Suite 100 Tukwila, WA 98168
Client Contact: Elena Ramirez					No. of Coolers:	4	Cooler Temps:	10.	287		206-695	206-695-6200 206-695-6201 (fax)
Client Project Name: OVSL 4Q14 GW Sampling	Sampling						Ang	Analysis Rec	Requested			Notes/Comments
Client Project #:04204027.17	Samplers.Matt O'Hare	O'Hare			pe	el	-		.,	111		
Sample ID	Date	Time	Matrix	No Containers	vəl woJ bissolvo oinsenA	vəl-woJ Total Ar						
MW-32	11/20/2014	1124	8	2	×	×					Dire	Direct sub from
DUP-1	11/20/2014	920	8	2	×	×	1				Tes	TestAmerica
DUP-2	11/20/2014	1124	×	2	×	×						
												9
Page												
a 11												
of												
81												
		•										
Comments/Special Instructions	(Signature)	Mar	>	Received by (Signature)	y	,	Re (S)	Relinquished by (Signature)		Re (S	Received by (Signature)	
	He Co	4 orthur	3	Printed Name	Rich Huber	lubsin	Pri	Printed Name		P	Printed Name	
ZM	Sompany			Company	MRI		8	Company		3	Company	
	Date & Time	1 1310	Ĵ	Date & Time	11/20/14	1310		Date & Time		Da	Date & Time	
		The state of the s										

Services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program is program. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said Sagreement between ARI and the Client.

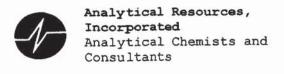
Sample Retention Policy: Unless specified by workorder or contract, all water/soil samples submitted to ARI will be discarded or returned, no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer. Sediment samples submitted under PSDDA/PSEP/SMS protocol will be stored frozen for up to one year and then discarded.



# **Cooler Receipt Form**

ARI Client: SCS Engineers	Project Name: DVSC	4014 GW	Sampling
COC No(s).	Delivered by: Fed-Ex UP& Co		
Assigned ARI Job No: ZM 19	Tracking No:		- A
Preliminary Examination Phase:	Tracking No.		NA
Were intact, properly signed and dated custody seals attached t	to the outside of to cooler?	YES	CNO
Were custody papers included with the cooler?		(YES	NO
Were custody papers properly filled out (ink, signed, etc.)		VEC.	NO
Temperature of Cogler(s) (°C) (recommended 2.0-6.0 °C for che Time1 3 4 5		7	.6 7.9
If cooler temperature is out of compliance fill out form 00070F	11/ /	Temp Gun ID#:	JE 7795
Cooler Accepted by:	Date:TIN	ne 1310	
Complete custody forms	and attach all shipping documents	s	
Log-In Phase:			
Was a temperature blank included in the cooler?		YES	NO
	Wet Ice Gel Packs Baggies Foar		109
Was sufficient ice used (if appropriate)?		NA YES	(NO
Were all bottles sealed in individual plastic bags?			NO
Did all bottles arrive in good condition (unbroken)?		YES	(NQ)
AND THE CONTROL OF TH		YES	) NO
Were all bottle labels complete and legible?		WES	) NO
Did the number of containers listed on COC match with the num	ber of containers received?	YES	) NO
Did all bottle labels and tags agree with custody papers?		YES	NO
Were all bottles used correct for the requested analyses?		(YES)	NO
Do any of the analyses (bottles) require preservation? (attach pr	reservation sheet, excluding VOCs)	NA YES	, NO
Were all VOC vials free of air bubbles?		NA, YES	NO
Was sufficient amount of sample sent in each bottle?		YES	NO
Date VOC Trip Blank was made at ARI			NO
Was Sample Split by ARI : NA YES Date/Time		( NA)	
1112	1/26/11	Split by	r
Samples Logged by:Date	1 (	/55	
** Notity Project Manage	er of discrepancies or concerns **		
Sample ID on Bottle Sample ID on COC	Sample ID on Bottle	Sample ID on	COC
			*******
		<del></del>	***
Additional Notes, Discrepancies, & Resolutions:	The state of the s		
<b>2</b> 00 / 200			
By: Date:	Small A flow? (<2)		
Small Air Bubbles Paabubbles' LARGE Air Bubbles  - 2mm 2-4 mm > 4 mm	Small → "sm" (<2 mm)		
	Peabubbles $\rightarrow$ "pb" (2 to < 4 mm)  Large $\rightarrow$ "lg" (4 to < 6 mm)		
	Headspace > "be" (> 6 mm)		

ZM18:00010



00070F

# Cooler Temperature Compliance Form

Cooler#:Tempe	rature(°C):	
Sample ID	<b>Bottle Count</b>	Bottle Type
All samples associated		
with this job were		
received at a temp		
greater than 6°C.		
3		
Cooler#: Tempe	rature(°C):	
Sample ID	Bottle Count	Bottle Type
		-
Cooler#: Tempe	erature(°C):	Pottle Tyre
Sample ID	Bottle Count	Bottle Type
	<u></u>	
	1	
	-	
Cooler#: Tempe	erature(°C):	
Sample ID	erature(°C): Bottle Count	Bottle Type
Sample ID	Bottle Coult	Dottie Type
	<del> </del>	
	<del> </del>	
	<del> </del>	100000000000000000000000000000000000000
	<del> </del>	
ompleted by:		e: / Time: CO/

Cooler Temperature Gorhaliantos Form

ZM18 Version 000

PRESERVATION VERIFICATION 11/25/14

1 of 2 Page

Inquiry Number: NONE Analysis Requested: 11/24/14

Contact: Sara, Betsy Client: Test America

Logged by: JM Sample Set Used: Yes-481 Validatable Package: No

Deliverables:

ANALYTICAL RESOURCES INCORPORATED

VTSR: 11/24/14 PC: Mark

ARI Job No: ZM19

Project #: 04204027.17 Project: OVSL 4Q14 GW Sampling Sample Site:

SDG No: Analytical Protocol: In-house

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3	COD <2	F0G	MET <2	PHEN <2	PHOS <2	TKN NO23	70C <2>	S2 TPHD >9 <2	HD Fe2+ 2 <2	+ DM	DMET DOC FLT FLT	PARAMETER	ADJUSTED TO	LOT	AMOUNT	DATE/BY
14-25706 <b>ZM19A</b>	MW-15R						a									-11				
14-25707 ZM19B	MW-33C						TdT													
14-25708 <b>ZM19C</b>	MW-33A						TOL		e 10											
14-25709	MW-34A						ToT													
	MW-34C						TOJ									SHI				
14-25711 EM19F	MW-2B1						TOT													
25712 ZM19G	MW-20						ror													
14-25713 ZM19H	MW-24						TOT													
14-25714 ZM19I	MW-19C						TOT													
14-25715 ZM19J	MW-4						TCI							-						
	MW-32						LCL			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1										
	DUP-1						TCI													
	DUP-2						TOT													
4-25719 ZM19N	MW-15R						Sid							×						
112			$\bigcirc$	(,,	S	ass			43											

Checked By M Date (1/25/14

PRESERVATION VERIFICATION 11/25/14
Page 2 of 2

Client: Test America

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: ZM19

Project #: 04204027.17 Project: OVSL 4Q14 GW Sampling

CLIENT ID	CN V	WAD 1	NH3 (	COD	FOG MET <2		PHEN PH	PHOS TKN <2 <2		NO23 TOC <2 <2	2 ×9	TPHD Fe2+ <2 <2	+ DME	DMET DOC FLT FLT	PARAMETER	ADJUSTED LOT TO NUMBE	D LOT NUMBER	AMOUNT	DATE/BY
					Δ	<b>(</b> )							Y						
					0	pis							Y						
					0	DIS							¥						
				in the second	Δ	DES							¥						
					0	DIS							X						
					Δ	DIS							¥						
						DIS	18.55				500-002		Y						
					۵	DES							¥						
					Δ	DIS							¥						
					Ω	DIS							X						
					D	DIS			17				×						
					<u> </u>	S I	-1010		21		1001 73		Y	- N - 7 - N   N - 1					

### Sample ID Cross Reference Report

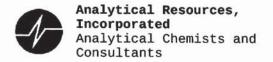


ARI Job No: ZM19 Client: Test America Project Event: 04204027.17

Project Name: OVSL 4Q14 GW Sampling

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	MW-15R	ZM19A	14-25706	Water	11/19/14 14:22	11/24/14 13:10
2.	MW-33C	ZM19B	14-25707	Water	11/19/14 13:11	11/24/14 13:10
3.	MW-33A	ZM19C	14-25708	Water	11/19/14 12:36	11/24/14 13:10
4.	MW-34A	ZM19D	14-25709	Water	11/19/14 10:45	11/24/14 13:10
5.	MW-34C	ZM19E	14-25710	Water	11/19/14 10:03	11/24/14 13:10
6.	MW-2B1	ZM19F	14-25711	Water	11/20/14 10:12	11/24/14 13:10
7.	MW-20	ZM19G	14-25712	Water	11/20/14 09:10	11/24/14 13:10
8.	MW-24	ZM19H	14-25713	Water	11/20/14 11:06	11/24/14 13:10
9.	MW-19C	ZM19I	14-25714	Water	11/20/14 12:02	11/24/14 13:10
10.	MW-4	ZM19J	14-25715	Water	11/20/14 09:39	11/24/14 13:10
11.	MW-32	ZM19K	14-25716	Water	11/20/14 11:24	11/24/14 13:10
12.	DUP-1	ZM19L	14-25717	Water	11/20/14 09:20	11/24/14 13:10
13.	DUP-2	ZM19M	14-25718	Water	11/20/14 11:24	11/24/14 13:10
14.	MW-15R	ZM19N	14-25719	Water	11/19/14 14:22	11/24/14 13:10
15.	MW-33C	ZM190	14-25720	Water	11/19/14 13:11	11/24/14 13:10
16.	MW-33A	ZM19P	14-25721	Water	11/19/14 12:36	11/24/14 13:10
17.	MW-34A	ZM19Q	14-25722	Water	11/19/14 10:45	11/24/14 13:10
18.	MW-34C	ZM19R	14-25723	Water	11/19/14 10:03	11/24/14 13:10
19.	MW-2B1	ZM19S	14-25724	Water	11/20/14 10:12	11/24/14 13:10
20.	MW-20	ZM19T	14-25725	Water	11/20/14 09:10	11/24/14 13:10
21.	MW-24	ZM19U	14-25726	Water	11/20/14 11:06	11/24/14 13:10
22.	MW-19C	ZM19V	14-25727	Water	11/20/14 12:02	11/24/14 13:10
23.	MW-4	ZM19W	14-25728	Water	11/20/14 09:39	11/24/14 13:10
24.	MW-32	ZM19X	14-25729	Water	11/20/14 11:24	11/24/14 13:10
25.	DUP-1	ZM19Y	14-25730	Water	11/20/14 09:20	11/24/14 13:10
26.	DUP-2	ZM19Z	14-25731	Water	11/20/14 11:24	11/24/14 13:10

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# Data Reporting Qualifiers Effective 12/31/13

### **Inorganic Data**

- U Indicates that the target analyte was not detected at the reported concentration
- Duplicate RPD is not within established control limits
- B Reported value is less than the CRDL but ≥ the Reporting Limit
- N Matrix Spike recovery not within established control limits
- NA Not Applicable, analyte not spiked
- H The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible
- L Analyte concentration is ≤5 times the Reporting Limit and the replicate control limit defaults to ±1 RL instead of the normal 20% RPD

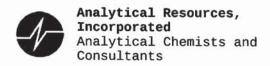
### **Organic Data**

- U Indicates that the target analyte was not detected at the reported concentration
- \* Flagged value is not within established control limits
- B Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.
- J Estimated concentration when the value is less than ARI's established reporting limits
- D The spiked compound was not detected due to sample extract dilution
- E Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

Laboratory Quality Assurance Plan

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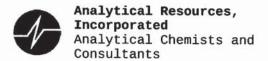


- Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20%Drift or minimum RRF).
- S Indicates an analyte response that has saturated the detector. The calculated concentration is not valid; a dilution is required to obtain valid quantification of the analyte
- NA The flagged analyte was not analyzed for
- NR Spiked compound recovery is not reported due to chromatographic interference
- NS The flagged analyte was not spiked into the sample
- M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters. This flag is used only for GC-MS analyses
- N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"
- Y The analyte is not detected at or above the reported concentration. The reporting limit is raised due to chromatographic interference. The Y flag is equivalent to the U flag with a raised reporting limit.
- EMPC Estimated Maximum Possible Concentration (EMPC) defined in EPA Statement of Work DLM02.2 as a value "calculated for 2,3,7,8-substituted isomers for which the quantitation and /or confirmation ion(s) has signal to noise in excess of 2.5, but does not meet identification criteria" (Dioxin/Furan analysis only)
- C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column
- P The analyte was detected on both chromatographic columns but the quantified values differ by ≥40% RPD with no obvious chromatographic interference
- X Analyte signal includes interference from polychlorinated diphenyl ethers. (Dioxin/Furan analysis only)
- Z Analyte signal includes interference from the sample matrix or perfluorokerosene ions. (Dioxin/Furan analysis only)

Laboratory Quality Assurance Plan

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### **Geotechnical Data**

- A The total of all fines fractions. This flag is used to report total fines when only sieve analysis is requested and balances total grain size with sample weight.
- F Samples were frozen prior to particle size determination
- SM Sample matrix was not appropriate for the requested analysis. This normally refers to samples contaminated with an organic product that interferes with the sieving process and/or moisture content, porosity and saturation calculations
- SS Sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis
- W Weight of sample in some pipette aliquots was below the level required for accurate weighting



TOTAL METALS

Page 1 of 1

Lab Sample ID: ZM18A

LIMS ID: 14-25686 Matrix: Water

Data Release Authorized: Reported: 12/05/14

Sample ID: MW-35

SAMPLE

QC Report No: ZM18-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/17/14 Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/01/14	200.8	12/04/14	7440-38-2	Arsenic	0.00004	0.00012	



TOTAL METALS

Page 1 of 1

Lab Sample ID: ZM18A

LIMS ID: 14-25686 Matrix: Water

Data Release Authorized:

Reported: 12/05/14

Sample ID: MW-35

DUPLICATE

QC Report No: ZM18-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/17/14 Date Received: 11/24/14

### MATRIX DUPLICATE QUALITY CONTROL REPORT

	Analysis				Control	
Analyte	Method	Sample	Duplicate	RPD	Limit	Q
Arsenic	200.8	0.00012	0.00012	0.0%	+/- 0.00004	L

Reported in mg/L

\*-Control Limit Not Met L-RPD Invalid, Limit = Detection Limit



TOTAL METALS

Page 1 of 1

Lab Sample ID: ZM18A

LIMS ID: 14-25686 Matrix: Water

Data Release Authorized:

Reported: 12/05/14

Sample ID: MW-35

MATRIX SPIKE

QC Report No: ZM18-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/17/14 Date Received: 11/24/14

### MATRIX SPIKE QUALITY CONTROL REPORT

	Analysis			Spike	8	
Analyte	Method	Sample	Spike	Added	Recovery	Q
Arsenic	200.8	0.00012	0.00474	0.00500	92.4%	

Reported in mg/L

N-Control Limit Not Met H-% Recovery Not Applicable, Sample Concentration Too High NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%



TOTAL METALS
Page 1 of 1

Lab Sample ID: ZM18B

LIMS ID: 14-25687 Matrix: Water

Data Release Authorized

Reported: 12/05/14

Sample ID: MW-13A SAMPLE

QC Report No: ZM18-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/17/14
Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/01/14	200.8	12/04/14	7440-38-2	Arsenic	0.00004	0.00018	



TOTAL METALS

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SAMPLE

Sample ID: MW-13B

Lab Sample ID: ZM18C LIMS ID: 14-25688

Matrix: Water

Data Release Authorized

Reported: 12/05/14

QC Report No: ZM18-Test America Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/17/14 Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/01/14	200.8	12/04/14	7440-38-2	Arsenic	0.00004	0.00030	



TOTAL METALS
Page 1 of 1

Lab Sample ID: ZM18D LIMS ID: 14-25689

Matrix: Water

Data Release Authorized

Reported: 12/05/14

Sample ID: MW-16 SAMPLE

QC Report No: ZM18-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/18/14 Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/01/14	200.8	12/04/14	7440-38-2	Arsenic	0.00004	0.00035	



TOTAL METALS

Page 1 of 1

Lab Sample ID: ZM18E

LIMS ID: 14-25690 Matrix: Water

Data Release Authorized:

Reported: 12/05/14

Sample ID: MW-39 SAMPLE

QC Report No: ZM18-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/18/14 Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/01/14	200.8	12/04/14	7440-38-2	Arsenic	0.00004	0.00115	

U-Analyte undetected at given LOQ LOQ-Reporting Limit

ZM18:00024



TOTAL METALS

Page 1 of 1

Lab Sample ID: ZM18F

LIMS ID: 14-25691

Matrix: Water Data Release Authorized

Reported: 12/05/14

Sample ID: MW-23A

SAMPLE

QC Report No: ZM18-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/18/14 Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/01/14	200.8	12/04/14	7440-38-2	Arsenic	0.00004	0.00018	



# INORGANICS ANALYSIS DATA SHEET TOTAL METALS

Page 1 of 1

Lab Sample ID: ZM18G LIMS ID: 14-25692

Matrix: Water

Data Release Authorized:

Reported: 12/05/14

Sample ID: MW-43 SAMPLE

QC Report No: ZM18-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/18/14 Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/01/14	200.8	12/04/14	7440-38-2	Arsenic	0.00004	0.00004	U



# INORGANICS ANALYSIS DATA SHEET TOTAL METALS

Page 1 of 1

Lab Sample ID: ZM18H LIMS ID: 14-25693

Matrix: Water

Data Release Authorized:

Reported: 12/05/14

Sample ID: MW-29A SAMPLE

QC Report No: ZM18-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/18/14 Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/01/14	200.8	12/04/14	7440-38-2	Arsenic	0.00004	0.00190	



TOTAL METALS
Page 1 of 1

Lab Sample ID: ZM18I LIMS ID: 14-25694

Matrix: Water

Data Release Authorized:

Reported: 12/05/14

Sample ID: MW-42 SAMPLE

QC Report No: ZM18-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/18/14 Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/01/14	200.8	12/04/14	7440-38-2	Arsenic	0.0001	0.0016	

U-Analyte undetected at given LOQ LOQ-Reporting Limit

ZM18:00028



TOTAL METALS

Page 1 of 1

Lab Sample ID: ZM18J LIMS ID: 14-25695

Matrix: Water

Data Release Authorized

Reported: 12/05/14

Sample ID: MW-36A SAMPLE

QC Report No: ZM18-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/19/14 Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/01/14	200.8	12/04/14	7440-38-2	Arsenic	0.00004	0.00053	



# INORGANICS ANALYSIS DATA SHEET DISSOLVED METALS

Page 1 of 1

Lab Sample ID: ZM18K

LIMS ID: 14-25696 Matrix: Water

Data Release Authorized

Reported: 12/05/14

Sample ID: MW-35 SAMPLE

QC Report No: ZM18-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/17/14 Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/01/14	200.8	12/04/14	7440-38-2	Arsenic	0.00004	0.00011	

U-Analyte undetected at given LOQ LOQ-Limit of Quantitation



# INORGANICS ANALYSIS DATA SHEET DISSOLVED METALS

Page 1 of 1

Lab Sample ID: ZM18K LIMS ID: 14-25696

Matrix: Water

Data Release Authorized:

Reported: 12/05/14

Sample ID: MW-35

DUPLICATE

QC Report No: ZM18-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/17/14 Date Received: 11/24/14

### MATRIX DUPLICATE QUALITY CONTROL REPORT

	Analysis			Control					
Analyte	Method	Sample	Duplicate	RPD	Limit	Q			
Arsenic	200.8	0.00011	0.00011	0.0%	+/- 0.00004	L			

Reported in mg/L

\*-Control Limit Not Met L-RPD Invalid, Limit = Detection Limit

ZM18:00031



## INORGANICS ANALYSIS DATA SHEET DISSOLVED METALS

Page 1 of 1

Lab Sample ID: ZM18K

LIMS ID: 14-25696 Matrix: Water

Data Release Authorized

Reported: 12/05/14

Sample ID: MW-35

MATRIX SPIKE

QC Report No: ZM18-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/17/14 Date Received: 11/24/14

### MATRIX SPIKE QUALITY CONTROL REPORT

	Analysis			Spike	8	
Analyte	Method	Sample	Spike	Added	Recovery	Q
Arsenic	200.8	0.00011	0.00459	0.005	89.6%	

Reported in mg/L

N-Control Limit Not Met H-% Recovery Not Applicable, Sample Concentration Too High NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ZM18:00032



Page 1 of 1

Lab Sample ID: ZM18L LIMS ID: 14-25697

Matrix: Water

Data Release Authorized:

Reported: 12/05/14

Sample ID: MW-13A SAMPLE

QC Report No: ZM18-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/17/14 Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/01/14	200.8	12/04/14	7440-38-2	Arsenic	0.00004	0.00018	



DISSOLVED METALS

Page 1 of 1

Lab Sample ID: ZM18M

LIMS ID: 14-25698

Matrix: Water Data Release Authorized:

Reported: 12/05/14

Sample ID: MW-13B SAMPLE

QC Report No: ZM18-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/17/14 Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/01/14	200.8	12/04/14	7440-38-2	Arsenic	0.00004	0.00029	



Page 1 of 1

Lab Sample ID: ZM18N

LIMS ID: 14-25699 Matrix: Water

Data Release Authorized Reported: 12/05/14 Sample ID: MW-16 SAMPLE

QC Report No: ZM18-Test America Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/18/14 Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/01/14	200.8	12/04/14	7440-38-2	Arsenic	0.00004	0.00029	



Page 1 of 1

Lab Sample ID: ZM180

LIMS ID: 14-25700 Matrix: Water

Data Release Authorized:

Reported: 12/05/14

Sample ID: MW-39

SAMPLE

QC Report No: ZM18-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/18/14 Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/01/14	200.8	12/04/14	7440-38-2	Arsenic	0.00004	0.00116	

U-Analyte undetected at given LOQ LOQ-Limit of Quantitation



Page 1 of 1

Lab Sample ID: ZM18P

LIMS ID: 14-25701 Matrix: Water

Data Release Authorized

Reported: 12/05/14

Sample ID: MW-23A SAMPLE

QC Report No: ZM18-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/18/14 Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/01/14	200.8	12/04/14	7440-38-2	Arsenic	0.00004	0.00009	

U-Analyte undetected at given LOQ LOQ-Limit of Quantitation



Page 1 of 1

Lab Sample ID: ZM18Q LIMS ID: 14-25702

Matrix: Water

Data Release Authorized:

Reported: 12/05/14

Sample ID: MW-43 SAMPLE

QC Report No: ZM18-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/18/14 Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/01/14	200.8	12/04/14	7440-38-2	Arsenic	0.00004	0.00004	U

U-Analyte undetected at given LOQ LOQ-Limit of Quantitation



Page 1 of 1

Lab Sample ID: ZM18R

LIMS ID: 14-25703

Matrix: Water

Data Release Authorized

Reported: 12/05/14

Sample ID: MW-29A SAMPLE

QC Report No: ZM18-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/18/14 Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/01/14	200.8	12/04/14	7440-38-2	Arsenic	0.00004	0.00153	



Page 1 of 1

Lab Sample ID: ZM18S LIMS ID: 14-25704

Matrix: Water

Data Release Authorized:

Reported: 12/05/14

Sample ID: MW-42 SAMPLE

QC Report No: ZM18-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/18/14 Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/01/14	200.8	12/04/14	7440-38-2	Arsenic	0.0001	0.0016	

U-Analyte undetected at given LOQ LOQ-Limit of Quantitation



Page 1 of 1

Lab Sample ID: ZM18T

LIMS ID: 14-25705 Matrix: Water

Data Release Authorized:

Reported: 12/05/14

Sample ID: MW-36A SAMPLE

QC Report No: ZM18-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/19/14 Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/01/14	200.8	12/04/14	7440-38-2	Arsenic	0.00004	0.00051	

U-Analyte undetected at given LOQ LOQ-Limit of Quantitation



## INORGANICS ANALYSIS DATA SHEET TOTAL METALS

Page 1 of 1

Lab Sample ID: ZM18MB

LIMS ID: 14-25695 Matrix: Water

Data Release Authorized:

Reported: 12/05/14

Sample ID: METHOD BLANK

QC Report No: ZM18-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: NA Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/01/14	200.8	12/04/14	7440-38-2	Arsenic	0.00004	0.00004	U



TOTAL METALS

Page 1 of 1

Lab Sample ID: ZM18LCS

LIMS ID: 14-25695

Matrix: Water

Data Release Authorized:

Reported: 12/05/14

Sample ID: LAB CONTROL

QC Report No: ZM18-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: NA Date Received: NA

### BLANK SPIKE QUALITY CONTROL REPORT

	Analysis	Spike	Spike	8	
Analyte	Method	Found	Added	Recovery	Q
Arsenic	200.8	0.00504	0.00500	101%	

Reported in mg/L

N-Control limit not met Control Limits: 80-120%



Page 1 of 1

Lab Sample ID: ZM18MB

LIMS ID: 14-25705 Matrix: Water

Data Release Authorized:

Reported: 12/05/14

Sample ID: METHOD BLANK

QC Report No: ZM18-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: NA Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/01/14	200.8	12/04/14	7440-38-2	Arsenic	0.00004	0.00004	U

U-Analyte undetected at given LOQ LOQ-Limit of Quantitation



Page 1 of 1

Lab Sample ID: ZM18LCS

LIMS ID: 14-25705

Matrix: Water

Data Release Authorized:

Reported: 12/05/14

Sample ID: LAB CONTROL

QC Report No: ZM18-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: NA Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	200.8	0.00513	0.00500	103%	

Reported in mg/L

N-Control limit not met Control Limits: 80-120%



TOTAL METALS Page 1 of 1

Lab Sample ID: ZM19A LIMS ID: 14-25706

Matrix: Water Data Release Authorized: Reported: 12/05/14

Sample ID: MW-15R SAMPLE

QC Report No: ZM19-Test America Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/19/14 Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/02/14	200.8	12/05/14	7440-38-2	Arsenic	0.00004	0.00021	

U-Analyte undetected at given LOQ LOQ-Reporting Limit



TOTAL METALS

Page 1 of 1

Lab Sample ID: ZM19A LIMS ID: 14-25706

Matrix: Water

Data Release Authorized:

Reported: 12/05/14

Sample ID: MW-15R DUPLICATE

QC Report No: ZM19-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/19/14 Date Received: 11/24/14

### MATRIX DUPLICATE QUALITY CONTROL REPORT

	Analysis				Control	
Analyte	Method	Sample	Duplicate	RPD	Limit	Q
Arsenic	200.8	0.00021	0.00022	4.7%	+/- 20%	

Reported in mg/L

\*-Control Limit Not Met L-RPD Invalid, Limit = Detection Limit



TOTAL METALS

Page 1 of 1

Lab Sample ID: ZM19A

LIMS ID: 14-25706 Matrix: Water

Data Release Authorized

Reported: 12/05/14

Sample ID: MW-15R

MATRIX SPIKE

QC Report No: ZM19-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/19/14 Date Received: 11/24/14

### MATRIX SPIKE QUALITY CONTROL REPORT

	Analysis			Spike	8	
Analyte	Method	Sample	Spike	Added	Recovery	Q
Arsenic	200.8	0.00021	0.00446	0.00500	85.0%	

Reported in mg/L

N-Control Limit Not Met H-% Recovery Not Applicable, Sample Concentration Too High NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%



TOTAL METALS

Page 1 of 1

Lab Sample ID: ZM19B

LIMS ID: 14-25707

Matrix: Water

Data Release Authorized

Reported: 12/05/14

Sample ID: MW-33C

SAMPLE

QC Report No: ZM19-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/19/14 Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/02/14	200.8	12/05/14	7440-38-2	Arsenic	0.00004	0.00254	

U-Analyte undetected at given LOQ LOQ-Reporting Limit



TOTAL METALS

Page 1 of 1

Lab Sample ID: ZM19C LIMS ID: 14-25708

Matrix: Water

Data Release Authorized:

Reported: 12/05/14

Sample ID: MW-33A SAMPLE

QC Report No: ZM19-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/19/14 Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/02/14	200.8	12/05/14	7440-38-2	Arsenic	0.00004	0.00041	



TOTAL METALS

Page 1 of 1

Lab Sample ID: ZM19D

LIMS ID: 14-25709

Matrix: Water

Data Release Authorized

Reported: 12/05/14

Sample ID: MW-34A SAMPLE

QC Report No: ZM19-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/19/14

Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/02/14	200.8	12/05/14	7440-38-2	Arsenic	0.0001	0.0004	

U-Analyte undetected at given LOQ LOQ-Reporting Limit



TOTAL METALS
Page 1 of 1

Lab Sample ID: ZM19E LIMS ID: 14-25710

Matrix: Water

Data Release Authorized:

Reported: 12/05/14

Sample ID: MW-34C SAMPLE

QC Report No: ZM19-Test America Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/19/14
Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/02/14	200.8	12/05/14	7440-38-2	Arsenic	0.00004	0.00491	

U-Analyte undetected at given LOQ LOQ-Reporting Limit



TOTAL METALS
Page 1 of 1

Lab Sample ID: ZM19F

LIMS ID: 14-25711 Matrix: Water

Data Release Authorized

Reported: 12/05/14

Sample ID: MW-2B1 SAMPLE

QC Report No: ZM19-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/20/14 Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/02/14	200.8	12/05/14	7440-38-2	Arsenic	0.00004	0.00034	



TOTAL METALS

Page 1 of 1

Lab Sample ID: ZM19G

LIMS ID: 14-25712 Matrix: Water

Data Release Authorized:

Reported: 12/05/14

Sample ID: MW-20 SAMPLE

QC Report No: ZM19-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/20/14 Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/02/14	200.8	12/05/14	7440-38-2	Arsenic	0.0001	0.0002	



TOTAL METALS

Page 1 of 1

Lab Sample ID: ZM19H QC Report No: ZM19-Test America

LIMS ID: 14-25713 Project: OVSL 4Q14 GW Sampling Matrix: Water 04204027.17

Date Sampled: 11/20/14 Date Received: 11/24/14

Sample ID: MW-24

SAMPLE

Matrix: Water
Data Release Authorized
Reported: 12/05/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/02/14	200.8	12/05/14	7440-38-2	Arsenic	0.00004	0.00061	



TOTAL METALS

Page 1 of 1

Lab Sample ID: ZM19I

LIMS ID: 14-25714 Matrix: Water

Data Release Authorized

Reported: 12/05/14

Sample ID: MW-19C SAMPLE

QC Report No: ZM19-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/20/14 Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	roð	mg/L	Q
200.8	12/02/14	200.8	12/05/14	7440-38-2	Arsenic	0.00004	0.00319	



TOTAL METALS
Page 1 of 1

Lab Sample ID: ZM19J LIMS ID: 14-25715

Matrix: Water

Data Release Authorized

Reported: 12/05/14

Sample ID: MW-4 SAMPLE

QC Report No: ZM19-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/20/14 Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/02/14	200.8	12/05/14	7440-38-2	Arsenic	0.00004	0.00040	



TOTAL METALS
Page 1 of 1

Lab Sample ID: ZM19K

LIMS ID: 14-25716 Matrix: Water

Data Release Authorized Reported: 12/05/14

Sample ID: MW-32 SAMPLE

QC Report No: ZM19-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/20/14 Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/02/14	200.8	12/05/14	7440-38-2	Arsenic	0.0001	0.0092	

U-Analyte undetected at given LOQ LOQ-Reporting Limit



TOTAL METALS

Page 1 of 1

Lab Sample ID: ZM19L LIMS ID: 14-25717

Matrix: Water

Data Release Authorized

Reported: 12/05/14

Sample ID: DUP-1 SAMPLE

QC Report No: ZM19-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/20/14 Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/02/14	200.8	12/05/14	7440-38-2	Arsenic	0.0001	0.0002	

U-Analyte undetected at given LOQ LOQ-Reporting Limit



TOTAL METALS

Page 1 of 1

Lab Sample ID: ZM19M

LIMS ID: 14-25718 Matrix: Water

Data Release Authorized:

Reported: 12/05/14

Sample ID: DUP-2 SAMPLE

QC Report No: ZM19-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/20/14 Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/02/14	200.8	12/05/14	7440-38-2	Arsenic	0.0001	0.0092	



Page 1 of 1

Lab Sample ID: ZM19N LIMS ID: 14-25719

Matrix: Water

Data Release Authorized

Reported: 12/05/14

Sample ID: MW-15R SAMPLE

QC Report No: ZM19-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/19/14 Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/04/14	200.8	12/05/14	7440-38-2	Arsenic	0.00004	0.00020	



Page 1 of 1

Lab Sample ID: ZM19N LIMS ID: 14-25719

Matrix: Water

Data Release Authorized Reported: 12/05/14

Sample ID: MW-15R DUPLICATE

QC Report No: ZM19-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/19/14 Date Received: 11/24/14

### MATRIX DUPLICATE QUALITY CONTROL REPORT

	Analysis			Control					
Analyte	Method	Sample	Duplicate	RPD	Limit	Q			
Arsenic	200.8	0.00020	0.00020	0.0%	+/- 20%				

Reported in mg/L

\*-Control Limit Not Met L-RPD Invalid, Limit = Detection Limit



Page 1 of 1

Sample ID: MW-15R

MATRIX SPIKE

Lab Sample ID: ZM19N LIMS ID: 14-25719

Matrix: Water

Data Release Authorized: Reported: 12/05/14

QC Report No: ZM19-Test America Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/19/14 Date Received: 11/24/14

### MATRIX SPIKE QUALITY CONTROL REPORT

	Analysis			Spike	8	
Analyte	Method	Sample	Spike	Added	Recovery	Q
Arsenic	200.8	0.00020	0.00468	0.005	89.6%	

Reported in mg/L

N-Control Limit Not Met H-% Recovery Not Applicable, Sample Concentration Too High NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%



Page 1 of 1

Lab Sample ID: ZM190

LIMS ID: 14-25720 Matrix: Water

Data Release Authorized:

Reported: 12/05/14

Sample ID: MW-33C

SAMPLE

QC Report No: ZM19-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/19/14 Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/04/14	200.8	12/05/14	7440-38-2	Arsenic	0.00004	0.00235	

U-Analyte undetected at given LOQ LOQ-Limit of Quantitation



Page 1 of 1

Lab Sample ID: ZM19P LIMS ID: 14-25721

Matrix: Water

Data Release Authorized:

Reported: 12/05/14

Sample ID: MW-33A

SAMPLE

QC Report No: ZM19-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/19/14 Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/04/14	200.8	12/05/14	7440-38-2	Arsenic	0.00004	0.00020	



Page 1 of 1

Lab Sample ID: ZM19Q LIMS ID: 14-25722

Matrix: Water

Data Release Authorized:

Reported: 12/05/14

Sample ID: MW-34A SAMPLE

QC Report No: ZM19-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/19/14 Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/04/14	200.8	12/05/14	7440-38-2	Arsenic	0.0001	0.0004	

U-Analyte undetected at given LOQ LOQ-Limit of Quantitation



DISSOLVED METALS

Page 1 of 1

Lab Sample ID: ZM19R LIMS ID: 14-25723

Matrix: Water

Data Release Authorized:

Reported: 12/05/14

Sample ID: MW-34C SAMPLE

QC Report No: ZM19-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/19/14 Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/04/14	200.8	12/05/14	7440-38-2	Arsenic	0.00004	0.00114	



DISSOLVED METALS

Page 1 of 1

Lab Sample ID: ZM19S

LIMS ID: 14-25724 Matrix: Water

Data Release Authorized

Reported: 12/05/14

Sample ID: MW-2B1

SAMPLE

QC Report No: ZM19-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/20/14 Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/04/14	200.8	12/05/14	7440-38-2	Arsenic	0.00004	0.00022	



Page 1 of 1

Lab Sample ID: ZM19T LIMS ID: 14-25725

Matrix: Water

Data Release Authorized:

Reported: 12/05/14

Sample ID: MW-20 SAMPLE

QC Report No: ZM19-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/20/14 Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/04/14	200.8	12/05/14	7440-38-2	Arsenic	0.0001	0.0002	

U-Analyte undetected at given LOQ LOQ-Limit of Quantitation



## INORGANICS ANALYSIS DATA SHEET

DISSOLVED METALS

Page 1 of 1

Lab Sample ID: ZM19U

LIMS ID: 14-25726 Matrix: Water

Data Release Authorized

Reported: 12/05/14

Sample ID: MW-24 SAMPLE

QC Report No: ZM19-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/20/14 Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/04/14	200.8	12/05/14	7440-38-2	Arsenic	0.00004	0.00022	

U-Analyte undetected at given LOQ LOQ-Limit of Quantitation



## INORGANICS ANALYSIS DATA SHEET

DISSOLVED METALS

Page 1 of 1

Lab Sample ID: ZM19V LIMS ID: 14-25727

Matrix: Water

Data Release Authorized:

Reported: 12/05/14

Sample ID: MW-19C SAMPLE

QC Report No: ZM19-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/20/14 Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/04/14	200.8	12/05/14	7440-38-2	Arsenic	0.00004	0.00307	

U-Analyte undetected at given LOQ LOQ-Limit of Quantitation

ZM18:00071



Page 1 of 1

Lab Sample ID: ZM19W LIMS ID: 14-25728

Matrix: Water

Data Release Authorized:

Reported: 12/05/14

Sample ID: MW-4 SAMPLE

QC Report No: ZM19-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/20/14 Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/04/14	200.8	12/05/14	7440-38-2	Arsenic	0.00004	0.00040	

U-Analyte undetected at given LOQ LOQ-Limit of Quantitation



Page 1 of 1

Lab Sample ID: ZM19X LIMS ID: 14-25729

Matrix: Water

Data Release Authorized

Reported: 12/05/14

Sample ID: MW-32 SAMPLE

QC Report No: ZM19-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/20/14 Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/04/14	200.8	12/05/14	7440-38-2	Arsenic	0.0001	0.0092	

U-Analyte undetected at given LOQ LOQ-Limit of Quantitation

ZM18:00073



Page 1 of 1

Lab Sample ID: ZM19Y LIMS ID: 14-25730

Matrix: Water

Data Release Authorized:

Reported: 12/05/14

Sample ID: DUP-1
SAMPLE

QC Report No: ZM19-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/20/14 Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/04/14	200.8	12/05/14	7440-38-2	Arsenic	0.0001	0.0002	

U-Analyte undetected at given LOQ LOQ-Limit of Quantitation

ZM18:00074



## INORGANICS ANALYSIS DATA SHEET

DISSOLVED METALS
Page 1 of 1

Lab Sample ID: ZM19Z

LIMS ID: 14-25731 Matrix: Water

Data Release Authorized:

Reported: 12/05/14

Sample ID: DUP-2 SAMPLE

QC Report No: ZM19-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: 11/20/14 Date Received: 11/24/14

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/04/14	200.8	12/05/14	7440-38-2	Arsenic	0.0001	0.0092	

U-Analyte undetected at given LOQ LOQ-Limit of Quantitation



# INORGANICS ANALYSIS DATA SHEET TOTAL METALS

Page 1 of 1

Lab Sample ID: ZM19MB

LIMS ID: 14-25718 Matrix: Water

Data Release Authorized:

Reported: 12/05/14

Sample ID: METHOD BLANK

QC Report No: ZM19-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: NA Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/02/14	200.8	12/05/14	7440-38-2	Arsenic	0.00004	0.00004	U

U-Analyte undetected at given LOQ LOQ-Reporting Limit



## INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

Page 1 of 1

Lab Sample ID: ZM19LCS

LIMS ID: 14-25718

Matrix: Water Data Release Authorized:

Reported: 12/05/14

Sample ID: LAB CONTROL

QC Report No: ZM19-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: NA Date Received: NA

#### BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	200.8	0.00457	0.00500	91.4%	

Reported in mg/L

N-Control limit not met Control Limits: 80-120%



Page 1 of 1

Lab Sample ID: ZM19MB

LIMS ID: 14-25731 Matrix: Water

Data Release Authorized

Reported: 12/05/14

Sample ID: METHOD BLANK

QC Report No: ZM19-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: NA Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/L	Q
200.8	12/04/14	200.8	12/05/14	7440-38-2	Arsenic	0.00004	0.00004	U

U-Analyte undetected at given LOQ LOQ-Limit of Quantitation



Page 1 of 1

Lab Sample ID: ZM19LCS

LIMS ID: 14-25731

Matrix: Water

Data Release Authorized:

Reported: 12/05/14

Sample ID: LAB CONTROL

QC Report No: ZM19-Test America

Project: OVSL 4Q14 GW Sampling

04204027.17

Date Sampled: NA Date Received: NA

#### BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	200.8	0.00444	0.00500	88.8%	100.50

Reported in mg/L

N-Control limit not met Control Limits: 80-120%



## **ANALYTICAL REPORT**

Job Number: 280-63460-1

Job Description: WA02|Olympic View Sanitary LF

For:

Waste Management Sun Valley Hauling 9081 Tujunga Avenue Sun Valley, CA 91352

Attention: Mr. Phil Perley

Betsy Sara

Approved for release. Betsy A Sara Project Manager II 12/29/2014 12:03 PM

Betsy A Sara, Project Manager II 4955 Yarrow Street, Arvada, CO, 80002 (303)736-0189 betsy.sara@testamericainc.com 12/29/2014

cc: Mr. Sam Adlington Mr. Matt O'Hare Ms. Elena Ramirez Mr. Dan Venchiarutti

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is 4025.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

TestAmerica Laboratories, Inc.

TestAmerica Denver 4955 Yarrow Street, Arvada, CO 80002 Tel (303) 736-0100 Fax (303) 431-7171 <a href="https://www.testamericainc.com">www.testamericainc.com</a>



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#### **CASE NARRATIVE**

Client: Waste Management

Project: WA02|Olympic View Sanitary LF

Report Number: 280-63460-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

This report may include reporting limits (RLs) less than TestAmerica's standard reporting limit. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

#### Sample Receiving

The sample was received on 12/10/2014 at 9:50 AM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.6° C.

The laboratory received volume for sample OBWL-TD, which was not listed on the COC, however two sample bottles were received labeled in OBWL-TD. The client was notified on 12/11/14 and the sample volumes labeled OBWL-TD were cancelled.

#### **Holding Times**

All holding times were within established control limits.

#### **Method Blanks**

Dissolved Calcium Method 6010B was detected in the Method Blank above the project established reporting limit, however, the requested reporting limit for Dissolved Calcium is below TestAmerica Denver's standard reporting limit and, therefore, no corrective action has been taken for this anomaly. It must be noted that results reported below TestAmerica Denver's standard reporting limits may result in false positive/false negative results, less accurate quantitation and potential misidentification at the lower concentrations.

All other Method Blank recoveries were within established control limits.

#### **Laboratory Control Samples (LCS)**

The Method 8260C laboratory control sample (LCS) recovered outside control limits for 1,1,1-Trichloroethane and Vinyl chloride. These were not requested spike compounds; therefore, no further corrective action was performed.

All other Laboratory Control Samples were within established control limits.

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

The percent recoveries and/or relative percent difference of the MS/MSD performed on sample L-INF were outside control limits for Dissolved Manganese Method 6020 because the sample concentration was greater than four times the spike amount. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, no corrective action was taken.

The percent recoveries and/or relative percent difference of the MS/MSD performed on a sample from another client were outside control limits for Ammonia Method 350.1 because the sample concentration was greater than four times the spike amount. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, no corrective action was taken.

All other MS and MSD samples were within established control limits.

#### **Organics**

The Method 8260C Continuing Calibration Verification (CCV) standard exhibited a recovery of several analytes above the upper control limit. Because the data are considered to be biased high and the --affected analytes were not detected in the associated samples, corrective action was deemed unnecessary.

#### **General Comments**

The analyses for Volatile Organics by Method 8260C and Volatile Organics by Method 8260C SIM were performed by TestAmerica Buffalo. Their address and phone number are:
TestAmerica Buffalo
10 Hazelwood Drive, Suite 106

Amherst, NY 14228

716-691-2600

For samples requiring analysis at a dilution, the dilution factor has been multiplied by the Method Detection Limit (MDL) for each analyte and evaluated versus the project-specific reporting limit (PSRL). If the obtained value is below the PSRL, then the PSRL is preserved as the reporting limit for the diluted result, otherwise, the obtained value becomes the reporting limit. This is done in order to maintain the PSRL to meet permit requirements at the request of the client and to report the lowest possible RL for each analyte.

### **EXECUTIVE SUMMARY - Detections**

Client: Waste Management Job Number: 280-63460-1

Lab Sample ID Client Sample ID Analyte	Result	Qualifier	Reporting Limit	Units	Method
280-63460-1 L-INF					
Specific Conductivity	2871.0			umhos/cm	Field Sampling
Dissolved Oxygen	9.80			mg/L	Field Sampling
eH	204.1			millivolts	Field Sampling
Turbidity	2.51			NTU	Field Sampling
Temperature	10.13			Degrees C	Field Sampling
pH	6.99			SU	Field Sampling
Chloride	540		10	mg/L	300.0
Sulfate	200		10	mg/L	300.0
Ammonia (as N)	6.6		0.15	mg/L	350.1
Nitrate/Nitrite	48		0.25	mg/L	353.2
Chemical Oxygen Demand (COD)	170		20	mg/L	410.4
Alkalinity, Total (As CaCO3)	380		5.0	mg/L	SM 2320B
Alkalinity, Bicarbonate (As CaCO3)	380		5.0	mg/L	SM 2320B
Total Dissolved Solids (TDS)	2000		10	mg/L	SM 2540C
Total Organic Carbon - Average	56		2.0	mg/L	SM 5310B
Dissolved					
Calcium, Dissolved	79	В	0.040	mg/L	6010B
Cobalt, Dissolved	0.0091		0.0030	mg/L	6010B
Iron, Dissolved	0.36		0.060	mg/L	6010B
Magnesium, Dissolved	47		0.050	mg/L	6010B
Potassium, Dissolved	69		1.0	mg/L	6010B
Sodium, Dissolved	460		1.0	mg/L	6010B
Antimony, Dissolved	0.0051		0.0010	mg/L	6020
Barium, Dissolved	0.083		0.0010	mg/L	6020
Cadmium, Dissolved	0.00021		0.00020	mg/L	6020
Chromium, Dissolved	0.0051		0.0030	mg/L	6020
Copper, Dissolved	0.026		0.0020	mg/L	6020
Manganese, Dissolved	0.66		0.0010	mg/L	6020
Nickel, Dissolved	0.065		0.0040	mg/L	6020
Vanadium, Dissolved	0.0070		0.0020	mg/L	6020
Zinc, Dissolved	0.040		0.0050	mg/L	6020

#### **METHOD SUMMARY**

Client: Waste Management Job Number: 280-64760-1

Description	Lab Location	Method Preparation Method
Matrix: Water		
Metals (ICP) Preparation, Total Recoverable or Dissolved Metals Sample 5iltration, 5ield	TAL DEN TAL DEN	SW876 6010B SW876 4003A 5IELDF5LTRD
Metals (ICP_MS)  Preparation, Total Recoverable or Dissolved Metals  Sample 5iltration, 5ield	TAL DEN TAL DEN	SW876 6020 SW876 4003A 5IELDF5LTRD
Anions, Ion C/ romatograp/ h	TAL DEN	MCAWW 400y0
Nitrogen, Ammonia	TAL DEN	MCAWW 430yl
Nitrogen, Nitrate-Nitrite	TAL DEN	MCAWW 434y2
C. D	TAL DEN	MCAWW 710y7
Alkalinith	TAL DEN	SM SM 2420B
Solids, Total Dissolved (TDS)	TAL DEN	SM SM 2370C
. rganic Carbon, Total (T. C)	TAL DEN	SM SM 3410B
5ield Sampling	TAL DEN	EPA 5ield Sampling
Oolatile . rganic Compounds bh VC_MS Purge and Trap	TAL BG5 TAL BG5	SW876 8260C SW876 3040C
Oolatile . rganic Compounds (VC_MS)  Purge and Trap	TAL BG5 TAL BG5	SW876 8260C SIM SW876 3040C

#### Lab References:

TAL BG5 U TestAmerica Bu=alo

TAL DEN UTestAmerica Denver

#### Method References:

EPA UGS Environmental Protection Agench

MCAWW UfMet/ ods 5or C/ emical Analhsis . =Water And Wastesf, EPA-600\_7-" 9-020, Marc/ 1984 And Subsequent Revisionsy

SM UfStandard Met/ ods 5or T/ e Examination . =Water And Wastewaterf

 $SW876\ Uf Test\ Met/\ ods\ 5 or\ Evaluating\ Solid\ Waste,\ P/\ hsical\_C/\ emical\ Met/\ odsf,\ T/\ ird\ Edition,\ November\ 1986\ And\ Its\ Gpdatesy$ 

## METHOD / ANALYST SUMMARY

Client: Waste Management Job Number: 280-63460-1

Method	Analyst	Analyst ID
SW846 8260C	Man, Chi x	CxM
SW846 8260C SIM	Sobol, Renee A	RAS
SW846 6010B	Scott, Samantha J	SJS
SW846 6020	Trudell, Lynn-Anne M	LMT
EPA Field Sampling	Saraubon, Phakchaya	PS
MCAWW 300.0	Sripen, Phuriya	PS1
MCAWW 350.1	Lawrence, Caitlyn M	CML
MCAWW 353.2	Janssen, Elizabeth L	ELJ
MCAWW 410.4	Shaheen, Scott W	SWS
SM SM 2320B	Jewell, Connie C	CCJ
SM SM 2540C	Cherry, Scott V	SVC
SM SM 5310B	Jewell, Connie C	CCJ

### **SAMPLE SUMMARY**

Client: Waste Management Job Number: 280-63460-1

		Date/Time	Date/Time	
Lab Sample ID	Client Sample ID	Client Matrix	Sampled	Received
280-63460-1	L-INF	Water	12/09/2014 0845	12/10/2014 0950

# **SAMPLE RESULTS**

Job Number: 280-63460-1 Client: Waste Management

Client Sample ID: L-INF

Lab Sample ID: 280-63460-1 Date Sampled: 12/09/2014 0845 Client Matrix:

Date Received: 12/10/2014 0950 Water

#### 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-219996 Instrument ID: HP5973N Prep Method: 5030C Prep Batch: N/A Lab File ID: N3133.D Dilution: Initial Weight/Volume: 5.0 5 mL

Analysis Date: 12/19/2014 0638 Final Weight/Volume: 5 mL

Prep Date: 12/19/2014 0638

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	ND		1.8	5.0
1,1,1-Trichloroethane	ND	*	4.1	5.0
1,1,2,2-Tetrachloroethane	ND		1.1	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.6	5.0
1,1,2-Trichloroethane	ND		1.2	5.0
1,1-Dichloroethane	ND		1.9	5.0
1,1-Dichloroethene	ND		1.5	5.0
1,1-Dichloropropene	ND		3.6	5.0
1,2,3-Trichlorobenzene	ND		2.1	5.0
1,2,3-Trichloropropane	ND		4.5	5.0
1,2,4-Trichlorobenzene	ND		2.1	5.0
1,2,4-Trimethylbenzene	ND		3.8	5.0
1,2-Dibromo-3-Chloropropane	ND		2.0	5.0
1,2-Dibromoethane (EDB)	ND		3.7	5.0
1,2-Dichlorobenzene	ND		4.0	5.0
1,2-Dichloroethane	ND		1.1	5.0
1,2-Dichloroethene, Total	ND		4.1	10
1,2-Dichloropropane	ND		3.6	5.0
1,3,5-Trichlorobenzene	ND		1.2	5.0
1,3,5-Trimethylbenzene	ND		3.9	5.0
1,3-Dichlorobenzene	ND		3.9	5.0
1,3-Dichloropropane	ND		3.8	5.0
1,4-Dichlorobenzene	ND		4.2	5.0
1,4-Dioxane	ND		47	200
2,2-Dichloropropane	ND		2.0	5.0
2-Butanone (MEK)	ND		6.6	50
2-Chloroethyl vinyl ether	ND		4.8	25
2-Hexanone	ND		6.2	25
4-Methyl-2-pentanone (MIBK)	ND		11	25
Acetone	ND		15	50
Acetonitrile	ND		25	75
Acrolein	ND		4.6	100
Acrylonitrile	ND		4.2	25
Benzene	ND		2.1	5.0
Bromobenzene	ND		4.0	5.0
Bromochloromethane	ND		4.4	5.0
Bromodichloromethane	ND		2.0	5.0
Bromoform	ND		1.3	5.0
Bromomethane	ND		3.5	5.0
Butyl alcohol, n-	ND		44	200
Butyl alcohol, tert-	ND		17	50
Carbon disulfide	ND		0.95	5.0
Carbon tetrachloride	ND		1.4	5.0
Chlorobenzene	ND		3.8	5.0
Chlorodifluoromethane	ND			5.0
Chloroethane			1.3	
Chloroethane	ND		1.6	5.0

Client Sample ID: L-INF

Lab Sample ID: 280-63460-1 Date Sampled: 12/09/2014 0845

Client Matrix: Water Date Received: 12/10/2014 0950

#### 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-219996 Instrument ID: HP5973N Prep Method: 5030C Prep Batch: N/A Lab File ID: N3133.D Dilution: Initial Weight/Volume: 5.0 5 mL

Analysis Date: 12/19/2014 0638 Final Weight/Volume: 5 mL

Prep Date: 12/19/2014 0638

Chloromethane	ND ND ND		1.7 1.8	5.0
	ND		1.8	
cis-1,2-Dichloroethene			1.0	5.0
	NID.		4.1	5.0
cis-1,3-Dichloropropene	ND		1.8	5.0
	ND		0.90	5.0
	ND		1.6	5.0
	ND		2.1	5.0
	ND		3.4	5.0
	ND		1.7	5.0
	ND		3.3	5.0
,	ND		3.6	5.0
	ND		1.5	5.0
,	ND		3.7	5.0
,	ND		1.4	5.0
	ND		2.0	
				50
	ND		1.5	5.0
	ND		24	130
,	ND		3.0	5.0
	ND		4.0	5.0
•	ND		3.5	25
•	ND		2.5	13
Methyl tert-butyl ether	ND		0.80	5.0
Methylcyclohexane	ND		0.80	5.0
Methylene Chloride	ND		2.2	5.0
m-Xylene & p-Xylene	ND		3.3	10
Naphthalene	ND		2.2	5.0
n-Butylbenzene	ND		3.2	5.0
N-Propylbenzene	ND		3.5	5.0
o-Chlorotoluene	ND		4.3	5.0
o-Xylene	ND		3.8	5.0
	ND		4.2	5.0
•	ND		1.6	5.0
1 7	ND		3.8	5.0
	ND		3.7	5.0
	ND		1.4	5.0
, ,	ND		4.1	5.0
	ND		1.8	5.0
	ND		6.3	25
	ND		2.6	5.0
				5.0
	ND		4.5	
·	ND		1.9	5.0
	ND		1.1	5.0
	ND		2.3	5.0
	ND		4.4	5.0
•	ND	*	4.3	25
Vinyl chloride	ND		4.5	5.0

### **Analytical Data**

Client: Waste Management Job Number: 280-63460-1

Client Sample ID: L-INF

Lab Sample ID: 280-63460-1 Date Sampled: 12/09/2014 0845

Client Matrix: Water Date Received: 12/10/2014 0950

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-219996 Instrument ID: HP5973N Prep Method: 5030C Prep Batch: N/A Lab File ID: N3133.D Dilution: Initial Weight/Volume: 5.0 5 mL

Dilution: 5.0 Initial Weight/Volume: 5 mL

Analysis Date: 12/19/2014 0638 Final Weight/Volume: 5 mL

Prep Date: 12/19/2014 0638

Surrogate%RecQualifierAcceptance Limits1,2-Dichloroethane-d4 (Surr)12766 - 1374-Bromofluorobenzene (Surr)9573 - 120Toluene-d8 (Surr)10071 - 126

### **Analytical Data**

Client: Waste Management Job Number: 280-63460-1

Client Sample ID: L-INF

Lab Sample ID: 280-63460-1 Date Sampled: 12/09/2014 0845

Client Matrix: Water Date Received: 12/10/2014 0950

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 480-219996 Instrument ID: HP5973N Prep Method: 5030C Prep Batch: N/A Lab File ID: N3133.D

Dilution: 5.0 Initial Weight/Volume: 5 mL

Analysis Date: 12/19/2014 0638 Final Weight/Volume: 5 mL

Prep Date: 12/19/2014 0638

**Targeted Tentatively Identified Compounds** 

Cas Number Analyte Est. Result (ug/L) Qualifier

67-72-1 Hexachloroethane TIC ND

### **Analytical Data**

Client: Waste Management Job Number: 280-63460-1

Client Sample ID: L-INF

Lab Sample ID: 280-63460-1 Date Sampled: 12/09/2014 0845

Client Matrix: Water Date Received: 12/10/2014 0950

8260C SIM Volatile Organic Compounds (GC/MS)

Analysis Method: 8260C SIM Analysis Batch: 480-219752 Instrument ID: HP5973J Prep Method: 5030C Prep Batch: N/A Lab File ID: J4339.D Dilution: 20 Initial Weight/Volume: 25 mL

Dilution: 20 Initial Weight/Volume: 25 mL Analysis Date: 12/18/2014 0504 Final Weight/Volume: 25 mL

Prep Date: 12/18/2014 0504

Analyte Result (ug/L) Qualifier MDL RL Vinyl chloride ND 0.080 0.40

Surrogate%RecQualifierAcceptance LimitsDibromofluoromethane (Surr)10250 - 150TBA-d9 (Surr)11850 - 150

Client Sample ID: L-INF

Lab Sample ID: 280-63460-1 Date Sampled: 12/09/2014 0845

Client Matrix: Water Date Received: 12/10/2014 0950

6010B Metals (ICP)-Dissolved

Analysis Method: 6010B Analysis Batch: 280-257812 Instrument ID: MT\_026 Prep Method: 3005A Prep Batch: 280-256658 Lab File ID: 26g121814.asc

Dilution: 1.0 Initial Weight/Volume: 50 mL

Analysis Date: 12/19/2014 0348 Final Weight/Volume: 50 mL

Prep Date: 12/10/2014 1807

Analyte Result (mg/L) Qualifier RL RL 0.040 0.040 Calcium, Dissolved 79 Cobalt, Dissolved 0.0091 0.0030 0.0030 0.36 0.060 Iron, Dissolved 0.060 Magnesium, Dissolved 47 0.050 0.050 Potassium, Dissolved 69 1.0 1.0 Sodium, Dissolved 460 1.0 1.0

6020 Metals (ICP/MS)-Dissolved

Analysis Method: 6020 Analysis Batch: 280-256852 Instrument ID: MT\_078 Prep Method: 3005A Prep Batch: 280-256659 Lab File ID: 245SMPL.d

Dilution: 1.0 Initial Weight/Volume: 50 mL

Analysis Date: 12/12/2014 0313 Final Weight/Volume: 50 mL

Prep Date: 12/11/2014 0930

Result (mg/L) Qualifier RL Analyte RL 0.0051 0.0010 Antimony, Dissolved 0.0010 Barium, Dissolved 0.083 0.0010 0.0010 Beryllium, Dissolved ND 0.0010 0.0010 Cadmium, Dissolved 0.00021 0.00020 0.00020 0.0051 0.0030 Chromium, Dissolved 0.0030 0.026 0.0020 Copper, Dissolved 0.0020 Lead, Dissolved ND 0.0010 0.0010 Nickel, Dissolved 0.065 0.0040 0.0040 Selenium, Dissolved ND 0.0010 0.0010 Silver, Dissolved ND 0.0020 0.0020 Thallium, Dissolved ND 0.0010 0.0010 Vanadium, Dissolved 0.0070 0.0020 0.0020 Zinc, Dissolved 0.040 0.0050 0.0050

Instrument ID: MT\_078 Analysis Method: 6020 Analysis Batch: 280-257289

Prep Method: 3005A Prep Batch: 280-256659 Lab File ID: 027SMPL.d Dilution: Initial Weight/Volume: 50 mL 1.0

Analysis Date: 12/15/2014 1445 Final Weight/Volume: 50 mL Prep Date: 12/11/2014 0930

Result (mg/L) Qualifier RL RL Analyte

0.0010 Manganese, Dissolved 0.66 0.0010

#### **General Chemistry**

Client Sample ID: L-INF

Lab Sample ID: 280-63460-1 Date Sampled: 12/09/2014 0845

Client Matrix: Water Date Received: 12/10/2014 0950

nalyte	Result	Qual	Units	RL	RL	Dil	Method
hloride	540		mg/L	10	10	10	300.0
Analysis Batch: 2	280-257326	Analysis Date:	12/16/2014	1820			
ulfate	200		mg/L	10	10	10	300.0
Analysis Batch: 2	280-257326	Analysis Date:	12/16/2014	1820			
mmonia (as N)	6.6		mg/L	0.15	0.15	5.0	350.1
Analysis Batch: 2	280-256977	Analysis Date:	12/12/2014	1751			
itrate/Nitrite	48		mg/L	0.25	0.25	5.0	353.2
Analysis Batch: 2	280-257257	Analysis Date:	12/15/2014	1321			
hemical Oxygen Demand (COD)	170		mg/L	20	20	2.0	410.4
Analysis Batch: 2	280-256959	Analysis Date:	12/12/2014	1622			
kalinity, Total (As CaCO3)	380		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 2	280-256799	Analysis Date:	12/11/2014	1227			
kalinity, Bicarbonate (As CaCO3)	380		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 2	280-256799	Analysis Date:	12/11/2014	1227			
otal Dissolved Solids (TDS)	2000		mg/L	10	10	1.0	SM 2540C
Analysis Batch: 2	280-256749	Analysis Date:	12/11/2014	1045			
otal Organic Carbon - Average	56		mg/L	2.0	2.0	2.0	SM 5310B
Analysis Batch: 2	280-257148	Analysis Date:	12/12/2014	1824			

#### Field Service / Mobile Lab

Client Sample ID: L-INF

Lab Sample ID: 280-63460-1 Date Sampled: 12/09/2014 0845 Client Matrix: Water

Date Received: 12/10/2014 0950

						Analysis	Date Analyzed
Analyte	Result	Qual	Units	Dil	Method	Batch	Date Prepared
Specific Conductivity	2871.0		umhos/cm	1.0	Field Sampling	280-256829	12/09/2014 0945
Dissolved Oxygen	9.80		mg/L	1.0	Field Sampling	280-256829	12/09/2014 0945
еН	204.1		millivolts	1.0	Field Sampling	280-256829	12/09/2014 0945
Turbidity	2.51		NTU	1.0	Field Sampling	280-256829	12/09/2014 0945
Temperature	10.13		Degrees C	1.0	Field Sampling	280-256829	12/09/2014 0945
рН	6.99		SU	1.0	Field Sampling	280-256829	12/09/2014 0945

## **DATA REPORTING QUALIFIERS**

Client: Waste Management Job Number: 280-63460-1

Lab Section	Qualifier	Description
GC/MS VOA		
	*	LCS or LCSD exceeds the control limits
Metals		
	В	Compound was found in the blank and sample.
	4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
General Chemistry		
	4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

# **QUALITY CONTROL RESULTS**

## **QC Association Summary**

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:480-2197	752				
LCS 480-219752/5	Lab Control Sample	Т	Water	8260C SIM	
LCSD 480-219752/6	Lab Control Sample Duplicate	Т	Water	8260C SIM	
MB 480-219752/8	Method Blank	Т	Water	8260C SIM	
280-63460-1	L-INF	Т	Water	8260C SIM	
Analysis Batch:480-2199	96				
LCS 480-219996/4	Lab Control Sample	Т	Water	8260C	
MB 480-219996/6	Method Blank	Т	Water	8260C	
280-63460-1	L-INF	Т	Water	8260C	
480-72854-F-2 MS	Matrix Spike	Т	Water	8260C	
480-72854-F-2 MSD	Matrix Spike Duplicate	Т	Water	8260C	

## Report Basis

T = Total

## **QC Association Summary**

Water Water Water Water Water Water Water Water	3005A 3005A 3005A 3005A	Prep Batch
Water Water	3005A	
Water Water	3005A	
Water Water	3005A	
Water		
	3005A	
Water		
	3005A	
Water	3005A	
Water	3005A	
Water	6020	280-256659
Water	6020	280-256659
Water	6010B	280-256658
	Water Water	Water       3005A         Water       3005A         Water       3005A         Water       3005A         Water       3005A         Water       6020         Water       6010B         Water       6010B         Water       6010B         Water       6010B

## Report Basis

D = Dissolved

R = Total Recoverable

## **Quality Control Results**

Client: Waste Management Job Number: 280-63460-1

## **QC Association Summary**

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Field Service / Mobile Lab					
<b>Analysis Batch:280-256829</b> 280-63460-1	L-INF	Т	Water	Field Sampling	

Report Basis

T = Total

## **QC Association Summary**

		Report			
Lab Sample ID	Client Sample ID	Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-2567	49				
LCS 280-256749/2	Lab Control Sample	Т	Water	SM 2540C	
LCSD 280-256749/3	Lab Control Sample Duplicate	Т	Water	SM 2540C	
MB 280-256749/1	Method Blank	Т	Water	SM 2540C	
280-63429-A-1 DU	Duplicate	Т	Water	SM 2540C	
280-63460-1	L-INF	Т	Water	SM 2540C	
Analysis Batch:280-25679	99				
LCS 280-256799/4	Lab Control Sample	Т	Water	SM 2320B	
LCSD 280-256799/5	Lab Control Sample Duplicate	Т	Water	SM 2320B	
MB 280-256799/6	Method Blank	Т	Water	SM 2320B	
280-63460-1	L-INF	Т	Water	SM 2320B	
280-63464-D-1 DU	Duplicate	Т	Water	SM 2320B	
Analysis Batch:280-2568	87				
LCS 280-256887/3	Lab Control Sample	Т	Water	SM 5310B	
LCS 280-256887/35	Lab Control Sample	T.	Water	SM 5310B	
LCSD 280-256887/36	Lab Control Sample Duplicate	T.	Water	SM 5310B	
LCSD 280-256887/4	Lab Control Sample Duplicate	T.	Water	SM 5310B	
MB 280-256887/37	Method Blank	T.	Water	SM 5310B	
MB 280-256887/5	Method Blank	Ť	Water	SM 5310B	
280-63287-I-1 MS	Matrix Spike	T.	Water	SM 5310B	
280-63287-I-1 MSD	Matrix Spike Duplicate	Ť	Water	SM 5310B	
280-63392-E-1 MS	Matrix Spike	•	Water	SM 5310B	
280-63392-E-1 MSD	Matrix Spike Duplicate		Water	SM 5310B	
280-63460-1	L-INF	Т	Water	SM 5310B	
Analysis Batch: 200 2560	50				
Analysis Batch:280-25699 LCS 280-256959/3	Lab Control Sample	Т	Water	410.4	
LCSD 280-256959/4	Lab Control Sample Duplicate	T T	Water	410.4	
MB 280-256959/5	Method Blank	T	Water	410.4	
280-63460-1	L-INF	T T	Water	410.4	
280-63484-D-3 MS	Matrix Spike	T T	Water	410.4	
280-63484-D-3 MSD	Matrix Spike Duplicate	T T	Water	410.4	
200-03404-D-3 W3D	Matrix Spike Duplicate	'	vvatei	410.4	
Analysis Batch:280-2569		-	<b>10</b> / /	050.4	
LCS 280-256977/160	Lab Control Sample	T	Water	350.1	
LCS 280-256977/201	Lab Control Sample	T <del>-</del>	Water	350.1	
LCSD 280-256977/166	Lab Control Sample Duplicate	T	Water	350.1	
LCSD 280-256977/202	Lab Control Sample Duplicate	T _	Water	350.1	
MB 280-256977/162	Method Blank	T _	Water	350.1	
MB 280-256977/203	Method Blank	T	Water	350.1	
280-63446-A-1 MS	Matrix Spike	T	Water	350.1	
280-63446-A-1 MSD	Matrix Spike Duplicate	T	Water	350.1	
280-63460-1	L-INF	Т	Water	350.1	

## **QC Association Summary**

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry	3.14.14.34p.4				
Analysis Batch:280-2571	48				
LCS 280-257148/3	Lab Control Sample	Т	Water	SM 5310B	
LCSD 280-257148/4	Lab Control Sample Duplicate	Т	Water	SM 5310B	
MB 280-257148/5	Method Blank	Т	Water	SM 5310B	
280-63460-1	L-INF	Т	Water	SM 5310B	
280-63503-CC-3 MS	Matrix Spike	Т	Water	SM 5310B	
280-63503-CC-3 MSD	Matrix Spike Duplicate	Т	Water	SM 5310B	
Analysis Batch:280-2571	49				
LCS 280-257149/3	Lab Control Sample	Т	Water	SM 5310B	
LCSD 280-257149/4	Lab Control Sample Duplicate	Т	Water	SM 5310B	
MB 280-257149/5	Method Blank	Т	Water	SM 5310B	
280-63460-1	L-INF	T	Water	SM 5310B	
280-63503-CC-3 MS	Matrix Spike	Т	Water	SM 5310B	
280-63503-CC-3 MSD	Matrix Spike Duplicate	Т	Water	SM 5310B	
Analysis Batch:280-2572	57				
LCS 280-257257/21	Lab Control Sample	T	Water	353.2	
LCS 280-257257/60	Lab Control Sample	T	Water	353.2	
LCSD 280-257257/22	Lab Control Sample Duplicate	Т	Water	353.2	
_CSD 280-257257/61	Lab Control Sample Duplicate	T	Water	353.2	
MB 280-257257/23	Method Blank	Т	Water	353.2	
MB 280-257257/62	Method Blank	T	Water	353.2	
280-63460-1	L-INF	Т	Water	353.2	
280-63503-CA-3 MS	Matrix Spike	Т	Water	353.2	
280-63503-CA-3 MSD	Matrix Spike Duplicate	Т	Water	353.2	
Analysis Batch:280-2573	26				
LCS 280-257326/4	Lab Control Sample	Т	Water	300.0	
LCSD 280-257326/5	Lab Control Sample Duplicate	Т	Water	300.0	
MB 280-257326/6	Method Blank	Т	Water	300.0	
550-36439-B-1 DU	Duplicate	Т	Water	300.0	
550-36439-B-1 MS	Matrix Spike	Т	Water	300.0	
550-36439-B-1 MSD	Matrix Spike Duplicate	Т	Water	300.0	
280-63460-1	L-INF	Т	Water	300.0	

#### Report Basis

T = Total

## **Surrogate Recovery Report**

### 8260C Volatile Organic Compounds by GC/MS

#### Client Matrix: Water

		DCA	BFB	TOL
Lab Sample ID	Client Sample ID	%Rec	%Rec	%Rec
280-63460-1	L-INF	127	95	100
MB 480-219996/6		124	94	96
LCS 480-219996/4		119	94	100
480-72854-F-2 MS		122	96	98
480-72854-F-2 MSD		123	95	97

Surrogate	Acceptance Limits
DCA = 1,2-Dichloroethane-d4 (Surr)	66-137
BFB = 4-Bromofluorobenzene (Surr)	73-120
TOL = Toluene-d8 (Surr)	71-126

# **Surrogate Recovery Report**

## 8260C SIM Volatile Organic Compounds (GC/MS)

### Client Matrix: Water

		DBFM	TBA
Lab Sample ID	Client Sample ID	%Rec	%Rec
280-63460-1	L-INF	102	118
MB 480-219752/8		99	114
LCS 480-219752/5		110	95
LCSD 480-219752/6		107	89

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane (Surr)	50-150
TBA = TBA-d9 (Surr)	50-150

#### Method Blank - Batch: 480-21666P

Method: 82P0C pre5aration: 30T0C

Lab Sample ID: Analysis Batch: 480-219996 Instrument ID: HP5973N MB 480-219996/6 Client Matrix: Water Prep Batch: N/A Lab File ID: N3115.D Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 5 mL Units: Final Weight/Volume: Analysis Date: 12/18/2014 2258 ug/L 5 mL Prep Date: 12/18/2014 2258

Leach Date: N/A

1,1,1,2-Tetrachloroethane	Analyte	Result	Qual	MDL	RL
1,1,2,2-Tetrachrorethane   ND	1,1,1,2-Tetrachloroethane	ND		0.35	1.0
1,12-Trichloro-1,22-trifluoreethane         ND         0.31         1.0           1,1,2-Trichloroethane         ND         0.23         1.0           1,1-Dichloroethane         ND         0.28         1.0           1,1-Dichloropthane         ND         0.29         1.0           1,1-Dichloroptopene         ND         0.41         1.0           1,2,3-Trichloropropane         ND         0.41         1.0           1,2,3-Trichloropropane         ND         0.41         1.0           1,2,4-Trichlorobenzene         ND         0.41         1.0           1,2,4-Trichlorobenzene         ND         0.75         1.0           1,2,4-Trichlorobenzene         ND         0.75         1.0           1,2,2-Dichloropenzene         ND         0.73         1.0           1,2,2-Dichloropenzene         ND         0.73         1.0           1,2-Dichloropenzene         ND         0.79         1.0           1,2-Dichloropenzene         ND         0.77         1.0           1,2-Dichloropenzene         ND         0.77         1.0           1,3-5-Trichlorobenzene         ND         0.77         1.0           1,3-5-Trichlorobenzene         ND         0.75 <td< td=""><td>1,1,1-Trichloroethane</td><td>ND</td><td></td><td>0.82</td><td>1.0</td></td<>	1,1,1-Trichloroethane	ND		0.82	1.0
1.1.2 Trichloroethane         ND         0.23         1.0           1,1-Dichloroethene         ND         0.28         1.0           1,1-Dichloroethene         ND         0.29         1.0           1,1-Dichloropropene         ND         0.72         1.0           1,2-3-Trichlorobenzene         ND         0.41         1.0           1,2-3-Trichloropropane         ND         0.89         1.0           1,2-4-Trinchlorobenzene         ND         0.41         1.0           1,2-4-Trinchloropropane         ND         0.75         1.0           1,2-Dibromo-3-Chioropropane         ND         0.99         1.0           1,2-Dichloropropane         ND         0.73         1.0           1,2-Dichlorobenzene         ND         0.79         1.0           1,2-Dichloroptenzene         ND         0.21         1.0           1,2-Dichlorobenzene         ND         0.21         1.0           1,2-Dichlorobenzene         ND         0.77         1.0           1,3-5-Trichlorobenzene         ND         0.77         1.0           1,3-Dichlorobenzene         ND         0.77         1.0           1,3-Dichloropropane         ND         0.75         1.0     <	1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1-Dichloroethane         ND         0.38         1,0           1,1-Dichloroethene         ND         0.29         1,0           1,1-Dichloropropene         ND         0.72         1,0           1,2,3-Trichlorobenzene         ND         0.41         1,0           1,2,3-Trichloropropane         ND         0.89         1,0           1,2,4-Trichlorobenzene         ND         0.75         1,0           1,2,4-Trimethylbenzene         ND         0.75         1,0           1,2-Dibromo-Chloropropane         ND         0.73         1,0           1,2-Dibromo-Chloropropane         ND         0.73         1,0           1,2-Dichlorobenzene         ND         0.79         1,0           1,2-Dichloropropane         ND         0.81         2,0           1,2-Dichloropropane         ND         0.72         1,0           1,2-Dichloropropane         ND         0.72         1,0           1,3-Dichlorobenzene         ND         0.77         1,0           1,3-Dichlorobenzene         ND         0.77         1,0           1,3-Dichlorobenzene         ND         0.78         1,0           1,3-Dichlorobenzene         ND         0.78         1,0	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1-Dichloroethene         ND         0.29         1.0           1,1-Dichloropropene         ND         0.72         1.0           1,2-3-Trichlorobenzene         ND         0.41         1.0           1,2-3-Trichloropropane         ND         0.89         1.0           1,2-4-Trinchlorobenzene         ND         0.41         1.0           1,2-4-Trinchlybenzene         ND         0.75         1.0           1,2-Dichorop-3-Chloropropane         ND         0.39         1.0           1,2-Dichlorobenzene         ND         0.73         1.0           1,2-Dichlorobenzene         ND         0.73         1.0           1,2-Dichloroptene, Total         ND         0.81         2.0           1,2-Dichlorobenzene         ND         0.81         2.0           1,2-Dichloroptene, Total         ND         0.81         2.0           1,2-Dichlorobenzene         ND         0.72         1.0           1,3-5-Trinchlorobenzene         ND         0.77         1.0           1,3-5-Trinchlybenzene         ND         0.77         1.0           1,3-Dichloroptopane         ND         0.75         1.0           1,3-Dichloroptopane         ND         0.75         1.0<	1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloropropene         ND         0,72         1.0           1,2,3-Trichlorobenzene         ND         0.41         1.0           1,2,3-Trichloropropane         ND         0.89         1.0           1,2,4-Trindhybenzene         ND         0.41         1.0           1,2,4-Trimethybenzene         ND         0.75         1.0           1,2-Dibromo-3-Chloropropane         ND         0.39         1.0           1,2-Dibromo-4-Chloropropane         ND         0.73         1.0           1,2-Dichlorobenzene         ND         0.79         1.0           1,2-Dichlorobenzene         ND         0.79         1.0           1,2-Dichloropropane         ND         0.21         1.0           1,2-Dichloropropane         ND         0.72         1.0           1,3-Firichlorobenzene         ND         0.72         1.0           1,3-Firichlorobenzene         ND         0.78         1.0           1,3-Firichlorobenzene         ND         0.76         1.0           1,3-Firichloropropane         ND         0.75         1.0           1,3-Firichloropropane         ND         0.76         1.0           1,4-Dichlorobenzene         ND         0.84         1.0 </td <td>1,1-Dichloroethane</td> <td>ND</td> <td></td> <td>0.38</td> <td>1.0</td>	1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloropropene         ND         0,72         1.0           1,2,3-Trichlorobenzene         ND         0.41         1.0           1,2,3-Trichloropepane         ND         0.89         1.0           1,2,4-Trinchloropenzene         ND         0.41         1.0           1,2,4-Trinchlybenzene         ND         0.75         1.0           1,2-Dibromo-3-Chloropropane         ND         0.39         1.0           1,2-Dichlorobenzene         ND         0.73         1.0           1,2-Dichlorobenzene         ND         0.79         1.0           1,2-Dichlorobenzene         ND         0.79         1.0           1,2-Dichloropropane         ND         0.21         1.0           1,2-Dichloropropane         ND         0.72         1.0           1,3-5-Trinchlorobenzene         ND         0.77         1.0           1,3-5-Trichlorobenzene         ND         0.78         1.0           1,3-Dichlorobenzene         ND         0.77         1.0           1,3-Dichloropropane         ND         0.75         1.0           1,4-Dichlorobenzene         ND         0.75         1.0           1,4-Dichlorobenzene         ND         0.84         1.0     <	1,1-Dichloroethene	ND		0.29	1.0
1,2,3-Trichloropenzene         ND         0,41         1.0           1,2,3-Trichloropropane         ND         0.89         1.0           1,2,4-Trichloropropane         ND         0.41         1.0           1,2,4-Trichloropropane         ND         0.75         1.0           1,2-Dibromo-3-Chloropropane         ND         0.39         1.0           1,2-Dichlorobenzene         ND         0.79         1.0           1,2-Dichloroptane         ND         0.21         1.0           1,2-Dichloroptane         ND         0.81         2.0           1,2-Dichloroptane         ND         0.81         2.0           1,2-Dichloroptopane         ND         0.72         1.0           1,2-Dichloroptopane         ND         0.72         1.0           1,3-5-Trichlorobenzene         ND         0.77         1.0           1,3-5-Tridhorbylbenzene         ND         0.77         1.0           1,3-Dichloroptopane         ND         0.77         1.0           1,3-Dichloroptopane         ND         0.75         1.0           1,4-Dioxane         ND         0.84         1.0           1,4-Dioxane         ND         0.84         1.0	1,1-Dichloropropene	ND		0.72	
1,2,3-Trichloropropane         ND         0.41         1.0           1,2,4-Trinchlorobenzene         ND         0.41         1.0           1,2,4-Trinchlybenzene         ND         0.75         1.0           1,2-Dibromo-3-Chloropropane         ND         0.39         1.0           1,2-Dibromo-dethane (EDB)         ND         0.79         1.0           1,2-Dichlorobenzene         ND         0.79         1.0           1,2-Dichloroethane         ND         0.21         1.0           1,2-Dichloroptopane         ND         0.21         1.0           1,2-Dichloroptopane         ND         0.72         1.0           1,2-Dichloroptopane         ND         0.72         1.0           1,3-Frichlorobenzene         ND         0.77         1.0           1,3-Frimethylbenzene         ND         0.77         1.0           1,3-Frimethylbenzene         ND         0.75         1.0           1,3-Dichlorobenzene         ND         0.75         1.0           1,4-Dichorbenzene         ND         0.75         1.0           1,4-Dichorbenzene         ND         0.84         1.0           1,4-Dichorbenzene         ND         0.84         1.0				0.41	
1.2.4-Trichlorobenzene         ND         0.41         1.0           1.2.4-Trimethylbenzene         ND         0.39         1.0           1.2-Dibromo-3-Chloropropane         ND         0.39         1.0           1.2-Dibromoethane (EDB)         ND         0.73         1.0           1.2-Dichlorobenzene         ND         0.79         1.0           1.2-Dichloropethane         ND         0.21         1.0           1.2-Dichloropropane         ND         0.81         2.0           1.2-Dichloropropane         ND         0.72         1.0           1.2-Dichloropropane         ND         0.72         1.0           1.3-Trimethylbenzene         ND         0.77         1.0           1.3-Trimethylbenzene         ND         0.77         1.0           1.3-Dichloropropane         ND         0.75         1.0           1.3-Dichloropropane         ND         0.75         1.0           1.4-Dioxane         ND         0.75         1.0           1.4-Dioxane         ND         0.84         1.0           1.4-Dioxane         ND         0.84         1.0           2Dichloropropane         ND         0.40         1.0           2-But					
1,2,4-Trimethylbenzene         ND         0.75         1.0           1,2-Dibromo-3-Chloropropane         ND         0.39         1.0           1,2-Dibromo-S-Chloropropane         ND         0.73         1.0           1,2-Dicholoroethane (EDB)         ND         0.79         1.0           1,2-Dichloroethane         ND         0.79         1.0           1,2-Dichloroethane         ND         0.81         2.0           1,2-Dichloroptopane         ND         0.72         1.0           1,2-Dichloroptopane         ND         0.72         1.0           1,3,5-Trinchlorobenzene         ND         0.77         1.0           1,3-Dichlorobenzene         ND         0.78         1.0           1,3-Dichloroppane         ND         0.78         1.0           1,3-Dichloroppane         ND         0.75         1.0           1,4-Dichloroppane         ND         0.84         1.0					
1,2-Dibromo-3-Chloropropane         ND         0.39         1.0           1,2-Dibromoethane (EDB)         ND         0.73         1.0           1,2-Dichlorobenzene         ND         0.79         1.0           1,2-Dichloroethane         ND         0.21         1.0           1,2-Dichloropthene, Total         ND         0.81         2.0           1,2-Dichloropropane         ND         0.72         1.0           1,3,5-Trichlorobenzene         ND         0.23         1.0           1,3,5-Trimethylbenzene         ND         0.77         1.0           1,3,5-Trimethylbenzene         ND         0.78         1.0           1,3-Dichloropropane         ND         0.75         1.0           1,3-Dichloropropane         ND         0.75         1.0           1,4-Dioxane         ND         0.84         1.0           1,4-Dioxane         ND         0.84         1.0           1,4-Dioxane         ND         0.40         1.0           2,2-Dichloropropane         ND         0.40         1.0           2,2-Dichloropropane         ND         0.40         1.0           2,-Dichloropropane         ND         0.40         1.0 <td< td=""><td></td><td></td><td></td><td></td><td></td></td<>					
1,2-Dichlorobenzene         ND         0,73         1.0           1,2-Dichlorobenzene         ND         0.79         1.0           1,2-Dichlorobenzene         ND         0.21         1.0           1,2-Dichloropropane         ND         0.81         2.0           1,2-Dichloropropane         ND         0.72         1.0           1,3,5-Trichlorobenzene         ND         0.23         1.0           1,3,5-Trimethylbenzene         ND         0.77         1.0           1,3-Dichlorobenzene         ND         0.78         1.0           1,3-Dichloropropane         ND         0.75         1.0           1,4-Dioxane         ND         0.84         1.0           2,2-Dichloroptropane         ND					
1,2-Dichlorobenzene         ND         0.79         1.0           1,2-Dichloroethane         ND         0.21         1.0           1,2-Dichloroethane, Total         ND         0.81         2.0           1,2-Dichloropenzene         ND         0.72         1.0           1,3,5-Trichlorobenzene         ND         0.77         1.0           1,3-Dichlorobenzene         ND         0.78         1.0           1,3-Dichloropropane         ND         0.75         1.0           1,4-Dichlorobenzene         ND         0.75         1.0           1,4-Dichloropropane         ND         0.84         1.0           1,4-Dichloropropane         ND         0.84         1.0           1,4-Dichloropropane         ND         0.84         1.0           1,4-Dioxane         ND         0.84         1.0           2,2-Dichloropropane         ND         0.40         1.0           2,2-Dichlorophy livily ether         ND         0.93         40           2,2-Dichlorophy livily ether         ND         0.96         5.0           2-Hexanone         ND         0.96         5.0           2-Hexanone         ND         0.9         1.0           4-					
1,2-Dichloroethane         ND         0.21         1.0           1,2-Dichloroethene, Total         ND         0.81         2.0           1,2-Dichloroptopane         ND         0.72         1.0           1,3-E-Trichlorobenzene         ND         0.23         1.0           1,3-Dichlorobenzene         ND         0.77         1.0           1,3-Dichloroptopane         ND         0.75         1.0           1,4-Dichlorobenzene         ND         0.84         1.0           1,4-Dichlorobenzene         ND         0.84         1.0           1,4-Dichlorobenzene         ND         0.84         1.0           1,4-Dichloroptopane         ND         0.84         1.0           1,4-Dichloroptopane         ND         9.3         40           2,2-Dichloroptopane         ND         0.40         1.0           2,2-Dichloroptopane         ND         0.40         1.0           2,2-Dichloroptopane         ND         0.40         1.0           2,2-Dichloroptopane         ND         0.40         1.0           2,2-Dichloroptopane         ND         0.96         5.0           2-Hutanone         ND         0.96         5.0           2-H					
1,2-Dichloroethene, Total         ND         0.72         1.0           1,2-Dichloropropane         ND         0.72         1.0           1,3,5-Trichlorobenzene         ND         0.77         1.0           1,3,5-Trichlorobenzene         ND         0.78         1.0           1,3-Dichlorobenzene         ND         0.75         1.0           1,3-Dichloropapane         ND         0.84         1.0           1,4-Dichlorobenzene         ND         0.84         1.0           1,4-Dichloropapane         ND         0.84         1.0           1,4-Dichloropapane         ND         0.40         1.0           1,4-Dichloropapane         ND         0.40         1.0           1,4-Dichloropapane         ND         0.40         1.0           2,2-Dichloropropane         ND         0.40         1.0           2,2-Dichloropapane         ND         0.40         1.0           2,2-Dichloropapane         ND         0.96         5.0           2-Butanone         ND         0.96         5.0           2-Hetanone         ND         0.96         5.0           4-Methyl-2-pentanone (MIBK)         ND         0.9         1.0           Aceton	•				
1,2-Dichloropropane         ND         0.72         1.0           1,3,5-Trichlorobenzene         ND         0.23         1.0           1,3,5-Trimethylbenzene         ND         0.77         1.0           1,3-Dichlorobenzene         ND         0.78         1.0           1,3-Dichloropopane         ND         0.75         1.0           1,4-Dichlorobenzene         ND         0.84         1.0           1,4-Dioxane         ND         9.3         40           2,2-Dichloropropane         ND         0.40         1.0           2-Butanone (MEK)         ND         1.3         10           2-Butanone (MEK)         ND         1.3         10           2-Hexanone         ND         0.96         5.0           4-Methyl-2-pentanone (MIBK)         ND         1.2         5.0           4-Methyl-2-pentanone (MIBK)         ND         3.0         10           Acetonitrile         ND         3.0         10           Acetonitrile         ND         4.9         15           Acrylonitrile         ND         0.83         5.0           Benzene         ND         0.41         1.0           Bromobenzene         ND         <	•				
1,3,5-Trinchlorobenzene         ND         0.23         1.0           1,3,5-Trimethylbenzene         ND         0.77         1.0           1,3-Dichlorobenzene         ND         0.75         1.0           1,3-Dichloropropane         ND         0.75         1.0           1,4-Dichloropropane         ND         0.84         1.0           1,4-Dioxane         ND         9.3         40           2,2-Dichloropropane         ND         0.40         1.0           2-Butanone (MEK)         ND         1.3         10           2-Chloroethyl vinyl ether         ND         0.96         5.0           2-Hexanone         ND         1.2         5.0           4-Methyl-2-pentanone (MIBK)         ND         2.1         5.0           A-cetone         ND         3.0         10           Acetoner         ND         3.0         10           Acetonifile         ND         0.91         20           Acrylonitrile         ND         0.83         5.0           Benzene         ND         0.83         5.0           Benzene         ND         0.80         1.0           Bromochloromethane         ND         0.87					
1,3,5-Trimethylbenzene         ND         0.77         1.0           1,3-Dichlorobenzene         ND         0.78         1.0           1,3-Dichloropropane         ND         0.75         1.0           1,4-Dichlorobenzene         ND         0.84         1.0           1,4-Dioxane         ND         9.3         40           2,2-Dichloropropane         ND         0.40         1.0           2-Butanone (MEK)         ND         1.3         10           2-Chloroethyl vinyl ether         ND         0.96         5.0           2-Hexanone         ND         0.96         5.0           2-Hexanone (MIBK)         ND         1.2         5.0           4-Methyl-2-pentanone (MIBK)         ND         2.1         5.0           Acetonic         ND         3.0         10           Acetonitile         ND         4.9         15           Acrolein         ND         0.83         5.0           Benzene         ND         0.83         5.0           Benzene         ND         0.83         5.0           Bromochloromethane         ND         0.80         1.0           Bromoform         ND         0.80         1					
1,3-Dichlorobenzene         ND         0.78         1.0           1,3-Dichloropropane         ND         0.75         1.0           1,4-Dichlorobenzene         ND         0.84         1.0           1,4-Dioxane         ND         9.3         40           2,2-Dichloropropane         ND         0.40         1.0           2-Butanone (MEK)         ND         1.3         10           2-Chloroethyl vinyl ether         ND         0.96         5.0           2-Hexanone         ND         1.2         5.0           4-Methyl-2-pentanone (MIBK)         ND         2.1         5.0           Acetone         ND         3.0         10           Acetonitrile         ND         4.9         15           Acrolein         ND         0.91         20           Acrolein         ND         0.83         5.0           Benzene         ND         0.83         5.0           Benzene         ND         0.81         1.0           Bromochloromethane         ND         0.87         1.0           Bromochloromethane         ND         0.26         1.0           Bromomethane         ND         0.69         1.0					
1,3-Dichloropropane         ND         0.75         1.0           1,4-Dichlorobenzene         ND         0.84         1.0           1,4-Dioxane         ND         9.3         40           2,2-Dichloropropane         ND         0.40         1.0           2-Butanone (MEK)         ND         1.3         10           2-Chloroethyl vinyl ether         ND         0.96         5.0           2-Hexanone         ND         1.2         5.0           4-Methyl-2-pentanone (MIBK)         ND         2.1         5.0           4-Methyl-2-pentanone (MIBK)         ND         3.0         10           Acetone         ND         3.0         10           Acetonitrile         ND         4.9         15           Acrolein         ND         0.91         20           Acrylonitrile         ND         0.83         5.0           Benzene         ND         0.83         5.0           Benzene         ND         0.81         1.0           Bromochloromethane         ND         0.87         1.0           Bromoform         ND         0.26         1.0           Bromomethane         ND         0.69         1.0					
1,4-Dichlorobenzene       ND       0.84       1.0         1,4-Dioxane       ND       9.3       40         2,2-Dichloropropane       ND       0.40       1.0         2-Butanone (MEK)       ND       1.3       10         2-Chloroethyl vinyl ether       ND       0.96       5.0         2-Hexanone       ND       1.2       5.0         4-Methyl-2-pentanone (MIBK)       ND       2.1       5.0         4-Methyl-2-pentanone (MIBK)       ND       3.0       10         Acetone       ND       3.0       10         Acetonitrile       ND       4.9       15         Acrolein       ND       9.91       20         Acrylonitrile       ND       0.83       5.0         Benzene       ND       0.83       5.0         Benzene       ND       0.80       1.0         Bromobenzene       ND       0.80       1.0         Bromodichloromethane       ND       0.87       1.0         Bromodichloromethane       ND       0.26       1.0         Bromoform       ND       0.69       1.0         Bromoform       ND       0.69       1.0         Bu					
1,4-Dioxane       ND       9.3       40         2,2-Dichloropropane       ND       0.40       1.0         2-Butanone (MEK)       ND       1.3       10         2-Chloroethyl vinyl ether       ND       0.96       5.0         2-Hexanone       ND       1.2       5.0         4-Methyl-2-pentanone (MIBK)       ND       2.1       5.0         Acetone       ND       3.0       10         Acetonitrile       ND       4.9       15         Acrolein       ND       0.91       20         Acrylonitrile       ND       0.83       5.0         Benzene       ND       0.83       5.0         Bromobenzene       ND       0.80       1.0         Bromobenzene       ND       0.80       1.0         Bromodichloromethane       ND       0.87       1.0         Bromoform       ND       0.69       1.0         Bromomethane       ND       0.69       1.0         Butyl alcohol, rett-       ND       3.3       10         Carbon tetrachloride       ND       0.19       1.0         Carbon tetrachloride       ND       0.27       1.0					
2,2-Dichloropropane       ND       0.40       1.0         2-Butanone (MEK)       ND       1.3       10         2-Chloroethyl vinyl ether       ND       0.96       5.0         2-Hexanone       ND       1.2       5.0         4-Methyl-2-pentanone (MIBK)       ND       2.1       5.0         Acetone       ND       3.0       10         Acetonitrile       ND       4.9       15         Acrolein       ND       0.91       20         Acrylonitrile       ND       0.83       5.0         Benzene       ND       0.83       5.0         Bromobenzene       ND       0.81       1.0         Bromobenzene       ND       0.80       1.0         Bromodichloromethane       ND       0.87       1.0         Bromoform       ND       0.26       1.0         Bromomethane       ND       0.69       1.0         Butyl alcohol, n-       ND       8.9       40         Butyl alcohol, tert-       ND       0.19       1.0         Carbon disulfide       ND       0.19       1.0         Carbon tetrachloride       ND       0.27       1.0	1,4-Dichlorobenzene				
2-Butanone (MEK)       ND       1.3       10         2-Chloroethyl vinyl ether       ND       0.96       5.0         2-Hexanone       ND       1.2       5.0         4-Methyl-2-pentanone (MIBK)       ND       2.1       5.0         Acetone       ND       3.0       10         Acetonitrile       ND       4.9       15         Acrolein       ND       0.91       20         Acrylonitrile       ND       0.83       5.0         Benzene       ND       0.41       1.0         Bromobenzene       ND       0.80       1.0         Bromochloromethane       ND       0.87       1.0         Bromoform       ND       0.26       1.0         Bromomethane       ND       0.26       1.0         Butyl alcohol, n-       ND       8.9       40         Butyl alcohol, tert-       ND       0.19       1.0         Carbon disulfide       ND       0.19       1.0         Carbon tetrachloride       ND       0.27       1.0         Chlorobenzene       ND       0.75       1.0	1,4-Dioxane			9.3	40
2-Chloroethyl vinyl ether       ND       0.96       5.0         2-Hexanone       ND       1.2       5.0         4-Methyl-2-pentanone (MIBK)       ND       2.1       5.0         Acetone       ND       3.0       10         Acetonitrile       ND       4.9       15         Acrolein       ND       0.91       20         Acrylonitrile       ND       0.83       5.0         Benzene       ND       0.41       1.0         Bromobenzene       ND       0.80       1.0         Bromochloromethane       ND       0.87       1.0         Bromoform       ND       0.39       1.0         Bromoform       ND       0.26       1.0         Bromomethane       ND       0.69       1.0         Butyl alcohol, n-       ND       8.9       40         Butyl alcohol, tert-       ND       3.3       10         Carbon tetrachloride       ND       0.19       1.0         Carbon tetrachloride       ND       0.27       1.0         Chlorobenzene       ND       0.75       1.0	2,2-Dichloropropane	ND		0.40	1.0
2-Hexanone       ND       1.2       5.0         4-Methyl-2-pentanone (MIBK)       ND       2.1       5.0         Acetone       ND       3.0       10         Acetonitrile       ND       4.9       15         Acrolein       ND       0.91       20         Acrylonitrile       ND       0.83       5.0         Benzene       ND       0.41       1.0         Bromobenzene       ND       0.80       1.0         Bromochloromethane       ND       0.87       1.0         Bromoform       ND       0.39       1.0         Bromomethane       ND       0.26       1.0         Bromomethane       ND       0.69       1.0         Butyl alcohol, n-       ND       8.9       40         Butyl alcohol, tert-       ND       3.3       10         Carbon disulfide       ND       0.19       1.0         Carbon tetrachloride       ND       0.27       1.0         Chlorobenzene       ND       0.75       1.0	2-Butanone (MEK)	ND		1.3	10
4-Methyl-2-pentanone (MIBK)       ND       2.1       5.0         Acetone       ND       3.0       10         Acetonitrile       ND       4.9       15         Acrolein       ND       0.91       20         Acrylonitrile       ND       0.83       5.0         Benzene       ND       0.41       1.0         Bromobenzene       ND       0.80       1.0         Bromochloromethane       ND       0.87       1.0         Bromoform       ND       0.39       1.0         Bromomethane       ND       0.26       1.0         Butyl alcohol, n-       ND       0.69       1.0         Butyl alcohol, tert-       ND       3.3       10         Carbon disulfide       ND       0.19       1.0         Carbon tetrachloride       ND       0.27       1.0         Chlorobenzene       ND       0.75       1.0	2-Chloroethyl vinyl ether	ND		0.96	5.0
Acetone         ND         3.0         10           Acetonitrile         ND         4.9         15           Acrolein         ND         0.91         20           Acrylonitrile         ND         0.83         5.0           Benzene         ND         0.41         1.0           Bromobenzene         ND         0.80         1.0           Bromochloromethane         ND         0.87         1.0           Bromoform         ND         0.39         1.0           Bromomethane         ND         0.26         1.0           Butyl alcohol, n-         ND         0.69         1.0           Butyl alcohol, tert-         ND         3.3         10           Carbon disulfide         ND         0.19         1.0           Carbon tetrachloride         ND         0.27         1.0           Chlorobenzene         ND         0.75         1.0	2-Hexanone	ND		1.2	5.0
Acetone       ND       3.0       10         Acetonitrile       ND       4.9       15         Acrolein       ND       0.91       20         Acrylonitrile       ND       0.83       5.0         Benzene       ND       0.41       1.0         Bromobenzene       ND       0.80       1.0         Bromochloromethane       ND       0.87       1.0         Bromoform       ND       0.39       1.0         Bromomethane       ND       0.26       1.0         Bromomethane       ND       0.69       1.0         Butyl alcohol, n-       ND       8.9       40         Butyl alcohol, tert-       ND       3.3       10         Carbon disulfide       ND       0.19       1.0         Carbon tetrachloride       ND       0.27       1.0         Chlorobenzene       ND       0.75       1.0	4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acrolein       ND       0.91       20         Acrylonitrile       ND       0.83       5.0         Benzene       ND       0.41       1.0         Bromobenzene       ND       0.80       1.0         Bromochloromethane       ND       0.87       1.0         Bromoform       ND       0.39       1.0         Bromomethane       ND       0.26       1.0         Butyl alcohol, n-       ND       8.9       40         Butyl alcohol, tert-       ND       3.3       10         Carbon disulfide       ND       0.19       1.0         Carbon tetrachloride       ND       0.27       1.0         Chlorobenzene       ND       0.75       1.0	Acetone	ND		3.0	10
Acrolein       ND       0.91       20         Acrylonitrile       ND       0.83       5.0         Benzene       ND       0.41       1.0         Bromobenzene       ND       0.80       1.0         Bromochloromethane       ND       0.87       1.0         Bromoform       ND       0.39       1.0         Bromomethane       ND       0.26       1.0         Butyl alcohol, n-       ND       8.9       40         Butyl alcohol, tert-       ND       3.3       10         Carbon disulfide       ND       0.19       1.0         Carbon tetrachloride       ND       0.27       1.0         Chlorobenzene       ND       0.75       1.0	Acetonitrile	ND		4.9	15
Acrylonitrile         ND         0.83         5.0           Benzene         ND         0.41         1.0           Bromobenzene         ND         0.80         1.0           Bromochloromethane         ND         0.87         1.0           Bromodichloromethane         ND         0.39         1.0           Bromoform         ND         0.26         1.0           Bromomethane         ND         0.69         1.0           Butyl alcohol, n-         ND         8.9         40           Butyl alcohol, tert-         ND         3.3         10           Carbon disulfide         ND         0.19         1.0           Carbon tetrachloride         ND         0.27         1.0           Chlorobenzene         ND         0.75         1.0	Acrolein	ND		0.91	20
Benzene         ND         0.41         1.0           Bromobenzene         ND         0.80         1.0           Bromochloromethane         ND         0.87         1.0           Bromodichloromethane         ND         0.39         1.0           Bromoform         ND         0.26         1.0           Bromomethane         ND         0.69         1.0           Butyl alcohol, n-         ND         8.9         40           Butyl alcohol, tert-         ND         3.3         10           Carbon disulfide         ND         0.19         1.0           Carbon tetrachloride         ND         0.27         1.0           Chlorobenzene         ND         0.75         1.0	Acrylonitrile				5.0
Bromobenzene         ND         0.80         1.0           Bromochloromethane         ND         0.87         1.0           Bromodichloromethane         ND         0.39         1.0           Bromoform         ND         0.26         1.0           Bromomethane         ND         0.69         1.0           Butyl alcohol, n-         ND         8.9         40           Butyl alcohol, tert-         ND         3.3         10           Carbon disulfide         ND         0.19         1.0           Carbon tetrachloride         ND         0.27         1.0           Chlorobenzene         ND         0.75         1.0					
Bromochloromethane         ND         0.87         1.0           Bromodichloromethane         ND         0.39         1.0           Bromoform         ND         0.26         1.0           Bromomethane         ND         0.69         1.0           Butyl alcohol, n-         ND         8.9         40           Butyl alcohol, tert-         ND         3.3         10           Carbon disulfide         ND         0.19         1.0           Carbon tetrachloride         ND         0.27         1.0           Chlorobenzene         ND         0.75         1.0					
Bromodichloromethane         ND         0.39         1.0           Bromoform         ND         0.26         1.0           Bromomethane         ND         0.69         1.0           Butyl alcohol, n-         ND         8.9         40           Butyl alcohol, tert-         ND         3.3         10           Carbon disulfide         ND         0.19         1.0           Carbon tetrachloride         ND         0.27         1.0           Chlorobenzene         ND         0.75         1.0					
Bromoform         ND         0.26         1.0           Bromomethane         ND         0.69         1.0           Butyl alcohol, n-         ND         8.9         40           Butyl alcohol, tert-         ND         3.3         10           Carbon disulfide         ND         0.19         1.0           Carbon tetrachloride         ND         0.27         1.0           Chlorobenzene         ND         0.75         1.0					
Bromomethane         ND         0.69         1.0           Butyl alcohol, n-         ND         8.9         40           Butyl alcohol, tert-         ND         3.3         10           Carbon disulfide         ND         0.19         1.0           Carbon tetrachloride         ND         0.27         1.0           Chlorobenzene         ND         0.75         1.0					
Butyl alcohol, n-         ND         8.9         40           Butyl alcohol, tert-         ND         3.3         10           Carbon disulfide         ND         0.19         1.0           Carbon tetrachloride         ND         0.27         1.0           Chlorobenzene         ND         0.75         1.0					
Butyl alcohol, tert-         ND         3.3         10           Carbon disulfide         ND         0.19         1.0           Carbon tetrachloride         ND         0.27         1.0           Chlorobenzene         ND         0.75         1.0					
Carbon disulfide         ND         0.19         1.0           Carbon tetrachloride         ND         0.27         1.0           Chlorobenzene         ND         0.75         1.0	*				
Carbon tetrachlorideND0.271.0ChlorobenzeneND0.751.0	•				
Chlorobenzene ND 0.75 1.0					
Chiorogituoromethane ND 0.26 1.0					
***	Cniorodifluorometnane	ND		0.26	1.0

#### Method Blank - Batch: 480-21666P

Method: 82P0C pre5aration: 30T0C

Lab Sample ID: 480-219996 Instrument ID: HP5973N MB 480-219996/6 Analysis Batch: Client Matrix: Water Prep Batch: N/A Lab File ID: N3115.D Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 5 mL Units: Final Weight/Volume: Analysis Date: 12/18/2014 2258 ug/L 5 mL Prep Date: 12/18/2014 2258

Leach Date: N/A

Analyte	Result	Qual	MDL	RL
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dibromochloromethane	ND		0.32	1.0
Dibromomethane	ND		0.41	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Dichlorofluoromethane	ND		0.34	1.0
Ethyl acetate	ND		0.66	1.0
Ethyl ether	ND		0.72	1.0
Ethyl tert-butyl ether	ND		0.29	1.0
Ethylbenzene	ND		0.74	1.0
Hexachlorobutadiene	ND		0.28	1.0
Hexane	ND		0.40	10
lodomethane	ND		0.30	1.0
Isobutanol	ND		4.8	25
Isopropyl ether	ND		0.59	1.0
Isopropylbenzene	ND		0.79	1.0
Methacrylonitrile	ND		0.69	5.0
Methyl acetate	ND		0.50	2.5
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
m-Xylene & p-Xylene	ND		0.66	2.0
Naphthalene	ND		0.43	1.0
n-Butylbenzene	ND		0.64	1.0
N-Propylbenzene	ND		0.69	1.0
o-Chlorotoluene	ND		0.86	1.0
o-Xylene	ND		0.76	1.0
p-Chlorotoluene	ND		0.84	1.0
p-Cymene	ND		0.31	1.0
sec-Butylbenzene	ND		0.75	1.0
Styrene	ND		0.73	1.0
Tert-amyl methyl ether	ND		0.27	1.0
tert-Butylbenzene	ND		0.81	1.0
Tetrachloroethene	ND		0.36	1.0
Tetrahydrofuran	ND		1.3	5.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
trans-1,4-Dichloro-2-butene	ND		0.22	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

HP5973N

N3115.D

5 mL

5 mL

Client: Waste Management Job Number: 280-63460-1

Method Blank - Batch: 480-21666P

Method: 82P0C pre5aration: 30T0C

Lab Sample ID: MB 480-219996/6 Analysis Batch: 480-219996 Instrument ID: Client Matrix: Water Prep Batch: N/A Lab File ID: Dilution: Leach Batch: N/A Initial Weight/Volume: 1.0 Analysis Date: 12/18/2014 2258 Units: ug/L Final Weight/Volume: Prep Date: 12/18/2014 2258

Leach Date: N/A

 Analyte
 Result
 Qual
 MDL
 RL

 Vinyl acetate
 ND
 0.85
 5.0

 Vinyl chloride
 ND
 0.90
 1.0

 Surrogate
 % Rec
 Acceptance Limits

 1,2-Dichloroethane-d4 (Surr)
 124
 66 - 137

 4-Bromofluorobenzene (Surr)
 94
 73 - 120

 Toluene-d8 (Surr)
 96
 71 - 126

Method Blank ALCs- Batch: 480-21666P

Cas Number Analyte RT Est. Result (ug/L Qual 67-72-1 Hexachloroethane TIC 0.00 ND

baS Control xaD 5le - Batch: 480-21666P

Method: 82P0C pre5aration: 30T0C

 Lab Sample ID:
 LCS 480-219996/4
 A

 Client Matrix:
 Water
 P

 Dilution:
 1.0
 L

 Analysis Date:
 12/18/2014 2209
 U

 Prep Date:
 12/18/2014 2209

N/A

Leach Date:

Toluene-d8 (Surr)

Analysis Batch: 480-219996
Prep Batch: N/A
Leach Batch: N/A
Units: ug/L

Instrument ID: HP5973N
Lab File ID: N3113.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

71 - 126

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1-Dichloroethane	25.0	25.7	103	71 - 129	
1,1-Dichloroethene	25.0	29.8	119	58 - 121	
1,2,4-Trimethylbenzene	25.0	27.4	110	76 - 121	
1,2-Dichlorobenzene	25.0	25.6	102	80 - 124	
1,2-Dichloroethane	25.0	28.3	113	75 - 127	
Benzene	25.0	23.9	95	71 - 124	
Chlorobenzene	25.0	24.3	97	72 - 120	
cis-1,2-Dichloroethene	25.0	24.5	98	74 - 124	
Ethylbenzene	25.0	25.8	103	77 - 123	
Methyl tert-butyl ether	25.0	26.3	105	64 - 127	
m-Xylene & p-Xylene	25.0	23.9	96	76 - 122	
o-Xylene	25.0	24.6	98	76 - 122	
Tetrachloroethene	25.0	24.4	97	74 - 122	
Toluene	25.0	24.0	96	80 - 122	
trans-1,2-Dichloroethene	25.0	25.2	101	73 - 127	
Trichloroethene	25.0	25.6	102	74 - 123	
Surrogate	%	Rec	А	cceptance Limits	
1,2-Dichloroethane-d4 (Surr)	1	19		66 - 137	
4-Bromofluorobenzene (Surr)	94 73 - 120				

100

71 - 126

Client: Waste Management Job Number: 280-63460-1

Matri/ x5ike7 Method: 82P0C
Matri/ x5ike v u5licate Recol ery Re5ort - Batch: 480-21666P pre5aration: 30T0C

480-72854-F-2 MS 480-219996 Instrument ID: HP5973N MS Lab Sample ID: Analysis Batch: Client Matrix: Water Prep Batch: N/A Lab File ID: N3134.D N/A Dilution: 1.0 Leach Batch: Initial Weight/Volume: 5 mL Analysis Date: 12/19/2014 0702 Final Weight/Volume: 5 mL 5 mL Prep Date: 12/19/2014 0702 Leach Date: N/A

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480-72854-F-2 MSD Instrument ID: MSD Lab Sample ID: Analysis Batch: 480-219996 HP5973N Client Matrix: Lab File ID: Water Prep Batch: N/A N3135.D Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 5 mL 12/19/2014 0726 Final Weight/Volume: Analysis Date: 5 mL

Prep Date: 12/19/2014 0726 5 mL

Leach Date: N/A

Toluene-d8 (Surr)

% Rec. Limit **RPD RPD Limit** Analyte MS MSD MS Qual MSD Qual 71 - 124 Benzene 114 109 5 13 Ethylbenzene 123 121 77 - 123 2 15 m-Xylene & p-Xylene 114 113 76 - 122 1 16 76 - 122 2 o-Xylene 115 112 16 Toluene 112 110 80 - 122 2 15 Surrogate MS % Rec MSD % Rec Acceptance Limits 1,2-Dichloroethane-d4 (Surr) 122 123 66 - 137 4-Bromofluorobenzene (Surr) 96 95 73 - 120

97

Matri/ x5ike7 Method: 82P0C
Matri/ x5ike v u5licate Recol ery Re5ort - Batch: 480-21666P pre5aration: 30T0C

MS Lab Sample ID: 480-72854-F-2 MS Units: ug/L MSD Lab Sample ID: 480-72854-F-2 MSD

Client Matrix:WaterClient Matrix:WaterDilution:1.0Dilution:1.0

98

 Analysis Date:
 12/19/2014 0702
 Analysis Date:
 12/19/2014 0726

 Prep Date:
 12/19/2014 0702
 Prep Date:
 12/19/2014 0726

Leach Date: N/A Leach Date: N/A

	Sample	MS Spike	MSD Spike	MS	MSD
Analyte	Result/Qual	Amount	Amount	Result/Qual	Result/Qual
Benzene	ND	25.0	25.0	28.5	27.2
Ethylbenzene	ND	25.0	25.0	30.8	30.2
m-Xylene & p-Xylene	ND	25.0	25.0	28.4	28.2
o-Xylene	ND	25.0	25.0	28.7	28.0
Toluene	ND	25.0	25.0	28.1	27.5

Method Blank - Batch: 480-216932 Method: 82P0C x LM pre5aration: 30T0C

480-219752 Lab Sample ID: MB 480-219752/8 Instrument ID: HP5973J Analysis Batch: Client Matrix: Water Prep Batch: N/A Lab File ID: J4337.D Leach Batch: N/A Dilution: 1.0 Initial Weight/Volume: 25 mL Analysis Date: 12/18/2014 0323 Units: ug/L Final Weight/Volume: 25 mL

12/18/2014 0323 Prep Date:

Leach Date: N/A

Analyte Result Qual MDL RL Vinyl chloride ND 0.0040 0.020 Surrogate % Rec Acceptance Limits Dibromofluoromethane (Surr) 99 50 - 150 TBA-d9 (Surr) 50 - 150 114

baS Control xaD 5le7 Method: 82P0C x LM baS Control xaD 5le v u5licate Recol ery Re5ort - Batch: 480-216932 pre5aration: 30T0C

LCS Lab Sample ID: Instrument ID: LCS 480-219752/5 Analysis Batch: 480-219752 HP5973J Client Matrix: Water Prep Batch: N/A Lab File ID: J4334.D Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 25 mL Analysis Date: 12/18/2014 0211 Units: ug/L Final Weight/Volume: 25 mL 12/18/2014 0211 25 mL

Prep Date:

Leach Date: N/A

LCSD Lab Sample ID: LCSD 480-219752/6 Analysis Batch: 480-219752 Instrument ID: HP5973J Client Matrix: Water Prep Batch: N/A Lab File ID: J4335.D Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 25 mL 12/18/2014 0235 Units: ug/L Final Weight/Volume: 25 mL

Analysis Date: 12/18/2014 0235 Prep Date: 25 mL

Leach Date: N/A

% Rec. LCS RPD LCS Qual LCSD Qual Analyte **LCSD** Limit **RPD Limit** 50 - 150 Vinyl chloride 111 107 20 Surrogate LCS % Rec LCSD % Rec Acceptance Limits Dibromofluoromethane (Surr) 110 107 50 - 150 50 - 150 TBA-d9 (Surr) 95 89

Client: Waste Management Job Number: 280-63460-1

baSoratory Control7 Method: 82P0C xLM baSoratory v u5licate v ata Re5ort - Batch: 480-216932 pre5aration: 30T0C

LCS Lab Sample ID: LCS 480-219752/5 Units: ug/L LCSD Lab Sample ID: LCSD 480-219752/6

Client Matrix:WaterClient Matrix:WaterDilution:1.0Dilution:1.0

 Analysis Date:
 12/18/2014 0211
 Analysis Date:
 12/18/2014 0235

 Prep Date:
 12/18/2014 0211
 Prep Date:
 12/18/2014 0235

Leach Date: N/A Leach Date: N/A

Analyte LCS Spike LCSD Spike LCS LCSD Amount Result/Qual Result/Qual Vinyl chloride 0.200 0.200 0.223 0.214

MT\_026

50 mL

50 mL

26g121814.asc

Client: Waste Management Job Number: 280-63460-1

280-257812

280-256658

N/A

mg/L

Method Blank - Batch: 280-23PP38

Method: P010B pre5aration: T003m Aotal Recol eraSle

Initial Weight/Volume:

Final Weight/Volume:

Instrument ID:

Lab File ID:

Lab Sample ID: MB 280-256658/1-A

Client Matrix: Water Dilution: 1.0

Analysis Date: 12/19/2014 0301 Prep Date: 12/10/2014 1807

Leach Date: N/A

Analyte	Result	Qual	RL	RL
Calcium, Dissolved	0.0769		0.040	0.040
Cobalt, Dissolved	ND		0.0030	0.0030
Iron, Dissolved	ND		0.060	0.060
Magnesium, Dissolved	ND		0.050	0.050
Potassium, Dissolved	ND		1.0	1.0
Sodium, Dissolved	ND		1.0	1.0

baS Control xaD 5le - Batch: 280-23PP38 Method: P010B pre5aration: T003m

Analysis Batch:

Prep Batch:

Leach Batch:

Units:

Aotal Recol eraSle

Lab Sample ID: LCS 280-256658/2-A Analysis Batch: 280-257812 Instrument ID: MT\_026 Client Matrix: Water Prep Batch: 280-256658 Lab File ID: 26g121814.asc Dilution: Leach Batch: 50 mL 1.0 N/A Initial Weight/Volume: Analysis Date: 12/19/2014 0304 Units: Final Weight/Volume: 50 mL

Prep Date: 12/10/2014 1807

Leach Date: N/A

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Calcium, Dissolved	50.0	45.6	91	90 - 111	
Cobalt, Dissolved	0.500	0.473	95	89 - 111	
Iron, Dissolved	1.00	0.912	91	89 - 115	
Magnesium, Dissolved	50.0	48.9	98	90 - 113	
Potassium, Dissolved	50.0	50.4	101	89 - 114	
Sodium, Dissolved	50.0	49.8	100	90 - 115	

mg/L

Job Number: 280-63460-1 Client: Waste Management

Matri/ x5ike7

Matri/ x5ike v u5licate Recol ery Re5ort - Batch: 280-23PP38 pre5aration: T003m

v issoll ed

Method: P010B

MS Lab Sample ID: Client Matrix:

280-63426-C-1-B MS Water

Analysis Batch:

280-257812

Instrument ID: Lab File ID:

MT\_026

Dilution:

1.0

Prep Batch:

280-256658

26g121814.asc

Analysis Date:

Leach Batch:

N/A

Initial Weight/Volume: Final Weight/Volume: 50 mL 50 mL

Prep Date:

12/19/2014 0311

Leach Date:

12/10/2014 1807 N/A

MSD Lab Sample ID:

280-63426-C-1-C MSD

Analysis Batch: Prep Batch:

280-257812 280-256658 Instrument ID: Lab File ID:

MT 026 26g121814.asc

Client Matrix: Dilution: Analysis Date: Water 1.0

Leach Batch:

N/A

Initial Weight/Volume: Final Weight/Volume: 50 mL

50 mL

MS Qual

MSD Qual

Prep Date:

Analyte

12/19/2014 0314 12/10/2014 1807

Leach Date: N/A

Calcium, Dissolved

Magnesium, Dissolved Potassium, Dissolved

Cobalt, Dissolved

Iron, Dissolved

% Doo

<u>% R</u>	<u>ec.</u>			
MS	MSD	Limit	RPD	RPD Limit
89	94	48 - 153	3	20
94	95	82 - 119	1	20
90	91	52 - 155	1	20
96	99	62 - 146	2	20
102	103	76 - 132	2	20

70 - 203

Matri/ x5ike7

Sodium, Dissolved

Matri/ x5ike v u5licate Recol ery Re5ort - Batch: 280-23PP38

Method: P010B pre5aration: T003m

v issoll ed

2

MS Lab Sample ID:

280-63426-C-1-B MS

Units: mg/L

101

99

MSD Lab Sample ID:

280-63426-C-1-C MSD

Client Matrix:

Water Dilution: 1.0

Analysis Date: 12/19/2014 0311 12/10/2014 1807 Prep Date:

Leach Date: N/A

Client Matrix: Water

Dilution:

20

1.0

Analysis Date: 12/19/2014 0314 12/10/2014 1807 Prep Date:

Leach Date: N/A

Sample MS Spike MSD Spike MS MSD Result/Qual Amount Amount Result/Qual Result/Qual Analyte Calcium, Dissolved 41 50.0 50.0 85.3 87.6 Cobalt, Dissolved ND 0.500 0.500 0.468 0.473 Iron, Dissolved ND 1.00 1.00 0.904 0.915 Magnesium, Dissolved 15 50.0 50.0 63.5 64.9 Potassium, Dissolved ND 50.0 50.0 50.8 51.6 Sodium, Dissolved 10 50.0 50.0 59.8 60.8

Client: Waste Management Job Number: 280-63460-1

Method Blank - Batch: 280-23PP36

Method: P020 pre5aration: T003m Aotal Recol eraSle

Lab Sample ID: MB 280-256659/1-A

Client Matrix: Water Dilution: 1.0

Analysis Date: 12/12/2014 0306 12/11/2014 0930 Prep Date:

Leach Date: N/A Analysis Batch: 280-256852 Prep Batch: 280-256659

Leach Batch: N/A Units: mg/L

Instrument ID: MT\_078 Lab File ID: 243 BLK.d Initial Weight/Volume: 50 mL

Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL	RL	
Antimony, Dissolved	ND		0.0010	0.0010	
Barium, Dissolved	ND		0.0010	0.0010	
Beryllium, Dissolved	ND		0.0010	0.0010	
Cadmium, Dissolved	ND		0.00020	0.00020	
Chromium, Dissolved	ND		0.0030	0.0030	
Copper, Dissolved	ND		0.0020	0.0020	
Lead, Dissolved	ND		0.0010	0.0010	
Nickel, Dissolved	ND		0.0040	0.0040	
Selenium, Dissolved	ND		0.0010	0.0010	
Silver, Dissolved	ND		0.0020	0.0020	
Thallium, Dissolved	ND		0.0010	0.0010	
Vanadium, Dissolved	ND		0.0020	0.0020	
Zinc, Dissolved	ND		0.0050	0.0050	

Method Blank - Batch: 280-23PP36

Method: P020 pre5aration: T003m Aotal Recol eraSle

MT\_078

Lab Sample ID: MB 280-256659/1-A Client Matrix: Water Dilution: 1.0

Analysis Date: 12/15/2014 1437 Prep Date: 12/11/2014 0930

Leach Date: N/A Analysis Batch: Prep Batch: 280-256659 Leach Batch: N/A Units: mg/L

280-257289

Lab File ID: 025\_BLK.d Initial Weight/Volume: 50 mL Final Weight/Volume: 50 mL

Instrument ID:

Analyte Result Qual RL RL ND 0.0010 0.0010 Manganese, Dissolved

Client: Waste Management Job Number: 280-63460-1

baS Control xaD 5le - Batch: 280-23PP36

LCS 280-256659/2-A

Method: P020 pre5aration: T003m Aotal Recol eraSle

Lab Sample ID: Client Matrix: Water Dilution: 1.0 Analysis Date: 12/12/2014 0310 12/11/2014 0930

Prep Batch: Leach Batch: Units:

Analysis Batch:

280-256852 280-256659 N/A mg/L

Instrument ID: MT\_078 Lab File ID: 244 LCS.d Initial Weight/Volume: 50 mL Final Weight/Volume: 50 mL

Prep Date:

Leach Date: N/A

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Antimony, Dissolved	0.0400	0.0395	99	85 - 115	
Barium, Dissolved	0.0400	0.0417	104	85 - 118	
Beryllium, Dissolved	0.0400	0.0422	105	80 - 125	
Cadmium, Dissolved	0.0400	0.0411	103	85 - 115	
Chromium, Dissolved	0.0400	0.0404	101	84 - 121	
Copper, Dissolved	0.0400	0.0402	101	85 - 119	
Lead, Dissolved	0.0400	0.0421	105	85 - 118	
Nickel, Dissolved	0.0400	0.0414	104	85 - 119	
Selenium, Dissolved	0.0400	0.0407	102	77 - 122	
Silver, Dissolved	0.0400	0.0405	101	85 - 115	
Thallium, Dissolved	0.0400	0.0416	104	85 - 118	
Vanadium, Dissolved	0.0400	0.0406	102	85 - 120	
Zinc, Dissolved	0.0400	0.0420	105	83 - 122	

baS Control xaD 5le - Batch: 280-23PP36

Method: P020 pre5aration: T003m Aotal Recol eraSle

Lab Sample ID: LCS 280-256659/2-A Client Matrix: Water Dilution: 1.0 Analysis Date: Prep Date:

Leach Date:

12/15/2014 1441

12/11/2014 0930

N/A

Analysis Batch: 280-257289 Prep Batch: 280-256659 Leach Batch: N/A Units: mg/L

Instrument ID: MT\_078 Lab File ID: 026\_LCS.d Initial Weight/Volume: 50 mL Final Weight/Volume: 50 mL

Analyte Spike Amount Result % Rec. Limit Qual Manganese, Dissolved 0.0400 0.0405 101 85 - 117

Job Number: 280-63460-1 Client: Waste Management

Matri/ x5ike7 Matri/ x5ike v u5licate Recol ery Re5ort - Batch: 280-23PP36 Method: P020 pre5aration: T003m

v issoll ed

280-63460-1 MS Lab Sample ID: Client Matrix: Water Dilution: 1.0

280-256852 Analysis Batch: Prep Batch: 280-256659 Leach Batch: N/A

Instrument ID: MT\_078 Lab File ID: 247SMPL.d Initial Weight/Volume: 50 mL Final Weight/Volume: 50 mL

Analysis Date: 12/12/2014 0321 Prep Date: 12/11/2014 0930

Leach Date: N/A

280-63460-1 MSD Lab Sample ID: Client Matrix: Water

Dilution: 1.0 Analysis Date: 12/12/2014 0324 12/11/2014 0930 Prep Date:

Leach Date: N/A

Instrument ID: MT 078 Analysis Batch: 280-256852 Lab File ID: 248SMPL.d Prep Batch: 280-256659 Leach Batch: N/A Initial Weight/Volume: 50 mL Final Weight/Volume: 50 mL

% Rec. RPD **RPD** Limit Analyte MS MSD Limit MS Qual MSD Qual Antimony, Dissolved 85 - 115 3 106 102 20 Barium, Dissolved 102 103 85 - 118 0 20 Beryllium, Dissolved 119 117 80 - 125 1 20 2 Cadmium, Dissolved 104 102 85 - 115 20 Chromium, Dissolved 105 104 84 - 121 0 20 Copper, Dissolved 105 103 85 - 119 1 20 2 20 Lead, Dissolved 105 103 85 - 118 Nickel, Dissolved 104 106 85 - 119 1 20 1 77 - 122 20 Selenium, Dissolved 104 103 Silver, Dissolved 100 98 85 - 115 3 20 85 - 118 1 20 Thallium, Dissolved 103 104 0 20 Vanadium, Dissolved 108 108 85 - 120 Zinc, Dissolved 109 111 83 - 122 1 20

Client: Waste Management Job Number: 280-63460-1

Matri/ x5ike7 Matri/ x5ike v u5licate Recol ery Re5ort - Batch: 280-23PP36 Method: P020 pre5aration: T003m

v issoll ed

MS Lab Sample ID: 280-63460-1 Client Matrix: Dilution:

Water 1.0

Analysis Batch: Prep Batch: Leach Batch:

280-257289 280-256659 N/A

Instrument ID: Lab File ID:

MT\_078 029SMPL.d

Analysis Date: Prep Date:

12/15/2014 1452 12/11/2014 0930

Initial Weight/Volume: Final Weight/Volume:

50 mL 50 mL

Leach Date:

Client Matrix:

Analysis Date:

Prep Date:

Dilution:

N/A

MSD Lab Sample ID: 280-63460-1

Water 1.0

12/15/2014 1455 12/11/2014 0930

Leach Date: N/A Analysis Batch: 280-257289 Prep Batch:

280-256659 N/A

Instrument ID: Lab File ID:

MT\_078 030SMPL.d 50 mL

Initial Weight/Volume: Final Weight/Volume:

50 mL

% Rec.

Leach Batch:

Analyte MS MSD

Limit

RPD

**RPD** Limit MS Qual

MSD Qual

Manganese, Dissolved 112 127 85 - 117 1 20 4

Client: Waste Management Job Number: 280-63460-1

Matri/ x5ike7 Matri/ x5ike v u5licate Recol ery Re5ort - Batch: 280-23PP36

Method: P020 pre5aration: T003m

v issoll ed

Client Matrix:

MS Lab Sample ID: 280-63460-1 Client Matrix: Water

Units: mg/L

MSD Lab Sample ID: Water

280-63460-1

Dilution: 1.0

Dilution: 1.0 Analysis Date: 12/12/2014 0324 12/11/2014 0930 Prep Date:

Analysis Date: 12/12/2014 0321 Prep Date: 12/11/2014 0930

> Leach Date: N/A

Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Antimony, Dissolved	0.0051	0.0400	0.0400	0.0473	0.0459
Barium, Dissolved	0.083	0.0400	0.0400	0.123	0.124
Beryllium, Dissolved	ND	0.0400	0.0400	0.0475	0.0469
Cadmium, Dissolved	0.00021	0.0400	0.0400	0.0420	0.0411
Chromium, Dissolved	0.0051	0.0400	0.0400	0.0470	0.0469
Copper, Dissolved	0.026	0.0400	0.0400	0.0676	0.0668
_ead, Dissolved	ND	0.0400	0.0400	0.0420	0.0412
Nickel, Dissolved	0.065	0.0400	0.0400	0.107	0.108
Selenium, Dissolved	ND	0.0400	0.0400	0.0418	0.0413
Silver, Dissolved	ND	0.0400	0.0400	0.0402	0.0391
Γhallium, Dissolved	ND	0.0400	0.0400	0.0414	0.0410
/anadium, Dissolved	0.0070	0.0400	0.0400	0.0503	0.0503
Zinc, Dissolved	0.040	0.0400	0.0400	0.0836	0.0846

Matri/ x5ike7

MS Lab Sample ID:

Method: P020 Matri/ x5ike v u5licate Recol ery Re5ort - Batch: 280-23PP36 pre5aration: T003m

Units: mg/L

v issoll ed

MSD Lab Sample ID: 280-63460-1 Client Matrix: Water

Client Matrix: Water Dilution: 1.0

Dilution: 1.0 12/15/2014 1455 Analysis Date: Prep Date: 12/11/2014 0930

12/15/2014 1452 Analysis Date: Prep Date: 12/11/2014 0930

280-63460-1

Leach Date: N/A

Leach Date: N/A

	Sample	MS Spike	MSD Spike	MS Result/Qual		MSD	
Analyte	Result/Qual	Amount	Amount			Result/Q	ual
Manganese, Dissolved	0.66	0.0400	0.0400	0.702	4	0.708	4

10 uL

Job Number: 280-63460-1 Client: Waste Management

Method Blank - Batch: 280-239T2P Method: T00.0 pre5aration: N7m

Lab Sample ID: MB 280-257326/6 280-257326 Instrument ID: WC\_lonChrom8 Analysis Batch: Client Matrix: Water Prep Batch: N/A Lab File ID: 13.0000.d N/A Dilution: 1.0 Leach Batch: Initial Weight/Volume: 5 mL 12/16/2014 1138 Units: Final Weight/Volume: 5 mL mg/L

Analysis Date: Prep Date: N/A Leach Date: N/A

Analyte Result Qual RL RL Chloride ND 1.0 1.0 Sulfate ND 1.0 1.0

Method: T00.0 Method Re5orting biD it Check - Batch: 280-239T2P pre5aration: N7m

Lab Sample ID: Analysis Batch: WC IonChrom8 MRL 280-257326/3 280-257326 Instrument ID: 10.0000.d Client Matrix: Water Prep Batch: N/A Lab File ID: Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 5 mL Units: 5 mL mg/L Final Weight/Volume:

12/16/2014 1048 Analysis Date: Prep Date: N/A

Leach Date: N/A

Qual Analyte Spike Amount Result % Rec. Limit Chloride ND 100 50 - 150 2.50 Sulfate 2.50 ND 93 50 - 150

baS Control xaD 5le7 Method: T00.0 baS Control xaD 5le v u5licate Recol ery Re5ort - Batch: 280-239T2P pre5aration: N7m

WC\_lonChrom8 LCS Lab Sample ID: LCS 280-257326/4 Analysis Batch: 280-257326 Instrument ID: 11.0000.d Client Matrix: N/A Water Prep Batch: Lab File ID:

Dilution: Leach Batch: Initial Weight/Volume: 5 mL 1.0 N/A Analysis Date: 12/16/2014 1105 Units: Final Weight/Volume: 5 mL mg/L Prep Date: N/A 10 uL

Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-257326/5 Analysis Batch: 280-257326 Instrument ID: WC\_lonChrom8 Client Matrix: Water Prep Batch: N/A Lab File ID: 12.0000.d

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 5 mL 12/16/2014 1121 Units: Final Weight/Volume: 5 mL Analysis Date: mg/L

Prep Date: N/A Leach Date: N/A

% Rec. RPD Analyte LCS **LCSD** Limit **RPD Limit** LCS Qual LCSD Qual Chloride 98 98 90 - 110 0 10 Sulfate 96 95 90 - 110 10 1

Client: Waste Management Job Number: 280-63460-1

baSoratory Control7

baSoratory v u5licate v ata Re5ort - Batch: 280-239T2P

Method: T00.0 pre5aration: N7m

LCS Lab Sample ID:

LCS 280-257326/4

Units: mg/L

LCSD Lab Sample ID: LCSD 280-257326/5

Client Matrix: Dilution:

Water 1.0

Client Matrix: Water Dilution: 1.0

Analysis Date: 12/16/2014 1105 Analysis Date:

12/16/2014 1121

Prep Date: N/A Leach Date: N/A

Prep Date:

N/A Leach Date: N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Chloride	100	100	97.8	97.9
Sulfate	100	100	95.8	95.2

Matri/ x5ike7

Matri/ x5ike v u5licate Recol ery Re5ort - Batch: 280-239T2P

Method: T00.0 pre5aration: N7m

MS Lab Sample ID: Client Matrix: Dilution:

550-36439-B-1 MS Water

12/16/2014 1408

Analysis Batch: Prep Batch: Leach Batch:

280-257326 N/A N/A

Instrument ID: Lab File ID: Initial Weight/Volume:

Final Weight/Volume:

WC IonChrom8 19.0000.d 5 mL

5 mL

10 uL

Leach Date:

Client Matrix:

Dilution:

MSD Lab Sample ID:

Prep Date:

Analysis Date:

550-36439-B-1 MSD

Water

Analysis Batch: Prep Batch: Leach Batch:

280-257326 N/A N/A

Instrument ID: Lab File ID:

WC\_IonChrom8 20.0000.d Initial Weight/Volume: 5 mL Final Weight/Volume: 5 mL

10 uL

MS Qual

MSD Qual

Analysis Date: Prep Date: Leach Date:

12/16/2014 1425 N/A

N/A

N/A

N/A

% Rec.

Analyte	MS	MSD	Limit	RPD	RPD Limit
Chloride	89	89	80 - 120	0	20
Sulfate	87	87	80 - 120	0	20

Client: Waste Management Job Number: 280-63460-1

Matri/ x5ike7 Method: T00.0 Matri/ x5ike v u5licate Recol ery Re5ort - Batch: 280-239T2P pre5aration: N7m

MS Lab Sample ID:

550-36439-B-1 MS

Units: mg/L

MSD Lab Sample ID:

550-36439-B-1 MSD

Client Matrix:

Water

Client Matrix:

Water

Dilution:

10

Dilution:

10

Analysis Date:

12/16/2014 1408

N/A

Analysis Date:

Prep Date: N/A

Prep Date:

12/16/2014 1425 N/A

Leach Date:

Leach Date:

N/A

Analyte	Sample	MS Spike	MSD Spike	MS	MSD
	Result/Qual	Amount	Amount	Result/Qual	Result/Qual
Chloride	180	250	250	400	402
Sulfate	180	250	250	393	394

vu5licate - Batch: 280-239T2P

Method: T00.0 pre5aration: N7m

Lab Sample ID: Client Matrix:

550-36439-B-1 DU

12/16/2014 1351

Analysis Batch:

280-257326

Instrument ID: Lab File ID:

WC\_IonChrom8

Dilution: Analysis Date: Water

Prep Batch: Leach Batch: N/A Units:

N/A mg/L

18.0000.d Initial Weight/Volume: 5 mL Final Weight/Volume: 5 mL

Prep Date: Leach Date: N/A

N/A

10 uL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Chloride	180	177	0.8	15	
Sulfate	180	173	2	15	

Client: Waste Management Job Number: 280-63460-1

Method Blank - Batch: 280-23P699 Method: T30.1 pre5aration: N7m

Lab Sample ID: MB 280-256977/162 Analysis Batch: 280-256977 Instrument ID: WC\_Alp 3

Client Matrix: Water Prep Batch: N/A Lab File ID: E:\FLOW\_4\121214.RST Dilution: Leach Batch: N/A Initial Weight/Volume: 1.0 10 mL

Analysis Date: 12/12/2014 1435 Units: mg/L Final Weight/Volume: 10 mL

Prep Date: N/A

Analyte Result Qual RL RL

Ammonia (as N) ND 0.030 0.030

Method Blank - Batch: 280-23P699 Method: T30.1 pre5aration: N7m

280-256977 Lab Sample ID: MB 280-256977/203 Analysis Batch: Instrument ID: WC\_Alp 3

Client Matrix: Water Prep Batch: N/A Lab File ID: E:\FLOW\_4\121214.RST

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 10 mL

Analysis Date: 12/12/2014 1604 Units: Final Weight/Volume: 10 mL mg/L Prep Date: N/A Leach Date: N/A

Analyte Result Qual RL RL

Ammonia (as N) ND 0.030 0.030

Leach Date:

N/A

Job Number: 280-63460-1 Client: Waste Management

baS Control xaD 5le7 Method: T30.1 baS Control xaD 5le v u5licate Recol ery Re5ort - Batch: 280-23P699 pre5aration: N7m

LCS 280-256977/160 280-256977 Instrument ID: LCS Lab Sample ID: Analysis Batch: WC\_Alp 3

Client Matrix: Water Prep Batch: N/A Lab File ID: E:\FLOW 4\121214.RST

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 100 mL

Analysis Date: 12/12/2014 1431 Units: Final Weight/Volume: 100 mL mg/L

Prep Date: N/A Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-256977/166 Instrument ID: Analysis Batch: 280-256977 WC Alp 3

Client Matrix: Lab File ID: E:\FLOW 4\121214.RST Water Prep Batch: N/A

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 100 mL

12/12/2014 1449 Analysis Date: Units: mg/L Final Weight/Volume: 100 mL

Prep Date: N/A Leach Date: N/A

% Rec. **RPD** Analyte LCS **LCSD** Limit **RPD Limit** LCS Qual LCSD Qual

Ammonia (as N) 104 103 90 - 110 10 1

baS Control xaD 5le7 Method: T30.1 baS Control xaD 5le v u5licate Recol ery Re5ort - Batch: 280-23P699 pre5aration: N7m

LCS Lab Sample ID: LCS 280-256977/201 Analysis Batch: 280-256977 Instrument ID: WC Alp 3

Client Matrix: Water Prep Batch: N/A Lab File ID: E:\FLOW\_4\121214.RST

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 100 mL

Final Weight/Volume: Analysis Date: 12/12/2014 1600 Units: mg/L 100 mL Prep Date: N/A

Leach Date:

LCSD Lab Sample ID: Analysis Batch: WC\_Alp 3 Client Matrix: Water Prep Batch: N/A Lab File ID: E:\FLOW\_4\121214.RST

280-256977

Instrument ID:

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 100 mL

12/12/2014 1602 Analysis Date: Units: mg/L Final Weight/Volume: 100 mL

Prep Date: N/A

% Rec.

Analyte LCS **LCSD** Limit **RPD RPD Limit** LCS Qual LCSD Qual 103 90 - 110 Ammonia (as N) 106 3 10

Leach Date:

N/A

N/A

LCSD 280-256977/202

Client: Waste Management Job Number: 280-63460-1

baSoratory Control7 Method: T30.1 baSoratory v u5licate v ata Re5ort - Batch: 280-23P699 pre5aration: N7m

LCS Lab Sample ID: LCS 280-256977/160 Units: mg/L LCSD Lab Sample ID: LCSD 280-256977/166 Client Matrix: Water Client Matrix: Water

 Dilution:
 1.0
 Dilution:
 1.0

 Analysis Date:
 12/12/2014 1431
 Analysis Date:
 12/12/2014 1449

 Prep Date:
 N/A
 Prep Date:
 N/A

 Leach Date:
 N/A
 Leach Date:
 N/A

Analyte LCS Spike LCSD Spike LCS LCSD Amount Amount Result/Qual Result/Qual

Ammonia (as N) 2.50 2.50 2.60 2.57

baSoratory Control7 Method: T30.1 baSoratory v u5licate v ata Re5ort - Batch: 280-23P699 pre5aration: N7m

LCS Lab Sample ID: LCS 280-256977/201 Units: mg/L LCSD Lab Sample ID: LCSD 280-256977/202

Client Matrix: Water Client Matrix: Water
Dilution: 1.0 Dilution: 1.0

Analysis Date: 12/12/2014 1600 Analysis Date: 12/12/2014 1602

Prep Date:N/APrep Date:N/ALeach Date:N/ALeach Date:N/A

Analyte LCS Spike LCSD Spike LCS Result/Qual Result/Qual

Ammonia (as N) 2.50 2.50 2.58 2.65

Client: Waste Management Job Number: 280-63460-1

Method: T30.1 Matri/ x5ike7 Matri/ x5ike v u5licate Recol ery Re5ort - Batch: 280-23P699 pre5aration: N7m

280-63446-A-1 MS 280-256977 Instrument ID: MS Lab Sample ID: Analysis Batch: WC\_Alp 3

Client Matrix: Water Prep Batch: N/A Lab File ID: E:\FLOW 4\121214.RST

Dilution: Leach Batch: N/A 5.0 Initial Weight/Volume: 10 mL

Analysis Date: 12/12/2014 1439 Final Weight/Volume: 10 mL Prep Date: N/A

Leach Date: N/A Instrument ID:

MSD Lab Sample ID: Analysis Batch: WC\_Alp 3 Client Matrix: Prep Batch: Lab File ID: E:\FLOW 4\121214.RST Water N/A

280-256977

Dilution: 5.0 Leach Batch: N/A Initial Weight/Volume: 10 mL

12/12/2014 1447 Final Weight/Volume: Analysis Date: 10 mL Prep Date: N/A

Leach Date: N/A % Rec.

Analyte Limit RPD **RPD** Limit MS MSD MS Qual MSD Qual Ammonia (as N) 90 - 110 4 95 130 6 10 4

Matri/ x5ike7 Method: T30.1 Matri/ x5ike v u5licate Recol ery Re5ort - Batch: 280-23P699 pre5aration: N7m

280-63446-A-1 MSD

MS Lab Sample ID: 280-63446-A-1 MS Units: mg/L MSD Lab Sample ID: 280-63446-A-1 MSD

Client Matrix: Water Client Matrix: Water Dilution: 5.0 Dilution: 5.0

Analysis Date: 12/12/2014 1439 Analysis Date: 12/12/2014 1447 Prep Date: N/A

N/A Prep Date: Leach Date: N/A Leach Date: N/A

Sample MS Spike MSD Spike MS MSD Result/Qual Amount Amount Result/Qual Result/Qual Analyte Ammonia (as N) 23 5.00 5.00 27.3 4 29.1 4

Client: Waste Management Job Number: 280-63460-1

Method Blank - Batch: 280-239239 Method: T3T.2 pre5aration: N7m

Lab Sample ID: MB 280-257257/23 Analysis Batch: 280-257257 Instrument ID: WC\_Alp 2

Client Matrix: Water Prep Batch: N/A Lab File ID: C:\FLOW\_4\121514.RST

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 12/15/2014 1237 Units: mg/L Final Weight/Volume: Prep Date: N/A

Analyte Result Qual RL RL

Nitrate/Nitrite ND 0.050 0.050

Method Blank - Batch: 280-239239 Method: T3T.2 pre5aration: N7m

Lab Sample ID: MB 280-257257/62 Analysis Batch: 280-257257 Instrument ID: WC\_Alp 2

Client Matrix: Water Prep Batch: N/A Lab File ID: C:\FLOW\_4\121514.RST

Client Matrix: Water Prep Batch: N/A Lab File ID: C:\FLOW\_4\121514.RS

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 12/15/2014 1355 Units: mg/L Final Weight/Volume: Prep Date: N/A

Analyte Result Qual RL RL

Nitrate/Nitrite ND 0.050 0.050

Method Re5orting biD it Check - Batch: 280-239239 Method: T3T.2 pre5aration: N7m

Lab Sample ID: MRL 280-257257/18 Analysis Batch: 280-257257 Instrument ID: WC\_Alp 2

Client Matrix: Water Prep Batch: N/A Lab File ID: C:\FLOW\_4\121514.RST

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 100 mL

Analysis Date: 12/15/2014 1152 Units: mg/L Final Weight/Volume: 100 mL Prep Date: N/A
Leach Date: N/A

Analyte Spike Amount Result % Rec. Limit Qual

Nitrate/Nitrite 0.100 ND 81 50 - 150

Leach Date:

Leach Date:

N/A

N/A

Job Number: 280-63460-1 Client: Waste Management

baS Control xaD 5le7 Method: T3T.2 baS Control xaD 5le v u5licate Recol ery Re5ort - Batch: 280-239239 pre5aration: N7m

LCS 280-257257/21 280-257257 Instrument ID: LCS Lab Sample ID: Analysis Batch: WC\_Alp 2

Client Matrix: Water Prep Batch: N/A Lab File ID: C:\FLOW 4\121514.RST

N/A Dilution: 1.0 Leach Batch: Initial Weight/Volume: 100 mL

Analysis Date: 12/15/2014 1233 Units: Final Weight/Volume: 100 mL mg/L

Prep Date: N/A Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-257257/22 Instrument ID: Analysis Batch: 280-257257 WC Alp 2

Client Matrix: Prep Batch: Lab File ID: C:\FLOW 4\121514.RST Water N/A

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 100 mL

12/15/2014 1235 Analysis Date: Units: mg/L Final Weight/Volume: 100 mL

Prep Date: N/A Leach Date: N/A

% Rec. **RPD** Analyte LCS **LCSD** Limit **RPD Limit** LCS Qual LCSD Qual

Nitrate/Nitrite 105 105 90 - 110 0 10

baS Control xaD 5le7 Method: T3T.2 baS Control xaD 5le v u5licate Recol ery Re5ort - Batch: 280-239239 pre5aration: N7m

LCS Lab Sample ID: LCS 280-257257/60 Analysis Batch: 280-257257 Instrument ID: WC Alp 2

Client Matrix: Water Prep Batch: N/A Lab File ID: C:\FLOW\_4\121514.RST

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 100 mL

Final Weight/Volume: Analysis Date: 12/15/2014 1351 Units: mg/L 100 mL Prep Date: N/A

Leach Date:

LCSD Lab Sample ID: LCSD 280-257257/61 Analysis Batch: 280-257257 Instrument ID: WC\_Alp 2 Client Matrix: Water Prep Batch: N/A Lab File ID: C:\FLOW\_4\121514.RST

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 100 mL

12/15/2014 1353 Units: Final Weight/Volume: Analysis Date: mg/L 100 mL

Prep Date: N/A

% Rec. Analyte LCS **LCSD** Limit **RPD RPD Limit** LCS Qual LCSD Qual

Nitrate/Nitrite 105 90 - 110 106 0 10

Leach Date:

N/A

N/A

Client: Waste Management Job Number: 280-63460-1

Method: T3T.2

baSoratory VUSIGATO VIATA PASORT Patch: 280 239229

baSoratory v u5licate v ata Re5ort - Batch: 280-239239 pre5aration: N7m

LCS Lab Sample ID: LCS 280-257257/21 Units: mg/L LCSD Lab Sample ID: LCSD 280-257257/22

Client Matrix:WaterClient Matrix:WaterDilution:1.0Dilution:1.0

Analysis Date: 12/15/2014 1233 Analysis Date: 12/15/2014 1235

 Prep Date:
 N/A
 Prep Date:
 N/A

 Leach Date:
 N/A
 Leach Date:
 N/A

Analyte LCS Spike LCSD Spike LCS LCSD
Amount Amount Result/Qual Result/Qual

Nitrate/Nitrite 5.00 5.00 5.26 5.24

baSoratory Control7 Method: T3T.2 baSoratory v u5licate v ata Re5ort - Batch: 280-239239 pre5aration: N7m

LCS Lab Sample ID: LCS 280-257257/60 Units: mg/L LCSD Lab Sample ID: LCSD 280-257257/61

Client Matrix:WaterClient Matrix:WaterDilution:1.0Dilution:1.0

Analysis Date: 12/15/2014 1351 Analysis Date: 12/15/2014 1353

Prep Date:N/APrep Date:N/ALeach Date:N/ALeach Date:N/A

Analyte LCS Spike LCSD Spike LCS LCSD
Amount Amount Result/Qual Result/Qual

Nitrate/Nitrite 5.00 5.00 5.27 5.29

Client: Waste Management Job Number: 280-63460-1

Method: T3T.2 Matri/ x5ike7 Matri/ x5ike v u5licate Recol ery Re5ort - Batch: 280-239239 pre5aration: N7m

280-63503-CA-3 MS 280-257257 Instrument ID: MS Lab Sample ID: Analysis Batch: WC\_Alp 2

Client Matrix: Water Prep Batch: N/A Lab File ID: C:\FLOW 4\121514.RST

Dilution: Leach Batch: N/A 5.0 Initial Weight/Volume: 5 mL

Analysis Date: 12/15/2014 1545 Final Weight/Volume: 5 mL N/A

Prep Date: Leach Date: N/A

MSD Lab Sample ID: 280-63503-CA-3 MSD Instrument ID: Analysis Batch: 280-257257 WC\_Alp 2

Client Matrix: Prep Batch: Lab File ID: C:\FLOW 4\121514.RST Water N/A

Dilution: 5.0 Leach Batch: N/A Initial Weight/Volume: 5 mL

12/15/2014 1547 Final Weight/Volume: 5 mL Analysis Date: Prep Date: N/A

% Rec.

Analyte Limit **RPD** Limit MS MSD MS Qual MSD Qual Nitrate/Nitrite 90 - 110 0 97 97 10

RPD

Matri/ x5ike7 Method: T3T.2

Matri/ x5ike v u5licate Recol ery Re5ort - Batch: 280-239239 pre5aration: N7m

MS Lab Sample ID: 280-63503-CA-3 MS Units: mg/L MSD Lab Sample ID: 280-63503-CA-3 MSD

Client Matrix: Water Client Matrix: Water Dilution: 5.0 Dilution: 5.0

Analysis Date: 12/15/2014 1545 Analysis Date: 12/15/2014 1547

Prep Date: N/A N/A Prep Date: Leach Date: N/A Leach Date: N/A

19

Sample MS Spike MSD Spike MS MSD Result/Qual Amount Amount Result/Qual Result/Qual Analyte

20.0

20.0

38.7

38.7

Leach Date:

Nitrate/Nitrite

N/A

Client: Waste Management Job Number: 280-63460-1

Method Blank - Batch: 280-23P636 Method: 410.4 pre5aration: N7m

Lab Sample ID: MB 280-256959/5 Analysis Batch: 280-256959 Instrument ID: WC\_HACH SPEC

Client Matrix: Water Prep Batch: N/A Lab File ID: N/A N/A Dilution: 1.0 Leach Batch: Initial Weight/Volume: 2 mL 12/12/2014 1622 Units: Final Weight/Volume: 2 mL Analysis Date: mg/L

Prep Date: N/A Leach Date: N/A

Analyte Result Qual RL RL

Chemical Oxygen Demand (COD) ND 10 10

baS Control xaD 5le7 Method: 410.4
baS Control xaD 5le v u5licate Recol ery Re5ort - Batch: 280-23P636 pre5aration: N7m

LCS Lab Sample ID: LCS 280-256959/3 Analysis Batch: 280-256959 Instrument ID: WC\_HACH SPEC

Client Matrix: Prep Batch: Lab File ID: N/A N/A Dilution: Leach Batch: N/A Initial Weight/Volume: 100 mL 1.0 12/12/2014 1622 Analysis Date: Units: mg/L Final Weight/Volume: 100 mL

Prep Date: N/A Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-256959/4 Analysis Batch: 280-256959 Instrument ID: WC\_HACH SPEC

Client Matrix: Water Prep Batch: N/A Lab File ID: Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 100 mL Analysis Date: 12/12/2014 1622 Units: mg/L Final Weight/Volume: 100 mL

Prep Date: N/A Leach Date: N/A

% Rec.

Analyte LCS LCSD Limit RPD RPD Limit LCS Qual LCSD Qual

Chemical Oxygen Demand (COD) 100 102 90 - 110 2 11

baSoratory Control7 Method: 410.4 baSoratory v u5licate v ata Re5ort - Batch: 280-23P636 pre5aration: N7m

LCS Lab Sample ID: LCS 280-256959/3 Units: mg/L LCSD Lab Sample ID: LCSD 280-256959/4

Client Matrix:WaterClient Matrix:WaterDilution:1.0Dilution:1.0

Analysis Date: 12/12/2014 1622 Analysis Date: 12/12/2014 1622

Prep Date:N/APrep Date:N/ALeach Date:N/ALeach Date:N/A

Analyte LCS Spike LCSD Spike LCS Result/Qual Result/Qual

Chemical Oxygen Demand (COD) 100 100 100 102

Client: Waste Management Job Number: 280-63460-1

Matri/ x5ike7 Method: 410.4 Matri/ x5ike v u5licate Recol ery Re5ort - Batch: 280-23P636 pre5aration: N7m

280-63484-D-3 MS 280-256959 Instrument ID: WC\_HACH SPEC MS Lab Sample ID: Analysis Batch:

Client Matrix: Water Prep Batch: N/A Lab File ID: N/A Dilution: N/A 1.0 Leach Batch: Initial Weight/Volume: 100 mL

Analysis Date: 12/12/2014 1622 Final Weight/Volume: 100 mL

Prep Date: N/A Leach Date: N/A

MSD Lab Sample ID: 280-63484-D-3 MSD Instrument ID: WC HACH SPEC Analysis Batch: 280-256959

Client Matrix: Lab File ID: Water Prep Batch: N/A N/A Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 100 mL

12/12/2014 1622 Final Weight/Volume: Analysis Date: 100 mL

Prep Date: N/A Leach Date: N/A

% Rec. Analyte Limit RPD **RPD** Limit MS MSD MS Qual MSD Qual

Chemical Oxygen Demand (COD) 90 - 110 3 108 100 11

Matri/ x5ike7 Method: 410.4 Matri/ x5ike v u5licate Recol ery Re5ort - Batch: 280-23P636 pre5aration: N7m

MS Lab Sample ID: 280-63484-D-3 MS Units: mg/L MSD Lab Sample ID: 280-63484-D-3 MSD

Client Matrix: Water Client Matrix: Water Dilution: 1.0 Dilution: 1.0

Analysis Date: 12/12/2014 1622 Analysis Date: 12/12/2014 1622

Prep Date: N/A N/A Prep Date: Leach Date: N/A Leach Date: N/A

Sample MS Spike MSD Spike MS MSD Result/Qual Amount Amount Result/Qual Result/Qual Analyte Chemical Oxygen Demand (COD) 99 50.0 50.0 153 149

Job Number: 280-63460-1 Client: Waste Management

Method Blank - Batch: 280-23P966 Method: xM 2T20B pre5aration: N7m

Lab Sample ID: MB 280-256799/6 280-256799 WC-AT3 Analysis Batch: Instrument ID:

Client Matrix: Water Prep Batch: N/A Lab File ID: 121114.TXT Dilution: Leach Batch: N/A Initial Weight/Volume: 1.0

Analysis Date: 12/11/2014 1056 Units: Final Weight/Volume: mg/L

Prep Date: N/A Leach Date: N/A

Analyte Result Qual RL RL Alkalinity, Total (As CaCO3) ND 5.0 5.0 Alkalinity, Bicarbonate (As CaCO3) ND 5.0 5.0

baS Control xaD 5le7 Method: xM 2T20B baS Control xaD 5le v u5licate Recol ery Re5ort - Batch: 280-23P966 pre5aration: N7m

LCS Lab Sample ID: LCS 280-256799/4 Analysis Batch: 280-256799 Instrument ID: WC-AT3

Client Matrix: Water Prep Batch: N/A Lab File ID: 121114.TXT

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

12/11/2014 1047 Analysis Date: Units: mg/L Final Weight/Volume:

Prep Date: N/A Leach Date: N/A

Instrument ID: LCSD Lab Sample ID: LCSD 280-256799/5 Analysis Batch: 280-256799 WC-AT3

121114.TXT Client Matrix: Water Prep Batch: N/A Lab File ID:

Dilution: Leach Batch: N/A Initial Weight/Volume: 1.0 12/11/2014 1053 Analysis Date: Units: Final Weight/Volume: mg/L

Prep Date: N/A Leach Date: N/A

% Rec. LCS LCSD **RPD** LCSD Qual Analyte Limit **RPD Limit** LCS Qual

Alkalinity, Total (As CaCO3) 97 97 90 - 110 1 10

Method: xM 2T20B baSoratory Control7

baSoratory v u5licate v ata Re5ort - Batch: 280-23P966 pre5aration: N7m

LCS Lab Sample ID: LCS 280-256799/4 Units: mg/L LCSD Lab Sample ID: LCSD 280-256799/5

Client Matrix: Client Matrix: Water Water Dilution: 1.0 Dilution: 1.0

12/11/2014 1047 12/11/2014 1053 Analysis Date: Analysis Date:

Prep Date: N/A Prep Date: N/A Leach Date: N/A Leach Date: N/A

LCS Spike LCSD Spike LCS **LCSD** Analyte Amount Amount Result/Qual Result/Qual 200 200 193 Alkalinity, Total (As CaCO3) 195

Client: Waste Management Job Number: 280-63460-1

v u5licate - Batch: 280-23P966 Method: x M 2T20B pre5aration: N7m

Lab Sample ID: 280-63464-D-1 DU Analysis Batch: 280-256799 Instrument ID:

Lab Sample ID:280-63464-D-1 DUAnalysis Batch:280-256799Instrument ID:WC-AT3Client Matrix:WaterPrep Batch:N/ALab File ID:121114.TXTDilution:1.0Leach Batch:N/AInitial Weight/Volume:

Analysis Date: 12/11/2014 1106 Units: mg/L Final Weight/Volume:

Prep Date: N/A
Leach Date: N/A

Analyte Sample Result/Qual Result RPD Limit Qual
Alkalinity, Total (As CaCO3) 380 379 0.9 10

Client: Waste Management Job Number: 280-63460-1

Method Blank - Batch: 280-23P946 Method: x M 2340C pre5aration: N7m

Lab Sample ID: MB 280-256749/1 Analysis Batch: 280-256749 Instrument ID: WC\_Cond\_Orion

Client Matrix: Water Prep Batch: N/A Lab File ID: N/A N/A Dilution: 1.0 Leach Batch: Initial Weight/Volume: 100 mL Analysis Date: 12/11/2014 1045 Units: Final Weight/Volume: 100 mL mg/L

Prep Date: N/A Leach Date: N/A

Analyte Result Qual RL RL

Total Dissolved Solids (TDS) ND 5.0 5.0

baS Control xaD 5le7 Method: xM 2340C baS Control xaD 5le v u5licate Recol ery Re5ort - Batch: 280-23P946 pre5aration: N7m

LCS Lab Sample ID: LCS 280-256749/2 Analysis Batch: 280-256749 Instrument ID: WC\_Cond\_Orion

Client Matrix: Prep Batch: Lab File ID: N/A N/A Dilution: Leach Batch: N/A Initial Weight/Volume: 100 mL 1.0 12/11/2014 1045 Analysis Date: Units: mg/L Final Weight/Volume: 100 mL

Prep Date: N/A
Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-256749/3 Analysis Batch: 280-256749 Instrument ID: WC\_Cond\_Orion

Client Matrix: Water Prep Batch: N/A Lab File ID: N/A

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 100 mL

Analysis Date: 12/11/2014 1045 Units: mg/L Final Weight/Volume: 100 mL

Analysis Date: 12/11/2014 1045 Units: mg/L Final Weight/Volume: 1972 Prep Date: N/A
Leach Date: N/A

<u>% Rec.</u>

Analyte LCS LCSD Limit RPD RPD Limit LCS Qual LCSD Qual

Total Dissolved Solids (TDS) 99 97 86 - 110 1 20

baSoratory Control7 Method: x M 2340C baSoratory v u5licate v ata Re5ort - Batch: 280-23P946 pre5aration: N7m

LCS Lab Sample ID: LCS 280-256749/2 Units: mg/L LCSD Lab Sample ID: LCSD 280-256749/3

Client Matrix: Water Client Matrix: Water
Dilution: 1.0 Dilution: 1.0

Analysis Date: 12/11/2014 1045 Analysis Date: 12/11/2014 1045

Prep Date:N/APrep Date:N/ALeach Date:N/ALeach Date:N/A

Analyte LCS Spike LCSD Spike LCS LCSD
Amount Amount Result/Qual Result/Qual

Total Dissolved Solids (TDS) 501 501 494 487

Client: Waste Management Job Number: 280-63460-1

v u5licate - Batch: 280-23P946 Method: x M 2340C pre5aration: N7m

Lab Sample ID: 280-63429-A-1 DU Analysis Batch: 280-256749 Instrument ID: WC\_Cond\_Orion

Client Matrix: Water Prep Batch: N/A Lab File ID: N/A

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume: 100 mL

Analysis Date: 12/11/2014 1045 Units: mg/L Final Weight/Volume: 100 mL Prep Date: N/A

Leach Date: N/A

Analyte Sample Result/Qual Result RPD Limit Qual

Total Dissolved Solids (TDS) 550 550 0.4 10

Client: Waste Management Job Number: 280-63460-1

Method Blank - Batch: 280-239148 Method: x M 3T10B pre5aration: N7m

Lab Sample ID: MB 280-257148/5 Analysis Batch: 280-257148 Instrument ID: WC\_SHI2

Client Matrix: Water Prep Batch: N/A Lab File ID: 121214.txt Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 12/12/2014 1526 Units: mg/L Final Weight/Volume:

Prep Date: N/A Leach Date: N/A

Analyte Result Qual RL RL

Total Organic Carbon - Average ND 1.0 1.0

baS Control xaD 5le7 Method: x M 3T10B baS Control xaD 5le v u5licate Recol ery Re5ort - Batch: 280-239148 pre5aration: N7m

LCS Lab Sample ID: LCS 280-257148/3 Analysis Batch: 280-257148 Instrument ID: WC\_SHI2

Client Matrix: Water Prep Batch: N/A Lab File ID: 121214.txt

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 12/12/2014 1451 Units: mg/L Final Weight/Volume: 200 mL
Prep Date: N/A

Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-257148/4 Analysis Batch: 280-257148 Instrument ID: WC\_SHI2 Client Matrix: Water Prep Batch: N/A Lab File ID: 121214.txt

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 12/12/2014 1508 Units: mg/L Final Weight/Volume: 200 mL

Prep Date: N/A
Leach Date: N/A

% Rec.

Analyte LCS LCSD Limit RPD RPD Limit LCS Qual LCSD Qual

Total Organic Carbon - Average 97 98 88 - 112 1 15

baSoratory Control7 Method: x M 3T10B baSoratory v u5licate v ata Re5ort - Batch: 280-239148 pre5aration: N7m

LCS Lab Sample ID: LCS 280-257148/3 Units: mg/L LCSD Lab Sample ID: LCSD 280-257148/4 Client Matrix: Water LCSD Lab Sample ID: LCSD 280-257148/4

Dilution: 1.0 Dilution: 1.0

Analysis Date: 12/12/2014 1451 Analysis Date: 12/12/2014 1508

Prep Date:N/APrep Date:N/ALeach Date:N/ALeach Date:N/A

Analyte LCS Spike LCSD Spike LCS LCSD Amount Result/Qual Result/Qual

Total Organic Carbon - Average 25.0 25.0 24.3 24.6

Client: Waste Management Job Number: 280-63460-1

Matri/ x5ike7 Method: xM 3T10B
Matri/ x5ike v u5licate Recol ery Re5ort - Batch: 280-239148 pre5aration: N7m

MS Lab Sample ID: 280-63503-CC-3 MS Analysis Batch: 280-257148 Instrument ID: WC\_SHI2
Client Matrix: Water Prep Batch: N/A Lab File ID: 121214.txt

Dilution: 1.0 Leach Batch: N/A Lab File ID: 121214.tx

Analysis Date: 12/12/2014 1713 Final Weight/Volume: 50 mL

Prep Date: N/A
Leach Date: N/A

MSD Lab Sample ID: 280-63503-CC-3 MSD Analysis Batch: 280-257148 Instrument ID: WC\_SHI2 Client Matrix: Water Prep Batch: N/A Lab File ID: 121214.txt

Client Matrix: Water Prep Batch: N/A Lab File ID: 121214.txt

Dilution: 1.0 Leach Batch: N/A Initial Weight/Volume:

Analysis Date: 12/12/2014 1731 Final Weight/Volume: 50 mL

Prep Date: N/A

 % Rec.

 Analyte
 MS
 MSD
 Limit
 RPD
 RPD Limit
 MS Qual
 MSD Qual

Total Organic Carbon - Average 99 99 88 - 112 0 15

Matri/ x5ike7 Method: x M 3T10B

Matri/ x5ike v u5licate Recol ery Re5ort - Batch: 280-239148 pre5aration: N7m

MS Lab Sample ID: 280-63503-CC-3 MS Units: mg/L MSD Lab Sample ID: 280-63503-CC-3 MSD

Client Matrix:WaterClient Matrix:WaterDilution:1.0Dilution:1.0

Analysis Date: 12/12/2014 1713 Analysis Date: 12/12/2014 1731

 Prep Date:
 N/A
 Prep Date:
 N/A

 Leach Date:
 N/A
 Leach Date:
 N/A

Sample MS Spike MSD Spike MS MSD Result/Qual Amount Amount Result/Qual Result/Qual Analyte 22 Total Organic Carbon - Average 25.0 25.0 46.7 46.8

Leach Date:

N/A

# **Laboratory Chronicle**

Lab ID: 280-63460-1 Client ID: L-INF

Sample Date/Time: 12/09/2014 08:45 Received Date/Time: 12/10/2014 09:50

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:5030C	280-63460-E-1		480-219996		12/19/2014 06:38	5	TAL BUF	CxM
A:8260C	280-63460-E-1		480-219996		12/19/2014 06:38	5	TAL BUF	CxM
P:5030C	280-63460-J-1		480-219752		12/18/2014 05:04	20	TAL BUF	RAS
A:8260C SIM	280-63460-J-1		480-219752		12/18/2014 05:04	20	TAL BUF	RAS
P:3005A	280-63460-D-1-A		280-257812	280-256658	12/10/2014 18:07	1	TAL DEN	CGG
A:6010B	280-63460-D-1-A		280-257812	280-256658	12/19/2014 03:48	1	TAL DEN	SJS
P:3005A	280-63460-D-1-B		280-256852	280-256659	12/11/2014 09:30	1	TAL DEN	CGG
A:6020	280-63460-D-1-B		280-256852	280-256659	12/12/2014 03:13	1	TAL DEN	LMT
P:3005A	280-63460-D-1-B		280-257289	280-256659	12/11/2014 09:30	1	TAL DEN	CGG
A:6020	280-63460-D-1-B		280-257289	280-256659	12/15/2014 14:45	1	TAL DEN	LMT
A:300.0	280-63460-A-1		280-257326		12/16/2014 18:20	10	TAL DEN	PS1
A:350.1	280-63460-B-1		280-256977		12/12/2014 17:51	5	TAL DEN	CML
A:353.2	280-63460-C-1		280-257257		12/15/2014 13:21	5	TAL DEN	ELJ
A:410.4	280-63460-C-1		280-256959		12/12/2014 16:22	2	TAL DEN	SWS
A:SM 2320B	280-63460-A-1		280-256799		12/11/2014 12:27	1	TAL DEN	CCJ
A:SM 2540C	280-63460-A-1		280-256749		12/11/2014 10:45	1	TAL DEN	SVC
A:SM 5310B	280-63460-C-1		280-257148		12/12/2014 18:24	2	TAL DEN	CCJ
A:Field Sampling	280-63460-A-1		280-256829		12/09/2014 09:45	1	TAL DEN	PS

Lab ID: 280-63460-1 MS Client ID: L-INF

Sample Date/Time: 12/09/2014 08:45 Received Date/Time: 12/10/2014 09:50

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:3005A	280-63460-D-1-C MS		280-256852	280-256659	12/11/2014 09:30	1	TAL DEN	CGG
A:6020	280-63460-D-1-C MS		280-256852	280-256659	12/12/2014 03:21	1	TAL DEN	LMT
P:3005A	280-63460-D-1-C MS		280-257289	280-256659	12/11/2014 09:30	1	TAL DEN	CGG
A:6020	280-63460-D-1-C MS		280-257289	280-256659	12/15/2014 14:52	1	TAL DEN	LMT

Lab ID: 280-63460-1 MSD Client ID: L-INF

Sample Date/Time: 12/09/2014 08:45 Received Date/Time: 12/10/2014 09:50

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:3005A	280-63460-D-1-D MSD		280-256852	280-256659	12/11/2014 09:30	1	TAL DEN	CGG
A:6020	280-63460-D-1-D MSD		280-256852	280-256659	12/12/2014 03:24	1	TAL DEN	LMT
P:3005A	280-63460-D-1-D MSD		280-257289	280-256659	12/11/2014 09:30	1	TAL DEN	CGG
A:6020	280-63460-D-1-D MSD		280-257289	280-256659	12/15/2014 14:55	1	TAL DEN	LMT

# **Laboratory Chronicle**

Lab ID: MB Client ID: N/A

Sample Date/Time: N/A Received Date/Time: N/A

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:5030C	MB 480-219996/6		480-219996		12/18/2014 22:58	1	TAL BUF	CxM
A:8260C	MB 480-219996/6		480-219996		12/18/2014 22:58	1	TAL BUF	CxM
P:5030C	MB 480-219752/8		480-219752		12/18/2014 03:23	1	TAL BUF	RAS
A:8260C SIM	MB 480-219752/8		480-219752		12/18/2014 03:23	1	TAL BUF	RAS
P:3005A	MB 280-256658/1-A		280-257812	280-256658	12/10/2014 18:07	1	TAL DEN	CGG
A:6010B	MB 280-256658/1-A		280-257812	280-256658	12/19/2014 03:01	1	TAL DEN	SJS
P:3005A	MB 280-256659/1-A		280-256852	280-256659	12/11/2014 09:30	1	TAL DEN	CGG
A:6020	MB 280-256659/1-A		280-256852	280-256659	12/12/2014 03:06	1	TAL DEN	LMT
P:3005A	MB 280-256659/1-A		280-257289	280-256659	12/11/2014 09:30	1	TAL DEN	CGG
A:6020	MB 280-256659/1-A		280-257289	280-256659	12/15/2014 14:37	1	TAL DEN	LMT
A:300.0	MB 280-257326/6		280-257326		12/16/2014 11:38	1	TAL DEN	PS1
A:350.1	MB 280-256977/162		280-256977		12/12/2014 14:35	1	TAL DEN	CML
A:350.1	MB 280-256977/203		280-256977		12/12/2014 16:04	1	TAL DEN	CML
A:353.2	MB 280-257257/23		280-257257		12/15/2014 12:37	1	TAL DEN	ELJ
A:353.2	MB 280-257257/62		280-257257		12/15/2014 13:55	1	TAL DEN	ELJ
A:410.4	MB 280-256959/5		280-256959		12/12/2014 16:22	1	TAL DEN	SWS
A:SM 2320B	MB 280-256799/6		280-256799		12/11/2014 10:56	1	TAL DEN	CCJ
A:SM 2540C	MB 280-256749/1		280-256749		12/11/2014 10:45	1	TAL DEN	SVC
A:SM 5310B	MB 280-257148/5		280-257148		12/12/2014 15:26	1	TAL DEN	CCJ

TestAmerica Denver A = Analytical Method P = Prep Method

Client: Waste Management Job Number: 280-63460-1

#### **Laboratory Chronicle**

Lab ID: LCS Client ID: N/A

Sample Date/Time: N/A Received Date/Time: N/A

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:5030C	LCS 480-219996/4		480-219996		12/18/2014 22:09	1	TAL BUF	CxM
A:8260C	LCS 480-219996/4		480-219996		12/18/2014 22:09	1	TAL BUF	CxM
P:5030C	LCS 480-219752/5		480-219752		12/18/2014 02:11	1	TAL BUF	RAS
A:8260C SIM	LCS 480-219752/5		480-219752		12/18/2014 02:11	1	TAL BUF	RAS
P:3005A	LCS 280-256658/2-A		280-257812	280-256658	12/10/2014 18:07	1	TAL DEN	CGG
A:6010B	LCS 280-256658/2-A		280-257812	280-256658	12/19/2014 03:04	1	TAL DEN	SJS
P:3005A	LCS 280-256659/2-A		280-256852	280-256659	12/11/2014 09:30	1	TAL DEN	CGG
A:6020	LCS 280-256659/2-A		280-256852	280-256659	12/12/2014 03:10	1	TAL DEN	LMT
P:3005A	LCS 280-256659/2-A		280-257289	280-256659	12/11/2014 09:30	1	TAL DEN	CGG
A:6020	LCS 280-256659/2-A		280-257289	280-256659	12/15/2014 14:41	1	TAL DEN	LMT
A:300.0	LCS 280-257326/4		280-257326		12/16/2014 11:05	1	TAL DEN	PS1
A:350.1	LCS 280-256977/160		280-256977		12/12/2014 14:31	1	TAL DEN	CML
A:350.1	LCS 280-256977/201		280-256977		12/12/2014 16:00	1	TAL DEN	CML
A:353.2	LCS 280-257257/21		280-257257		12/15/2014 12:33	1	TAL DEN	ELJ
A:353.2	LCS 280-257257/60		280-257257		12/15/2014 13:51	1	TAL DEN	ELJ
A:410.4	LCS 280-256959/3		280-256959		12/12/2014 16:22	1	TAL DEN	SWS
A:SM 2320B	LCS 280-256799/4		280-256799		12/11/2014 10:47	1	TAL DEN	CCJ
A:SM 2540C	LCS 280-256749/2		280-256749		12/11/2014 10:45	1	TAL DEN	SVC
A:SM 5310B	LCS 280-257148/3		280-257148		12/12/2014 14:51	1	TAL DEN	CCJ

Lab ID: LCSD Client ID: N/A

Sample Date/Time: N/A Received Date/Time: N/A

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:5030C	LCSD 480-219752/6		480-219752		12/18/2014 02:35	1	TAL BUF	RAS
A:8260C SIM	LCSD 480-219752/6		480-219752		12/18/2014 02:35	1	TAL BUF	RAS
A:300.0	LCSD 280-257326/5		280-257326		12/16/2014 11:21	1	TAL DEN	PS1
A:350.1	LCSD		280-256977		12/12/2014 14:49	1	TAL DEN	CML
	280-256977/166							
A:350.1	LCSD		280-256977		12/12/2014 16:02	1	TAL DEN	CML
	280-256977/202							
A:353.2	LCSD 280-257257/22		280-257257		12/15/2014 12:35	1	TAL DEN	ELJ
A:353.2	LCSD 280-257257/61		280-257257		12/15/2014 13:53	1	TAL DEN	ELJ
A:410.4	LCSD 280-256959/4		280-256959		12/12/2014 16:22	1	TAL DEN	SWS
A:SM 2320B	LCSD 280-256799/5		280-256799		12/11/2014 10:53	1	TAL DEN	CCJ
A:SM 2540C	LCSD 280-256749/3		280-256749		12/11/2014 10:45	1	TAL DEN	SVC
A:SM 5310B	LCSD 280-257148/4		280-257148		12/12/2014 15:08	1	TAL DEN	CCJ

Client: Waste Management Job Number: 280-63460-1

#### **Laboratory Chronicle**

Lab ID: MRL Client ID: N/A

Sample Date/Time: N/A Received Date/Time: N/A

Date Prepared / **Analysis** Method Bottle ID Run Batch Prep Batch Analyzed Dil Analyst Lab A:300.0 MRL 280-257326/3 280-257326 12/16/2014 10:48 TAL DEN PS1 A:353.2 MRL 280-257257/18 280-257257 12/15/2014 11:52 TAL DEN ELJ

Lab ID: MS Client ID: N/A

Sample Date/Time: 12/08/2014 15:30 Received Date/Time: 12/11/2014 09:30

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:5030C	480-72854-F-2 MS		480-219996		12/19/2014 07:02	1	TAL BUF	CxM
A:8260C	480-72854-F-2 MS		480-219996		12/19/2014 07:02	1	TAL BUF	CxM
P:3005A	280-63426-C-1-B MS		280-257812	280-256658	12/10/2014 18:07	1	TAL DEN	CGG
A:6010B	280-63426-C-1-B MS		280-257812	280-256658	12/19/2014 03:11	1	TAL DEN	SJS
A:300.0	550-36439-B-1 MS		280-257326		12/16/2014 14:08	10	TAL DEN	PS1
A:350.1	280-63446-A-1 MS		280-256977		12/12/2014 14:39	5	TAL DEN	CML
A:353.2	280-63503-CA-3 MS		280-257257		12/15/2014 15:45	5	TAL DEN	ELJ
A:410.4	280-63484-D-3 MS		280-256959		12/12/2014 16:22	1	TAL DEN	SWS
A:SM 5310B	280-63503-CC-3 MS		280-257148		12/12/2014 17:13	1	TAL DEN	CCJ

Lab ID: MSD Client ID: N/A

Sample Date/Time: 12/08/2014 15:30 Received Date/Time: 12/11/2014 09:30

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:5030C	480-72854-F-2 MSD		480-219996		12/19/2014 07:26	1	TAL BUF	CxM
A:8260C	480-72854-F-2 MSD		480-219996		12/19/2014 07:26	1	TAL BUF	CxM
P:3005A	280-63426-C-1-C MSD		280-257812	280-256658	12/10/2014 18:07	1	TAL DEN	CGG
A:6010B	280-63426-C-1-C MSD		280-257812	280-256658	12/19/2014 03:14	1	TAL DEN	SJS
A:300.0	550-36439-B-1 MSD		280-257326		12/16/2014 14:25	10	TAL DEN	PS1
A:350.1	280-63446-A-1 MSD		280-256977		12/12/2014 14:47	5	TAL DEN	CML
A:353.2	280-63503-CA-3 MSD		280-257257		12/15/2014 15:47	5	TAL DEN	ELJ
A:410.4	280-63484-D-3 MSD		280-256959		12/12/2014 16:22	1	TAL DEN	SWS
A:SM 5310B	280-63503-CC-3 MSD		280-257148		12/12/2014 17:31	1	TAL DEN	CCJ

Lab ID: DU Client ID: N/A

Sample Date/Time: 12/08/2014 10:00 Received Date/Time: 12/08/2014 17:20

			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
A:300.0	550-36439-B-1 DU		280-257326		12/16/2014 13:51	10	TAL DEN	PS1
A:SM 2320B	280-63464-D-1 DU		280-256799		12/11/2014 11:06	1	TAL DEN	CCJ
A:SM 2540C	280-63429-A-1 DU		280-256749		12/11/2014 10:45	1	TAL DEN	SVC

#### **Quality Control Results**

Client: Waste Management Job Number: 280-63460-1

#### **Laboratory Chronicle**

#### Lab References:

TAL BUF = TestAmerica Buffalo TAL DEN = TestAmerica Denver

TestAmerica Denver A = Analytical Method P = Prep Method

TestAmerica Denver (F) 4955 Yarror Street Arvadz UO 85502 Phone (303) 736-0100 Fax (303) 431-7171

Chain of C.

280-63460 Chain of Custody

		The same of the last of the la						
Client Information	RValley Ro	_	Lab Ptv: Sara, Betsy A			Carrier Tracking No(s):		230-29114-4071.1
	Phone:		E-Mail:				Page:	
Mr. Charles Luckie	1 Soll - 105- 8		betsy.sara@testar	nericainc.cor			Page 1 of 1	of 1
Company: Olympic View Transfer Station			riouneme	An	Analysis Requested	ted	***	
Address: 9300 Southwest Barney White Road	Due Date Requested:						Preserv	~
City. Bremerton	TAT Requested (days):						A-HCL B-NaO	
Sigle, Zlp: WA, 98312	·						D-Nitrio	D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3
Phone:	#0A#:							
Eneil:	₩Ô#:		N 10					
Project Name: WA02[Olympic View Sanitary LF	Project #: 28002692-Annual OBW-TB/L-INF App I/II -Dec	L-INF App I/II -Dec	ю (Хө 100 se	opļuc			inguistr L-EDA	
Ste: Washington	SSOW#:		A) as	8			Officer Officer	
		Sample Matrix Type (Wewater, Sasolid, Cacomp, carasteloil.	eld Filtered MBM nrovie AOV - 800	1604/AIKa/TDS	TXON/slnomm		redmit/listo	
Sample Identification	Sample Date Time	G=grab)   BT=Tresue, A=Air) Preservation Code:	X X	o Z	. ¥ . ⊗			Special Instructions/Note:
当たし	12/9/14 0845	3	1	×	<b>×</b>			
				,				
							\ <u>\</u> \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	
and comments							03	
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							(3)	
Section 1								
							17 2.7.5 ; ;	
			Sample D	isposal (A)	fee may be asses	sed if samp	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	r than 1 month)
v, Other (specify)	Unknown	Kadiological	Special In	um 10 Cilent structions/QC	Special Instructions/QC Requirements:	sal By Lab	Archive For	SIDUOM:
Emoty Kit Belingsished hy	Data		Time.			Method of Shipment:	ment:	
Enlipty Not Nemiquished by.	7		- 1			dino to company		
MILMIN	12/4/14	Company (2,5,	5	ad by:		2 Dat	12/10/14 950	\
	Date/Time:	Семрапу	Received by:	ed by:		Dat	Date/Time:	Сотралу
Refinquished by:	Date/Time:	Company	Received by:	d by:		Dat	Date/Time:	Company
Custody Seals Intact: Custody Seal No.: 332119			Cooler 1	remperature(s)	Cooler Temperature(s) °C and Other Remarks:			
2. 1								

Site   This Waste Management Field Information Form   WASTE MAI	AGEMENT
Name:  Site No.: 50 3 7 0 2 Sample Point:  Sample ID  This Waste Management Field Information Form is Required This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).  Laboratory Use Only/Lab ID:	
	LL VOLS PRGED below.
Well Elevation (at TOC)  Total Well Depth (from TOC)  Stick Up (from ground elevation)  (from TOC)  Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be can	(ft/msl)
Sample Time (2400 Hr Clock)	e sheet or form
Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Sample Appearance: OFF Color / Particulates Odor: Slight Color: Straw Other:  Weather Conditions (required daily, or as conditions change): Direction/Speed: 18 Straw Precipitation: (Y)  Specific Comments (including purge/well volume calculations if required):	
I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):    12/9/14	

Page 66 of 68

#### Login Sample Receipt Checklist

Client: Waste Management Job Number: 280-63460-1

Login Number: 63460 List Source: TestAmerica Denver

List Number: 1

Creator: Conquest, Tyler W

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	Refer to job narrative for details
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

#### **Login Sample Receipt Checklist**

Client: Waste Management Job Number: 280-63460-1

List Source: TestAmerica Buffalo
List Number: 2
List Creation: 12/12/14 01:40 PM

Creator: Robison, Zachary J

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.7 C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

#### APPENDIX C

2014 ANNUAL TIME SERIES, TREND TEST, AND PREDICTION LIMIT EVALUATION

### **Olympic View Sanitary Landfill**

## Annual Statistical Evaluation & Summary 2014 Monitoring Year

#### Prepared for:

#### SCS ENGINEERS

2405 140<sup>th</sup> Ave NE, Ste 107 Bellevue, Washington 98005 (425) 746-4600

#### Prepared by:

## GeoChem Applications Geochemical and Statistical Data Analysis

3941 Park Drive, Suite 20-249 El Dorado Hills, CA 95762 916 ♦ 939 ♦ 2307 www.geochemapplications.com

#### **MARCH 2015**

#### **CONTENTS**:

- 1. Statistical Trend Analysis (showing status through Q4 2014)
- 2. Prediction Limits for Detection Monitoring
  - a. 2014 Prediction Limits (showing status through Q4 2014)
  - b. Updated Prediction Limits for Use in 2015 Monitoring Year
- 3. 2014 Annual UCL Calculations for Preliminary Groundwater Cleanup Goals

## 1. Statistical Trend Analysis

- Trend Results Summary Table (showing status through Q4 2014) (Table 1-1)
- Time-Series Graphs Depicting Significant Trends for "Trend Test A"
- Time-Series Graphs Depicting Significant Trends for "Trend Test B"

# Results of Sen's Non-Parametric Test for Trend

**URTH QUARTER 2014 RE** 

Trend Test Period: January 2005 through December 2014

**Trend Test Wells:** 

- Compliance Wells: MW-15R, MW-34A, MW-34C, MW-39, MW-42, MW-43

- Performance Wells: MW-2B1, MW-4, MW-19C, MW-20, MW-23A, MW-24

- Downgradient Wells: MW-9\*, MW-29A\*\*, MW-32, MW-33A\*\*, MW-33C, MW-36A

- Upgradient Wells MW-13A, MW-13B, MW-16, MW-35,

\*no longer routinely sampled; \*\*sampled semi-annually

Appendix II of WAC 173-351-990 that have been detected at least once in

Trend Test A = all organic parameters listed in Appendix I and

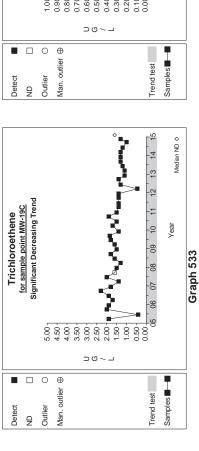
at least one of 22 wells comprising the network of 1) compliance, 2) performance, 3) downgradient, and 4) upgradient site monitoring wells, during the trend test period. This includes the following constituents:		
	Significant Increasing Trends	Significant Decreasing Trend
1,1-Dichloroethane	None	None
1,2-Dichloroethene (total)	None	None
1,2-Dichlorobenzene	None	None
1,4-Dichlorobenzene	None	None
Acetone	None	None
Benzene	None	None
Carbon Disulfide	None	None
Chlorobenzene	None	None
Chlorodifluoromethane	None	None
Chloroethane	None	None
Chloroform	None	None
Chloromethane	None	None
cis-1,2-dichloroethene	None	None
Dichlorodifluoromethane	None	None
Ethyl Ether	None	None
Methylene Chloride	None	None
Naphthalene	None	None
n-Butyl Alcohol	None	None
tert-Butyl Alcohol	None	None
Tetrachloroethene	None	None
Tetrahydrofuran	None	None
Toluene	None	None
trans-1,2-Dichloroethene	None	None
Trichloroethene	None	MW-19C (graph 533)
مانام المدائر		MW-19C (graph 555)
Viriyi Criioride	None	MW-24 (graph 558)
		MW-34C (graph 565)

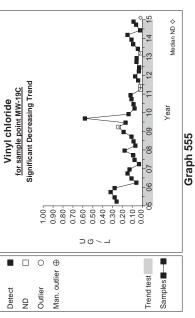
<b>Trend Test B</b> = all metals and groundwater quality parameters listed in Appendix I and Appendix II of WAC (173-351-990)		
	Significant Increasing Trends	Significant Decreasing Trends
Antimony, dissolved	None	None
		MW-16 (graph 92) MW-19C (graph 93)
		MW-23A (graph 95)
Arsanic dissolved	0 0 2	MW-24 (graph 96)
		MW-32 (graph 99)
		MW-33C (graph 101)
		MW-34C (graph 103)
		MW-36A (graph 105)
		MW-15R (graph 113)
		MW-19C (graph 115)
Barium, dissolved	None	MW-24 (graph 118)
		MW-29A (graph 119)
		MW-36A (graph 127)
Beryllium, dissolved	None	None
Cadmium, dissolved	None	None
Lovice alimond	MW-34A (graph 234)	
מווימון, משטטעסס	MW-36A (graph 237)	0
Cobalt, dissolved	None	None
Copper, dissolved	None	None
Lead, dissolved	None	None
Nickel, dissolved	None	None
Selenium, dissolved	None	None
Silver, dissolved	None	None
Thallium, dissolved	None	None
Vanadium, dissolved	None	MW-36A (graph 677)
Zinc, dissolved	None	None
Nitrate (as N)	MW-35 (graph 412)	None
	MW-36A (graph 413)	
Ţ	MW-16 (graph 422)	d CON
-	MW-42 (graph 438)	

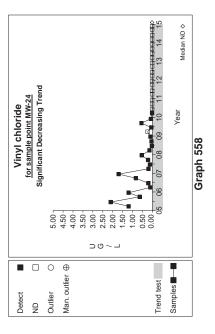
Specific Conductivity	None	MW-15R (graph 531) MW-19C (graph 533) MW-23A (graph 535) MW-24 (graph 536) MW-29A (graph 537) MW-32 (graph 539) MW-33A (graph 540) MW-34A (graph 542) MW-34A (graph 543) MW-36A (graph 545)
Temperature	MW-20 (graph 578) MW-2B1 (graph 582) MW-32 (graph 583) MW-34A (graph 586) MW-34C (graph 587)	MW-24 (graph 580)
Calcium, dissolved	None	MW-15R (graph 179) MW-23A (graph 183) MW-24 (graph 184) MW-29A (graph 185) MW-2B1 (graph 186) MW-33A (graph 191) MW-36A (graph 193) MW-9 (graph 198)
Bicarbonate Alkalinity (as CaCO3)	MW-13A (graph 1) MW-13B (graph 2) MW-35 (graph 16)	MW-15R (graph 3) MW-23A (graph 7) MW-24 (graph 8) MW-36A (graph 17)
Magnesium, dissolved	None	MW-15R (graph 333) MW-23A (graph 337) MW-24 (graph 338) MW-2B1 (graph 340) MW-33A (graph 342) MW-34C (graph 344) MW-34C (graph 345)

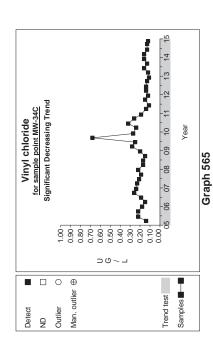
		MW-13A (graph 551)
		MW-13B (graph 552)
Sill fate	MW-20 (graph 556)	MW-19C (graph 555)
כפומוס	MW-24 (graph 558)	MW-23A (graph 557)
		MW-34A (graph 564)
		MW-4 (graph 569)
		MW-15R (graph 509)
		MW-19C (graph 511)
To a contract the contract to	00 VVV	MW-23A (graph 513)
oddidii, dissolved	MW-20 (graph 312)	MW-24 (graph 514)
		MW-34A (graph 520)
		MW-34C (graph 521)
		MW-15R (graph 201)
		MW-19C (graph 203)
		MW-23A (graph 205)
		MW-2B1 (graph 208)
Chloride	None	MW-33A (graph 210)
		MW-34A (graph 212)
		MW-34C (graph 213)
		MW-36A (graph 215)
		MW-4 (graph 217)
Potassium, dissolved	MW-42 (graph 460)	None
	-	MW-15R (graph 25)
	MW-13A (graph 23)	MW-23A (graph 29)
l otal Alkalinity as CaCO3	MW-13B (graph 24)	MW-24 (graph 30)
	MW-35 (graph 38)	MW-36A (graph 39)
		MW-19C (graph 291)
		MW-24 (graph 294)
Iron, dissolved	None	MW-32 (graph 297)
		MW-34C (graph 301)
		MW-9 (graph 308)
		MW-15R (graph 355)
Manganese, dissolved	None	MW-23A (graph 359)
		MW-24 (graph 360)
Ammonia (as N)	None	MW-29A (graph 53)
Total Organic Carbon	None	None
	.,,	

		MW-15R (graph 619)	
		MW-23A (graph 623)	
Contract Con	()	MW-24 (graph 624)	
ו טומו בוסטוועפט סטוועס		MW-2B1 (graph 626)	
		MW-33A (graph 628)	
		MW-34C (graph 631)	

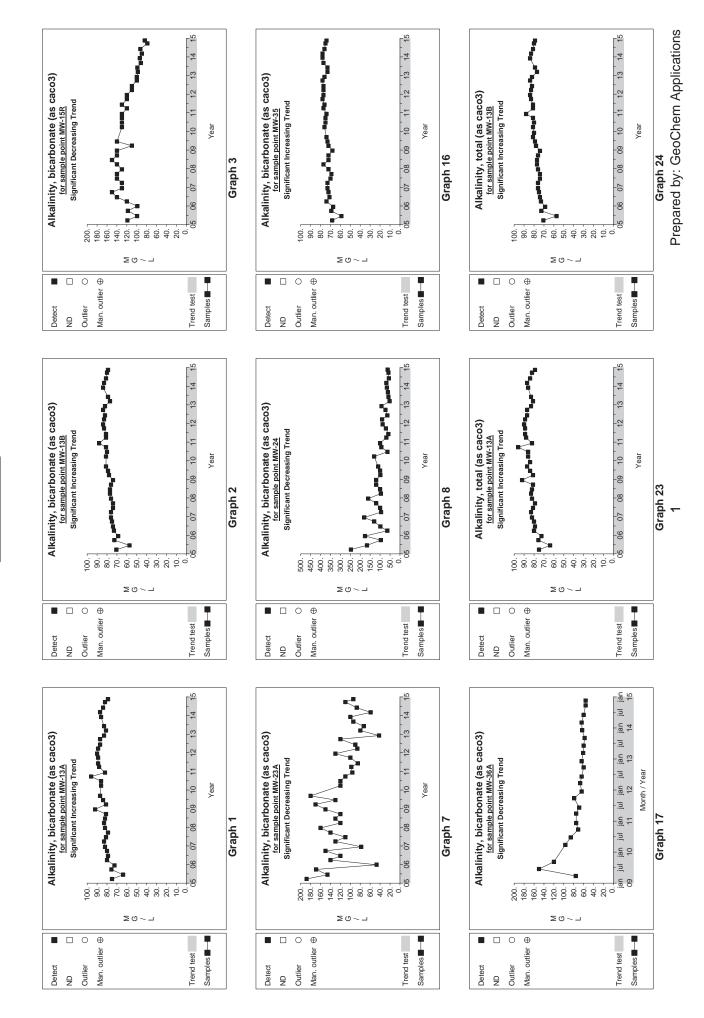


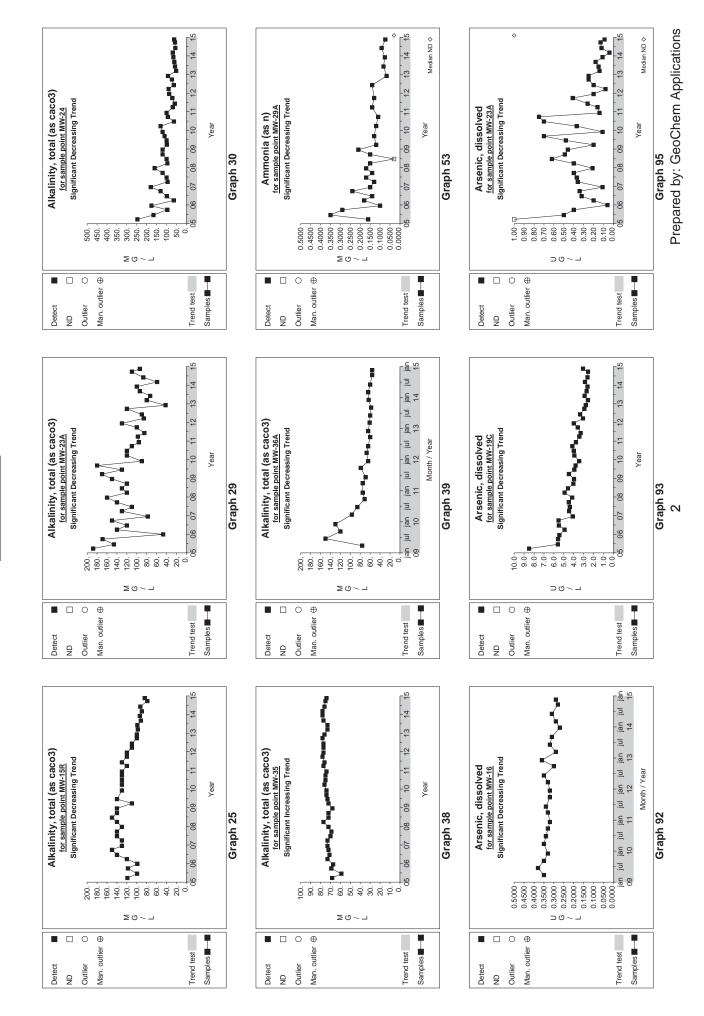


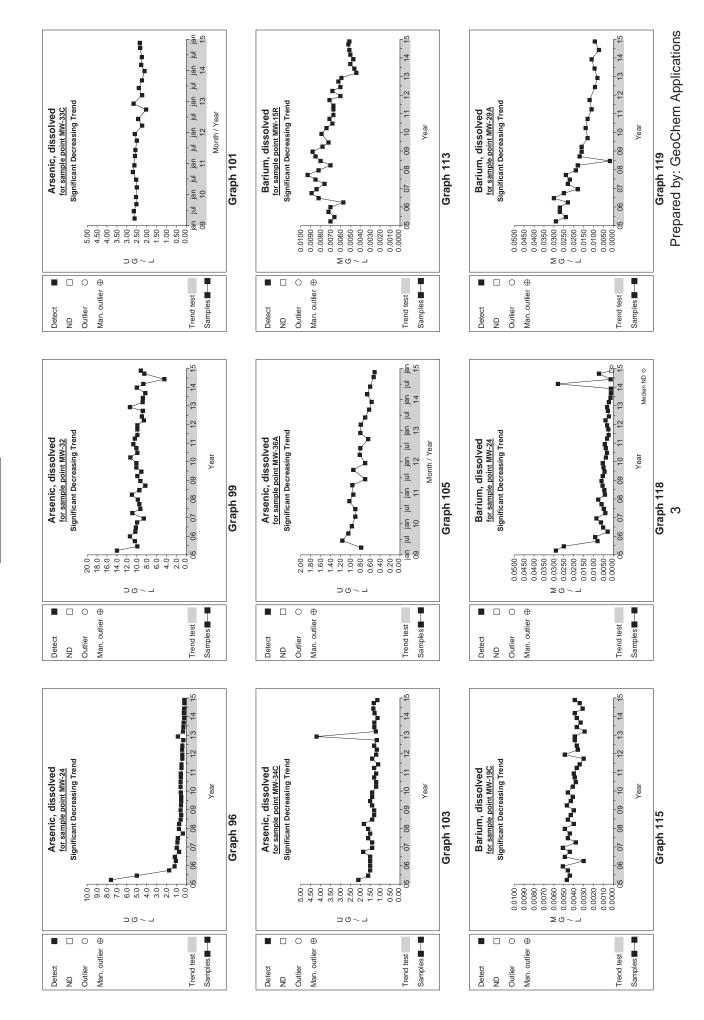


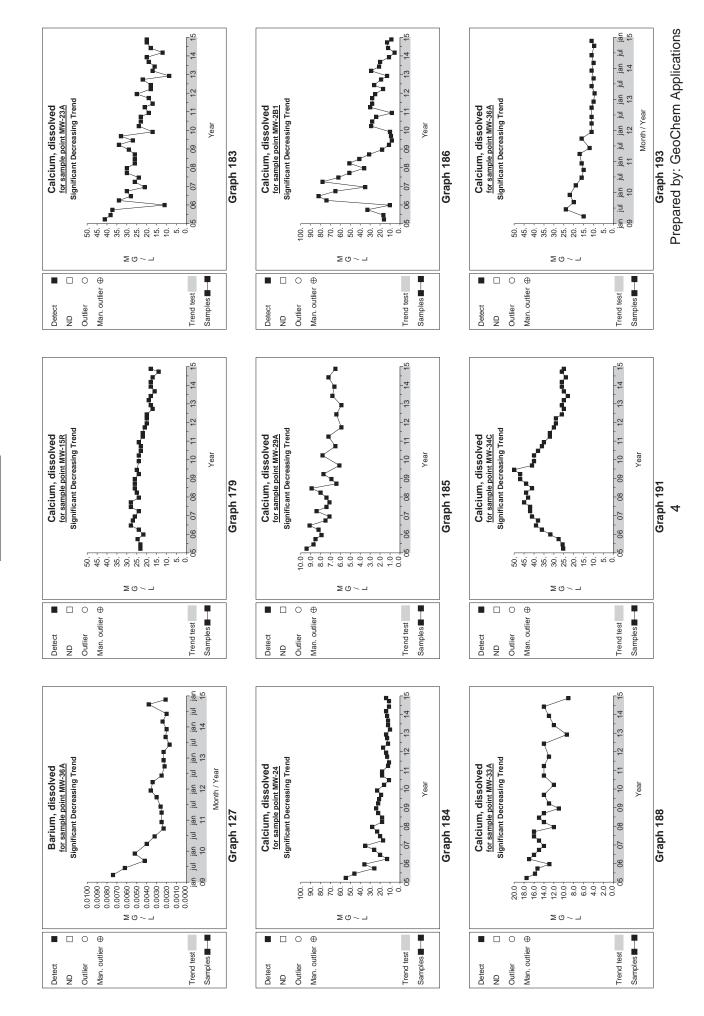


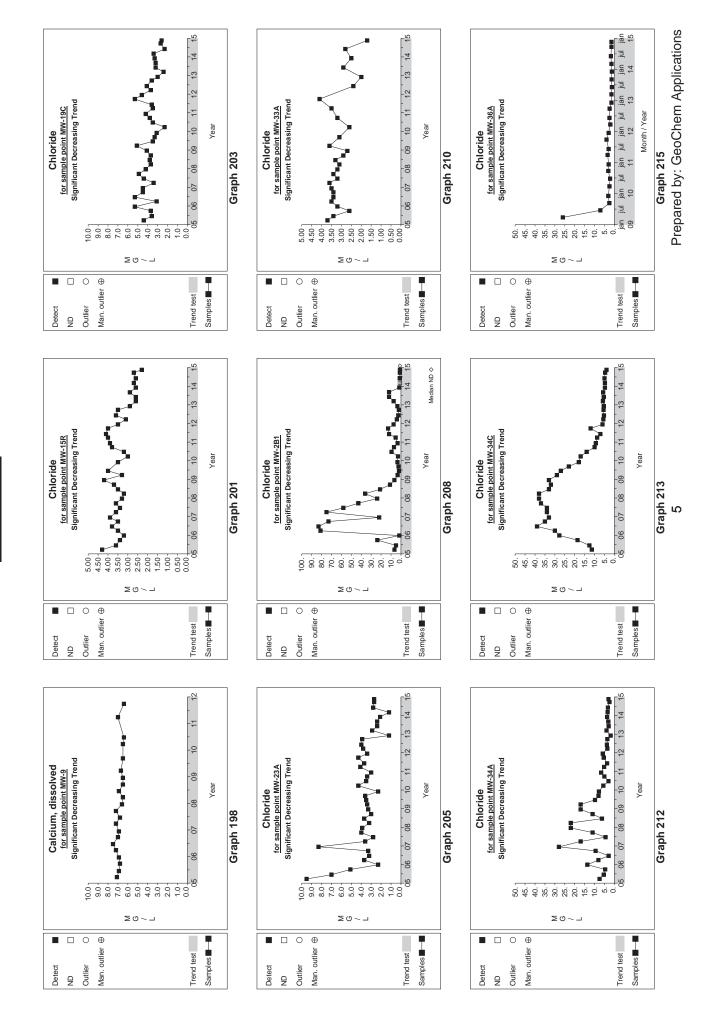
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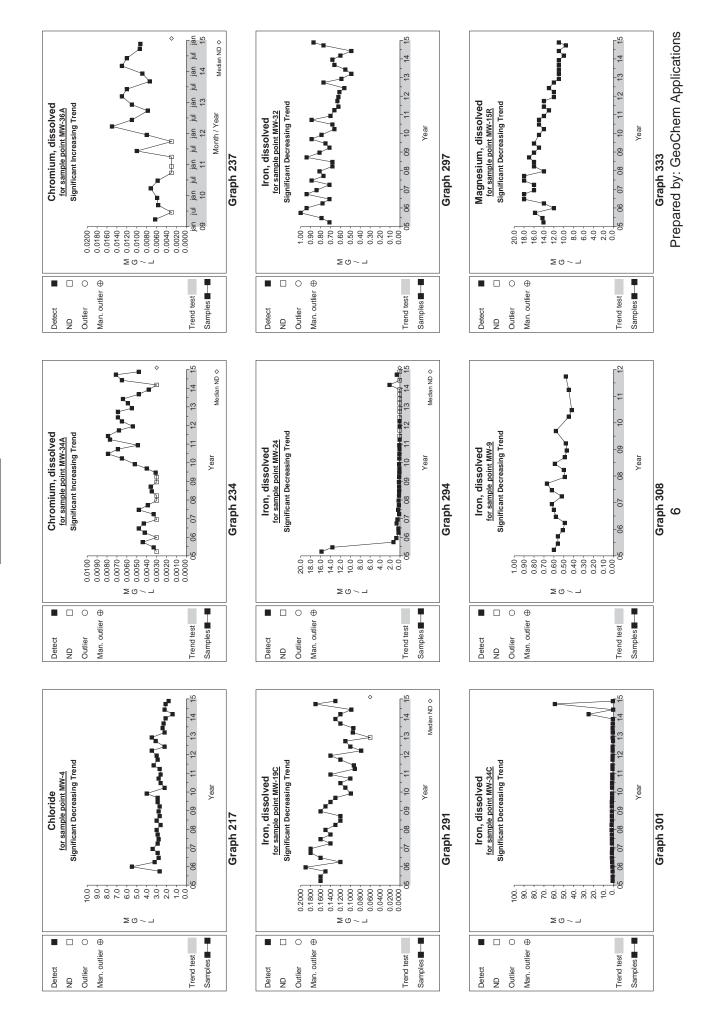


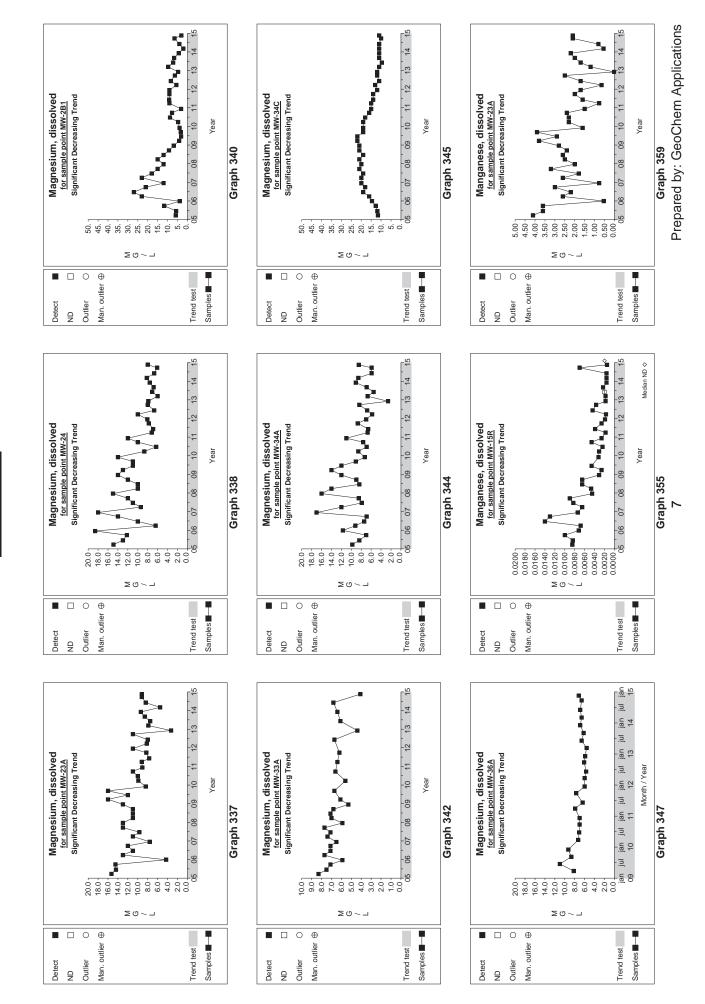


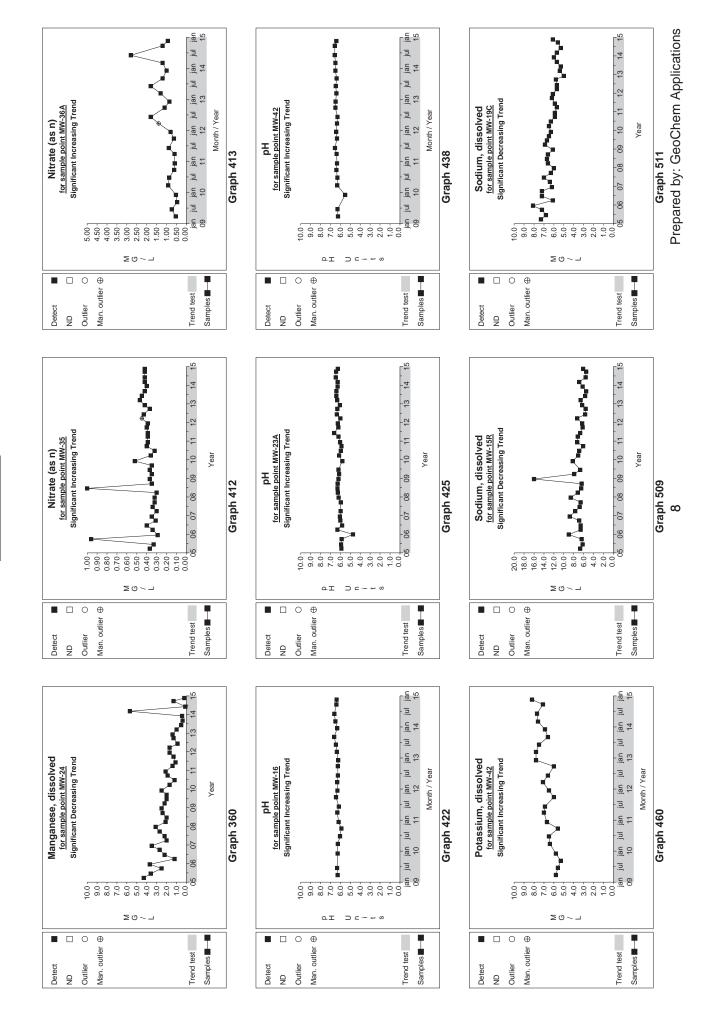


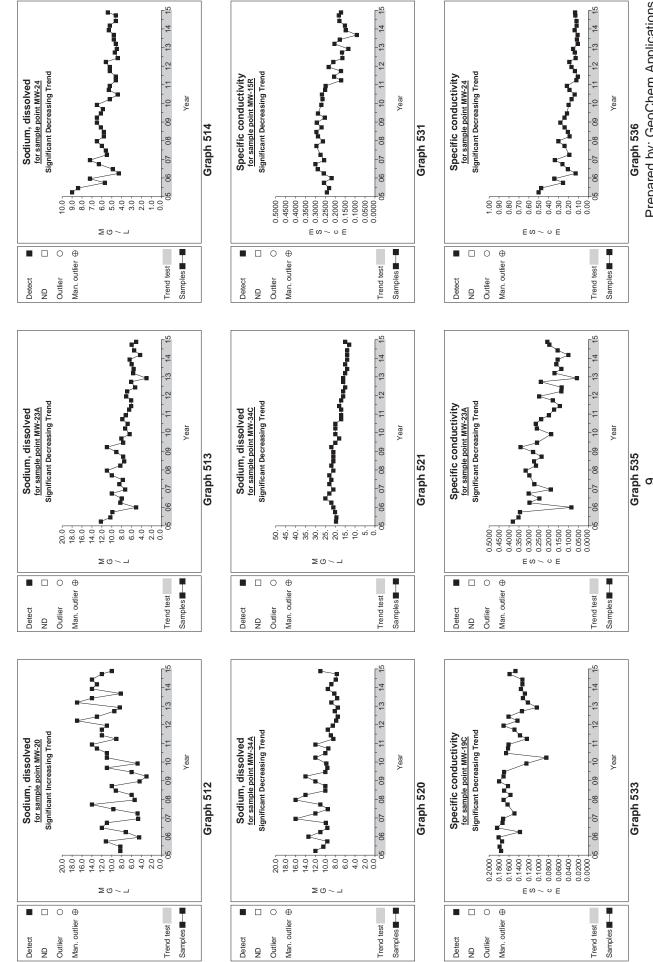




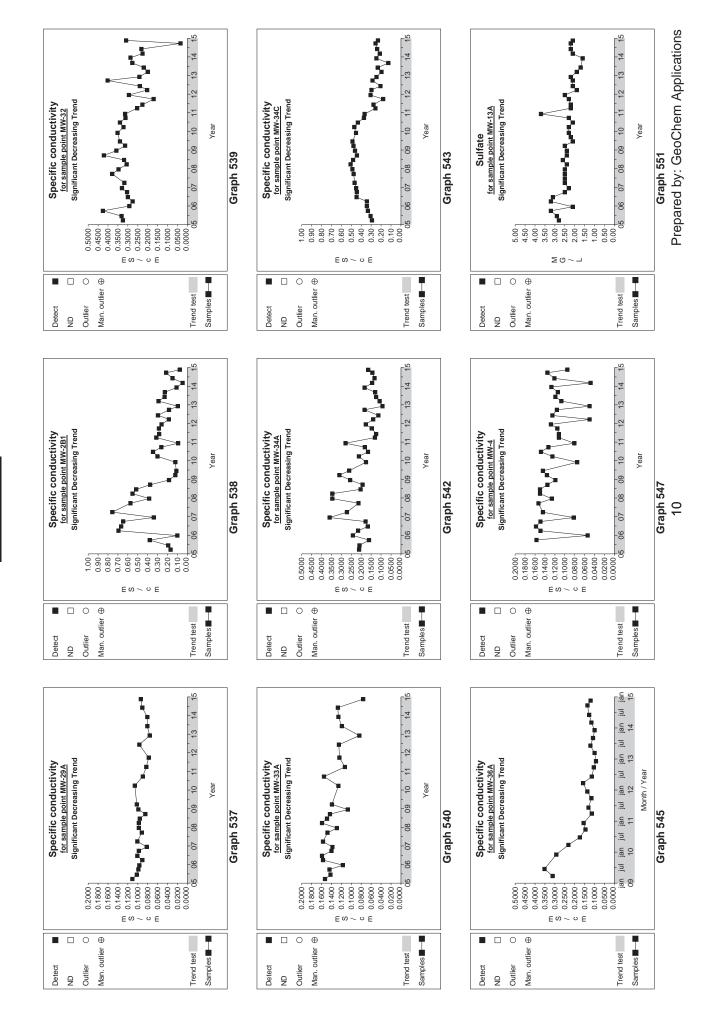


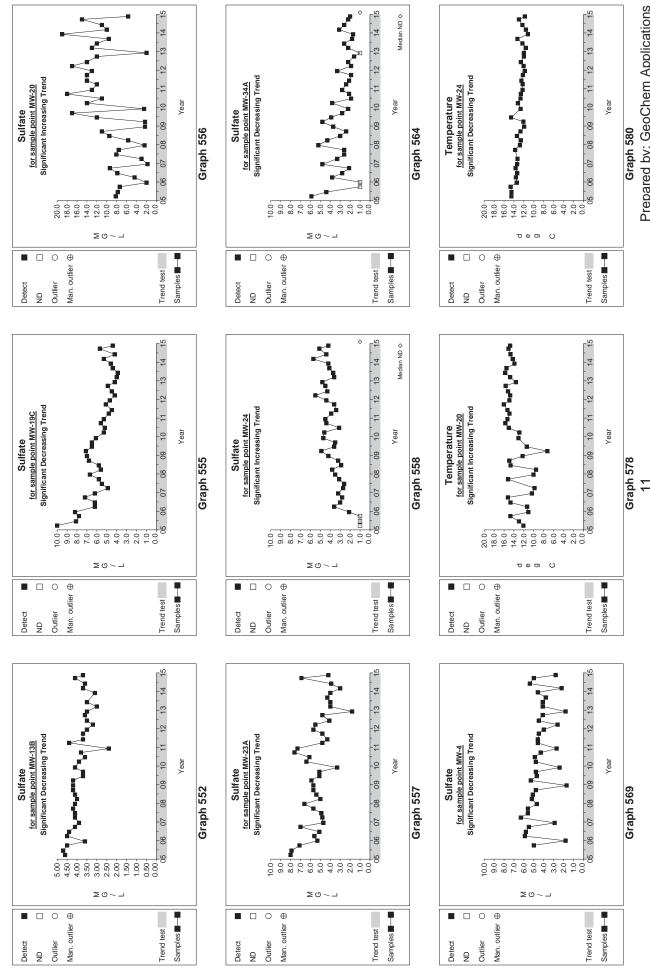




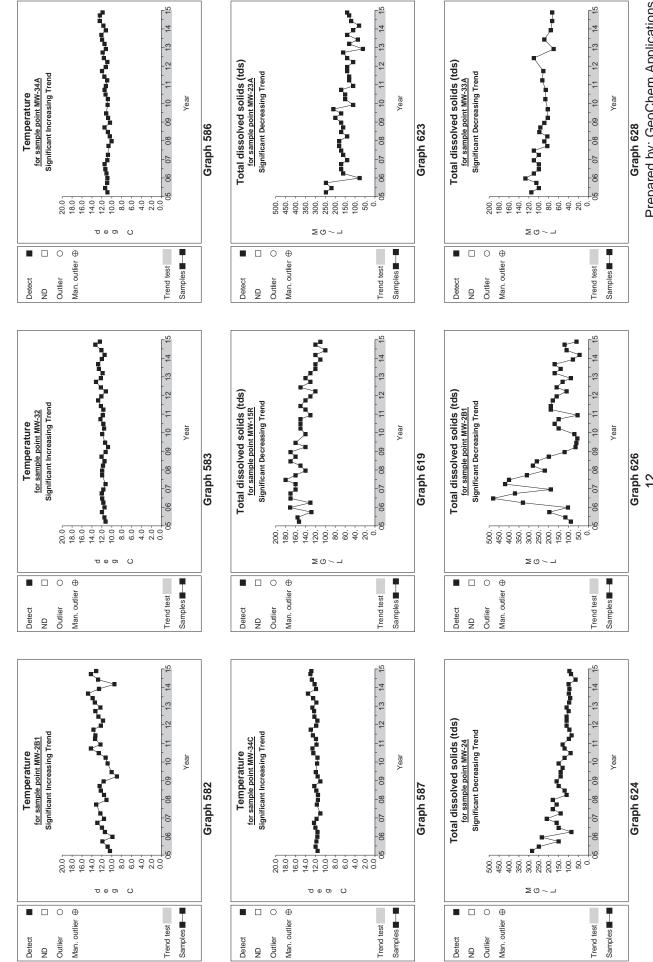


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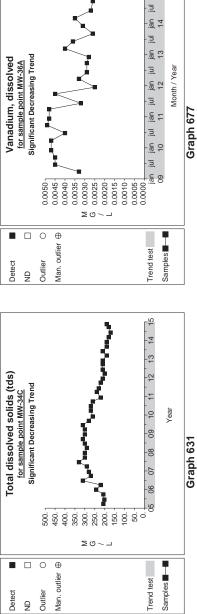


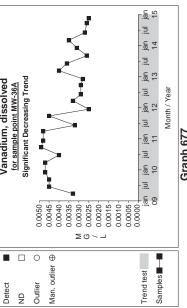


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## 2. Prediction Limits for Detection Monitoring

- 2014 Prediction Limits and Q4 2014 Exceedance Summary Table (Table 2-1)
- Updated Prediction Limits for Use During 2015 Monitoring Year (Table 2-2)
- Upgradient Data used in 2015 Prediction Limit Calculations (Table 2-3)
- Results of Shapiro-Wilk Test for Normality for 2015 Upgradient Data (Table 2-4)
- Comparison of 2014 Prediction Limits with 2015 Prediction Limits (Table 2-5)

#### TABLE 2-1 SUMMARY OF CURRENT PREDICTION LIMIT EXCEEDANCES Q4 2014

#### **Olympic View Sanitary Landfill**

#### **Statistical Methodology:**

- 1. Inter-Well Prediction Limits using DUMPStat<sup>™</sup>
- 2. Upgradient Data Set: pooled data from wells MW-13A, MW-13B, MW-16, and MW-35
- 3. "Detection Monitoring" well comparisons:
  - complance wells: MW-15R, MW-34A, MW-34C, MW-39, MW-42, MW-43
  - downgradient wells: MW-9\*, MW-29A\*\*, MW-32, MW-33A\*\*, MW-33C, MW-36A
    - \*no longer routinely sampled, therefore no results presented
    - \*\*sampled semi-annually, most current results presented
- 4. Parameters: all Appendix I and II inorganic and ground water quality parameters
- 5. Background Data Sets: January 2005 December 2013
- 6. Arsenic: only low-level Method 200.8 data used
- 7. Units: MG/L = milligrams per liter; mS/cm = millisiemens per centimeter; deg C = degrees Celcius

					Prediction
<u>Parameter</u>	<u>Unit</u>	<u>Well</u>	Latest Result	Date Sampled	<u>Limit</u>
Alkalinity, bicarbonate (as caco3)	MG/L	MW-32	130	11/20/2014	96
Alkalinity, bicarbonate (as caco3)	MG/L	MW-34C	110	11/19/2014	96
Alkalinity, bicarbonate (as caco3)	MG/L	MW-39	98	11/18/2014	96
Alkalinity, bicarbonate (as caco3)	MG/L	MW-42	230	11/18/2014	96
Alkalinity, total (as caco3)	MG/L	MW-32	130	11/20/2014	96
Alkalinity, total (as caco3)	MG/L	MW-34C	110	11/19/2014	96
Alkalinity, total (as caco3)	MG/L	MW-39	98	11/18/2014	96
Alkalinity, total (as caco3)	MG/L	MW-42	230	11/18/2014	96
Ammonia (as n)	MG/L	MW-42	6.3	11/18/2014	0.340
Arsenic, dissolved	UG/L	MW-29A	1.53	11/18/2014	0.380
Arsenic, dissolved	UG/L	MW-32	9.2	11/20/2014	0.380
Arsenic, dissolved	UG/L	MW-33C	2.35	11/19/2014	0.380
Arsenic, dissolved	UG/L	MW-34A	0.4	11/19/2014	0.380
Arsenic, dissolved	UG/L	MW-34C	1.14	11/19/2014	0.380
Arsenic, dissolved	UG/L	MW-36A	0.51	11/19/2014	0.380
Arsenic, dissolved	UG/L	MW-39	1.16	11/18/2014	0.380
Arsenic, dissolved	UG/L	MW-42	1.6	11/18/2014	0.380
Barium, dissolved	MG/L	MW-29A	0.0094	11/18/2014	0.0052
Barium, dissolved	MG/L	MW-32	0.006	11/20/2014	0.0052
Barium, dissolved	MG/L	MW-34C	0.025	11/19/2014	0.0052
Barium, dissolved	MG/L	MW-39	0.013	11/18/2014	0.0052
Barium, dissolved	MG/L	MW-42	0.12	11/18/2014	0.0052
Barium, dissolved	MG/L	MW-43	0.0058	11/18/2014	0.0052
Calcium, dissolved	MG/L	MW-15R	18	11/19/2014	17.1
Calcium, dissolved	MG/L	MW-32	32	11/20/2014	17.1
Calcium, dissolved	MG/L	MW-33C	18	11/19/2014	17.1
Calcium, dissolved	MG/L	MW-34C	25	11/19/2014	17.1

				D . O . I .	Prediction
<u>Parameter</u>	<u>Unit</u>	Well	·	Date Sampled	<u>Limit</u>
Calcium, dissolved	MG/L	MW-42	44	11/18/2014	17.1
Chloride	MG/L	MW-32	12	11/20/2014	4.00
Chloride	MG/L	MW-42	19	11/18/2014	4.00
Cobalt, dissolved	MG/L	MW-39	0.0065	11/18/2014	0.003
Cobalt, dissolved	MG/L	MW-42	0.0077	11/18/2014	0.003
Iron, dissolved	MG/L	MW-29A	3.7	11/18/2014	0.097
Iron, dissolved	MG/L	MW-32	0.87	11/20/2014	0.097
Iron, dissolved	MG/L	MW-33A	5.1	11/19/2014	0.097
Iron, dissolved	MG/L	MW-33C	0.38	11/19/2014	0.097
Iron, dissolved	MG/L	MW-34C	0.59	11/19/2014	0.097
Iron, dissolved	MG/L	MW-39	29	11/18/2014	0.097
Iron, dissolved	MG/L	MW-42	27	11/18/2014	0.097
Iron, dissolved	MG/L	MW-43	0.7	11/18/2014	0.097
Magnesium, dissolved	MG/L	MW-15R	11	11/19/2014	10.86
Magnesium, dissolved	MG/L	MW-32	16	11/20/2014	10.86
Magnesium, dissolved	MG/L	MW-34C	11	11/19/2014	10.86
Magnesium, dissolved	MG/L	MW-42	17	11/18/2014	10.86
Manganese, dissolved	MG/L	MW-29A	1.3	11/18/2014	0.014
Manganese, dissolved	MG/L	MW-32	2.4	11/20/2014	0.014
Manganese, dissolved	MG/L	MW-33A	0.11	11/19/2014	0.014
Manganese, dissolved	MG/L	MW-33C	0.2	11/19/2014	0.014
Manganese, dissolved	MG/L	MW-34C	1.3	11/19/2014	0.014
Manganese, dissolved	MG/L	MW-39	0.49	11/18/2014	0.014
Manganese, dissolved	MG/L	MW-42	5	11/18/2014	0.014
Manganese, dissolved	MG/L	MW-43	0.24	11/18/2014	0.014
pH	pH Units	MW-33A	5.65	11/19/2014	5.89 - 8.24
pH	pH Units	MW-34A	5.62	11/19/2014	5.89 - 8.24
pH	pH Units	MW-36A	5.88	11/19/2014	5.89 - 8.24
pH	pH Units	MW-43	5.61	11/18/2014	5.89 - 8.24
Potassium, dissolved	MG/L	MW-32	1.3	11/20/2014	1.00
Potassium, dissolved	MG/L	MW-33C	1.5	11/19/2014	1.00
Potassium, dissolved	MG/L	MW-34C	2.4	11/19/2014	1.00
Potassium, dissolved	MG/L	MW-36A	1.1	11/19/2014	1.00
Potassium, dissolved	MG/L	MW-42	8.2	11/18/2014	1.00
Sodium, dissolved	MG/L	MW-32	17	11/20/2014	6.20
Sodium, dissolved	MG/L	MW-34A	11	11/19/2014	6.20
Sodium, dissolved	MG/L	MW-34C	15	11/19/2014	6.20
Sodium, dissolved	MG/L	MW-36A	6.5	11/19/2014	6.20
Sodium, dissolved	MG/L	MW-39	6.9	11/18/2014	6.20
Sodium, dissolved	MG/L	MW-42	20	11/18/2014	6.20
Specific conductivity	mS/cm	MW-32	0.309	11/20/2014	0.18
Specific conductivity	mS/cm	MW-34C	0.232	11/19/2014	0.18
Specific conductivity	mS/cm	MW-39	0.213	11/18/2014	0.18
Specific conductivity	mS/cm	MW-42	0.573	11/18/2014	0.18
Sulfate	MG/L	MW-32	16	11/20/2014	9.90

					<b>Prediction</b>
<u>Parameter</u>	<u>Unit</u>	<u>Well</u>	Latest Result	<b>Date Sampled</b>	<u>Limit</u>
Sulfate	MG/L	MW-42	11	11/18/2014	9.90
Temperature	deg C	MW-32	12.4	11/20/2014	11.96
Temperature	deg C	MW-34C	12.83	11/19/2014	11.96
Temperature	deg C	MW-42	12.2	11/18/2014	11.96
Temperature	deg C	MW-43	12.1	11/18/2014	11.96
Total dissolved solids (tds)	MG/L	MW-32	220	11/20/2014	175
Total dissolved solids (tds)	MG/L	MW-34C	190	11/19/2014	175
Total dissolved solids (tds)	MG/L	MW-42	310	11/18/2014	175
Total organic carbon (toc)	MG/L	MW-42	7.9	11/18/2014	6.0

#### **TABLE 2-2**

## STATISTICAL PREDICTION LIMITS UPDATED FOR 2015 MONITORING YEAR Olympic View Sanitary Landfill

#### **Statistical Methodology:**

- 1. Inter-Well Prediction Limits using DUMPStat
- 2. Upgradient Data Set: pooled data from wells 13A, 13B, 16, and 35
- 3. "Detection Monitoring" well comparisons:
  - complance wells
  - performance wells
  - downgradient wells
- 4. Parameters: all Appendix I and II inorganic and ground water quality parameters
- 5. Background Data Sets: January 2005 December 2014 (updated annually)
- 6. Arsenic: only low-level Method 200.8 data used
- 7. Units: MG/L = milligrams per liter; mS/cm = millisiemens per centimeter; deg C = degrees Celcius

		Distributional	Total	Detected	Mean	Standard	Prediction	Nonparametric
Constituent	Units	Assumption <sup>[1]</sup>	$N^{[2]}$	N		Deviation	Limit <sup>[3]</sup>	Confidence <sup>[4]</sup>
Alkalinity, bicarbonate (as CaCO <sub>3</sub> )	MG/L	nonparametric	138	138			96	0.99
Alkalinity, total (as CaCO <sub>3</sub> )	MG/L	nonparametric	142	142			96	0.99
Ammonia (as N)	MG/L	nonparametric	139	73			0.340	0.99
Antimony, dissolved	MG/L	nonparametric	142	0			Current RL*	0.99
Arsenic, dissolved	UG/L	nonparametric	139	139			0.380	0.99
Barium, dissolved	MG/L	nonparametric	142	141			0.0052	0.99
Beryllium, dissolved	MG/L	nonparametric	142	0			Current RL*	0.99
Cadmium, dissolved	MG/L	nonparametric	142	0			Current RL*	0.99
Calcium, dissolved	MG/L	nonparametric	142	142			17.10	0.99
Chloride	MG/L	nonparametric	142	141			4.40	0.99
Chromium, dissolved	MG/L	nonparametric	142	51			0.033	0.99
Cobalt, dissolved	MG/L	nonparametric	142	0			Current RL*	0.99
Copper, dissolved	MG/L	nonparametric	142	4			0.0094	0.99
Iron, dissolved	MG/L	nonparametric	142	4			0.097	0.99
Lead, dissolved	MG/L	nonparametric	142	0			Current RL*	0.99
Magnesium, dissolved	MG/L	normal	142	142	8.30	1.104	10.93	
Manganese, dissolved	MG/L	nonparametric	142	14			0.014	0.99
Nickel, dissolved	MG/L	nonparametric	142	0			Current RL*	0.99
Nitrate (as N)	MG/L	nonparametric	138	138			1.80	0.99
рН	pH Units	normal	135	135	7.07	0.442	5.90 - 8.23	
Potassium, dissolved	MG/L	nonparametric	142	13			1.20	0.99
Selenium, dissolved	MG/L	nonparametric	142	4			0.0033	0.99
Silver, dissolved	MG/L	nonparametric	142	0			Current RL*	0.99
Sodium, dissolved	MG/L	nonparametric	142	142			6.20	0.99
Specific conductivity	mS/cm	nonparametric	135	135			0.18	0.99
Sulfate	MG/L	nonparametric	142	141			9.90	0.99
Temperature	deg C	nonparametric	135	135			14.32	0.99
Thallium, dissolved	MG/L	nonparametric	142	0			Current RL*	0.99
Total dissolved solids (tds)	MG/L	nonparametric	142	142			175	0.99
Total organic carbon (toc)	MG/L	nonparametric	142	7			6.0	0.99
Vanadium, dissolved	MG/L	nonparametric	142	141			0.0066	
Zinc, dissolved	MG/L	nonparametric	109	1			0.0096	0.99

<sup>[1]</sup> Distributional Assumption based on Multiple Group Shapiro-Wilk Test (results presented on Table 2-4 herein).

<sup>[2]</sup> N = number of background data points from the pooled upgradient well data set AFTER removal of outliers (see Table 2-3 for outliers).

<sup>[3]</sup> Prediction Limit calculated at 95% confidence level and adjusted for multiple comparisons and one verification resample per Unified Guidance (USEPA, March 2009).

 $<sup>^{\</sup>left[4\right]}$  Nonparametric confidence level as calculated by DUMPStat.

<sup>\*</sup>Current RL: in cases where all background data are non-detected, a nonparametric prediction limit is set at the current constituent-specific laboratory reporting limit (RL).

Table 2-3 **Upgradient Data** 

Constituent	Unita		Doto	Result
Constituent	Units	Well	Date	
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13A	03/22/2005	75.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13A	06/15/2005	63.8000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13A	09/27/2005	75.6000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13A	12/15/2005	72.5000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13A	03/28/2006	80.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13A	06/21/2006	79.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13A	09/26/2006	80.0000
Alkalinity, bicarbonate (as caco3)	MG/L MG/L	MW-13A	12/13/2006	82.0000 83.0000
Alkalinity, bicarbonate (as caco3) Alkalinity, bicarbonate (as caco3)	MG/L	MW-13A MW-13A	03/27/2007 06/19/2007	81.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13A	09/19/2007	79.0000
Alkalinity, bicarbonate (as cacos)	MG/L	MW-13A	12/19/2007	82.0000
Alkalinity, bicarbonate (as cacos)	MG/L	MW-13A	03/25/2008	83.0000
Alkalinity, bicarbonate (as cacos)	MG/L	MW-13A	06/18/2008	82.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13A	09/17/2008	81.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13A	12/17/2008	92.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13A	03/24/2009	81.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13A	06/17/2009	84.0000
Alkalinity, bicarbonate (as cacos)	MG/L	MW-13A	09/10/2009	87.0000
Alkalinity, bicarbonate (as cacos)	MG/L	MW-13A	03/25/2010	86.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13A	06/23/2010	86.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13A	09/23/2010	96.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13A	12/08/2010	82.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13A	03/30/2011	88.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13A	06/06/2011	89.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13A	09/27/2011	89.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13A	12/14/2011	90.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13A	03/21/2012	89.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13A	06/08/2012	87.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13A	09/26/2012	87.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13A	12/03/2012	83.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13A	03/11/2013	81.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13A	06/05/2013	83.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13A	12/03/2013	86.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13A	03/04/2014	87.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13A	06/02/2014	84.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13A	09/22/2014	82.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13A	11/17/2014	79.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13B	03/22/2005	70.6000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13B	06/15/2005	57.3000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13B	09/27/2005	72.7000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13B	12/15/2005	68.8000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13B	03/29/2006	73.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13B	06/21/2006	74.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13B	09/26/2006	75.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13B	12/13/2006	76.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13B	03/27/2007	76.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13B	06/19/2007	74.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13B	09/18/2007	74.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13B	12/19/2007	76.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13B	03/25/2008	77.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13B	06/18/2008	77.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13B	09/17/2008	76.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13B	12/16/2008	74.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13B	03/24/2009	78.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13B	06/17/2009	79.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13B	09/10/2009	81.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13B	03/25/2010	81.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13B	06/23/2010	80.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13B	09/23/2010	81.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13B	12/08/2010	88.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13B	03/30/2011	81.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13B	06/06/2011	81.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13B	09/27/2011	83.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13B	12/14/2011	84.0000

\* - Outlier for that well and constituent. ND = Not detected, result = detection limit.

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date	Result
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13B	03/21/2012	83.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13B	06/08/2012	82.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13B	09/26/2012	84.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13B	12/03/2012	82.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13B	03/11/2013	77.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13B	06/05/2013	79.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13B	12/03/2013	84.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13B	03/04/2014	83.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13B	06/02/2014	81.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13B	09/22/2014	80.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-13B	11/17/2014	79.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-16	03/24/2009	66.0000
Alkalinity, bicarbonate (as cacos)	MG/L	MW-16	06/16/2009	59.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-16	09/09/2009	66.0000
Alkalinity, bicarbonate (as cacos)	MG/L	MW-16	03/25/2010	46.0000
Alkalinity, bicarbonate (as cacos)	MG/L	MW-16	06/24/2010	71.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-16		
			09/24/2010	74.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-16	12/09/2010	72.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-16	03/30/2011	53.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-16	06/07/2011	59.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-16	09/27/2011	66.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-16	12/13/2011	60.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-16	03/21/2012	50.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-16	06/08/2012	49.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-16	09/27/2012	57.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-16	12/04/2012	64.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-16	03/12/2013	51.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-16	06/04/2013	50.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-16	09/05/2013	62.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-16	12/16/2013	62.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-16	03/05/2014	57.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-16	06/02/2014	44.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-16	09/22/2014	57.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-16	11/18/2014	57.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-35	03/22/2005	68.2000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-35	06/14/2005	59.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-35	09/27/2005	69.2000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-35	12/15/2005	67.3000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-35	03/28/2006	74.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-35	06/21/2006	71.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-35	09/26/2006	72.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-35	12/12/2006	73.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-35	03/27/2007	73.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-35	06/20/2007	70.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-35	09/18/2007	69.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-35	12/20/2007	72.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-35	03/25/2008	77.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-35	06/18/2008	72.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-35	09/18/2008	72.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-35	12/19/2008	68.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-35	03/24/2009	72.0000
Alkalinity, bicarbonate (as cacos)	MG/L	MW-35	06/16/2009	73.0000
Alkalinity, bicarbonate (as cacos)	MG/L	MW-35	09/10/2009	74.0000
Alkalinity, bicarbonate (as cacos)	MG/L	MW-35	03/25/2010	76.0000
Alkalinity, bicarbonate (as cacos)	MG/L	MW-35	06/23/2010	75.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-35	09/23/2010	75.0000
Alkalinity, bicarbonate (as cacos)	MG/L	MW-35	12/09/2010	74.0000
Alkalinity, bicarbonate (as cacos)	MG/L	MW-35	03/30/2011	77.0000
Alkalinity, bicarbonate (as cacos)	MG/L	MW-35	06/06/2011	76.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-35	09/26/2011	78.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-35	12/13/2011	77.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-35	03/21/2012	77.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-35	06/06/2012	77.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-35	09/26/2012	78.0000
Alkalinity, bicarbonate (as caco3)	MG/L	MW-35	12/04/2012	76.0000

\* - Outlier for that well and constituent. ND = Not detected, result = detection limit.

Table 2-3 **Upgradient Data** 

Alkalinity, bicarbonate (as caco3) Alkalinity, bicarbonate (as caco3) Alkalinity, bicarbonate (as caco3) Alkalinity, bicarbonate (as caco3) Alkalinity, bicarbonate (as caco3) Alkalinity, bicarbonate (as caco3) Alkalinity, bicarbonate (as caco3) Alkalinity, bicarbonate (as caco3) Alkalinity, bicarbonate (as caco3) Alkalinity, bicarbonate (as caco3) Alkalinity, total (as caco3)	MW-35         12/16/2013         78.0000           MW-35         03/04/2014         78.0000           MW-35         06/02/2014         76.0000           MW-35         09/22/2014         75.0000           MW-35         11/17/2014         74.0000           MW-13A         03/22/2005         75.0000           MW-13A         06/15/2005         63.8000           MW-13A         09/27/2005         75.6000           MW-13A         12/15/2005         72.5000           MW-13A         03/28/2006         80.0000           MW-13A         06/21/2006         79.0000           MW-13A         09/26/2006         80.0000           MW-13A         03/27/2007         83.0000           MW-13A         06/19/2007         81.0000           MW-13A         09/19/2007         79.0000           MW-13A         09/19/2007         79.0000           MW-13A         12/19/2007         82.0000           MW-13A         12/19/2007         82.0000           MW-13A         12/19/2007         83.0000
Alkalinity, bicarbonate (as caco3) Alkalinity, bicarbonate (as caco3) Alkalinity, bicarbonate (as caco3) Alkalinity, bicarbonate (as caco3) Alkalinity, bicarbonate (as caco3) Alkalinity, bicarbonate (as caco3) MG/L Alkalinity, bicarbonate (as caco3) MG/L Alkalinity, total (as caco3) MG/L	MW-35         09/05/2013         77.0000           MW-35         12/16/2013         78.0000           MW-35         03/04/2014         78.0000           MW-35         06/02/2014         76.0000           MW-35         09/22/2014         75.0000           MW-35         11/17/2014         74.0000           MW-13A         03/22/2005         75.0000           MW-13A         06/15/2005         63.8000           MW-13A         09/27/2005         75.6000           MW-13A         12/15/2005         72.5000           MW-13A         03/28/2006         80.0000           MW-13A         06/21/2006         79.0000           MW-13A         12/13/2006         82.0000           MW-13A         03/27/2007         83.0000           MW-13A         06/19/2007         81.0000           MW-13A         09/19/2007         79.0000           MW-13A         09/19/2007         82.0000           MW-13A         12/19/2007         82.0000           MW-13A         12/19/2007         82.0000           MW-13A         12/19/2007         82.0000
Alkalinity, bicarbonate (as caco3) Alkalinity, bicarbonate (as caco3) Alkalinity, bicarbonate (as caco3) Alkalinity, bicarbonate (as caco3) Alkalinity, bicarbonate (as caco3) Alkalinity, bicarbonate (as caco3) Alkalinity, total (as caco3) Alkalinity	MW-35         12/16/2013         78.0000           MW-35         03/04/2014         78.0000           MW-35         06/02/2014         76.0000           MW-35         09/22/2014         75.0000           MW-35         11/17/2014         74.0000           MW-13A         03/22/2005         75.0000           MW-13A         06/15/2005         63.8000           MW-13A         09/27/2005         75.6000           MW-13A         12/15/2005         72.5000           MW-13A         03/28/2006         80.0000           MW-13A         06/21/2006         79.0000           MW-13A         09/26/2006         80.0000           MW-13A         03/27/2007         83.0000           MW-13A         06/19/2007         81.0000           MW-13A         09/19/2007         79.0000           MW-13A         09/19/2007         79.0000           MW-13A         12/19/2007         82.0000           MW-13A         12/19/2007         82.0000           MW-13A         12/19/2007         83.0000
Alkalinity, bicarbonate (as caco3) Alkalinity, bicarbonate (as caco3) Alkalinity, bicarbonate (as caco3) Alkalinity, bicarbonate (as caco3) Alkalinity, bicarbonate (as caco3) Alkalinity, total (as caco3)	MW-35         03/04/2014         78.0000           MW-35         06/02/2014         76.0000           MW-35         09/22/2014         75.0000           MW-35         11/17/2014         74.0000           MW-13A         03/22/2005         75.0000           MW-13A         06/15/2005         63.8000           MW-13A         09/27/2005         75.6000           MW-13A         12/15/2005         72.5000           MW-13A         03/28/2006         80.0000           MW-13A         06/21/2006         79.0000           MW-13A         09/26/2006         80.0000           MW-13A         03/27/2007         83.0000           MW-13A         06/19/2007         81.0000           MW-13A         09/19/2007         79.0000           MW-13A         12/19/2007         82.0000           MW-13A         12/19/2007         82.0000           MW-13A         12/19/2007         83.0000
Alkalinity, bicarbonate (as caco3) Alkalinity, bicarbonate (as caco3) Alkalinity, bicarbonate (as caco3) Alkalinity, total (as caco3)	MW-35         06/02/2014         76.0000           MW-35         09/22/2014         75.0000           MW-35         11/17/2014         74.0000           MW-13A         03/22/2005         75.0000           MW-13A         06/15/2005         63.8000           MW-13A         09/27/2005         75.6000           MW-13A         12/15/2005         72.5000           MW-13A         03/28/2006         80.0000           MW-13A         06/21/2006         79.0000           MW-13A         09/26/2006         80.0000           MW-13A         12/13/2006         82.0000           MW-13A         06/19/2007         83.0000           MW-13A         09/19/2007         81.0000           MW-13A         12/19/2007         82.0000           MW-13A         12/19/2007         82.0000           MW-13A         03/25/2008         83.0000
Alkalinity, bicarbonate (as caco3) Alkalinity, bicarbonate (as caco3) Alkalinity, total (as caco3)	MW-35 MW-35         09/22/2014 11/17/2014         75.0000 74.0000           MW-35         11/17/2014         74.0000           MW-13A         03/22/2005         75.0000           MW-13A         09/27/2005         75.6000           MW-13A         12/15/2005         72.5000           MW-13A         12/15/2005         72.5000           MW-13A         03/28/2006         80.0000           MW-13A         06/21/2006         79.0000           MW-13A         09/26/2006         80.0000           MW-13A         12/13/2006         82.0000           MW-13A         06/19/2007         83.0000           MW-13A         09/19/2007         81.0000           MW-13A         12/19/2007         82.0000           MW-13A         12/19/2007         82.0000           MW-13A         03/25/2008         83.0000
Alkalinity, bicarbonate (as caco3) Alkalinity, bicarbonate (as caco3) Alkalinity, total (as caco3)	MW-35         11/17/2014         74.0000           MW-13A         03/22/2005         75.0000           MW-13A         06/15/2005         63.8000           MW-13A         09/27/2005         75.6000           MW-13A         12/15/2005         72.5000           MW-13A         03/28/2006         80.0000           MW-13A         06/21/2006         79.0000           MW-13A         09/26/2006         80.0000           MW-13A         12/13/2006         82.0000           MW-13A         03/27/2007         83.0000           MW-13A         06/19/2007         81.0000           MW-13A         09/19/2007         79.0000           MW-13A         12/19/2007         82.0000           MW-13A         03/25/2008         83.0000
Alkalinity, bicarbonate (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L	MW-35         11/17/2014         74.0000           MW-13A         03/22/2005         75.0000           MW-13A         06/15/2005         63.8000           MW-13A         09/27/2005         75.6000           MW-13A         12/15/2005         72.5000           MW-13A         03/28/2006         80.0000           MW-13A         06/21/2006         79.0000           MW-13A         09/26/2006         80.0000           MW-13A         12/13/2006         82.0000           MW-13A         03/27/2007         83.0000           MW-13A         06/19/2007         81.0000           MW-13A         09/19/2007         79.0000           MW-13A         12/19/2007         82.0000           MW-13A         03/25/2008         83.0000
Alkalinity, total (as caco3) Alkalinity, total (as caco3)	MW-13A         03/22/2005         75.0000           MW-13A         06/15/2005         63.8000           MW-13A         09/27/2005         75.6000           MW-13A         12/15/2005         72.5000           MW-13A         03/28/2006         80.0000           MW-13A         06/21/2006         79.0000           MW-13A         09/26/2006         80.0000           MW-13A         12/13/2006         82.0000           MW-13A         03/27/2007         83.0000           MW-13A         06/19/2007         81.0000           MW-13A         09/19/2007         79.0000           MW-13A         12/19/2007         82.0000           MW-13A         03/25/2008         83.0000
Alkalinity, total (as caco3) Alkalinity, total (as caco3)	MW-13A         06/15/2005         63.8000           MW-13A         09/27/2005         75.6000           MW-13A         12/15/2005         72.5000           MW-13A         03/28/2006         80.0000           MW-13A         06/21/2006         79.0000           MW-13A         09/26/2006         80.0000           MW-13A         12/13/2006         82.0000           MW-13A         03/27/2007         83.0000           MW-13A         06/19/2007         81.0000           MW-13A         09/19/2007         79.0000           MW-13A         12/19/2007         82.0000           MW-13A         03/25/2008         83.0000
Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L	MW-13A         09/27/2005         75.6000           MW-13A         12/15/2005         72.5000           MW-13A         03/28/2006         80.0000           MW-13A         06/21/2006         79.0000           MW-13A         09/26/2006         80.0000           MW-13A         12/13/2006         82.0000           MW-13A         03/27/2007         83.0000           MW-13A         06/19/2007         81.0000           MW-13A         09/19/2007         79.0000           MW-13A         12/19/2007         82.0000           MW-13A         03/25/2008         83.0000
Alkalinity, total (as caco3) Alkalinity, total (as caco3) Alkalinity, total (as caco3) Alkalinity, total (as caco3) Alkalinity, total (as caco3) Alkalinity, total (as caco3) Alkalinity, total (as caco3) Alkalinity, total (as caco3) Alkalinity, total (as caco3) Alkalinity, total (as caco3) Alkalinity, total (as caco3) Alkalinity, total (as caco3) Alkalinity, total (as caco3) Alkalinity, total (as caco3) Alkalinity, total (as caco3) Alkalinity, total (as caco3) Alkalinity, total (as caco3) Alkalinity, total (as caco3)	MW-13A         12/15/2005         72.5000           MW-13A         03/28/2006         80.0000           MW-13A         06/21/2006         79.0000           MW-13A         09/26/2006         80.0000           MW-13A         12/13/2006         82.0000           MW-13A         03/27/2007         83.0000           MW-13A         06/19/2007         81.0000           MW-13A         09/19/2007         79.0000           MW-13A         12/19/2007         82.0000           MW-13A         03/25/2008         83.0000
Alkalinity, total (as caco3) Alkalinity, total (as caco3) Alkalinity, total (as caco3) Alkalinity, total (as caco3) Alkalinity, total (as caco3) Alkalinity, total (as caco3) Alkalinity, total (as caco3) Alkalinity, total (as caco3) Alkalinity, total (as caco3) Alkalinity, total (as caco3) Alkalinity, total (as caco3) Alkalinity, total (as caco3) Alkalinity, total (as caco3) Alkalinity, total (as caco3) Alkalinity, total (as caco3) Alkalinity, total (as caco3)	MW-13A         03/28/2006         80.0000           MW-13A         06/21/2006         79.0000           MW-13A         09/26/2006         80.0000           MW-13A         12/13/2006         82.0000           MW-13A         03/27/2007         83.0000           MW-13A         06/19/2007         81.0000           MW-13A         09/19/2007         79.0000           MW-13A         12/19/2007         82.0000           MW-13A         03/25/2008         83.0000
Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L	MW-13A       06/21/2006       79.0000         MW-13A       09/26/2006       80.0000         MW-13A       12/13/2006       82.0000         MW-13A       03/27/2007       83.0000         MW-13A       06/19/2007       81.0000         MW-13A       09/19/2007       79.0000         MW-13A       12/19/2007       82.0000         MW-13A       03/25/2008       83.0000
Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L	MW-13A       09/26/2006       80.0000         MW-13A       12/13/2006       82.0000         MW-13A       03/27/2007       83.0000         MW-13A       06/19/2007       81.0000         MW-13A       09/19/2007       79.0000         MW-13A       12/19/2007       82.0000         MW-13A       03/25/2008       83.0000
Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L	MW-13A       12/13/2006       82.0000         MW-13A       03/27/2007       83.0000         MW-13A       06/19/2007       81.0000         MW-13A       09/19/2007       79.0000         MW-13A       12/19/2007       82.0000         MW-13A       03/25/2008       83.0000
Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L	MW-13A     03/27/2007     83.0000       MW-13A     06/19/2007     81.0000       MW-13A     09/19/2007     79.0000       MW-13A     12/19/2007     82.0000       MW-13A     03/25/2008     83.0000
Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L	MW-13A     06/19/2007     81.0000       MW-13A     09/19/2007     79.0000       MW-13A     12/19/2007     82.0000       MW-13A     03/25/2008     83.0000
Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L	MW-13A     09/19/2007     79.0000       MW-13A     12/19/2007     82.0000       MW-13A     03/25/2008     83.0000
Alkalinity, total (as caco3) MG/L Alkalinity, total (as caco3) MG/L	MW-13A         12/19/2007         82.0000           MW-13A         03/25/2008         83.0000
Alkalinity, total (as caco3) MG/L	MW-13A 03/25/2008 83.0000
Alkalinity total (as assa2)	NAM 12A   DE 10 DADO   DA DOOO
Alkalinity, total (as caco3) MG/L	MW-13A 06/18/2008 82.0000
Alkalinity, total (as caco3) MG/L	
Alkalinity, total (as caco3) MG/L	MW-13A 12/17/2008 92.0000
Alkalinity, total (as caco3) MG/L	
Alkalinity, total (as caco3) MG/L	MW-13A 06/17/2009 84.0000
Alkalinity, total (as caco3) MG/L	
Alkalinity, total (as caco3) MG/L	MW-13A 12/03/2009 84.0000
Alkalinity, total (as caco3) MG/L	
Alkalinity, total (as caco3) MG/L	MW-13A 06/23/2010 86.0000
Alkalinity, total (as caco3) MG/L	
Alkalinity, total (as caco3) MG/L	MW-13A 12/08/2010 82.0000
Alkalinity, total (as caco3) MG/L	
Alkalinity, total (as caco3) MG/L	MW-13A 06/06/2011 89.0000
Alkalinity, total (as caco3) MG/L	
Alkalinity, total (as caco3) MG/L	MW-13A   12/14/2011   90.0000
Alkalinity, total (as caco3) MG/L	
Alkalinity, total (as caco3) MG/L	MW-13A 06/08/2012 87.0000
Alkalinity, total (as caco3) MG/L	MW-13A 09/26/2012 87.0000
Alkalinity, total (as caco3) MG/L	MW-13A   12/03/2012   83.0000
Alkalinity, total (as caco3) MG/L	
Alkalinity, total (as caco3) MG/L	MW-13A 06/05/2013 83.0000
Alkalinity, total (as caco3) MG/L	MW-13A 12/03/2013 86.0000
Alkalinity, total (as caco3) MG/L	MW-13A 03/04/2014 87.0000
Alkalinity, total (as caco3) MG/L	MW-13A 06/02/2014 84.0000
Alkalinity, total (as caco3) MG/L	MW-13A 09/22/2014 82.0000
Alkalinity, total (as caco3) MG/L	MW-13A 11/17/2014 79.0000
Alkalinity, total (as caco3) MG/L	MW-13B 03/22/2005 70.6000
Alkalinity, total (as caco3) MG/L	MW-13B 06/15/2005 57.3000
Alkalinity, total (as caco3) MG/L	MW-13B 09/27/2005 72.7000
Alkalinity, total (as caco3) MG/L	MW-13B 12/15/2005 68.8000
Alkalinity, total (as caco3) MG/L	MW-13B 03/29/2006 73.0000
Alkalinity, total (as caco3) MG/L	MW-13B 06/21/2006 74.0000
Alkalinity, total (as caco3) MG/L	MW-13B 09/26/2006 75.0000
Alkalinity, total (as caco3) MG/L	MW-13B 12/13/2006 76.0000
Alkalinity, total (as caco3) MG/L	MW-13B 03/27/2007 76.0000
Alkalinity, total (as caco3) MG/L	
Alkalinity, total (as caco3)  MG/L	
Alkalinity, total (as caco3) MG/L	
Alkalinity, total (as caco3) MG/L	MW-13B 06/17/2009 79.0000

Table 2-3 **Upgradient Data** 

Cons	stituent	Units	Well	Date	Result
Alkalinity, total (as	s caco3)	MG/L	MW-13B	09/10/2009	81.0000
Alkalinity, total (as	s caco3)	MG/L	MW-13B	12/03/2009	80.0000
Alkalinity, total (as		MG/L	MW-13B	03/25/2010	81.0000
Alkalinity, total (as		MG/L	MW-13B	06/23/2010	80.0000
Alkalinity, total (as		MG/L	MW-13B	09/23/2010	81.0000
Alkalinity, total (as		MG/L	MW-13B	12/08/2010	88.0000
Alkalinity, total (as		MG/L	MW-13B	03/30/2011	81.0000
Alkalinity, total (as		MG/L	MW-13B	06/06/2011	81.0000
Alkalinity, total (as		MG/L	MW-13B	09/27/2011	83.0000
Alkalinity, total (as		MG/L	MW-13B	12/14/2011	84.0000
Alkalinity, total (as		MG/L	MW-13B	03/21/2012	83.0000
Alkalinity, total (as		MG/L	MW-13B	06/08/2012	82.0000
Alkalinity, total (as		MG/L	MW-13B	09/26/2012	84.0000
Alkalinity, total (as		MG/L	MW-13B	12/03/2012	82.0000
Alkalinity, total (as		MG/L	MW-13B	03/11/2013	77.0000
Alkalinity, total (as		MG/L	MW-13B	06/05/2013	79.0000
Alkalinity, total (as	s caco3)	MG/L	MW-13B	12/03/2013	84.0000
Alkalinity, total (as	caco3)	MG/L	MW-13B	03/04/2014	83.0000
Alkalinity, total (as		MG/L	MW-13B	06/02/2014	81.0000
Alkalinity, total (as		MG/L	MW-13B	09/22/2014	80.0000
Alkalinity, total (as		MG/L	MW-13B	11/17/2014	79.0000
Alkalinity, total (as		MG/L	MW-16	03/24/2009	66.0000
Alkalinity, total (as		MG/L	MW-16	06/16/2009	59.0000
Alkalinity, total (as		MG/L	MW-16	09/09/2009	66.0000
Alkalinity, total (as		MG/L	MW-16	12/03/2009	77.0000
			MW-16		46.0000
Alkalinity, total (as		MG/L	_	03/25/2010	
Alkalinity, total (as		MG/L	MW-16	06/24/2010	71.0000
Alkalinity, total (as		MG/L	MW-16	09/24/2010	74.0000
Alkalinity, total (as		MG/L	MW-16	12/09/2010	72.0000
Alkalinity, total (as		MG/L	MW-16	03/30/2011	53.0000
Alkalinity, total (as		MG/L	MW-16	06/07/2011	59.0000
Alkalinity, total (as		MG/L	MW-16	09/27/2011	66.0000
Alkalinity, total (as		MG/L	MW-16	12/13/2011	60.0000
Alkalinity, total (as	s caco3)	MG/L	MW-16	03/21/2012	50.0000
Alkalinity, total (as	caco3)	MG/L	MW-16	06/08/2012	49.0000
Alkalinity, total (as	s caco3)	MG/L	MW-16	09/27/2012	57.0000
Alkalinity, total (as	s caco3)	MG/L	MW-16	12/04/2012	64.0000
Alkalinity, total (as		MG/L	MW-16	03/12/2013	51.0000
Alkalinity, total (as		MG/L	MW-16	06/04/2013	50.0000
Alkalinity, total (as		MG/L	MW-16	09/05/2013	62.0000
Alkalinity, total (as		MG/L	MW-16	12/16/2013	62.0000
Alkalinity, total (as		MG/L	MW-16	03/05/2014	57.0000
Alkalinity, total (as		MG/L	MW-16	06/02/2014	44.0000
		MG/L			
Alkalinity, total (as			MW-16	09/22/2014	57.0000
Alkalinity, total (as		MG/L	MW-16	11/18/2014	57.0000
Alkalinity, total (as		MG/L	MW-35	03/22/2005	68.2000
Alkalinity, total (as		MG/L	MW-35	06/14/2005	59.0000
Alkalinity, total (as		MG/L	MW-35	09/27/2005	69.2000
Alkalinity, total (as	s caco3)	MG/L	MW-35	12/15/2005	67.3000
Alkalinity, total (as		MG/L	MW-35	03/28/2006	73.0000
Alkalinity, total (as		MG/L	MW-35	06/21/2006	71.0000
Alkalinity, total (as	caco3)	MG/L	MW-35	09/26/2006	72.0000
Alkalinity, total (as		MG/L	MW-35	12/12/2006	73.0000
Alkalinity, total (as		MG/L	MW-35	03/27/2007	73.0000
Alkalinity, total (as		MG/L	MW-35	06/20/2007	70.0000
Alkalinity, total (as		MG/L	MW-35	09/18/2007	69.0000
Alkalinity, total (as	,	MG/L	MW-35	12/20/2007	72.0000
Alkalinity, total (as		MG/L	MW-35	03/25/2008	77.0000
Alkalinity, total (as		MG/L	MW-35	06/18/2008	72.0000
Alkalinity, total (as		MG/L	MW-35	09/18/2008	72.0000
Alkalinity, total (as		MG/L			
			MW-35	12/19/2008	68.0000
Alkalinity, total (as		MG/L	MW-35	03/24/2009	72.0000
Alkalinity, total (as	,	MG/L	MW-35	06/16/2009	73.0000
Alkalinity, total (as Alkalinity, total (as		MG/L	MW-35	09/10/2009	74.0000
	C2CO31	MG/L	MW-35	12/03/2009	74.0000

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result
Alkalinity, total (as caco3)	MG/L	MW-35	03/25/2010		76.0000
Alkalinity, total (as caco3)	MG/L	MW-35	06/23/2010		75.0000
Alkalinity, total (as caco3)	MG/L	MW-35	09/23/2010		75.0000
Alkalinity, total (as caco3)	MG/L	MW-35	12/09/2010		74.0000
Alkalinity, total (as caco3)	MG/L	MW-35	03/30/2011		77.0000
Alkalinity, total (as caco3)	MG/L	MW-35	06/06/2011		76.0000
Alkalinity, total (as caco3)	MG/L	MW-35	09/26/2011		78.0000
Alkalinity, total (as caco3)	MG/L	MW-35	12/13/2011		77.0000
Alkalinity, total (as caco3)	MG/L	MW-35	03/21/2012		77.0000
Alkalinity, total (as caco3)	MG/L	MW-35	06/06/2012		77.0000
Alkalinity, total (as caco3)	MG/L	MW-35	09/26/2012		78.0000
Alkalinity, total (as caco3)	MG/L	MW-35	12/04/2012		76.0000
Alkalinity, total (as caco3)	MG/L	MW-35	03/13/2013		73.0000
Alkalinity, total (as caco3)	MG/L	MW-35	06/06/2013		73.0000
Alkalinity, total (as caco3)	MG/L	MW-35	09/05/2013		77.0000
Alkalinity, total (as caco3)	MG/L	MW-35	12/16/2013		78.0000
Alkalinity, total (as caco3)	MG/L	MW-35	03/04/2014		78.0000
Alkalinity, total (as caco3)	MG/L	MW-35	06/02/2014		76.0000
Alkalinity, total (as caco3)	MG/L	MW-35	09/22/2014		75.0000
Alkalinity, total (as caco3)	MG/L	MW-35	11/17/2014		74.0000
Ammonia (as n)	MG/L	MW-13A	03/22/2005		0.0200
Ammonia (as n)	MG/L	MW-13A	06/15/2005		0.1300
Ammonia (as n)	MG/L	MW-13A	09/27/2005		0.0210
Ammonia (as n)	MG/L	MW-13A	12/15/2005	ND	0.0200
Ammonia (as n)	MG/L	MW-13A	03/28/2006		0.0490
Ammonia (as n)	MG/L	MW-13A	06/21/2006		0.0680
Ammonia (as n)	MG/L	MW-13A	09/26/2006		0.0360
Ammonia (as n)	MG/L	MW-13A	12/13/2006	ND	0.0300
Ammonia (as n)	MG/L	MW-13A	03/27/2007	ND	0.0300
Ammonia (as n)	MG/L	MW-13A	06/19/2007	ND	0.0300
Ammonia (as n)	MG/L	MW-13A	09/19/2007	ND	0.0300
Ammonia (as n)	MG/L	MW-13A	12/19/2007		0.0420
Ammonia (as n)	MG/L	MW-13A	03/25/2008		0.0500
Ammonia (as n)	MG/L	MW-13A	06/18/2008	ND	0.0300
Ammonia (as n)	MG/L	MW-13A	09/17/2008	ND	0.0300
Ammonia (as n)	MG/L	MW-13A	12/17/2008	.,,	0.0630
Ammonia (as n)	MG/L	MW-13A	03/24/2009		0.0830
Ammonia (as n)	MG/L	MW-13A	06/17/2009		0.0930
Ammonia (as n)	MG/L	MW-13A	09/10/2009	ND	0.0300
Ammonia (as n)	MG/L	MW-13A	12/03/2009	IND	0.0590
Ammonia (as n)	MG/L	MW-13A	03/25/2010		0.0460
Ammonia (as n)	MG/L	MW-13A	06/23/2010	ND	
				שוו	0.0300
Ammonia (as n)	MG/L	MW-13A	09/23/2010		0.0490
Ammonia (as n)	MG/L	MW-13A	12/08/2010		0.0610
Ammonia (as n)	MG/L	MW-13A	03/30/2011	NID	0.0640
Ammonia (as n)	MG/L	MW-13A	06/06/2011	ND	0.0300
Ammonia (as n)	MG/L	MW-13A	09/27/2011		0.0750
Ammonia (as n)	MG/L	MW-13A	12/14/2011		0.0860
Ammonia (as n)	MG/L	MW-13A	03/21/2012		0.0390
Ammonia (as n)	MG/L	MW-13A	06/08/2012		0.2800
Ammonia (as n)	MG/L	MW-13A	09/26/2012		0.0870
Ammonia (as n)	MG/L	MW-13A	12/03/2012		0.1200
Ammonia (as n)	MG/L	MW-13A	03/11/2013	ND	0.0300
Ammonia (as n)	MG/L	MW-13A	06/05/2013	ND	0.0300
Ammonia (as n)	MG/L	MW-13A	12/03/2013	ND	0.0300
Ammonia (as n)	MG/L	MW-13A	03/04/2014	ND	0.0300
Ammonia (as n)	MG/L	MW-13A	06/02/2014	ND	0.0300
Ammonia (as n)	MG/L	MW-13A	09/22/2014	ND	0.0300
Ammonia (as n)	MG/L	MW-13A	11/17/2014	ND	0.0300
Ammonia (as n)	MG/L	MW-13B	03/22/2005	ND	0.0200
Ammonia (as n)	MG/L	MW-13B	06/15/2005		0.1200
Ammonia (as n)	MG/L	MW-13B	09/27/2005		0.1700
Ammonia (as n)	MG/L	MW-13B	12/15/2005	ND	0.0200
	· · · · · · · -		12, 13, 2000	. 10	
Ammonia (as n)	MG/L	MW-13B	03/29/2006		0.0360

<sup>\* -</sup> Outlier for that well and constituent. ND = Not detected, result = detection limit.

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result
Ammonia (as n)	MG/L	MW-13B	09/26/2006		0.0300
Ammonia (as n)	MG/L	MW-13B	12/13/2006	ND	0.0300
Ammonia (as n)	MG/L	MW-13B	03/27/2007	ND	0.0300
Ammonia (as n)	MG/L	MW-13B	06/19/2007		0.0300
Ammonia (as n)	MG/L	MW-13B	12/19/2007		0.1100
Ammonia (as n)	MG/L	MW-13B	03/25/2008		0.0600
Ammonia (as n)	MG/L	MW-13B	06/18/2008	ND	0.0300
Ammonia (as n)	MG/L	MW-13B	09/17/2008	ND	0.0300
Ammonia (as n)	MG/L	MW-13B	12/16/2008		0.0560
Ammonia (as n)	MG/L	MW-13B	03/24/2009		0.0630
Ammonia (as n)	MG/L	MW-13B	06/17/2009		0.0870
Ammonia (as n)	MG/L	MW-13B	09/10/2009		0.0450
Ammonia (as n)	MG/L	MW-13B	12/03/2009	ND	0.0300
Ammonia (as n)	MG/L	MW-13B	03/25/2010		0.0440
Ammonia (as n)	MG/L	MW-13B	06/23/2010	ND	0.0300
Ammonia (as n)	MG/L	MW-13B	09/23/2010		0.0450
Ammonia (as n)	MG/L	MW-13B	12/08/2010		0.0520
Ammonia (as n)	MG/L	MW-13B	03/30/2011		0.0620
Ammonia (as n)	MG/L	MW-13B	06/06/2011	ND	0.0300
Ammonia (as n)	MG/L	MW-13B	09/27/2011		0.0320
Ammonia (as n)	MG/L	MW-13B	12/14/2011		0.0300
Ammonia (as n)	MG/L	MW-13B	03/21/2012	ND	0.0300
Ammonia (as n)	MG/L	MW-13B	06/08/2012		0.2000
Ammonia (as n)	MG/L	MW-13B	09/26/2012		0.0760
Ammonia (as n)	MG/L	MW-13B	12/03/2012	ND	0.0300
Ammonia (as n)	MG/L	MW-13B	03/11/2013	ND	0.0300
Ammonia (as n)	MG/L	MW-13B	06/05/2013	ND	0.0300
Ammonia (as n)	MG/L	MW-13B	12/03/2013	ND	0.0300
Ammonia (as n)	MG/L	MW-13B	03/04/2014	ND	0.0300
Ammonia (as n)	MG/L	MW-13B	06/02/2014	ND	0.0300
Ammonia (as n)	MG/L	MW-13B	09/22/2014	ND	0.0300
Ammonia (as n)	MG/L	MW-13B	11/17/2014	ND	0.0300
Ammonia (as n)	MG/L	MW-16	03/24/2009	110	0.0620
Ammonia (as n)	MG/L	MW-16	06/16/2009		0.0930
Ammonia (as n)	MG/L	MW-16	09/09/2009		0.0360
Ammonia (as n)	MG/L	MW-16	12/03/2009		0.0580
Ammonia (as n)	MG/L	MW-16	03/25/2010		0.0460
Ammonia (as n)	MG/L	MW-16	06/24/2010	ND	0.0300
Ammonia (as n)	MG/L	MW-16	09/24/2010	ND	0.0300
Ammonia (as n)	MG/L	MW-16	12/09/2010	110	0.0590
Ammonia (as n)	MG/L	MW-16	03/30/2011		0.0600
Ammonia (as n)	MG/L	MW-16	06/07/2011		0.0480
Ammonia (as n)	MG/L	MW-16	09/27/2011	ND	0.0300
Ammonia (as n)	MG/L	MW-16	12/13/2011	ND	0.0300
Ammonia (as n)	MG/L	MW-16	03/21/2012	. 10	0.0420
Ammonia (as n)	MG/L	MW-16	06/08/2012		0.3400
Ammonia (as n)	MG/L	MW-16	09/27/2012		0.3000
Ammonia (as n)	MG/L	MW-16	12/04/2012	ND	0.0300
Ammonia (as n)	MG/L	MW-16	03/12/2013	ND	0.0300
Ammonia (as n)	MG/L	MW-16	06/04/2013	ND	0.0300
Ammonia (as n)	MG/L	MW-16	09/05/2013	ND	0.0300
Ammonia (as n)	MG/L	MW-16	12/16/2013	1,10	0.0960
Ammonia (as n)	MG/L	MW-16	03/05/2014		0.0510
Ammonia (as n)	MG/L	MW-16	06/02/2014		0.0580
Ammonia (as n)	MG/L	MW-16	09/22/2014	ND	0.0300
Ammonia (as n)	MG/L	MW-16	11/18/2014	ND	0.0300
Ammonia (as n)	MG/L	MW-35	03/22/2005	ND	0.0200
Ammonia (as n)	MG/L	MW-35	06/14/2005	1,10	0.1200
Ammonia (as n)	MG/L	MW-35	09/27/2005		0.1500
Ammonia (as n)	MG/L	MW-35	12/15/2005	ND	0.0200
Ammonia (as n)	MG/L	MW-35	03/28/2006	ND	0.0300
Ammonia (as n)	MG/L				
	MG/L MG/L	MW-35 MW-35	06/21/2006 09/26/2006	ND	0.0300
			U3/Z0/ZUU0	1	0.0330
Ammonia (as n)				NID	
Ammonia (as n) Ammonia (as n) Ammonia (as n)	MG/L MG/L MG/L	MW-35 MW-35	12/12/2006 03/27/2007	ND ND	0.0300 0.0300

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result	
Ammonia (as n)	MG/L	MW-35	06/20/2007		0.0420	
Ammonia (as n)	MG/L	MW-35	12/20/2007		0.0600	
Ammonia (as n)	MG/L	MW-35	03/25/2008		0.0590	
Ammonia (as n)	MG/L	MW-35	06/18/2008	ND	0.0300	
Ammonia (as n)	MG/L	MW-35	09/18/2008	ND	0.0300	
Ammonia (as n)	MG/L	MW-35	12/19/2008		0.0810	
Ammonia (as n)	MG/L	MW-35	03/24/2009		0.0600	
Ammonia (as n)	MG/L	MW-35	06/16/2009		0.0660	
Ammonia (as n)	MG/L	MW-35	09/10/2009	ND	0.0300	
Ammonia (as n)	MG/L	MW-35	12/03/2009	''	0.0760	
Ammonia (as n)	MG/L	MW-35	03/25/2010		0.0410	
Ammonia (as n)	MG/L	MW-35	06/23/2010	ND	0.0300	
Ammonia (as n)	MG/L	MW-35	09/23/2010	שוו		
( )					0.0530	
Ammonia (as n)	MG/L	MW-35	12/09/2010		0.0550	
Ammonia (as n)	MG/L	MW-35	03/30/2011		0.0630	
Ammonia (as n)	MG/L	MW-35	06/06/2011		0.1800	
Ammonia (as n)	MG/L	MW-35	09/26/2011		0.0650	
Ammonia (as n)	MG/L	MW-35	12/13/2011	ND	0.0300	
Ammonia (as n)	MG/L	MW-35	03/21/2012		0.0300	
Ammonia (as n)	MG/L	MW-35	06/06/2012		0.6000	*
Ammonia (as n)	MG/L	MW-35	09/26/2012		0.0690	
Ammonia (as n)	MG/L	MW-35	12/04/2012	ND	0.0300	
Ammonia (as n)	MG/L	MW-35	03/13/2013	ND	0.0300	
Ammonia (as n)	MG/L	MW-35	06/06/2013	ND	0.0300	
Ammonia (as n)	MG/L	MW-35	09/05/2013	ND	0.0300	
Ammonia (as n)	MG/L	MW-35	12/16/2013	ND	0.0300	
,	MG/L			ND		
Ammonia (as n)		MW-35	03/04/2014		0.0300	
Ammonia (as n)	MG/L	MW-35	06/02/2014	ND	0.0300	
Ammonia (as n)	MG/L	MW-35	09/22/2014	ND	0.0300	
Ammonia (as n)	MG/L	MW-35	11/17/2014	ND	0.0300	
Antimony, dissolved	MG/L	MW-13A	03/22/2005	ND	0.0010	
Antimony, dissolved	MG/L	MW-13A	06/15/2005	ND	0.0010	
Antimony, dissolved	MG/L	MW-13A	09/27/2005	ND	0.0010	
Antimony, dissolved	MG/L	MW-13A	12/15/2005	ND	0.0010	
Antimony, dissolved	MG/L	MW-13A	03/28/2006	ND	0.0010	
Antimony, dissolved	MG/L	MW-13A	06/21/2006	ND	0.0010	
Antimony, dissolved	MG/L	MW-13A	09/26/2006	ND	0.0010	
Antimony, dissolved	MG/L	MW-13A	12/13/2006	ND	0.0010	
Antimony, dissolved	MG/L	MW-13A	03/27/2007	ND	0.0010	
Antimony, dissolved	MG/L	MW-13A	06/19/2007	ND	0.0010	
Antimony, dissolved	MG/L	MW-13A	09/19/2007	ND	0.0010	
Antimony, dissolved	MG/L	MW-13A		ND		
Antimony, dissolved	MG/L		12/19/2007	ND	0.0010	
		MW-13A	03/25/2008		0.0010	
Antimony, dissolved	MG/L	MW-13A	06/18/2008	ND	0.0010	
Antimony, dissolved	MG/L	MW-13A	09/17/2008	ND	0.0010	
Antimony, dissolved	MG/L	MW-13A	12/17/2008	ND	0.0010	
Antimony, dissolved	MG/L	MW-13A	03/24/2009	ND	0.0010	
Antimony, dissolved	MG/L	MW-13A	06/17/2009	ND	0.0010	
Antimony, dissolved	MG/L	MW-13A	09/10/2009	ND	0.0010	
Antimony, dissolved	MG/L	MW-13A	12/03/2009	ND	0.0010	
Antimony, dissolved	MG/L	MW-13A	03/25/2010	ND	0.0010	
Antimony, dissolved	MG/L	MW-13A	06/23/2010	ND	0.0010	
Antimony, dissolved	MG/L	MW-13A	09/23/2010	ND	0.0010	
Antimony, dissolved	MG/L	MW-13A	12/08/2010	ND	0.0010	
Antimony, dissolved	MG/L	MW-13A	03/30/2011	ND	0.0010	
Antimony, dissolved	MG/L	MW-13A	06/06/2011	ND	0.0010	
Antimony, dissolved	MG/L	MW-13A	09/27/2011	ND	0.0010	
Antimony, dissolved	MG/L	MW-13A	12/14/2011	ND	0.0010	
Antimony, dissolved	MG/L	MW-13A	03/21/2012	ND	0.0010	
Antimony, dissolved	MG/L	MW-13A	06/08/2012	ND	0.0010	
Antimony, dissolved	MG/L	MW-13A	09/26/2012	ND	0.0010	
Antimony, dissolved	MG/L	MW-13A	12/03/2012	ND	0.0010	
Antimony, dissolved	MG/L	MW-13A	03/11/2013	ND	0.0010	
			06/05/2013	ND	0.0010	
Antimony, dissolved	MG/L	MW-13A	00/03/2013	INDI	0.00101	

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result
Antimony, dissolved	MG/L	MW-13A	03/04/2014	ND	0.0010
Antimony, dissolved	MG/L	MW-13A	06/02/2014	ND	0.0010
Antimony, dissolved	MG/L	MW-13A	09/22/2014	ND	0.0010
Antimony, dissolved	MG/L	MW-13A	11/17/2014	ND	0.0010
Antimony, dissolved	MG/L	MW-13B	03/22/2005	ND	0.0010
Antimony, dissolved	MG/L	MW-13B	06/15/2005	ND	0.0010
Antimony, dissolved	MG/L	MW-13B	09/27/2005	ND	0.0010
Antimony, dissolved	MG/L	MW-13B	12/15/2005	ND	0.0010
Antimony, dissolved	MG/L	MW-13B	03/29/2006	ND	0.0010
Antimony, dissolved	MG/L	MW-13B	06/21/2006	ND	0.0010
Antimony, dissolved	MG/L	MW-13B	09/26/2006	ND	0.0010
Antimony, dissolved Antimony, dissolved	MG/L				
		MW-13B	12/13/2006	ND	0.0010
Antimony, dissolved	MG/L	MW-13B	03/27/2007	ND	0.0010
Antimony, dissolved	MG/L	MW-13B	06/19/2007	ND	0.0010
Antimony, dissolved	MG/L	MW-13B	09/18/2007	ND	0.0010
Antimony, dissolved	MG/L	MW-13B	12/19/2007	ND	0.0010
Antimony, dissolved	MG/L	MW-13B	03/25/2008	ND	0.0010
Antimony, dissolved	MG/L	MW-13B	06/18/2008	ND	0.0010
Antimony, dissolved	MG/L	MW-13B	09/17/2008	ND	0.0010
Antimony, dissolved	MG/L	MW-13B	12/16/2008	ND	0.0010
Antimony, dissolved	MG/L	MW-13B	03/24/2009	ND	0.0010
Antimony, dissolved	MG/L	MW-13B	06/17/2009	ND	0.0010
Antimony, dissolved	MG/L	MW-13B	09/10/2009	ND	0.0010
Antimony, dissolved	MG/L	MW-13B	12/03/2009	ND	0.0010
Antimony, dissolved	MG/L	MW-13B	03/25/2010	ND	0.0010
Antimony, dissolved	MG/L	MW-13B	06/23/2010	ND	0.0010
Antimony, dissolved	MG/L	MW-13B	09/23/2010	ND	0.0010
Antimony, dissolved	MG/L	MW-13B	12/08/2010	ND	0.0010
Antimony, dissolved	MG/L	MW-13B	03/30/2011	ND	0.0010
Antimony, dissolved	MG/L	MW-13B	06/06/2011	ND	0.0010
Antimony, dissolved	MG/L	MW-13B	09/27/2011	ND	0.0010
Antimony, dissolved	MG/L	MW-13B	12/14/2011	ND	0.0010
Antimony, dissolved	MG/L	MW-13B	03/21/2012	ND	0.0010
Antimony, dissolved	MG/L	MW-13B	06/08/2012	ND	0.0010
Antimony, dissolved	MG/L	MW-13B	09/26/2012	ND	0.0010
Antimony, dissolved	MG/L	MW-13B	12/03/2012	ND	0.0010
Antimony, dissolved	MG/L	MW-13B	03/11/2013	ND	0.0010
Antimony, dissolved	MG/L	MW-13B	06/05/2013	ND	0.0010
Antimony, dissolved	MG/L	MW-13B	12/03/2013	ND	0.0010
Antimony, dissolved	MG/L	MW-13B		ND	
			03/04/2014		0.0010
Antimony, dissolved	MG/L	MW-13B	06/02/2014	ND	0.0010
Antimony, dissolved	MG/L	MW-13B	09/22/2014	ND	0.0010
Antimony, dissolved	MG/L	MW-13B	11/17/2014	ND	0.0010
Antimony, dissolved	MG/L	MW-16	03/24/2009	ND	0.0010
Antimony, dissolved	MG/L	MW-16	06/16/2009	ND	0.0010
Antimony, dissolved	MG/L	MW-16	09/09/2009	ND	0.0010
Antimony, dissolved	MG/L	MW-16	12/03/2009	ND	0.0010
Antimony, dissolved	MG/L	MW-16	03/25/2010	ND	0.0010
Antimony, dissolved	MG/L	MW-16	06/24/2010	ND	0.0010
Antimony, dissolved	MG/L	MW-16	09/24/2010	ND	0.0010
Antimony, dissolved	MG/L	MW-16	12/09/2010	ND	0.0010
Antimony, dissolved	MG/L	MW-16	03/30/2011	ND	0.0010
Antimony, dissolved Antimony, dissolved	MG/L	MW-16	06/07/2011	ND	0.0010
Antimony, dissolved Antimony, dissolved	MG/L	_	09/27/2011		
		MW-16		ND	0.0010
		MW-16	12/13/2011	ND	0.0010 0.0010
Antimony, dissolved	MG/L	B 41 A / 4 A			0.0010
Antimony, dissolved Antimony, dissolved	MG/L	MW-16	03/21/2012	ND	
Antimony, dissolved Antimony, dissolved Antimony, dissolved	MG/L MG/L	MW-16	06/08/2012	ND	0.0010
Antimony, dissolved Antimony, dissolved Antimony, dissolved Antimony, dissolved	MG/L MG/L MG/L	MW-16 MW-16			0.0010 0.0010
Antimony, dissolved Antimony, dissolved Antimony, dissolved Antimony, dissolved Antimony, dissolved	MG/L MG/L MG/L MG/L	MW-16 MW-16 MW-16	06/08/2012 09/27/2012 12/04/2012	ND	0.0010 0.0010 0.0010
Antimony, dissolved Antimony, dissolved Antimony, dissolved Antimony, dissolved	MG/L MG/L MG/L	MW-16 MW-16	06/08/2012 09/27/2012	ND ND	0.0010 0.0010
Antimony, dissolved Antimony, dissolved Antimony, dissolved Antimony, dissolved Antimony, dissolved Antimony, dissolved Antimony, dissolved	MG/L MG/L MG/L MG/L	MW-16 MW-16 MW-16	06/08/2012 09/27/2012 12/04/2012 03/12/2013	ND ND ND	0.0010 0.0010 0.0010
Antimony, dissolved Antimony, dissolved Antimony, dissolved Antimony, dissolved Antimony, dissolved Antimony, dissolved Antimony, dissolved Antimony, dissolved	MG/L MG/L MG/L MG/L MG/L MG/L	MW-16 MW-16 MW-16 MW-16	06/08/2012 09/27/2012 12/04/2012 03/12/2013 06/04/2013	ND ND ND ND	0.0010 0.0010 0.0010 0.0010 0.0010
Antimony, dissolved Antimony, dissolved Antimony, dissolved Antimony, dissolved Antimony, dissolved Antimony, dissolved Antimony, dissolved Antimony, dissolved Antimony, dissolved Antimony, dissolved	MG/L MG/L MG/L MG/L MG/L MG/L	MW-16 MW-16 MW-16 MW-16 MW-16	06/08/2012 09/27/2012 12/04/2012 03/12/2013 06/04/2013 09/05/2013	ND ND ND ND ND ND	0.0010 0.0010 0.0010 0.0010 0.0010 0.0010
Antimony, dissolved Antimony, dissolved Antimony, dissolved Antimony, dissolved Antimony, dissolved Antimony, dissolved Antimony, dissolved Antimony, dissolved	MG/L MG/L MG/L MG/L MG/L MG/L	MW-16 MW-16 MW-16 MW-16	06/08/2012 09/27/2012 12/04/2012 03/12/2013 06/04/2013	ND ND ND ND	0.0010 0.0010 0.0010 0.0010 0.0010

<sup>\* -</sup> Outlier for that well and constituent. ND = Not detected, result = detection limit.

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result
Antimony, dissolved	MG/L	MW-16	09/22/2014	ND	0.0010
Antimony, dissolved	MG/L	MW-16	11/18/2014	ND	0.0010
Antimony, dissolved	MG/L	MW-35	03/22/2005	ND	0.0010
Antimony, dissolved	MG/L	MW-35	06/14/2005	ND	0.0010
Antimony, dissolved	MG/L	MW-35	09/27/2005	ND	0.0010
Antimony, dissolved	MG/L	MW-35	12/15/2005	ND	0.0010
Antimony, dissolved	MG/L	MW-35	03/28/2006	ND	0.0010
Antimony, dissolved	MG/L	MW-35	06/21/2006	ND	0.0010
Antimony, dissolved	MG/L	MW-35	09/26/2006	ND	0.0010
Antimony, dissolved	MG/L	MW-35	12/12/2006	ND	0.0010
Antimony, dissolved	MG/L	MW-35	03/27/2007	ND	0.0010
Antimony, dissolved	MG/L	MW-35	06/20/2007	ND	0.0010
Antimony, dissolved	MG/L	MW-35	09/18/2007	ND	0.0010
Antimony, dissolved	MG/L	MW-35	12/20/2007	ND	0.0010
Antimony, dissolved	MG/L	MW-35	03/25/2008	ND	0.0010
Antimony, dissolved	MG/L	MW-35	06/18/2008	ND	0.0010
Antimony, dissolved Antimony, dissolved	MG/L	MW-35	09/18/2008	ND	0.0010
Antimony, dissolved Antimony, dissolved	MG/L	MW-35	12/19/2008	ND	0.0010
Antimony, dissolved	MG/L	MW-35	03/24/2009	ND	0.0010
Antimony, dissolved	MG/L	MW-35	06/16/2009	ND	0.0010
Antimony, dissolved	MG/L	MW-35	09/10/2009	ND	0.0010
Antimony, dissolved	MG/L	MW-35	12/03/2009	ND	0.0010
Antimony, dissolved	MG/L	MW-35	03/25/2010	ND	0.0010
Antimony, dissolved	MG/L	MW-35	06/23/2010	ND	0.0010
Antimony, dissolved	MG/L	MW-35	09/23/2010	ND	0.0010
Antimony, dissolved	MG/L	MW-35	12/09/2010	ND	0.0010
Antimony, dissolved	MG/L	MW-35	03/30/2011	ND	0.0010
Antimony, dissolved	MG/L	MW-35	06/06/2011	ND	0.0010
Antimony, dissolved	MG/L	MW-35	09/26/2011	ND	0.0010
Antimony, dissolved	MG/L	MW-35	12/13/2011	ND	0.0050
Antimony, dissolved	MG/L	MW-35	03/21/2012	ND	0.0010
Antimony, dissolved	MG/L	MW-35	06/06/2012	ND	0.0010
Antimony, dissolved	MG/L	MW-35	09/26/2012	ND	0.0010
Antimony, dissolved	MG/L	MW-35	12/04/2012	ND	0.0010
Antimony, dissolved	MG/L	MW-35	03/13/2013	ND	0.0010
Antimony, dissolved	MG/L	MW-35	06/06/2013	ND	0.0010
Antimony, dissolved	MG/L	MW-35	09/05/2013	ND	0.0010
Antimony, dissolved	MG/L	MW-35	12/16/2013	ND	0.0010
Antimony, dissolved	MG/L	MW-35	03/04/2014	ND	0.0010
Antimony, dissolved	MG/L	MW-35	06/02/2014	ND	0.0010
Antimony, dissolved Antimony, dissolved	MG/L	MW-35	09/22/2014	ND	0.0010
Antimony, dissolved	MG/L	MW-35		ND	
Antimony, dissolved Arsenic, dissolved	UG/L	MW-13A	11/17/2014 03/22/2005	ND	0.0010 1.0000 *
				ND	
Arsenic, dissolved	UG/L	MW-13A	06/15/2005		0.2100
Arsenic, dissolved	UG/L	MW-13A	09/27/2005		0.2200
Arsenic, dissolved	UG/L	MW-13A	12/15/2005		0.2100
Arsenic, dissolved	UG/L	MW-13A	03/28/2006		0.2000
Arsenic, dissolved	UG/L	MW-13A	06/21/2006		0.2100
Arsenic, dissolved	UG/L	MW-13A	09/26/2006		0.1900
Arsenic, dissolved	UG/L	MW-13A	12/13/2006		0.2100
Arsenic, dissolved	UG/L	MW-13A	03/27/2007		0.2100
Arsenic, dissolved	UG/L	MW-13A	06/19/2007		0.1900
Arsenic, dissolved	UG/L	MW-13A	09/19/2007		0.2100
Arsenic, dissolved	UG/L	MW-13A	12/19/2007		0.1800
Arsenic, dissolved	UG/L	MW-13A	03/25/2008		0.2000
Arsenic, dissolved	UG/L	MW-13A	06/18/2008		0.2000
Arsenic, dissolved	UG/L	MW-13A	09/17/2008		0.1700
Arsenic, dissolved	UG/L	MW-13A	12/17/2008		0.1900
Arsenic, dissolved	UG/L	MW-13A	03/24/2009		0.2000
Arsenic, dissolved	UG/L	MW-13A	06/17/2009		0.2100
Arsenic, dissolved Arsenic, dissolved	UG/L	MW-13A	09/10/2009		0.2100
Arsenic, dissolved Arsenic, dissolved	UG/L	MW-13A	12/03/2009		0.2000
Arsenic, dissolved Arsenic, dissolved	UG/L	MW-13A	03/25/2010		0.2000
Arsenic, dissolved Arsenic, dissolved	UG/L UG/L	MW-13A	06/23/2010		0.2000
Arsenic, dissolved Arsenic, dissolved	UG/L	MW-13A	09/23/2010		0.2100
	1 ()(7/1	1V1VV-1.3A	1 09/23/2010	1	U.Z I UU

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result	
Arsenic, dissolved	UG/L	MW-13A	12/08/2010		0.3400	
Arsenic, dissolved	UG/L	MW-13A	03/30/2011		0.2000	
Arsenic, dissolved	UG/L	MW-13A	06/06/2011		0.2000	
Arsenic, dissolved	UG/L	MW-13A	09/27/2011		0.2000	
Arsenic, dissolved	UG/L	MW-13A	12/14/2011		0.2000	
Arsenic, dissolved	UG/L	MW-13A	03/21/2012		0.2000	
Arsenic, dissolved	UG/L	MW-13A	06/08/2012		0.2300	
Arsenic, dissolved	UG/L	MW-13A	09/26/2012		0.2000	
Arsenic, dissolved	UG/L	MW-13A	12/03/2012		0.2000	
Arsenic, dissolved	UG/L	MW-13A	03/11/2013		0.2100	
Arsenic, dissolved	UG/L	MW-13A	06/05/2013		0.1800	
Arsenic, dissolved	UG/L	MW-13A	12/03/2013		0.1700	
Arsenic, dissolved	UG/L	MW-13A	03/04/2014		0.1900	
Arsenic, dissolved	UG/L	MW-13A	06/02/2014		0.2000	
Arsenic, dissolved	UG/L	MW-13A	09/22/2014		0.1700	
Arsenic, dissolved	UG/L	MW-13A	11/17/2014		0.1800	
Arsenic, dissolved	UG/L	MW-13B	03/22/2005	ND	1.0000	*
Arsenic, dissolved	UG/L	MW-13B	06/15/2005		0.3700	
Arsenic, dissolved	UG/L	MW-13B	09/27/2005		0.3700	
Arsenic, dissolved	UG/L	MW-13B	12/15/2005		0.3500	
Arsenic, dissolved	UG/L	MW-13B	03/29/2006		0.3300	
Arsenic, dissolved	UG/L	MW-13B	06/21/2006		0.3500	
Arsenic, dissolved	UG/L	MW-13B	09/26/2006		0.3100	
Arsenic, dissolved	UG/L	MW-13B	12/13/2006		0.3300	
Arsenic, dissolved	UG/L	MW-13B	03/27/2007		0.3400	
Arsenic, dissolved	UG/L	MW-13B	06/19/2007		0.3300	
Arsenic, dissolved	UG/L	MW-13B	09/18/2007		0.3600	
Arsenic, dissolved	UG/L	MW-13B	12/19/2007		0.3100	
Arsenic, dissolved	UG/L	MW-13B	03/25/2008		0.3400	
Arsenic, dissolved	UG/L	MW-13B	06/18/2008		0.3300	
Arsenic, dissolved	UG/L	MW-13B	09/17/2008		0.3000	
Arsenic, dissolved	UG/L	MW-13B	12/16/2008		0.3200	
Arsenic, dissolved	UG/L	MW-13B	03/24/2009		0.3300	
Arsenic, dissolved	UG/L	MW-13B	06/17/2009		0.3400	
Arsenic, dissolved	UG/L	MW-13B	09/10/2009		0.3500	
Arsenic, dissolved	UG/L	MW-13B	12/03/2009		0.3500	
Arsenic, dissolved	UG/L	MW-13B	03/25/2010		0.3200	
Arsenic, dissolved	UG/L	MW-13B	06/23/2010		0.3700	
Arsenic, dissolved	UG/L	MW-13B	09/23/2010		0.3600	
Arsenic, dissolved	UG/L	MW-13B	12/08/2010		0.2000	
Arsenic, dissolved	UG/L	MW-13B	03/30/2011		0.3400	
Arsenic, dissolved	UG/L	MW-13B	06/06/2011		0.3500	
Arsenic, dissolved	UG/L	MW-13B	09/27/2011		0.3400	
Arsenic, dissolved	UG/L	MW-13B	12/14/2011		0.3400	
Arsenic, dissolved	UG/L	MW-13B	03/21/2012		0.3000	
Arsenic, dissolved	UG/L	MW-13B	06/08/2012		0.3700	
Arsenic, dissolved	UG/L	MW-13B	09/26/2012		0.3100	
Arsenic, dissolved	UG/L	MW-13B	12/03/2012		0.3600	
Arsenic, dissolved	UG/L UG/L	MW-13B	03/11/2013		0.3300	
Arsenic, dissolved	UG/L UG/L	MW-13B	06/05/2013		0.3300	
Arsenic, dissolved	UG/L	MW-13B	12/03/2013		0.2800	
Arsenic, dissolved	UG/L UG/L	MW-13B	03/04/2014			
Arsenic, dissolved	UG/L UG/L	MW-13B			0.3000 0.3200	
,			06/02/2014			
Arsonic dissolved	UG/L	MW-13B	09/22/2014		0.2900	
Arsonic, dissolved	UG/L	MW-13B	11/17/2014		0.2900	
Arsenic, dissolved	UG/L UG/L	MW-16	03/24/2009 06/16/2009		0.3500	
Arsenic, dissolved	1	MW-16			0.3800	
Arsenic, dissolved	UG/L	MW-16	09/09/2009		0.3500	
Arsenic, dissolved	UG/L	MW-16	12/03/2009		0.3300	
Arsenic, dissolved	UG/L	MW-16	03/25/2010		0.3500	
Arsenic, dissolved	UG/L	MW-16	06/24/2010		0.3400	
Arsenic, dissolved	UG/L	MW-16	09/24/2010		0.3300	
Arsenic, dissolved	UG/L	MW-16	12/09/2010		0.3200	
Arsenic, dissolved Arsenic, dissolved	UG/L UG/L	MW-16	03/30/2011		0.3300	
	1.11.1/1	MW-16	06/07/2011	1	0.3400	1

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result
Arsenic, dissolved	UG/L	MW-16	09/27/2011		0.3200
Arsenic, dissolved	UG/L	MW-16	12/13/2011		0.3200
Arsenic, dissolved	UG/L	MW-16	03/21/2012		0.3300
Arsenic, dissolved	UG/L	MW-16	06/08/2012		0.3500
Arsenic, dissolved	UG/L	MW-16	09/27/2012		0.3000
Arsenic, dissolved	UG/L	MW-16	12/04/2012		0.3600
Arsenic, dissolved	UG/L	MW-16	03/12/2013		0.2900
Arsenic, dissolved	UG/L	MW-16	06/04/2013		0.3200
Arsenic, dissolved	UG/L	MW-16	09/05/2013		0.3100
Arsenic, dissolved	UG/L	MW-16	12/23/2013		0.2700
Arsenic, dissolved	UG/L	MW-16	03/05/2014		0.2900
Arsenic, dissolved	UG/L	MW-16	06/02/2014		0.3100
Arsenic, dissolved	UG/L	MW-16	09/22/2014		0.2800
Arsenic, dissolved	UG/L	MW-16	11/18/2014		0.2900
Arsenic, dissolved	UG/L	MW-35	03/22/2005	ND	1.0000 *
Arsenic, dissolved	UG/L	MW-35	06/14/2005	110	0.1400
Arsenic, dissolved	UG/L	MW-35	09/27/2005		0.1500
Arsenic, dissolved	UG/L	MW-35	12/15/2005		0.1400
Arsenic, dissolved	UG/L	MW-35	03/28/2006		0.1200
Arsenic, dissolved	UG/L	MW-35	06/21/2006		0.1200
Arsenic, dissolved	UG/L	MW-35	09/26/2006		0.1200
Arsenic, dissolved Arsenic, dissolved	UG/L UG/L	MW-35			
	UG/L UG/L		12/12/2006		0.1300
Arsenic, dissolved	UG/L UG/L	MW-35	03/27/2007		0.1500
Arsenic, dissolved		MW-35	06/20/2007		0.1200
Arsenic, dissolved	UG/L	MW-35	09/18/2007		0.1400
Arsenic, dissolved	UG/L	MW-35	12/20/2007		0.1300
Arsenic, dissolved	UG/L	MW-35	03/25/2008		0.1300
Arsenic, dissolved	UG/L	MW-35	06/18/2008		0.1200
Arsenic, dissolved	UG/L	MW-35	09/18/2008		0.1300
Arsenic, dissolved	UG/L	MW-35	12/19/2008		0.1300
Arsenic, dissolved	UG/L	MW-35	03/24/2009		0.1300
Arsenic, dissolved	UG/L	MW-35	06/16/2009		0.1600
Arsenic, dissolved	UG/L	MW-35	09/10/2009		0.1400
Arsenic, dissolved	UG/L	MW-35	12/03/2009		0.1300
Arsenic, dissolved	UG/L	MW-35	03/25/2010		0.1300
Arsenic, dissolved	UG/L	MW-35	06/23/2010		0.1600
Arsenic, dissolved	UG/L	MW-35	09/23/2010		0.1400
Arsenic, dissolved	UG/L	MW-35	12/09/2010		0.1300
Arsenic, dissolved	UG/L	MW-35	03/30/2011		0.1300
Arsenic, dissolved	UG/L	MW-35	06/06/2011		0.1300
Arsenic, dissolved	UG/L	MW-35	09/26/2011		0.1300
Arsenic, dissolved	UG/L	MW-35	12/13/2011		0.1400
Arsenic, dissolved	UG/L	MW-35	03/21/2012		0.1100
Arsenic, dissolved	UG/L	MW-35	06/06/2012		0.1300
Arsenic, dissolved	UG/L	MW-35	09/26/2012		0.1300
Arsenic, dissolved	UG/L	MW-35	12/04/2012		0.1300
Arsenic, dissolved	UG/L	MW-35	03/13/2013		0.1200
Arsenic, dissolved	UG/L	MW-35	06/06/2013		0.1100
Arsenic, dissolved	UG/L	MW-35	09/05/2013		0.1300
Arsenic, dissolved	UG/L	MW-35	12/23/2013		0.1200
Arsenic, dissolved	UG/L	MW-35	03/04/2014		0.1100
Arsenic, dissolved	UG/L	MW-35	06/02/2014		0.1300
Arsenic, dissolved	UG/L	MW-35	09/22/2014		0.1100
Arsenic, dissolved	UG/L	MW-35	11/17/2014		0.1100
Barium, dissolved	MG/L	MW-13A	03/22/2005		0.0029
Barium, dissolved	MG/L	MW-13A	06/15/2005		0.0025
Barium, dissolved	MG/L	MW-13A	09/27/2005		0.0025
Barium, dissolved	MG/L	MW-13A	12/15/2005		0.0026
Barium, dissolved	MG/L	MW-13A	03/28/2006		0.0028
Barium, dissolved	MG/L	MW-13A	06/21/2006		0.0030
Barium, dissolved	MG/L	MW-13A	09/26/2006		0.0028
Barium, dissolved	MG/L	MW-13A	12/13/2006		0.0026
Barium, dissolved	MG/L	MW-13A	03/27/2007		0.0028
Barium, dissolved	MG/L	MW-13A	06/19/2007		0.0027
Barium, dissolved	MG/L	MW-13A	09/19/2007		0.0035

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date	Result	_
Barium, dissolved	MG/L	MW-13A	12/19/2007	0.0028	
Barium, dissolved	MG/L	MW-13A	03/25/2008	0.0028	
Barium, dissolved	MG/L	MW-13A	06/18/2008	0.0027	
Barium, dissolved	MG/L	MW-13A	09/17/2008	0.0027	
Barium, dissolved	MG/L	MW-13A	12/17/2008	0.0029	
Barium, dissolved	MG/L	MW-13A	03/24/2009	0.0030	
Barium, dissolved	MG/L	MW-13A	06/17/2009	0.0029	
Barium, dissolved	MG/L	MW-13A	09/10/2009	0.0029	
Barium, dissolved	MG/L	MW-13A	12/03/2009	0.0028	
Barium, dissolved	MG/L	MW-13A	03/25/2010	0.0031	
Barium, dissolved	MG/L	MW-13A	06/23/2010	0.0029	
Barium, dissolved	MG/L	MW-13A	09/23/2010	0.0028	
Barium, dissolved	MG/L	MW-13A	12/08/2010	0.0044	
Barium, dissolved	MG/L	MW-13A	03/30/2011	0.0029	
Barium, dissolved	MG/L	MW-13A	06/06/2011	0.0035	
Barium, dissolved	MG/L	MW-13A	09/27/2011	0.0026	
Barium, dissolved	MG/L	MW-13A	12/14/2011	0.0030	
Barium, dissolved	MG/L	MW-13A	03/21/2012	0.0030	
Barium, dissolved	MG/L	MW-13A	06/08/2012	0.0028	
Barium, dissolved	MG/L	MW-13A	09/26/2012	0.0029	
Barium, dissolved	MG/L	MW-13A	12/03/2012	0.0029	
Barium, dissolved	MG/L	MW-13A	03/11/2013	0.0029	
Barium, dissolved	MG/L	MW-13A	06/05/2013	0.0034	
Barium, dissolved	MG/L	MW-13A	12/03/2013	0.0028	
Barium, dissolved	MG/L	MW-13A	03/04/2014	0.0029	
Barium, dissolved	MG/L	MW-13A	06/02/2014	0.0028	
Barium, dissolved	MG/L	MW-13A	09/22/2014	0.0031	
Barium, dissolved	MG/L	MW-13A	11/17/2014	0.0025	
Barium, dissolved	MG/L	MW-13B	03/22/2005	0.0036	
Barium, dissolved	MG/L	MW-13B	06/15/2005	0.0033	
Barium, dissolved	MG/L	MW-13B	09/27/2005	0.0034	
Barium, dissolved	MG/L	MW-13B	12/15/2005	0.0031	
Barium, dissolved	MG/L	MW-13B	03/29/2006	0.0034	
Barium, dissolved	MG/L	MW-13B	06/21/2006	0.0034	
Barium, dissolved	MG/L	MW-13B	09/26/2006	0.0033	
Barium, dissolved	MG/L	MW-13B	12/13/2006	0.0033	
Barium, dissolved	MG/L	MW-13B	03/27/2007	0.0034	
Barium, dissolved	MG/L	MW-13B	06/19/2007	0.0032	
Barium, dissolved	MG/L	MW-13B	09/18/2007	0.0037	
Barium, dissolved Barium, dissolved	MG/L MG/L	MW-13B MW-13B	12/19/2007	0.0034	
Barium, dissolved	MG/L	MW-13B	03/25/2008 06/18/2008	0.0033 0.0033	
Barium, dissolved	MG/L	MW-13B	09/17/2008	0.0033	
Barium, dissolved	MG/L	MW-13B	12/16/2008	0.0034	
Barium, dissolved	MG/L	MW-13B	03/24/2009	0.0037	
Barium, dissolved	MG/L	MW-13B	06/17/2009	0.0034	
Barium, dissolved	MG/L	MW-13B	09/10/2009	0.0034	
Barium, dissolved	MG/L	MW-13B	12/03/2009	0.0035	
Barium, dissolved	MG/L	MW-13B	03/25/2010	0.0036	
Barium, dissolved	MG/L	MW-13B	06/23/2010	0.0034	
Barium, dissolved	MG/L	MW-13B	09/23/2010	0.0034	
Barium, dissolved	MG/L	MW-13B	12/08/2010	0.0029	
Barium, dissolved	MG/L	MW-13B	03/30/2011	0.0025	
Barium, dissolved	MG/L	MW-13B	06/06/2011	0.0034	
Barium, dissolved	MG/L	MW-13B	09/27/2011	0.0029	
Barium, dissolved	MG/L	MW-13B	12/14/2011	0.0035	
Barium, dissolved	MG/L	MW-13B	03/21/2012	0.0031	
Barium, dissolved	MG/L	MW-13B	06/08/2012	0.0035	
Barium, dissolved	MG/L	MW-13B	09/26/2012	0.0036	
Barium, dissolved	MG/L	MW-13B	12/03/2012	0.0035	
Barium, dissolved	MG/L	MW-13B	03/11/2013	0.0040	
Barium, dissolved	MG/L	MW-13B	06/05/2013	0.0030	
Barium, dissolved	MG/L	MW-13B	12/03/2013	0.0035	
Barium, dissolved	MG/L	MW-13B	03/04/2014	0.0036	
Barium, dissolved	MG/L	MW-13B	06/02/2014	0.0029	

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result
Barium, dissolved	MG/L	MW-13B	09/22/2014		0.0033
Barium, dissolved	MG/L	MW-13B	11/17/2014		0.0035
Barium, dissolved	MG/L	MW-16	03/24/2009		0.0044
Barium, dissolved	MG/L	MW-16	06/16/2009		0.0037
Barium, dissolved	MG/L	MW-16	09/09/2009		0.0040
Barium, dissolved	MG/L	MW-16	12/03/2009		0.0051
Barium, dissolved	MG/L	MW-16	03/25/2010		0.0033
Barium, dissolved	MG/L	MW-16	06/24/2010		0.0046
Barium, dissolved	MG/L	MW-16	09/24/2010		0.0052
Barium, dissolved	MG/L	MW-16	12/09/2010		0.0045
Barium, dissolved	MG/L	MW-16	03/30/2011		0.0039
Barium, dissolved	MG/L	MW-16	06/07/2011		0.0039
Barium, dissolved	MG/L	MW-16	09/27/2011		0.0047
Barium, dissolved	MG/L	MW-16	12/13/2011		0.0038
Barium, dissolved	MG/L	MW-16	03/21/2012		0.0030
Barium, dissolved	MG/L	MW-16	06/08/2012		0.0032
Barium, dissolved	MG/L	MW-16	09/27/2012		0.0036
Barium, dissolved	MG/L	MW-16	12/04/2012		0.0037
Barium, dissolved	MG/L	MW-16	03/12/2013		0.0037
Barium, dissolved	MG/L	MW-16	06/04/2013		0.0024
Barium, dissolved	MG/L	MW-16	09/05/2013		0.0039
Barium, dissolved	MG/L	MW-16	12/16/2013		0.0036
Barium, dissolved	MG/L	MW-16	03/05/2014		0.0039
Barium, dissolved	MG/L	MW-16	06/02/2014		0.0032
Barium, dissolved	MG/L	MW-16	09/22/2014		0.0037
Barium, dissolved	MG/L	MW-16	11/18/2014		0.0037
Barium, dissolved	MG/L	MW-35	03/22/2005		0.0030
Barium, dissolved	MG/L	MW-35	06/14/2005		0.0027
Barium, dissolved	MG/L	MW-35	09/27/2005		0.0030
Barium, dissolved	MG/L	MW-35	12/15/2005		0.0026
Barium, dissolved	MG/L	MW-35	03/28/2006		0.0030
Barium, dissolved	MG/L	MW-35	06/21/2006		0.0030
Barium, dissolved	MG/L	MW-35	09/26/2006		0.0030
Barium, dissolved	MG/L	MW-35	12/12/2006		0.0027
Barium, dissolved	MG/L	MW-35	03/27/2007		0.0030
Barium, dissolved	MG/L	MW-35	06/20/2007		0.0032
Barium, dissolved	MG/L	MW-35	09/18/2007		0.0035
Barium, dissolved	MG/L	MW-35	12/20/2007		0.0033
Barium, dissolved	MG/L	MW-35	03/25/2008		0.0028
Barium, dissolved	MG/L	MW-35	06/18/2008		0.0029
Barium, dissolved	MG/L	MW-35	09/18/2008		0.0029
Barium, dissolved	MG/L	MW-35	12/19/2008		0.0029
Barium, dissolved	MG/L	MW-35	03/24/2009		0.0029
Barium, dissolved	MG/L	MW-35	06/16/2009		0.0028
Barium, dissolved	MG/L	MW-35	09/10/2009		0.0031
Barium, dissolved	MG/L	MW-35	12/03/2009		0.0031
Barium, dissolved	MG/L	MW-35	03/25/2010		0.0030
Barium, dissolved	MG/L	MW-35	06/23/2010		0.0029
Barium, dissolved	MG/L	MW-35	09/23/2010		0.0028
Barium, dissolved	MG/L	MW-35	12/09/2010		0.0031
Barium, dissolved	MG/L	MW-35	03/30/2011		0.0033
Barium, dissolved	MG/L	MW-35	06/06/2011		0.0034
Barium, dissolved	MG/L	MW-35	09/26/2011	NID	0.0030
Barium, dissolved	MG/L	MW-35	12/13/2011	ND	0.0050
Barium, dissolved	MG/L	MW-35	03/21/2012		0.0039
Barium, dissolved	MG/L	MW-35	06/06/2012		0.0028
Barium, dissolved	MG/L	MW-35	09/26/2012		0.0030
Barium, dissolved	MG/L	MW-35	12/04/2012		0.0029
Barium, dissolved	MG/L	MW-35	03/13/2013		0.0032
Barium, dissolved	MG/L	MW-35	06/06/2013		0.0031
Barium, dissolved	MG/L	MW-35	09/05/2013		0.0029
Barium, dissolved	MG/L	MW-35	12/16/2013		0.0029
Barium, dissolved	MG/L	MW-35	03/04/2014		0.0032
Barium, dissolved	MG/L	MW-35	06/02/2014		0.0031
Barium, dissolved	MG/L	MW-35	09/22/2014		0.0031

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result
Barium, dissolved	MG/L	MW-35	11/17/2014		0.0031
Beryllium, dissolved	MG/L	MW-13A	03/22/2005	ND	0.0010
Beryllium, dissolved	MG/L	MW-13A	06/15/2005	ND	0.0010
Beryllium, dissolved	MG/L	MW-13A	09/27/2005	ND	0.0010
Beryllium, dissolved	MG/L	MW-13A	12/15/2005	ND	0.0010
Beryllium, dissolved	MG/L	MW-13A	03/28/2006	ND	0.0010
Beryllium, dissolved	MG/L	MW-13A	06/21/2006	ND	0.0010
Beryllium, dissolved	MG/L	MW-13A	09/26/2006	ND	0.0010
Beryllium, dissolved	MG/L	MW-13A	12/13/2006	ND	0.0010
Beryllium, dissolved	MG/L	MW-13A	03/27/2007	ND	0.0010
Beryllium, dissolved	MG/L	MW-13A	06/19/2007	ND	0.0010
Beryllium, dissolved	MG/L	MW-13A	09/19/2007	ND	0.0010
Beryllium, dissolved	MG/L	MW-13A	12/19/2007	ND	0.0010
Beryllium, dissolved	MG/L	MW-13A	03/25/2008	ND	0.0010
Beryllium, dissolved	MG/L	MW-13A	06/18/2008	ND	0.0010
Beryllium, dissolved	MG/L	MW-13A	09/17/2008	ND	0.0010
Beryllium, dissolved	MG/L	MW-13A	12/17/2008	ND	0.0010
Beryllium, dissolved	MG/L	MW-13A	03/24/2009	ND	0.0010
Beryllium, dissolved	MG/L MG/L	MW-13A	06/17/2009	ND	0.0010
Beryllium, dissolved Beryllium, dissolved	MG/L	MW-13A MW-13A	09/10/2009 12/03/2009	ND ND	0.0010 0.0010
Beryllium, dissolved	MG/L	MW-13A	03/25/2010	ND	0.0010
Beryllium, dissolved	MG/L	MW-13A	06/23/2010	ND	0.0010
Beryllium, dissolved	MG/L	MW-13A	09/23/2010	ND	0.0010
Beryllium, dissolved	MG/L	MW-13A	12/08/2010	ND	0.0010
Beryllium, dissolved	MG/L	MW-13A	03/30/2011	ND	0.0010
Beryllium, dissolved	MG/L	MW-13A	06/06/2011	ND	0.0010
Beryllium, dissolved	MG/L	MW-13A	09/27/2011	ND	0.0010
Beryllium, dissolved	MG/L	MW-13A	12/14/2011	ND	0.0010
Beryllium, dissolved	MG/L	MW-13A	03/21/2012	ND	0.0010
Beryllium, dissolved	MG/L	MW-13A	06/08/2012	ND	0.0010
Beryllium, dissolved	MG/L	MW-13A	09/26/2012	ND	0.0010
Beryllium, dissolved	MG/L	MW-13A	12/03/2012	ND	0.0010
Beryllium, dissolved	MG/L	MW-13A	03/11/2013	ND	0.0010
Beryllium, dissolved	MG/L	MW-13A	06/05/2013	ND	0.0010
Beryllium, dissolved	MG/L	MW-13A	12/03/2013	ND	0.0010
Beryllium, dissolved	MG/L	MW-13A	03/04/2014	ND	0.0010
Beryllium, dissolved	MG/L	MW-13A	06/02/2014	ND	0.0010
Beryllium, dissolved	MG/L	MW-13A	09/22/2014	ND	0.0010
Beryllium, dissolved	MG/L	MW-13A	11/17/2014	ND	0.0010
Beryllium, dissolved	MG/L	MW-13B	03/22/2005	ND	0.0010
Beryllium, dissolved	MG/L	MW-13B	06/15/2005	ND	0.0010
Beryllium, dissolved	MG/L	MW-13B	09/27/2005	ND	0.0010
Beryllium, dissolved	MG/L	MW-13B	12/15/2005	ND	0.0010
Beryllium, dissolved	MG/L	MW-13B	03/29/2006	ND	0.0010
Beryllium, dissolved	MG/L	MW-13B	06/21/2006	ND	0.0010
Beryllium, dissolved	MG/L	MW-13B	09/26/2006	ND	0.0010
Beryllium, dissolved	MG/L	MW-13B	12/13/2006	ND	0.0010
Beryllium, dissolved	MG/L	MW-13B	03/27/2007	ND	0.0010
Beryllium, dissolved	MG/L	MW-13B	06/19/2007	ND	0.0010
Beryllium, dissolved	MG/L	MW-13B	09/18/2007	ND	0.0010
Beryllium, dissolved	MG/L	MW-13B	12/19/2007	ND	0.0010
Beryllium, dissolved Beryllium, dissolved	MG/L	MW-13B	03/25/2008	ND	0.0010
Beryllium, dissolved Beryllium, dissolved	MG/L MG/L	MW-13B MW-13B	06/18/2008 09/17/2008	ND ND	0.0010 0.0010
Beryllium, dissolved   Beryllium, dissolved	MG/L MG/L	MW-13B	12/16/2008	ND	0.0010
Beryllium, dissolved   Beryllium, dissolved	MG/L	MW-13B	03/24/2009	ND	0.0010
Beryllium, dissolved	MG/L	MW-13B	06/17/2009	ND	0.0010
Beryllium, dissolved	MG/L	MW-13B	09/10/2009	ND	0.0010
Beryllium, dissolved	MG/L	MW-13B	12/03/2009	ND	0.0010
Beryllium, dissolved	MG/L	MW-13B	03/25/2010	ND	0.0010
Beryllium, dissolved	MG/L	MW-13B	06/23/2010	ND	0.0010
Beryllium, dissolved	MG/L	MW-13B	09/23/2010	ND	0.0010
Beryllium, dissolved	MG/L	MW-13B	12/08/2010	ND	0.0010
Beryllium, dissolved	MG/L	MW-13B	03/30/2011	ND	0.0010
Dorymum, dissulved	IVIO/L	ININA-19D	03/30/2011	ואט	0.0010

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result
Beryllium, dissolved	MG/L	MW-13B	06/06/2011	ND	0.0010
Beryllium, dissolved	MG/L	MW-13B	09/27/2011	ND	0.0010
Beryllium, dissolved	MG/L	MW-13B	12/14/2011	ND	0.0010
Beryllium, dissolved	MG/L	MW-13B	03/21/2012	ND	0.0010
Beryllium, dissolved	MG/L	MW-13B	06/08/2012	ND	0.0010
Beryllium, dissolved	MG/L	MW-13B	09/26/2012	ND	0.0010
Beryllium, dissolved	MG/L	MW-13B	12/03/2012	ND	0.0010
Beryllium, dissolved	MG/L	MW-13B	03/11/2013	ND	0.0010
Beryllium, dissolved	MG/L	MW-13B	06/05/2013	ND	0.0010
Beryllium, dissolved	MG/L	MW-13B	12/03/2013	ND	0.0010
Beryllium, dissolved	MG/L	MW-13B	03/04/2014	ND	0.0010
Beryllium, dissolved	MG/L	MW-13B	06/02/2014	ND	0.0010
Beryllium, dissolved	MG/L	MW-13B	09/22/2014	ND	0.0010
Beryllium, dissolved	MG/L	MW-13B	11/17/2014	ND	0.0010
Beryllium, dissolved	MG/L	MW-16	03/24/2009	ND	0.0010
Beryllium, dissolved	MG/L	MW-16	06/16/2009	ND	0.0010
Beryllium, dissolved	MG/L	MW-16	09/09/2009	ND	0.0010
Beryllium, dissolved	MG/L	MW-16	12/03/2009	ND	0.0010
Beryllium, dissolved	MG/L	MW-16	03/25/2010	ND	0.0010
Beryllium, dissolved	MG/L	MW-16	06/24/2010	ND	0.0010
Beryllium, dissolved	MG/L	MW-16	09/24/2010	ND	0.0010
Beryllium, dissolved Beryllium, dissolved	MG/L	MW-16	12/09/2010	ND	0.0010
	MG/L	MW-16	03/30/2011	ND	0.0010
Beryllium, dissolved	MG/L	MW-16 MW-16	06/07/2011	ND	0.0010
Beryllium, dissolved	MG/L		09/27/2011	ND	0.0010
Beryllium, dissolved	MG/L	MW-16 MW-16	12/13/2011	ND	0.0010 0.0010
Beryllium, dissolved   Beryllium, dissolved	MG/L MG/L	MW-16	03/21/2012	ND ND	0.0010
'	MG/L	MW-16	06/08/2012 09/27/2012	ND	0.0010
Beryllium, dissolved Beryllium, dissolved	MG/L	MW-16	12/04/2012	ND	0.0010
Beryllium, dissolved	MG/L	MW-16	03/12/2013	ND	0.0010
Beryllium, dissolved	MG/L	MW-16	06/04/2013	ND	0.0010
Beryllium, dissolved	MG/L	MW-16	09/05/2013	ND	0.0010
Beryllium, dissolved	MG/L	MW-16	12/16/2013	ND	0.0010
Beryllium, dissolved	MG/L	MW-16	03/05/2014	ND	0.0010
Beryllium, dissolved	MG/L	MW-16	06/02/2014	ND	0.0010
Beryllium, dissolved	MG/L	MW-16	09/22/2014	ND	0.0010
Beryllium, dissolved	MG/L	MW-16	11/18/2014	ND	0.0010
Beryllium, dissolved	MG/L	MW-35	03/22/2005	ND	0.0010
Beryllium, dissolved	MG/L	MW-35	06/14/2005	ND	0.0010
Beryllium, dissolved	MG/L	MW-35	09/27/2005	ND	0.0010
Beryllium, dissolved	MG/L	MW-35	12/15/2005	ND	0.0010
Beryllium, dissolved	MG/L	MW-35	03/28/2006	ND	0.0010
Beryllium, dissolved	MG/L	MW-35	06/21/2006	ND	0.0010
Beryllium, dissolved	MG/L	MW-35	09/26/2006	ND	0.0010
Beryllium, dissolved	MG/L	MW-35	12/12/2006	ND	0.0010
Beryllium, dissolved	MG/L	MW-35	03/27/2007	ND	0.0010
Beryllium, dissolved	MG/L	MW-35	06/20/2007	ND	0.0010
Beryllium, dissolved	MG/L	MW-35	09/18/2007	ND	0.0010
Beryllium, dissolved	MG/L	MW-35	12/20/2007	ND	0.0010
Beryllium, dissolved	MG/L	MW-35	03/25/2008	ND	0.0010
Beryllium, dissolved	MG/L	MW-35	06/18/2008	ND	0.0010
Beryllium, dissolved	MG/L	MW-35	09/18/2008	ND	0.0010
Beryllium, dissolved	MG/L	MW-35	12/19/2008	ND	0.0010
Beryllium, dissolved	MG/L	MW-35	03/24/2009	ND	0.0010
Beryllium, dissolved	MG/L	MW-35	06/16/2009	ND	0.0010
Beryllium, dissolved	MG/L	MW-35	09/10/2009	ND	0.0010
Beryllium, dissolved	MG/L	MW-35	12/03/2009	ND	0.0010
Beryllium, dissolved	MG/L	MW-35	03/25/2010	ND	0.0010
Beryllium, dissolved	MG/L	MW-35	06/23/2010	ND	0.0010
Beryllium, dissolved	MG/L	MW-35	09/23/2010	ND	0.0010
Beryllium, dissolved	MG/L	MW-35	12/09/2010	ND	0.0010
Beryllium, dissolved	MG/L	MW-35	03/30/2011	ND	0.0010
Beryllium, dissolved	MG/L	MW-35	06/06/2011	ND	0.0010
Beryllium, dissolved	MG/L	MW-35	09/26/2011	ND	0.0010

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result
Beryllium, dissolved	MG/L	MW-35	12/13/2011	ND	0.0050
Beryllium, dissolved	MG/L	MW-35	03/21/2012	ND	0.0010
Beryllium, dissolved	MG/L	MW-35	06/06/2012	ND	0.0010
Beryllium, dissolved	MG/L	MW-35	09/26/2012	ND	0.0010
Beryllium, dissolved	MG/L	MW-35	12/04/2012	ND	0.0010
Beryllium, dissolved	MG/L	MW-35	03/13/2013	ND	0.0010
Beryllium, dissolved	MG/L	MW-35	06/06/2013	ND	0.0010
Beryllium, dissolved	MG/L	MW-35	09/05/2013	ND	0.0010
Beryllium, dissolved	MG/L	MW-35	12/16/2013	ND	0.0010
Beryllium, dissolved	MG/L	MW-35	03/04/2014	ND	0.0010
Beryllium, dissolved	MG/L	MW-35	06/02/2014	ND	0.0010
Beryllium, dissolved	MG/L	MW-35	09/22/2014	ND	0.0010
Beryllium, dissolved	MG/L	MW-35	11/17/2014	ND	0.0010
Cadmium, dissolved	MG/L	MW-13A	03/22/2005	ND	0.0002
Cadmium, dissolved	MG/L	MW-13A	06/15/2005	ND	0.0002
Cadmium, dissolved	MG/L	MW-13A	09/27/2005	ND	0.0002
Cadmium, dissolved	MG/L	MW-13A	12/15/2005	ND	0.0002
Cadmium, dissolved	MG/L	MW-13A	03/28/2006	ND	0.0002
Cadmium, dissolved	MG/L	MW-13A	06/21/2006	ND	0.0002
Cadmium, dissolved	MG/L	MW-13A	09/26/2006	ND	0.0002
Cadmium, dissolved	MG/L	MW-13A	12/13/2006	ND	0.0002
Cadmium, dissolved	MG/L	MW-13A	03/27/2007	ND	0.0002
Cadmium, dissolved	MG/L	MW-13A	06/19/2007	ND	0.0002
Cadmium, dissolved	MG/L	MW-13A	09/19/2007	ND	0.0002
Cadmium, dissolved	MG/L	MW-13A	12/19/2007	ND	0.0002
Cadmium, dissolved	MG/L	MW-13A	03/25/2008	ND	0.0002
Cadmium, dissolved	MG/L	MW-13A	06/18/2008	ND	0.0002
Cadmium, dissolved	MG/L	MW-13A	09/17/2008	ND	0.0002
Cadmium, dissolved	MG/L	MW-13A	12/17/2008	ND	0.0002
Cadmium, dissolved	MG/L	MW-13A		ND	
Cadmium, dissolved	MG/L	MW-13A	03/24/2009 06/17/2009	ND	0.0002 0.0002
Cadmium, dissolved	MG/L	MW-13A		ND	
Cadmium, dissolved	MG/L	MW-13A	09/10/2009 12/03/2009	ND	0.0002 0.0002
Cadmium, dissolved	MG/L	MW-13A		ND	
Cadmium, dissolved	MG/L	MW-13A	03/25/2010	ND	0.0002
Cadmium, dissolved	MG/L	MW-13A	06/23/2010	ND	0.0002
Cadmium, dissolved	MG/L	MW-13A	09/23/2010	ND	0.0002
Cadmium, dissolved	MG/L	MW-13A	12/08/2010	ND	0.0002
Cadmium, dissolved	MG/L	MW-13A	03/30/2011	ND	0.0002
Cadmium, dissolved	MG/L		06/06/2011	ND	0.0002
'		MW-13A	09/27/2011		0.0002
Cadmium, dissolved	MG/L	MW-13A	12/14/2011	ND	0.0002
Cadmium, dissolved	MG/L MG/L	MW-13A	03/21/2012	ND	0.0002
Cadmium, dissolved Cadmium, dissolved	MG/L MG/L	MW-13A MW-13A	06/08/2012 09/26/2012	ND ND	0.0002
					0.0002
Cadmium, dissolved	MG/L	MW-13A	12/03/2012	ND	0.0002 0.0002
Cadmium, dissolved	MG/L MG/L	MW-13A	03/11/2013	ND	
Cadmium, dissolved		MW-13A	06/05/2013	ND	0.0002
Cadmium, dissolved	MG/L	MW-13A MW-13A	12/03/2013	ND	0.0002
Cadmium, dissolved	MG/L		03/04/2014	ND	0.0002
Cadmium, dissolved	MG/L	MW-13A	06/02/2014	ND	0.0002
Cadmium, dissolved	MG/L	MW-13A	09/22/2014	ND	0.0002
Cadmium, dissolved	MG/L	MW-13A	11/17/2014	ND	0.0002
Cadmium, dissolved	MG/L	MW-13B	03/22/2005	ND	0.0002
Cadmium, dissolved	MG/L	MW-13B	06/15/2005	ND	0.0002
Cadmium, dissolved	MG/L	MW-13B	09/27/2005	ND	0.0002
Cadmium, dissolved	MG/L	MW-13B	12/15/2005	ND	0.0002
Cadmium, dissolved	MG/L	MW-13B	03/29/2006	ND	0.0002
Cadmium, dissolved	MG/L	MW-13B	06/21/2006	ND	0.0002
Cadmium, dissolved	MG/L	MW-13B	09/26/2006	ND	0.0002
Cadmium, dissolved	MG/L	MW-13B	12/13/2006	ND	0.0002
Cadmium, dissolved	MG/L	MW-13B	03/27/2007	ND	0.0002
Cadmium, dissolved	MG/L	MW-13B	06/19/2007	ND	0.0002
Cadmium, dissolved	MG/L	MW-13B	09/18/2007	ND	0.0002
Cadmium, dissolved	MG/L	MW-13B	12/19/2007	ND	0.0002
Cadmium, dissolved	MG/L	MW-13B	03/25/2008	ND	0.0002

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result	
Cadmium, dissolved	MG/L	MW-13B	06/18/2008	ND	0.0002	
Cadmium, dissolved	MG/L	MW-13B	09/17/2008	ND	0.0002	
Cadmium, dissolved	MG/L	MW-13B	12/16/2008	ND	0.0002	
Cadmium, dissolved	MG/L	MW-13B	03/24/2009	ND	0.0002	
Cadmium, dissolved	MG/L	MW-13B	06/17/2009	ND	0.0002	
Cadmium, dissolved	MG/L	MW-13B	09/10/2009	ND	0.0002	
Cadmium, dissolved	MG/L	MW-13B	12/03/2009	ND	0.0002	
Cadmium, dissolved	MG/L	MW-13B	03/25/2010	ND	0.0002	
Cadmium, dissolved	MG/L	MW-13B	06/23/2010	ND	0.0002	
Cadmium, dissolved	MG/L	MW-13B	09/23/2010	ND	0.0002	
Cadmium, dissolved	MG/L	MW-13B	12/08/2010	ND	0.0002	
Cadmium, dissolved	MG/L	MW-13B	03/30/2011	ND	0.0002	
Cadmium, dissolved	MG/L	MW-13B	06/06/2011	ND	0.0002	
Cadmium, dissolved	MG/L	MW-13B	09/27/2011	ND	0.0002	
Cadmium, dissolved	MG/L	MW-13B	12/14/2011	ND	0.0002	
Cadmium, dissolved	MG/L	MW-13B	03/21/2012	ND	0.0002	
Cadmium, dissolved	MG/L	MW-13B	06/08/2012	ND	0.0002	
Cadmium, dissolved	MG/L	MW-13B	09/26/2012	ND	0.0002	
Cadmium, dissolved	MG/L	MW-13B	12/03/2012	ND	0.0002	
Cadmium, dissolved	MG/L	MW-13B	03/11/2013	ND	0.0002	
Cadmium, dissolved	MG/L	MW-13B	06/05/2013	ND	0.0002	
Cadmium, dissolved	MG/L	MW-13B	12/03/2013	ND	0.0002	
	1			I		
Cadmium, dissolved	MG/L	MW-13B	03/04/2014	ND	0.0002	
Cadmium, dissolved	MG/L	MW-13B	06/02/2014	ND	0.0002	
Cadmium, dissolved	MG/L	MW-13B	09/22/2014	ND	0.0002	
Cadmium, dissolved	MG/L	MW-13B	11/17/2014	ND	0.0002	
Cadmium, dissolved	MG/L	MW-16	03/24/2009	ND	0.0002	
Cadmium, dissolved	MG/L	MW-16	06/16/2009	ND	0.0002	
Cadmium, dissolved	MG/L	MW-16	09/09/2009	ND	0.0002	
Cadmium, dissolved	MG/L	MW-16	12/03/2009	ND	0.0002	
Cadmium, dissolved	MG/L	MW-16	03/25/2010	ND	0.0002	
Cadmium, dissolved	MG/L	MW-16	06/24/2010	ND	0.0002	
Cadmium, dissolved	MG/L	MW-16	09/24/2010	ND	0.0002	
Cadmium, dissolved	MG/L	MW-16	12/09/2010	ND	0.0002	
Cadmium, dissolved	MG/L	MW-16	03/30/2011	ND	0.0002	
Cadmium, dissolved	MG/L	MW-16	06/07/2011	ND	0.0002	
Cadmium, dissolved	MG/L	MW-16	09/27/2011	ND	0.0002	
Cadmium, dissolved	MG/L	MW-16	12/13/2011	ND	0.0002	
Cadmium, dissolved	MG/L	MW-16	03/21/2012	ND	0.0002	
Cadmium, dissolved	MG/L	MW-16	06/08/2012	ND	0.0002	
Cadmium, dissolved	MG/L	MW-16	09/27/2012	ND	0.0002	
Cadmium, dissolved	MG/L	MW-16	12/04/2012	ND	0.0002	
Cadmium, dissolved	MG/L	MW-16	03/12/2013	ND	0.0002	
Cadmium, dissolved	MG/L	MW-16	06/04/2013	ND	0.0002	
Cadmium, dissolved	MG/L	MW-16	09/05/2013	ND	0.0002	
Cadmium, dissolved	MG/L	MW-16	12/16/2013	ND	0.0002	
Cadmium, dissolved	MG/L	MW-16	03/05/2014	ND	0.0002	
Cadmium, dissolved	MG/L	MW-16	06/02/2014	ND	0.0002	
Cadmium, dissolved	MG/L	MW-16	09/22/2014	ND	0.0002	
Cadmium, dissolved	MG/L	MW-16	11/18/2014	ND	0.0002	
Cadmium, dissolved	MG/L	MW-35	03/22/2005	ND	0.0002	
Cadmium, dissolved	MG/L	MW-35	06/14/2005	ND	0.0002	
Cadmium, dissolved	MG/L	MW-35	09/27/2005	ND	0.0002	
Cadmium, dissolved	MG/L	MW-35	12/15/2005	ND	0.0002	
Cadmium, dissolved	MG/L	MW-35	03/28/2006	ND	0.0002	
Cadmium, dissolved	MG/L	MW-35	06/21/2006	ND	0.0002	
Cadmium, dissolved	MG/L	MW-35	09/26/2006	ND	0.0002	
Cadmium, dissolved	MG/L	MW-35	12/12/2006	ND	0.0002	
Cadmium, dissolved	MG/L	MW-35	03/27/2007	ND	0.0002	
Cadmium, dissolved	MG/L	MW-35	06/20/2007	ND	0.0002	
Cadmium, dissolved	MG/L	MW-35	09/18/2007	ND	0.0002	
Cadmium, dissolved	MG/L	MW-35	12/20/2007	ND	0.0002	
Cadmium, dissolved	MG/L	MW-35	03/25/2008	ND	0.0002	
Cadmium, dissolved	MG/L	MW-35	06/18/2008	ND	0.0002	

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result
Cadmium, dissolved	MG/L	MW-35	12/19/2008	ND	0.0002
Cadmium, dissolved	MG/L	MW-35	03/24/2009	ND	0.0002
Cadmium, dissolved	MG/L	MW-35	06/16/2009	ND	0.0002
Cadmium, dissolved	MG/L	MW-35	09/10/2009	ND	0.0002
Cadmium, dissolved	MG/L	MW-35	12/03/2009	ND	0.0002
Cadmium, dissolved	MG/L	MW-35	03/25/2010	ND	0.0002
Cadmium, dissolved	MG/L	MW-35	06/23/2010	ND	0.0002
Cadmium, dissolved	MG/L	MW-35	09/23/2010	ND	0.0002
Cadmium, dissolved	MG/L	MW-35	12/09/2010	ND	0.0002
Cadmium, dissolved	MG/L	MW-35	03/30/2011	ND	0.0002
Cadmium, dissolved	MG/L	MW-35	06/06/2011	ND	0.0002
Cadmium, dissolved	MG/L	MW-35	09/26/2011	ND	0.0002
Cadmium, dissolved	MG/L	MW-35	12/13/2011	ND	0.0010
Cadmium, dissolved	MG/L	MW-35	03/21/2012	ND	0.0002
Cadmium, dissolved	MG/L	MW-35	06/06/2012	ND	0.0002
Cadmium, dissolved	MG/L	MW-35	09/26/2012	ND	0.0002
Cadmium, dissolved	MG/L	MW-35	12/04/2012	ND	0.0002
Cadmium, dissolved	MG/L	MW-35	03/13/2013	ND	0.0002
Cadmium, dissolved	MG/L	MW-35	06/06/2013	ND	0.0002
Cadmium, dissolved	MG/L	MW-35	09/05/2013	ND	0.0002
Cadmium, dissolved	MG/L	MW-35	12/16/2013	ND	0.0002
Cadmium, dissolved	MG/L	MW-35	03/04/2014	ND	0.0002
	MG/L		06/02/2014		
Cadmium, dissolved		MW-35		ND	0.0002
Cadmium, dissolved	MG/L	MW-35	09/22/2014	ND	0.0002
Cadmium, dissolved	MG/L	MW-35	11/17/2014	ND	0.0002
Calcium, dissolved	MG/L	MW-13A	03/22/2005		15.7000
Calcium, dissolved	MG/L	MW-13A	06/15/2005		14.2000
Calcium, dissolved	MG/L	MW-13A	09/27/2005		14.2000
Calcium, dissolved	MG/L	MW-13A	12/15/2005		15.1000
Calcium, dissolved	MG/L	MW-13A	03/28/2006		16.0000
Calcium, dissolved	MG/L	MW-13A	06/21/2006		16.0000
Calcium, dissolved	MG/L	MW-13A	09/26/2006		15.0000
Calcium, dissolved	MG/L	MW-13A	12/13/2006		15.0000
Calcium, dissolved	MG/L	MW-13A	03/27/2007		15.0000
Calcium, dissolved	MG/L	MW-13A	06/19/2007		16.0000
Calcium, dissolved	MG/L	MW-13A	09/19/2007		16.0000
Calcium, dissolved	MG/L	MW-13A	12/19/2007		15.0000
Calcium, dissolved	MG/L	MW-13A	03/25/2008		16.0000
Calcium, dissolved	MG/L	MW-13A	06/18/2008		16.0000
Calcium, dissolved	MG/L	MW-13A	09/17/2008		15.0000
Calcium, dissolved	MG/L	MW-13A	12/17/2008		16.0000
Calcium, dissolved	MG/L	MW-13A	03/24/2009		15.0000
Calcium, dissolved	MG/L	MW-13A	06/17/2009		17.0000
Calcium, dissolved	MG/L	MW-13A	09/10/2009		15.0000
Calcium, dissolved	MG/L	MW-13A	12/03/2009		15.0000
Calcium, dissolved	MG/L	MW-13A	03/25/2010		16.0000
Calcium, dissolved	MG/L	MW-13A	06/23/2010		15.0000
Calcium, dissolved	MG/L	MW-13A	09/23/2010		15.0000
Calcium, dissolved	MG/L	MW-13A	12/08/2010		16.0000
Calcium, dissolved	MG/L	MW-13A	03/30/2011		16.0000
Calcium, dissolved	MG/L	MW-13A	06/06/2011		16.0000
Calcium, dissolved	MG/L	MW-13A	09/27/2011		16.0000
Calcium, dissolved	MG/L	MW-13A	12/14/2011		16.0000
Calcium, dissolved	MG/L	MW-13A	03/21/2012		16.0000
Calcium, dissolved	MG/L	MW-13A	06/08/2012		15.0000
Calcium, dissolved	MG/L	MW-13A	09/26/2012		15.0000
Calcium, dissolved	MG/L	MW-13A	12/03/2012		16.0000
Calcium, dissolved	MG/L	MW-13A	03/11/2013		16.0000
Calcium, dissolved	MG/L	MW-13A	06/05/2013		16.0000
Calcium, dissolved	MG/L	MW-13A	12/03/2013		16.0000
Calcium, dissolved	MG/L	MW-13A	03/04/2014		16.0000
Calcium, dissolved	MG/L	MW-13A	06/02/2014		16.0000
Calcium, dissolved	MG/L	MW-13A	09/22/2014		15.0000
Calcium, dissolved Calcium, dissolved	MG/L MG/L	MW-13A MW-13B	11/17/2014 03/22/2005		15.0000 16.9000

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date	Result
Calcium, dissolved	MG/L	MW-13B	06/15/2005	16.0000
Calcium, dissolved	MG/L	MW-13B	09/27/2005	17.1000
Calcium, dissolved	MG/L	MW-13B	12/15/2005	16.1000
Calcium, dissolved	MG/L	MW-13B	03/29/2006	17.0000
Calcium, dissolved	MG/L	MW-13B	06/21/2006	17.0000
Calcium, dissolved	MG/L	MW-13B	09/26/2006	16.0000
Calcium, dissolved	MG/L	MW-13B	12/13/2006	17.0000
Calcium, dissolved	MG/L	MW-13B	03/27/2007	16.0000
Calcium, dissolved	MG/L	MW-13B	06/19/2007	16.0000
Calcium, dissolved	MG/L	MW-13B	09/18/2007	17.0000
Calcium, dissolved	MG/L	MW-13B	12/19/2007	15.0000
Calcium, dissolved	MG/L	MW-13B	03/25/2008	16.0000
Calcium, dissolved	MG/L	MW-13B	06/18/2008	17.0000
Calcium, dissolved	MG/L	MW-13B	09/17/2008	16.0000
Calcium, dissolved	MG/L MG/L	MW-13B	12/16/2008	16.0000
Calcium, dissolved Calcium, dissolved	MG/L	MW-13B MW-13B	03/24/2009 06/17/2009	16.0000 17.0000
	MG/L			
Calcium, dissolved Calcium, dissolved	MG/L MG/L	MW-13B MW-13B	09/10/2009 12/03/2009	16.0000 16.0000
Calcium, dissolved	MG/L MG/L	MW-13B	03/25/2010	17.0000
Calcium, dissolved	MG/L	MW-13B	06/23/2010	16.0000
Calcium, dissolved	MG/L	MW-13B	09/23/2010	16.0000
Calcium, dissolved	MG/L	MW-13B	12/08/2010	16.0000
Calcium, dissolved	MG/L	MW-13B	03/30/2011	16.0000
Calcium, dissolved	MG/L	MW-13B	06/06/2011	16.0000
Calcium, dissolved	MG/L	MW-13B	09/27/2011	16.0000
Calcium, dissolved	MG/L	MW-13B	12/14/2011	16.0000
Calcium, dissolved	MG/L	MW-13B	03/21/2012	16.0000
Calcium, dissolved	MG/L	MW-13B	06/08/2012	16.0000
Calcium, dissolved	MG/L	MW-13B	09/26/2012	16.0000
Calcium, dissolved	MG/L	MW-13B	12/03/2012	17.0000
Calcium, dissolved	MG/L	MW-13B	03/11/2013	17.0000
Calcium, dissolved	MG/L	MW-13B	06/05/2013	17.0000
Calcium, dissolved	MG/L	MW-13B	12/03/2013	17.0000
Calcium, dissolved	MG/L	MW-13B	03/04/2014	17.0000
Calcium, dissolved	MG/L	MW-13B	06/02/2014	16.0000
Calcium, dissolved	MG/L	MW-13B	09/22/2014	15.0000
Calcium, dissolved	MG/L	MW-13B	11/17/2014	16.0000
Calcium, dissolved	MG/L	MW-16	03/24/2009	12.0000
Calcium, dissolved	MG/L	MW-16	06/16/2009	10.0000
Calcium, dissolved	MG/L	MW-16	09/09/2009	11.0000
Calcium, dissolved	MG/L	MW-16	12/03/2009	14.0000
Calcium, dissolved	MG/L	MW-16	03/25/2010	9.6000
Calcium, dissolved	MG/L	MW-16	06/24/2010	12.0000
Calcium, dissolved	MG/L	MW-16	09/24/2010	13.0000
Calcium, dissolved	MG/L	MW-16	12/09/2010	13.0000
Calcium, dissolved	MG/L	MW-16	03/30/2011	9.8000
Calcium, dissolved	MG/L	MW-16	06/07/2011 09/27/2011	9.7000
Calcium, dissolved Calcium, dissolved	MG/L MG/L	MW-16 MW-16	12/13/2011	12.0000 11.0000
Calcium, dissolved	MG/L	MW-16	03/21/2012	8.9000
Calcium, dissolved	MG/L	MW-16	06/08/2012	9.1000
Calcium, dissolved	MG/L	MW-16	09/27/2012	11.0000
Calcium, dissolved	MG/L	MW-16	12/04/2012	11.0000
Calcium, dissolved	MG/L	MW-16	03/12/2013	10.0000
Calcium, dissolved	MG/L	MW-16	06/04/2013	10.0000
Calcium, dissolved	MG/L	MW-16	09/05/2013	11.0000
Calcium, dissolved	MG/L	MW-16	12/16/2013	11.0000
Calcium, dissolved	MG/L	MW-16	03/05/2014	9.8000
Calcium, dissolved	MG/L	MW-16	06/02/2014	8.8000
Calcium, dissolved	MG/L	MW-16	09/22/2014	9.9000
Calcium, dissolved	MG/L	MW-16	11/18/2014	11.0000
Calcium, dissolved	MG/L	MW-35	03/22/2005	13.9000
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Calcium, dissolved Calcium, dissolved	MG/L MG/L	MW-35 MW-35	06/14/2005	12.9000

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date	Result
Calcium, dissolved	MG/L	MW-35	12/15/2005	13.2000
Calcium, dissolved	MG/L	MW-35	03/28/2006	14.0000
Calcium, dissolved	MG/L	MW-35	06/21/2006	14.0000
Calcium, dissolved	MG/L	MW-35	09/26/2006	13.0000
Calcium, dissolved	MG/L	MW-35	12/12/2006	14.0000
Calcium, dissolved	MG/L	MW-35	03/27/2007	13.0000
Calcium, dissolved	MG/L	MW-35	06/20/2007	14.0000
Calcium, dissolved	MG/L	MW-35	09/18/2007	14.0000
Calcium, dissolved	MG/L	MW-35	12/20/2007	13.0000
Calcium, dissolved	MG/L	MW-35	03/25/2008	13.0000
Calcium, dissolved	MG/L	MW-35	06/18/2008	13.0000
Calcium, dissolved	MG/L	MW-35	09/18/2008	13.0000
Calcium, dissolved	MG/L	MW-35	12/19/2008	12.0000
Calcium, dissolved	MG/L	MW-35	03/24/2009	13.0000
Calcium, dissolved	MG/L	MW-35	06/16/2009	13.0000
Calcium, dissolved	MG/L	MW-35	09/10/2009	12.0000
Calcium, dissolved	MG/L	MW-35	12/03/2009	13.0000
Calcium, dissolved	MG/L	MW-35	03/25/2010	13.0000
Calcium, dissolved	MG/L	MW-35	06/23/2010	13.0000
Calcium, dissolved	MG/L	MW-35	09/23/2010	13.0000
Calcium, dissolved	MG/L	MW-35	12/09/2010	14.0000
Calcium, dissolved	MG/L	MW-35	03/30/2011	14.0000
Calcium, dissolved	MG/L	MW-35	06/06/2011	13.0000
Calcium, dissolved	MG/L	MW-35	09/26/2011	14.0000
Calcium, dissolved	MG/L	MW-35	12/13/2011	14.0000
Calcium, dissolved	MG/L	MW-35	03/21/2012	14.0000
Calcium, dissolved	MG/L	MW-35	06/06/2012	13.0000
Calcium, dissolved	MG/L	MW-35	09/26/2012	13.0000
Calcium, dissolved	MG/L	MW-35	12/04/2012	14.0000
Calcium, dissolved	MG/L	MW-35	03/13/2013	14.0000
Calcium, dissolved	MG/L	MW-35	06/06/2013	13.0000
Calcium, dissolved	MG/L	MW-35	09/05/2013	13.0000
Calcium, dissolved Calcium, dissolved	MG/L MG/L	MW-35 MW-35	12/16/2013	14.0000
Calcium, dissolved	MG/L	MW-35	03/04/2014 06/02/2014	14.0000 14.0000
Calcium, dissolved	MG/L	MW-35	09/22/2014	13.0000
Calcium, dissolved	MG/L	MW-35	11/17/2014	14.0000
Chloride	MG/L	MW-13A	03/22/2005	2.6000
Chloride	MG/L	MW-13A	06/15/2005	1.9000
Chloride	MG/L	MW-13A	09/27/2005	2.4000
Chloride	MG/L	MW-13A	12/15/2005	2.1000
Chloride	MG/L	MW-13A	03/28/2006	3.0000
Chloride	MG/L	MW-13A	06/21/2006	2.4000
Chloride	MG/L	MW-13A	09/26/2006	2.6000
Chloride	MG/L	MW-13A	12/13/2006	3.0000
Chloride	MG/L	MW-13A	03/27/2007	2.8000
Chloride	MG/L	MW-13A	06/19/2007	2.6000
Chloride	MG/L	MW-13A	09/19/2007	2.6000
Chloride	MG/L	MW-13A	12/19/2007	2.6000
Chloride	MG/L	MW-13A	03/25/2008	2.5000
Chloride	MG/L	MW-13A	06/18/2008	2.6000
Chloride	MG/L	MW-13A	09/17/2008	2.5000
Chloride	MG/L	MW-13A	12/17/2008	3.1000
Chloride	MG/L	MW-13A	03/24/2009	2.7000
Chloride	MG/L	MW-13A	06/17/2009	2.4000
Chloride	MG/L	MW-13A	09/10/2009	2.1000
Chloride	MG/L	MW-13A	12/03/2009	3.4000
Chloride	MG/L	MW-13A	03/25/2010	2.2000
Chloride	MG/L	MW-13A	06/23/2010	2.6000
Chloride	MG/L	MW-13A	09/23/2010	2.8000
Chloride	MG/L	MW-13A	12/08/2010	2.9000
Chloride	MG/L	MW-13A	03/30/2011	2.9000
Chloride	MG/L	MW-13A	06/06/2011	3.0000
Chloride				
Onionae	MG/L MG/L	MW-13A MW-13A	09/27/2011	3.8000

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date	Result
Chloride	MG/L	MW-13A	03/21/2012	2.7000
Chloride	MG/L	MW-13A	06/08/2012	3.0000
Chloride	MG/L	MW-13A	09/26/2012	2.6000
Chloride	MG/L	MW-13A	12/03/2012	1.8000
Chloride	MG/L	MW-13A	03/11/2013	3.0000
Chloride	MG/L	MW-13A	06/05/2013	1.7000
Chloride	MG/L	MW-13A	12/03/2013	1.7000
Chloride	MG/L	MW-13A	03/04/2014	1.7000
Chloride	MG/L	MW-13A	06/02/2014	2.0000
Chloride	MG/L	MW-13A	09/22/2014	1.7000
Chloride	MG/L	MW-13A	11/17/2014	1.9000
Chloride	MG/L	MW-13B	03/22/2005	3.0000
Chloride	MG/L	MW-13B	06/15/2005	2.3000
Chloride	MG/L	MW-13B	09/27/2005	2.8000
Chloride	MG/L	MW-13B	12/15/2005	2.4000
Chloride	MG/L	MW-13B	03/29/2006	3.2000
Chloride	MG/L	MW-13B	06/21/2006	2.9000
Chloride	MG/L	MW-13B	09/26/2006	2.7000
Chloride	MG/L	MW-13B	12/13/2006	3.3000
Chloride	MG/L	MW-13B	03/27/2007	3.0000
Chloride	MG/L	MW-13B	06/19/2007	2.8000
Chloride	MG/L	MW-13B	09/18/2007	2.8000
Chloride	MG/L	MW-13B	12/19/2007	2.8000
Chloride	MG/L	MW-13B	03/25/2008	2.7000
Chloride	MG/L	MW-13B	06/18/2008	2.8000
Chloride	MG/L	MW-13B	09/17/2008	2.7000
Chloride	MG/L	MW-13B	12/16/2008	3.2000
Chloride	MG/L	MW-13B	03/24/2009	2.6000
Chloride	MG/L	MW-13B	06/17/2009	3.0000
Chloride	MG/L	MW-13B	09/10/2009	2.3000
Chloride	MG/L	MW-13B	12/03/2009	2.9000
Chloride	MG/L	MW-13B	03/25/2010	2.5000
Chloride	MG/L	MW-13B	06/23/2010	2.8000
Chloride	MG/L	MW-13B	09/23/2010	3.0000
Chloride	MG/L	MW-13B	12/08/2010	2.5000
Chloride	MG/L	MW-13B	03/30/2011	3.1000
Chloride	MG/L	MW-13B	06/06/2011	3.2000
Chloride	MG/L	MW-13B	09/27/2011	3.7000
Chloride	MG/L	MW-13B	12/14/2011	3.4000
Chloride	MG/L	MW-13B	03/21/2012	2.8000
Chloride	MG/L	MW-13B	06/08/2012	3.4000
Chloride	MG/L	MW-13B	09/26/2012	2.9000
Chloride	MG/L	MW-13B	12/03/2012	2.1000
Chloride	MG/L	MW-13B	03/11/2013	2.1000
Chloride	MG/L	MW-13B	06/05/2013	2.0000
Chloride	MG/L	MW-13B	12/03/2013	1.9000
Chloride	MG/L	MW-13B	03/04/2014	1.9000
Chloride	MG/L	MW-13B	06/02/2014	2.1000
Chloride	MG/L	MW-13B	09/22/2014	1.9000
Chloride	MG/L	MW-13B	11/17/2014	2.1000
Chloride	MG/L	MW-16	03/24/2009	2.1000
Chloride	MG/L	MW-16	06/16/2009	2.2000
Chloride	MG/L	MW-16	09/09/2009	1.3000
Chloride	MG/L	MW-16	12/03/2009	1.9000
Chloride	MG/L	MW-16	03/25/2010	1.7000
Chloride	MG/L	MW-16	06/24/2010	1.6000
Chloride	MG/L	MW-16	09/24/2010	1.7000
Chloride	MG/L	MW-16	12/09/2010	2.3000
Chloride	MG/L	MW-16	03/30/2011	3.6000
Chloride	MG/L	MW-16	06/07/2011	2.4000
Chloride	MG/L	MW-16	09/27/2011	3.9000
Chloride	MG/L	MW-16	12/13/2011	2.1000
Chloride	MG/L	MW-16	03/21/2012	2.2000
Chloride	MG/L	MW-16	06/08/2012	2.8000
Chloride	MG/L	MW-16	09/27/2012	1.0000

<sup>\* -</sup> Outlier for that well and constituent. ND = Not detected, result = detection limit.

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result
Chloride	MG/L	MW-16	12/04/2012		1.3000
Chloride	MG/L	MW-16	03/12/2013		1.3000
Chloride	MG/L	MW-16	06/04/2013		1.3000
Chloride	MG/L	MW-16	09/05/2013		1.3000
Chloride	MG/L	MW-16	12/16/2013	ND	1.0000
Chloride	MG/L	MW-16	03/05/2014		1.0000
Chloride	MG/L	MW-16	06/02/2014		1.4000
Chloride	MG/L	MW-16	09/22/2014		1.1000
Chloride	MG/L	MW-16	11/18/2014		1.5000
Chloride	MG/L	MW-35	03/22/2005		2.2000
Chloride	MG/L	MW-35	06/14/2005		2.2000
Chloride	MG/L	MW-35	09/27/2005		2.6000
Chloride	MG/L	MW-35	12/15/2005		1.9000
Chloride	MG/L	MW-35	03/28/2006		2.9000
Chloride	MG/L	MW-35	06/21/2006		2.8000
Chloride	MG/L	MW-35	09/26/2006		2.5000
Chloride	MG/L	MW-35	12/12/2006		3.0000
Chloride	MG/L	MW-35	03/27/2007		2.8000
Chloride	MG/L	MW-35	06/20/2007		2.6000
Chloride	MG/L	MW-35	09/18/2007		2.4000
Chloride	MG/L	MW-35	12/20/2007		2.3000
Chloride	MG/L	MW-35	03/25/2008		2.4000
Chloride	MG/L	MW-35	06/18/2008		2.6000
Chloride	MG/L	MW-35	09/18/2008		2.4000
Chloride	MG/L	MW-35	12/19/2008		2.9000
Chloride	MG/L	MW-35	03/24/2009		2.3000
Chloride	MG/L	MW-35	06/16/2009		2.4000
Chloride	MG/L	MW-35	09/10/2009		2.5000
Chloride	MG/L	MW-35	12/03/2009		2.8000
Chloride	MG/L	MW-35	03/25/2010		2.0000
Chloride	MG/L	MW-35	06/23/2010		2.1000
Chloride	MG/L	MW-35	09/23/2010		2.6000
Chloride	MG/L	MW-35	12/09/2010		2.7000
Chloride	MG/L	MW-35	03/30/2011		3.2000
Chloride	MG/L	MW-35	06/06/2011		2.3000
Chloride	MG/L	MW-35	09/26/2011		3.0000
Chloride	MG/L	MW-35	12/13/2011		3.2000
Chloride	MG/L	MW-35	03/21/2012		2.9000
Chloride	MG/L	MW-35	06/06/2012		1.3000
Chloride	MG/L	MW-35	09/26/2012		2.4000
Chloride	MG/L	MW-35	12/04/2012		1.9000
Chloride	MG/L	MW-35	03/13/2013		1.8000
Chloride	MG/L	MW-35	06/06/2013		1.7000
Chloride	MG/L	MW-35	09/05/2013		1.8000
Chloride	MG/L	MW-35	12/16/2013		1.7000
Chloride	MG/L	MW-35	03/04/2014		1.8000
Chloride	MG/L	MW-35	06/02/2014		2.0000
Chloride	MG/L	MW-35	09/22/2014		1.7000
Chloride	MG/L	MW-35	11/17/2014		1.8000
Chromium, dissolved	MG/L	MW-13A	03/22/2005	ND	0.0030
Chromium, dissolved	MG/L	MW-13A	06/15/2005	ND	0.0030
Chromium, dissolved	MG/L	MW-13A	09/27/2005	ND	0.0030
Chromium, dissolved	MG/L	MW-13A	12/15/2005	ND	0.0030
Chromium, dissolved	MG/L	MW-13A	03/28/2006	ND	0.0030
Chromium, dissolved	MG/L	MW-13A	06/21/2006	ND	0.0030
Chromium, dissolved	MG/L	MW-13A	09/26/2006	ND	0.0030
Chromium, dissolved	MG/L	MW-13A	12/13/2006	ND	0.0030
Chromium, dissolved	MG/L	MW-13A	03/27/2007	ND	0.0030
Chromium, dissolved	MG/L	MW-13A	06/19/2007	ND	0.0030
Chromium, dissolved	MG/L	MW-13A	09/19/2007	ND	0.0030
Chromium, dissolved	MG/L	MW-13A	12/19/2007	ND	0.0030
Chromium, dissolved	MG/L	MW-13A	03/25/2008	ND	0.0030
Chromium, dissolved	MG/L	MW-13A	06/18/2008	ND	0.0030
Chromium, dissolved	MG/L	MW-13A	09/17/2008	ND	0.0030
Chromium, dissolved	MG/L	MW-13A	12/17/2008	ND	0.0030

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result	
Chromium, dissolved	MG/L	MW-13A	03/24/2009	ND	0.0030	
Chromium, dissolved	MG/L	MW-13A	06/17/2009	ND	0.0030	
Chromium, dissolved	MG/L	MW-13A	09/10/2009	ND	0.0030	
Chromium, dissolved	MG/L	MW-13A	12/03/2009	ND	0.0030	
Chromium, dissolved	MG/L	MW-13A	03/25/2010	ND	0.0030	
Chromium, dissolved	MG/L	MW-13A	06/23/2010	ND	0.0030	
Chromium, dissolved	MG/L	MW-13A	09/23/2010	ND	0.0030	
Chromium, dissolved	MG/L	MW-13A	12/08/2010		0.0032	
Chromium, dissolved	MG/L	MW-13A	03/30/2011	ND	0.0030	
Chromium, dissolved	MG/L	MW-13A	06/06/2011	ND	0.0030	
Chromium, dissolved	MG/L	MW-13A	09/27/2011	ND	0.0030	
Chromium, dissolved	MG/L	MW-13A	12/14/2011	ND	0.0030	
Chromium, dissolved	MG/L	MW-13A	03/21/2012	ND	0.0030	
Chromium, dissolved	MG/L	MW-13A	06/08/2012	ND	0.0030	
Chromium, dissolved	MG/L	MW-13A	09/26/2012	ND	0.0030	
Chromium, dissolved	MG/L	MW-13A	12/03/2012	ND	0.0030	
Chromium, dissolved	MG/L	MW-13A	03/11/2013	ND ND	0.0030	
Chromium, dissolved Chromium, dissolved	MG/L MG/L	MW-13A MW-13A	06/05/2013 12/03/2013	ND	0.0030 0.0030	
11	MG/L	MW-13A		ND		
Chromium, dissolved Chromium, dissolved	MG/L	MW-13A	03/04/2014 06/02/2014	ND	0.0030	
Chromium, dissolved	MG/L	MW-13A	09/22/2014	ND	0.0030	
Chromium, dissolved	MG/L	MW-13A	11/17/2014	ND	0.0030	
Chromium, dissolved	MG/L	MW-13B	03/22/2005	140	0.0035	
Chromium, dissolved	MG/L	MW-13B	06/15/2005	ND	0.0030	
Chromium, dissolved	MG/L	MW-13B	09/27/2005	. 10	0.0030	
Chromium, dissolved	MG/L	MW-13B	12/15/2005	ND	0.0031	
Chromium, dissolved	MG/L	MW-13B	03/29/2006		0.0035	
Chromium, dissolved	MG/L	MW-13B	06/21/2006		0.0032	
Chromium, dissolved	MG/L	MW-13B	09/26/2006	ND	0.0030	
Chromium, dissolved	MG/L	MW-13B	12/13/2006	ND	0.0030	
Chromium, dissolved	MG/L	MW-13B	03/27/2007		0.0033	
Chromium, dissolved	MG/L	MW-13B	06/19/2007		0.0031	
Chromium, dissolved	MG/L	MW-13B	09/18/2007		0.0030	
Chromium, dissolved	MG/L	MW-13B	12/19/2007		0.0031	
Chromium, dissolved	MG/L	MW-13B	03/25/2008		0.0032	
Chromium, dissolved	MG/L	MW-13B	06/18/2008	ND	0.0030	
Chromium, dissolved	MG/L	MW-13B	09/17/2008	ND	0.0030	
Chromium, dissolved	MG/L	MW-13B	12/16/2008	ND	0.0030	
Chromium, dissolved	MG/L	MW-13B	03/24/2009		0.0030	
Chromium, dissolved	MG/L	MW-13B	06/17/2009	ND	0.0030	
Chromium, dissolved	MG/L	MW-13B	09/10/2009		0.0031	
Chromium, dissolved	MG/L	MW-13B	12/03/2009		0.0030	
Chromium, dissolved	MG/L	MW-13B	03/25/2010	NID	0.0031	
Chromium, dissolved	MG/L	MW-13B	06/23/2010	ND	0.0030	
Chromium, dissolved	MG/L MG/L	MW-13B	09/23/2010	ND	0.0030	
Chromium, dissolved Chromium, dissolved	MG/L MG/L	MW-13B MW-13B	12/08/2010 03/30/2011	ND	0.0030 0.0031	
Chromium, dissolved	MG/L MG/L	MW-13B	06/06/2011	ND	0.0031	
Chromium, dissolved	MG/L	MW-13B	09/27/2011	טאו	0.0030	
Chromium, dissolved	MG/L	MW-13B	12/14/2011		0.0032	
Chromium, dissolved	MG/L	MW-13B	03/21/2012		0.0031	
Chromium, dissolved	MG/L	MW-13B	06/08/2012		0.0030	
Chromium, dissolved	MG/L	MW-13B	09/26/2012		0.0030	
Chromium, dissolved	MG/L	MW-13B	12/03/2012	ND	0.0031	
Chromium, dissolved	MG/L	MW-13B	03/11/2013		0.0030	
Chromium, dissolved	MG/L	MW-13B	06/05/2013		0.0032	
Chromium, dissolved	MG/L	MW-13B	12/03/2013		0.0031	
Chromium, dissolved	MG/L	MW-13B	03/04/2014		0.0032	
Chromium, dissolved	MG/L	MW-13B	06/02/2014	ND	0.0030	
Chromium, dissolved	MG/L	MW-13B	09/22/2014		0.0035	
Chromium, dissolved	MG/L	MW-13B	11/17/2014		0.0030	
Chromium, dissolved	MG/L	MW-16	03/24/2009		0.0100	
Chromium, dissolved	MG/L	MW-16	06/16/2009		0.0082	
Chromium, dissolved	MG/L	MW-16	09/09/2009		0.0094	

Table 2-3 **Upgradient Data** 

Chromium, dissolved	$\overline{}$
Chromium, dissolved	94
Chromium, dissolved	62
Chromium, dissolved   MG/L   MW-16   12/09/2010   0.00   0.00   Chromium, dissolved   MG/L   MW-16   08/07/2011   0.00   0.00   Chromium, dissolved   MG/L   MW-16   08/07/2011   0.00   0.00   Chromium, dissolved   MG/L   MW-16   09/27/2011   0.00   0.00   Chromium, dissolved   MG/L   MW-16   09/27/2011   0.00   0.00   Chromium, dissolved   MG/L   MW-16   03/21/2012   0.00   Chromium, dissolved   MG/L   MW-16   03/21/2012   0.00   Chromium, dissolved   MG/L   MW-16   09/27/2012   0.00   Chromium, dissolved   MG/L   MW-16   09/27/2012   0.00   Chromium, dissolved   MG/L   MW-16   09/27/2012   0.00   Chromium, dissolved   MG/L   MW-16   09/27/2013   0.00   Chromium, dissolved   MG/L   MW-16   08/04/2013   0.00   Chromium, dissolved   MG/L   MW-16   08/05/2013   0.00   Chromium, dissolved   MG/L   MW-16   08/05/2013   0.00   Chromium, dissolved   MG/L   MW-16   08/05/2013   0.00   Chromium, dissolved   MG/L   MW-16   08/05/2014   0.00   Chromium, dissolved   MG/L   MW-16   08/05/2014   0.00   Chromium, dissolved   MG/L   MW-16   08/02/2014   0.00   Chromium, dissolved   MG/L   MW-35   08/22/2005   ND   0.00   Chromium, dissolved   MG/L   MW-35   08/22/2005   ND   0.00   Chromium, dissolved   MG/L   MW-35   08/27/2005   ND   0.00   Chromium, dissolved   MG/L   MW-35   08/26/2006   ND   0.00   Chromium, dissolved   MG/L   MW-35   08/26/2006   ND   0.00   Chromium, dissolved   MG/L   MW-35   08/26/2007   ND   0.00   Chromium, dissolved   MG/L   MW-35   08/26/2007   ND   0.00   Chromium, dissolved   MG/L   MW-35   08/26/2007   ND   0.00   Chromium, dissolved   MG/L   MW-35   08/26/2001   ND   0.00   Chromi	88
Chromium, dissolved	99
Chromium, dissolved	88
Chromium, dissolved	
Chromium, dissolved         MG/L         MW-16         11/18/2014         0.00           Chromium, dissolved         MG/L         MW-35         03/22/2005         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/14/2005         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/27/2005         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/28/2006         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/28/2006         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/21/2006         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/21/2006         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/27/2007         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/27/2007         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/20/2007         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/18/2007         ND         0.00	
Chromium, dissolved         MG/L         MW-35         03/22/2005         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/14/2005         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/27/2005         ND         0.00           Chromium, dissolved         MG/L         MW-35         12/15/2005         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/28/2006         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/21/2006         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/26/2006         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/26/2006         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/26/2006         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/18/2007         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/18/2007         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/18/2008         ND         0.00	
Chromium, dissolved	
Chromium, dissolved         MG/L         MW-35         09/27/2005         ND         0.00           Chromium, dissolved         MG/L         MW-35         12/15/2005         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/28/2006         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/21/2006         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/26/2006         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/26/2006         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/27/2007         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/20/2007         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/18/2007         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/18/2007         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/25/2008         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/18/2008         ND         0.00	
Chromium, dissolved         MG/L         MW-35         12/15/2005         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/28/2006         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/21/2006         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/26/2006         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/26/2006         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/27/2007         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/20/2007         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/18/2007         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/18/2007         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/25/2008         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/18/2008         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/18/2008         ND         0.00	
Chromium, dissolved         MG/L         MW-35         03/28/2006         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/21/2006         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/26/2006         ND         0.00           Chromium, dissolved         MG/L         MW-35         12/12/2006         ND         0.00           Chromium, dissolved         MG/L         MW-35         12/12/2007         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/20/2007         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/18/2007         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/18/2008         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/18/2008         ND         0.00	
Chromium, dissolved         MG/L         MW-35         06/21/2006         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/26/2006         ND         0.00           Chromium, dissolved         MG/L         MW-35         12/12/2006         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/27/2007         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/20/2007         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/18/2007         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/18/2007         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/25/2008         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/18/2008         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/18/2008         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/18/2008         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/19/2009         ND         0.00	
Chromium, dissolved         MG/L         MW-35         09/26/2006         ND         0.00           Chromium, dissolved         MG/L         MW-35         12/12/2006         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/27/2007         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/20/2007         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/18/2007         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/18/2007         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/18/2007         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/25/2008         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/18/2008         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/18/2008         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/18/2008         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/10/2009         ND         0.00	
Chromium, dissolved         MG/L         MW-35         12/12/2006         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/27/2007         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/20/2007         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/18/2007         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/18/2007         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/18/2007         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/25/2008         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/18/2008         ND         0.00	
Chromium, dissolved         MG/L         MW-35         03/27/2007         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/20/2007         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/18/2007         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/18/2007         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/25/2008         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/18/2008         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/18/2008         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/10/2009         ND         0.00	
Chromium, dissolved         MG/L         MW-35         06/20/2007         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/18/2007         ND         0.00           Chromium, dissolved         MG/L         MW-35         12/20/2007         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/25/2008         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/18/2008         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/18/2008         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/24/2009         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/10/2009         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/20/2010         ND         0.00	
Chromium, dissolved         MG/L         MW-35         09/18/2007         ND         0.00           Chromium, dissolved         MG/L         MW-35         12/20/2007         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/25/2008         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/18/2008         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/18/2008         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/24/2009         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/16/2009         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/16/2009         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/25/2010         ND         0.00	
Chromium, dissolved         MG/L         MW-35         12/20/2007         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/25/2008         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/18/2008         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/18/2008         ND         0.00           Chromium, dissolved         MG/L         MW-35         12/19/2008         ND         0.00           Chromium, dissolved         MG/L         MW-35         12/19/2009         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/10/2009         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/10/2009         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/10/2009         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/20/2010         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/23/2010         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/23/2010         ND         0.00	
Chromium, dissolved         MG/L         MW-35         03/25/2008         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/18/2008         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/18/2008         ND         0.00           Chromium, dissolved         MG/L         MW-35         12/19/2008         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/24/2009         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/16/2009         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/10/2009         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/10/2009         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/25/2010         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/25/2010         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/23/2010         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/23/2010         ND         0.00	
Chromium, dissolved         MG/L         MW-35         06/18/2008         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/18/2008         ND         0.00           Chromium, dissolved         MG/L         MW-35         12/19/2008         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/24/2009         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/16/2009         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/10/2009         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/20/2010         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/23/2010         ND         0.00	
Chromium, dissolved         MG/L         MW-35         09/18/2008         ND         0.00           Chromium, dissolved         MG/L         MW-35         12/19/2008         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/24/2009         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/16/2009         ND         0.03           Chromium, dissolved         MG/L         MW-35         09/10/2009         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/25/2010         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/23/2010         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/30/2011         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/26/2011         ND         0.00	
Chromium, dissolved         MG/L         MW-35         12/19/2008         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/24/2009         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/16/2009         0.03           Chromium, dissolved         MG/L         MW-35         09/10/2009         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/20/2009         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/25/2010         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/23/2010         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/23/2010         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/23/2010         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/30/2011         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/06/2011         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/26/2011         ND         0.00	
Chromium, dissolved         MG/L         MW-35         03/24/2009         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/16/2009         0.03           Chromium, dissolved         MG/L         MW-35         09/10/2009         ND         0.00           Chromium, dissolved         MG/L         MW-35         12/03/2009         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/25/2010         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/23/2010         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/23/2010         ND         0.00           Chromium, dissolved         MG/L         MW-35         12/09/2010         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/30/2011         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/26/2011         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/26/2011         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/21/2011         ND         0.00	
Chromium, dissolved         MG/L         MW-35         06/16/2009         0.03           Chromium, dissolved         MG/L         MW-35         09/10/2009         ND         0.00           Chromium, dissolved         MG/L         MW-35         12/03/2009         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/25/2010         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/23/2010         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/23/2010         ND         0.00           Chromium, dissolved         MG/L         MW-35         12/09/2010         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/30/2011         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/06/2011         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/26/2011         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/21/2012         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/21/2012         ND         0.00	
Chromium, dissolved         MG/L         MW-35         09/10/2009         ND         0.00           Chromium, dissolved         MG/L         MW-35         12/03/2009         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/25/2010         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/23/2010         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/23/2010         ND         0.00           Chromium, dissolved         MG/L         MW-35         12/09/2010         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/30/2011         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/26/2011         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/26/2011         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/21/2012         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/21/2012         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/06/2012         ND         0.00	30
Chromium, dissolved         MG/L         MW-35         12/03/2009         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/25/2010         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/23/2010         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/23/2010         ND         0.00           Chromium, dissolved         MG/L         MW-35         12/09/2010         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/30/2011         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/26/2011         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/26/2011         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/21/2012         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/21/2012         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/06/2012         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/06/2012         ND         0.00	30
Chromium, dissolved         MG/L         MW-35         03/25/2010         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/23/2010         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/23/2010         ND         0.00           Chromium, dissolved         MG/L         MW-35         12/09/2010         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/30/2011         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/06/2011         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/26/2011         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/21/2012         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/21/2012         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/06/2012         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/26/2012         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/26/2012         ND         0.00	30
Chromium, dissolved         MG/L         MW-35         06/23/2010         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/23/2010         ND         0.00           Chromium, dissolved         MG/L         MW-35         12/09/2010         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/30/2011         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/06/2011         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/26/2011         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/21/2012         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/21/2012         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/06/2012         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/26/2012         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/26/2012         ND         0.00	30
Chromium, dissolved         MG/L         MW-35         09/23/2010         ND         0.00           Chromium, dissolved         MG/L         MW-35         12/09/2010         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/30/2011         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/06/2011         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/26/2011         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/21/2011         ND         0.01           Chromium, dissolved         MG/L         MW-35         06/06/2012         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/06/2012         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/26/2012         ND         0.00	
Chromium, dissolved         MG/L         MW-35         12/09/2010         ND         0.00           Chromium, dissolved         MG/L         MW-35         03/30/2011         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/06/2011         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/26/2011         ND         0.00           Chromium, dissolved         MG/L         MW-35         12/13/2011         ND         0.01           Chromium, dissolved         MG/L         MW-35         03/21/2012         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/06/2012         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/26/2012         ND         0.00	30
Chromium, dissolved         MG/L         MW-35         03/30/2011         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/06/2011         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/26/2011         ND         0.00           Chromium, dissolved         MG/L         MW-35         12/13/2011         ND         0.01           Chromium, dissolved         MG/L         MW-35         03/21/2012         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/06/2012         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/26/2012         ND         0.00	
Chromium, dissolved         MG/L         MW-35         06/06/2011         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/26/2011         ND         0.00           Chromium, dissolved         MG/L         MW-35         12/13/2011         ND         0.01           Chromium, dissolved         MG/L         MW-35         03/21/2012         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/06/2012         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/26/2012         ND         0.00	
Chromium, dissolved         MG/L         MW-35         09/26/2011         ND         0.00           Chromium, dissolved         MG/L         MW-35         12/13/2011         ND         0.01           Chromium, dissolved         MG/L         MW-35         03/21/2012         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/06/2012         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/26/2012         ND         0.00	
Chromium, dissolved         MG/L         MW-35         12/13/2011         ND         0.01           Chromium, dissolved         MG/L         MW-35         03/21/2012         ND         0.00           Chromium, dissolved         MG/L         MW-35         06/06/2012         ND         0.00           Chromium, dissolved         MG/L         MW-35         09/26/2012         ND         0.00	
Chromium, dissolved   MG/L   MW-35   03/21/2012   ND   0.00   Chromium, dissolved   MG/L   MW-35   06/06/2012   ND   0.00   Chromium, dissolved   MG/L   MW-35   09/26/2012   ND   0.00	
Chromium, dissolved   MG/L   MW-35   06/06/2012   ND   0.00   Chromium, dissolved   MG/L   MW-35   09/26/2012   ND   0.00	
Chromium, dissolved   MG/L   MW-35   06/06/2012   ND   0.00   Chromium, dissolved   MG/L   MW-35   09/26/2012   ND   0.00	
Chromium, dissolved   MG/L   MW-35   12/04/2012   ND   0.00	30
	30
Chromium, dissolved   MG/L   MW-35   03/13/2013   ND   0.00	30
Chromium, dissolved   MG/L   MW-35   06/06/2013   ND   0.00	
Chromium, dissolved MG/L MW-35 09/05/2013 ND 0.00	30
Chromium, dissolved MG/L MW-35 12/16/2013 ND 0.00	
Chromium, dissolved   MG/L   MW-35   03/04/2014   ND   0.00	
Chromium, dissolved MG/L MW-35 06/02/2014 ND 0.00	
Chromium, dissolved MG/L MW-35 09/22/2014 ND 0.00	
Chromium, dissolved MG/L MW-35 11/17/2014 ND 0.00	
Cobalt, dissolved MG/L MW-13A 03/22/2005 ND 0.00	
Cobalt, dissolved   MG/L   MW-13A   06/15/2005   ND   0.00	
Cobalt, dissolved   MG/L   MW-13A   09/27/2005   ND   0.00	
Cobalt, dissolved   MG/L   MW-13A   12/15/2005   ND   0.00	

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result	$\bar{\ }$
Cobalt, dissolved	MG/L	MW-13A	03/28/2006	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13A	06/21/2006	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13A	09/26/2006	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13A	12/13/2006	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13A	03/27/2007	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13A	06/19/2007	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13A	09/19/2007	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13A	12/19/2007	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13A	03/25/2008	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13A	06/18/2008	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13A	09/17/2008	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13A	12/17/2008	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13A	03/24/2009	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13A	06/17/2009	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13A	09/10/2009	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13A	12/03/2009	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13A	03/25/2010	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13A	06/23/2010	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13A	09/23/2010	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13A	12/08/2010	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13A	03/30/2011	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13A	06/06/2011	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13A	09/27/2011	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13A	12/14/2011	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13A	03/21/2012	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13A	06/08/2012	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13A	09/26/2012	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13A	12/03/2012	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13A	03/11/2013	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13A	06/05/2013	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13A	12/03/2013	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13A	03/04/2014	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13A	06/02/2014	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13A	09/22/2014	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13A	11/17/2014	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13B	03/22/2005	ND	0.0030	$\neg$
Cobalt, dissolved	MG/L	MW-13B	06/15/2005	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13B	09/27/2005	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13B	12/15/2005	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13B	03/29/2006	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13B	06/21/2006	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13B	09/26/2006	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13B	12/13/2006	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13B	03/27/2007	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13B	06/19/2007	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13B	09/18/2007	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13B	12/19/2007	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13B	03/25/2008	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13B	06/18/2008	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13B	09/17/2008	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13B	12/16/2008	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13B	03/24/2009	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13B	06/17/2009	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13B	09/10/2009	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13B	12/03/2009	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13B	03/25/2010	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13B	06/23/2010	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13B	09/23/2010	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13B	12/08/2010	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13B	03/30/2011	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13B	06/06/2011	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13B	09/27/2011	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13B	12/14/2011	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13B	03/21/2012	ND	0.0030	
Cobalt, dissolved	MG/L	MW-13B	06/08/2012	ND	0.0030	

<sup>\* -</sup> Outlier for that well and constituent. ND = Not detected, result = detection limit.

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result
Cobalt, dissolved	MG/L	MW-13B	09/26/2012	ND	0.0030
Cobalt, dissolved	MG/L	MW-13B	12/03/2012	ND	0.0030
Cobalt, dissolved	MG/L	MW-13B	03/11/2013	ND	0.0030
Cobalt, dissolved	MG/L	MW-13B	06/05/2013	ND	0.0030
Cobalt, dissolved	MG/L	MW-13B	12/03/2013	ND	0.0030
Cobalt, dissolved	MG/L	MW-13B	03/04/2014	ND	0.0030
Cobalt, dissolved	MG/L	MW-13B	06/02/2014	ND	0.0030
Cobalt, dissolved	MG/L	MW-13B	09/22/2014	ND	0.0030
Cobalt, dissolved	MG/L	MW-13B	11/17/2014	ND	0.0030
Cobalt, dissolved	MG/L	MW-16	03/24/2009	ND	0.0030
Cobalt, dissolved	MG/L	MW-16	06/16/2009	ND	0.0030
Cobalt, dissolved	MG/L	MW-16	09/09/2009	ND	0.0030
Cobalt, dissolved	MG/L	MW-16	12/03/2009	ND	0.0030
Cobalt, dissolved	MG/L	MW-16	03/25/2010	ND	0.0030
Cobalt, dissolved	MG/L	MW-16	06/24/2010	ND	0.0030
Cobalt, dissolved	MG/L	MW-16	09/24/2010	ND ND	0.0030
Cobalt, dissolved	MG/L	MW-16	12/09/2010	I	0.0030
Cobalt, dissolved	MG/L	MW-16	03/30/2011	ND	0.0030
Cobalt, dissolved	MG/L MG/L	MW-16 MW-16	06/07/2011	ND ND	0.0030 0.0030
Cobalt, dissolved Cobalt, dissolved	MG/L	MW-16	09/27/2011 12/13/2011	ND	0.0030
Cobalt, dissolved	MG/L	MW-16	03/21/2012	ND	0.0030
Cobalt, dissolved	MG/L	MW-16	06/08/2012	ND	0.0030
Cobalt, dissolved	MG/L	MW-16	09/27/2012	ND	0.0030
Cobalt, dissolved	MG/L	MW-16	12/04/2012	ND	0.0030
Cobalt, dissolved	MG/L	MW-16	03/12/2013	ND	0.0030
Cobalt, dissolved	MG/L	MW-16	06/04/2013	ND	0.0030
Cobalt, dissolved	MG/L	MW-16	09/05/2013	ND	0.0030
Cobalt, dissolved	MG/L	MW-16	12/16/2013	ND	0.0030
Cobalt, dissolved	MG/L	MW-16	03/05/2014	ND	0.0030
Cobalt, dissolved	MG/L	MW-16	06/02/2014	ND	0.0030
Cobalt, dissolved	MG/L	MW-16	09/22/2014	ND	0.0030
Cobalt, dissolved	MG/L	MW-16	11/18/2014	ND	0.0030
Cobalt, dissolved	MG/L	MW-35	03/22/2005	ND	0.0030
Cobalt, dissolved	MG/L	MW-35	06/14/2005	ND	0.0030
Cobalt, dissolved	MG/L	MW-35	09/27/2005	ND	0.0030
Cobalt, dissolved	MG/L	MW-35	12/15/2005	ND	0.0030
Cobalt, dissolved	MG/L	MW-35	03/28/2006	ND	0.0030
Cobalt, dissolved	MG/L	MW-35	06/21/2006	ND	0.0030
Cobalt, dissolved	MG/L	MW-35	09/26/2006	ND	0.0030
Cobalt, dissolved	MG/L	MW-35	12/12/2006	ND	0.0030
Cobalt, dissolved	MG/L	MW-35	03/27/2007	ND	0.0030
Cobalt, dissolved	MG/L	MW-35	06/20/2007	ND	0.0030
Cobalt, dissolved	MG/L	MW-35	09/18/2007	ND	0.0030
Cobalt, dissolved	MG/L	MW-35	12/20/2007	ND	0.0030
Cobalt, dissolved	MG/L	MW-35	03/25/2008	ND	0.0030
Cobalt, dissolved	MG/L	MW-35	06/18/2008	ND	0.0030
Cobalt, dissolved	MG/L	MW-35	09/18/2008	ND	0.0030
Cobalt, dissolved	MG/L	MW-35	12/19/2008	ND	0.0030
Cobalt, dissolved	MG/L	MW-35	03/24/2009	ND	0.0030
Cobalt, dissolved	MG/L	MW-35	06/16/2009	ND	0.0030
Cobalt, dissolved	MG/L	MW-35	09/10/2009	ND	0.0030
Cobalt, dissolved	MG/L	MW-35	12/03/2009	ND	0.0030
Cobalt, dissolved	MG/L	MW-35	03/25/2010	ND	0.0030
Cobalt, dissolved	MG/L MG/L	MW-35 MW-35	06/23/2010	ND	0.0030
Cobalt, dissolved Cobalt, dissolved	MG/L MG/L	MW-35	09/23/2010 12/09/2010	ND ND	0.0030 0.0030
Cobalt, dissolved	MG/L	MW-35	03/30/2011	ND	0.0030
Cobalt, dissolved	MG/L	MW-35	06/06/2011	ND	0.0030
Cobalt, dissolved	MG/L	MW-35	09/26/2011	ND	0.0030
Cobalt, dissolved	MG/L	MW-35	12/13/2011	ND	0.0030
Cobalt, dissolved	MG/L	MW-35	03/21/2012	ND	0.0030
Cobalt, dissolved	MG/L	MW-35	06/06/2012	ND	0.0030
Cobalt, dissolved	MG/L	MW-35	09/26/2012	ND	0.0030
Cobalt, dissolved	MG/L	MW-35	12/04/2012	ND	0.0030
Cobait, dissolved	IVIG/L	10100-33	12/04/2012	ואט	0.0030

<sup>\* -</sup> Outlier for that well and constituent. ND = Not detected, result = detection limit.

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result
Cobalt, dissolved	MG/L	MW-35	03/13/2013	ND	0.0030
Cobalt, dissolved	MG/L	MW-35	06/06/2013	ND	0.0030
Cobalt, dissolved	MG/L	MW-35	09/05/2013	ND	0.0030
Cobalt, dissolved	MG/L	MW-35	12/16/2013	ND	0.0030
Cobalt, dissolved	MG/L	MW-35	03/04/2014	ND	0.0030
Cobalt, dissolved	MG/L	MW-35	06/02/2014	ND	0.0030
Cobalt, dissolved	MG/L	MW-35	09/22/2014	ND	0.0030
Cobalt, dissolved	MG/L	MW-35	11/17/2014	ND	0.0030
Copper, dissolved	MG/L	MW-13A	03/22/2005	ND	0.0020
Copper, dissolved	MG/L	MW-13A	06/15/2005	ND	0.0020
Copper, dissolved	MG/L	MW-13A	09/27/2005	ND	0.0020
Copper, dissolved	MG/L	MW-13A	12/15/2005	ND	0.0020
Copper, dissolved	MG/L	MW-13A	03/28/2006	ND	0.0020
Copper, dissolved	MG/L	MW-13A	06/21/2006		0.0094
Copper, dissolved	MG/L	MW-13A	09/26/2006	ND	0.0020
Copper, dissolved	MG/L	MW-13A	12/13/2006	ND	0.0020
Copper, dissolved	MG/L	MW-13A	03/27/2007	ND	0.0020
Copper, dissolved	MG/L	MW-13A	06/19/2007	ND	0.0020
Copper, dissolved	MG/L	MW-13A	09/19/2007	ND	0.0020
Copper, dissolved	MG/L	MW-13A	12/19/2007	ND	0.0020
Copper, dissolved	MG/L	MW-13A	03/25/2008	ND	0.0020
Copper, dissolved	MG/L	MW-13A	06/18/2008	ND	0.0020
Copper, dissolved	MG/L	MW-13A	09/17/2008	ND	0.0020
Copper, dissolved	MG/L	MW-13A	12/17/2008	ND	0.0020
Copper, dissolved	MG/L	MW-13A	03/24/2009	ND	0.0020
Copper, dissolved	MG/L	MW-13A	06/17/2009	ND	0.0020
Copper, dissolved	MG/L	MW-13A	09/10/2009	ND	0.0020
Copper, dissolved	MG/L	MW-13A	12/03/2009	ND	0.0020
Copper, dissolved	MG/L	MW-13A	03/25/2010	ND	0.0020
Copper, dissolved	MG/L	MW-13A	06/23/2010	ND	0.0020
Copper, dissolved	MG/L	MW-13A	09/23/2010	ND	0.0020
Copper, dissolved	MG/L	MW-13A	12/08/2010	ND	0.0020
Copper, dissolved	MG/L	MW-13A	03/30/2011	ND	0.0020
Copper, dissolved	MG/L	MW-13A	06/06/2011	ND	0.0020
Copper, dissolved	MG/L	MW-13A	09/27/2011	ND	0.0020
Copper, dissolved	MG/L	MW-13A	12/14/2011	ND	0.0020
Copper, dissolved	MG/L	MW-13A	03/21/2012	ND	0.0020
Copper, dissolved	MG/L	MW-13A	06/08/2012	ND	0.0020
Copper, dissolved	MG/L	MW-13A	09/26/2012	ND	0.0020
Copper, dissolved	MG/L	MW-13A	12/03/2012	ND	0.0020
Copper, dissolved	MG/L	MW-13A	03/11/2013	ND	0.0020
Copper, dissolved	MG/L	MW-13A	06/05/2013	ND	0.0020
Copper, dissolved	MG/L	MW-13A	12/03/2013		0.0020
Copper, dissolved	MG/L	MW-13A	03/04/2014	ND	0.0020
Copper, dissolved	MG/L	MW-13A	06/02/2014	ND	0.0020
Copper, dissolved	MG/L	MW-13A	09/22/2014	ND	0.0020
Copper, dissolved	MG/L	MW-13A	11/17/2014	ND	0.0020
Copper, dissolved	MG/L	MW-13B	03/22/2005	ND	0.0020
Copper, dissolved	MG/L	MW-13B	06/15/2005	ND	0.0020
Copper, dissolved	MG/L	MW-13B	09/27/2005	ND	0.0020
Copper, dissolved	MG/L	MW-13B	12/15/2005	ND	0.0020
Copper, dissolved	MG/L	MW-13B	03/29/2006	ND	0.0020
Copper, dissolved	MG/L	MW-13B	06/21/2006	ND	0.0020
Copper, dissolved	MG/L	MW-13B	09/26/2006	ND	0.0020
Copper, dissolved	MG/L	MW-13B	12/13/2006	ND	0.0020
Copper, dissolved	MG/L	MW-13B	03/27/2007	ND	0.0020
Copper, dissolved	MG/L	MW-13B	06/19/2007	ND	0.0020
Copper, dissolved	MG/L	MW-13B	09/18/2007		0.0040
Copper, dissolved	MG/L	MW-13B	12/19/2007	ND	0.0020
Copper, dissolved	MG/L	MW-13B	03/25/2008	ND	0.0020
Copper, dissolved	MG/L	MW-13B	06/18/2008	ND	0.0020
Copper, dissolved	MG/L	MW-13B	09/17/2008	ND	0.0020
Copper, dissolved	MG/L	MW-13B	12/16/2008	ND	0.0020
Copper, dissolved	MG/L	MW-13B	03/24/2009	ND	0.0020
Copper, dissolved	MG/L	MW-13B	06/17/2009	ND	0.0020

Table 2-3 **Upgradient Data** 

Copper, dissolved	1.10 (			1	Result
'	MG/L	MW-13B	09/10/2009	ND	0.0020
Copper, dissolved	MG/L	MW-13B	12/03/2009	ND	0.0020
Copper, dissolved	MG/L	MW-13B	03/25/2010	ND	0.0020
Copper, dissolved	MG/L	MW-13B	06/23/2010	ND	0.0020
Copper, dissolved	MG/L	MW-13B	09/23/2010	ND	0.0020
Copper, dissolved	MG/L	MW-13B	12/08/2010	ND	0.0020
Copper, dissolved	MG/L	MW-13B	03/30/2011	ND	0.0020
Copper, dissolved	MG/L	MW-13B	06/06/2011	ND	0.0020
Copper, dissolved	MG/L	MW-13B	09/27/2011	ND	0.0020
Copper, dissolved	MG/L	MW-13B	12/14/2011	ND	0.0020
Copper, dissolved	MG/L	MW-13B	03/21/2012	ND	0.0020
Copper, dissolved	MG/L	MW-13B	06/08/2012	ND	0.0020
Copper, dissolved	MG/L	MW-13B	09/26/2012	ND	0.0020
Copper, dissolved	MG/L	MW-13B	12/03/2012	ND	0.0020
Copper, dissolved	MG/L MG/L	MW-13B	03/11/2013	ND ND	0.0020
Copper, dissolved Copper, dissolved	MG/L	MW-13B MW-13B	06/05/2013 12/03/2013	שוו	0.0020 0.0044
				ND	
Copper, dissolved Copper, dissolved	MG/L MG/L	MW-13B MW-13B	03/04/2014 06/02/2014	ND ND	0.0020 0.0020
Copper, dissolved Copper, dissolved	MG/L	MW-13B	09/22/2014	ND	0.0020
Copper, dissolved	MG/L	MW-13B	11/17/2014	ND	0.0020
Copper, dissolved	MG/L	MW-16	03/24/2009	ND	0.0020
Copper, dissolved	MG/L	MW-16	06/16/2009	ND	0.0020
Copper, dissolved	MG/L	MW-16	09/09/2009	ND	0.0020
Copper, dissolved	MG/L	MW-16	12/03/2009	ND	0.0020
Copper, dissolved	MG/L	MW-16	03/25/2010	ND	0.0020
Copper, dissolved	MG/L	MW-16	06/24/2010	ND	0.0020
Copper, dissolved	MG/L	MW-16	09/24/2010	ND	0.0020
Copper, dissolved	MG/L	MW-16	12/09/2010	ND	0.0020
Copper, dissolved	MG/L	MW-16	03/30/2011	ND	0.0020
Copper, dissolved	MG/L	MW-16	06/07/2011	ND	0.0020
Copper, dissolved	MG/L	MW-16	09/27/2011	ND	0.0020
Copper, dissolved	MG/L	MW-16	12/13/2011	ND	0.0020
Copper, dissolved	MG/L	MW-16	03/21/2012	ND	0.0020
Copper, dissolved	MG/L	MW-16	06/08/2012	ND	0.0020
Copper, dissolved	MG/L	MW-16	09/27/2012	ND	0.0020
Copper, dissolved	MG/L	MW-16	12/04/2012	ND	0.0020
Copper, dissolved	MG/L	MW-16	03/12/2013	ND	0.0020
Copper, dissolved	MG/L	MW-16	06/04/2013	ND	0.0020
Copper, dissolved	MG/L	MW-16	09/05/2013	ND	0.0020
Copper, dissolved	MG/L	MW-16	12/16/2013	ND	0.0020
Copper, dissolved	MG/L	MW-16	03/05/2014	ND	0.0020
Copper, dissolved	MG/L	MW-16	06/02/2014	ND	0.0020
Copper, dissolved	MG/L	MW-16	09/22/2014	ND	0.0020
Copper, dissolved Copper, dissolved	MG/L MG/L	MW-16 MW-35	11/18/2014 03/22/2005	ND ND	0.0020 0.0020
Copper, dissolved Copper, dissolved	MG/L MG/L	MW-35	06/14/2005	ND	0.0020
Copper, dissolved Copper, dissolved	MG/L MG/L	MW-35	06/14/2005	ND	0.0020
Copper, dissolved Copper, dissolved	MG/L	MW-35	12/15/2005	ND	0.0020
Copper, dissolved	MG/L	MW-35	03/28/2006	ND	0.0020
Copper, dissolved	MG/L	MW-35	06/21/2006	ND	0.0020
Copper, dissolved	MG/L	MW-35	09/26/2006	ND	0.0020
Copper, dissolved	MG/L	MW-35	12/12/2006	ND	0.0020
Copper, dissolved	MG/L	MW-35	03/27/2007	ND	0.0020
Copper, dissolved	MG/L	MW-35	06/20/2007	ND	0.0020
Copper, dissolved	MG/L	MW-35	09/18/2007	ND	0.0020
Copper, dissolved	MG/L	MW-35	12/20/2007	ND	0.0020
Copper, dissolved	MG/L	MW-35	03/25/2008	ND	0.0020
Copper, dissolved	MG/L	MW-35	06/18/2008	ND	0.0020
Copper, dissolved	MG/L	MW-35	09/18/2008	ND	0.0020
Copper, dissolved	MG/L	MW-35	12/19/2008	ND	0.0020
Copper, dissolved	MG/L	MW-35	03/24/2009	ND	0.0020
Copper, dissolved	MG/L	MW-35	06/16/2009	ND	0.0020
Copper, dissolved	MG/L	MW-35	09/10/2009	ND	0.0020
Copper, dissolved	MG/L	MW-35	12/03/2009	ND	0.0020

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result
Copper, dissolved	MG/L	MW-35	03/25/2010	ND	0.0020
Copper, dissolved	MG/L	MW-35	06/23/2010	ND	0.0020
Copper, dissolved	MG/L	MW-35	09/23/2010	ND	0.0020
Copper, dissolved	MG/L	MW-35	12/09/2010	ND	0.0020
Copper, dissolved	MG/L	MW-35	03/30/2011	ND	0.0020
Copper, dissolved	MG/L	MW-35	06/06/2011	ND	0.0020
Copper, dissolved	MG/L	MW-35	09/26/2011	ND	0.0020
Copper, dissolved	MG/L	MW-35	12/13/2011	ND	0.0100
Copper, dissolved	MG/L	MW-35	03/21/2012	ND	0.0020
Copper, dissolved	MG/L	MW-35	06/06/2012	ND	0.0020
Copper, dissolved	MG/L	MW-35	09/26/2012	ND	0.0020
Copper, dissolved	MG/L	MW-35	12/04/2012	ND	0.0020
Copper, dissolved	MG/L	MW-35	03/13/2013	ND	0.0020
Copper, dissolved	MG/L	MW-35	06/06/2013	ND	0.0020
Copper, dissolved	MG/L	MW-35	09/05/2013	ND	0.0020
Copper, dissolved	MG/L	MW-35	12/16/2013	ND	0.0020
Copper, dissolved	MG/L	MW-35	03/04/2014	ND	0.0020
Copper, dissolved	MG/L	MW-35	06/02/2014	ND	0.0020
Copper, dissolved	MG/L	MW-35	09/22/2014	ND	0.0020
Copper, dissolved	MG/L	MW-35	11/17/2014	ND	0.0020
Iron, dissolved	MG/L	MW-13A	03/22/2005	ND	0.0600
Iron, dissolved	MG/L	MW-13A	06/15/2005	ND	0.0600
Iron, dissolved	MG/L	MW-13A	09/27/2005	ND	0.0600
Iron, dissolved	MG/L	MW-13A	12/15/2005	ND	0.0600
Iron, dissolved	MG/L	MW-13A	03/28/2006	ND	0.0600
Iron, dissolved	MG/L	MW-13A	06/21/2006	ND	0.0600
Iron, dissolved	MG/L	MW-13A	09/26/2006	ND	0.0600
Iron, dissolved	MG/L	MW-13A	12/13/2006	ND	0.0600
Iron, dissolved	MG/L	MW-13A	03/27/2007	ND	0.0600
Iron, dissolved	MG/L	MW-13A	06/19/2007	ND	0.0600
Iron, dissolved	MG/L	MW-13A	09/19/2007	ND	0.0600
Iron, dissolved	MG/L	MW-13A	12/19/2007	ND	0.0600
Iron, dissolved	MG/L	MW-13A	03/25/2008	ND	0.0600
Iron, dissolved	MG/L	MW-13A	06/18/2008	ND	0.0600
Iron, dissolved	MG/L	MW-13A	09/17/2008	ND	0.0600
Iron, dissolved	MG/L	MW-13A	12/17/2008	ND	0.0600
Iron, dissolved	MG/L	MW-13A	03/24/2009	ND	0.0600
Iron, dissolved	MG/L	MW-13A	06/17/2009	ND	0.0600
Iron, dissolved	MG/L	MW-13A	09/10/2009	110	0.0630
Iron, dissolved	MG/L	MW-13A	12/03/2009	ND	0.0600
Iron, dissolved	MG/L	MW-13A	03/25/2010	ND	0.0600
Iron, dissolved	MG/L	MW-13A	06/23/2010	ND	0.0600
Iron, dissolved	MG/L	MW-13A	09/23/2010	ND	0.0600
Iron, dissolved	MG/L	MW-13A	12/08/2010	ND	0.0600
Iron, dissolved	MG/L	MW-13A	03/30/2011	ND	0.0600
Iron, dissolved	MG/L	MW-13A	06/06/2011	ND	0.0600
Iron, dissolved	MG/L	MW-13A	09/27/2011	ND	0.0600
Iron, dissolved	MG/L	MW-13A	12/14/2011	ND	0.0600
Iron, dissolved	MG/L	MW-13A	03/21/2012	ND	0.0600
Iron, dissolved	MG/L	MW-13A	06/08/2012	ND	0.0600
Iron, dissolved	MG/L	MW-13A	09/26/2012	ND	0.0600
Iron, dissolved	MG/L	MW-13A	12/03/2012	ND	0.0600
Iron, dissolved	MG/L	MW-13A	03/11/2013	ND	0.0600
Iron, dissolved	MG/L	MW-13A	06/05/2013	ND	0.0600
Iron, dissolved	MG/L	MW-13A	12/03/2013	ND	0.0600
Iron, dissolved	MG/L	MW-13A	03/04/2014	ND	0.0600
Iron, dissolved	MG/L	MW-13A	06/02/2014	ND	0.0600
Iron, dissolved	MG/L	MW-13A	09/22/2014	ND	0.0600
Iron, dissolved	MG/L	MW-13A	11/17/2014	ND	0.0600
Iron, dissolved	MG/L	MW-13B	03/22/2005	ND	0.0600
Iron, dissolved	MG/L	MW-13B	06/15/2005	ND	0.0600
Iron, dissolved	MG/L	MW-13B	09/27/2005	ND	0.0600
Iron, dissolved	MG/L	MW-13B	12/15/2005	ND	0.0600
Iron, dissolved	MG/L	MW-13B	03/29/2006	ND	0.0600
Iron, dissolved	MG/L	MW-13B	06/21/2006	ND	0.0600
iron, dissolved	1410/L	14144-120	00/21/2000	ND	0.0000

<sup>\* -</sup> Outlier for that well and constituent. ND = Not detected, result = detection limit.

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result
Iron, dissolved	MG/L	MW-13B	09/26/2006	ND	0.0600
Iron, dissolved	MG/L	MW-13B	12/13/2006	ND	0.0600
Iron, dissolved	MG/L	MW-13B	03/27/2007	ND	0.0600
Iron, dissolved	MG/L	MW-13B	06/19/2007	ND	0.0600
Iron, dissolved	MG/L	MW-13B	09/18/2007	ND	0.0600
Iron, dissolved	MG/L	MW-13B	12/19/2007	ND	0.0600
Iron, dissolved	MG/L	MW-13B	03/25/2008	ND	0.0600
Iron, dissolved	MG/L	MW-13B	06/18/2008	ND	0.0600
Iron, dissolved	MG/L	MW-13B	09/17/2008	ND	0.0600
Iron, dissolved	MG/L	MW-13B	12/16/2008	ND	0.0600
Iron, dissolved	MG/L	MW-13B	03/24/2009	ND	0.0600
Iron, dissolved	MG/L	MW-13B	06/17/2009	ND	0.0600
Iron, dissolved	MG/L	MW-13B	09/10/2009	NID	0.0970
Iron, dissolved	MG/L	MW-13B	12/03/2009	ND	0.0600
Iron, dissolved	MG/L	MW-13B	03/25/2010	ND	0.0600
Iron, dissolved	MG/L	MW-13B	06/23/2010	ND	0.0600
Iron, dissolved	MG/L	MW-13B	09/23/2010	ND	0.0600
Iron, dissolved	MG/L	MW-13B	12/08/2010	ND	0.0600
Iron, dissolved	MG/L MG/L	MW-13B MW-13B	03/30/2011	ND ND	0.0600
Iron, dissolved   Iron, dissolved	MG/L MG/L	MW-13B	06/06/2011 09/27/2011	ND	0.0600 0.0600
Iron, dissolved	MG/L	MW-13B	12/14/2011	ND	0.0600
Iron, dissolved	MG/L	MW-13B	03/21/2012	ND	0.0600
Iron, dissolved	MG/L	MW-13B	06/08/2012	ND	0.0600
Iron, dissolved	MG/L	MW-13B	09/26/2012	ND	0.0600
Iron, dissolved	MG/L	MW-13B	12/03/2012	ND	0.0600
Iron, dissolved	MG/L	MW-13B	03/11/2013	ND	0.0600
Iron, dissolved	MG/L	MW-13B	06/05/2013	ND	0.0600
Iron, dissolved	MG/L	MW-13B	12/03/2013	ND	0.0600
Iron, dissolved	MG/L	MW-13B	03/04/2014	ND	0.0600
Iron, dissolved	MG/L	MW-13B	06/02/2014	ND	0.0600
Iron, dissolved	MG/L	MW-13B	09/22/2014	ND	0.0600
Iron, dissolved	MG/L	MW-13B	11/17/2014	ND	0.0600
Iron, dissolved	MG/L	MW-16	03/24/2009	ND	0.0600
Iron, dissolved	MG/L	MW-16	06/16/2009	ND	0.0600
Iron, dissolved	MG/L	MW-16	09/09/2009	ND	0.0600
Iron, dissolved	MG/L	MW-16	12/03/2009	ND	0.0600
Iron, dissolved	MG/L	MW-16	03/25/2010	ND	0.0600
Iron, dissolved	MG/L	MW-16	06/24/2010	ND	0.0600
Iron, dissolved	MG/L	MW-16	09/24/2010	ND	0.0600
Iron, dissolved	MG/L	MW-16	12/09/2010	ND	0.0600
Iron, dissolved	MG/L	MW-16	03/30/2011	ND	0.0600
Iron, dissolved	MG/L	MW-16	06/07/2011	ND	0.0600
Iron, dissolved	MG/L	MW-16	09/27/2011	ND	0.0600
Iron, dissolved	MG/L	MW-16	12/13/2011	ND	0.0600
Iron, dissolved	MG/L	MW-16	03/21/2012	ND	0.0600
Iron, dissolved	MG/L	MW-16	06/08/2012	ND	0.0600
Iron, dissolved	MG/L	MW-16	09/27/2012	ND	0.0600
Iron, dissolved	MG/L	MW-16	12/04/2012	ND	0.0600
Iron, dissolved	MG/L	MW-16	03/12/2013	ND	0.0600
Iron, dissolved   Iron, dissolved	MG/L	MW-16	06/04/2013	ND	0.0600
Iron, dissolved   Iron, dissolved	MG/L MG/L	MW-16 MW-16	09/05/2013 12/16/2013	ND ND	0.0600 0.0600
Iron, dissolved	MG/L MG/L	MW-16	03/05/2014	ND	0.0600
Iron, dissolved   Iron, dissolved	MG/L	MW-16	06/02/2014	ND	0.0600
Iron, dissolved	MG/L	MW-16	09/22/2014	ND	0.0600
Iron, dissolved	MG/L	MW-16	11/18/2014	ND	0.0600
Iron, dissolved	MG/L	MW-35	03/22/2005	ND	0.0600
Iron, dissolved	MG/L	MW-35	06/14/2005	ND	0.0600
Iron, dissolved	MG/L	MW-35	09/27/2005	ND	0.0600
Iron, dissolved	MG/L	MW-35	12/15/2005	ND	0.0600
Iron, dissolved	MG/L	MW-35	03/28/2006	ND	0.0600
Iron, dissolved	MG/L	MW-35	06/21/2006	ND	0.0600
Iron, dissolved	MG/L	MW-35	09/26/2006	ND	0.0600
Iron, dissolved	MG/L	MW-35	12/12/2006	ND	0.0600
- ,	1	50	,,		

<sup>\* -</sup> Outlier for that well and constituent. ND = Not detected, result = detection limit.

Table 2-3 **Upgradient Data** 

Iron, dissolved   MG/L   MW-35   03/27/2007   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/27/2007   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/28/2008   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/28/2009   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/28/2009   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/28/2009   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/28/2010   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/28/2011   ND   0.0600   Iron	Constituent	Units	Well	Date		Result
Iron, dissolved   MG/L   MW-35   12/20/2007   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/25/2008   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/25/2008   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/25/2008   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/26/2008   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/24/2009   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/26/2019   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/26/2019   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/26/2010   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/23/2010   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/23/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/26/2011   ND   0.0600   Iron	Iron, dissolved		MW-35	03/27/2007	ND	0.0600
Iron, dissolved   MG/L   MW-35   03/25/2008   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/25/2008   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/42/2009   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/25/2010   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/30/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/30/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/30/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/26/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/26/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/26/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/21/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/21/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/26/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/26/2013   ND   0.0600   Iron	Iron, dissolved			06/20/2007	ND	0.0600
Iron, dissolved			MW-35	09/18/2007	ND	0.0600
Iron, dissolved		1			ND	0.0600
Iron, dissolved   MG/L   MW-35   09/18/2008   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/24/2009   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/18/2009   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/18/2009   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/18/2009   ND   0.0600   Iron, dissolved   MG/L   MW-35   12/03/2009   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/28/2010   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/28/2010   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/28/2010   ND   0.0600   Iron, dissolved   MG/L   MW-35   12/09/2010   ND   0.0600   Iron, dissolved   MG/L   MW-35   12/09/2010   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/28/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/28/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/28/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/28/2013   ND   0.0000   Iron, dissolved   MG/L   MW-35   09/28/2013   ND   0.0000   Iron		1				
Iron, dissolved   MG/L   MW-35   12/19/2008   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/16/2009   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/10/2009   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/10/2009   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/25/2010   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/23/2010   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/23/2010   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/30/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/30/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/26/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/26/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/26/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/21/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/26/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/26/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   06/06/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   06/06/2013   ND   0.0010   Iron		1			I	
Iron, dissolved   MG/L   MW-35   03/24/2009   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/10/2009   ND   0.0600   Iron, dissolved   MG/L   MW-35   12/03/2009   ND   0.0600   Iron, dissolved   MG/L   MW-35   12/03/2009   ND   0.0600   Iron, dissolved   MG/L   MW-35   12/03/2009   ND   0.0600   Iron, dissolved   MG/L   MW-35   06/23/2010   ND   0.0600   Iron, dissolved   MG/L   MW-35   06/23/2010   ND   0.0600   Iron, dissolved   MG/L   MW-35   12/09/2010   ND   0.0600   Iron, dissolved   MG/L   MW-35   12/09/2010   ND   0.0600   Iron, dissolved   MG/L   MW-35   06/06/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   06/06/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   06/06/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/21/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/21/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/21/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/26/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/26/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/06/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/22/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/06/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/06/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/06/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/22/2014   ND   0.0600   Iron						
Iron, dissolved   MG/L   MW-35   08/16/2009   ND   0.0600   Iron, dissolved   MG/L   MW-35   12/03/2009   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/25/2010   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/23/2010   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/30/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/30/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/30/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/26/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/26/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/21/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/21/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/26/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/26/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/3/3/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/06/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/06/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/22/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/22/2014   ND   0.0600   Iro	II '	1				
Iron, dissolved   MG/L   MW-35   09/10/2009   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/25/2010   ND   0.0600   Iron, dissolved   MG/L   MW-35   06/23/2010   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/23/2010   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/23/2010   ND   0.0600   Iron, dissolved   MG/L   MW-35   12/09/2010   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/23/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/06/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/21/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/26/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/26/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/26/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/06/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/22/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/22/2005   ND   0.0010   Iron, dissolved   MG/L   MW-33   08/22/2005   ND   0.0010   Iron	II '	1			I	
Iron, dissolved   MG/L   MW-35   12/03/2009   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/23/2010   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/30/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/30/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/66/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/26/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/26/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/26/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/26/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/26/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/26/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/06/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/02/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/02/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/22/2014   ND   0.0010   Iron	II '				I	
Iron, dissolved   MG/L   MW-35   03/25/2010   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/23/2010   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/23/2010   ND   0.0600   Iron, dissolved   MG/L   MW-35   12/09/2010   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/30/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/06/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/06/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/26/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/21/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/21/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/21/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/06/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/06/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/06/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/06/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/02/2014   ND   0.0600   Iron						
Iron, dissolved   MG/L   MW-35   09/23/2010   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/23/2010   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/30/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/30/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/20/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/26/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/26/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/21/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/31/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/31/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/05/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/22/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/22/2005   ND   0.0010   Iron, dissolved   MG/L   MW-35   09/22/2005   ND   0.0010   Iron, dissolved   MG/L   MW-35   09/22/2007   ND   0.0010   Iron, dissolved   MG/L   MW-35   09/22/2007   ND   0.0010   Iron, dissolved   MG/L   MW-35   09/22/2008   ND   0.0010   Iron, dissolved   MG/L   MW-330   09/22/2007   ND   0.0010   Iron, dissolved   MG/L   MW-330   09/22/2007   ND   0.0010   Ir					I	
Iron, dissolved   MG/L   MW-35   09/23/2010   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/30/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/30/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/30/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/26/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   12/13/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   12/13/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/21/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/21/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/26/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/26/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/31/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/31/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/31/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/05/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/05/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/04/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/22/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/22/2015   ND   0.0010   Iron, dissolved   MG/L   MW-35   09/22/2005   ND   0.0010   Iron					I	
Iron, dissolved   MG/L   MW-35   12/09/2010   ND   0.0600   NO, dissolved   MG/L   MW-35   03/30/2011   ND   0.0600   NO, dissolved   MG/L   MW-35   09/26/2011   ND   0.0600   NO, dissolved   MG/L   MW-35   09/26/2011   ND   0.0600   NO, dissolved   MG/L   MW-35   03/21/2011   ND   0.0600   NO, dissolved   MG/L   MW-35   03/21/2011   ND   0.0600   NO, dissolved   MG/L   MW-35   03/21/2012   ND   0.0600   NO, dissolved   MG/L   MW-35   09/26/2012   ND   0.0600   NO, dissolved   MG/L   MW-35   09/26/2012   ND   0.0600   NO, dissolved   MG/L   MW-35   09/26/2012   ND   0.0600   NO, dissolved   MG/L   MW-35   09/26/2013   ND   0.0600   NO, dissolved   MG/L   MW-35   03/13/2013   ND   0.0600   NO, dissolved   MG/L   MW-35   09/06/2013   ND   0.0600   NO, dissolved   MG/L   MW-35   09/06/2014   ND   0.0600   ND   0.0010   ND   0.001		1				
Iron, dissolved   MG/L   MW-35   03/30/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   06/06/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/21/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   06/06/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/26/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/31/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/31/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   06/06/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   06/06/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/06/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/04/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/04/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/04/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   06/06/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   06/02/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   06/02/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/22/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/22/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/22/2005   ND   0.0010   Iron, dissolved   MG/L   MW-35   09/22/2005   ND   0.0010   Iron, dissolved   MG/L   MW-13A   03/22/2005   ND   0.0010   Iron, dissolved   MG/L   MW-13A   06/15/2005   ND   0.0010   Iron, dissolved   MG/L   MW-13A   06/15/2005   ND   0.0010   Iron, dissolved   MG/L   MW-13A   09/27/2005   ND   0.0010   Iron, dissolved   MG/L   MW-13A   09/27/2005   ND   0.0010   Iron, dissolved   MG/L   MW-13A   09/27/2005   ND   0.0010   Iron, dissolved   MG/L   MW-13A   09/28/2006   ND   0.0010   Iron, dissolved   MG/L   MW-13A   09/27/2007   ND   0.		1				
Iron, dissolved   MG/L   MW-35   09/06/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   12/13/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   12/13/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/21/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/06/2012   0.0700   Iron, dissolved   MG/L   MW-35   09/06/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/06/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/13/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/13/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/13/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/05/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/05/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/04/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/04/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/04/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/02/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/02/2005   ND   0.0010   Iron, dissolved   MG/L   MW-35   09/02/2005   ND   0.0010   Iron, dissolved   MG/L   MW-35   09/02/2005   ND   0.0010   Iron, dissolved   MG/L   MW-13A   09/02/2006   ND   0.0010		1				
Iron, dissolved   MG/L   MW-35   12/13/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   12/13/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/21/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/21/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/26/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/26/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/26/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/06/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   06/06/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   06/06/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/06/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/04/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/04/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/04/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/22/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/22/2015   ND   0.0010   Iron, dissolved   MG/L   MW-35   09/22/2005   ND   0.0010   Iron, dissolved   MG/L   MW-35   09/22/2005   ND   0.0010   Iron, dissolved   MG/L   MW-13A   03/28/2005   ND   0.0010   Iron, dissolved   MG/L   MW-13A   03/28/2005   ND   0.0010   Iron, dissolved   MG/L   MW-13A   03/28/2005   ND   0.0010   Iron, dissolved   MG/L   MW-13A   09/26/2006   ND   0.0010   Iron, dissolved   MG/L   MW-13A   09/26/2007   ND   0.		1				
Iron, dissolved   MG/L   MW-35   03/21/2011   ND   0.0600   Iron, dissolved   MG/L   MW-35   06/06/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   06/06/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/06/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   12/04/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   12/04/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/13/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/13/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/05/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/05/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/04/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/04/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   06/02/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   06/02/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   06/02/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/02/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/02/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   11/17/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   11/17/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   11/17/2014   ND   0.0600   Iron, dissolved   MG/L   MW-13A   03/22/2005   ND   0.0010   Iron, dissolved   MG/L   MW-13A   03/22/2005   ND   0.0010   Iron, dissolved   MG/L   MW-13A   03/22/2005   ND   0.0010   Iron, dissolved   MG/L   MW-13A   09/27/2005   ND   0.0010   Iron, dissolved   MG/L   MW-13A   03/28/2006   ND   0.0010   Iron, dissolved   MG/L   MW-13A   03/28/2006   ND   0.0010   Iron, dissolved   MG/L   MW-13A   03/27/2007   ND	'	1			I	
Iron, dissolved   MG/L   MW-35   03/21/2012   ND   0.0600   NG/L   NG/L   MW-35   09/26/2012   ND   0.0600   NG/L   NG/L   MW-35   09/26/2012   ND   0.0600   NG/L   NG/L   NW-35   09/26/2012   ND   0.0600   NG/L   NW-35   09/26/2013   ND   0.0600   NG/L   NW-35   03/13/2013   ND   0.0600   NG/L   NW-35   06/06/2013   ND   0.0600   NG/L   NW-35   12/16/2013   ND   0.0600   NG/L   NW-35   12/16/2013   ND   0.0600   NG/L   NW-35   12/16/2013   ND   0.0600   NG/L   NW-35   03/04/2014   ND   0.0600   NG/L   NW-35   03/04/2014   ND   0.0600   NG/L   NW-35   09/22/2014   ND   0.0600   NG/L   NG/L   NW-35   09/22/2005   ND   0.0010   NG/L   NW-35   09/22/2005   ND					I	
Iron, dissolved   MG/L   MW-35   08/06/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   12/04/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   12/04/2012   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/06/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/06/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/06/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/05/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/05/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/06/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   08/02/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   11/17/2014   ND   0.0600   Iron, dissolved   MG/L   MW-13A   08/15/2005   ND   0.0010   Lead, dissolved   MG/L   MW-13A   08/15/2005   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/27/2005   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/27/2005   ND   0.0010   Lead, dissolved   MG/L   MW-13A   08/28/2006   ND   0.0010   Lead, dissolved   MG/L   MW-13A   08/28/2006   ND   0.0010   Lead, dissolved   MG/L   MW-13A   08/28/2006   ND   0.0010   Lead, dissolved   MG/L   MW-13A   08/18/2006   ND   0.0010   Lead, dissolved   MG/L   MW-13A   08/18/2008   N		1				
Iron, dissolved					אט	
Iron, dissolved	'				ND	
Iron, dissolved		1				
Iron, dissolved   MG/L   MW-35   06/06/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/05/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/05/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/04/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/04/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   06/02/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   06/02/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   06/02/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   11/17/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   11/17/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   11/17/2014   ND   0.0600   Iron, dissolved   MG/L   MW-13A   03/22/2005   ND   0.0010   Lead, dissolved   MG/L   MW-13A   03/22/2005   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/27/2005   ND   0.0010   Lead, dissolved   MG/L   MW-13A   03/28/2006   ND   0.0010   Lead, dissolved   MG/L   MW-13A   03/28/2006   ND   0.0010   Lead, dissolved   MG/L   MW-13A   06/21/2006   ND   0.0010   Lead, dissolved   MG/L   MW-13A   06/21/2006   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/26/2006   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/26/2006   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/26/2006   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/19/2007   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/19/2007   ND   0.0010   Lead, dissolved   MG/L   MW-13A   06/18/2008   ND   0.0010   Lead, dissolved   MG/L   MW-13A   06/18/2009   ND   0.0010   Lead, dissolved   MG/L   MW-13A   06/18/2009   ND   0.0010   Lead, dissolved   MG/L   MW-13A   06/23/2010   ND   0.0010   Lead, dissolved   MG/L   MW-13A   06/08/20		1				
Iron, dissolved		1				
Iron, dissolved   MG/L   MW-35   12/16/2013   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/04/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/04/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/22/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/22/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/22/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   11/17/2014   ND   0.0600   Iron, dissolved   MG/L   MW-13A   03/22/2005   ND   0.0010   Lead, dissolved   MG/L   MW-13A   06/15/2005   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/27/2005   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/27/2005   ND   0.0010   Lead, dissolved   MG/L   MW-13A   03/28/2006   ND   0.0010   Lead, dissolved   MG/L   MW-13A   03/28/2006   ND   0.0010   Lead, dissolved   MG/L   MW-13A   03/28/2006   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/26/2006   ND   0.0010   Lead, dissolved   MG/L   MW-13A   03/27/2007   ND   0.0010   Lead, dissolved   MG/L   MW-13A   03/27/2007   ND   0.0010   Lead, dissolved   MG/L   MW-13A   03/27/2007   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/19/2007   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/19/2009   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/23/2010   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/23/2010   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/23/2010   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/2	'				I	
Iron, dissolved   MG/L   MW-35   03/04/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   06/02/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   06/02/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   11/17/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   03/22/2005   ND   0.0010   Lead, dissolved   MG/L   MW-13A   06/15/2005   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/27/2005   ND   0.0010   Lead, dissolved   MG/L   MW-13A   12/15/2005   ND   0.0010   Lead, dissolved   MG/L   MW-13A   03/28/2006   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/26/2006   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/26/2006   ND   0.0010   Lead, dissolved   MG/L   MW-13A   03/27/2007   ND   0.0010   Lead, dissolved   MG/L   MW-13A   06/19/2007   ND   0.0010   Lead, dissolved   MG/L   MW-13A   06/19/2007   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/19/2007   ND   0.0010   Lead, dissolved   MG/L   MW-13A   06/18/2008   ND   0.0010   Lead, dissolved   MG/L   MW-13A   06/18/2008   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/17/2009   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/17/2009   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/17/2009   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/23/2010   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/26/2012   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/26					I	
Iron, dissolved   MG/L   MW-35   06/02/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/22/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/22/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   09/22/2005   ND   0.0600   Iron, dissolved   MG/L   MW-13A   03/22/2005   ND   0.0010   Lead, dissolved   MG/L   MW-13A   06/15/2005   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/27/2005   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/27/2005   ND   0.0010   Lead, dissolved   MG/L   MW-13A   03/28/2006   ND   0.0010   Lead, dissolved   MG/L   MW-13A   03/28/2006   ND   0.0010   Lead, dissolved   MG/L   MW-13A   06/21/2006   ND   0.0010   Lead, dissolved   MG/L   MW-13A   06/21/2006   ND   0.0010   Lead, dissolved   MG/L   MW-13A   03/27/2007   ND   0.0010   Lead, dissolved   MG/L   MW-13A   03/27/2007   ND   0.0010   Lead, dissolved   MG/L   MW-13A   03/27/2007   ND   0.0010   Lead, dissolved   MG/L   MW-13A   06/19/2007   ND   0.0010   Lead, dissolved   MG/L   MW-13A   06/19/2007   ND   0.0010   Lead, dissolved   MG/L   MW-13A   03/25/2008   ND   0.0010   Lead, dissolved   MG/L   MW-13A   03/25/2008   ND   0.0010   Lead, dissolved   MG/L   MW-13A   03/25/2008   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/17/2008   ND   0.0010   Lead, dissolved   MG/L   MW-13A   03/24/2009   ND   0.0010   Lead, dissolved   MG/L   MW-13A   03/24/2009   ND   0.0010   Lead, dissolved   MG/L   MW-13A   03/24/2009   ND   0.0010   Lead, dissolved   MG/L   MW-13A   03/23/2010   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/10/2009   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/23/2010   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/23/2010   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/23/2010   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/23/2011   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/23/2011   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/23/2011   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/26/2012   ND   0.0010   Lead, dissolved   MG/L   MW-13A   0		1			I	
Iron, dissolved   MG/L   MW-35   09/22/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   11/17/2014   ND   0.0600   Iron, dissolved   MG/L   MW-35   11/17/2014   ND   0.0600   Lead, dissolved   MG/L   MW-13A   03/22/2005   ND   0.0010   Lead, dissolved   MG/L   MW-13A   06/15/2005   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/27/2005   ND   0.0010   Lead, dissolved   MG/L   MW-13A   12/15/2005   ND   0.0010   Lead, dissolved   MG/L   MW-13A   12/15/2006   ND   0.0010   Lead, dissolved   MG/L   MW-13A   03/28/2006   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/26/2006   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/26/2006   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/26/2006   ND   0.0010   Lead, dissolved   MG/L   MW-13A   03/27/2007   ND   0.0010   Lead, dissolved   MG/L   MW-13A   03/27/2007   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/19/2007   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/18/2008   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/18/2008   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/18/2008   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/18/2009   ND   0.0010   Lead, dissolved   MG/L   MW-13A   09/23/2010   ND   0.0010   Lead, dissolved   MG/L   MW-13A		1			I	
Iron, dissolved	'	1			I	
Lead, dissolved	'	1			I	
Lead, dissolved	· ·		-			
Lead, dissolved	Lead, dissolved	MG/L	MW-13A	06/15/2005	ND	0.0010
Lead, dissolved	Lead, dissolved	MG/L	MW-13A	09/27/2005	ND	0.0010
Lead, dissolved	Lead, dissolved	MG/L	MW-13A	12/15/2005	ND	0.0010
Lead, dissolved	Lead, dissolved	MG/L	MW-13A	03/28/2006	ND	0.0010
Lead, dissolved         MG/L         MW-13A         12/13/2006         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/27/2007         ND         0.0010           Lead, dissolved         MG/L         MW-13A         06/19/2007         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/19/2007         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/19/2007         ND         0.0010           Lead, dissolved         MG/L         MW-13A         12/19/2007         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/25/2008         ND         0.0010           Lead, dissolved         MG/L         MW-13A         06/18/2008         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/17/2008         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/17/2008         ND         0.0010           Lead, dissolved         MG/L         MW-13A         06/17/2009         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/10/2009         ND         0.0010	Lead, dissolved	MG/L	MW-13A	06/21/2006	ND	0.0010
Lead, dissolved	Lead, dissolved		MW-13A	09/26/2006	ND	0.0010
Lead, dissolved         MG/L         MW-13A         06/19/2007         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/19/2007         ND         0.0010           Lead, dissolved         MG/L         MW-13A         12/19/2007         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/25/2008         ND         0.0010           Lead, dissolved         MG/L         MW-13A         06/18/2008         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/17/2008         ND         0.0010           Lead, dissolved         MG/L         MW-13A         12/17/2008         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/24/2009         ND         0.0010           Lead, dissolved         MG/L         MW-13A         06/17/2009         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/10/2009         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/10/2009         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/23/2010         ND         0.0010	'			12/13/2006	I	0.0010
Lead, dissolved         MG/L         MW-13A         09/19/2007         ND         0.0010           Lead, dissolved         MG/L         MW-13A         12/19/2007         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/25/2008         ND         0.0010           Lead, dissolved         MG/L         MW-13A         06/18/2008         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/17/2008         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/17/2008         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/24/2009         ND         0.0010           Lead, dissolved         MG/L         MW-13A         06/17/2009         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/10/2009         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/10/2009         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/25/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/25/2010         ND         0.0010	'	1		03/27/2007	I	0.0010
Lead, dissolved         MG/L         MW-13A         12/19/2007         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/25/2008         ND         0.0010           Lead, dissolved         MG/L         MW-13A         06/18/2008         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/17/2008         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/17/2008         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/24/2009         ND         0.0010           Lead, dissolved         MG/L         MW-13A         06/17/2009         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/10/2009         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/10/2009         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/25/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/25/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/23/2010         ND         0.0010	'					
Lead, dissolved         MG/L         MW-13A         03/25/2008         ND         0.0010           Lead, dissolved         MG/L         MW-13A         06/18/2008         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/17/2008         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/17/2008         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/24/2009         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/24/2009         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/10/2009         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/10/2009         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/25/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         06/23/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/23/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/30/2011         ND         0.0010					I	
Lead, dissolved         MG/L         MW-13A         06/18/2008         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/17/2008         ND         0.0010           Lead, dissolved         MG/L         MW-13A         12/17/2008         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/24/2009         ND         0.0010           Lead, dissolved         MG/L         MW-13A         06/17/2009         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/10/2009         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/10/2009         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/25/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         06/23/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/23/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/30/2011         ND         0.0010           Lead, dissolved         MG/L         MW-13A         06/06/2011         ND         0.0010					I	
Lead, dissolved         MG/L         MW-13A         09/17/2008         ND         0.0010           Lead, dissolved         MG/L         MW-13A         12/17/2008         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/24/2009         ND         0.0010           Lead, dissolved         MG/L         MW-13A         06/17/2009         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/10/2009         ND         0.0010           Lead, dissolved         MG/L         MW-13A         12/03/2009         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/25/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         06/23/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/23/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         12/08/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/30/2011         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/27/2011         ND         0.0010						
Lead, dissolved         MG/L         MW-13A         12/17/2008         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/24/2009         ND         0.0010           Lead, dissolved         MG/L         MW-13A         06/17/2009         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/10/2009         ND         0.0010           Lead, dissolved         MG/L         MW-13A         12/03/2009         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/25/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         06/23/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/23/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         12/08/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/30/2011         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/27/2011         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/27/2011         ND         0.0010						
Lead, dissolved         MG/L         MW-13A         03/24/2009         ND         0.0010           Lead, dissolved         MG/L         MW-13A         06/17/2009         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/10/2009         ND         0.0010           Lead, dissolved         MG/L         MW-13A         12/03/2009         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/25/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         06/23/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/23/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/23/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         12/08/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/30/2011         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/27/2011         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/27/2011         ND         0.0010			-		I	
Lead, dissolved         MG/L         MW-13A         06/17/2009         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/10/2009         ND         0.0010           Lead, dissolved         MG/L         MW-13A         12/03/2009         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/25/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         06/23/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/23/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         12/08/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/30/2011         ND         0.0010           Lead, dissolved         MG/L         MW-13A         06/06/2011         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/27/2011         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/27/2011         ND         0.0010           Lead, dissolved         MG/L         MW-13A         06/08/2012         ND         0.0010	,				I	
Lead, dissolved         MG/L         MW-13A         09/10/2009         ND         0.0010           Lead, dissolved         MG/L         MW-13A         12/03/2009         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/25/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         06/23/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/23/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         12/08/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/30/2011         ND         0.0010           Lead, dissolved         MG/L         MW-13A         06/06/2011         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/27/2011         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/21/2012         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/21/2012         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/26/2012         ND         0.0010						
Lead, dissolved         MG/L         MW-13A         12/03/2009         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/25/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         06/23/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/23/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         12/08/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/30/2011         ND         0.0010           Lead, dissolved         MG/L         MW-13A         06/06/2011         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/27/2011         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/21/2012         ND         0.0010           Lead, dissolved         MG/L         MW-13A         06/08/2012         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/26/2012         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/26/2012         ND         0.0010					I	
Lead, dissolved         MG/L         MW-13A         03/25/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         06/23/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/23/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         12/08/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/30/2011         ND         0.0010           Lead, dissolved         MG/L         MW-13A         06/06/2011         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/27/2011         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/21/2012         ND         0.0010           Lead, dissolved         MG/L         MW-13A         06/08/2012         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/26/2012         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/26/2012         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/26/2012         ND         0.0010	'		-		I	
Lead, dissolved         MG/L         MW-13A         06/23/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/23/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         12/08/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/30/2011         ND         0.0010           Lead, dissolved         MG/L         MW-13A         06/06/2011         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/27/2011         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/21/2012         ND         0.0010           Lead, dissolved         MG/L         MW-13A         06/08/2012         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/26/2012         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/26/2012         ND         0.0010           Lead, dissolved         MG/L         MW-13A         12/03/2012         ND         0.0010	'				I	
Lead, dissolved         MG/L         MW-13A         09/23/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         12/08/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/30/2011         ND         0.0010           Lead, dissolved         MG/L         MW-13A         06/06/2011         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/27/2011         ND         0.0010           Lead, dissolved         MG/L         MW-13A         12/14/2011         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/21/2012         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/26/2012         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/26/2012         ND         0.0010           Lead, dissolved         MG/L         MW-13A         12/03/2012         ND         0.0010	'		-		I	
Lead, dissolved         MG/L         MW-13A         12/08/2010         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/30/2011         ND         0.0010           Lead, dissolved         MG/L         MW-13A         06/06/2011         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/27/2011         ND         0.0010           Lead, dissolved         MG/L         MW-13A         12/14/2011         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/21/2012         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/26/2012         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/26/2012         ND         0.0010           Lead, dissolved         MG/L         MW-13A         12/03/2012         ND         0.0010	'				I	
Lead, dissolved         MG/L         MW-13A         03/30/2011         ND         0.0010           Lead, dissolved         MG/L         MW-13A         06/06/2011         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/27/2011         ND         0.0010           Lead, dissolved         MG/L         MW-13A         12/14/2011         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/21/2012         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/26/2012         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/26/2012         ND         0.0010           Lead, dissolved         MG/L         MW-13A         12/03/2012         ND         0.0010	'				I	
Lead, dissolved         MG/L         MW-13A         06/06/2011         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/27/2011         ND         0.0010           Lead, dissolved         MG/L         MW-13A         12/14/2011         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/21/2012         ND         0.0010           Lead, dissolved         MG/L         MW-13A         06/08/2012         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/26/2012         ND         0.0010           Lead, dissolved         MG/L         MW-13A         12/03/2012         ND         0.0010	'				I	
Lead, dissolved         MG/L         MW-13A         09/27/2011         ND         0.0010           Lead, dissolved         MG/L         MW-13A         12/14/2011         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/21/2012         ND         0.0010           Lead, dissolved         MG/L         MW-13A         06/08/2012         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/26/2012         ND         0.0010           Lead, dissolved         MG/L         MW-13A         12/03/2012         ND         0.0010						
Lead, dissolved         MG/L         MW-13A         12/14/2011         ND         0.0010           Lead, dissolved         MG/L         MW-13A         03/21/2012         ND         0.0010           Lead, dissolved         MG/L         MW-13A         06/08/2012         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/26/2012         ND         0.0010           Lead, dissolved         MG/L         MW-13A         12/03/2012         ND         0.0010						
Lead, dissolved         MG/L         MW-13A         03/21/2012         ND         0.0010           Lead, dissolved         MG/L         MW-13A         06/08/2012         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/26/2012         ND         0.0010           Lead, dissolved         MG/L         MW-13A         12/03/2012         ND         0.0010			-		I	
Lead, dissolved         MG/L         MW-13A         06/08/2012         ND         0.0010           Lead, dissolved         MG/L         MW-13A         09/26/2012         ND         0.0010           Lead, dissolved         MG/L         MW-13A         12/03/2012         ND         0.0010			-			
Lead, dissolved         MG/L         MW-13A         09/26/2012         ND         0.0010           Lead, dissolved         MG/L         MW-13A         12/03/2012         ND         0.0010	'				I	
Lead, dissolved   MG/L   MW-13A   12/03/2012   ND   0.0010	'		-			
Lead, dissolved	Lead, dissolved	MG/L	MW-13A	03/11/2013	ND	0.0010

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result
Lead, dissolved	MG/L	MW-13A	06/05/2013	ND	0.0010
Lead, dissolved	MG/L	MW-13A	12/03/2013	ND	0.0010
Lead, dissolved	MG/L	MW-13A	03/04/2014	ND	0.0010
Lead, dissolved	MG/L	MW-13A	06/02/2014	ND	0.0010
Lead, dissolved	MG/L	MW-13A	09/22/2014	ND	0.0010
Lead, dissolved	MG/L	MW-13A	11/17/2014	ND	0.0010
Lead, dissolved	MG/L	MW-13B	03/22/2005	ND	0.0010
Lead, dissolved	MG/L	MW-13B	06/15/2005	ND	0.0010
Lead, dissolved	MG/L MG/L	MW-13B	09/27/2005	ND	0.0010
Lead, dissolved Lead, dissolved	MG/L	MW-13B MW-13B	12/15/2005 03/29/2006	ND ND	0.0010 0.0010
Lead, dissolved	MG/L	MW-13B	06/21/2006	ND	0.0010
Lead, dissolved	MG/L	MW-13B	09/26/2006	ND	0.0010
Lead, dissolved	MG/L	MW-13B	12/13/2006	ND	0.0010
Lead, dissolved	MG/L	MW-13B	03/27/2007	ND	0.0010
Lead, dissolved	MG/L	MW-13B	06/19/2007	ND	0.0010
Lead, dissolved	MG/L	MW-13B	09/18/2007	ND	0.0010
Lead, dissolved	MG/L	MW-13B	12/19/2007	ND	0.0010
Lead, dissolved	MG/L	MW-13B	03/25/2008	ND	0.0010
Lead, dissolved	MG/L	MW-13B	06/18/2008	ND	0.0010
Lead, dissolved	MG/L	MW-13B	09/17/2008	ND	0.0010
Lead, dissolved	MG/L	MW-13B	12/16/2008	ND	0.0010
Lead, dissolved	MG/L	MW-13B	03/24/2009	ND	0.0010
Lead, dissolved	MG/L	MW-13B	06/17/2009	ND	0.0010
Lead, dissolved	MG/L	MW-13B	09/10/2009	ND	0.0010
Lead, dissolved	MG/L	MW-13B	12/03/2009	ND	0.0010
Lead, dissolved Lead, dissolved	MG/L MG/L	MW-13B MW-13B	03/25/2010 06/23/2010	ND ND	0.0010 0.0010
Lead, dissolved	MG/L	MW-13B	09/23/2010	ND	0.0010
Lead, dissolved	MG/L	MW-13B	12/08/2010	ND	0.0010
Lead, dissolved	MG/L	MW-13B	03/30/2011	ND	0.0010
Lead, dissolved	MG/L	MW-13B	06/06/2011	ND	0.0010
Lead, dissolved	MG/L	MW-13B	09/27/2011	ND	0.0010
Lead, dissolved	MG/L	MW-13B	12/14/2011	ND	0.0010
Lead, dissolved	MG/L	MW-13B	03/21/2012	ND	0.0010
Lead, dissolved	MG/L	MW-13B	06/08/2012	ND	0.0010
Lead, dissolved	MG/L	MW-13B	09/26/2012	ND	0.0010
Lead, dissolved	MG/L	MW-13B	12/03/2012	ND	0.0010
Lead, dissolved	MG/L	MW-13B	03/11/2013	ND	0.0010
Lead, dissolved	MG/L	MW-13B	06/05/2013	ND	0.0010
Lead, dissolved Lead, dissolved	MG/L MG/L	MW-13B MW-13B	12/03/2013	ND ND	0.0010
Lead, dissolved	MG/L	MW-13B	03/04/2014 06/02/2014	ND	0.0010 0.0010
Lead, dissolved	MG/L	MW-13B	09/22/2014	ND	0.0010
Lead, dissolved	MG/L	MW-13B	11/17/2014	ND	0.0010
Lead, dissolved	MG/L	MW-16	03/24/2009	ND	0.0010
Lead, dissolved	MG/L	MW-16	06/16/2009	ND	0.0010
Lead, dissolved	MG/L	MW-16	09/09/2009	ND	0.0010
Lead, dissolved	MG/L	MW-16	12/03/2009	ND	0.0010
Lead, dissolved	MG/L	MW-16	03/25/2010	ND	0.0010
Lead, dissolved	MG/L	MW-16	06/24/2010	ND	0.0010
Lead, dissolved	MG/L	MW-16	09/24/2010	ND	0.0010
Lead, dissolved	MG/L	MW-16	12/09/2010	ND	0.0010
Lead, dissolved	MG/L	MW-16	03/30/2011	ND	0.0010
Lead, dissolved	MG/L	MW-16	06/07/2011	ND	0.0010
Lead, dissolved Lead, dissolved	MG/L MG/L	MW-16 MW-16	09/27/2011 12/13/2011	ND ND	0.0010 0.0010
Lead, dissolved	MG/L	MW-16	03/21/2012	ND	0.0010
Lead, dissolved	MG/L	MW-16	06/08/2012	ND	0.0010
Lead, dissolved	MG/L	MW-16	09/27/2012	ND	0.0010
Lead, dissolved	MG/L	MW-16	12/04/2012	ND	0.0010
Lead, dissolved	MG/L	MW-16	03/12/2013	ND	0.0010
Lead, dissolved	MG/L	MW-16	06/04/2013	ND	0.0010
Lead, dissolved	MG/L	MW-16	09/05/2013	ND	0.0010
Lead, dissolved	MG/L	MW-16	12/16/2013	ND	0.0010

<sup>\* -</sup> Outlier for that well and constituent. ND = Not detected, result = detection limit.

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result
Lead, dissolved	MG/L	MW-16	03/05/2014	ND	0.0010
Lead, dissolved	MG/L	MW-16	06/02/2014	ND	0.0010
Lead, dissolved	MG/L	MW-16	09/22/2014	ND	0.0010
Lead, dissolved	MG/L	MW-16	11/18/2014	ND	0.0010
Lead, dissolved	MG/L	MW-35	03/22/2005	ND	0.0010
Lead, dissolved	MG/L	MW-35	06/14/2005	ND	0.0010
Lead, dissolved	MG/L	MW-35	09/27/2005	ND	0.0010
Lead, dissolved	MG/L	MW-35	12/15/2005	ND	0.0010
Lead, dissolved	MG/L	MW-35	03/28/2006	ND	0.0010
Lead, dissolved	MG/L	MW-35	06/21/2006	ND	0.0010
Lead, dissolved	MG/L	MW-35	09/26/2006	ND	0.0010
Lead, dissolved	MG/L	MW-35	12/12/2006	ND	0.0010
Lead, dissolved	MG/L	MW-35	03/27/2007	ND	0.0010
Lead, dissolved	MG/L	MW-35	06/20/2007	ND	0.0010
Lead, dissolved	MG/L	MW-35	09/18/2007	ND	0.0010
Lead, dissolved	MG/L	MW-35	12/20/2007	ND	0.0010
Lead, dissolved	MG/L	MW-35	03/25/2008	ND	0.0010
Lead, dissolved	MG/L	MW-35	06/18/2008	ND	0.0010
Lead, dissolved	MG/L	MW-35	09/18/2008	ND	0.0010
Lead, dissolved	MG/L	MW-35	12/19/2008	ND	0.0010
Lead, dissolved	MG/L	MW-35	03/24/2009	ND	0.0010
Lead, dissolved	MG/L	MW-35	06/16/2009	ND	0.0010
Lead, dissolved	MG/L	MW-35	09/10/2009	ND	0.0010
Lead, dissolved	MG/L	MW-35	12/03/2009	ND	0.0010
Lead, dissolved	MG/L	MW-35	03/25/2010	ND	0.0010
Lead, dissolved	MG/L MG/L	MW-35	06/23/2010	ND	0.0010
Lead, dissolved		MW-35	09/23/2010	ND	0.0010
Lead, dissolved	MG/L MG/L	MW-35 MW-35	12/09/2010	ND ND	0.0010 0.0010
Lead, dissolved Lead, dissolved	MG/L	MW-35	03/30/2011 06/06/2011	ND	
Lead, dissolved	MG/L	MW-35	09/26/2011	ND	0.0010 0.0010
Lead, dissolved	MG/L	MW-35	12/13/2011	ND	0.0050
Lead, dissolved	MG/L	MW-35	03/21/2012	ND	0.0010
Lead, dissolved	MG/L	MW-35	06/06/2012	ND	0.0010
Lead, dissolved	MG/L	MW-35	09/26/2012	ND	0.0010
Lead, dissolved	MG/L	MW-35	12/04/2012	ND	0.0010
Lead, dissolved	MG/L	MW-35	03/13/2013	ND	0.0010
Lead, dissolved	MG/L	MW-35	06/06/2013	ND	0.0010
Lead, dissolved	MG/L	MW-35	09/05/2013	ND	0.0010
Lead, dissolved	MG/L	MW-35	12/16/2013	ND	0.0010
Lead, dissolved	MG/L	MW-35	03/04/2014	ND	0.0010
Lead, dissolved	MG/L	MW-35	06/02/2014	ND	0.0010
Lead, dissolved	MG/L	MW-35	09/22/2014	ND	0.0010
Lead, dissolved	MG/L	MW-35	11/17/2014	ND	0.0010
Magnesium, dissolved	MG/L	MW-13A	03/22/2005		9.2000
Magnesium, dissolved	MG/L	MW-13A	06/15/2005		8.2000
Magnesium, dissolved	MG/L	MW-13A	09/27/2005		8.4000
Magnesium, dissolved	MG/L	MW-13A	12/15/2005		8.6000
Magnesium, dissolved	MG/L	MW-13A	03/28/2006		9.2000
Magnesium, dissolved	MG/L	MW-13A	06/21/2006		9.1000
Magnesium, dissolved	MG/L	MW-13A	09/26/2006		9.2000
Magnesium, dissolved	MG/L	MW-13A	12/13/2006		9.3000
Magnesium, dissolved	MG/L	MW-13A	03/27/2007		9.3000
Magnesium, dissolved	MG/L	MW-13A	06/19/2007		9.0000
Magnesium, dissolved	MG/L	MW-13A	09/19/2007		9.4000
Magnesium, dissolved	MG/L	MW-13A	12/19/2007		8.6000
Magnesium, dissolved	MG/L	MW-13A	03/25/2008		9.1000
Magnesium, dissolved	MG/L	MW-13A	06/18/2008		9.3000
Magnesium, dissolved	MG/L	MW-13A	09/17/2008		9.2000
Magnesium, dissolved	MG/L	MW-13A	12/17/2008		9.3000
Magnesium, dissolved	MG/L	MW-13A	03/24/2009		9.6000
Magnesium, dissolved	MG/L	MW-13A	06/17/2009		9.6000
Magnesium, dissolved	MG/L	MW-13A	09/10/2009		9.3000
Magnesium, dissolved	MG/L	MW-13A	12/03/2009		9.1000
Magnesium, dissolved	MG/L	MW-13A	03/25/2010		8.7000

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date	Result
Magnesium, dissolved	MG/L	MW-13A	06/23/2010	9.7000
Magnesium, dissolved	MG/L	MW-13A	09/23/2010	9.4000
Magnesium, dissolved	MG/L	MW-13A	12/08/2010	8.1000
Magnesium, dissolved	MG/L	MW-13A	03/30/2011	9.6000
Magnesium, dissolved	MG/L	MW-13A	06/06/2011	10.0000
Magnesium, dissolved	MG/L	MW-13A	09/27/2011	9.7000
Magnesium, dissolved	MG/L	MW-13A	12/14/2011	9.3000
Magnesium, dissolved	MG/L	MW-13A	03/21/2012	9.9000
Magnesium, dissolved	MG/L	MW-13A	06/08/2012	8.9000
Magnesium, dissolved	MG/L	MW-13A	09/26/2012	9.6000
Magnesium, dissolved	MG/L	MW-13A	12/03/2012	9.2000
Magnesium, dissolved	MG/L	MW-13A	03/11/2013	9.4000
Magnesium, dissolved	MG/L	MW-13A	06/05/2013	9.8000
Magnesium, dissolved	MG/L	MW-13A	12/03/2013	9.4000
Magnesium, dissolved	MG/L	MW-13A	03/04/2014	9.8000
Magnesium, dissolved	MG/L	MW-13A	06/02/2014	9.2000
Magnesium, dissolved	MG/L	MW-13A	09/22/2014	8.7000
Magnesium, dissolved	MG/L	MW-13A	11/17/2014	9.3000
Magnesium, dissolved	MG/L	MW-13B	03/22/2005	8.6000
Magnesium, dissolved	MG/L	MW-13B	06/15/2005	8.0000
Magnesium, dissolved	MG/L	MW-13B	09/27/2005	8.7000
Magnesium, dissolved	MG/L	MW-13B	12/15/2005	8.0000
Magnesium, dissolved	MG/L	MW-13B	03/29/2006	8.1000
Magnesium, dissolved	MG/L	MW-13B	06/21/2006	8.3000
Magnesium, dissolved	MG/L	MW-13B	09/26/2006	8.5000
Magnesium, dissolved	MG/L	MW-13B	12/13/2006	8.7000
Magnesium, dissolved	MG/L	MW-13B	03/27/2007	8.4000
Magnesium, dissolved	MG/L	MW-13B	06/19/2007	7.9000
Magnesium, dissolved	MG/L	MW-13B	09/18/2007	8.7000
Magnesium, dissolved	MG/L	MW-13B	12/19/2007	7.6000
Magnesium, dissolved	MG/L	MW-13B	03/25/2008	8.0000
Magnesium, dissolved	MG/L	MW-13B	06/18/2008	8.2000
Magnesium, dissolved	MG/L	MW-13B	09/17/2008	8.3000
Magnesium, dissolved	MG/L	MW-13B	12/16/2008	8.3000
Magnesium, dissolved	MG/L	MW-13B	03/24/2009	8.5000
Magnesium, dissolved	MG/L	MW-13B	06/17/2009	8.5000
Magnesium, dissolved	MG/L	MW-13B	09/10/2009	8.3000
Magnesium, dissolved	MG/L	MW-13B	12/03/2009	8.0000
Magnesium, dissolved	MG/L	MW-13B	03/25/2010	8.1000
Magnesium, dissolved	MG/L	MW-13B	06/23/2010	8.7000
Magnesium, dissolved	MG/L	MW-13B	09/23/2010	8.3000
Magnesium, dissolved	MG/L	MW-13B	12/08/2010	9.3000
Magnesium, dissolved	MG/L	MW-13B	03/30/2011	8.2000
Magnesium, dissolved	MG/L	MW-13B	06/06/2011	9.0000
Magnesium, dissolved	MG/L	MW-13B	09/27/2011	8.4000
Magnesium, dissolved	MG/L	MW-13B	12/14/2011	8.1000
Magnesium, dissolved	MG/L	MW-13B	03/21/2012	8.5000
Magnesium, dissolved	MG/L	MW-13B	06/08/2012	8.1000
Magnesium, dissolved	MG/L	MW-13B	09/26/2012	8.6000
Magnesium, dissolved	MG/L	MW-13B	12/03/2012	8.2000
Magnesium, dissolved	MG/L	MW-13B	03/11/2013	8.6000
Magnesium, dissolved	MG/L	MW-13B	06/05/2013	8.9000
Magnesium, dissolved	MG/L	MW-13B	12/03/2013	8.9000
Magnesium, dissolved	MG/L	MW-13B	03/04/2014	8.7000
Magnesium, dissolved	MG/L	MW-13B	06/02/2014	8.3000
Magnesium, dissolved	MG/L MG/L	MW-13B	09/22/2014	7.7000
Magnesium, dissolved   Magnesium, dissolved	MG/L	MW-13B	11/17/2014	8.7000
Magnesium, dissolved	MG/L	MW-16	03/24/2009	7.2000
	MG/L MG/L			
Magnesium, dissolved	MG/L MG/L	MW-16 MW-16	06/16/2009	5.9000
Magnesium, dissolved		_	09/09/2009	6.9000
Magnesium, dissolved	MG/L	MW-16	12/03/2009	8.0000
Magnesium, dissolved	MG/L	MW-16	03/25/2010	5.1000
Magnesium, dissolved	MG/L	MW-16	06/24/2010	6.9000
Magnesium, dissolved	MG/L	MW-16	09/24/2010	7.4000
Magnesium, dissolved	MG/L	MW-16	12/09/2010	8.3000

<sup>\* -</sup> Outlier for that well and constituent. ND = Not detected, result = detection limit.

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result
Magnesium, dissolved	MG/L	MW-16	03/30/2011		5.8000
Magnesium, dissolved	MG/L	MW-16	06/07/2011		5.6000
Magnesium, dissolved	MG/L	MW-16	09/27/2011		6.6000
Magnesium, dissolved	MG/L	MW-16	12/13/2011		6.2000
Magnesium, dissolved	MG/L	MW-16	03/21/2012		5.5000
Magnesium, dissolved	MG/L	MW-16	06/08/2012		5.0000
Magnesium, dissolved	MG/L	MW-16	09/27/2012		6.4000
Magnesium, dissolved	MG/L	MW-16	12/04/2012		6.6000
Magnesium, dissolved	MG/L	MW-16	03/12/2013		5.6000
Magnesium, dissolved	MG/L	MW-16	06/04/2013		5.8000
Magnesium, dissolved	MG/L	MW-16	09/05/2013		6.0000
Magnesium, dissolved	MG/L	MW-16	12/16/2013		5.9000
Magnesium, dissolved	MG/L	MW-16	03/05/2014		6.6000
Magnesium, dissolved	MG/L	MW-16	06/02/2014		5.0000
Magnesium, dissolved	MG/L	MW-16	09/22/2014		5.5000
Magnesium, dissolved	MG/L	MW-16	11/18/2014		6.4000
Magnesium, dissolved	MG/L	MW-35	03/22/2005		8.6000
Magnesium, dissolved	MG/L	MW-35	06/14/2005		8.1000
Magnesium, dissolved	MG/L	MW-35	09/27/2005		9.2000
Magnesium, dissolved	MG/L	MW-35	12/15/2005		8.0000
Magnesium, dissolved	MG/L	MW-35	03/28/2006		8.3000
Magnesium, dissolved	MG/L	MW-35	06/21/2006		8.4000
Magnesium, dissolved	MG/L	MW-35	09/26/2006		8.2000
Magnesium, dissolved	MG/L	MW-35	12/12/2006		8.8000
Magnesium, dissolved	MG/L	MW-35	03/27/2007		8.6000
Magnesium, dissolved	MG/L	MW-35	06/20/2007		8.4000
Magnesium, dissolved	MG/L	MW-35	09/18/2007		9.1000
Magnesium, dissolved	MG/L	MW-35	12/20/2007		8.1000
Magnesium, dissolved	MG/L	MW-35	03/25/2008		8.2000
Magnesium, dissolved	MG/L	MW-35	06/18/2008		8.1000
Magnesium, dissolved	MG/L	MW-35	09/18/2008		8.1000
Magnesium, dissolved	MG/L	MW-35	12/19/2008		8.1000
Magnesium, dissolved	MG/L	MW-35	03/24/2009		8.7000
Magnesium, dissolved	MG/L	MW-35	06/16/2009		8.1000
Magnesium, dissolved	MG/L	MW-35	09/10/2009		8.1000
Magnesium, dissolved	MG/L	MW-35	12/03/2009		8.3000
Magnesium, dissolved	MG/L	MW-35	03/25/2010		7.9000
Magnesium, dissolved	MG/L	MW-35	06/23/2010		8.8000
Magnesium, dissolved	MG/L	MW-35	09/23/2010		8.7000
Magnesium, dissolved	MG/L	MW-35	12/09/2010		9.3000
Magnesium, dissolved	MG/L	MW-35	03/30/2011		8.8000
Magnesium, dissolved	MG/L	MW-35	06/06/2011		9.0000
Magnesium, dissolved	MG/L	MW-35	09/26/2011		8.7000
Magnesium, dissolved	MG/L	MW-35	12/13/2011		8.8000
Magnesium, dissolved	MG/L	MW-35	03/21/2012		9.0000
Magnesium, dissolved	MG/L	MW-35	06/06/2012		8.3000
Magnesium, dissolved	MG/L	MW-35	09/26/2012		8.9000
Magnesium, dissolved	MG/L	MW-35	12/04/2012		8.6000
Magnesium, dissolved	MG/L	MW-35	03/13/2013		9.2000
Magnesium, dissolved	MG/L	MW-35	06/06/2013		8.5000
Magnesium, dissolved	MG/L	MW-35	09/05/2013		8.1000
Magnesium, dissolved	MG/L	MW-35	12/16/2013		8.4000
Magnesium, dissolved	MG/L	MW-35	03/04/2014		9.2000
Magnesium, dissolved	MG/L	MW-35	06/02/2014		8.6000
Magnesium, dissolved	MG/L	MW-35	09/22/2014		8.2000
Magnesium, dissolved	MG/L	MW-35	11/17/2014		8.7000
Manganese, dissolved	MG/L	MW-13A	03/22/2005	ND	0.0010
Manganese, dissolved	MG/L	MW-13A	06/15/2005	ND	0.0010
Manganese, dissolved	MG/L	MW-13A	09/27/2005	ND	0.0010
Manganese, dissolved	MG/L	MW-13A	12/15/2005	ND	0.0010
Manganese, dissolved	MG/L	MW-13A	03/28/2006	ND	0.0010
Manganese, dissolved	MG/L	MW-13A	06/21/2006	ND	0.0010
Manganese, dissolved	MG/L	MW-13A	09/26/2006	ND	0.0010
manganooo, alooolyou					
Manganese, dissolved	MG/L	MW-13A	12/13/2006	ND	0.0010

<sup>\* -</sup> Outlier for that well and constituent. ND = Not detected, result = detection limit.

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result
Manganese, dissolved	MG/L	MW-13A	06/19/2007	ND	0.0010
Manganese, dissolved	MG/L	MW-13A	09/19/2007	ND	0.0010
Manganese, dissolved	MG/L	MW-13A	12/19/2007	ND	0.0010
Manganese, dissolved	MG/L	MW-13A	03/25/2008	ND	0.0010
Manganese, dissolved	MG/L	MW-13A	06/18/2008	ND	0.0010
Manganese, dissolved	MG/L	MW-13A	09/17/2008	ND	0.0010
Manganese, dissolved	MG/L	MW-13A	12/17/2008	ND	0.0010
Manganese, dissolved	MG/L	MW-13A	03/24/2009	ND	0.0010
Manganese, dissolved	MG/L	MW-13A	06/17/2009	ND	0.0010
Manganese, dissolved	MG/L	MW-13A	09/10/2009	ND	0.0010
Manganese, dissolved	MG/L	MW-13A	12/03/2009	ND	0.0010
Manganese, dissolved	MG/L	MW-13A	03/25/2010	ND	0.0010
Manganese, dissolved	MG/L	MW-13A	06/23/2010	ND	0.0010
Manganese, dissolved	MG/L	MW-13A	09/23/2010	ND	0.0010
Manganese, dissolved	MG/L	MW-13A	12/08/2010	ND	0.0010
Manganese, dissolved	MG/L	MW-13A	03/30/2011	ND	0.0010
Manganese, dissolved	MG/L	MW-13A	06/06/2011	ND	0.0010
Manganese, dissolved	MG/L	MW-13A	09/27/2011	ND	0.0010
Manganese, dissolved	MG/L MG/L	MW-13A MW-13A	12/14/2011	ND ND	0.0010
Manganese, dissolved	MG/L MG/L	MW-13A	03/21/2012 06/08/2012	ND	0.0010 0.0010
Manganese, dissolved Manganese, dissolved	MG/L	MW-13A	09/26/2012	ND	0.0010
•	MG/L	MW-13A		ND	
Manganese, dissolved Manganese, dissolved	MG/L	MW-13A	12/03/2012 03/11/2013	ND	0.0010 0.0010
Manganese, dissolved	MG/L	MW-13A	06/05/2013	ND	0.0010
Manganese, dissolved	MG/L	MW-13A	12/03/2013	ND	0.0010
Manganese, dissolved	MG/L	MW-13A	03/04/2014	ND	0.0010
Manganese, dissolved	MG/L	MW-13A	06/02/2014	ND	0.0010
Manganese, dissolved	MG/L	MW-13A	09/22/2014	ND	0.0010
Manganese, dissolved	MG/L	MW-13A	11/17/2014	ND	0.0010
Manganese, dissolved	MG/L	MW-13B	03/22/2005	ND	0.0010
Manganese, dissolved	MG/L	MW-13B	06/15/2005	ND	0.0010
Manganese, dissolved	MG/L	MW-13B	09/27/2005	ND	0.0010
Manganese, dissolved	MG/L	MW-13B	12/15/2005	ND	0.0010
Manganese, dissolved	MG/L	MW-13B	03/29/2006	ND	0.0010
Manganese, dissolved	MG/L	MW-13B	06/21/2006	ND	0.0010
Manganese, dissolved	MG/L	MW-13B	09/26/2006	ND	0.0010
Manganese, dissolved	MG/L	MW-13B	12/13/2006	ND	0.0010
Manganese, dissolved	MG/L	MW-13B	03/27/2007	ND	0.0010
Manganese, dissolved	MG/L	MW-13B	06/19/2007	ND	0.0010
Manganese, dissolved	MG/L	MW-13B	09/18/2007	ND	0.0010
Manganese, dissolved	MG/L	MW-13B	12/19/2007	ND	0.0010
Manganese, dissolved	MG/L	MW-13B	03/25/2008	ND	0.0010
Manganese, dissolved	MG/L	MW-13B	06/18/2008	ND	0.0010
Manganese, dissolved	MG/L	MW-13B	09/17/2008	ND	0.0010
Manganese, dissolved	MG/L	MW-13B	12/16/2008	ND	0.0010
Manganese, dissolved	MG/L	MW-13B	03/24/2009	ND	0.0010
Manganese, dissolved	MG/L	MW-13B	06/17/2009	ND	0.0010
Manganese, dissolved	MG/L	MW-13B	09/10/2009	ND	0.0010
Manganese, dissolved	MG/L	MW-13B	12/03/2009	ND	0.0010
Manganese, dissolved	MG/L	MW-13B	03/25/2010	ND	0.0010
Manganese, dissolved	MG/L	MW-13B	06/23/2010	ND	0.0010
Manganese, dissolved	MG/L	MW-13B	09/23/2010	ND	0.0010
Manganese, dissolved	MG/L	MW-13B	12/08/2010	ND	0.0010
Manganese, dissolved	MG/L	MW-13B	03/30/2011	ND	0.0010
Manganese, dissolved	MG/L	MW-13B	06/06/2011	ND	0.0010
Manganese, dissolved	MG/L	MW-13B	09/27/2011	ND	0.0010
Manganese, dissolved	MG/L	MW-13B	12/14/2011	ND	0.0010
Manganese, dissolved	MG/L	MW-13B	03/21/2012	ND	0.0010
Manganese, dissolved	MG/L MG/L	MW-13B	06/08/2012	ND	0.0010
Manganese, dissolved	1	MW-13B MW-13B	09/26/2012	ND	0.0010
Manganese, dissolved Manganese, dissolved	MG/L MG/L		12/03/2012	ND	0.0010
Manganese, dissolved   Manganese, dissolved	MG/L MG/L	MW-13B MW-13B	03/11/2013 06/05/2013	ND ND	0.0010 0.0010
Manganese, dissolved	MG/L	MW-13B	12/03/2013	ND	0.0010
ivianganese, dissolved	IVIG/L	INIAA-19D	12/03/2013	אט	0.0010

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result
Manganese, dissolved	MG/L	MW-13B	03/04/2014	ND	0.0010
Manganese, dissolved	MG/L	MW-13B	06/02/2014	ND	0.0010
Manganese, dissolved	MG/L	MW-13B	09/22/2014	ND	0.0010
Manganese, dissolved	MG/L	MW-13B	11/17/2014	ND	0.0010
Manganese, dissolved	MG/L	MW-16	03/24/2009	ND	0.0010
Manganese, dissolved	MG/L	MW-16	06/16/2009	ND	0.0010
Manganese, dissolved	MG/L	MW-16	09/09/2009	ND	0.0010
Manganese, dissolved	MG/L	MW-16	12/03/2009	ND	0.0010
Manganese, dissolved	MG/L	MW-16	03/25/2010		0.0027
Manganese, dissolved	MG/L	MW-16	06/24/2010		0.0067
Manganese, dissolved	MG/L	MW-16	09/24/2010		0.0027
Manganese, dissolved	MG/L	MW-16	12/09/2010	ND	0.0021
Manganese, dissolved	MG/L	MW-16	03/30/2011	ND	0.0010
Manganese, dissolved	MG/L	MW-16	06/07/2011		0.0028
Manganese, dissolved	MG/L	MW-16	09/27/2011	ND	0.0029
Manganese, dissolved	MG/L	MW-16	12/13/2011	ND	0.0010
Manganese, dissolved	MG/L	MW-16	03/21/2012	ND	0.0010
Manganese, dissolved	MG/L	MW-16	06/08/2012	ND	0.0010
Manganese, dissolved	MG/L MG/L	MW-16 MW-16	09/27/2012	ND ND	0.0010
Manganese, dissolved Manganese, dissolved	MG/L MG/L	MW-16	12/04/2012 03/12/2013	טאו	0.0010 0.0019
Manganese, dissolved	MG/L	MW-16	06/04/2013		0.0019
Manganese, dissolved	MG/L	MW-16	09/05/2013		0.0037
Manganese, dissolved	MG/L	MW-16	12/16/2013		0.0120
Manganese, dissolved	MG/L	MW-16	03/05/2014	ND	0.0010
Manganese, dissolved	MG/L	MW-16	06/02/2014	ND	0.0010
Manganese, dissolved	MG/L	MW-16	09/22/2014		0.0020
Manganese, dissolved	MG/L	MW-16	11/18/2014		0.0120
Manganese, dissolved	MG/L	MW-35	03/22/2005	ND	0.0010
Manganese, dissolved	MG/L	MW-35	06/14/2005	ND	0.0010
Manganese, dissolved	MG/L	MW-35	09/27/2005	ND	0.0010
Manganese, dissolved	MG/L	MW-35	12/15/2005	ND	0.0010
Manganese, dissolved	MG/L	MW-35	03/28/2006	ND	0.0010
Manganese, dissolved	MG/L	MW-35	06/21/2006	ND	0.0010
Manganese, dissolved	MG/L	MW-35	09/26/2006	ND	0.0010
Manganese, dissolved	MG/L	MW-35	12/12/2006	ND	0.0010
Manganese, dissolved	MG/L	MW-35	03/27/2007	ND	0.0010
Manganese, dissolved	MG/L	MW-35	06/20/2007	ND	0.0010
Manganese, dissolved	MG/L	MW-35	09/18/2007	ND	0.0010
Manganese, dissolved	MG/L	MW-35	12/20/2007	ND	0.0010
Manganese, dissolved	MG/L	MW-35	03/25/2008	ND	0.0010
Manganese, dissolved	MG/L	MW-35	06/18/2008	ND	0.0010
Manganese, dissolved	MG/L	MW-35	09/18/2008	ND	0.0010
Manganese, dissolved	MG/L	MW-35	12/19/2008	ND	0.0010
Manganese, dissolved	MG/L	MW-35	03/24/2009	ND	0.0010
Manganese, dissolved	MG/L	MW-35	06/16/2009	ND	0.0010
Manganese, dissolved	MG/L	MW-35	09/10/2009	ND	0.0010
Manganese, dissolved	MG/L	MW-35	12/03/2009	ND	0.0010
Manganese, dissolved	MG/L	MW-35	03/25/2010	ND	0.0010
Manganese, dissolved	MG/L	MW-35	06/23/2010	ND	0.0010
Manganese, dissolved	MG/L	MW-35	09/23/2010	ND	0.0010
Manganese, dissolved	MG/L	MW-35	12/09/2010	ND	0.0010
Manganese, dissolved	MG/L	MW-35	03/30/2011	ND	0.0010
Manganese, dissolved	MG/L MG/L	MW-35	06/06/2011	ND	0.0010
Manganese, dissolved	MG/L MG/L	MW-35	09/26/2011	ND	0.0010
Manganese, dissolved Manganese, dissolved	MG/L MG/L	MW-35 MW-35	12/13/2011 03/21/2012	ND	0.0050 0.0010
Manganese, dissolved	MG/L	MW-35	06/06/2012	ND	0.0010
Manganese, dissolved	MG/L	MW-35	09/26/2012	ND	0.0010
Manganese, dissolved	MG/L	MW-35	12/04/2012	ND	0.0010
Manganese, dissolved	MG/L	MW-35	03/13/2013	ND	0.0010
Manganese, dissolved	MG/L	MW-35	06/06/2013	ND	0.0010
Manganese, dissolved	MG/L	MW-35	09/05/2013	ND	0.0010
Manganese, dissolved	MG/L	MW-35	12/16/2013	ND	0.0010
Manganese, dissolved	MG/L	MW-35	03/04/2014	ND	0.0010
manganese, alsselved	_1410/L	14144-00	00/07/2014	ND	0.0010

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result
Manganese, dissolved	MG/L	MW-35	06/02/2014	ND	0.0010
Manganese, dissolved	MG/L	MW-35	09/22/2014	ND	0.0010
Manganese, dissolved	MG/L	MW-35	11/17/2014	ND	0.0010
Nickel, dissolved	MG/L	MW-13A	03/22/2005	ND	0.0040
Nickel, dissolved	MG/L	MW-13A	06/15/2005	ND	0.0040
Nickel, dissolved	MG/L	MW-13A	09/27/2005	ND	0.0040
Nickel, dissolved	MG/L	MW-13A	12/15/2005	ND	0.0040
Nickel, dissolved	MG/L	MW-13A	03/28/2006	ND	0.0040
Nickel, dissolved	MG/L	MW-13A	06/21/2006	ND	0.0040
Nickel, dissolved	MG/L	MW-13A	09/26/2006	ND	0.0040
Nickel, dissolved	MG/L	MW-13A	12/13/2006	ND	0.0040
Nickel, dissolved	MG/L	MW-13A	03/27/2007	ND	0.0040
Nickel, dissolved	MG/L	MW-13A	06/19/2007	ND	0.0040
Nickel, dissolved	MG/L	MW-13A	09/19/2007	ND	0.0040
Nickel, dissolved	MG/L	MW-13A	12/19/2007	ND	0.0040
Nickel, dissolved	MG/L	MW-13A	03/25/2008	ND	0.0040
Nickel, dissolved	MG/L	MW-13A	06/18/2008	ND	0.0040
	MG/L				
Nickel, dissolved		MW-13A	09/17/2008	ND	0.0040
Nickel, dissolved	MG/L	MW-13A	12/17/2008	ND	0.0040
Nickel, dissolved	MG/L	MW-13A	03/24/2009	ND	0.0040
Nickel, dissolved	MG/L	MW-13A	06/17/2009	ND	0.0040
Nickel, dissolved	MG/L	MW-13A	09/10/2009	ND	0.0040
Nickel, dissolved	MG/L	MW-13A	12/03/2009	ND	0.0040
Nickel, dissolved	MG/L	MW-13A	03/25/2010	ND	0.0040
Nickel, dissolved	MG/L	MW-13A	06/23/2010	ND	0.0040
Nickel, dissolved	MG/L	MW-13A	09/23/2010	ND	0.0040
Nickel, dissolved	MG/L	MW-13A	12/08/2010	ND	0.0040
Nickel, dissolved	MG/L	MW-13A	03/30/2011	ND	0.0040
Nickel, dissolved	MG/L	MW-13A	06/06/2011	ND	0.0040
Nickel, dissolved	MG/L	MW-13A	09/27/2011	ND	0.0040
Nickel, dissolved	MG/L	MW-13A	12/14/2011	ND	0.0040
Nickel, dissolved	MG/L	MW-13A	03/21/2012	ND	0.0040
Nickel, dissolved	MG/L	MW-13A	06/08/2012	ND	0.0040
Nickel, dissolved	MG/L	MW-13A	09/26/2012	ND	0.0040
Nickel, dissolved	MG/L	MW-13A	12/03/2012	ND	0.0040
Nickel, dissolved	MG/L	MW-13A	03/11/2013	ND	0.0040
Nickel, dissolved	MG/L	MW-13A	06/05/2013	ND	0.0040
Nickel, dissolved	MG/L	MW-13A	12/03/2013	ND	0.0040
Nickel, dissolved	MG/L	MW-13A	03/04/2014	ND	0.0040
Nickel, dissolved	MG/L	MW-13A	06/02/2014	ND	0.0040
Nickel, dissolved	MG/L	MW-13A	09/22/2014	ND	0.0040
Nickel, dissolved	MG/L	MW-13A	11/17/2014	ND	
Nickel, dissolved	MG/L	MW-13B	03/22/2005	ND	0.0040
	MG/L	MW-13B			
Nickel, dissolved			06/15/2005	ND	0.0040
Nickel, dissolved	MG/L	MW-13B	09/27/2005	ND	0.0040
Nickel, dissolved	MG/L	MW-13B	12/15/2005	ND	0.0040
Nickel, dissolved	MG/L	MW-13B	03/29/2006	ND	0.0040
Nickel, dissolved	MG/L	MW-13B	06/21/2006	ND	0.0040
Nickel, dissolved	MG/L	MW-13B	09/26/2006	ND	0.0040
Nickel, dissolved	MG/L	MW-13B	12/13/2006	ND	0.0040
Nickel, dissolved	MG/L	MW-13B	03/27/2007	ND	0.0040
Nickel, dissolved	MG/L	MW-13B	06/19/2007	ND	0.0040
Nickel, dissolved	MG/L	MW-13B	09/18/2007	ND	0.0040
Nickel, dissolved	MG/L	MW-13B	12/19/2007	ND	0.0040
Nickel, dissolved	MG/L	MW-13B	03/25/2008	ND	0.0040
Nickel, dissolved	MG/L	MW-13B	06/18/2008	ND	0.0040
Nickel, dissolved	MG/L	MW-13B	09/17/2008	ND	0.0040
Nickel, dissolved	MG/L	MW-13B	12/16/2008	ND	0.0040
Nickel, dissolved	MG/L	MW-13B	03/24/2009	ND	0.0040
Nickel, dissolved	MG/L	MW-13B	06/17/2009	ND	0.0040
Nickel, dissolved	MG/L	MW-13B	09/10/2009	ND	0.0040
Nickel, dissolved	MG/L		12/03/2009		
•		MW-13B		ND	0.0040
Nickel, dissolved	MG/L	MW-13B	03/25/2010	ND	0.0040
Nickel, dissolved	MG/L MG/L	MW-13B MW-13B	06/23/2010 09/23/2010	ND ND	0.0040 0.0040
Nickel, dissolved					

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result
Nickel, dissolved	MG/L	MW-13B	12/08/2010	ND	0.0040
Nickel, dissolved	MG/L	MW-13B	03/30/2011	ND	0.0040
Nickel, dissolved	MG/L	MW-13B	06/06/2011	ND	0.0040
Nickel, dissolved	MG/L	MW-13B	09/27/2011	ND	0.0040
Nickel, dissolved	MG/L	MW-13B	12/14/2011	ND	0.0040
Nickel, dissolved	MG/L	MW-13B	03/21/2012	ND	0.0040
Nickel, dissolved	MG/L	MW-13B	06/08/2012	ND	0.0040
Nickel, dissolved	MG/L	MW-13B	09/26/2012	ND	0.0040
Nickel, dissolved	MG/L	MW-13B	12/03/2012	ND	0.0040
Nickel, dissolved	MG/L	MW-13B	03/11/2013	ND	0.0040
Nickel, dissolved	MG/L	MW-13B	06/05/2013	ND	0.0040
Nickel, dissolved	MG/L	MW-13B	12/03/2013	ND	0.0040
Nickel, dissolved	MG/L	MW-13B	03/04/2014	ND	0.0040
Nickel, dissolved	MG/L	MW-13B	06/02/2014	ND	0.0040
Nickel, dissolved	MG/L	MW-13B	09/22/2014	ND	0.0040
Nickel, dissolved	MG/L	MW-13B	11/17/2014	ND	0.0040
Nickel, dissolved	MG/L	MW-16	03/24/2009	ND	0.0040
Nickel, dissolved	MG/L	MW-16	06/16/2009	ND	0.0040
Nickel, dissolved	MG/L	MW-16	09/09/2009	ND	0.0040
Nickel, dissolved	MG/L	MW-16	12/03/2009	ND	0.0040
Nickel, dissolved	MG/L	MW-16	03/25/2010	ND	0.0040
Nickel, dissolved	MG/L	MW-16	06/24/2010	ND	0.0040
Nickel, dissolved	MG/L	MW-16	09/24/2010	ND	0.0040
Nickel, dissolved	MG/L	MW-16	12/09/2010	ND	0.0040
Nickel, dissolved	MG/L	MW-16	03/30/2011	ND	0.0040
Nickel, dissolved	MG/L	MW-16	06/07/2011	ND	0.0040
Nickel, dissolved	MG/L	MW-16	09/27/2011	ND	0.0040
Nickel, dissolved	MG/L	MW-16	12/13/2011	ND	0.0040
Nickel, dissolved	MG/L	MW-16	03/21/2012	ND	0.0040
Nickel, dissolved	MG/L	MW-16	06/08/2012	ND	0.0040
Nickel, dissolved	MG/L	MW-16	09/27/2012	ND	0.0040
Nickel, dissolved	MG/L	MW-16	12/04/2012	ND	0.0040
Nickel, dissolved	MG/L	MW-16	03/12/2013	ND	0.0040
Nickel, dissolved	MG/L	MW-16	06/04/2013	ND	0.0040
Nickel, dissolved	MG/L	MW-16	09/05/2013	ND	0.0040
Nickel, dissolved	MG/L	MW-16	12/16/2013	ND	0.0040
Nickel, dissolved	MG/L	MW-16	03/05/2014	ND	0.0040
Nickel, dissolved	MG/L	MW-16	06/02/2014	ND	0.0040
Nickel, dissolved	MG/L	MW-16	09/22/2014	ND	0.0040
Nickel, dissolved	MG/L	MW-16	11/18/2014	ND	0.0040
Nickel, dissolved	MG/L	MW-35	03/22/2005	ND	0.0040
Nickel, dissolved	MG/L	MW-35	06/14/2005	ND	0.0040
Nickel, dissolved	MG/L	MW-35	09/27/2005	ND	0.0040
Nickel, dissolved	MG/L	MW-35	12/15/2005	ND	0.0040
Nickel, dissolved	MG/L	MW-35	03/28/2006	ND	0.0040
Nickel, dissolved	MG/L	MW-35	06/21/2006	ND	0.0040
Nickel, dissolved	MG/L	MW-35	09/26/2006	ND	0.0040
Nickel, dissolved	MG/L	MW-35	12/12/2006	ND	0.0040
Nickel, dissolved	MG/L	MW-35	03/27/2007	ND	0.0040
Nickel, dissolved	MG/L	MW-35	06/20/2007	ND	0.0040
Nickel, dissolved	MG/L	MW-35	09/18/2007	ND	0.0040
Nickel, dissolved	MG/L	MW-35	12/20/2007	ND	0.0040
Nickel, dissolved	MG/L	MW-35	03/25/2008	ND	0.0040
Nickel, dissolved	MG/L	MW-35	06/18/2008	ND	0.0040
Nickel, dissolved	MG/L	MW-35	09/18/2008	ND	0.0040
Nickel, dissolved	MG/L	MW-35	12/19/2008	ND	0.0040
Nickel, dissolved	MG/L	MW-35	03/24/2009	ND	0.0040
Nickel, dissolved	MG/L	MW-35	06/16/2009	ND	0.0040
Nickel, dissolved	MG/L	MW-35	09/10/2009	ND	0.0040
Nickel, dissolved	MG/L	MW-35	12/03/2009	ND	0.0040
Nickel, dissolved	MG/L	MW-35	03/25/2010	ND	0.0040
Nickel, dissolved	MG/L	MW-35	06/23/2010	ND	0.0040
Nickel, dissolved	MG/L	MW-35	09/23/2010	ND	0.0040
Nickel, dissolved	MG/L	MW-35	12/09/2010	ND	0.0040
Nickel, dissolved	MG/L	MW-35	03/30/2011	ND	0.0040
I VIORGI, UISSUIVEU	IVIO/L	14144-22	03/30/2011	ND	0.0040

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result	
Nickel, dissolved	MG/L	MW-35	06/06/2011	ND	0.0040	
Nickel, dissolved	MG/L	MW-35	09/26/2011	ND	0.0040	
Nickel, dissolved	MG/L	MW-35	12/13/2011	ND	0.0200	
Nickel, dissolved	MG/L	MW-35	03/21/2012	ND	0.0040	
Nickel, dissolved	MG/L	MW-35	06/06/2012	ND	0.0040	
Nickel, dissolved	MG/L	MW-35	09/26/2012	ND	0.0040	
Nickel, dissolved	MG/L	MW-35	12/04/2012	ND	0.0040	
Nickel, dissolved	MG/L	MW-35	03/13/2013	ND	0.0040	
Nickel, dissolved	MG/L	MW-35	06/06/2013	ND	0.0040	
Nickel, dissolved	MG/L	MW-35	09/05/2013	ND	0.0040	
Nickel, dissolved	MG/L	MW-35	12/16/2013	ND	0.0040	
Nickel, dissolved	MG/L	MW-35	03/04/2014	ND	0.0040	
Nickel, dissolved	MG/L	MW-35	06/02/2014	ND	0.0040	
Nickel, dissolved	MG/L	MW-35	09/22/2014	ND	0.0040	
Nickel, dissolved	MG/L	MW-35	11/17/2014	ND	0.0040	
Nitrate (as n)	MG/L	MW-13A	03/22/2005	IND	0.5100	
Nitrate (as n)	MG/L	MW-13A	06/15/2005			
	MG/L				0.4400	
Nitrate (as n)		MW-13A	09/27/2005		1.8000	
Nitrate (as n)	MG/L	MW-13A	12/15/2005		0.4700	
Nitrate (as n)	MG/L	MW-13A	03/28/2006		0.4400	
Nitrate (as n)	MG/L	MW-13A	06/21/2006		0.5400	
Nitrate (as n)	MG/L	MW-13A	09/26/2006		0.4400	
Nitrate (as n)	MG/L	MW-13A	12/13/2006		0.4600	
Nitrate (as n)	MG/L	MW-13A	03/27/2007		0.4200	
Nitrate (as n)	MG/L	MW-13A	06/19/2007		0.4600	
Nitrate (as n)	MG/L	MW-13A	09/19/2007		0.4600	
Nitrate (as n)	MG/L	MW-13A	12/19/2007		0.4100	
Nitrate (as n)	MG/L	MW-13A	03/25/2008		0.4900	
Nitrate (as n)	MG/L	MW-13A	06/18/2008		0.5100	
Nitrate (as n)	MG/L	MW-13A	09/17/2008		0.4400	
Nitrate (as n)	MG/L	MW-13A	12/17/2008		0.4800	
Nitrate (as n)	MG/L	MW-13A	03/24/2009		0.4700	
Nitrate (as n)	MG/L	MW-13A	06/17/2009		0.4900	
Nitrate (as n)	MG/L	MW-13A	09/10/2009		0.4500	
Nitrate (as n)	MG/L	MW-13A	12/03/2009		0.4100	
Nitrate (as n)	MG/L	MW-13A	03/25/2010		0.4800	
Nitrate (as n)	MG/L	MW-13A	06/23/2010		0.4700	
Nitrate (as n)	MG/L	MW-13A	09/23/2010		0.5100	
Nitrate (as n)	MG/L	MW-13A	12/08/2010		0.4900	
Nitrate (as n)	MG/L	MW-13A	03/30/2011		0.5300	
Nitrate (as n)	MG/L	MW-13A	06/06/2011		0.4600	
Nitrate (as n)	MG/L	MW-13A	09/27/2011		0.4800	
Nitrate (as n)	MG/L	MW-13A	12/14/2011		0.4800	
Nitrate (as n)	MG/L	MW-13A	03/21/2012		9.4000	*
Nitrate (as n)	MG/L	MW-13A	06/08/2012		0.4500	
Nitrate (as n)	MG/L	MW-13A	09/26/2012		0.4200	
Nitrate (as n)	MG/L	MW-13A	12/03/2012		0.5400	
Nitrate (as n)	MG/L	MW-13A	03/11/2013		0.4600	
Nitrate (as n)	MG/L	MW-13A	06/05/2013		0.4900	
Nitrate (as n)	MG/L	MW-13A	12/03/2013		0.4700	
Nitrate (as n)	MG/L	MW-13A	03/04/2014		0.4800	
Nitrate (as n)	MG/L	MW-13A	06/02/2014		0.4800	
Nitrate (as n)	MG/L	MW-13A	09/22/2014		0.4400	
Nitrate (as n)	MG/L	MW-13A	11/17/2014		0.4400	
Nitrate (as n)	MG/L	MW-13B	03/22/2005		0.4600	
Nitrate (as n)	MG/L	MW-13B	06/15/2005			
		MW-13B			0.7400	
Nitrate (as n)	MG/L	_	09/27/2005		0.4600	
Nitrate (as n)	MG/L	MW-13B	12/15/2005		0.4900	
Nitrate (as n)	MG/L	MW-13B	03/29/2006		0.4400	
Nitrate (as n)	MG/L	MW-13B	06/21/2006		0.5600	
Nitrate (as n)	MG/L	MW-13B	09/26/2006		0.4400	
Nitrate (as n)	MG/L	MW-13B	12/13/2006		0.4000	
Nitrate (as n)	MG/L	MW-13B	03/27/2007		0.4300	
Nitrate (as n)	MG/L	MW-13B	06/19/2007		0.4800	
Nitrate (as n)	MG/L	MW-13B	09/18/2007		0.4800	

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date	Result
Nitrate (as n)	MG/L	MW-13B	12/19/2007	0.8900
Nitrate (as n)	MG/L	MW-13B	03/25/2008	0.4800
Nitrate (as n)	MG/L	MW-13B	06/18/2008	0.9500
Nitrate (as n)	MG/L	MW-13B	09/17/2008	0.4600
Nitrate (as n)	MG/L	MW-13B	12/16/2008	0.5300
Nitrate (as n)	MG/L	MW-13B	03/24/2009	0.4600
Nitrate (as n)	MG/L	MW-13B	06/17/2009	0.4900
Nitrate (as n)	MG/L	MW-13B	09/10/2009	0.4600
Nitrate (as n)	MG/L	MW-13B	12/03/2009	0.4000
Nitrate (as n)	MG/L	MW-13B	03/25/2010	0.4600
Nitrate (as n)	MG/L	MW-13B	06/23/2010	0.4500
Nitrate (as n)	MG/L	MW-13B	09/23/2010	0.4800
Nitrate (as n)	MG/L	MW-13B	12/08/2010	0.5000
Nitrate (as n)	MG/L	MW-13B	03/30/2011	0.5100
Nitrate (as n)	MG/L	MW-13B	06/06/2011	0.4300
Nitrate (as n)	MG/L	MW-13B	09/27/2011	0.4600
` '				
Nitrate (as n)	MG/L	MW-13B	12/14/2011	0.4700
Nitrate (as n)	MG/L	MW-13B	03/21/2012	9.7000 *
Nitrate (as n)	MG/L	MW-13B	06/08/2012	0.4500
Nitrate (as n)	MG/L	MW-13B	09/26/2012	0.4000
Nitrate (as n)	MG/L	MW-13B	12/03/2012	0.4200
Nitrate (as n)	MG/L	MW-13B	03/11/2013	0.4300
Nitrate (as n)	MG/L	MW-13B	06/05/2013	0.4900
Nitrate (as n)	MG/L	MW-13B	12/03/2013	0.5100
Nitrate (as n)	MG/L	MW-13B	03/04/2014	0.4500
Nitrate (as n)	MG/L	MW-13B	06/02/2014	0.5300
Nitrate (as n)	MG/L	MW-13B	09/22/2014	0.4500
Nitrate (as n)	MG/L	MW-13B	11/17/2014	0.4700
Nitrate (as n)	MG/L	MW-16	03/24/2009	0.2800
Nitrate (as n)	MG/L	MW-16	06/16/2009	0.3300
Nitrate (as n)	MG/L	MW-16	09/09/2009	0.3100
Nitrate (as n)	MG/L	MW-16	12/03/2009	0.4000
Nitrate (as n)	MG/L	MW-16	03/25/2010	0.2900
Nitrate (as n)	MG/L	MW-16	06/24/2010	0.1600
Nitrate (as n)	MG/L	MW-16	09/24/2010	0.5100
Nitrate (as n)	MG/L	MW-16	12/09/2010	0.9000
Nitrate (as n)	MG/L	MW-16	03/30/2011	0.5200
Nitrate (as n)	MG/L	MW-16	06/07/2011	0.4600
Nitrate (as n)	MG/L	MW-16	09/27/2011	0.7300
Nitrate (as n)	MG/L	MW-16	12/13/2011	1.1000
Nitrate (as n)	MG/L	MW-16	03/21/2012	0.8900 *
Nitrate (as n)	MG/L	MW-16	06/08/2012	1.4000
Nitrate (as n)	MG/L	MW-16	09/27/2012	0.9600
Nitrate (as n)	MG/L	MW-16	12/04/2012	0.8600
Nitrate (as n)	MG/L	MW-16	03/12/2013	1.6000
Nitrate (as n)	MG/L	MW-16	06/04/2013	1.5000
	MG/L	MW-16	09/05/2013	
Nitrate (as n)				0.7200
Nitrate (as n)	MG/L	MW-16	12/16/2013	0.7500
Nitrate (as n)	MG/L	MW-16	03/05/2014	0.5500
Nitrate (as n)	MG/L	MW-16	06/02/2014	1.2000
Nitrate (as n)	MG/L	MW-16	09/22/2014	0.3600
Nitrate (as n)	MG/L	MW-16	11/18/2014	0.2800
Nitrate (as n)	MG/L	MW-35	03/22/2005	0.3700
Nitrate (as n)	MG/L	MW-35	06/14/2005	0.3300
Nitrate (as n)	MG/L	MW-35	09/27/2005	0.9600
Nitrate (as n)	MG/L	MW-35	12/15/2005	0.2900
Nitrate (as n)	MG/L	MW-35	03/28/2006	0.3400
Nitrate (as n)	MG/L	MW-35	06/21/2006	0.4000
Nitrate (as n)	MG/L	MW-35	09/26/2006	0.3100
Nitrate (as n)	MG/L	MW-35	12/12/2006	0.3500
Nitrate (as n)	MG/L	MW-35	03/27/2007	0.3000
Nitrate (as n)	MG/L	MW-35	06/20/2007	0.3400
Nitrate (as n)	MG/L	MW-35	09/18/2007	0.3200
Nitrate (as n)	MG/L	MW-35	12/20/2007	0.3200
	MG/L	MW-35	03/25/2008	0.3000

Table 2-3 **Upgradient Data** 

Nitrate (as n)   MG/L   MW-35   09/18/2008   0.3500   Nitrate (as n)   MG/L   MW-35   09/18/2008   0.3700   Nitrate (as n)   MG/L   MW-35   03/24/2009   0.3500   0.3500   Nitrate (as n)   MG/L   MW-35   03/24/2009   0.3700   Nitrate (as n)   MG/L   MW-35   09/16/2009   0.3700   Nitrate (as n)   MG/L   MW-35   09/16/2009   0.3500   Nitrate (as n)   MG/L   MW-35   09/16/2009   0.5200   Nitrate (as n)   MG/L   MW-35   09/16/2009   0.5200   Nitrate (as n)   MG/L   MW-35   03/25/2010   0.3200   Nitrate (as n)   MG/L   MW-35   03/25/2010   0.3200   Nitrate (as n)   MG/L   MW-35   09/23/2010   0.3200   Nitrate (as n)   MG/L   MW-35   09/23/2010   0.3200   Nitrate (as n)   MG/L   MW-35   09/23/2010   0.3900   Nitrate (as n)   MG/L   MW-35   0.300/2011   0.3900   Nitrate (as n)   MG/L   MW-35   0.302/2011   0.3900   Nitrate (as n)   MG/L   MW-35   0.302/2012   0.4500   Nitrate (as n)   MG/L   MW-35   0.300/2014   0.4200   Mitrate (as n)   MG/L   MW-35   0.300	Constituent	Units	Well	Date	Result
Nitrate (as n) MG/L MW-35 03/24/2009 0.3700 Nitrate (as n) MG/L MW-35 03/24/2009 0.3700 Nitrate (as n) MG/L MW-35 09/10/2009 0.3700 Nitrate (as n) MG/L MW-35 09/10/2009 0.3700 Nitrate (as n) MG/L MW-35 09/10/2009 0.5200 Nitrate (as n) MG/L MW-35 03/25/2010 0.3200 Nitrate (as n) MG/L MW-35 03/25/2010 0.3200 Nitrate (as n) MG/L MW-35 03/25/2010 0.3200 Nitrate (as n) MG/L MW-35 08/23/2010 0.3200 Nitrate (as n) MG/L MW-35 09/23/2010 0.3200 Nitrate (as n) MG/L MW-35 09/23/2010 0.3200 Nitrate (as n) MG/L MW-35 09/23/2010 0.3900 Nitrate (as n) MG/L MW-35 08/05/2011 0.3900 Nitrate (as n) MG/L MW-35 08/05/2011 0.3900 Nitrate (as n) MG/L MW-35 08/05/2011 0.3900 Nitrate (as n) MG/L MW-35 08/05/2011 0.3900 Nitrate (as n) MG/L MW-35 08/05/2011 0.4000 Nitrate (as n) MG/L MW-35 08/05/2013 0.4500 Nitrate (as n) MG/L MW-35 08/05/2013 0.4700 Nitrate (as n) MG/L MW-35 08/05/2013 0.4700 Nitrate (as n) MG/L MW-35 08/05/2013 0.4700 Nitrate (as n) MG/L MW-35 08/05/2013 0.4200 Nitrate (as n) MG/L MW	Nitrate (as n)	MG/L	MW-35	06/18/2008	1.0000
Nitrate (as n) MG/L MW-35 03/24/2009 0.3500 Nitrate (as n) MG/L MW-35 09/10/2009 0.3500 Nitrate (as n) MG/L MW-35 09/10/2009 0.3500 Nitrate (as n) MG/L MW-35 03/25/2010 0.5200 Nitrate (as n) MG/L MW-35 03/25/2010 0.3600 Nitrate (as n) MG/L MW-35 03/25/2010 0.3600 Nitrate (as n) MG/L MW-35 09/23/2010 0.3200 Nitrate (as n) MG/L MW-35 09/23/2010 0.3200 Nitrate (as n) MG/L MW-35 09/23/2010 0.3900 Nitrate (as n) MG/L MW-35 09/23/2010 0.3900 Nitrate (as n) MG/L MW-35 09/23/2010 0.3900 Nitrate (as n) MG/L MW-35 05/30/2011 0.3900 Nitrate (as n) MG/L MW-35 05/30/2011 0.3900 Nitrate (as n) MG/L MW-35 05/30/2011 0.3900 Nitrate (as n) MG/L MW-35 05/30/2011 0.3900 Nitrate (as n) MG/L MW-35 05/30/2011 0.3900 Nitrate (as n) MG/L MW-35 05/36/2011 0.3900 Nitrate (as n) MG/L MW-35 05/36/2011 0.3900 Nitrate (as n) MG/L MW-35 05/36/2011 0.3900 Nitrate (as n) MG/L MW-35 05/36/2012 0.4300 Nitrate (as n) MG/L MW-35 05/36/2012 0.4200 Nitrate (as n) MG/L MW-35 05/36/2013 0.4500 Nitrate (as n) MG/L MW-35 05/36/2013 0.4500 Nitrate (as n) MG/L MW-35 05/36/2013 0.4500 Nitrate (as n) MG/L MW-35 05/30/2013 0.4200 Nitrate (as n) MG/L MW	Nitrate (as n)	MG/L	MW-35	09/18/2008	0.3500
Nitrate (as n) Nitrat	Nitrate (as n)	MG/L	MW-35	12/19/2008	0.3700
Nitrate (as n) Nitrat	Nitrate (as n)	MG/L	MW-35	03/24/2009	0.3500
Nitrate (as n) MG/L Nitrate (as n) MG/L Nitrate (as n) MG/L Nitrate (as n) MG/L Nitrate (as n) MG/L Nitrate (as n) MG/L Nitrate (as n) MG/L Nitrate (as n) MG/L Nitrate (as n) MG/L Nitrate (as n) MG/L Nitrate (as n) Nitrate (as n) MG/L Nitrate (as n) Nitrate (as n) MG/L Nitrate (as n) Nitrate (as n) MG/L Nitrate (as n) Nitrate (as n) MG/L Nitrate (as n) Nitrate (as n) MG/L Nitrate (as n) MG/L Nitrate (as n) Nitrate (as n) MG/L Nitrate (as n) Nitrate (as n) MG/L Nitrat	Nitrate (as n)	MG/L	MW-35	06/16/2009	0.3700
Nitrate (as n) MG/L Nitrate (as n) MG/L Nitrate (as n) MG/L Nitrate (as n) MG/L Nitrate (as n) MG/L Nitrate (as n) MG/L Nitrate (as n) MG/L Nitrate (as n) MG/L Nitrate (as n) MG/L Nitrate (as n) Nitrate (as n) MG/L Nitrate (as n) Nitrate (as n) MG/L Nitrate (as n) Nitrate (as n) MG/L Nitrate (as n) Nitrate (as n) MG/L Nitrate (as n) Nitrate (as n) MG/L Nitrate (as n) Nitrate (as n) MG/L Nitrate (as n) MG/L Nitrate (as n) N	, ,				
Nitrate (as n)   MG/L   MW-35   03/25/2010   0.3600   Nitrate (as n)   MG/L   MW-35   09/23/2010   0.3200   Nitrate (as n)   MG/L   MW-35   09/23/2010   0.3200   Nitrate (as n)   MG/L   MW-35   09/23/2010   0.3900   Nitrate (as n)   MG/L   MW-35   03/30/2011   0.3900   Nitrate (as n)   MG/L   MW-35   03/30/2011   0.3900   Nitrate (as n)   MG/L   MW-35   06/06/2011   0.4500   Nitrate (as n)   MG/L   MW-35   06/06/2012   0.4500   Nitrate (as n)   MG/L   MW-35   06/06/2012   0.4500   Nitrate (as n)   MG/L   MW-35   06/06/2012   0.4300   Nitrate (as n)   MG/L   MW-35   06/06/2012   0.4200   Nitrate (as n)   MG/L   MW-35   06/06/2013   0.4200   Nitrate (as n)   MG/L   MW-35   06/06/2013   0.4500   Nitrate (as n)   MG/L   MW-35   06/06/2013   0.4200   Nitrate (as n)   MG/L   MW-35   06/06/2013   0.4200   Nitrate (as n)   MG/L   MW-35   06/06/2014   0	, ,				
Nitrate (as n)   MG/L   MW-35   06/23/2010   0.3200   Nitrate (as n)   MG/L   MW-35   12/09/2010   0.3900   Nitrate (as n)   MG/L   MW-35   03/30/2011   0.3900   Nitrate (as n)   MG/L   MW-35   03/09/2011   0.3900   Nitrate (as n)   MG/L   MW-35   06/06/2011   0.3900   Nitrate (as n)   MG/L   MW-35   06/06/2011   0.3900   Nitrate (as n)   MG/L   MW-35   09/26/2011   0.3900   Nitrate (as n)   MG/L   MW-35   03/21/2012   0.4500   Nitrate (as n)   MG/L   MW-35   03/21/2012   0.4500   Nitrate (as n)   MG/L   MW-35   03/21/2012   0.4500   Nitrate (as n)   MG/L   MW-35   09/26/2012   0.3700   Nitrate (as n)   MG/L   MW-35   09/26/2013   0.4700   Nitrate (as n)   MG/L   MW-35   09/26/2013   0.4200   Nitrate (as n)   MG/L   MW-35   09/05/2013   0.4200   Nitrate (as n)   MG/L   MW-35   09/05/2013   0.4200   Nitrate (as n)   MG/L   MW-35   09/05/2013   0.4200   Nitrate (as n)   MG/L   MW-35   09/05/2014   0.4200   Nitrate (as n)   MG/L   MW-35   09/02/2014   0.4200   Nitrate (as n)   MG/L   MW-35   09/02/2014   0.4200   Nitrate (as n)   MG/L   MW-35   09/22/2014   0	, ,				
Nitrate (as n)   MG/L   MW-35   09/23/2010   0.4000	, ,				
Nitrate (as n)   MG/L   MW-35   12/09/2010   0.3900   Nitrate (as n)   MG/L   MW-35   0.0/30/2011   0.3900   Nitrate (as n)   MG/L   MW-35   0.0/30/2011   0.3900   Nitrate (as n)   MG/L   MW-35   0.0/26/2011   0.3900   Nitrate (as n)   MG/L   MW-35   0.0/26/2011   0.3900   Nitrate (as n)   MG/L   MW-35   0.0/26/2012   0.4500   Nitrate (as n)   MG/L   MW-35   0.0/26/2012   0.3700   Nitrate (as n)   MG/L   MW-35   0.0/26/2012   0.3700   Nitrate (as n)   MG/L   MW-35   0.0/26/2013   0.4700   Nitrate (as n)   MG/L   MW-35   0.0/26/2013   0.4700   Nitrate (as n)   MG/L   MW-35   0.0/26/2013   0.4200   Nitrate (as n)   MG/L   MW-35   0.0/26/2014   0.4200   Nitrate (as n)   MG/L   MW-35   0.0/22/2014   0.4200   Nitrate (a	, ,				
Nitrate (as n)   MG/L   MW-35   03/30/2011   0.3900     Nitrate (as n)   MG/L   MW-35   09/28/2011   0.3900     Nitrate (as n)   MG/L   MW-35   09/28/2011   0.3900     Nitrate (as n)   MG/L   MW-35   12/13/2011   0.3900     Nitrate (as n)   MG/L   MW-35   12/13/2011   0.3900     Nitrate (as n)   MG/L   MW-35   03/21/2012   0.4500     Nitrate (as n)   MG/L   MW-35   06/06/2012   0.4300     Nitrate (as n)   MG/L   MW-35   06/06/2012   0.4300     Nitrate (as n)   MG/L   MW-35   12/04/2012   0.4200     Nitrate (as n)   MG/L   MW-35   12/04/2012   0.4200     Nitrate (as n)   MG/L   MW-35   03/32/2013   0.4500     Nitrate (as n)   MG/L   MW-35   09/05/2013   0.4500     Nitrate (as n)   MG/L   MW-35   09/05/2013   0.4500     Nitrate (as n)   MG/L   MW-35   09/05/2013   0.4500     Nitrate (as n)   MG/L   MW-35   03/04/2014   0.4200     Nitrate (as n)   MG/L   MW-35   03/04/2014   0.4200     Nitrate (as n)   MG/L   MW-35   03/04/2014   0.4200     Nitrate (as n)   MG/L   MW-35   09/22/2014   0.4200     Nitrate (as n)   MG/L   MW-35   09/22/2015   0.7100     Nitrate (as n)   MG/L   MW-35   09/22/2015   0.7100     Nitrate (as n)   MG/L   MW-35   09/22/2015   0.7100     Nitrate (as n)   MG/L   MW-3					
Nitrate (as n)   MG/L   MW-35   Og/66/2011   O.3900   Nitrate (as n)   MG/L   MW-35   Og/66/2011   O.4000   Nitrate (as n)   MG/L   MW-35   Og/66/2012   O.4500   Nitrate (as n)   MG/L   MW-35   Og/66/2012   O.4500   O.4500   Nitrate (as n)   MG/L   MW-35   Og/66/2012   O.4300   Nitrate (as n)   MG/L   MW-35   Og/66/2012   O.4300   Nitrate (as n)   MG/L   MW-35   Og/66/2012   O.3700   Nitrate (as n)   MG/L   MW-35   Og/66/2012   O.3700   Nitrate (as n)   MG/L   MW-35   Og/66/2013   O.4700   Nitrate (as n)   MG/L   MW-35   Og/66/2013   O.4500   Nitrate (as n)   MG/L   MW-35   Og/66/2013   O.4500   Nitrate (as n)   MG/L   MW-35   Og/66/2013   O.4200   Nitrate (as n)   MG/L   MW-35   Og/66/2014   O.4200   Nitrate (as n)   MG/L   MW-35   Og/66/2014   O.4200   Nitrate (as n)   MG/L   MW-35   Og/66/2/2014   O.4200   Nitrate (as n)   MG/L   MW-35   Og/22/2014   O.4200   Nitrate (as n)   MG/L   MW-35   Og/22/2014   O.4200   Nitrate (as n)   MG/L   MW-35   Og/22/2014   O.4200   P.4200   Nitrate (as n)   MG/L   MW-35   Og/66/2005   T.0100   P.4200					
Nitrate (as n)   MG/L   MW-35   O9/26/2011   O.4000   Nitrate (as n)   MG/L   MW-35   O3/21/2012   O.4500   Nitrate (as n)   MG/L   MW-35   O3/21/2012   O.4500   Nitrate (as n)   MG/L   MW-35   O3/21/2012   O.4300   Nitrate (as n)   MG/L   MW-35   O6/06/2012   O.4300   Nitrate (as n)   MG/L   MW-35   O8/06/2012   O.4300   Nitrate (as n)   MG/L   MW-35   O8/06/2012   O.4200   Nitrate (as n)   MG/L   MW-35   O8/06/2013   O.4700   Nitrate (as n)   MG/L   MW-35   O8/06/2013   O.4500   O.4500   Nitrate (as n)   MG/L   MW-35   O8/06/2013   O.4500   O.4500   Nitrate (as n)   MG/L   MW-35   O3/04/2014   O.4200   Nitrate (as n)   MG/L   MW-35   O3/04/2014   O.4200   O.4200   Nitrate (as n)   MG/L   MW-35   O8/02/2014   O.4200   O.4200   Nitrate (as n)   MG/L   MW-35   O9/22/2014   O.4200   O					
Nitrate (as n) MG/L MW-35 03/21/2012 0.4500 * Nitrate (as n) MG/L MW-35 03/21/2012 0.4500 * Nitrate (as n) MG/L MW-35 03/21/2012 0.4500 * Nitrate (as n) MG/L MW-35 03/21/2012 0.4500 * Nitrate (as n) MG/L MW-35 09/26/2012 0.3700 Nitrate (as n) MG/L MW-35 03/13/2013 0.4700 Nitrate (as n) MG/L MW-35 03/13/2013 0.4700 Nitrate (as n) MG/L MW-35 06/06/2013 0.4500 Nitrate (as n) MG/L MW-35 09/06/2013 0.4500 Nitrate (as n) MG/L MW-35 09/06/2013 0.4500 Nitrate (as n) MG/L MW-35 09/06/2013 0.4200 Nitrate (as n) MG/L MW-35 09/06/2013 0.4200 Nitrate (as n) MG/L MW-35 09/06/2013 0.4200 Nitrate (as n) MG/L MW-35 09/06/2014 0.4200 Nitrate (as n) MG/L MW-35 06/02/2014 0.4200 PH DH Units MW-13A 06/15/2005 7.0100 PH DH Units MW-13A 06/15/2005 7.2100 PH DH Units MW-13A 06/15/2005 7.2100 PH DH Units MW-13A 09/27/2006 6.9000 PH DH Units MW-13A 09/28/2006 6.9000 PH DH Units MW-13A 09/28/2006 7.2500 PH DH Units MW-13A 09/28/2007 7.2900 PH DH Units MW-13A 09/28/2010 6.9900 PH DH Units MW-13A 09/28/2011 6.9900 PH DH Units MW-13A 09/28/2011 6.9900 PH DH Units MW-13A 09/28/	, ,				
Nitrate (as n)   MG/L   MW-35   O3/21/2012   O.4500   Nitrate (as n)   MG/L   MW-35   O6/06/2012   O.4300   Nitrate (as n)   MG/L   MW-35   O6/06/2012   O.4300   Nitrate (as n)   MG/L   MW-35   O8/06/2012   O.4200   O.4700   Nitrate (as n)   MG/L   MW-35   O8/06/2013   O.4700   Nitrate (as n)   MG/L   MW-35   O6/06/2013   O.4500   O.4700   Nitrate (as n)   MG/L   MW-35   O6/06/2013   O.4500   O.4500   Nitrate (as n)   MG/L   MW-35   O8/06/2013   O.4500   O.4500   Nitrate (as n)   MG/L   MW-35   O8/06/2013   O.4500   O.4500   Nitrate (as n)   MG/L   MW-35   O3/04/2014   O.4200   Nitrate (as n)   MG/L   MW-35   O3/04/2014   O.4200   O.4500   Nitrate (as n)   MG/L   MW-35   O3/04/2014   O.4200   O.4500   Nitrate (as n)   MG/L   MW-35   O9/22/2014   O.4200   O.4200   O.4500   O	,				
Nitrate (as n) MG/L MW-35 06/06/2012 0.3700 Nitrate (as n) MG/L MW-35 09/26/2012 0.3700 Nitrate (as n) MG/L MW-35 09/26/2012 0.3700 Nitrate (as n) MG/L MW-35 03/13/2013 0.4700 Nitrate (as n) MG/L MW-35 03/13/2013 0.4700 Nitrate (as n) MG/L MW-35 06/06/2013 0.4500 Nitrate (as n) MG/L MW-35 09/05/2013 0.4200 Nitrate (as n) MG/L MW-35 09/05/2013 0.4200 Nitrate (as n) MG/L MW-35 09/05/2013 0.4200 Nitrate (as n) MG/L MW-35 09/05/2014 0.4200 Nitrate (as n) MG/L MW-35 06/02/2014 0.4200 PH DH	, ,				
Nitrate (as n)   MG/L   MW-35   09/26/2012   0.3700   Nitrate (as n)   MG/L   MW-35   12/04/2012   0.4200   Nitrate (as n)   MG/L   MW-35   03/13/2013   0.4700   Nitrate (as n)   MG/L   MW-35   09/05/2013   0.4500   Nitrate (as n)   MG/L   MW-35   09/05/2013   0.4200   Nitrate (as n)   MG/L   MW-35   12/16/2013   0.4000   Nitrate (as n)   MG/L   MW-35   12/16/2013   0.4000   Nitrate (as n)   MG/L   MW-35   12/16/2013   0.4000   Nitrate (as n)   MG/L   MW-35   03/04/2014   0.4200   Nitrate (as n)   MG/L   MW-35   09/05/2014   0.4200   Nitrate (as n)   MG/L   MW-35   09/22/2014   0.4200   Nitrate (as n)   MG/L   MW-35   09/22/2005   7.0100   Nitrate (as n)   MG/L   MW-35   09/22/2005   7.0100   Nitrate (as n)   MW-13A   09/27/2005   7.2100   Nitrate (as n)   MW-13A   09/27/2005   7.2500   Nitrate (as n)   MW-13A   09/27/2005   7.2500   Nitrate (as n)   MW-13A   09/26/2006   7.2500   Nitrate (a	, ,				
Nitrate (as n)   MG/L   MW-35   12/04/2012   0.4200   Nitrate (as n)   MG/L   MW-35   03/13/2013   0.4700   Nitrate (as n)   MG/L   MW-35   06/06/2013   0.4200   Nitrate (as n)   MG/L   MW-35   05/06/2013   0.4200   Nitrate (as n)   MG/L   MW-35   02/06/2013   0.4200   Nitrate (as n)   MG/L   MW-35   03/04/2014   0.4200   Nitrate (as n)   MG/L   MW-35   06/02/2014   0.4200   Nitrate (as n)   MG/L   MW-35   06/02/2014   0.4200   Nitrate (as n)   MG/L   MW-35   06/02/2014   0.4200   Nitrate (as n)   MG/L   MW-35   09/22/2014   0.4200   Nitrate (as n)   MG/L   MW-35   09/22/2015   7.0100   PH   PH   PH   DH   DH   DH   DH   DH	, ,				
Nitrate (as n)   MG/L   MW-35   03/13/2013   0.4700   Nitrate (as n)   MG/L   MW-35   06/06/2013   0.4500   Nitrate (as n)   MG/L   MW-35   09/05/2013   0.4200   Nitrate (as n)   MG/L   MW-35   12/16/2013   0.4000   Nitrate (as n)   MG/L   MW-35   03/04/2014   0.4200   Nitrate (as n)   MG/L   MW-35   06/02/2014   0.4200   Nitrate (as n)   MG/L   MW-35   06/02/2005   7.0100   PH   PH   PH   PH   PH   PH   PH		MG/L	MW-35	09/26/2012	0.3700
Nitrate (as n)   MG/L   MW-35   09/05/2013   0.4500   Nitrate (as n)   MG/L   MW-35   09/05/2013   0.4200   Nitrate (as n)   MG/L   MW-35   03/04/2014   0.4200   Nitrate (as n)   MG/L   MW-35   05/02/2014   0.4200   Nitrate (as n)   MG/L   MW-35   05/02/2014   0.4200   Nitrate (as n)   MG/L   MW-35   06/02/2014   0.4200   Nitrate (as n)   MG/L   MW-35   09/22/2014   0.4200   Nitrate (as n)   MG/L   MW-35   09/22/2005   7.0100   PH Units   MW-34   05/15/2005   7.2100   PH Units   MW-34   05/15/2005   7.2100   PH Units   MW-13A   09/27/2005   7.2100   PH Units   MW-13A   09/27/2005   7.2500   PH Units   MW-13A   09/27/2006   6.9000   PH Units   MW-13A   06/21/2006   7.2500   PH Units   MW-13A   06/21/2006   7.2500   PH Units   MW-13A   09/26/2006   7.2500   PH Units   MW-13A   09/26/2006   7.2500   PH Units   MW-13A   09/27/2007   6.6800   PH Units   MW-13A   09/27/2007   6.6800   PH Units   MW-13A   09/19/2007   6.6800   PH Units   MW-13A   06/18/2008   7.1200   PH Units   MW-13A   06/18/2008   7.0000   PH Units   MW-13A   06/18/2008   6.500   PH Units   MW-13A   06/23/2010   6.9900   PH Units   MW-13A   06/23/2011	Nitrate (as n)	MG/L	MW-35	12/04/2012	0.4200
Nitrate (as n)   MG/L   MW-35   12/16/2013   0.4200   Nitrate (as n)   MG/L   MW-35   12/16/2013   0.4000   Nitrate (as n)   MG/L   MW-35   03/04/2014   0.4200   Nitrate (as n)   MG/L   MW-35   06/02/2014   0.4200   Nitrate (as n)   MG/L   MW-35   06/02/2014   0.4200   Nitrate (as n)   MG/L   MW-35   09/02/2014   0.4200   Nitrate (as n)   MG/L   MW-35   11/17/2014   0.4200   Nitrate (as n)   PH Units   MW-13A   03/22/2005   7.2100   PH Units   MW-13A   03/22/2005   7.2100   PH Units   MW-13A   03/22/2005   7.2100   PH Units   MW-13A   09/27/2005   7.2100   PH Units   MW-13A   03/28/2006   6.9000   PH Units   MW-13A   03/28/2006   7.2500   PH Units   MW-13A   06/21/2006   7.2500   PH Units   MW-13A   03/28/2006   6.8700   PH Units   MW-13A   03/27/2007   7.3200   PH Units   MW-13A   03/27/2007   7.3200   PH Units   MW-13A   03/27/2007   7.3200   PH Units   MW-13A   03/27/2007   7.2900   PH Units   MW-13A   03/25/2008   7.1200   PH Units   MW-13A   03/24/2009   6.8500   PH Units   MW-13A   03/24/2009   6.8500   PH Units   MW-13A   03/24/2009   7.0700   PH Units   MW-13A   03/24/2009   7.0700   PH Units   MW-13A   03/25/2010   6.9600   PH Units   MW-13A   03/25/2010   6.9600   PH Units   MW-13A   03/25/2010   6.9600   PH Units   MW-13A   03/23/2010   6.9600   PH Units   MW-13A   03/23/2010   6.9600   PH Units   MW-13A   03/23/2010   6.9600   PH Units   MW-13A   03/23/2011   6.9600   PH Units   MW-13A	Nitrate (as n)	MG/L	MW-35	03/13/2013	0.4700
Nitrate (as n)   MG/L   MW-35   12/16/2013   0.4200   Nitrate (as n)   MG/L   MW-35   12/16/2013   0.4000   Nitrate (as n)   MG/L   MW-35   03/04/2014   0.4200   Nitrate (as n)   MG/L   MW-35   06/02/2014   0.4200   Nitrate (as n)   MG/L   MW-35   06/02/2014   0.4200   Nitrate (as n)   MG/L   MW-35   09/02/2014   0.4200   Nitrate (as n)   MG/L   MW-35   09/02/2014   0.4200   Nitrate (as n)   MG/L   MW-35   11/17/2014   0.4200   NITrate (as n)   MG/L   MW-35   03/22/2005   7.2100   NITrate (as n)   NITrate (as	Nitrate (as n)	MG/L	MW-35	06/06/2013	0.4500
Nitrate (as n)   MG/L   MW-35   03/04/2014   0.4200   Nitrate (as n)   MG/L   MW-35   06/02/2014   0.4200   Nitrate (as n)   MG/L   MW-35   09/22/2014   0.4200   PH   PH   DH   MW-35   09/22/2005   7.0100   PH   DH   DH   DH   MW-13A   06/15/2005   7.2100   PH   DH   DH   DH   DH   MW-13A   09/27/2005   7.1000   PH   DH   DH   DH   DH   DH   DH   DH	Nitrate (as n)	MG/L	MW-35	09/05/2013	0.4200
Nitrate (as n)   MG/L   MW-35   03/04/2014   0.4200   Nitrate (as n)   MG/L   MW-35   06/02/2014   0.4200   Nitrate (as n)   MG/L   MW-35   09/22/2014   0.4200   PH   PH   DH   MW-35   09/22/2005   7.0100   PH   DH   DH   DH   MW-13A   06/15/2005   7.2100   PH   DH   DH   DH   DH   MW-13A   09/27/2005   7.1000   PH   DH   DH   DH   DH   DH   DH   DH	Nitrate (as n)	MG/L	MW-35	12/16/2013	0.4000
Nitrate (as n)   MG/L   MW-35   06/02/2014   0.4200   0.4200   Nitrate (as n)   MG/L   MW-35   09/22/2014   0.4200   0					
Nitrate (as n)   MG/L   MW-35   09/22/2014   0.4200   0					
Nitrate (as n)   MG/L   MW-35   11/17/2014   0.4200   PH   PH Units   MW-13A   03/22/2005   7.2100   PH   PH Units   MW-13A   09/27/2005   7.2100   PH   PH Units   MW-13A   09/27/2005   7.2100   PH   PH Units   MW-13A   09/27/2005   6.3400   PH   PH Units   MW-13A   09/28/2006   6.9900   PH   PH Units   MW-13A   09/28/2006   6.9900   PH   PH Units   MW-13A   09/26/2006   7.2500   PH   PH Units   MW-13A   09/12/2007   7.3200   PH   PH Units   MW-13A   09/12/2007   7.3200   PH   PH Units   MW-13A   09/19/2007   7.3200   PH   PH Units   MW-13A   09/19/2007   7.2900   PH   PH Units   MW-13A   09/19/2007   7.2900   PH   PH Units   MW-13A   09/17/2008   7.1200   PH   PH Units   MW-13A   09/17/2008   7.1200   PH   PH Units   MW-13A   09/17/2008   7.1200   PH   PH Units   MW-13A   09/17/2008   6.5100   PH   PH Units   MW-13A   03/24/2009   7.0700   PH   PH Units   MW-13A   03/24/2009   7.0300   PH   PH Units   MW-13A   03/25/2010   6.9500   PH   PH Units   MW-13A   09/23/2010   6.9500   PH   PH Units   MW-13A   09/23/2010   6.7800   PH   PH Units   MW-13A   09/26/2011   7.4500   PH   PH Units   MW-13A   09/26/2011   7.4500   PH   PH Units   MW-13A   09/26/2012   7.3500   PH   PH Units   MW-13A   09/26/2013   7.3300   PH   PH Units   MW-13A   09/26/2013   7.3500   PH   PH Units   MW-13A   09/26/2013   7.3500   PH   PH Units   MW-13A   09/26/2013   7.3500   PH   PH Units   MW-13A   09/22/2014   7.2600   PH   Units   MW-13A   09/22/2014   7.2600   PH   Units   MW-13A   09/22/2014   7.2600   PH   PH Units   MW-13A					
PH					
рН         рН Units         MW-13A         06/15/2005         7.2100           рН         рН Units         MW-13A         09/27/2005         7.1000           рН         рН Units         MW-13A         12/15/2005         6.3400           рН         рН Units         MW-13A         03/28/2006         6.9000           рН         рН Units         MW-13A         03/28/2006         7.2500           рН         рН Units         MW-13A         09/26/2006         7.2500           рН         рН Units         MW-13A         12/13/2006         6.8700           рН         рН Units         MW-13A         03/27/2007         7.3200           рН         рН Units         MW-13A         09/19/2007         7.2900           рН         рН Units         MW	,				
рН         рН Units         MW-13A         09/27/2005         7.1000           рН         рН Units         MW-13A         12/15/2005         6.3400           рН         рН Units         MW-13A         12/15/2006         6.9400           рН         рН Units         MW-13A         06/21/2006         7.2500           рН         рН Units         MW-13A         09/26/2006         7.2500           рН         рН Units         MW-13A         09/26/2006         6.8700           рН         рН Units         MW-13A         03/27/2007         7.3200           рН         рН Units         MW-13A         03/27/2007         7.3200           рН         рН Units         MW-13A         03/25/2008         7.1200           рН         рН Units         MW-13A         03/25/2008         7.1900           рН         рН Units         MW-13A         03/25/2008         7.1900           рН         рН Units         MW-13A         03/17/2008         7.0000           рН         рН Units         MW-13A         02/17/2008         6.5100           рН         рН Units         MW-13A         03/24/2009         7.0300           рН         рН Units         MW		1.			
рН         рН Units DH U		1.			
рН рН иліts		1.			
pH         pH Units         MW-13A         06/21/2006         7.2500           pH         pH Units         MW-13A         09/26/2006         7.2500           pH         pH Units         MW-13A         12/13/2006         6.8700           pH         pH Units         MW-13A         12/13/2007         7.3200           pH         pH Units         MW-13A         09/19/2007         7.3200           pH         pH Units         MW-13A         09/19/2007         7.2900           pH         pH Units         MW-13A         09/19/2007         7.2900           pH         pH Units         MW-13A         09/19/2007         7.2900           pH         pH Units         MW-13A         03/25/2008         7.1900           pH         pH Units         MW-13A         06/18/2008         7.1900           pH         pH Units         MW-13A         12/17/2008         6.5100           pH         pH Units         MW-13A         12/17/2008         6.5100           pH         pH Units         MW-13A         12/07/2009         7.0700           pH         pH Units         MW-13A         06/17/2009         7.0300           pH         pH Units         MW-	l.	1.			
pH         pH Units pH Un	l.	1.			
pH         pH Units         MW-13A         12/13/2006         6.8700           pH         pH Units         MW-13A         03/27/2007         7.3200           pH         pH Units         MW-13A         09/19/2007         6.6800           pH         pH Units         MW-13A         12/19/2007         7.2900           pH         pH Units         MW-13A         12/19/2007         7.2900           pH         pH Units         MW-13A         03/25/2008         7.1200           pH         pH Units         MW-13A         06/18/2008         7.1900           pH         pH Units         MW-13A         06/18/2008         7.1900           pH         pH Units         MW-13A         09/17/2008         7.000           pH         pH Units         MW-13A         09/21/2008         6.5100           pH         pH Units         MW-13A         06/17/2009         7.0700           pH         pH Units         MW-13A         12/03/2009         7.0700           pH         pH Units         MW-13A         12/03/2009         7.0700           pH         pH Units         MW-13A         09/23/2010         6.9600           pH         pH Units         MW-1		1.			
pH         pH Units         MW-13A         03/27/2007         7.3200           pH         pH Units         MW-13A         09/19/2007         6.6800           pH         pH Units         MW-13A         12/19/2007         7.2900           pH         pH Units         MW-13A         12/19/2007         7.2900           pH         pH Units         MW-13A         06/18/2008         7.1200           pH         pH Units         MW-13A         06/18/2008         7.1900           pH         pH Units         MW-13A         09/17/2008         7.0000           pH         pH Units         MW-13A         09/17/2008         6.5100           pH         pH Units         MW-13A         06/17/2009         7.0700           pH         pH Units         MW-13A         12/03/2009         7.0300           pH         pH Units         MW-13A         12/03/2009         7.0300           pH         pH Units         MW-13A         06/23/2010         6.9600           pH         pH Units         MW-13A         09/23/2010         6.7800           pH         pH Units         MW-13A         09/23/2010         7.4800           pH         pH Units         MW-					
pH         pH Units         MW-13A         09/19/2007         6.6800           pH         pH Units         MW-13A         12/19/2007         7.2900           pH         pH Units         MW-13A         12/19/2008         7.1200           pH         pH Units         MW-13A         06/18/2008         7.1200           pH         pH Units         MW-13A         06/18/2008         7.0000           pH         pH Units         MW-13A         09/17/2008         7.0000           pH         pH Units         MW-13A         09/17/2008         6.5100           pH         pH Units         MW-13A         03/24/2009         6.8500           pH         pH Units         MW-13A         06/17/2009         7.0700           pH         pH Units         MW-13A         06/17/2009         7.0300           pH         pH Units         MW-13A         06/23/2010         6.9600           pH         pH Units         MW-13A         06/23/2010         6.9800           pH         pH Units         MW-13A         09/23/2010         6.7800           pH         pH Units         MW-13A         09/23/2010         7.4800           pH Units         MW-13A <td< td=""><td></td><td></td><td></td><td></td><td></td></td<>					
pH         pH Units         MW-13A         12/19/2007         7.2900           pH         pH Units         MW-13A         03/25/2008         7.1200           pH         pH Units         MW-13A         03/25/2008         7.1200           pH         pH Units         MW-13A         06/18/2008         7.1900           pH         pH Units         MW-13A         09/17/2008         7.0000           pH         pH Units         MW-13A         09/17/2008         6.5100           pH         pH Units         MW-13A         03/24/2009         6.8500           pH         pH Units         MW-13A         06/17/2009         7.0700           pH         pH Units         MW-13A         12/03/2009         7.0300           pH         pH Units         MW-13A         06/23/2010         6.9600           pH         pH Units         MW-13A         09/23/2010         6.7800           pH         pH Units         MW-13A         09/23/2010         7.4800           pH         pH Units         MW-13A         09/23/2010         7.4800           pH         pH Units         MW-13A         09/27/2011         6.9500           pH         pH Units         MW-			MW-13A	03/27/2007	7.3200
pH         pH Units         MW-13A         03/25/2008         7.1200           pH         pH Units         MW-13A         06/18/2008         7.1900           pH         pH Units         MW-13A         09/17/2008         7.0000           pH         pH Units         MW-13A         09/17/2008         7.0000           pH         pH Units         MW-13A         12/17/2008         6.5100           pH         pH Units         MW-13A         06/17/2009         7.0700           pH         pH Units         MW-13A         06/17/2009         7.0300           pH         pH Units         MW-13A         06/23/2010         6.9600           pH         pH Units         MW-13A         06/23/2010         6.9900           pH         pH Units         MW-13A         09/23/2010         6.7800           pH         pH Units         MW-13A         09/23/2010         7.4800           pH         pH Units         MW-13A         09/27/2011         6.9500           pH         pH Units         MW-13A         09/27/2011         6.9100           pH         pH Units         MW-13A         09/26/2011         7.3500           pH         pH Units         MW-	pH	pH Units	MW-13A	09/19/2007	6.6800
pH         pH Units         MW-13A         06/18/2008         7.1900           pH         pH Units         MW-13A         09/17/2008         7.0000           pH         pH Units         MW-13A         09/17/2008         7.0000           pH         pH Units         MW-13A         12/17/2008         6.5100           pH         pH Units         MW-13A         03/24/2009         7.0700           pH         pH Units         MW-13A         06/17/2009         7.0300           pH         pH Units         MW-13A         06/23/2010         6.9600           pH         pH Units         MW-13A         06/23/2010         6.9900           pH         pH Units         MW-13A         09/23/2010         6.7800           pH         pH Units         MW-13A         09/23/2010         7.4800           pH         pH Units         MW-13A         03/30/2011         6.9500           pH         pH Units         MW-13A         09/27/2011         6.9100           pH         pH Units         MW-13A         09/27/2011         6.9100           pH         pH Units         MW-13A         03/21/2012         6.7800           pH         pH Units         MW-	pH	pH Units	MW-13A	12/19/2007	7.2900
pH         pH Units pH Un	pH	pH Units	MW-13A	03/25/2008	7.1200
pH         pH Units pH Un	Hq	pH Units	MW-13A	06/18/2008	7.1900
pH         pH Units pH Units pH Units         MW-13A pH Units pH Units         12/17/2008 MW-13A pH Units         6.5100 6.8500 pH pH Units pH Units pH Units           pH         pH Units pH Units         MW-13A pH Units pH Units         06/17/2009 MW-13A 03/25/2010 6.9600 pH pH Units         7.0300 6.9600 6.9600 pH pH Units pH Units           pH         pH Units pH Units         MW-13A MW-13A 09/23/2010 0.67800 pH pH Units pH Units         06/23/2010 6.7800 0.74800 0			MW-13A		
pH         pH Units pH Units pH Units pH Units pH Units pH Units pH Units pH Units pH Units pH Units ph Units ph Units ph Units ph Units mW-13A         03/24/2009 mm 7.0700 mm					
pH         pH Units pH Units pH Units pH Units pH Units pH Units pH Units pH Units pH Units pH Units ph Units ph Units ph Units ph Units ph Units ph Units ph Units mW-13A o3/25/2010 6.9600 ph pH ph Units mW-13A o6/23/2010 6.9900 ph pH ph Units mW-13A o9/23/2010 6.7800 ph pH units mW-13A o9/23/2010 7.4800 ph pH units mW-13A o3/30/2011 6.9500 ph pH ph Units mW-13A o3/30/2011 6.9500 ph pH ph Units mW-13A o6/06/2011 7.4500 ph pH units mW-13A o9/27/2011 6.9100 ph pH units mW-13A o9/27/2011 6.9100 ph pH units mW-13A o3/21/2012 6.7800 ph pH units mW-13A o6/08/2012 6.7200 ph pH units mW-13A o9/26/2012 7.3500 ph pH units mW-13A o9/26/2013 7.1800 ph pH units mW-13A o6/05/2013 7.3300 ph pH units mW-13A o3/04/2014 7.2600 ph pH units mW-13A o6/02/2014 7.2600 ph pH units mW-13A o6/02/2014 7.2600 ph pH units mW-13A o6/02/2014 7.2600 ph units mW-13A					
pH         pH Units pH Units pH Units pH Units pH Units pH Units pH Units pH Units ph Units mW-13A ph Units ph Units ph Units mW-13A ph Units ph Units mW-13A ph Units ph Units mW-13A ph Units munits mw-13A ph Units munits mw-13A ph Units munits mw-13A ph Units munits mw-13					
pH         pH Units pH Units pH Units         MW-13A MW-13A         03/25/2010 06/23/2010 06.9900 06.9900 06.9900 06.7800 07.4800 07					
pH         pH Units pH Units         MW-13A pH Units pH Units         06/23/2010 MW-13A         6.9900 06.7800 7.4800 7.4800 9H Units           pH         pH Units pH Units         MW-13A MW-13A         12/08/2010 03/30/2011 06.9500 07.4500 09.606/2011 07.4500 09.606/2012 07.3500 09.606/2012 07.3500 09.606/2012 07.3500 09.606/2012 07.3500 09.606/2012 07.3500 09.606/2013 07.1800 09.606/2013 07.1800 09.606/2013 07.1800 09.606/2013 07.1800 09.606/2013 07.1800 09.606/2013 07.1800 09.606/2013 07.1800 09.606/2013 07.1800 09.606/2014 07.4800 07.4800 0					
pH         pH Units pH Units         MW-13A pH Units pH Units         09/23/2010 MW-13A         6.7800 7.4800           pH         pH Units pH				06/23/2010	
pH         pH Units pH Units         MW-13A pH Units pH Units         12/08/2010 MW-13A         7.4800 0.3/30/2011 0.3/30/2011 0.3/30/2011 0.3/30/2011 0.3/30/2011 0.3/30/2011 0.3/30/2011 0.3/30/2011 0.3/30/2012 0.3/30/2012 0.3/30/2012 0.3/30/2012 0.3/30/2012 0.3/30/2012 0.3/30/2012 0.3/30/2012 0.3/30/2012 0.3/30/2012 0.3/30/2012 0.3/30/2012 0.3/30/2012 0.3/30/2012 0.3/30/2013 0.3/30/2013 0.3/30/2013 0.3/30/2013 0.3/30/2013 0.3/30/2013 0.3/30/2013 0.3/30/2013 0.3/30/2013 0.3/30/2013 0.3/30/2013 0.3/30/2013 0.3/30/2013 0.3/30/2013 0.3/30/2013 0.3/30/2013 0.3/30/2013 0.3/30/2014					
pH         pH Units pH Units         MW-13A pH Units         03/30/2011 MW-13A         6.9500 06/06/2011 06/06/2011         6.9500 7.4500 7.4500           pH         pH Units pH U	I Table				
pH         pH Units pH Units         MW-13A pH Units         06/06/2011 MW-13A         7.4500 09/27/2011 09/27/2011 09/27/2011 09/27/2011 09/27/2011 09/27/2011 09/27/2012 09/27/2012 09/27/2012 09/27/2012 09/27/2012 09/27/2012 09/27/2012 09/27/2012 09/27/2012 09/27/2012 09/27/2012 09/27/2012 09/27/2012 09/27/2013 09/27/2013 09/27/2013 09/27/2013 09/27/2013 09/27/2014			-		
pH         pH Units pH Units         MW-13A pH Units         09/27/2011 MW-13A         6.9100 12/14/2011 7.1300           pH         pH Units pH Units pH Units         MW-13A MW-13A         03/21/2012 06.7800         6.7800 6.7200           pH         pH Units pH Units pH Units         MW-13A MW-13A         09/26/2012 09/26/2012 09/26/2012 09/26/2012 09/26/2012 09/26/2012 09/26/2013 09/26/2013 09/26/2013 09/26/2013 09/26/2013 09/26/2013 09/26/2014 0	l.				
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pH         pH Units pH Units pH Units pH Units pH Units pH Units pH Units pH Units pH Units pH Units pH Units pH Units ph Units pH Units ph Un	l.				
pH         pH Units pH Units         MW-13A pH Units         06/08/2012 pH 09/26/2012         6.7200 7.3500 6.9500 pH pH Units           pH Units pH Units         MW-13A pH Units         12/03/2012 MW-13A         6.9500 6.9500 7.1800 7.1800 pH Units           pH Units pH Units         MW-13A pH Units         06/05/2013 MW-13A         7.1600 7.1600 7.1600 PH Units           pH Units pH Units         MW-13A pH Units         03/04/2014 7.2600 PH Units         7.2600 PH Units MW-13A           pH Units pH Units         MW-13A PH Units         09/22/2014 MW-13A         7.2600 9/22/2014 7.2600 PH Units					
pH         pH Units pH Units         MW-13A pH Units         09/26/2012 MW-13A         7.3500 12/03/2012         7.3500 6.9500           pH         pH Units pH Units         MW-13A pH Units         03/11/2013 MW-13A         7.1800 7.3300           pH         pH Units pH Units         MW-13A MW-13A         12/03/2013 7.1600         7.1600 7.4800           pH         pH Units pH Units         MW-13A MW-13A         06/02/2014 7.2600         7.2600 7.2600           pH         pH Units pH Units         MW-13A MW-13A         09/22/2014 7.2600         7.2600 6.9900	l.	1			
pH         pH Units pH Units         MW-13A pH Units         12/03/2012 MW-13A         6.9500 03/11/2013 7.1800           pH         pH Units pH Units pH Units         MW-13A MW-13A         06/05/2013 12/03/2013 7.1600         7.3300 7.1600           pH         pH Units pH Units pH Units         MW-13A MW-13A         03/04/2014 06/02/2014 7.2600         7.2600 7.2600           pH         pH Units pH Units pH Units         MW-13A MW-13A         09/22/2014 09/22/2014 09/2014         7.2600 7.2600 09/2014           pH         pH Units pH Units         MW-13A MW-13A         11/17/2014         6.9900					
pH         pH Units         MW-13A         03/11/2013         7.1800           pH         pH Units         MW-13A         06/05/2013         7.3300           pH         pH Units         MW-13A         12/03/2013         7.1600           pH         pH Units         MW-13A         03/04/2014         7.4800           pH         pH Units         MW-13A         06/02/2014         7.2600           pH         pH Units         MW-13A         09/22/2014         7.2600           pH         pH Units         MW-13A         11/17/2014         6.9900	pH	pH Units		09/26/2012	
pH         pH Units pH Units pH Units         MW-13A MW-13A         06/05/2013 12/03/2013         7.3300 7.1600           pH         pH Units pH Units pH Units         MW-13A MW-13A         03/04/2014 06/02/2014         7.4800 7.2600           pH         pH Units pH Units pH Units         MW-13A MW-13A         09/22/2014 09/22/2014         7.2600 7.2600           pH         pH Units pH Units         MW-13A MW-13A         11/17/2014         6.9900	pH		MW-13A		
pH         pH Units pH Units pH Units         MW-13A MW-13A         06/05/2013 12/03/2013         7.3300 7.1600           pH         pH Units pH Units pH Units         MW-13A MW-13A         03/04/2014 06/02/2014         7.4800 7.2600           pH         pH Units pH Units pH Units         MW-13A MW-13A         09/22/2014 09/22/2014         7.2600 7.2600           pH         pH Units pH Units         MW-13A MW-13A         11/17/2014         6.9900	pH	pH Units	MW-13A	03/11/2013	7.1800
pH         pH Units pH Units pH Units         MW-13A MW-13A         12/03/2013         7.1600           pH         pH Units pH Units         MW-13A MW-13A         03/04/2014         7.4800           pH         pH Units pH Units         MW-13A MW-13A         06/02/2014         7.2600           pH         pH Units pH Units         MW-13A MW-13A         11/17/2014         6.9900	l.	1.	MW-13A		
pH         pH Units pH Units pH Units         MW-13A MW-13A         03/04/2014 06/02/2014         7.4800 7.2600           pH         pH Units pH Units         MW-13A MW-13A         09/22/2014 09/22/2014         7.2600 7.2600 6.9900	l.				
pH         pH Units pH Units pH Units pH Units         MW-13A MW-13A         06/02/2014 09/22/2014         7.2600 7.2600 6.9900           pH         pH Units pH Units         MW-13A MW-13A         11/17/2014         6.9900	l.				
pH         pH Units pH Units         MW-13A MW-13A         09/22/2014 11/17/2014         7.2600 6.9900	l.		-		
pH Units MW-13A 11/17/2014 6.9900	l.		_		
	nH				
	pH	pH Units	MW-13B	03/22/2005	7.4900

<sup>\* -</sup> Outlier for that well and constituent. ND = Not detected, result = detection limit.

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date	Result
pH	pH Units	MW-13B	06/15/2005	7.8100
pH	pH Units	MW-13B	09/27/2005	7.7300
pH	pH Units	MW-13B	12/15/2005	6.9300
pH	pH Units	MW-13B	03/29/2006	7.4500
pH	pH Units	MW-13B	06/21/2006	7.7600
pH	pH Units	MW-13B	09/26/2006	7.7800
pH	pH Units	MW-13B	12/13/2006	7.3200
pH	pH Units	MW-13B	03/27/2007	7.7600
pH	pH Units	MW-13B	09/18/2007	7.4800
pH	pH Units	MW-13B	12/19/2007	7.8500
pH	pH Units	MW-13B	03/25/2008	7.7800
pH	pH Units	MW-13B	06/18/2008	7.7400
pH	pH Units	MW-13B	09/17/2008	7.5700
pH	pH Units	MW-13B	12/16/2008	7.2300
pH	pH Units	MW-13B	03/24/2009	7.3700
pH	pH Units	MW-13B	06/17/2009	7.5600
pH	pH Units	MW-13B	12/03/2009	6.9300
pH	pH Units	MW-13B	03/25/2010	7.4900
pri   pH	pH Units	MW-13B	06/23/2010	7.2700
pri   pH	pH Units	MW-13B	09/23/2010	7.2700
pri   pH	pH Units	MW-13B	12/08/2010	7.0500
pn   pH	pH Units	MW-13B	03/30/2011	7.5100
рп    рН	pH Units	MW-13B	06/06/2011	7.5800
II '	pH Units	MW-13B	09/27/2011	7.0800
pH  pH	pH Units	MW-13B	12/14/2011	7.5300
·	pH Units	MW-13B	03/21/2012	7.0900
pH	·	MW-13B		7.0900
pH	pH Units pH Units	MW-13B	06/08/2012	7.1300
pH	pH Units	MW-13B	09/26/2012	7.3200
pH	l •	MW-13B	12/03/2012	7.4200
pH	pH Units pH Units	MW-13B	03/11/2013 06/05/2013	7.4200
pH	pH Units	MW-13B	12/03/2013	7.2700
pH	pH Units	MW-13B	03/04/2014	7.4000
PH    pH	pH Units	MW-13B	06/02/2014	7.3500
pri    pH	pH Units	MW-13B	09/22/2014	7.6800
pH	pH Units	MW-13B	11/17/2014	7.0800
pH	pH Units	MW-16	03/24/2009	6.2700
pH	pH Units	MW-16	06/16/2009	6.3300
pH	pH Units	MW-16	12/03/2009	6.2700
pH	pH Units	MW-16	03/25/2010	6.2600
pH	pH Units	MW-16	06/24/2010	6.0400
pH	pH Units	MW-16	09/24/2010	5.9000
pH	pH Units	MW-16	12/09/2010	6.1700
pH	pH Units	MW-16	03/30/2011	6.3100
pH	pH Units	MW-16	06/07/2011	6.1500
pH	pH Units	MW-16	09/27/2011	6.4400
pH	pH Units	MW-16	12/13/2011	6.3000
pH	pH Units	MW-16	03/21/2012	6.3200
pH	pH Units	MW-16	06/08/2012	6.2500
pH	pH Units	MW-16	09/27/2012	6.2600
pH	pH Units	MW-16	12/04/2012	6.2200
pH	pH Units	MW-16	03/12/2013	6.3500
pH	pH Units	MW-16	06/04/2013	6.4500
pH	pH Units	MW-16	09/05/2013	6.6200
pH	pH Units	MW-16	12/16/2013	6.3200
pH	pH Units	MW-16	03/05/2014	6.5000
pH	pH Units	MW-16	06/02/2014	6.6100
pH	pH Units	MW-16	09/22/2014	6.4000
pH	pH Units	MW-16	11/18/2014	6.3800
pH	pH Units	MW-35	03/22/2005	7.0600
pH	pH Units	MW-35	06/14/2005	7.4300
pH	pH Units	MW-35	09/27/2005	7.3900
pH	pH Units	MW-35	12/15/2005	6.4100
pH	pH Units	MW-35	03/28/2006	7.1000
pH	pH Units	MW-35	06/21/2006	7.4600
i Ett.	L Pri i Orinto		00,21,2000	71000

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result
pH	pH Units	MW-35	09/26/2006		7.5000
pH	pH Units	MW-35	12/12/2006		6.9900
pH	pH Units	MW-35	03/27/2007		7.5100
pH	pH Units	MW-35	09/18/2007		6.9700
pH	pH Units	MW-35	12/20/2007		7.2500
pH	pH Units	MW-35	03/25/2008		7.4000
pH	pH Units	MW-35	06/18/2008		7.4400
pH	pH Units	MW-35	09/18/2008		7.4200
pH	pH Units	MW-35	12/19/2008		7.1900
pH	pH Units	MW-35	03/24/2009		7.2100
pH	pH Units	MW-35	06/16/2009		7.1500
pH	pH Units	MW-35	12/03/2009		7.2200
pH	pH Units	MW-35	03/25/2010		7.2400
pH	pH Units	MW-35	06/23/2010		7.3700
pH	pH Units	MW-35	09/23/2010		6.8500
pH	pH Units	MW-35	12/09/2010		7.3900
pH	pH Units	MW-35	03/30/2011		7.3700
pH	pH Units	MW-35	06/06/2011		7.2300
pH	pH Units	MW-35	09/26/2011		6.8600
pH	pH Units	MW-35	12/13/2011		7.0000
pH	pH Units	MW-35	03/21/2012		7.0200
pH	pH Units	MW-35	06/06/2012		6.9800
pH	pH Units	MW-35	09/26/2012		7.1100
pH	pH Units	MW-35	12/04/2012		7.1600
pH	pH Units	MW-35	03/13/2013		7.0600
pH	pH Units	MW-35	06/06/2013		7.3700
pH	pH Units	MW-35	09/05/2013		7.1000
pH	pH Units	MW-35	12/16/2013		7.1500
pH	pH Units	MW-35 MW-35	03/04/2014		7.5300
pH	pH Units		06/02/2014		7.1700
pH pH	pH Units pH Units	MW-35 MW-35	09/22/2014 11/17/2014		6.6200 7.4800
Potassium, dissolved	MG/L	MW-13A	03/22/2005		0.5700
Potassium, dissolved	MG/L	MW-13A	06/15/2005		0.5200
Potassium, dissolved	MG/L	MW-13A	09/27/2005		0.4800
Potassium, dissolved	MG/L	MW-13A	12/15/2005		0.5000
Potassium, dissolved	MG/L	MW-13A	03/28/2006	ND	1.0000
Potassium, dissolved	MG/L	MW-13A	06/21/2006	ND	1.0000
Potassium, dissolved	MG/L	MW-13A	09/26/2006	ND	1.0000
Potassium, dissolved	MG/L	MW-13A	12/13/2006	ND	1.0000
Potassium, dissolved	MG/L	MW-13A	03/27/2007	ND	1.0000
Potassium, dissolved	MG/L	MW-13A	06/19/2007	ND	1.0000
Potassium, dissolved	MG/L	MW-13A	09/19/2007	ND	1.0000
Potassium, dissolved	MG/L	MW-13A	12/19/2007	ND	1.0000
Potassium, dissolved	MG/L	MW-13A	03/25/2008	ND	1.0000
Potassium, dissolved	MG/L	MW-13A	06/18/2008	ND	1.0000
Potassium, dissolved	MG/L	MW-13A	09/17/2008	ND	1.0000
Potassium, dissolved	MG/L	MW-13A	12/17/2008	ND	1.0000
Potassium, dissolved	MG/L	MW-13A	03/24/2009	ND	1.0000
Potassium, dissolved	MG/L	MW-13A	06/17/2009	ND	1.0000
Potassium, dissolved	MG/L	MW-13A	09/10/2009	ND	1.0000
Potassium, dissolved	MG/L	MW-13A	12/03/2009	ND	1.0000
Potassium, dissolved	MG/L	MW-13A	03/25/2010	ND	1.0000
Potassium, dissolved	MG/L	MW-13A	06/23/2010	ND	1.0000
Potassium, dissolved	MG/L	MW-13A	09/23/2010	ND	1.0000
Potassium, dissolved	MG/L	MW-13A	12/08/2010	ND	1.0000
Potassium, dissolved	MG/L	MW-13A	03/30/2011	ND	1.0000
Potassium, dissolved	MG/L	MW-13A	06/06/2011	ND	1.0000
Potassium, dissolved	MG/L	MW-13A	09/27/2011	ND	1.0000
Potassium, dissolved	MG/L	MW-13A	12/14/2011	ND	1.0000
Potassium, dissolved	MG/L	MW-13A	03/21/2012	ND	1.0000
Potassium, dissolved	MG/L	MW-13A	06/08/2012	ND	1.0000
Potassium, dissolved	MG/L	MW-13A	09/26/2012	ND	1.0000
Potassium, dissolved	MG/L	MW-13A	12/03/2012	ND	1.0000 1.0000
Potassium, dissolved	MG/L	MW-13A	03/11/2013	ND	

Table 2-3 **Upgradient Data** 

Competitionant	Heita	\A/all	Dete	I	Daguilt	_
Constituent	Units	Well	Date		Result	
Potassium, dissolved	MG/L	MW-13A	06/05/2013	ND	1.0000	
Potassium, dissolved	MG/L	MW-13A	12/03/2013	ND	1.0000	
Potassium, dissolved	MG/L	MW-13A	03/04/2014	ND	1.0000	
Potassium, dissolved	MG/L	MW-13A	06/02/2014	ND	1.0000	
Potassium, dissolved	MG/L	MW-13A	09/22/2014	ND	1.0000	
Potassium, dissolved	MG/L	MW-13A	11/17/2014	ND	1.0000	
Potassium, dissolved	MG/L MG/L	MW-13B MW-13B	03/22/2005		0.6000	
Potassium, dissolved Potassium, dissolved	MG/L	MW-13B	06/15/2005 09/27/2005		0.5500 0.5500	
Potassium, dissolved	MG/L	MW-13B	12/15/2005		0.5200	
Potassium, dissolved	MG/L	MW-13B	03/29/2006	ND	1.0000	
Potassium, dissolved	MG/L	MW-13B	06/21/2006	ND	1.0000	
Potassium, dissolved	MG/L	MW-13B	09/26/2006	ND	1.0000	
Potassium, dissolved	MG/L	MW-13B	12/13/2006	ND	1.0000	
Potassium, dissolved	MG/L	MW-13B	03/27/2007	ND	1.0000	
Potassium, dissolved	MG/L	MW-13B	06/19/2007	ND	1.0000	
Potassium, dissolved	MG/L	MW-13B	09/18/2007	ND	1.0000	
Potassium, dissolved	MG/L	MW-13B	12/19/2007	ND	1.0000	
Potassium, dissolved	MG/L	MW-13B	03/25/2008	ND	1.0000	
Potassium, dissolved	MG/L	MW-13B	06/18/2008	ND	1.0000	
Potassium, dissolved	MG/L	MW-13B	09/17/2008	ND	1.0000	
Potassium, dissolved	MG/L	MW-13B	12/16/2008	ND	1.0000	
Potassium, dissolved	MG/L	MW-13B	03/24/2009	ND	1.0000	
Potassium, dissolved	MG/L	MW-13B	06/17/2009	ND	1.0000	
Potassium, dissolved	MG/L	MW-13B	09/10/2009	ND	1.0000	
Potassium, dissolved	MG/L	MW-13B	12/03/2009	ND	1.0000	
Potassium, dissolved	MG/L	MW-13B	03/25/2010	ND	1.0000	
Potassium, dissolved	MG/L	MW-13B	06/23/2010	ND	1.0000	
Potassium, dissolved	MG/L	MW-13B	09/23/2010	ND	1.0000	
Potassium, dissolved	MG/L	MW-13B	12/08/2010	ND	1.0000	
Potassium, dissolved	MG/L	MW-13B	03/30/2011	ND	1.0000	
Potassium, dissolved	MG/L	MW-13B	06/06/2011	ND	1.0000	
Potassium, dissolved	MG/L	MW-13B	09/27/2011	ND	1.0000	
Potassium, dissolved	MG/L	MW-13B	12/14/2011	ND	1.0000	
Potassium, dissolved	MG/L	MW-13B	03/21/2012	ND	1.0000	
Potassium, dissolved	MG/L	MW-13B	06/08/2012	ND	1.0000	
Potassium, dissolved	MG/L	MW-13B	09/26/2012	ND	1.0000	
Potassium, dissolved	MG/L	MW-13B	12/03/2012	ND	1.0000	
Potassium, dissolved	MG/L	MW-13B	03/11/2013	ND	1.0000	
Potassium, dissolved Potassium, dissolved	MG/L MG/L	MW-13B MW-13B	06/05/2013 12/03/2013	ND ND	1.0000	
Potassium, dissolved	MG/L	MW-13B	03/04/2014	ND	1.0000	
Potassium, dissolved	MG/L	MW-13B	06/02/2014	ND	1.0000 1.0000	
Potassium, dissolved	MG/L	MW-13B	09/22/2014	ND	1.0000	
Potassium, dissolved	MG/L	MW-13B	11/17/2014	ND	1.0000	
Potassium, dissolved	MG/L	MW-16	03/24/2009	ND	1.0000	
Potassium, dissolved	MG/L	MW-16	06/16/2009	ND	1.0000	
Potassium, dissolved	MG/L	MW-16	09/09/2009	ND	1.0000	
Potassium, dissolved	MG/L	MW-16	12/03/2009	ND	1.0000	
Potassium, dissolved	MG/L	MW-16	03/25/2010	ND	1.0000	
Potassium, dissolved	MG/L	MW-16	06/24/2010	ND	1.0000	
Potassium, dissolved	MG/L	MW-16	09/24/2010	ND	1.0000	
Potassium, dissolved	MG/L	MW-16	12/09/2010	ND	1.0000	
Potassium, dissolved	MG/L	MW-16	03/30/2011	ND	1.0000	
Potassium, dissolved	MG/L	MW-16	06/07/2011	ND	1.0000	
Potassium, dissolved	MG/L	MW-16	09/27/2011	ND	1.0000	
Potassium, dissolved	MG/L	MW-16	12/13/2011	ND	1.0000	
Potassium, dissolved	MG/L	MW-16	03/21/2012	ND	1.0000	
Potassium, dissolved	MG/L	MW-16	06/08/2012	ND	1.0000	
Potassium, dissolved	MG/L	MW-16	09/27/2012	ND	1.0000	
Potassium, dissolved	MG/L	MW-16	12/04/2012	ND	1.0000	
Potassium, dissolved	MG/L	MW-16	03/12/2013	ND	1.0000	
Potassium, dissolved	MG/L	MW-16	06/04/2013	ND	1.0000	
Potassium, dissolved	MG/L	MW-16	09/05/2013	ND	1.0000	
Potassium, dissolved	MG/L	MW-16	12/16/2013	ND	1.0000	

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result
Potassium, dissolved	MG/L	MW-16	03/05/2014	ND	1.0000
Potassium, dissolved	MG/L	MW-16	06/02/2014		1.2000
Potassium, dissolved	MG/L	MW-16	09/22/2014	ND	1.0000
Potassium, dissolved	MG/L	MW-16	11/18/2014	ND	1.0000
Potassium, dissolved	MG/L	MW-35	03/22/2005		0.5200
Potassium, dissolved	MG/L	MW-35	06/14/2005		0.4800
Potassium, dissolved	MG/L	MW-35	09/27/2005		0.5200
Potassium, dissolved	MG/L	MW-35	12/15/2005		0.4600
Potassium, dissolved	MG/L	MW-35	03/28/2006	ND	1.0000
Potassium, dissolved	MG/L	MW-35	06/21/2006	ND	1.0000
Potassium, dissolved	MG/L	MW-35	09/26/2006	ND	1.0000
Potassium, dissolved	MG/L	MW-35	12/12/2006	ND	1.0000
Potassium, dissolved	MG/L	MW-35	03/27/2007	ND	1.0000
Potassium, dissolved	MG/L	MW-35	06/20/2007	ND	1.0000
Potassium, dissolved	MG/L	MW-35	09/18/2007	ND	1.0000
Potassium, dissolved	MG/L	MW-35	12/20/2007	ND	1.0000
Potassium, dissolved	MG/L	MW-35	03/25/2008	ND	1.0000
Potassium, dissolved	MG/L	MW-35	06/18/2008	ND	1.0000
Potassium, dissolved	MG/L	MW-35	09/18/2008	ND	1.0000
Potassium, dissolved	MG/L	MW-35	12/19/2008	ND	1.0000
Potassium, dissolved	MG/L	MW-35	03/24/2009	ND	1.0000
Potassium, dissolved	MG/L	MW-35	06/16/2009	ND	1.0000
Potassium, dissolved	MG/L	MW-35	09/10/2009	ND	1.0000
Potassium, dissolved	MG/L	MW-35	12/03/2009	ND	1.0000
Potassium, dissolved	MG/L	MW-35	03/25/2010	ND	1.0000
Potassium, dissolved	MG/L	MW-35	06/23/2010	ND	1.0000
Potassium, dissolved	MG/L	MW-35	09/23/2010	ND	1.0000
Potassium, dissolved	MG/L	MW-35	12/09/2010	ND	1.0000
Potassium, dissolved	MG/L	MW-35	03/30/2011	ND	1.0000
Potassium, dissolved	MG/L	MW-35	06/06/2011	ND	1.0000
Potassium, dissolved	MG/L	MW-35	09/26/2011	ND	1.0000
Potassium, dissolved	MG/L	MW-35	12/13/2011	ND	1.0000
Potassium, dissolved	MG/L	MW-35	03/21/2012	ND	1.0000
Potassium, dissolved	MG/L	MW-35	06/06/2012	ND	1.0000
Potassium, dissolved	MG/L	MW-35	09/26/2012	ND	1.0000
Potassium, dissolved	MG/L	MW-35	12/04/2012	ND	1.0000
Potassium, dissolved	MG/L	MW-35	03/13/2013	ND	1.0000
Potassium, dissolved	MG/L	MW-35	06/06/2013	ND	1.0000
Potassium, dissolved	MG/L	MW-35	09/05/2013	ND	1.0000
Potassium, dissolved	MG/L	MW-35	12/16/2013	ND	1.0000
Potassium, dissolved	MG/L	MW-35	03/04/2014	ND	1.0000
Potassium, dissolved	MG/L	MW-35	06/02/2014	ND	
Potassium, dissolved	MG/L	MW-35	09/22/2014	ND	1.0000
Potassium, dissolved	MG/L	MW-35	11/17/2014	ND	1.0000 1.0000
Selenium, dissolved	MG/L	MW-13A	03/22/2005	ND	0.0010
Selenium, dissolved	MG/L	MW-13A	06/15/2005	ND	0.0010
Selenium, dissolved	MG/L	MW-13A	09/27/2005	ND	0.0010
Selenium, dissolved	MG/L	MW-13A	12/15/2005	ND	0.0010
Selenium, dissolved	MG/L	MW-13A	03/28/2006	ND	0.0010
Selenium, dissolved   Selenium, dissolved	MG/L	MW-13A	06/21/2006	ND	0.0010
Selenium, dissolved	MG/L	MW-13A		ND	0.0010
Selenium, dissolved			09/26/2006		
	MG/L MG/L	MW-13A MW-13A	12/13/2006 03/27/2007	ND	0.0010 0.0010
Selenium, dissolved		_		ND	
Selenium, dissolved	MG/L	MW-13A	06/19/2007	ND	0.0010
Selenium, dissolved	MG/L	MW-13A	09/19/2007	ND	0.0010
Selenium, dissolved	MG/L	MW-13A	12/19/2007	ND	0.0010
Selenium, dissolved	MG/L	MW-13A	03/25/2008	ND	0.0010
Selenium, dissolved	MG/L	MW-13A	06/18/2008	ND	0.0010
Selenium, dissolved	MG/L	MW-13A	09/17/2008	ND	0.0010
Selenium, dissolved	MG/L	MW-13A	12/17/2008	ND	0.0010
Selenium, dissolved	MG/L	MW-13A	03/24/2009	ND	0.0010
Selenium, dissolved	MG/L	MW-13A	06/17/2009	ND	0.0010
Selenium, dissolved	MG/L	MW-13A	09/10/2009	ND	0.0010
Selenium, dissolved	MG/L	MW-13A	12/03/2009		0.0010
Selenium, dissolved	MG/L	MW-13A	03/25/2010	ND	0.0010

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result
Selenium, dissolved	MG/L	MW-13A	06/23/2010	ND	0.0010
Selenium, dissolved	MG/L	MW-13A	09/23/2010	ND	0.0010
Selenium, dissolved	MG/L	MW-13A	12/08/2010	ND	0.0010
Selenium, dissolved	MG/L	MW-13A	03/30/2011	ND	0.0010
Selenium, dissolved	MG/L	MW-13A	06/06/2011	ND	0.0010
Selenium, dissolved	MG/L	MW-13A	09/27/2011	ND	0.0010
Selenium, dissolved	MG/L	MW-13A	12/14/2011	ND	0.0010
Selenium, dissolved	MG/L	MW-13A	03/21/2012	ND	0.0010
Selenium, dissolved	MG/L	MW-13A	06/08/2012	ND	0.0010
Selenium, dissolved	MG/L	MW-13A	09/26/2012	ND	0.0010
Selenium, dissolved	MG/L	MW-13A	12/03/2012	ND	0.0010
Selenium, dissolved	MG/L	MW-13A	03/11/2013	ND	0.0010
Selenium, dissolved	MG/L	MW-13A	06/05/2013	ND	0.0010
Selenium, dissolved	MG/L	MW-13A	12/03/2013	ND	0.0030
Selenium, dissolved	MG/L	MW-13A	03/04/2014	ND	0.0010
Selenium, dissolved	MG/L	MW-13A	06/02/2014	ND	0.0010
Selenium, dissolved	MG/L	MW-13A	09/22/2014	ND	0.0010
Selenium, dissolved	MG/L	MW-13A	11/17/2014	ND	0.0010
Selenium, dissolved	MG/L	MW-13B	03/22/2005	ND	0.0010
Selenium, dissolved	MG/L	MW-13B	06/15/2005	ND	0.0010
Selenium, dissolved	MG/L	MW-13B	09/27/2005	ND	0.0010
Selenium, dissolved	MG/L	MW-13B	12/15/2005	ND	0.0010
Selenium, dissolved	MG/L	MW-13B	03/29/2006	ND	0.0010
Selenium, dissolved	MG/L	MW-13B	06/21/2006	ND	0.0010
Selenium, dissolved	MG/L	MW-13B	09/26/2006	ND	0.0010
Selenium, dissolved	MG/L	MW-13B	12/13/2006 03/27/2007	ND	0.0010
Selenium, dissolved	MG/L	MW-13B		ND	0.0010
Selenium, dissolved	MG/L MG/L	MW-13B	06/19/2007	ND ND	0.0010
Selenium, dissolved   Selenium, dissolved	MG/L	MW-13B MW-13B	09/18/2007 12/19/2007	ND	0.0010
Selenium, dissolved	MG/L	MW-13B	03/25/2008	ND	0.0010 0.0010
Selenium, dissolved	MG/L	MW-13B	06/18/2008	ND	0.0010
Selenium, dissolved	MG/L	MW-13B	09/17/2008	ND	0.0010
Selenium, dissolved	MG/L	MW-13B	12/16/2008	ND	0.0010
Selenium, dissolved	MG/L	MW-13B	03/24/2009	ND	0.0010
Selenium, dissolved	MG/L	MW-13B	06/17/2009	ND	0.0010
Selenium, dissolved	MG/L	MW-13B	09/10/2009	ND	0.0010
Selenium, dissolved	MG/L	MW-13B	12/03/2009	ND	0.0010
Selenium, dissolved	MG/L	MW-13B	03/25/2010	ND	0.0010
Selenium, dissolved	MG/L	MW-13B	06/23/2010	ND	0.0010
Selenium, dissolved	MG/L	MW-13B	09/23/2010	ND	0.0010
Selenium, dissolved	MG/L	MW-13B	12/08/2010	ND	0.0010
Selenium, dissolved	MG/L	MW-13B	03/30/2011	ND	0.0010
Selenium, dissolved	MG/L	MW-13B	06/06/2011	ND	0.0010
Selenium, dissolved	MG/L	MW-13B	09/27/2011	ND	0.0010
Selenium, dissolved	MG/L	MW-13B	12/14/2011	ND	0.0010
Selenium, dissolved	MG/L	MW-13B	03/21/2012	ND	0.0010
Selenium, dissolved	MG/L	MW-13B	06/08/2012	ND	0.0010
Selenium, dissolved	MG/L	MW-13B	09/26/2012	ND	0.0010
Selenium, dissolved	MG/L	MW-13B	12/03/2012	ND	0.0010
Selenium, dissolved	MG/L	MW-13B	03/11/2013	ND	0.0010
Selenium, dissolved	MG/L	MW-13B	06/05/2013	ND	0.0010
Selenium, dissolved	MG/L	MW-13B	12/03/2013		0.0033
Selenium, dissolved	MG/L	MW-13B	03/04/2014	ND	0.0010
Selenium, dissolved	MG/L	MW-13B	06/02/2014	ND	0.0010
Selenium, dissolved	MG/L	MW-13B	09/22/2014	ND	0.0010
Selenium, dissolved	MG/L	MW-13B	11/17/2014	ND	0.0010
Selenium, dissolved	MG/L	MW-16	03/24/2009	ND	0.0010
Selenium, dissolved	MG/L	MW-16	06/16/2009	ND	0.0010
Selenium, dissolved	MG/L	MW-16	09/09/2009	ND	0.0010
Selenium, dissolved	MG/L	MW-16	12/03/2009		0.0011
Selenium, dissolved	MG/L	MW-16	03/25/2010	ND	0.0010
Selenium, dissolved	MG/L	MW-16	06/24/2010	ND	0.0010
Selenium, dissolved	MG/L	MW-16	09/24/2010	ND	0.0010
Selenium, dissolved	MG/L	MW-16	12/09/2010	ND	0.0010

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result
Selenium, dissolved	MG/L	MW-16	03/30/2011	ND	0.0010
Selenium, dissolved	MG/L	MW-16	06/07/2011	ND	0.0010
Selenium, dissolved	MG/L	MW-16	09/27/2011	ND	0.0010
Selenium, dissolved	MG/L	MW-16	12/13/2011	ND	0.0010
Selenium, dissolved	MG/L	MW-16	03/21/2012	ND	0.0010
Selenium, dissolved	MG/L	MW-16	06/08/2012	ND	0.0010
Selenium, dissolved	MG/L	MW-16	09/27/2012	ND	0.0010
Selenium, dissolved	MG/L	MW-16	12/04/2012	ND	0.0010
Selenium, dissolved	MG/L	MW-16	03/12/2013	ND	0.0010
Selenium, dissolved	MG/L	MW-16	06/04/2013	ND	0.0010
Selenium, dissolved	MG/L	MW-16	09/05/2013	ND	0.0010
Selenium, dissolved	MG/L	MW-16	12/16/2013	ND	0.0010
Selenium, dissolved	MG/L	MW-16	03/05/2014	ND	0.0010
Selenium, dissolved	MG/L	MW-16	06/02/2014	ND	0.0010
Selenium, dissolved	MG/L	MW-16	09/22/2014	ND	0.0010
Selenium, dissolved	MG/L	MW-16	11/18/2014	ND	0.0010
Selenium, dissolved	MG/L	MW-35	03/22/2005	ND	0.0010
Selenium, dissolved	MG/L	MW-35	06/14/2005	ND	0.0010
Selenium, dissolved	MG/L	MW-35	09/27/2005	ND	0.0010
Selenium, dissolved	MG/L	MW-35	12/15/2005	ND	0.0010
Selenium, dissolved	MG/L	MW-35	03/28/2006	ND	0.0010
Selenium, dissolved	MG/L	MW-35	06/21/2006	ND	0.0010
Selenium, dissolved	MG/L	MW-35	09/26/2006	ND	0.0010
Selenium, dissolved	MG/L	MW-35	12/12/2006	ND	0.0010
Selenium, dissolved	MG/L	MW-35	03/27/2007	ND	0.0010
Selenium, dissolved	MG/L	MW-35	06/20/2007	ND	0.0010
Selenium, dissolved	MG/L	MW-35	09/18/2007	ND	0.0010
Selenium, dissolved	MG/L	MW-35	12/20/2007	ND	0.0010
Selenium, dissolved	MG/L	MW-35	03/25/2008	ND	0.0010
Selenium, dissolved	MG/L	MW-35	06/18/2008	ND	0.0010
Selenium, dissolved	MG/L	MW-35	09/18/2008	ND	0.0010
Selenium, dissolved	MG/L	MW-35	12/19/2008	ND	0.0010
Selenium, dissolved	MG/L	MW-35	03/24/2009	ND	0.0010
Selenium, dissolved	MG/L	MW-35	06/16/2009	ND	0.0010
Selenium, dissolved	MG/L	MW-35	09/10/2009	ND	0.0010
Selenium, dissolved	MG/L	MW-35	12/03/2009	ND	0.0010
Selenium, dissolved	MG/L	MW-35	03/25/2010	ND	0.0010
Selenium, dissolved	MG/L	MW-35	06/23/2010	ND	0.0010
Selenium, dissolved	MG/L	MW-35	09/23/2010	ND	0.0010
Selenium, dissolved	MG/L	MW-35	12/09/2010	ND	0.0010
Selenium, dissolved	MG/L	MW-35	03/30/2011	ND	0.0010
Selenium, dissolved	MG/L	MW-35	06/06/2011	ND	0.0010
Selenium, dissolved	MG/L	MW-35	09/26/2011	ND	0.0010
Selenium, dissolved	MG/L	MW-35	12/13/2011	ND	0.0050
Selenium, dissolved	MG/L	MW-35	03/21/2012	ND	0.0010
Selenium, dissolved	MG/L	MW-35	06/06/2012	ND	0.0010
Selenium, dissolved	MG/L	MW-35	09/26/2012	ND	0.0010
Selenium, dissolved	MG/L	MW-35	12/04/2012	ND	0.0010
Selenium, dissolved	MG/L	MW-35	03/13/2013	ND	0.0010
Selenium, dissolved	MG/L	MW-35	06/06/2013	ND	0.0010
Selenium, dissolved	MG/L	MW-35	09/05/2013	ND	0.0010
Selenium, dissolved	MG/L	MW-35	12/16/2013	ND	0.0010
Selenium, dissolved	MG/L	MW-35	03/04/2014	ND	0.0010
Selenium, dissolved	MG/L	MW-35	06/02/2014	ND	0.0010
Selenium, dissolved	MG/L	MW-35	09/22/2014	ND	0.0010
Selenium, dissolved	MG/L	MW-35	11/17/2014	ND	0.0010
Silver, dissolved	MG/L	MW-13A	03/22/2005	ND	0.0020
Silver, dissolved	MG/L	MW-13A	06/15/2005	ND	0.0020
Silver, dissolved	MG/L	MW-13A	09/27/2005	ND	0.0020
Silver, dissolved	MG/L	MW-13A	12/15/2005	ND	0.0020
Silver, dissolved	MG/L	MW-13A	03/28/2006	ND	0.0020
Silver, dissolved	MG/L	MW-13A	06/21/2006	ND	0.0020
Silver, dissolved	MG/L	MW-13A	09/26/2006	ND	0.0020
Silver, dissolved	MG/L	MW-13A	12/13/2006	ND	0.0020
,, C CI, GIOCOTT CG					

<sup>\* -</sup> Outlier for that well and constituent. ND = Not detected, result = detection limit.

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result
Silver, dissolved	MG/L	MW-13A	06/19/2007	ND	0.0020
Silver, dissolved	MG/L	MW-13A	09/19/2007	ND	0.0020
Silver, dissolved	MG/L	MW-13A	12/19/2007	ND	0.0020
Silver, dissolved	MG/L	MW-13A	03/25/2008	ND	0.0020
Silver, dissolved	MG/L	MW-13A	06/18/2008	ND	0.0020
Silver, dissolved	MG/L	MW-13A	09/17/2008	ND	0.0020
Silver, dissolved	MG/L	MW-13A	12/17/2008	ND	0.0020
Silver, dissolved	MG/L	MW-13A	03/24/2009	ND	0.0020
Silver, dissolved	MG/L	MW-13A	06/17/2009	ND	0.0020
Silver, dissolved	MG/L	MW-13A	09/10/2009	ND	0.0020
Silver, dissolved	MG/L	MW-13A	12/03/2009	ND	0.0020
Silver, dissolved	MG/L	MW-13A	03/25/2010	ND	0.0020
Silver, dissolved	MG/L	MW-13A	06/23/2010	ND	0.0020
Silver, dissolved	MG/L	MW-13A	09/23/2010	ND	0.0020
Silver, dissolved	MG/L	MW-13A	12/08/2010	ND	0.0020
Silver, dissolved	MG/L	MW-13A	03/30/2011	ND	0.0020
Silver, dissolved	MG/L	MW-13A	06/06/2011	ND	0.0020
Silver, dissolved	MG/L	MW-13A	09/27/2011	ND	0.0020
Silver, dissolved Silver, dissolved	MG/L MG/L	MW-13A MW-13A	12/14/2011 03/21/2012	ND ND	0.0020 0.0020
Silver, dissolved	MG/L	MW-13A	06/08/2012	ND	0.0020
Silver, dissolved   Silver, dissolved	MG/L	MW-13A	09/26/2012	ND	0.0020
Silver, dissolved	MG/L	MW-13A	12/03/2012	ND	0.0020
Silver, dissolved	MG/L	MW-13A	03/11/2013	ND	0.0020
Silver, dissolved	MG/L	MW-13A	06/05/2013	ND	0.0020
Silver, dissolved	MG/L	MW-13A	12/03/2013	ND	0.0020
Silver, dissolved	MG/L	MW-13A	03/04/2014	ND	0.0020
Silver, dissolved	MG/L	MW-13A	06/02/2014	ND	0.0020
Silver, dissolved	MG/L	MW-13A	09/22/2014	ND	0.0020
Silver, dissolved	MG/L	MW-13A	11/17/2014	ND	0.0020
Silver, dissolved	MG/L	MW-13B	03/22/2005	ND	0.0020
Silver, dissolved	MG/L	MW-13B	06/15/2005	ND	0.0020
Silver, dissolved	MG/L	MW-13B	09/27/2005	ND	0.0020
Silver, dissolved	MG/L	MW-13B	12/15/2005	ND	0.0020
Silver, dissolved	MG/L	MW-13B	03/29/2006	ND	0.0020
Silver, dissolved	MG/L	MW-13B	06/21/2006	ND	0.0020
Silver, dissolved	MG/L	MW-13B	09/26/2006	ND	0.0020
Silver, dissolved	MG/L	MW-13B	12/13/2006	ND	0.0020
Silver, dissolved	MG/L	MW-13B	03/27/2007	ND	0.0020
Silver, dissolved	MG/L	MW-13B	06/19/2007	ND	0.0020
Silver, dissolved	MG/L	MW-13B	09/18/2007	ND	0.0020
Silver, dissolved	MG/L	MW-13B	12/19/2007	ND	0.0020
Silver, dissolved	MG/L	MW-13B	03/25/2008	ND	0.0020
Silver, dissolved	MG/L	MW-13B	06/18/2008	ND	0.0020
Silver, dissolved	MG/L	MW-13B	09/17/2008	ND	0.0020
Silver, dissolved	MG/L	MW-13B	12/16/2008	ND	0.0020
Silver, dissolved	MG/L	MW-13B	03/24/2009	ND	0.0020
Silver, dissolved	MG/L	MW-13B	06/17/2009	ND	0.0020
Silver, dissolved	MG/L	MW-13B	09/10/2009	ND	0.0020
Silver, dissolved	MG/L	MW-13B	12/03/2009	ND	0.0020
Silver, dissolved	MG/L	MW-13B	03/25/2010	ND	0.0020
Silver, dissolved	MG/L	MW-13B	06/23/2010	ND	0.0020
Silver, dissolved	MG/L	MW-13B	09/23/2010 12/08/2010	ND	0.0020
Silver, dissolved Silver, dissolved	MG/L MG/L	MW-13B MW-13B	03/30/2010	ND ND	0.0020 0.0020
Silver, dissolved   Silver, dissolved	MG/L MG/L	MW-13B	06/06/2011	ND	0.0020
Silver, dissolved	MG/L	MW-13B	09/27/2011	ND	0.0020
Silver, dissolved   Silver, dissolved	MG/L	MW-13B	12/14/2011	ND	0.0020
Silver, dissolved   Silver, dissolved	MG/L	MW-13B	03/21/2012	ND	0.0020
Silver, dissolved	MG/L	MW-13B	06/08/2012	ND	0.0020
Silver, dissolved	MG/L	MW-13B	09/26/2012	ND	0.0020
Silver, dissolved	MG/L	MW-13B	12/03/2012	ND	0.0020
Silver, dissolved	MG/L	MW-13B	03/11/2013	ND	0.0020
Silver, dissolved	MG/L	MW-13B	06/05/2013	ND	0.0020
Silver, dissolved	MG/L	MW-13B	12/03/2013	ND	0.0020
	1.710/2	1	12,00/2010	. 10	0.0020

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result
Silver, dissolved	MG/L	MW-13B	03/04/2014	ND	0.0020
Silver, dissolved	MG/L	MW-13B	06/02/2014	ND	0.0020
Silver, dissolved	MG/L	MW-13B	09/22/2014	ND	0.0020
Silver, dissolved	MG/L	MW-13B	11/17/2014	ND	0.0020
Silver, dissolved	MG/L	MW-16	03/24/2009	ND	0.0020
Silver, dissolved	MG/L	MW-16	06/16/2009	ND	0.0020
Silver, dissolved	MG/L	MW-16	09/09/2009	ND	0.0020
Silver, dissolved	MG/L	MW-16	12/03/2009	ND	0.0020
Silver, dissolved	MG/L	MW-16	03/25/2010	ND	0.0020
Silver, dissolved	MG/L	MW-16	06/24/2010	ND	0.0020
Silver, dissolved	MG/L	MW-16	09/24/2010	ND	0.0020
Silver, dissolved	MG/L	MW-16	12/09/2010	ND	0.0020
Silver, dissolved	MG/L	MW-16	03/30/2011	ND	0.0020
Silver, dissolved	MG/L	MW-16	06/07/2011	ND	0.0020
Silver, dissolved	MG/L	MW-16	09/27/2011	ND	0.0020
Silver, dissolved	MG/L	MW-16	12/13/2011	ND	0.0020
Silver, dissolved	MG/L	MW-16	03/21/2012	ND	0.0020
Silver, dissolved	MG/L	MW-16 MW-16	06/08/2012	ND	0.0020
Silver, dissolved	MG/L	-	09/27/2012	ND	0.0020
Silver, dissolved Silver, dissolved	MG/L MG/L	MW-16 MW-16	12/04/2012 03/12/2013	ND ND	0.0020 0.0020
Silver, dissolved	MG/L	MW-16	06/04/2013	ND	0.0020
Silver, dissolved	MG/L	MW-16	09/05/2013	ND	0.0020
Silver, dissolved	MG/L	MW-16	12/16/2013	ND	0.0020
Silver, dissolved	MG/L	MW-16	03/05/2014	ND	0.0020
Silver, dissolved	MG/L	MW-16	06/02/2014	ND	0.0020
Silver, dissolved	MG/L	MW-16	09/22/2014	ND	0.0020
Silver, dissolved	MG/L	MW-16	11/18/2014	ND	0.0020
Silver, dissolved	MG/L	MW-35	03/22/2005	ND	0.0020
Silver, dissolved	MG/L	MW-35	06/14/2005	ND	0.0020
Silver, dissolved	MG/L	MW-35	09/27/2005	ND	0.0020
Silver, dissolved	MG/L	MW-35	12/15/2005	ND	0.0020
Silver, dissolved	MG/L	MW-35	03/28/2006	ND	0.0020
Silver, dissolved	MG/L	MW-35	06/21/2006	ND	0.0020
Silver, dissolved	MG/L	MW-35	09/26/2006	ND	0.0020
Silver, dissolved	MG/L	MW-35	12/12/2006	ND	0.0020
Silver, dissolved	MG/L	MW-35	03/27/2007	ND	0.0020
Silver, dissolved	MG/L	MW-35	06/20/2007	ND	0.0020
Silver, dissolved	MG/L	MW-35	09/18/2007	ND	0.0020
Silver, dissolved	MG/L	MW-35	12/20/2007	ND	0.0020
Silver, dissolved	MG/L	MW-35	03/25/2008	ND	0.0020
Silver, dissolved	MG/L	MW-35	06/18/2008	ND	0.0020
Silver, dissolved	MG/L	MW-35	09/18/2008	ND	0.0020
Silver, dissolved	MG/L	MW-35	12/19/2008	ND	0.0020
Silver, dissolved	MG/L	MW-35	03/24/2009	ND	0.0020
Silver, dissolved	MG/L	MW-35	06/16/2009	ND	0.0020
Silver, dissolved	MG/L	MW-35	09/10/2009	ND	0.0020
Silver, dissolved	MG/L	MW-35	12/03/2009	ND	0.0020
Silver, dissolved	MG/L	MW-35	03/25/2010	ND	0.0020
Silver, dissolved	MG/L	MW-35	06/23/2010	ND	0.0020
Silver, dissolved	MG/L	MW-35	09/23/2010	ND	0.0020
Silver, dissolved	MG/L	MW-35	12/09/2010	ND	0.0020
Silver, dissolved Silver, dissolved	MG/L MG/L	MW-35	03/30/2011	ND	0.0020
Silver, dissolved   Silver, dissolved	MG/L MG/L	MW-35 MW-35	06/06/2011 09/26/2011	ND ND	0.0020 0.0020
Silver, dissolved	MG/L MG/L	MW-35	12/13/2011	ND	0.0020
Silver, dissolved   Silver, dissolved	MG/L	MW-35	03/21/2012	ND	0.0100
Silver, dissolved	MG/L	MW-35	06/06/2012	ND	0.0020
Silver, dissolved	MG/L	MW-35	09/26/2012	ND	0.0020
Silver, dissolved	MG/L	MW-35	12/04/2012	ND	0.0020
Silver, dissolved	MG/L	MW-35	03/13/2013	ND	0.0020
Silver, dissolved	MG/L	MW-35	06/06/2013	ND	0.0020
Silver, dissolved	MG/L	MW-35	09/05/2013	ND	0.0020
Silver, dissolved	MG/L	MW-35	12/16/2013	ND	0.0020
Silver, dissolved	MG/L	MW-35	03/04/2014	ND	0.0020
	1	50	35,5 ./ 2017	. 10	3.3020

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result
Silver, dissolved	MG/L	MW-35	06/02/2014	ND	0.0020
Silver, dissolved	MG/L	MW-35	09/22/2014	ND	0.0020
Silver, dissolved	MG/L	MW-35	11/17/2014	ND	0.0020
Sodium, dissolved	MG/L	MW-13A	03/22/2005		5.4000
Sodium, dissolved	MG/L	MW-13A	06/15/2005		4.4000
Sodium, dissolved	MG/L	MW-13A	09/27/2005		4.5000
Sodium, dissolved	MG/L	MW-13A	12/15/2005		4.8000
Sodium, dissolved	MG/L	MW-13A	03/28/2006		5.4000
Sodium, dissolved	MG/L	MW-13A	06/21/2006		5.2000
Sodium, dissolved	MG/L	MW-13A	09/26/2006		5.5000
Sodium, dissolved	MG/L	MW-13A	12/13/2006		4.8000
Sodium, dissolved	MG/L	MW-13A	03/27/2007		5.4000
Sodium, dissolved	MG/L	MW-13A	06/19/2007		5.5000
Sodium, dissolved	MG/L	MW-13A	09/19/2007		5.4000
Sodium, dissolved	MG/L	MW-13A	12/19/2007		4.9000
Sodium, dissolved	MG/L	MW-13A	03/25/2008 06/18/2008		5.5000
Sodium, dissolved	MG/L	MW-13A			5.5000
Sodium, dissolved	MG/L MG/L	MW-13A	09/17/2008		5.2000
Sodium, dissolved Sodium, dissolved	MG/L	MW-13A MW-13A	12/17/2008 03/24/2009		5.5000 5.3000
Sodium, dissolved	MG/L	MW-13A	06/17/2009		
Sodium, dissolved	MG/L	MW-13A	09/10/2009		5.4000 5.2000
Sodium, dissolved	MG/L	MW-13A	12/03/2009		5.6000
Sodium, dissolved	MG/L	MW-13A	03/25/2010		6.1000
Sodium, dissolved	MG/L	MW-13A	06/23/2010		5.7000
Sodium, dissolved	MG/L	MW-13A	09/23/2010		5.0000
Sodium, dissolved	MG/L	MW-13A	12/08/2010		5.2000
Sodium, dissolved	MG/L	MW-13A	03/30/2011		5.4000
Sodium, dissolved	MG/L	MW-13A	06/06/2011		5.4000
Sodium, dissolved	MG/L	MW-13A	09/27/2011		5.6000
Sodium, dissolved	MG/L	MW-13A	12/14/2011		5.5000
Sodium, dissolved	MG/L	MW-13A	03/21/2012		5.3000
Sodium, dissolved	MG/L	MW-13A	06/08/2012		5.2000
Sodium, dissolved	MG/L	MW-13A	09/26/2012		5.2000
Sodium, dissolved	MG/L	MW-13A	12/03/2012		5.5000
Sodium, dissolved	MG/L	MW-13A	03/11/2013		5.7000
Sodium, dissolved	MG/L	MW-13A	06/05/2013		5.6000
Sodium, dissolved	MG/L	MW-13A	12/03/2013		5.5000
Sodium, dissolved	MG/L	MW-13A	03/04/2014		5.4000
Sodium, dissolved	MG/L	MW-13A	06/02/2014		5.2000
Sodium, dissolved	MG/L	MW-13A	09/22/2014		5.2000
Sodium, dissolved	MG/L	MW-13A	11/17/2014		5.4000
Sodium, dissolved	MG/L	MW-13B	03/22/2005		5.3000
Sodium, dissolved	MG/L	MW-13B	06/15/2005		4.8000
Sodium, dissolved	MG/L	MW-13B	09/27/2005		5.0000
Sodium, dissolved	MG/L	MW-13B	12/15/2005		4.8000
Sodium, dissolved	MG/L	MW-13B	03/29/2006		4.9000
Sodium, dissolved	MG/L	MW-13B	06/21/2006		5.0000
Sodium, dissolved	MG/L	MW-13B	09/26/2006		5.5000
Sodium, dissolved	MG/L	MW-13B	12/13/2006		4.8000
Sodium, dissolved	MG/L	MW-13B	03/27/2007		5.2000
Sodium, dissolved	MG/L	MW-13B	06/19/2007		5.2000
Sodium, dissolved	MG/L	MW-13B	09/18/2007		5.2000
Sodium, dissolved	MG/L MG/L	MW-13B	12/19/2007		4.9000
Sodium, dissolved	MG/L MG/L	MW-13B MW-13B	03/25/2008 06/18/2008		5.3000 5.3000
Sodium, dissolved Sodium, dissolved	MG/L MG/L	MW-13B	09/17/2008		5.0000
Sodium, dissolved	MG/L	MW-13B	12/16/2008		5.1000
Sodium, dissolved	MG/L	MW-13B	03/24/2009		5.1000
Sodium, dissolved	MG/L	MW-13B	06/17/2009		5.3000
Sodium, dissolved	MG/L	MW-13B	09/10/2009		5.1000
Sodium, dissolved	MG/L	MW-13B	12/03/2009		5.3000
Sodium, dissolved	MG/L	MW-13B	03/25/2010		5.3000
Sodium, dissolved	MG/L	MW-13B	06/23/2010		5.3000
Sodium, dissolved	MG/L	MW-13B	09/23/2010		4.8000
Codiditi, diocotrod	v.o/L	10100	30/20/2010		7.0000

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date	Result
Sodium, dissolved	MG/L	MW-13B	12/08/2010	5.6000
Sodium, dissolved	MG/L	MW-13B	03/30/2011	5.1000
Sodium, dissolved	MG/L	MW-13B	06/06/2011	5.2000
Sodium, dissolved	MG/L	MW-13B	09/27/2011	5.2000
Sodium, dissolved	MG/L	MW-13B	12/14/2011	5.1000
Sodium, dissolved	MG/L	MW-13B	03/21/2012	4.9000
Sodium, dissolved	MG/L	MW-13B	06/08/2012	5.1000
Sodium, dissolved	MG/L	MW-13B	09/26/2012	5.0000
Sodium, dissolved	MG/L	MW-13B	12/03/2012	5.7000
Sodium, dissolved	MG/L	MW-13B	03/11/2013	5.3000
Sodium, dissolved	MG/L	MW-13B	06/05/2013	5.4000
Sodium, dissolved	MG/L	MW-13B	12/03/2013	5.4000
Sodium, dissolved	MG/L	MW-13B	03/04/2014	5.1000
Sodium, dissolved	MG/L	MW-13B	06/02/2014	4.9000
Sodium, dissolved	MG/L	MW-13B	09/22/2014	5.0000
Sodium, dissolved	MG/L	MW-13B	11/17/2014	5.3000
Sodium, dissolved	MG/L	MW-16	03/24/2009	5.4000
Sodium, dissolved	MG/L	MW-16	06/16/2009	5.3000
Sodium, dissolved	MG/L	MW-16	09/09/2009	5.4000
Sodium, dissolved	MG/L	MW-16	12/03/2009	6.2000
Sodium, dissolved	MG/L	MW-16	03/25/2010	4.9000
Sodium, dissolved	MG/L	MW-16	06/24/2010	5.7000
Sodium, dissolved	MG/L	MW-16	09/24/2010	5.7000
Sodium, dissolved	MG/L	MW-16	12/09/2010	5.2000
Sodium, dissolved	MG/L	MW-16	03/30/2011	4.7000
Sodium, dissolved	MG/L	MW-16	06/07/2011	5.0000
Sodium, dissolved	MG/L	MW-16	09/27/2011	5.8000
Sodium, dissolved	MG/L	MW-16	12/13/2011	5.3000
Sodium, dissolved	MG/L	MW-16	03/21/2012	4.7000
Sodium, dissolved	MG/L	MW-16	06/08/2012	4.8000
Sodium, dissolved	MG/L	MW-16	09/27/2012	5.4000
Sodium, dissolved	MG/L	MW-16	12/04/2012	4.7000
Sodium, dissolved	MG/L	MW-16	03/12/2013	5.1000
Sodium, dissolved	MG/L	MW-16	06/04/2013	5.3000
Sodium, dissolved	MG/L	MW-16	09/05/2013	6.2000
Sodium, dissolved	MG/L	MW-16	12/16/2013	5.7000
Sodium, dissolved	MG/L	MW-16	03/05/2014	4.9000
Sodium, dissolved	MG/L	MW-16	06/02/2014	4.5000
Sodium, dissolved	MG/L	MW-16	09/22/2014	4.9000
Sodium, dissolved	MG/L	MW-16	11/18/2014	4.8000
Sodium, dissolved	MG/L	MW-35	03/22/2005	5.1000
Sodium, dissolved	MG/L	MW-35	06/14/2005	4.5000
Sodium, dissolved	MG/L	MW-35	09/27/2005	5.1000
Sodium, dissolved	MG/L	MW-35	12/15/2005	4.6000
Sodium, dissolved	MG/L	MW-35	03/28/2006	5.0000
Sodium, dissolved	MG/L	MW-35	06/21/2006	4.9000
Sodium, dissolved	MG/L	MW-35	09/26/2006	5.1000
Sodium, dissolved	MG/L	MW-35	12/12/2006	4.7000
Sodium, dissolved	MG/L	MW-35	03/27/2007	5.1000
Sodium, dissolved	MG/L	MW-35	06/20/2007	5.2000
Sodium, dissolved	MG/L	MW-35	09/18/2007	5.2000
Sodium, dissolved	MG/L	MW-35	12/20/2007	4.8000
Sodium, dissolved	MG/L	MW-35	03/25/2008	5.1000
Sodium, dissolved	MG/L	MW-35	06/18/2008	4.9000
Sodium, dissolved	MG/L	MW-35	09/18/2008	4.8000
Sodium, dissolved	MG/L	MW-35	12/19/2008	4.7000
Sodium, dissolved	MG/L	MW-35	03/24/2009	5.0000
Sodium, dissolved	MG/L	MW-35	06/16/2009	5.1000
Sodium, dissolved	MG/L	MW-35	09/10/2009	4.9000
Sodium, dissolved	MG/L	MW-35	12/03/2009	5.3000
Sodium, dissolved	MG/L	MW-35	03/25/2010	5.0000
Sodium, dissolved	MG/L	MW-35	06/23/2010	5.1000
Sodium, dissolved	MG/L	MW-35	09/23/2010	4.7000
Sodium, dissolved	MG/L	MW-35	12/09/2010	4.8000
Sodium, dissolved	MG/L	MW-35	03/30/2011	4.9000

Table 2-3 **Upgradient Data** 

Sodium, dissolved	
Sodium, dissolved   MG/L   MW-35   12/13/2011   5.00	
Sodium, dissolved   MG/L   MW-35   12/13/2011   5.00	00
Sodium, dissolved   MG/L   MW-35   09/26/2012   4.90	
Sodium, dissolved   MG/L   MW-35   12/04/2012   4.90	00
Sodium, dissolved   MG/L   MW-35   03/13/2013   4,900   Sodium, dissolved   MG/L   MW-35   06/06/2013   4,900   Sodium, dissolved   MG/L   MW-35   06/06/2013   4,900   Sodium, dissolved   MG/L   MW-35   03/04/2014   5,900   Sodium, dissolved   MG/L   MW-35   03/04/2014   5,900   Sodium, dissolved   MG/L   MW-35   03/04/2014   5,100   Sodium, dissolved   MG/L   MW-35   03/04/2014   4,900   Sodium, dissolved   MG/L   MW-35   03/04/2014   4,900   Sodium, dissolved   MG/L   MW-35   03/02/2014   4,900   Sodium, dissolved   MG/L   MW-35   03/22/2014   5,100   Sodium, dissolved   MG/L   MW-35   03/22/2014   5,100   Sodium, dissolved   MG/L   MW-35   03/22/2015   0,161   Specific conductivity   mS/cm   MW-13A   03/22/2005   0,161   Specific conductivity   mS/cm   MW-13A   06/15/2005   0,161   Specific conductivity   mS/cm   MW-13A   03/27/2005   0,161   Specific conductivity   mS/cm   MW-13A   03/27/2005   0,161   Specific conductivity   mS/cm   MW-13A   03/28/2006   0,151   Specific conductivity   mS/cm   MW-13A   03/28/2006   0,151   Specific conductivity   mS/cm   MW-13A   03/27/2007   0,161   Specific conductivity   mS/cm   MW-13A   03/25/2008   0,170   Specific conductivity   mS/cm   MW-13A   03/25/2008   0,161   Specific conductivity   mS/cm   MW-13A   03/25/2008   0,161   Specific conductivity   mS/cm   MW-13A   03/25/2008   0,161   Specific conductivity   mS/cm   MW-13A   06/17/2008   0,161   Specific conductivity   mS/cm   MW-13A   06/17/2008   0,161   Specific conductivity   mS/cm   MW-13A   06/23/2010   0,170   Specific	00
Sodium, dissolved   MG/L   MW-35   03/13/2013   4,900   Sodium, dissolved   MG/L   MW-35   06/06/2013   4,900   Sodium, dissolved   MG/L   MW-35   06/06/2013   4,900   Sodium, dissolved   MG/L   MW-35   03/04/2014   5,900   Sodium, dissolved   MG/L   MW-35   03/04/2014   5,900   Sodium, dissolved   MG/L   MW-35   03/04/2014   5,100   Sodium, dissolved   MG/L   MW-35   03/04/2014   4,900   Sodium, dissolved   MG/L   MW-35   03/04/2014   4,900   Sodium, dissolved   MG/L   MW-35   03/02/2014   4,900   Sodium, dissolved   MG/L   MW-35   03/22/2014   5,100   Sodium, dissolved   MG/L   MW-35   03/22/2014   5,100   Sodium, dissolved   MG/L   MW-35   03/22/2015   0,161   Specific conductivity   mS/cm   MW-13A   03/22/2005   0,161   Specific conductivity   mS/cm   MW-13A   06/15/2005   0,161   Specific conductivity   mS/cm   MW-13A   03/27/2005   0,161   Specific conductivity   mS/cm   MW-13A   03/27/2005   0,161   Specific conductivity   mS/cm   MW-13A   03/28/2006   0,151   Specific conductivity   mS/cm   MW-13A   03/28/2006   0,151   Specific conductivity   mS/cm   MW-13A   03/27/2007   0,161   Specific conductivity   mS/cm   MW-13A   03/25/2008   0,170   Specific conductivity   mS/cm   MW-13A   03/25/2008   0,161   Specific conductivity   mS/cm   MW-13A   03/25/2008   0,161   Specific conductivity   mS/cm   MW-13A   03/25/2008   0,161   Specific conductivity   mS/cm   MW-13A   06/17/2008   0,161   Specific conductivity   mS/cm   MW-13A   06/17/2008   0,161   Specific conductivity   mS/cm   MW-13A   06/23/2010   0,170   Specific	00
Sodium, dissolved   MG/L   MW-35   03/13/2013   4.90	00
Sodium, dissolved	
Sodium, dissolved   MG/L   MW-35   11/17/2014   5.200   Specific conductivity   mS/cm   MW-13A   03/22/2005   0.15i   Specific conductivity   mS/cm   MW-13A   09/27/2005   0.16i   Specific conductivity   mS/cm   MW-13A   09/27/2005   0.15i   Specific conductivity   mS/cm   MW-13A   09/27/2005   0.15i   Specific conductivity   mS/cm   MW-13A   09/27/2006   0.15i   Specific conductivity   mS/cm   MW-13A   03/28/2006   0.15i   Specific conductivity   mS/cm   MW-13A   06/21/2006   0.15i   Specific conductivity   mS/cm   MW-13A   06/21/2006   0.17i   Specific conductivity   mS/cm   MW-13A   06/21/2006   0.17i   Specific conductivity   mS/cm   MW-13A   09/26/2006   0.17i   Specific conductivity   mS/cm   MW-13A   03/27/2007   0.16i   Specific conductivity   mS/cm   MW-13A   03/27/2007   0.16i   Specific conductivity   mS/cm   MW-13A   03/27/2007   0.16i   Specific conductivity   mS/cm   MW-13A   03/25/2008   0.16i   Specific conductivity   mS/cm   MW-13A   03/25/2008   0.16i   Specific conductivity   mS/cm   MW-13A   03/25/2008   0.16i   Specific conductivity   mS/cm   MW-13A   06/18/2008   0.17i   Specific conductivity   mS/cm   MW-13A   09/17/2008   0.16i   Specific conductivity   mS/cm   MW-13A   03/24/2009   0.16i   Specific conductivity   mS/cm   MW-13A   03/24/2009   0.17i   Specific conductivity   mS/cm   MW-13A   03/25/2010   0.17i   Specific conductivity   mS/cm   MW-13A   09/23/2010   0.17i   Specific conductivity   mS/cm   MW-13A   09/23/2010   0.17i   Specific conductivity   mS/cm   MW-13A   09/23/2010   0.17i   Specific conductivity   mS/cm   MW-13A   09/27/2011   0.15i   Specific conductivity   mS/cm   MW-13A   09/27/2011   0.15i   Specific conductivity   mS/cm   MW-13A   09/27/2011   0.15i   Specific conductivity   mS/cm   MW-13A   06/08/2012   0.17i   Specific conductivity   mS/cm   MW-13A   06/08/2012   0.17i   Specific conductivity   mS/cm   MW-13A   06/08/2012   0.17i   Specific conductivity   mS/cm   MW-13A   06/08/2012   0.15i   Specific conductivity   mS/cm   MW-13A   06/08/2012   0.15i   Spec	
Specific conductivity	
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Specific conductivity	
Specific conductivity         mS/cm         MW-13A         06/17/2009         0.17/2009           Specific conductivity         mS/cm         MW-13A         12/03/2009         0.17/2009           Specific conductivity         mS/cm         MW-13A         03/25/2010         0.09/3           Specific conductivity         mS/cm         MW-13A         06/23/2010         0.17/2           Specific conductivity         mS/cm         MW-13A         09/23/2010         0.17/2           Specific conductivity         mS/cm         MW-13A         12/08/2010         0.07/2           Specific conductivity         mS/cm         MW-13A         03/30/2011         0.15/2           Specific conductivity         mS/cm         MW-13A         09/27/2011         0.15/2           Specific conductivity         mS/cm         MW-13A         09/27/2011         0.15/2           Specific conductivity         mS/cm         MW-13A         03/21/2012         0.17/2           Specific conductivity         mS/cm         MW-13A         03/21/2012         0.17/2           Specific conductivity         mS/cm         MW-13A         09/26/2012         0.18/2           Specific conductivity         mS/cm         MW-13A         09/26/2012         0.15/2 <td>  </td>	
Specific conductivity         mS/cm         MW-13A         12/03/2009         0.173           Specific conductivity         mS/cm         MW-13A         03/25/2010         0.093           Specific conductivity         mS/cm         MW-13A         06/23/2010         0.144           Specific conductivity         mS/cm         MW-13A         09/23/2010         0.174           Specific conductivity         mS/cm         MW-13A         09/23/2010         0.074           Specific conductivity         mS/cm         MW-13A         01/20/2011         0.154           Specific conductivity         mS/cm         MW-13A         03/30/2011         0.154           Specific conductivity         mS/cm         MW-13A         06/06/2011         0.154           Specific conductivity         mS/cm         MW-13A         09/27/2011         0.154           Specific conductivity         mS/cm         MW-13A         06/08/2012         0.174           Specific conductivity         mS/cm         MW-13A         06/08/2012         0.156           Specific conductivity         mS/cm         MW-13A         09/26/2012         0.156           Specific conductivity         mS/cm         MW-13A         06/05/2013         0.144	
Specific conductivity         mS/cm         MW-13A         03/25/2010         0.093           Specific conductivity         mS/cm         MW-13A         06/23/2010         0.144           Specific conductivity         mS/cm         MW-13A         09/23/2010         0.177           Specific conductivity         mS/cm         MW-13A         12/08/2010         0.074           Specific conductivity         mS/cm         MW-13A         03/30/2011         0.15           Specific conductivity         mS/cm         MW-13A         06/06/2011         0.15           Specific conductivity         mS/cm         MW-13A         09/27/2011         0.15           Specific conductivity         mS/cm         MW-13A         03/21/2012         0.17           Specific conductivity         mS/cm         MW-13A         06/08/2012         0.18           Specific conductivity         mS/cm         MW-13A         09/26/2012         0.15           Specific conductivity         mS/cm         MW-13A         09/26/2012         0.15           Specific conductivity         mS/cm         MW-13A         09/26/2012         0.10           Specific conductivity         mS/cm         MW-13A         03/1/2013         0.14           Speci	
Specific conductivity	
Specific conductivity	
Specific conductivity	
Specific conductivity         mS/cm         MW-13A         03/30/2011         0.15           Specific conductivity         mS/cm         MW-13A         06/06/2011         0.15           Specific conductivity         mS/cm         MW-13A         09/27/2011         0.15           Specific conductivity         mS/cm         MW-13A         12/14/2011         0.17           Specific conductivity         mS/cm         MW-13A         03/21/2012         0.17           Specific conductivity         mS/cm         MW-13A         09/26/2012         0.18           Specific conductivity         mS/cm         MW-13A         09/26/2012         0.15           Specific conductivity         mS/cm         MW-13A         03/11/2013         0.14           Specific conductivity         mS/cm         MW-13A         06/05/2013         0.14           Specific conductivity         mS/cm         MW-13A         12/03/2013         0.15           Specific conductivity         mS/cm         MW-13A         12/03/2013         0.15           Specific conductivity         mS/cm         MW-13A         06/05/2013         0.15           Specific conductivity         mS/cm         MW-13A         06/02/2014         0.14           Specific	
Specific conductivity         mS/cm         MW-13A         06/06/2011         0.156           Specific conductivity         mS/cm         MW-13A         09/27/2011         0.156           Specific conductivity         mS/cm         MW-13A         12/14/2011         0.177           Specific conductivity         mS/cm         MW-13A         03/21/2012         0.177           Specific conductivity         mS/cm         MW-13A         06/08/2012         0.180           Specific conductivity         mS/cm         MW-13A         09/26/2012         0.150           Specific conductivity         mS/cm         MW-13A         03/11/2013         0.144           Specific conductivity         mS/cm         MW-13A         03/11/2013         0.144           Specific conductivity         mS/cm         MW-13A         03/05/2013         0.145           Specific conductivity         mS/cm         MW-13A         03/04/2014         0.145           Specific conductivity         mS/cm         MW-13A         06/02/2014         0.145           Specific conductivity         mS/cm         MW-13A         06/02/2014         0.155           Specific conductivity         mS/cm         MW-13A         06/02/2014         0.166	
Specific conductivity	
Specific conductivity   mS/cm   MW-13A   09/26/2012   0.150	
Specific conductivity	
Specific conductivity         mS/cm         MW-13A         03/11/2013         0.14s           Specific conductivity         mS/cm         MW-13A         06/05/2013         0.14s           Specific conductivity         mS/cm         MW-13A         12/03/2013         0.15s           Specific conductivity         mS/cm         MW-13A         03/04/2014         0.14s           Specific conductivity         mS/cm         MW-13A         06/02/2014         0.15s           Specific conductivity         mS/cm         MW-13A         09/22/2014         0.16s           Specific conductivity         mS/cm         MW-13A         11/17/2014         0.17s	
Specific conductivity	- 1
Specific conductivity         mS/cm         MW-13A         12/03/2013         0.150           Specific conductivity         mS/cm         MW-13A         03/04/2014         0.14           Specific conductivity         mS/cm         MW-13A         06/02/2014         0.150           Specific conductivity         mS/cm         MW-13A         09/22/2014         0.160           Specific conductivity         mS/cm         MW-13A         11/17/2014         0.172	
Specific conductivity	
Specific conductivity         mS/cm         MW-13A         06/02/2014         0.15-           Specific conductivity         mS/cm         MW-13A         09/22/2014         0.16-           Specific conductivity         mS/cm         MW-13A         11/17/2014         0.17-	
Specific conductivity         mS/cm         MW-13A         09/22/2014         0.160           Specific conductivity         mS/cm         MW-13A         11/17/2014         0.173	
Specific conductivity mS/cm MW-13A 11/17/2014 0.172	
=	
Specific conductivity mS/cm MW-13B 06/15/2005 0.169	
Specific conductivity	
Specific conductivity   mS/cm   MW-13B   12/15/2005   0.15	
Specific conductivity mS/cm MW-13B 03/29/2006 0.15	
Specific conductivity   mS/cm   MW-13B   06/21/2006   0.163	
Specific conductivity	
Specific conductivity   mS/cm   MW-13B   12/13/2006   0.168	
Specific conductivity mS/cm MW-13B 03/27/2007 0.16	
Specific conductivity mS/cm MW-13B 09/18/2007 0.16i	
Specific conductivity mS/cm MW-13B 12/19/2007 0.164	
Specific conductivity mS/cm MW-13B 03/25/2008 0.16	
Specific conductivity mS/cm MW-13B 06/18/2008 0.16	

<sup>\* -</sup> Outlier for that well and constituent. ND = Not detected, result = detection limit.

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date	Result
Specific conductivity	mS/cm	MW-13B	09/17/2008	0.1640
Specific conductivity	mS/cm	MW-13B	12/16/2008	0.1630
Specific conductivity	mS/cm	MW-13B	03/24/2009	0.1670
Specific conductivity	mS/cm	MW-13B	06/17/2009	0.1690
Specific conductivity	mS/cm	MW-13B	12/03/2009	0.1670
Specific conductivity	mS/cm	MW-13B	03/25/2010	0.0900
Specific conductivity	mS/cm	MW-13B	06/23/2010	0.1410
Specific conductivity	mS/cm	MW-13B	09/23/2010	0.1620
Specific conductivity	mS/cm	MW-13B	12/08/2010	0.0730
Specific conductivity	mS/cm	MW-13B	03/30/2011	0.1440
Specific conductivity	mS/cm	MW-13B	06/06/2011	0.1350
Specific conductivity	mS/cm	MW-13B	09/27/2011	0.1510
Specific conductivity	mS/cm	MW-13B	12/14/2011	0.1690
Specific conductivity	mS/cm	MW-13B	03/21/2012	0.1650
Specific conductivity	mS/cm	MW-13B	06/08/2012	0.1750
Specific conductivity	mS/cm	MW-13B	09/26/2012	0.1480
Specific conductivity	mS/cm	MW-13B	12/03/2012	0.1400
Specific conductivity	mS/cm	MW-13B	03/11/2013	0.1440
Specific conductivity	mS/cm	MW-13B	06/05/2013	0.1440
Specific conductivity	mS/cm	MW-13B	12/03/2013	0.1540
Specific conductivity	mS/cm	MW-13B	03/04/2014	0.1390
Specific conductivity	mS/cm	MW-13B	06/02/2014	0.1540
Specific conductivity	mS/cm	MW-13B	09/22/2014	0.1670
Specific conductivity	mS/cm	MW-13B	11/17/2014	0.1720
Specific conductivity	mS/cm	MW-16	03/24/2009	0.1350
Specific conductivity	mS/cm	MW-16	06/16/2009	0.1230
Specific conductivity	mS/cm	MW-16	12/03/2009	0.1600
Specific conductivity	mS/cm	MW-16	03/25/2010	0.1180
Specific conductivity	mS/cm	MW-16	06/24/2010	0.1550
Specific conductivity	mS/cm	MW-16	09/24/2010	0.1480
Specific conductivity	mS/cm	MW-16	12/09/2010	0.1500
Specific conductivity	mS/cm	MW-16	03/30/2011	0.1020
Specific conductivity	mS/cm	MW-16	06/07/2011	0.0960
Specific conductivity	mS/cm	MW-16	09/27/2011	0.0680
Specific conductivity	mS/cm	MW-16	12/13/2011	0.1200
Specific conductivity	mS/cm	MW-16	03/21/2012	0.0790
Specific conductivity	mS/cm	MW-16	06/08/2012	0.1180
Specific conductivity	mS/cm	MW-16	09/27/2012	0.1060
Specific conductivity	mS/cm	MW-16	12/04/2012	0.0850
Specific conductivity	mS/cm	MW-16	03/12/2013	0.1180
Specific conductivity	mS/cm	MW-16	06/04/2013	0.1030
Specific conductivity	mS/cm	MW-16	09/05/2013	0.1100
Specific conductivity	mS/cm	MW-16	12/16/2013	0.0960
Specific conductivity	mS/cm	MW-16	03/05/2014	0.0990
Specific conductivity	mS/cm	MW-16	06/02/2014	0.0940
Specific conductivity	mS/cm	MW-16	09/22/2014	0.1220
Specific conductivity	mS/cm	MW-16	11/18/2014	0.1260
Specific conductivity	mS/cm	MW-35	03/22/2005	0.1430
Specific conductivity	mS/cm	MW-35	06/14/2005	0.1530
Specific conductivity	mS/cm	MW-35	09/27/2005	0.1480
Specific conductivity	mS/cm	MW-35	12/15/2005	0.1450
Specific conductivity	mS/cm	MW-35	03/28/2006	0.1360
Specific conductivity	mS/cm	MW-35	06/21/2006	0.1520
Specific conductivity	mS/cm	MW-35	09/26/2006	0.1550
Specific conductivity	mS/cm	MW-35	12/12/2006	0.1510
Specific conductivity	mS/cm	MW-35	03/27/2007	0.1480
Specific conductivity	mS/cm	MW-35	09/18/2007	0.1520
Specific conductivity	mS/cm	MW-35	12/20/2007	0.1520
Specific conductivity	mS/cm	MW-35	03/25/2008	0.1470
Specific conductivity	mS/cm	MW-35	06/18/2008	0.1510
Specific conductivity	mS/cm	MW-35	09/18/2008	0.1420
Specific conductivity	mS/cm	MW-35	12/19/2008	0.1440
Specific conductivity	mS/cm	MW-35	03/24/2009	0.1500
Specific conductivity	mS/cm	MW-35	06/16/2009	0.1550
Specific conductivity	mS/cm	MW-35	12/03/2009	0.1520

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date	Result
Specific conductivity	mS/cm	MW-35	03/25/2010	0.0840
Specific conductivity	mS/cm	MW-35	06/23/2010	0.1280
Specific conductivity	mS/cm	MW-35	09/23/2010	0.1510
Specific conductivity	mS/cm	MW-35	12/09/2010	0.1500
Specific conductivity	mS/cm	MW-35	03/30/2011	0.1320
Specific conductivity	mS/cm	MW-35	06/06/2011	0.1230
Specific conductivity	mS/cm	MW-35	09/26/2011	0.1310
Specific conductivity	mS/cm	MW-35	12/13/2011	0.1480
Specific conductivity	mS/cm	MW-35	03/21/2012	0.1520
Specific conductivity	mS/cm	MW-35	06/06/2012	0.1380
Specific conductivity	mS/cm	MW-35	09/26/2012	0.1350
Specific conductivity	mS/cm	MW-35	12/04/2012	0.1480
Specific conductivity	mS/cm	MW-35	03/13/2013	0.1320
Specific conductivity	mS/cm	MW-35	06/06/2013	0.1330
Specific conductivity	mS/cm	MW-35	09/05/2013	0.1320
Specific conductivity	mS/cm	MW-35	12/16/2013	0.1210
Specific conductivity	mS/cm	MW-35	03/04/2014	0.1290
Specific conductivity	mS/cm	MW-35	06/02/2014	0.1400
Specific conductivity	mS/cm	MW-35	09/22/2014	0.1610
Specific conductivity	mS/cm	MW-35	11/17/2014	0.1600
Sulfate	MG/L	MW-13A	03/22/2005	2.8000
Sulfate	MG/L	MW-13A	06/15/2005	2.9000
Sulfate	MG/L	MW-13A	09/27/2005	3.2000
Sulfate	MG/L	MW-13A	12/15/2005	2.1000
Sulfate	MG/L	MW-13A	03/28/2006	3.2000
Sulfate	MG/L	MW-13A	06/21/2006	3.1000
Sulfate	MG/L	MW-13A	09/26/2006	2.5000
Sulfate	MG/L			
	1	MW-13A MW-13A	12/13/2006	2.3000
Sulfate	MG/L		03/27/2007 06/19/2007	2.5000
Sulfate	MG/L	MW-13A		2.5000
Sulfate	MG/L	MW-13A	09/19/2007	2.5000
Sulfate	MG/L	MW-13A	12/19/2007	2.5000
Sulfate	MG/L	MW-13A	03/25/2008	2.4000
Sulfate	MG/L	MW-13A MW-13A	06/18/2008	2.6000
Sulfate	MG/L		09/17/2008	2.4000
Sulfate	MG/L	MW-13A MW-13A	12/17/2008	2.4000
Sulfate	MG/L		03/24/2009	2.5000
Sulfate	MG/L	MW-13A	06/17/2009	2.1000
Sulfate	MG/L	MW-13A	09/10/2009	2.2000
Sulfate	MG/L	MW-13A	12/03/2009	2.3000
Sulfate	MG/L	MW-13A	03/25/2010	2.3000
Sulfate	MG/L	MW-13A	06/23/2010	2.1000
Sulfate	MG/L	MW-13A	09/23/2010	2.3000
Sulfate	MG/L	MW-13A	12/08/2010	3.7000
Sulfate	MG/L	MW-13A	03/30/2011	2.2000
Sulfate	MG/L	MW-13A	06/06/2011	2.2000
Sulfate	MG/L	MW-13A	09/27/2011	2.3000
Sulfate	MG/L	MW-13A	12/14/2011	2.5000
Sulfate	MG/L	MW-13A	03/21/2012	1.9000
Sulfate	MG/L	MW-13A	06/08/2012	2.1000
Sulfate	MG/L	MW-13A	09/26/2012	2.1000
Sulfate	MG/L	MW-13A	12/03/2012	2.2000
Sulfate	MG/L	MW-13A	03/11/2013	1.9000
Sulfate	MG/L	MW-13A	06/05/2013	1.7000
Sulfate	MG/L	MW-13A	12/03/2013	1.6000
Sulfate	MG/L	MW-13A	03/04/2014	2.1000
Sulfate	MG/L	MW-13A	06/02/2014	2.2000
Sulfate	MG/L	MW-13A	09/22/2014	2.2000
Sulfate	MG/L	MW-13A	11/17/2014	2.1000
Sulfate	MG/L	MW-13B	03/22/2005	4.6000
Sulfate	MG/L	MW-13B	06/15/2005	4.7000
Sulfate	MG/L	MW-13B	09/27/2005	4.5000
Sulfate	MG/L	MW-13B	12/15/2005	3.6000
Sulfate	MG/L	MW-13B	03/29/2006	4.5000
Sulfate	MG/L	MW-13B	06/21/2006	4.4000

<sup>\* -</sup> Outlier for that well and constituent. ND = Not detected, result = detection limit.

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result
Sulfate	MG/L	MW-13B	09/26/2006		4.1000
Sulfate	MG/L	MW-13B	12/13/2006		3.9000
Sulfate	MG/L	MW-13B	03/27/2007		4.1000
Sulfate	MG/L	MW-13B	06/19/2007		4.1000
Sulfate	MG/L	MW-13B	09/18/2007		4.2000
Sulfate	MG/L	MW-13B	12/19/2007		4.1000
Sulfate	MG/L	MW-13B	03/25/2008		4.0000
Sulfate	MG/L	MW-13B	06/18/2008		4.1000
Sulfate	MG/L	MW-13B	09/17/2008		4.2000
	MG/L				4.2000
Sulfate		MW-13B	12/16/2008		
Sulfate	MG/L	MW-13B	03/24/2009		4.2000
Sulfate	MG/L	MW-13B	06/17/2009		3.7000
Sulfate	MG/L	MW-13B	09/10/2009		3.7000
Sulfate	MG/L	MW-13B	12/03/2009		4.1000
Sulfate	MG/L	MW-13B	03/25/2010		3.9000
Sulfate	MG/L	MW-13B	06/23/2010		3.6000
Sulfate	MG/L	MW-13B	09/23/2010		3.8000
Sulfate	MG/L	MW-13B	12/08/2010		2.4000
Sulfate	MG/L	MW-13B	03/30/2011		4.4000
Sulfate	MG/L	MW-13B	06/06/2011		3.7000
Sulfate	MG/L	MW-13B	09/27/2011		3.7000
Sulfate	MG/L	MW-13B	12/14/2011		3.5000
Sulfate	MG/L	MW-13B	03/21/2012		3.2000
Sulfate	MG/L	MW-13B	06/08/2012		3.5000
Sulfate	MG/L	_			3.6000
		MW-13B	09/26/2012		
Sulfate	MG/L	MW-13B	12/03/2012		3.5000
Sulfate	MG/L	MW-13B	03/11/2013		3.0000
Sulfate	MG/L	MW-13B	06/05/2013		3.5000
Sulfate	MG/L	MW-13B	12/03/2013		3.1000
Sulfate	MG/L	MW-13B	03/04/2014		3.7000
Sulfate	MG/L	MW-13B	06/02/2014		3.6000
Sulfate	MG/L	MW-13B	09/22/2014		4.1000
Sulfate	MG/L	MW-13B	11/17/2014		3.7000
Sulfate	MG/L	MW-16	03/24/2009		3.0000
Sulfate	MG/L	MW-16	06/16/2009		2.2000
Sulfate	MG/L	MW-16	09/09/2009		4.3000
Sulfate	MG/L	MW-16	12/03/2009		3.6000
Sulfate	MG/L	MW-16	03/25/2010		9.9000
		MW-16			
Sulfate	MG/L		06/24/2010		2.5000
Sulfate	MG/L	MW-16	09/24/2010		2.3000
Sulfate	MG/L	MW-16	12/09/2010		2.7000
Sulfate	MG/L	MW-16	03/30/2011		7.1000
Sulfate	MG/L	MW-16	06/07/2011		2.4000
Sulfate	MG/L	MW-16	09/27/2011		4.1000
Sulfate	MG/L	MW-16	12/13/2011		2.3000
Sulfate	MG/L	MW-16	03/21/2012		1.6000
Sulfate	MG/L	MW-16	06/08/2012		3.0000
Sulfate	MG/L	MW-16	09/27/2012		3.1000
Sulfate	MG/L	MW-16	12/04/2012		3.0000
Sulfate	MG/L	MW-16	03/12/2013		1.9000
Sulfate	MG/L	MW-16	06/04/2013		2.7000
Sulfate	MG/L	MW-16	09/05/2013		
					1.7000
Sulfate	MG/L	MW-16	12/16/2013		2.3000
Sulfate	MG/L	MW-16	03/05/2014		2.8000
Sulfate	MG/L	MW-16	06/02/2014		3.8000
Sulfate	MG/L	MW-16	09/22/2014		2.9000
Sulfate	MG/L	MW-16	11/18/2014		3.3000
Sulfate	MG/L	MW-35	03/22/2005		2.5000
Sulfate	MG/L	MW-35	06/14/2005		1.6000
Sulfate	MG/L	MW-35	09/27/2005		1.3000
Sulfate	MG/L	MW-35	12/15/2005	ND	1.0000
Sulfate	MG/L	MW-35	03/28/2006	.,5	3.0000
Sulfate	MG/L	MW-35	06/21/2006		3.0000
Sulfate	MG/L	MW-35	09/26/2006		2.4000

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date	Result
Sulfate	MG/L	MW-35	03/27/2007	2.5000
Sulfate	MG/L	MW-35	06/20/2007	2.4000
Sulfate	MG/L	MW-35	09/18/2007	2.6000
Sulfate	MG/L	MW-35	12/20/2007	2.4000
Sulfate	MG/L	MW-35	03/25/2008	2.4000
Sulfate	MG/L	MW-35	06/18/2008	2.6000
Sulfate	MG/L	MW-35	09/18/2008	2.3000
Sulfate	MG/L	MW-35	12/19/2008	2.6000
Sulfate	MG/L	MW-35	03/24/2009	2.7000
Sulfate	MG/L	MW-35	06/16/2009	2.2000
Sulfate	MG/L	MW-35	09/10/2009	2.4000
Sulfate	MG/L	MW-35	12/03/2009	2.5000
Sulfate	MG/L	MW-35	03/25/2010	2.6000
Sulfate	MG/L	MW-35	06/23/2010	2.3000
Sulfate	MG/L	MW-35	09/23/2010	2.5000
Sulfate	MG/L	MW-35	12/09/2010	2.2000
Sulfate	MG/L	MW-35	03/30/2011	2.6000
Sulfate	MG/L	MW-35	06/06/2011	2.5000
Sulfate	MG/L	MW-35	09/26/2011	2.6000
Sulfate	MG/L	MW-35	12/13/2011	2.5000
Sulfate	MG/L	MW-35	03/21/2012	2.1000
Sulfate	MG/L	MW-35	06/06/2012	2.4000
Sulfate	MG/L	MW-35	09/26/2012	2.4000
Sulfate	MG/L	MW-35	12/04/2012	2.5000
Sulfate	MG/L	MW-35	03/13/2013	2.3000
Sulfate	MG/L	MW-35	06/06/2013	2.0000
Sulfate	MG/L	MW-35	09/05/2013	2.1000
Sulfate	MG/L	MW-35	12/16/2013	2.6000
Sulfate	MG/L	MW-35	03/04/2014	2.7000
Sulfate	MG/L	MW-35	06/02/2014	2.5000
Sulfate	MG/L	MW-35	09/22/2014	3.2000
Sulfate	MG/L	MW-35	11/17/2014	2.5000
Temperature	deg C	MW-13A	03/22/2005	9.0800
Temperature	deg C	MW-13A	06/15/2005	9.3700
Temperature	deg C	MW-13A	09/27/2005	9.6500
Temperature	deg C	MW-13A	12/15/2005	8.6000
Temperature	deg C	MW-13A	03/28/2006	9.4400
Temperature	deg C	MW-13A	06/21/2006	9.4100
Temperature	deg C	MW-13A	09/26/2006	9.7100
Temperature	deg C	MW-13A	12/13/2006	8.7900
Temperature	deg C	MW-13A	03/27/2007	9.1400
Temperature	deg C	MW-13A	09/19/2007	9.2600
Temperature	deg C	MW-13A	12/19/2007	8.1700
Temperature	deg C	MW-13A	03/25/2008	8.4700
Temperature	deg C	MW-13A	06/18/2008	9.3000
Temperature	deg C	MW-13A	09/17/2008	8.8000
Temperature	deg C	MW-13A	12/17/2008	8.7500
Temperature	deg C	MW-13A	03/24/2009	8.3200
Temperature	deg C	MW-13A	06/17/2009	9.8500
Temperature	deg C	MW-13A	12/03/2009	8.9200
Temperature	deg C	MW-13A	03/25/2010	9.2200
Temperature	deg C	MW-13A	06/23/2010	9.5800
Temperature	deg C	MW-13A	09/23/2010	9.4200
Temperature	deg C	MW-13A	12/08/2010	9.4500
Temperature	deg C	MW-13A	03/30/2011	9.3700
Temperature	deg C	MW-13A	06/06/2011	10.4000
Temperature	deg C	MW-13A	09/27/2011	9.5800
Temperature	deg C	MW-13A	12/14/2011	8.9200
Temperature	deg C	MW-13A	03/21/2012	8.7400
Temperature	deg C	MW-13A	06/08/2012	9.3000
Temperature	deg C	MW-13A	09/26/2012	10.0400
Temperature	deg C	MW-13A	12/03/2012	9.2000
Temperature	deg C	MW-13A	03/11/2013	9.2200
Temperature	deg C	MW-13A	06/05/2013	11.9600
Temperature	deg C	MW-13A	12/03/2013	8.9300

<sup>\* -</sup> Outlier for that well and constituent. ND = Not detected, result = detection limit.

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date	Result
Temperature	deg C	MW-13A	03/04/2014	8.9800
Temperature	deg C	MW-13A	06/02/2014	11.1500
Temperature	deg C	MW-13A	09/22/2014	10.5800
Temperature	deg C	MW-13A	11/17/2014	9.4000
Temperature	deg C	MW-13B	03/22/2005	9.5500
Temperature	deg C	MW-13B	06/15/2005	9.9200
Temperature	deg C	MW-13B	09/27/2005	10.7900
Temperature	deg C	MW-13B	12/15/2005	8.1100
Temperature	deg C	MW-13B	03/29/2006	8.8000
Temperature	deg C	MW-13B	06/21/2006	9.7600
Temperature	deg C	MW-13B	09/26/2006	10.3200
Temperature	deg C	MW-13B	12/13/2006	8.8500
Temperature	deg C	MW-13B	03/27/2007	9.0400
Temperature	deg C	MW-13B	09/18/2007	10.0100
Temperature	deg C	MW-13B	12/19/2007	8.0800
Temperature	deg C	MW-13B	03/25/2008	8.0900
Temperature	deg C	MW-13B	06/18/2008	9.2300
Temperature	deg C	MW-13B	09/17/2008	9.0100
Temperature	deg C	MW-13B	12/16/2008	8.4300
Temperature	deg C	MW-13B	03/24/2009	8.3700
Temperature	deg C	MW-13B	06/17/2009	10.8100
Temperature	deg C	MW-13B	12/03/2009	8.7900
Temperature	deg C	MW-13B	03/25/2010	9.2300
Temperature	deg C	MW-13B	06/23/2010	9.9700
Temperature	deg C	MW-13B	09/23/2010	9.6000
Temperature	deg C	MW-13B	12/08/2010	9.2500
Temperature	deg C	MW-13B	03/30/2011	9.3200
Temperature	deg C	MW-13B	06/06/2011	11.3000
Temperature	deg C	MW-13B	09/27/2011	10.5700
Temperature	deg C	MW-13B	12/14/2011	8.7600
Temperature	deg C	MW-13B	03/21/2012	8.5000
Temperature	deg C	MW-13B	06/08/2012	9.4000
Temperature	deg C	MW-13B	09/26/2012	10.5900
Temperature	deg C	MW-13B	12/03/2012	9.2000
Temperature	deg C	MW-13B	03/11/2013	9.1500
Temperature	deg C	MW-13B	06/05/2013	11.4100
Temperature	deg C	MW-13B	12/03/2013	9.4400
Temperature	deg C	MW-13B	03/04/2014	9.0000
Temperature	deg C	MW-13B	06/02/2014	14.3200
Temperature	deg C	MW-13B	09/22/2014	11.0200
Temperature	deg C	MW-13B	11/17/2014	9.4000
Temperature	deg C	MW-16	03/24/2009	9.0800
Temperature Temperature	deg C	MW-16	06/16/2009	9.9800
Temperature	deg C	MW-16	12/03/2009	9.0800
Temperature	deg C	MW-16	03/25/2010	9.1100
Temperature .	deg C	MW-16	06/24/2010	9.3900
Temperature	deg C	MW-16	09/24/2010	9.4400
Temperature	deg C	MW-16	12/09/2010	9.1300
Temperature	deg C	MW-16	03/30/2011	9.1400
Temperature	deg C	MW-16	06/07/2011	9.4600
Temperature	deg C	MW-16	09/27/2011	9.4300
Temperature Temperature	deg C	MW-16	12/13/2011	8.8400
Temperature	deg C	MW-16	03/21/2012	8.8200
Temperature	deg C	MW-16	06/08/2012	9.2000
Temperature	deg C	MW-16	09/27/2012	9.0600
Temperature	deg C	MW-16	12/04/2012	9.1000
Temperature	deg C	MW-16	03/12/2013	9.0200
Temperature	deg C	MW-16	06/04/2013	9.4700
Temperature	deg C	MW-16	09/05/2013	9.3600
Temperature	deg C	MW-16	12/16/2013	9.0400
Temperature	deg C	MW-16	03/05/2014	9.4000
Temperature	deg C	MW-16	06/02/2014	9.5600
Temperature	deg C	MW-16	09/22/2014	10.7300
Temperature	deg C	MW-16	11/18/2014	8.9000

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result
Temperature	deg C	MW-35	06/14/2005		10.2800
Temperature	deg C	MW-35	09/27/2005		10.4900
Temperature	deg C	MW-35	12/15/2005		8.8600
Temperature	deg C	MW-35	03/28/2006		9.5300
Temperature	deg C	MW-35	06/21/2006		10.3100
Temperature	deg C	MW-35	09/26/2006		10.6200
Temperature	deg C	MW-35	12/12/2006		9.2600
Temperature	deg C	MW-35	03/27/2007		9.4000
Temperature	deg C	MW-35	09/18/2007		10.2400
Temperature	deg C	MW-35	12/20/2007		8.6900
Temperature Temperature	deg C deg C	MW-35	03/25/2008 06/18/2008		8.7500
Temperature	deg C	MW-35 MW-35	09/18/2008		9.7300 9.9800
Temperature	deg C	MW-35	12/19/2008		8.5000
Temperature	deg C	MW-35	03/24/2009		9.3200
Temperature	deg C	MW-35	06/16/2009		11.7600
Temperature	deg C	MW-35	12/03/2009		9.5700
Temperature	deg C	MW-35	03/25/2010		9.8200
Temperature	deg C	MW-35	06/23/2010		10.0700
Temperature	deg C	MW-35	09/23/2010		10.0900
Temperature	deg C	MW-35	12/09/2010		9.8500
Temperature	deg C	MW-35	03/30/2011		9.7200
Temperature	deg C	MW-35	06/06/2011		10.2000
Temperature	deg C	MW-35	09/26/2011		10.1400
Temperature	deg C	MW-35	12/13/2011		9.4100
Temperature	deg C	MW-35	03/21/2012		9.7800
Temperature	deg C	MW-35	06/06/2012		10.3000
Temperature	deg C	MW-35	09/26/2012		10.2000
Temperature	deg C	MW-35	12/04/2012		9.8000
Temperature	deg C	MW-35	03/13/2013		9.7500
Temperature	deg C	MW-35	06/06/2013		10.8300
Temperature	deg C	MW-35	09/05/2013		10.0900
Temperature	deg C	MW-35	12/16/2013		9.8400
Temperature	deg C	MW-35	03/04/2014		9.7600
Temperature	deg C	MW-35	06/02/2014		11.7900
Temperature	deg C	MW-35	09/22/2014		13.7000
Temperature The literature	deg C	MW-35	11/17/2014	NID	10.4000
Thallium, dissolved	MG/L	MW-13A	03/22/2005	ND	0.0010
Thallium, dissolved	MG/L	MW-13A	06/15/2005	ND	0.0010
Thallium, dissolved Thallium, dissolved	MG/L	MW-13A	09/27/2005	ND ND	0.0010
Thallium, dissolved	MG/L MG/L	MW-13A MW-13A	12/15/2005	ND	0.0010
Thallium, dissolved	MG/L	MW-13A	03/28/2006 06/21/2006	ND	0.0010 0.0010
Thallium, dissolved	MG/L	MW-13A	09/26/2006	ND	0.0010
Thallium, dissolved	MG/L	MW-13A	12/13/2006	ND	0.0010
Thallium, dissolved	MG/L	MW-13A	03/27/2007	ND	0.0010
Thallium, dissolved	MG/L	MW-13A	06/19/2007	ND	0.0010
Thallium, dissolved	MG/L	MW-13A	09/19/2007	ND	0.0010
Thallium, dissolved	MG/L	MW-13A	12/19/2007	ND	0.0010
Thallium, dissolved	MG/L	MW-13A	03/25/2008	ND	0.0010
Thallium, dissolved	MG/L	MW-13A	06/18/2008	ND	0.0010
Thallium, dissolved	MG/L	MW-13A	09/17/2008	ND	0.0010
Thallium, dissolved	MG/L	MW-13A	12/17/2008	ND	0.0010
Thallium, dissolved	MG/L	MW-13A	03/24/2009	ND	0.0010
Thallium, dissolved	MG/L	MW-13A	06/17/2009	ND	0.0010
Thallium, dissolved	MG/L	MW-13A	09/10/2009	ND	0.0010
Thallium, dissolved	MG/L	MW-13A	12/03/2009	ND	0.0010
Thallium, dissolved	MG/L	MW-13A	03/25/2010	ND	0.0010
Thallium, dissolved	MG/L	MW-13A	06/23/2010	ND	0.0010
Thallium, dissolved	MG/L	MW-13A	09/23/2010	ND	0.0010
Thallium, dissolved	MG/L	MW-13A	12/08/2010	ND	0.0010
Thallium, dissolved	MG/L	MW-13A	03/30/2011	ND	0.0010
Thallium, dissolved	MG/L	MW-13A	06/06/2011	ND	0.0010
Thallium, dissolved	MG/L	MW-13A	09/27/2011	ND	0.0010
Thallium, dissolved	MG/L	MW-13A	12/14/2011	ND	0.0010

<sup>\* -</sup> Outlier for that well and constituent. ND = Not detected, result = detection limit.

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result	
Thallium, dissolved	MG/L	MW-13A	03/21/2012	ND	0.0010	
Thallium, dissolved	MG/L	MW-13A	06/08/2012	ND	0.0010	
Thallium, dissolved	MG/L	MW-13A	09/26/2012	ND	0.0010	
Thallium, dissolved	MG/L	MW-13A	12/03/2012	ND	0.0010	
Thallium, dissolved	MG/L	MW-13A	03/11/2013	ND	0.0010	
Thallium, dissolved	MG/L	MW-13A	06/05/2013	ND	0.0010	
Thallium, dissolved	MG/L	MW-13A	12/03/2013	ND	0.0010	
Thallium, dissolved	MG/L	MW-13A	03/04/2014	ND	0.0010	
Thallium, dissolved	MG/L	MW-13A	06/02/2014	ND	0.0010	
Thallium, dissolved	MG/L	MW-13A	09/22/2014	ND	0.0010	
Thallium, dissolved	MG/L	MW-13A	11/17/2014	ND	0.0010	
Thallium, dissolved	MG/L	MW-13B	03/22/2005	ND	0.0010	
Thallium, dissolved	MG/L	MW-13B	06/15/2005	ND	0.0010	
Thallium, dissolved	MG/L	MW-13B	09/27/2005	ND	0.0010	
Thallium, dissolved	MG/L	MW-13B	12/15/2005	ND	0.0010	
Thallium, dissolved	MG/L	MW-13B	03/29/2006	ND	0.0010	
Thallium, dissolved	MG/L	MW-13B	06/21/2006	ND	0.0010	
Thallium, dissolved	MG/L	MW-13B	09/26/2006	ND	0.0010	
Thallium, dissolved	MG/L	MW-13B	12/13/2006	ND	0.0010	
Thallium, dissolved	MG/L	MW-13B	03/27/2007	ND	0.0010	
Thallium, dissolved	MG/L	MW-13B	06/19/2007	ND	0.0010	
Thallium, dissolved	MG/L	MW-13B	09/18/2007	ND	0.0010	
Thallium, dissolved	MG/L	MW-13B	12/19/2007	ND	0.0010	
Thallium, dissolved	MG/L	MW-13B	03/25/2008	ND	0.0010	
Thallium, dissolved	MG/L	MW-13B	06/18/2008	ND	0.0010	
Thallium, dissolved	MG/L	MW-13B	09/17/2008	ND	0.0010	
Thallium, dissolved	MG/L	MW-13B	12/16/2008	ND	0.0010	
Thallium, dissolved	MG/L	MW-13B	03/24/2009	ND	0.0010	
Thallium, dissolved	MG/L	MW-13B	06/17/2009	ND	0.0010	
Thallium, dissolved	MG/L	MW-13B	09/10/2009	ND	0.0010	
Thallium, dissolved	MG/L	MW-13B	12/03/2009	ND	0.0010	
Thallium, dissolved	MG/L	MW-13B	03/25/2010	ND	0.0010	
Thallium, dissolved	MG/L	MW-13B	06/23/2010	ND	0.0010	
Thallium, dissolved	MG/L	MW-13B	09/23/2010	ND	0.0010	
Thallium, dissolved	MG/L	MW-13B	12/08/2010	ND	0.0010	
Thallium, dissolved	MG/L	MW-13B	03/30/2011	ND	0.0010	
Thallium, dissolved	MG/L	MW-13B	06/06/2011	ND	0.0010	
Thallium, dissolved	MG/L	MW-13B	09/27/2011	ND	0.0010	
Thallium, dissolved	MG/L	MW-13B	12/14/2011	ND	0.0010	
Thallium, dissolved	MG/L	MW-13B	03/21/2012	ND	0.0010	
Thallium, dissolved	MG/L	MW-13B	06/08/2012	ND	0.0010	
Thallium, dissolved	MG/L	MW-13B	09/26/2012	ND	0.0010	
Thallium, dissolved	MG/L	MW-13B	12/03/2012	ND	0.0010	
Thallium, dissolved	MG/L	MW-13B	03/11/2013	ND	0.0010	
Thallium, dissolved	MG/L	MW-13B	06/05/2013	ND	0.0010	
Thallium, dissolved	MG/L	MW-13B	12/03/2013	ND	0.0010	
Thallium, dissolved	MG/L	MW-13B	03/04/2014	ND	0.0010	
Thallium, dissolved	MG/L	MW-13B	06/02/2014	ND	0.0010	
Thallium, dissolved	MG/L	MW-13B	09/22/2014	ND	0.0010	
Thallium, dissolved	MG/L	MW-13B	11/17/2014	ND	0.0010	
Thallium, dissolved	MG/L	MW-16	03/24/2009	ND	0.0010	
Thallium, dissolved	MG/L	MW-16	06/16/2009	ND	0.0010	
Thallium, dissolved	MG/L	MW-16	09/09/2009	ND	0.0010	
Thallium, dissolved	MG/L	MW-16	12/03/2009	ND	0.0010	
Thallium, dissolved	MG/L	MW-16	03/25/2010	ND	0.0010	
Thallium, dissolved	MG/L	MW-16	06/24/2010	ND	0.0010	
Thallium, dissolved	MG/L	MW-16	09/24/2010	ND	0.0010	
Thallium, dissolved	MG/L	MW-16	12/09/2010	ND	0.0010	
Thallium, dissolved	MG/L	MW-16	03/30/2011	ND	0.0010	
Thallium, dissolved	MG/L	MW-16	06/07/2011	ND	0.0010	
Thallium, dissolved	MG/L	MW-16	09/27/2011	ND	0.0010	
Thallium, dissolved	MG/L	MW-16	12/13/2011	ND	0.0010	
Thallium, dissolved	MG/L	MW-16	03/21/2012	ND	0.0010	
Thallium, dissolved	MG/L	MW-16	06/08/2012	ND	0.0010	
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Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result	
Thallium, dissolved	MG/L	MW-16	12/04/2012	ND	0.0010	
Thallium, dissolved	MG/L	MW-16	03/12/2013	ND	0.0010	
Thallium, dissolved	MG/L	MW-16	06/04/2013	ND	0.0010	
Thallium, dissolved	MG/L	MW-16	09/05/2013	ND	0.0010	
Thallium, dissolved	MG/L	MW-16	12/16/2013	ND	0.0010	
Thallium, dissolved	MG/L	MW-16	03/05/2014	ND	0.0010	
Thallium, dissolved	MG/L	MW-16	06/02/2014	ND	0.0010	
Thallium, dissolved	MG/L	MW-16	09/22/2014	ND	0.0010	
Thallium, dissolved	MG/L	MW-16	11/18/2014	ND	0.0010	
Thallium, dissolved	MG/L	MW-35	03/22/2005	ND	0.0010	
Thallium, dissolved	MG/L	MW-35	06/14/2005	ND	0.0010	
Thallium, dissolved	MG/L	MW-35	09/27/2005	ND	0.0010	
Thallium, dissolved	MG/L	MW-35	12/15/2005	ND	0.0010	
Thallium, dissolved	MG/L	MW-35	03/28/2006	ND	0.0010	
Thallium, dissolved	MG/L	MW-35	06/21/2006	ND	0.0010	
Thallium, dissolved	MG/L	MW-35	09/26/2006	ND	0.0010	
Thallium, dissolved	MG/L	MW-35	12/12/2006	ND	0.0010	
Thallium, dissolved	MG/L	MW-35	03/27/2007	ND	0.0010	
Thallium, dissolved	MG/L	MW-35	06/20/2007	ND	0.0010	
Thallium, dissolved	MG/L	MW-35	09/18/2007	ND	0.0010	
Thallium, dissolved	MG/L	MW-35	12/20/2007	ND	0.0010	
Thallium, dissolved	MG/L	MW-35	03/25/2008	ND	0.0010	
Thallium, dissolved	MG/L	MW-35	06/18/2008	ND	0.0010	
Thallium, dissolved	MG/L	MW-35	09/18/2008	ND	0.0010	
Thallium, dissolved Thallium, dissolved	MG/L MG/L	MW-35 MW-35	12/19/2008 03/24/2009	ND ND	0.0010 0.0010	
'	MG/L	MW-35		ND	0.0010	
Thallium, dissolved Thallium, dissolved	MG/L	MW-35	06/16/2009 09/10/2009	ND	0.0010	
Thallium, dissolved	MG/L	MW-35	12/03/2009	ND	0.0010	
Thallium, dissolved	MG/L	MW-35	03/25/2010	ND	0.0010	
Thallium, dissolved	MG/L	MW-35	06/23/2010	ND	0.0010	
Thallium, dissolved	MG/L	MW-35	09/23/2010	ND	0.0010	
Thallium, dissolved	MG/L	MW-35	12/09/2010	ND	0.0010	
Thallium, dissolved	MG/L	MW-35	03/30/2011	ND	0.0010	
Thallium, dissolved	MG/L	MW-35	06/06/2011	ND	0.0010	
Thallium, dissolved	MG/L	MW-35	09/26/2011	ND	0.0010	
Thallium, dissolved	MG/L	MW-35	12/13/2011	ND	0.0050	
Thallium, dissolved	MG/L	MW-35	03/21/2012	ND	0.0010	
Thallium, dissolved	MG/L	MW-35	06/06/2012	ND	0.0010	
Thallium, dissolved	MG/L	MW-35	09/26/2012	ND	0.0010	
Thallium, dissolved	MG/L	MW-35	12/04/2012	ND	0.0010	
Thallium, dissolved	MG/L	MW-35	03/13/2013	ND	0.0010	
Thallium, dissolved	MG/L	MW-35	06/06/2013	ND	0.0010	
Thallium, dissolved	MG/L	MW-35	09/05/2013	ND	0.0010	
Thallium, dissolved	MG/L	MW-35	12/16/2013	ND	0.0010	
Thallium, dissolved	MG/L	MW-35	03/04/2014	ND	0.0010	
Thallium, dissolved	MG/L	MW-35	06/02/2014	ND	0.0010	
Thallium, dissolved	MG/L	MW-35	09/22/2014	ND	0.0010	
Thallium, dissolved	MG/L	MW-35	11/17/2014	ND	0.0010	
Total dissolved solids (tds)	MG/L	MW-13A	03/22/2005		113.0000	
Total dissolved solids (tds)	MG/L	MW-13A	06/15/2005		111.0000	
Total dissolved solids (tds)	MG/L	MW-13A	09/27/2005		175.0000	
Total dissolved solids (tds)	MG/L	MW-13A	12/15/2005		166.0000	
Total dissolved solids (tds)	MG/L	MW-13A	03/28/2006		110.0000	
Total dissolved solids (tds)	MG/L	MW-13A	06/21/2006		120.0000	
Total dissolved solids (tds)	MG/L	MW-13A	09/26/2006		110.0000	
Total dissolved solids (tds)	MG/L	MW-13A	12/13/2006		100.0000	
Total dissolved solids (tds)	MG/L	MW-13A	03/27/2007		100.0000	
Total dissolved solids (tds)	MG/L	MW-13A	06/19/2007		100.0000	
Total dissolved solids (tds)	MG/L	MW-13A	09/19/2007		110.0000	
Total dissolved solids (tds)	MG/L	MW-13A	12/19/2007		84.0000	
Total dissolved solids (tds)	MG/L	MW-13A	03/25/2008		99.0000	
Total dissolved solids (tds) Total dissolved solids (tds)	MG/L	MW-13A	06/18/2008		110.0000	
Total dissolved solids (tds)  Total dissolved solids (tds)	MG/L MG/L	MW-13A MW-13A	09/17/2008 12/17/2008		110.0000 90.0000	
I otal dissolved solids (tus)	INIO/L	INIAA-19W	12/11/2000		90.0000	

Table 2-3 **Upgradient Data** 

Total dissolved solids (tds)   MG/L   MW-13A   03/24/2009   95.00   Total dissolved solids (tds)   MG/L   MW-13A   09/10/2009   100.000   Total dissolved solids (tds)   MG/L   MW-13A   09/10/2009   100.000   Total dissolved solids (tds)   MG/L   MW-13A   12/03/2009   100.000   Total dissolved solids (tds)   MG/L   MW-13A   08/23/2010   100.000   Total dissolved solids (tds)   MG/L   MW-13A   08/23/2010   120.000   Total dissolved solids (tds)   MG/L   MW-13A   08/23/2010   98.000   Total dissolved solids (tds)   MG/L   MW-13A   12/08/2010   99.000   Total dissolved solids (tds)   MG/L   MW-13A   12/08/2010   99.000   Total dissolved solids (tds)   MG/L   MW-13A   08/08/2011   110.000   Total dissolved solids (tds)   MG/L   MW-13A   08/08/2011   110.000   Total dissolved solids (tds)   MG/L   MW-13A   08/27/2011   100.000   Total dissolved solids (tds)   MG/L   MW-13A   09/27/2011   100.000   Total dissolved solids (tds)   MG/L   MW-13A   08/27/2011   97.000   Total dissolved solids (tds)   MG/L   MW-13A   03/21/2012   93.000   Total dissolved solids (tds)   MG/L   MW-13A   03/21/2012   93.000   Total dissolved solids (tds)   MG/L   MW-13A   09/26/2012   120.000   Total dissolved solids (tds)   MG/L   MW-13A   09/26/2012   120.000   Total dissolved solids (tds)   MG/L   MW-13A   09/26/2012   120.000   Total dissolved solids (tds)   MG/L   MW-13A   03/11/2013   100.000   Total dissolved solids (tds)   MG/L   MW-13A   03/11/2013   100.000   Total dissolved solids (tds)   MG/L   MW-13A   03/04/2014   100.000   Total dissolved solids (tds)   MG/L   MW-13B   03/22/2001   100.000   Total dissolved solids (tds)   MG/L   MW-13B   03/22/2001   100.000   Total dissolved solids (tds)   MG/L   MW-13B   03/22/2001   100.000   Total dissolved solids	
Total dissolved solids (tds)   MG/L   MW-13A   12/03/2009   100.000	0
Total dissolved solids (tds)   MG/L   MW-13A   12/03/2009   100.000   Total dissolved solids (tds)   MG/L   MW-13A   03/25/2010   100.000   Total dissolved solids (tds)   MG/L   MW-13A   09/23/2010   120.000   Total dissolved solids (tds)   MG/L   MW-13A   09/23/2010   93.000   Total dissolved solids (tds)   MG/L   MW-13A   03/30/2011   110.000   Total dissolved solids (tds)   MG/L   MW-13A   03/30/2011   110.000   Total dissolved solids (tds)   MG/L   MW-13A   06/06/2011   110.000   Total dissolved solids (tds)   MG/L   MW-13A   06/06/2011   110.000   Total dissolved solids (tds)   MG/L   MW-13A   09/27/2011   97.000   Total dissolved solids (tds)   MG/L   MW-13A   03/21/2012   93.000   Total dissolved solids (tds)   MG/L   MW-13A   03/21/2012   93.000   Total dissolved solids (tds)   MG/L   MW-13A   06/08/2012   120.000   Total dissolved solids (tds)   MG/L   MW-13A   09/26/2012   120.000   Total dissolved solids (tds)   MG/L   MW-13A   09/26/2012   120.000   Total dissolved solids (tds)   MG/L   MW-13A   09/26/2012   120.000   Total dissolved solids (tds)   MG/L   MW-13A   06/05/2013   100.000   Total dissolved solids (tds)   MG/L   MW-13A   06/05/2013   100.000   Total dissolved solids (tds)   MG/L   MW-13A   06/05/2013   100.000   Total dissolved solids (tds)   MG/L   MW-13A   03/04/2014   100.000   Total dissolved solids (tds)   MG/L   MW-13A   03/04/2014   100.000   Total dissolved solids (tds)   MG/L   MW-13A   03/04/2014   100.000   Total dissolved solids (tds)   MG/L   MW-13A   03/22/20013   93.000   Total dissolved solids (tds)   MG/L   MW-13B   03/22/2005   100.000   Total dissolved solids (tds)   MG/L   MW-13B   03/22/2005   100.000   Total dissolved solids (tds)   MG/L   MW-13B   06/15/2005   114.000   Total dissolved solids (tds)   MG/L   MW-13B   06/15/2005   100.000   Total dissolved solids (tds)   MG/L   MW-13B   06/15/2005   100.000   Total dissolved solids (tds)   MG/L   MW-13B   06/15/2005   100.000   Total dissolved solids (tds)   MG/L   MW-13B   09/26/2006   100.000   Total dissolved so	0
Total dissolved solids (tds)   MG/L   MW-13A   03/25/2010   120.000   Total dissolved solids (tds)   MG/L   MW-13A   06/23/2010   38.000   Total dissolved solids (tds)   MG/L   MW-13A   12/08/2010   39.000   Total dissolved solids (tds)   MG/L   MW-13A   12/08/2010   39.000   Total dissolved solids (tds)   MG/L   MW-13A   03/30/2011   110.000   Total dissolved solids (tds)   MG/L   MW-13A   06/06/2011   110.000   Total dissolved solids (tds)   MG/L   MW-13A   09/27/2011   100.000   Total dissolved solids (tds)   MG/L   MW-13A   09/27/2011   100.000   Total dissolved solids (tds)   MG/L   MW-13A   03/21/2012   39.000   Total dissolved solids (tds)   MG/L   MW-13A   06/08/2012   120.000   Total dissolved solids (tds)   MG/L   MW-13A   06/08/2012   120.000   Total dissolved solids (tds)   MG/L   MW-13A   06/08/2012   120.000   Total dissolved solids (tds)   MG/L   MW-13A   09/26/2012   120.000   Total dissolved solids (tds)   MG/L   MW-13A   09/26/2012   120.000   Total dissolved solids (tds)   MG/L   MW-13A   03/11/2013   100.000   Total dissolved solids (tds)   MG/L   MW-13A   03/06/2013   100.000   Total dissolved solids (tds)   MG/L   MW-13A   06/08/2013   100.000   Total dissolved solids (tds)   MG/L   MW-13A   06/08/2013   100.000   Total dissolved solids (tds)   MG/L   MW-13A   06/08/2014   100.000   Total dissolved solids (tds)   MG/L   MW-13A   06/02/2014   100.000   Total dissolved solids (tds)   MG/L   MW-13A   06/02/2014   100.000   Total dissolved solids (tds)   MG/L   MW-13B   09/22/2005   108.000   Total dissolved solids (tds)   MG/L   MW-13B   09/22/2005   108.000   Total dissolved solids (tds)   MG/L   MW-13B   09/22/2005   108.000   Total dissolved solids (tds)   MG/L   MW-13B   03/22/2005   108.000   Total dissolved solids (tds)   MG/L   MW-13B   06/15/2005   114.000   Total dissolved solids (tds)   MG/L   MW-13B   06/15/2005   110.000   Total dissolved solids (tds)   MG/L   MW-13B   06/18/2009   99.000   Total dissolved solids (tds)   MG/L   MW-13B   06/18/2009   99.000   Total dissolved soli	10
Total dissolved solids (tds)   MG/L   MW-13A   09/23/2010   98.000   Total dissolved solids (tds)   MG/L   MW-13A   12/08/2010   99.000   Total dissolved solids (tds)   MG/L   MW-13A   12/08/2010   99.000   Total dissolved solids (tds)   MG/L   MW-13A   08/06/2011   110.000   Total dissolved solids (tds)   MG/L   MW-13A   08/06/2011   110.000   Total dissolved solids (tds)   MG/L   MW-13A   09/27/2011   100.000   Total dissolved solids (tds)   MG/L   MW-13A   03/27/2011   100.000   Total dissolved solids (tds)   MG/L   MW-13A   03/21/2012   93.000   Total dissolved solids (tds)   MG/L   MW-13A   03/21/2012   20.000   Total dissolved solids (tds)   MG/L   MW-13A   03/21/2012   20.000   Total dissolved solids (tds)   MG/L   MW-13A   09/26/2012   120.000   Total dissolved solids (tds)   MG/L   MW-13A   12/03/2012   88.000   Total dissolved solids (tds)   MG/L   MW-13A   12/03/2012   88.000   Total dissolved solids (tds)   MG/L   MW-13A   08/06/2012   39.000   Total dissolved solids (tds)   MG/L   MW-13A   12/03/2013   80.000   Total dissolved solids (tds)   MG/L   MW-13A   08/05/2013   100.000   Total dissolved solids (tds)   MG/L   MW-13A   08/05/2013   98.000   Total dissolved solids (tds)   MG/L   MW-13A   08/02/2014   100.000   Total dissolved solids (tds)   MG/L   MW-13A   09/22/2014   100.000   Total dissolved solids (tds)   MG/L   MW-13A   09/22/2014   110.000   Total dissolved solids (tds)   MG/L   MW-13A   09/22/2014   110.000   Total dissolved solids (tds)   MG/L   MW-13B   09/27/2005   108.000   Total dissolved solids (tds)   MG/L   MW-13B   09/27/2005   114.000   Total dissolved solids (tds)   MG/L   MW-13B   09/27/2005   110.000   Total dissolved solids (tds)   MG/L   MW-13B   09/27/2007   100.000   Total dissolved solids (tds)   MG/L   MW-13B   09/27/2007   100.000   Total dissolved solids (t	10
Total dissolved solids (tds)	10
Total dissolved solids (tds)   MG/L   MW-13A   03/30/2011   110.000	10
Total dissolved solids (tds)	10
Total dissolved solids (tds)   MG/L   MW-13A   09/08/2011   110.000   Total dissolved solids (tds)   MG/L   MW-13A   09/27/2011   100.000   Total dissolved solids (tds)   MG/L   MW-13A   03/21/2012   93.000   Total dissolved solids (tds)   MG/L   MW-13A   03/21/2012   93.000   Total dissolved solids (tds)   MG/L   MW-13A   09/26/2012   120.000   Total dissolved solids (tds)   MG/L   MW-13A   09/26/2012   120.000   Total dissolved solids (tds)   MG/L   MW-13A   12/03/2012   88.000   Total dissolved solids (tds)   MG/L   MW-13A   12/03/2012   88.000   Total dissolved solids (tds)   MG/L   MW-13A   12/03/2013   100.000   Total dissolved solids (tds)   MG/L   MW-13A   06/05/2013   100.000   Total dissolved solids (tds)   MG/L   MW-13A   12/03/2013   98.000   Total dissolved solids (tds)   MG/L   MW-13A   06/05/2013   100.000   Total dissolved solids (tds)   MG/L   MW-13A   06/02/2014   100.000   Total dissolved solids (tds)   MG/L   MW-13A   06/02/2014   100.000   Total dissolved solids (tds)   MG/L   MW-13A   09/22/2014   110.000   Total dissolved solids (tds)   MG/L   MW-13A   09/22/2014   110.000   Total dissolved solids (tds)   MG/L   MW-13B   03/22/2005   Total dissolved solids (tds)   MG/L   MW-13B   03/22/2005   114.000   Total dissolved solids (tds)   MG/L   MW-13B   09/27/2005   114.000   Total dissolved solids (tds)   MG/L   MW-13B   09/27/2005   114.000   Total dissolved solids (tds)   MG/L   MW-13B   09/27/2005   110.000   Total dissolved solids (tds)   MG/L   MW-13B   09/27/2005   130.000   Total dissolved solids (tds)   MG/L   MW-13B   09/27/2005   130.000   Total dissolved solids (tds)   MG/L   MW-13B   09/27/2006   100.000   Total dissolved solids (tds)   MG/L   MW-13B   09/27/2006   100.000   Total dissolved solids (tds)   MG/L   MW-13B   09/27/2007   100.000   Total dissolved solids (tds)   MG/L   MW-13B   09/27/2007   100.000   Total dissolved solids (tds)   MG/L   MW-13B   09/27/2007   100.000   Total dissolved solids (tds)   MG/L   MW-13B   09/28/2000   100.000   Total dissolved solids (tds)	10
Total dissolved solids (tds)   MG/L   MW-13A   09/27/2011   97.000   Total dissolved solids (tds)   MG/L   MW-13A   06/08/2012   93.000   Total dissolved solids (tds)   MG/L   MW-13A   06/08/2012   120.000   Total dissolved solids (tds)   MG/L   MW-13A   09/28/2012   120.000   Total dissolved solids (tds)   MG/L   MW-13A   09/28/2012   120.000   Total dissolved solids (tds)   MG/L   MW-13A   09/28/2012   120.000   Total dissolved solids (tds)   MG/L   MW-13A   03/11/2013   100.000   Total dissolved solids (tds)   MG/L   MW-13A   03/11/2013   100.000   Total dissolved solids (tds)   MG/L   MW-13A   03/04/2013   100.000   Total dissolved solids (tds)   MG/L   MW-13A   03/04/2014   100.000   Total dissolved solids (tds)   MG/L   MW-13A   03/04/2014   100.000   Total dissolved solids (tds)   MG/L   MW-13A   09/22/2014   110.000   Total dissolved solids (tds)   MG/L   MW-13A   09/22/2014   110.000   Total dissolved solids (tds)   MG/L   MW-13A   09/22/2014   110.000   Total dissolved solids (tds)   MG/L   MW-13A   11/17/2014   110.000   Total dissolved solids (tds)   MG/L   MW-13B   09/22/2005   108.000   Total dissolved solids (tds)   MG/L   MW-13B   09/27/2005   111.000   Total dissolved solids (tds)   MG/L   MW-13B   09/27/2005   111.000   Total dissolved solids (tds)   MG/L   MW-13B   09/27/2005   111.000   Total dissolved solids (tds)   MG/L   MW-13B   09/27/2006   89.000   Total dissolved solids (tds)   MG/L   MW-13B   09/27/2006   100.000   Total dissolved solids (tds)   MG/L   MW-13B   09/28/2006   89.000   Total dissolved solids (tds)   MG/L   MW-13B   09/28/2006   89.000   Total dissolved solids (tds)   MG/L   MW-13B   09/28/2006   89.000   Total dissolved solids (tds)   MG/L   MW-13B   09/28/2006   99.000   Total dissolved solids (tds)   MG/L   MW-13B   09/18/2007   99.000   Total dissolved solids (tds)   MG/L   MW-13B   09/18/2007   99.000   Total dissolved solids (tds)   MG/L   MW-13B   09/18/2007   99.000   Total dissolved solids (tds)   MG/L   MW-13B   09/28/2001   10.000   Total dissolved solids (t	10
Total dissolved solids (tds)   MG/L   MW-13A   12/14/2011   97.000	10
Total dissolved solids (tds)   MG/L   MW-13A   03/21/2012   120.000   Total dissolved solids (tds)   MG/L   MW-13A   06/08/2012   120.000   Total dissolved solids (tds)   MG/L   MW-13A   12/03/2012   120.000   Total dissolved solids (tds)   MG/L   MW-13A   12/03/2012   88.000   Total dissolved solids (tds)   MG/L   MW-13A   12/03/2012   88.000   Total dissolved solids (tds)   MG/L   MW-13A   03/11/2013   100.000   Total dissolved solids (tds)   MG/L   MW-13A   12/03/2013   98.000   Total dissolved solids (tds)   MG/L   MW-13A   12/03/2013   98.000   Total dissolved solids (tds)   MG/L   MW-13A   12/03/2013   98.000   Total dissolved solids (tds)   MG/L   MW-13A   03/04/2014   100.000   Total dissolved solids (tds)   MG/L   MW-13A   09/22/2014   110.000   Total dissolved solids (tds)   MG/L   MW-13A   09/22/2014   110.000   Total dissolved solids (tds)   MG/L   MW-13A   09/22/2005   108.000   Total dissolved solids (tds)   MG/L   MW-13B   03/22/2005   108.000   Total dissolved solids (tds)   MG/L   MW-13B   06/15/2005   114.000   Total dissolved solids (tds)   MG/L   MW-13B   09/27/2005   111.000   Total dissolved solids (tds)   MG/L   MW-13B   03/22/2006   89.000   Total dissolved solids (tds)   MG/L   MW-13B   03/29/2006   89.000   Total dissolved solids (tds)   MG/L   MW-13B   06/21/2006   100.000   Total dissolved solids (tds)   MG/L   MW-13B   06/21/2006   100.000   Total dissolved solids (tds)   MG/L   MW-13B   03/27/2007   99.000   Total dissolved solids (tds)   MG/L   MW-13B   09/18/2007   99.000   Total dissolved solids (tds)   MG/L   MW-13B   09/18/2009   100.000   Total dissolved solids (tds)   MG/L   MW-13B   09/18/2009   100.000   Total dissolved solids (tds)	0
Total dissolved solids (tds)	0
Total dissolved solids (tds)	10
Total dissolved solids (tds)	0
Total dissolved solids (tds)	0
Total dissolved solids (tds)	00
Total dissolved solids (tds)	00
Total dissolved solids (tds)	00
Total dissolved solids (tds)	00
Total dissolved solids (tds)	00
Total dissolved solids (tds)	00
Total dissolved solids (tds)	00
Total dissolved solids (tds)	
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Total dissolved solids (tds)	00
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Total dissolved solids (tds)	00
Total dissolved solids (tds)	
Total dissolved solids (tds)	00
Total dissolved solids (tds)	00
Total dissolved solids (tds)	00
Total dissolved solids (tds)	
Total dissolved solids (tds)	
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Total dissolved solids (tds)	
Total dissolved solids (tds)	
Total dissolved solids (tds)	
Total dissolved solids (tds)	
Total dissolved solids (tds)	
Total dissolved solids (tds)	
Total dissolved solids (tds)	
Total dissolved solids (tds)   MG/L   MW-13B   06/08/2012   110.000	
Total dissolved solids (tds)   MG/L   MW-13B   09/26/2012   110.000	
Total dissolved solids (tds)   MG/L   MW-13B   12/03/2012   93.000	
Total dissolved solids (tds)   MG/L   MW-13B   03/11/2013   100.000	
Total dissolved solids (tds)   MG/L   MW-13B   06/05/2013   98.000	
Total dissolved solids (tds)   MG/L   MW-13B   12/03/2013   99.000	
Total dissolved solids (tds)	
Total dissolved solids (tds)   MG/L   MW-13B   06/02/2014   100.000	
Total dissolved solids (tds)   MG/L   MW-13B   09/22/2014   110.000	
Total dissolved solids (tds)   MG/L   MW-13B   11/17/2014   110.000	
Total dissolved solids (tds) MG/L MW-16 03/24/2009 87.000	
Total dissolved solids (tds)	
Total dissolved solids (tds)   MG/L   MW-16   09/09/2009   89.000	

<sup>\* -</sup> Outlier for that well and constituent. ND = Not detected, result = detection limit.

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result
Total dissolved solids (tds)	MG/L	MW-16	12/03/2009		97.0000
Total dissolved solids (tds)	MG/L	MW-16	03/25/2010		83.0000
Total dissolved solids (tds)	MG/L	MW-16	06/24/2010		95.0000
Total dissolved solids (tds)	MG/L	MW-16	09/24/2010		120.0000
Total dissolved solids (tds)	MG/L	MW-16	12/09/2010		100.0000
Total dissolved solids (tds)	MG/L	MW-16	03/30/2011		91.0000
Total dissolved solids (tds)	MG/L	MW-16	06/07/2011		94.0000
Total dissolved solids (tds)	MG/L	MW-16	09/27/2011		100.0000
Total dissolved solids (tds)	MG/L	MW-16	12/13/2011		93.0000
Total dissolved solids (tds)	MG/L	MW-16	03/21/2012		71.0000
Total dissolved solids (tds)	MG/L	MW-16	06/08/2012		95.0000
Total dissolved solids (tds)	MG/L	MW-16	09/27/2012		87.0000
Total dissolved solids (tds)	MG/L	MW-16	12/04/2012		100.0000
Total dissolved solids (tds)	MG/L	MW-16	03/12/2013		100.0000
Total dissolved solids (tds)	MG/L	MW-16	06/04/2013		68.0000
Total dissolved solids (tds)	MG/L	MW-16	09/05/2013		100.0000
Total dissolved solids (tds)	MG/L	MW-16	12/16/2013		92.0000
Total dissolved solids (tds)	MG/L	MW-16	03/05/2014		82.0000
Total dissolved solids (tds)	MG/L	MW-16	06/02/2014		79.0000
Total dissolved solids (tds)	MG/L	MW-16	09/22/2014		93.0000
Total dissolved solids (tds)	MG/L	MW-16	11/18/2014		100.0000
Total dissolved solids (tds)	MG/L	MW-35	03/22/2005		100.0000
Total dissolved solids (tds)	MG/L	MW-35	06/14/2005		88.0000
Total dissolved solids (tds)	MG/L	MW-35	09/27/2005		123.0000
Total dissolved solids (tds)	MG/L	MW-35	12/15/2005		87.0000
Total dissolved solids (tds)	MG/L	MW-35	03/28/2006		91.0000
Total dissolved solids (tds)	MG/L	MW-35	06/21/2006		110.0000
Total dissolved solids (tds)	MG/L	MW-35	09/26/2006		110.0000
Total dissolved solids (tds)	MG/L	MW-35	12/12/2006		90.0000
Total dissolved solids (tds)	MG/L	MW-35	03/27/2007		93.0000
Total dissolved solids (tds)	MG/L	MW-35	06/20/2007		110.0000
Total dissolved solids (tds)	MG/L	MW-35	09/18/2007		90.0000
Total dissolved solids (tds)	MG/L	MW-35	12/20/2007		120.0000
Total dissolved solids (tds)	MG/L	MW-35	03/25/2008		76.0000
Total dissolved solids (tds)	MG/L	MW-35	06/18/2008		93.0000
Total dissolved solids (tds)	MG/L	MW-35	09/18/2008		92.0000
Total dissolved solids (tds)	MG/L	MW-35	12/19/2008		93.0000
Total dissolved solids (tds)	MG/L	MW-35	03/24/2009		84.0000
Total dissolved solids (tds)	MG/L	MW-35	06/16/2009		95.0000
Total dissolved solids (tds)	MG/L	MW-35	09/10/2009		83.0000
Total dissolved solids (tds)	MG/L	MW-35	12/03/2009		85.0000
Total dissolved solids (tds)	MG/L	MW-35	03/25/2010		96.0000
Total dissolved solids (tds)	MG/L	MW-35	06/23/2010		100.0000
Total dissolved solids (tds)	MG/L	MW-35	09/23/2010		86.0000
Total dissolved solids (tds)  Total dissolved solids (tds)	MG/L	MW-35	12/09/2010		97.0000
Total dissolved solids (tds)  Total dissolved solids (tds)	MG/L	MW-35	03/30/2011		91.0000
Total dissolved solids (tds)  Total dissolved solids (tds)	MG/L	MW-35	06/06/2011		96.0000
` '	MG/L	MW-35	09/26/2011		
Total dissolved solids (tds) Total dissolved solids (tds)	MG/L MG/L	MW-35	12/13/2011		100.0000 95.0000
Total dissolved solids (tds)	MG/L MG/L	MW-35			
Total dissolved solids (tds)	MG/L MG/L	MW-35	03/21/2012		85.0000 120.0000
Total dissolved solids (tds)	MG/L MG/L	MW-35	06/06/2012		
Total dissolved solids (tds)	MG/L MG/L	MW-35	09/26/2012		110.0000
Total dissolved solids (tds)	MG/L MG/L		12/04/2012		100.0000 96.0000
Total dissolved solids (tds)		MW-35	03/13/2013		
	MG/L	MW-35	06/06/2013		90.0000
Total dissolved solids (tds) Total dissolved solids (tds)	MG/L	MW-35	09/05/2013		100.0000
	MG/L	MW-35	12/16/2013		95.0000
Total dissolved solids (tds)	MG/L	MW-35	03/04/2014		94.0000
Total dissolved solids (tds)	MG/L	MW-35	06/02/2014		92.0000
Total dissolved solids (tds)	MG/L	MW-35	09/22/2014		99.0000
Total dissolved solids (tds)	MG/L	MW-35	11/17/2014	NID.	100.0000
Total organic carbon (toc)	MG/L	MW-13A	03/22/2005	ND	1.0000
Total organic carbon (toc)	MG/L	MW-13A	06/15/2005	ND	1.0000
Total organic carbon (toc)	MG/L	MW-13A	09/27/2005	ND	1.0000
Total organic carbon (toc)	MG/L	MW-13A	12/15/2005	ND	1.0000

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result	
Total organic carbon (toc)	MG/L	MW-13A	03/28/2006	ND	1.0000	$\dashv$
Total organic carbon (toc)	MG/L	MW-13A	06/21/2006		2.2000	
Total organic carbon (toc)	MG/L	MW-13A	09/26/2006		6.0000	
Total organic carbon (toc)	MG/L	MW-13A	12/13/2006	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13A	03/27/2007	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13A	06/19/2007	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13A	09/19/2007	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13A	12/19/2007	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13A	03/25/2008	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13A	06/18/2008	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13A	09/17/2008	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13A	12/17/2008		1.0000	
Total organic carbon (toc)	MG/L	MW-13A	03/24/2009	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13A	06/17/2009	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13A	09/10/2009	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13A	12/03/2009	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13A	03/25/2010	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13A	06/23/2010	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13A	09/23/2010	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13A	12/08/2010	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13A	03/30/2011	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13A	06/06/2011	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13A	09/27/2011	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13A	12/14/2011	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13A	03/21/2012	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13A	06/08/2012	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13A	09/26/2012	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13A MW-13A	12/03/2012	ND	1.0000	
Total organic carbon (toc) Total organic carbon (toc)	MG/L MG/L	_	03/11/2013	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13A MW-13A	06/05/2013 12/03/2013	ND ND	1.0000 1.0000	
Total organic carbon (toc)	MG/L	MW-13A	03/04/2014	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13A	06/02/2014	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13A	09/22/2014	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13A	11/17/2014	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13B	03/22/2005	ND	1.0000	$\dashv$
Total organic carbon (toc)	MG/L	MW-13B	06/15/2005	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13B	09/27/2005	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13B	12/15/2005	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13B	03/29/2006	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13B	06/21/2006	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13B	09/26/2006		4.8000	
Total organic carbon (toc)	MG/L	MW-13B	12/13/2006	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13B	03/27/2007	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13B	06/19/2007	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13B	09/18/2007	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13B	12/19/2007	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13B	03/25/2008	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13B	06/18/2008	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13B	09/17/2008	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13B	12/16/2008	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13B	03/24/2009	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13B	06/17/2009	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13B	09/10/2009	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13B	12/03/2009	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13B	03/25/2010	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13B	06/23/2010	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13B	09/23/2010	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13B	12/08/2010	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13B	03/30/2011	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13B	06/06/2011	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13B	09/27/2011	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13B	12/14/2011	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13B	03/21/2012	ND	1.0000	
Total organic carbon (toc)	MG/L	MW-13B	06/08/2012	ND	1.0000	

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result
Total organic carbon (toc)	MG/L	MW-13B	09/26/2012	ND	1.0000
Total organic carbon (toc)	MG/L	MW-13B	12/03/2012	ND	1.0000
Total organic carbon (toc)	MG/L	MW-13B	03/11/2013	ND	1.0000
Total organic carbon (toc)	MG/L	MW-13B	06/05/2013	ND	1.0000
Total organic carbon (toc)	MG/L	MW-13B	12/03/2013	ND	1.0000
Total organic carbon (toc)	MG/L	MW-13B	03/04/2014	ND	1.0000
Total organic carbon (toc)	MG/L	MW-13B	06/02/2014	ND	1.0000
Total organic carbon (toc)	MG/L	MW-13B	09/22/2014	ND	1.0000
Total organic carbon (toc)	MG/L	MW-13B	11/17/2014	ND	1.0000
Total organic carbon (toc)	MG/L	MW-16	03/24/2009	ND	1.0000
Total organic carbon (toc)	MG/L	MW-16	06/16/2009	ND	1.0000
Total organic carbon (toc)	MG/L	MW-16	09/09/2009	ND	1.0000
Total organic carbon (toc)	MG/L	MW-16	12/03/2009	ND	1.0000
Total organic carbon (toc)	MG/L	MW-16	03/25/2010	ND	1.0000
Total organic carbon (toc)	MG/L	MW-16	06/24/2010	ND	1.0000
Total organic carbon (toc)	MG/L	MW-16	09/24/2010	ND	1.0000
Total organic carbon (toc)	MG/L	MW-16	12/09/2010	ND	1.0000
Total organic carbon (toc)	MG/L	MW-16	03/30/2011	ND	1.0000
Total organic carbon (toc)	MG/L	MW-16	06/07/2011	ND	1.0000
Total organic carbon (toc)	MG/L	MW-16	09/27/2011	ND	1.0000
Total organic carbon (toc)	MG/L	MW-16	12/13/2011	ND	1.0000
Total organic carbon (toc)	MG/L	MW-16	03/21/2012	ND	1.0000
Total organic carbon (toc)	MG/L	MW-16	06/08/2012	ND	1.0000
Total organic carbon (toc)	MG/L	MW-16	09/27/2012	ND	1.0000
Total organic carbon (toc)	MG/L	MW-16	12/04/2012	ND	1.0000
Total organic carbon (toc)	MG/L	MW-16	03/12/2013	ND	1.0000
Total organic carbon (toc)	MG/L	MW-16	06/04/2013	ND	1.0000
Total organic carbon (toc)	MG/L	MW-16	09/05/2013	ND	1.0000
Total organic carbon (toc)	MG/L	MW-16	12/16/2013	ND	1.0000
Total organic carbon (toc)	MG/L	MW-16	03/05/2014	ND	1.0000
Total organic carbon (toc)	MG/L	MW-16	06/02/2014	ND	1.0000
Total organic carbon (toc)	MG/L	MW-16	09/22/2014	ND	1.0000
Total organic carbon (toc)	MG/L	MW-16	11/18/2014	ND	1.0000
Total organic carbon (toc)	MG/L	MW-35	03/22/2005	ND	1.0000
Total organic carbon (toc)	MG/L	MW-35	06/14/2005	ND	1.0000
Total organic carbon (toc)	MG/L	MW-35	09/27/2005	ND	1.0000
Total organic carbon (toc)	MG/L	MW-35	12/15/2005	ND	1.0000
Total organic carbon (toc)	MG/L	MW-35	03/28/2006	ND	1.0000
Total organic carbon (toc)	MG/L	MW-35	06/21/2006		2.1000
Total organic carbon (toc)	MG/L	MW-35	09/26/2006	NID	4.3000
Total organic carbon (toc)	MG/L	MW-35	12/12/2006	ND	1.0000
Total organic carbon (toc)	MG/L	MW-35	03/27/2007	ND	1.0000
Total organic carbon (toc)	MG/L	MW-35	06/20/2007	ND	1.0000
Total organic carbon (toc)	MG/L	MW-35	09/18/2007	ND	1.0000
Total organic carbon (toc)	MG/L	MW-35	12/20/2007	ND	1.0000
Total organic carbon (toc)	MG/L	MW-35	03/25/2008	ND	1.0000
Total organic carbon (toc)	MG/L	MW-35	06/18/2008	ND	1.0000
Total organic carbon (toc)	MG/L	MW-35	09/18/2008	ND	1.0000
Total organic carbon (toc)	MG/L	MW-35	12/19/2008	NID	1.0000
Total organic carbon (toc)	MG/L	MW-35	03/24/2009	ND	1.0000
Total organic carbon (toc)	MG/L	MW-35	06/16/2009	ND	1.0000
Total organic carbon (toc) Total organic carbon (toc)	MG/L	MW-35	09/10/2009	ND	1.0000
	MG/L	MW-35	12/03/2009	ND	1.0000
Total organic carbon (toc) Total organic carbon (toc)	MG/L	MW-35 MW-35	03/25/2010	ND	1.0000
	MG/L		06/23/2010	ND	1.0000
Total organic carbon (toc) Total organic carbon (toc)	MG/L MG/L	MW-35 MW-35	09/23/2010 12/09/2010	ND ND	1.0000 1.0000
Total organic carbon (toc)	MG/L	MW-35	03/30/2011	ND	1.0000
Total organic carbon (toc)	MG/L	MW-35	06/06/2011	ND	1.0000
Total organic carbon (toc)	MG/L	MW-35	09/26/2011		
Total organic carbon (toc)	MG/L MG/L	MW-35		ND	1.0000
Total organic carbon (toc)	MG/L MG/L	MW-35	12/13/2011	ND	
Total organic carbon (toc)  Total organic carbon (toc)	MG/L MG/L	MW-35	03/21/2012	ND	1.0000
Total organic carbon (toc)  Total organic carbon (toc)	MG/L MG/L	MW-35	06/06/2012 09/26/2012	ND ND	1.0000 1.0000
Total organic carbon (toc)	MG/L	MW-35	12/04/2012	ND	1.0000
Total Organic Carbon (tOC)	IVIG/L	10100-00	12/04/2012	אט	1.0000

<sup>\* -</sup> Outlier for that well and constituent. ND = Not detected, result = detection limit.

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result
Total organic carbon (toc)	MG/L	MW-35	03/13/2013	ND	1.0000
Total organic carbon (toc)	MG/L	MW-35	06/06/2013	ND	1.0000
Total organic carbon (toc)	MG/L	MW-35	09/05/2013	ND	1.0000
Total organic carbon (toc)	MG/L	MW-35	12/16/2013	ND	1.0000
Total organic carbon (toc)	MG/L	MW-35	03/04/2014	ND	1.0000
Total organic carbon (toc)	MG/L	MW-35	06/02/2014	ND	1.0000
Total organic carbon (toc)	MG/L	MW-35	09/22/2014	ND	1.0000
Total organic carbon (toc)	MG/L	MW-35	11/17/2014	ND	1.0000
Vanadium, dissolved	MG/L	MW-13A	03/22/2005		0.0042
Vanadium, dissolved	MG/L	MW-13A	06/15/2005		0.0036
Vanadium, dissolved	MG/L	MW-13A	09/27/2005		0.0036
Vanadium, dissolved	MG/L	MW-13A	12/15/2005		0.0038
Vanadium, dissolved	MG/L	MW-13A	03/28/2006		0.0041
Vanadium, dissolved	MG/L	MW-13A	06/21/2006		0.0043
Vanadium, dissolved	MG/L	MW-13A	09/26/2006		0.0041
Vanadium, dissolved Vanadium, dissolved	MG/L MG/L	MW-13A MW-13A	12/13/2006 03/27/2007		0.0038 0.0041
Vanadium, dissolved	MG/L	MW-13A	06/19/2007		0.0041
Vanadium, dissolved	MG/L	MW-13A	09/19/2007		0.0039
Vanadium, dissolved	MG/L	MW-13A	12/19/2007		0.0039
Vanadium, dissolved	MG/L	MW-13A	03/25/2008		0.0043
Vanadium, dissolved	MG/L	MW-13A	06/18/2008		0.0040
Vanadium, dissolved	MG/L	MW-13A	09/17/2008		0.0030
Vanadium, dissolved	MG/L	MW-13A	12/17/2008		0.0038
Vanadium, dissolved	MG/L	MW-13A	03/24/2009		0.0039
Vanadium, dissolved	MG/L	MW-13A	06/17/2009		0.0039
Vanadium, dissolved	MG/L	MW-13A	09/10/2009		0.0041
Vanadium, dissolved	MG/L	MW-13A	12/03/2009		0.0041
Vanadium, dissolved	MG/L	MW-13A	03/25/2010		0.0039
Vanadium, dissolved	MG/L	MW-13A	06/23/2010		0.0038
Vanadium, dissolved	MG/L	MW-13A	09/23/2010		0.0038
Vanadium, dissolved	MG/L	MW-13A	12/08/2010		0.0058
Vanadium, dissolved	MG/L	MW-13A	03/30/2011		0.0039
Vanadium, dissolved	MG/L	MW-13A	06/06/2011		0.0038
Vanadium, dissolved	MG/L	MW-13A	09/27/2011		0.0037
Vanadium, dissolved	MG/L	MW-13A	12/14/2011		0.0041
Vanadium, dissolved	MG/L	MW-13A	03/21/2012		0.0037
Vanadium, dissolved	MG/L	MW-13A	06/08/2012		0.0039
Vanadium, dissolved	MG/L	MW-13A	09/26/2012		0.0039
Vanadium, dissolved	MG/L	MW-13A	12/03/2012		0.0037
Vanadium, dissolved	MG/L	MW-13A	03/11/2013		0.0043
Vanadium, dissolved	MG/L	MW-13A	06/05/2013		0.0035
Vanadium, dissolved	MG/L	MW-13A	12/03/2013		0.0041
Vanadium, dissolved	MG/L	MW-13A	03/04/2014		0.0042
Vanadium, dissolved	MG/L	MW-13A	06/02/2014		0.0039
Vanadium, dissolved	MG/L MG/L	MW-13A	09/22/2014		0.0041
Vanadium, dissolved		MW-13A MW-13B	11/17/2014 03/22/2005		0.0040
Vanadium, dissolved Vanadium, dissolved	MG/L MG/L	MW-13B	03/22/2005 06/15/2005		0.0066 0.0057
Vanadium, dissolved Vanadium, dissolved	MG/L MG/L	MW-13B	09/27/2005		0.0057
Vanadium, dissolved	MG/L	MW-13B	12/15/2005		0.0057
Vanadium, dissolved	MG/L	MW-13B	03/29/2006		0.0037
Vanadium, dissolved	MG/L	MW-13B	06/21/2006		0.0059
Vanadium, dissolved	MG/L	MW-13B	09/26/2006		0.0058
Vanadium, dissolved	MG/L	MW-13B	12/13/2006		0.0056
Vanadium, dissolved	MG/L	MW-13B	03/27/2007		0.0059
Vanadium, dissolved	MG/L	MW-13B	06/19/2007		0.0060
Vanadium, dissolved	MG/L	MW-13B	09/18/2007		0.0057
Vanadium, dissolved	MG/L	MW-13B	12/19/2007		0.0060
Vanadium, dissolved	MG/L	MW-13B	03/25/2008		0.0060
Vanadium, dissolved	MG/L	MW-13B	06/18/2008		0.0054
Vanadium, dissolved	MG/L	MW-13B	09/17/2008		0.0056
Vanadium, dissolved	MG/L	MW-13B	12/16/2008		0.0058
Vanadium, dissolved	MG/L	MW-13B	03/24/2009		0.0056
Vanadium, dissolved	MG/L	MW-13B	06/17/2009		0.0059

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date	Result
Vanadium, dissolved	MG/L	MW-13B	09/10/2009	0.0057
Vanadium, dissolved	MG/L	MW-13B	12/03/2009	0.0062
Vanadium, dissolved	MG/L	MW-13B	03/25/2010	0.0056
Vanadium, dissolved	MG/L	MW-13B	06/23/2010	0.0055
Vanadium, dissolved	MG/L	MW-13B	09/23/2010	0.0055
Vanadium, dissolved	MG/L	MW-13B	12/08/2010	0.0038
Vanadium, dissolved	MG/L	MW-13B	03/30/2011	0.0057
Vanadium, dissolved	MG/L	MW-13B	06/06/2011	0.0055
Vanadium, dissolved	MG/L	MW-13B	09/27/2011	0.0057
Vanadium, dissolved	MG/L	MW-13B	12/14/2011	0.0066
Vanadium, dissolved	MG/L	MW-13B	03/21/2012	0.0055
Vanadium, dissolved	MG/L	MW-13B	06/08/2012	0.0055
Vanadium, dissolved	MG/L	MW-13B	09/26/2012	0.0055
Vanadium, dissolved	MG/L	MW-13B	12/03/2012	0.0052
Vanadium, dissolved	MG/L	MW-13B	03/11/2013	0.0053
Vanadium, dissolved	MG/L	MW-13B	06/05/2013	0.0055
Vanadium, dissolved	MG/L	MW-13B	12/03/2013	0.0057
Vanadium, dissolved	MG/L	MW-13B	03/04/2014	0.0058
Vanadium, dissolved	MG/L	MW-13B	06/02/2014	0.0053
Vanadium, dissolved	MG/L	MW-13B	09/22/2014	0.0062
Vanadium, dissolved	MG/L	MW-13B	11/17/2014	0.0054
Vanadium, dissolved	MG/L	MW-16	03/24/2009	0.0035
Vanadium, dissolved	MG/L	MW-16	06/16/2009	0.0036
Vanadium, dissolved	MG/L	MW-16	09/09/2009	0.0036
Vanadium, dissolved	MG/L	MW-16	12/03/2009	0.0034
Vanadium, dissolved	MG/L	MW-16	03/25/2010	0.0036
Vanadium, dissolved	MG/L	MW-16	06/24/2010	0.0038
Vanadium, dissolved	MG/L	MW-16	09/24/2010	0.0041
Vanadium, dissolved	MG/L	MW-16	12/09/2010	0.0037
Vanadium, dissolved	MG/L	MW-16	03/30/2011	0.0039
Vanadium, dissolved	MG/L	MW-16	06/07/2011	0.0039
Vanadium, dissolved	MG/L	MW-16	09/27/2011	0.0043
Vanadium, dissolved	MG/L	MW-16	12/13/2011	0.0035
Vanadium, dissolved	MG/L	MW-16	03/21/2012	0.0042
Vanadium, dissolved	MG/L	MW-16	06/08/2012	0.0033
Vanadium, dissolved	MG/L	MW-16	09/27/2012	0.0043
Vanadium, dissolved	MG/L	MW-16	12/04/2012	0.0034
Vanadium, dissolved	MG/L	MW-16	03/12/2013	0.0033
Vanadium, dissolved	MG/L	MW-16	06/04/2013	0.0038
Vanadium, dissolved	MG/L	MW-16	09/05/2013	0.0037
Vanadium, dissolved	MG/L	MW-16	12/16/2013	0.0034
Vanadium, dissolved	MG/L	MW-16	03/05/2014	0.0038
Vanadium, dissolved	MG/L	MW-16	06/02/2014	0.0042
Vanadium, dissolved	MG/L	MW-16	09/22/2014	0.0037
Vanadium, dissolved	MG/L	MW-16	11/18/2014	0.0035
Vanadium, dissolved	MG/L	MW-35	03/22/2005	0.0047
Vanadium, dissolved	MG/L	MW-35	06/14/2005	0.0039
Vanadium, dissolved	MG/L	MW-35	09/27/2005	0.0044
Vanadium, dissolved	MG/L	MW-35	12/15/2005	0.0041
Vanadium, dissolved	MG/L	MW-35	03/28/2006	0.0048
Vanadium, dissolved	MG/L	MW-35	06/21/2006	0.0046
Vanadium, dissolved	MG/L	MW-35	09/26/2006	0.0046
Vanadium, dissolved	MG/L	MW-35	12/12/2006	0.0044
Vanadium, dissolved	MG/L	MW-35	03/27/2007	0.0047
Vanadium, dissolved	MG/L	MW-35	06/20/2007	0.0046
Vanadium, dissolved	MG/L	MW-35	09/18/2007	0.0050
Vanadium, dissolved	MG/L	MW-35	12/20/2007	0.0045
Vanadium, dissolved	MG/L	MW-35	03/25/2008	0.0046
Vanadium, dissolved	MG/L	MW-35	06/18/2008	0.0047
Vanadium, dissolved	MG/L	MW-35	09/18/2008	0.0045
Vanadium, dissolved	MG/L	MW-35	12/19/2008	0.0042
Vanadium, dissolved	MG/L	MW-35	03/24/2009	0.0043
Vanadium, dissolved	MG/L	MW-35	06/16/2009	0.0041
Vanadium, dissolved	MG/L	MW-35	09/10/2009	0.0047
Vanadium, dissolved	MG/L	MW-35	12/03/2009	0.0048

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result	
Vanadium, dissolved	MG/L	MW-35	03/25/2010		0.0043	_
Vanadium, dissolved	MG/L	MW-35	06/23/2010		0.0044	
Vanadium, dissolved	MG/L	MW-35	09/23/2010		0.0043	
Vanadium, dissolved	MG/L	MW-35	12/09/2010		0.0045	
Vanadium, dissolved	MG/L	MW-35	03/30/2011		0.0046	
Vanadium, dissolved	MG/L	MW-35	06/06/2011		0.0044	
Vanadium, dissolved	MG/L	MW-35	09/26/2011		0.0045	
Vanadium, dissolved	MG/L	MW-35	12/13/2011	ND	0.0020	
Vanadium, dissolved	MG/L	MW-35	03/21/2012	110	0.0046	
Vanadium, dissolved	MG/L	MW-35	06/06/2012		0.0042	
Vanadium, dissolved	MG/L	MW-35	09/26/2012		0.0042	
Vanadium, dissolved	MG/L	MW-35	12/04/2012		0.0043	
Vanadium, dissolved	MG/L	MW-35	03/13/2013		0.0041	
Vanadium, dissolved	MG/L	MW-35			0.0041	
			06/06/2013			
Vanadium, dissolved	MG/L	MW-35	09/05/2013		0.0042	
Vanadium, dissolved	MG/L	MW-35	12/16/2013		0.0044	
Vanadium, dissolved	MG/L	MW-35	03/04/2014		0.0045	
Vanadium, dissolved	MG/L	MW-35	06/02/2014		0.0048	
Vanadium, dissolved	MG/L	MW-35	09/22/2014		0.0049	
Vanadium, dissolved	MG/L	MW-35	11/17/2014		0.0036	
Zinc, dissolved	MG/L	MW-13A	12/19/2007	ND	0.0050	
Zinc, dissolved	MG/L	MW-13A	03/25/2008	ND	0.0050	
Zinc, dissolved	MG/L	MW-13A	06/18/2008	ND	0.0050	
Zinc, dissolved	MG/L	MW-13A	09/17/2008	ND	0.0050	
Zinc, dissolved	MG/L	MW-13A	12/17/2008	ND	0.0050	
Zinc, dissolved	MG/L	MW-13A	03/24/2009	ND	0.0050	
Zinc, dissolved	MG/L	MW-13A	06/17/2009	ND	0.0050	
Zinc, dissolved	MG/L	MW-13A	09/10/2009	ND	0.0050	
Zinc, dissolved	MG/L	MW-13A	12/03/2009	ND	0.0050	
Zinc, dissolved	MG/L	MW-13A	03/25/2010	ND	0.0050	
Zinc, dissolved	MG/L	MW-13A	06/23/2010	ND	0.0050	
Zinc, dissolved	MG/L	MW-13A	09/23/2010	ND	0.0050	
Zinc, dissolved	MG/L	MW-13A	12/08/2010	ND	0.0050	
Zinc, dissolved	MG/L	MW-13A	03/30/2011	ND	0.0050	
Zinc, dissolved	MG/L	MW-13A	06/06/2011	ND	0.0050	
Zinc, dissolved	MG/L	MW-13A	09/27/2011	ND	0.0050	
Zinc, dissolved	MG/L	MW-13A	12/14/2011	ND	0.0050	
Zinc, dissolved	MG/L	MW-13A	03/21/2012	ND	0.0050	
Zinc, dissolved	MG/L	MW-13A	06/08/2012	ND	0.0050	
Zinc, dissolved	MG/L	MW-13A	09/26/2012	ND	0.0050	
Zinc, dissolved	MG/L	MW-13A	12/03/2012	ND	0.0050	
Zinc, dissolved	MG/L	MW-13A	03/11/2013	ND	0.0050	
Zinc, dissolved	MG/L	MW-13A	06/05/2013	ND	0.0050	
Zinc, dissolved	MG/L	MW-13A	12/03/2013	ND	0.0050	
Zinc, dissolved	MG/L	MW-13A	03/04/2014	ND	0.0050	
Zinc, dissolved	MG/L	MW-13A	06/02/2014	ND	0.0050	
Zinc, dissolved	MG/L	MW-13A	09/22/2014	ND	0.0050	
Zinc, dissolved	MG/L	MW-13A	11/17/2014	ND	0.0050	
Zinc, dissolved	MG/L	MW-13B	09/18/2007		0.0096	_
Zinc, dissolved	MG/L	MW-13B	12/19/2007	ND	0.0050	
Zinc, dissolved	MG/L	MW-13B	03/25/2008	ND	0.0050	
Zinc, dissolved	MG/L	MW-13B	06/18/2008	ND	0.0050	
Zinc, dissolved	MG/L	MW-13B	09/17/2008	ND	0.0050	
Zinc. dissolved	MG/L	MW-13B	12/16/2008	ND	0.0050	
Zinc, dissolved	MG/L	MW-13B	03/24/2009	ND	0.0050	
Zinc, dissolved	MG/L	MW-13B	06/17/2009	ND	0.0050	
Zinc, dissolved	MG/L	MW-13B	09/10/2009	ND	0.0050	
Zinc, dissolved	MG/L	MW-13B	12/03/2009	ND	0.0050	
Zinc, dissolved	MG/L	MW-13B	03/25/2010	ND	0.0050	
Zinc, dissolved Zinc, dissolved				ND		
•	MG/L	MW-13B	09/23/2010		0.0050	
Zinc, dissolved	MG/L	MW-13B	12/08/2010	ND	0.0050	
Zinc, dissolved	MG/L	MW-13B	03/30/2011	ND	0.0050	
Zinc, dissolved	MG/L	MW-13B	06/06/2011	ND	0.0050	
Zinc, dissolved Zinc, dissolved	MG/L	MW-13B	09/27/2011	ND	0.0050	
	MG/L	MW-13B	12/14/2011	ND	0.0050	

Table 2-3 **Upgradient Data** 

Constituent	Units	Well	Date		Result
Zinc, dissolved	MG/L	MW-13B	03/21/2012	ND	0.0050
Zinc, dissolved	MG/L	MW-13B	06/08/2012	ND	0.0050
Zinc, dissolved	MG/L	MW-13B	09/26/2012	ND	0.0050
Zinc, dissolved	MG/L	MW-13B	12/03/2012	ND	0.0050
Zinc, dissolved	MG/L	MW-13B	03/11/2013	ND	0.0050
Zinc, dissolved	MG/L	MW-13B	06/05/2013	ND	0.0050
Zinc, dissolved	MG/L	MW-13B	12/03/2013	ND	0.0050
Zinc, dissolved	MG/L	MW-13B	03/04/2014	ND	0.0050
Zinc, dissolved	MG/L	MW-13B	06/02/2014	ND	0.0050
Zinc, dissolved	MG/L	MW-13B	09/22/2014	ND	0.0050
Zinc, dissolved	MG/L	MW-13B	11/17/2014	ND	0.0050
Zinc, dissolved	MG/L	MW-16	03/24/2009	ND	0.0050
Zinc, dissolved	MG/L	MW-16	06/16/2009	ND	0.0050
Zinc, dissolved	MG/L	MW-16	09/09/2009	ND	0.0050
Zinc, dissolved	MG/L	MW-16	12/03/2009	ND	0.0050
Zinc, dissolved	MG/L	MW-16	03/25/2010	ND	0.0050
Zinc, dissolved	MG/L	MW-16	06/24/2010	ND	0.0050
Zinc, dissolved	MG/L	MW-16	09/24/2010	ND	0.0050
Zinc, dissolved	MG/L	MW-16	12/09/2010	ND	0.0050
Zinc, dissolved	MG/L	MW-16	03/30/2011	ND	0.0050
Zinc, dissolved	MG/L	MW-16	06/07/2011	ND	0.0050
Zinc, dissolved	MG/L	MW-16	09/27/2011	ND	0.0050
Zinc, dissolved	MG/L	MW-16	12/13/2011	ND	0.0050
Zinc, dissolved	MG/L	MW-16	03/21/2012	ND	0.0050
Zinc, dissolved	MG/L	MW-16	06/08/2012	ND	0.0050
Zinc, dissolved	MG/L	MW-16	09/27/2012	ND	0.0050
Zinc, dissolved	MG/L	MW-16	12/04/2012	ND	0.0050
Zinc, dissolved	MG/L	MW-16	03/12/2013	ND	0.0050
Zinc, dissolved	MG/L	MW-16	06/04/2013	ND	0.0050
Zinc, dissolved	MG/L	MW-16	09/05/2013	ND	0.0050
Zinc, dissolved	MG/L	MW-16	12/16/2013	ND	0.0050
Zinc, dissolved	MG/L	MW-16	03/05/2014	ND	0.0050
Zinc, dissolved	MG/L	MW-16	06/02/2014	ND	0.0050
Zinc, dissolved	MG/L	MW-16	09/22/2014	ND	0.0050
Zinc, dissolved	MG/L	MW-16	11/18/2014	ND	0.0050
Zinc, dissolved Zinc, dissolved	MG/L MG/L	MW-35 MW-35	12/20/2007	ND ND	0.0050
Zinc, dissolved	MG/L	MW-35	03/25/2008	ND	0.0050
Zinc, dissolved	MG/L	MW-35	06/18/2008 09/18/2008	ND	0.0050 0.0050
Zinc, dissolved	MG/L	MW-35	12/19/2008	ND	0.0050
Zinc, dissolved	MG/L	MW-35	03/24/2009	ND	0.0050
Zinc, dissolved	MG/L	MW-35	06/16/2009	ND	0.0050
Zinc, dissolved	MG/L	MW-35	09/10/2009	ND	0.0050
Zinc, dissolved	MG/L	MW-35	12/03/2009	ND	0.0050
Zinc, dissolved	MG/L	MW-35	03/25/2010	ND	0.0050
Zinc, dissolved	MG/L	MW-35	06/23/2010	ND	0.0050
Zinc, dissolved	MG/L	MW-35	09/23/2010	ND	0.0050
Zinc, dissolved	MG/L	MW-35	12/09/2010	ND	0.0050
Zinc, dissolved	MG/L	MW-35	03/30/2011	ND	0.0050
Zinc, dissolved	MG/L	MW-35	06/06/2011	ND	0.0050
Zinc, dissolved	MG/L	MW-35	09/26/2011	ND	0.0050
Zinc, dissolved	MG/L	MW-35	12/13/2011	ND	0.0050
Zinc, dissolved	MG/L	MW-35	03/21/2012	ND	0.0050
Zinc, dissolved	MG/L	MW-35	06/06/2012	ND	0.0050
Zinc, dissolved	MG/L	MW-35	09/26/2012	ND	0.0050
Zinc, dissolved	MG/L	MW-35	12/04/2012	ND	0.0050
Zinc, dissolved	MG/L	MW-35	03/13/2013	ND	0.0050
Zinc, dissolved	MG/L	MW-35	06/06/2013	ND	0.0050
Zinc, dissolved	MG/L	MW-35	09/05/2013	ND	0.0050
Zinc, dissolved	MG/L	MW-35	12/16/2013	ND	0.0050
Zinc, dissolved	MG/L	MW-35	03/04/2014	ND	0.0050
'					
Zinc, dissolved	MG/L	MW-35	06/02/2014	ND	0.0050
Zinc, dissolved Zinc, dissolved	MG/L MG/L	MW-35 MW-35	06/02/2014 09/22/2014	ND ND	0.0050

<sup>\* -</sup> Outlier for that well and constituent. ND = Not detected, result = detection limit.

Table 2-4 **Shapiro Wilk Test of Normality for Multiple Groups** 

Constituent	N (Detects)	Detect Freq	G raw	G log	Critical Value	Limit Type
Alkalinity, bicarbonate (as caco3)	138	1.000	3.045	4.290	2.326	nonpar
Alkalinity, total (as caco3)	142	1.000	3.124	4.252	2.326	nonpar
Ammonia (as n)	73	0.525	7.777	7.380	2.326	nonpar
Antimony, dissolved	0	0.000				nonpar
Arsenic, dissolved	139	1.000	5.113	5.199	2.326	nonpar
Barium, dissolved	141	0.993	4.845	4.842	2.326	nonpar
Beryllium, dissolved	0	0.000				nonpar
Cadmium, dissolved	0	0.000				nonpar
Calcium, dissolved	142	1.000	7.602	7.370	2.326	nonpar
Chloride	141	0.993	2.921	2.510	2.326	nonpar
Chromium, dissolved	51	0.359	1.962	1.958	2.326	nonpar
Cobalt, dissolved	0	0.000				nonpar
Copper, dissolved	4	0.028				nonpar
Iron, dissolved	4	0.028				nonpar
Lead, dissolved	0	0.000				nonpar
Magnesium, dissolved	142	1.000	1.286	0.878	2.326	normal
Manganese, dissolved	14	0.099	2.326	2.323	2.326	nonpar
Nickel, dissolved	0	0.000				nonpar
Nitrate (as n)	138	1.000	12.904	11.556	2.326	nonpar
pH	135	1.000	1.669	2.040	2.326	normal
Potassium, dissolved	13	0.092	0.153	0.091	2.326	nonpar
Selenium, dissolved	4	0.028				nonpar
Silver, dissolved	0	0.000				nonpar
Sodium, dissolved	142	1.000	3.411	3.186	2.326	nonpar
Specific conductivity	135	1.000	6.922	7.043	2.326	nonpar
Sulfate	141	0.993	5.546	5.007	2.326	nonpar
Temperature	135	1.000	6.788	5.344	2.326	nonpar
Thallium, dissolved	0	0.000				nonpar
Total dissolved solids (tds)	142	1.000	5.610	4.475	2.326	nonpar
Total organic carbon (toc)	7	0.049	0.146	1.287	2.326	nonpar
Vanadium, dissolved	141	0.993	5.481	5.482	2.326	nonpar
Zinc, dissolved	1	0.009				nonpar

Fit to distribution is confirmed if G < critical value. If detection frequency is < 50% nonparametric or Poisson limit is used Data in this table are based on pooled data shown in Table 2-3, outliers excluded

## TABLE 2-5 COMPARISON OF UPDATED (2015) PREDICTION LIMITS TO PREVIOUS YEAR (2014) PREDICTION LIMITS

**Olympic View Sanitary Landfill** 

	2014	Distributional	2015	Distributional
Constituent	Pred. Limit	Assumption	Pred. Limit	Assumption
Alkalinity, bicarbonate (as caco3)	96	nonparametric	96	nonparametric
Alkalinity, total (as caco3)	96	nonparametric	96	nonparametric
Ammonia (as n)	0.34	nonparametric	0.34	nonparametric
Antimony, dissolved	Current RL*	nonparametric	Current RL*	nonparametric
Arsenic, dissolved	0.38	nonparametric	0.38	nonparametric
Barium, dissolved	0.0052	nonparametric	0.0052	nonparametric
Beryllium, dissolved	Current RL*	nonparametric	Current RL*	nonparametric
Cadmium, dissolved	Current RL*	nonparametric	Current RL*	nonparametric
Calcium, dissolved	17.1	nonparametric	17.1	nonparametric
Chloride	4.00	normal	4.40	nonparametric
Chromium, dissolved	0.033	nonparametric	0.033	nonparametric
Cobalt, dissolved	Current RL*	nonparametric	Current RL*	nonparametric
Copper, dissolved	0.0094	nonparametric	0.0094	nonparametric
Iron, dissolved	0.097	nonparametric	0.097	nonparametric
Lead, dissolved	Current RL*	nonparametric	Current RL*	nonparametric
Magnesium, dissolved	10.86	normal	10.93	normal
Manganese, dissolved	0.014	nonparametric	0.014	nonparametric
Nickel, dissolved	Current RL*	nonparametric	Current RL*	nonparametric
Nitrate (as n)	1.80	nonparametric	1.80	nonparametric
рН	5.89 - 8.24	normal	5.90 - 8.23	normal
Potassium, dissolved	1.00	nonparametric	1.20	nonparametric
Selenium, dissolved	0.0033	nonparametric	0.0033	nonparametric
Silver, dissolved	Current RL*	nonparametric	Current RL*	nonparametric
Sodium, dissolved	6.20	nonparametric	6.20	nonparametric
Specific conductivity	0.18	nonparametric	0.18	nonparametric
Sulfate	9.90	nonparametric	9.90	nonparametric
Temperature	11.96	nonparametric	14.32	nonparametric
Thallium, dissolved	Current RL*	nonparametric	Current RL*	nonparametric
Total dissolved solids (tds)	175	nonparametric	175	nonparametric
Total organic carbon (toc)	6.0	nonparametric	6.0	nonparametric
Vanadium, dissolved	0.0066	nonparametric	0.0066	nonparametric
Zinc, dissolved	0.0096	nonparametric	0.0096	nonparametric

<sup>\*</sup> in cases where all background data are non-detected values, a nonparametric prediction limit is set at the current constituent-specific laboratory reporting limit (RL)

## 3. Annual UCL Calculations using Preliminary Groundwater Cleanup Goals

- 2014 Annual Preliminary Groundwater Cleanup Goals Statistical Evaluation Summary (Table 3-1)

## TABLE 3-1: 2014 Annual Groundwater Cleanup Level Statistical Evaluation Summary

Olympic View Sanitary Landfill

1011 % 101 Statistical Methodology

Statistical M	ethodology: c	Statistical Methodology: calculation of 95% UCL of mean per MTCAStat	nean p	er MTCA	Stat							
Data Input (s	pecific): Janus	Data Input (specific): 3-year moving window, updated annually Data Input (specific): January 1, 2012 through December 31, 2014	iber 31	, 2014								
Wells Evalua	ted: (1) Compli	Wells Evaluated: (1) Compliance MW-15R, MW-34A, MW-34C, MW-39, MW-42, MW-43; (2) Downgradient MW-9⁺, MW-29A, MW-32, MW-33A, MW-33C, MW-36A	W-34C	MW-39, I	MW-42, MW-4;	3; (2) Down	gradient -	- MW-9 <sup>+</sup> ,	MW-29A, MW-32	, MW-33A	, MW-33C, MW-36A	
	:	:		č		95%			Groundwater		Does 95% UCL	# CO
Monitoring	Monitoring Well Type	Corrective Action Monitoring Parameter	N <sup>[1]</sup>	% Detect	Max <sup>[2]</sup>	Mean <sup>[3]</sup> Units <sup>[4]</sup>	Jnits <sup>[4]</sup>	Note	Level <sup>[5]</sup> Units <sup>[4]</sup>	Jnits <sup>[4]</sup>	Exceed Cleanup Level?	Significant Trend? <sup>[6]</sup>
1	:				1		:		1	:		:
MW-15R	Compliance	1,1-Dichloroethane	12	%0	0.38 (ND)	0.38 ug/L	ig/L	<b>ш</b> (	50 ug/L	ig/L	0 2	2:
MW-15R	Compliance	1,4-Dichlorobenzene	12	%0	0.84 (ND)	0.84 ug/L	Ig/L	m =	2.0 ug/L	ıg/L	ON O	0 2
101-WW	Compliance	Alsellic, dissolved	ν C	%001	0.20 (AIA) 90 0	0.23 ug/L	19/L	2 0	0.462 ug/L	الارد الارد	ON ON	0 0
MW-15R	Compliance	Manganese, dissolved	12	95%	0.00 ( 0.007	0.003 mg/l	Jg/L Jg/L	0 7	0.30 mg/L	19/L 19/L	02 02	Yes (V)
MW-15R	Compliance	cis-1,2-dichloroethene	12	%0	0.81 (ND)	0.81 ug/L	ja/L	В	35 ug/L	j/b/	No	% 8
MW-15R	Compliance	Ethyl ether	12	%0	0.72 (ND)	0.72 ug/L	g/L	В	50 ug/L	g/L	No	No
MW-15R	Compliance	Trichloroethene	12	%0	0.46 (ND)	0.46 ug/L	J/bi	В	1.0 ug/L	₁g/L	No	No
MW-15R	Compliance	Vinyl Chloride	12	25%	0.036	0.036 ug/L	g/L	Α	0.20 ug/L	g/L	No	No
MW-15R	Compliance	Ammonia as N	12[7]	25%	0.058	0.058 mg/L	J/br	A	0.19 mg/L	J/bu	No	No
MW-34A	Compliance	1,1-Dichloroethane	12	%0	0.38 (ND)	0.38 ug/L	J/b	В	20 ng/L	J/b	No	No
MW-34A	Compliance	1,4-Dichlorobenzene	12	%0	0.84 (ND)	0.84 ug/L	J/bi	В	2.0 ug/L	J/b	No	No
MW-34A	Compliance	Arsenic, dissolved	12	100%	0.57	0.48 ug/L	J/bi	Z	0.462 ug/L	ıg/L	Yes	No
MW-34A	Compliance	Iron, dissolved	12	%0	0.06 (ND)	0.06 mg/L	J/gr	В	0.30 mg/L	ng/L	No	No
MW-34A	Compliance	Manganese, dissolved	12	%0	0.0010	0.0010 mg/L	J/gr	В	0.05 mg/L	ng/L	No	No
MW-34A	Compliance	cis-1,2-dichloroethene	12	%0	0.81 (ND)	0.81 ug/L	J/bi	В	35 ug/L	g/L	No	No
MW-34A	Compliance	Ethyl ether	12	%0	0.72 (ND)	0.72 ug/L	g/L	В	50 ug/L	g/L	No	No
MW-34A	Compliance	Trichloroethene	12	%0	0.46 (ND)	0.46 ug/L	J/bi	В	1.0 ug/L	J/b	No	No
MW-34A	Compliance	Vinyl Chloride	12	17%	0.03	0.03 ug/L	g/L	Α	0.20 ug/L	J/bi	No	No
MW-34A	Compliance	Ammonia as N	12	25%	0.15	0.15 mg/L	J/Gr	A	0.19 mg/L	ng/L	No	No
MW-34C	Compliance	1,1-Dichloroethane	12	%0	0.38 (ND)	0.38 ug/L	J/bi	В	20 ng/L	J/b	No	No
MW-34C	Compliance	1,4-Dichlorobenzene	12	%0	0.84 (ND)	0.84 ug/L	g/L	В	2.0 ug/L	g/L	No	No
MW-34C	Compliance	Arsenic, dissolved	12	100%	4.2	1.89 ug/L	g/L	Z	0.462 ug/L	ıg/L	Yes	Yes (▼)
MW-34C	Compliance	Iron, dissolved	12[9]	100%	0.88	0.77 mg/L	J/br	z	0.30 mg/L	ng/L	Yes	Yes (▼)
MW-34C	Compliance	Manganese, dissolved	12	100%	1.3	0.83 mg/l	J/gr	Z	0.05 mg/l	ng/L	Yes	No

## FABLE 3-1: 2014 Annual Groundwater Cleanup Level Statistical Evaluation Summary

Olympic View Sanitary Landfill

Statistical Methodology: calculation of 95% UCL of mean per MTCAStat

Data Input (general): 3-year "moving window", updated annually

Data Input (specific): January 1, 2012 through December 31, 2014

Significant Trend?<sup>[6]</sup> Yes ( ဍ 2 Š ž 22 9 οN 9 9 9 2 2 9 S 2 9 9 9 9 2 2 2 **Exceed Cleanup** Wells Evaluated: (1) Compliance -- MW-15R, MW-34A, MW-34C, MW-39, MW-42, MW-43; (2) Downgradient -- MW-9<sup>+</sup>, MW-29A, MW-32, MW-33A, MW-33C, MW-36A Does 95% UCL Level? Yes Yes Yes Yes Yes Yes ŝ ŝ 9 No 2 9 9 2 Š 2 2 Yes 9 2 Š 9 2 Level<sup>[5]</sup> Units<sup>[4]</sup> 50 ug/L mg/L 35 ug/L 0.30 mg/L 35 ug/L 50 ug/L 35 ug/L 0.30 mg/L 0.05 mg/L 50 ug/L 0.19 mg/L 0.05 mg/L 1.0 ug/L 0.20 ug/L 0.19 mg/L 2.0 ug/L 0.462 ug/L 0.20 ug/L 2.0 ug/L 0.462 ug/L 1.0 ug/L 50 ug/L 1.0 ug/L 50 ug/L 0.20 ug/L 0.19 Cleanup Groundwater Note Z Z Z Z ⋖ **a a** Z Ш В ⋖ NNBB Ν Ν Mean<sup>[3]</sup> Units<sup>[4]</sup> mg/L 0.45 mg/L 33.4 mg/L 0.34 mg/L 27 mg/L 5.0 mg/L 0.18 mg/L 1.69 ug/L 0.84 ug/L 0.72 ug/L 0.46 ug/L 0.15 ug/L 0.84 ug/L 0.81 ug/L 0.72 ug/L 0.46 ug/L 0.02 ug/L 1.6 lug/L 0.81 ug/L 0.72 ug/L 0.51 ug/L 0.38 ug/L 0.38 ug/L 0.81 ug/L 0.14 ug/L 6.4 UCL of 0.81 (ND) 0.72 (ND) 0.46 (ND) 0.38 (ND) 0.84 (ND) 0.81 (ND) 0.72 (ND) 0.46 (ND) 0.02 (ND) 0.38 (ND) 0.84 (ND) 0.81 (ND) 0.72 (ND)  $Max^{[2]}$ 0.16 41.0 0.18 2.23 0.53 0.43 0.51 0.16 5.3 8.4 8 Detect 100% 100% 100% 100% 100% 100% 100% 25% 92% 92% 92% 17% %0 % %0 %0 % %0 % %0 %0 %0 % %  $12^{[10]}$ Ę 12 42 42 12 7 42 12 7 12 7 7 7 7 12 7 7 7 42 7 7 7 7 12 7 **Monitoring Parameter** Manganese, dissolved cis-1,2-dichloroethene Manganese, dissolved cis-1,2-dichloroethene cis-1,2-dichloroethene 1,4-Dichlorobenzene 1,4-Dichlorobenzene 1.1-Dichloroethane 1.1-Dichloroethane **Corrective Action** Arsenic, dissolved Arsenic, dissolved Trichloroethene Trichloroethene Trichloroethene Ammonia as N Ammonia as N Ammonia as N Iron, dissolved Vinyl Chloride Iron, dissolved Vinyl Chloride Vinyl Chloride Ethyl ether Ethyl ether Ethyl ether Compliance Compliance Compliance Compliance Compliance Compliance Compliance Compliance Compliance Compliance Monitoring Compliance Compliance Compliance Compliance Compliance Compliance Compliance Compliance Compliance Compliance Compliance Compliance Compliance Compliance Compliance Well Type Monitoring MW-34C MW-34C MW-34C MW-34C MW-34C MW-39 MW-39 MW-39 MW-39 MW-39 MW-39 MW-42 **68-WM** MW-39 WW-39 **MW-42** MW-42 **MW-42** MW-42 MW-42 **MW-42 MW-42** MW-42 WW-39 **JW-42** 

## TABLE 3-1: 2014 Annual Groundwater Cleanup Level Statistical Evaluation Summary

Olympic View Sanitary Landfill

Statistical Methodology: calculation of 95% UCL of mean per MTCAStat

Statistical M	ethodology: c	Statistical Methodology: calculation of 95% UCL of mean per	nean p	er M I CAStat	Stat					
Data Input (g	general): 3-yea	Data Input (general): 3-year "moving window", updated annually Data Input (specific): January 1, 2012 through December 31, 20	id anni	ally 2014						
Wells Evalue	ated: (1) Complia	Wells Evaluated: (1) Compliance MW-15R, MW-34A, MW-34C, M	IW-34C	, MW-39,	MW-42, MW-4	3; (2) Downgradient	MM-9	W-39, MW-42, MW-43; (2) Downgradient MW-9 <sup>+</sup> , MW-29A, MW-32, MW-33A, MW-33C, MW-36A	A, MW-33C, MW-36A	
				ó		95%		Groundwater	Does 95% UCL	, tucoificon
Well	Well Type	Corrective Action Monitoring Parameter	<b>Z</b> []	% Detect	<b>Max</b> <sup>[2]</sup>	Mean <sup>[3]</sup> Units <sup>[4]</sup>	Note	Level <sup>[5]</sup> Units <sup>[4]</sup>	Exceed Cleanup Level?	Trend? <sup>[6]</sup>
MW-43	Compliance	1,1-Dichloroethane	12	%0	0.38 (ND)	0.38 ug/L	В	50 ug/L	No	No
MW-43	Compliance	1,4-Dichlorobenzene	12	%0	0.84 (ND)	0.84 ug/L	В	2.0 ug/L	No	No
MW-43	Compliance	Arsenic, dissolved	12	33%	0.05	0.05 ug/L	Α	0.462 ug/L	No	No
MW-43	Compliance	Iron, dissolved	12	83%	0.87	0.48 mg/L	Z	0.30 mg/L	Yes	No
MW-43	Compliance	Manganese, dissolved	12	100%	0.26	0.20 mg/L	Z	0.05 mg/L	Yes	No
MW-43	Compliance	cis-1,2-dichloroethene	12	%0	0.81 (ND)	0.81 ug/L	В	35 ug/L	No	No
MW-43	Compliance	Ethyl ether	12	%0	0.72 (ND)	0.72 ug/L	В	50 ug/L	No	No
MW-43	Compliance	Trichloroethene	12	%0	0.46 (ND)	0.46 ug/L	В	1.0 ug/L	No	No
MW-43	Compliance	Vinyl Chloride	12	8.3%	0.036	0.036 ug/L	Α	0.20 ug/L	No	No
MW-43	Compliance	Ammonia as N	12	75%	0.15	0.16 mg/L	Z	0.19 mg/L	No	No
MW-29A	Downgradient	1,1-Dichloroethane	9	%0	0.38 (ND)	0.38 ug/L	В	50 ug/L	No	No
MW-29A	Downgradient	1,4-Dichlorobenzene	9	%0	0.84 (ND)	0.84 ug/L	В	2.0 ug/L	No	No
MW-29A	Downgradient	Arsenic, dissolved	9	100%	1.73	1.61 ug/L	Ζ	0.462 ug/L	Yes	No
MW-29A	Downgradient	Iron, dissolved	9	100%	4.3	4.10 mg/L	Z	0.30 mg/L	Yes	No
MW-29A	Downgradient	Manganese, dissolved	9	100%	1.4	1.35 mg/L	z	0.05 mg/L	Yes	No
MW-29A	Downgradient	cis-1,2-dichloroethene	9	%0	0.81 (ND)	0.81 lug/L	В	35 ug/L	No	No
MW-29A	Downgradient	Ethyl ether	9	%0	0.72 (ND)	0.72 ug/L	В	50 ug/L	No	No
MW-29A	Downgradient	Trichloroethene	9	%0	0.46 (ND)	0.46 ug/L	В	1.0 ug/L	No	No
MW-29A	Downgradient	Vinyl Chloride	9	%0	0.02 (ND)	0.02 ug/L	В	0.20 ug/L	No	No
MW-29A	Downgradient	Ammonia as N	9	100%	0.14	0.11 mg/L	Z	0.19 mg/L	No	Yes (▼)
	:				(	= (	1			:
MW-32	Downgradient		72	%0	0.38 (ND)	0.38 ug/L	מ	20 ng/L	No	No
MW-32	Downgradient	1,4-Dichlorobenzene	12	%0	0.84 (ND)	0.84 ug/L	В	2.0 ug/L	No	No
MW-32	Downgradient	Arsenic, dissolved	12	100%	11.4	9.5 ug/L	Z	0.462 ug/L	Yes	Yes (▼)
MW-32	Downgradient	Downgradient Iron, dissolved	12	100%	0.87	0.70 mg/L	Z	0.30 mg/L	Yes	Yes (▼)
MW-32	Downgradient	Downgradient   Manganese, dissolved	12	100%	2.7	2.31 mg/L	Z	0.05 mg/L	Yes	No
MW-32	Downgradient	cis-1,2-dichloroethene	12	%0	0.81 (ND)	0.81 ug/L	В	35 ug/L	No	No
MW-32	Downgradient Ethyl ether	Ethyl ether	12	%0	0.72 (ND)	0.72 ug/L	В	50 ug/L	No	No

# TABLE 3-1: 2014 Annual Groundwater Cleanup Level Statistical Evaluation Summary

Olympic View Sanitary Landfill

Statistical Methodology: calculation of 95% UCL of mean per MTCAStat Data Input (general): 3-year "moving window" undated annually

Data Input (	general): 3-year	Ó	d ann	ally							
Data Input (	Data Input (specific): January 1	try 1, 2012 through December	ıber 31	, 2014							
Wells Evalu	ated: (1) Complia	Wells Evaluated: (1) Compliance MW-15R, MW-34A, MW-34C, MW-39, MW-42, MW-43; (2) Downgradient MW-9*, MW-29A, MW-32, MW-33A, MW-33C, MW-36A	W-34C	MW-39,	WW-42, MW-4;	3; (2) Downgra	Idient M	W-9⁺, I	MW-29A, MW-32, MW-33/	A, MW-33C, MW-36A	
						%56			Groundwater	Does 95% UCL	
Monitoring	Monitoring	Corrective Action	3	%	S	UCL of			Cleanup	Exceed Cleanup	Significant
Well	Well Type	Monitoring Parameter	N	Detect	Max <sup>[2]</sup>	Mean <sup>[3]</sup> Units <sup>[4]</sup>		Note	Level <sup>[5]</sup> Units <sup>[4]</sup>	Level?	Trend? <sup>[5]</sup>
MW-32	Downgradient	Trichloroethene	12	95%	0.70	0.57 ug/L	-		1.0 ug/L	No	No
MW-32	Downgradient	Vinyl Chloride	12	100%	0.63	0.49 ug/L		LN	0.20 ug/L	Yes	No
MW-32	Downgradient	Ammonia as N	12	33%	0.17	0.17 mg/l		A	0.19 mg/L	No	No
MW-33A	Downgradient	1,1-Dichloroethane	9	%0	0.38 (ND)	0.38 ug/L		В	50 ug/L	No	No
MW-33A	Downgradient	1,4-Dichlorobenzene	9	%0	0.84 (ND)	0.84 ug/L		В	2.0 ug/L	No	No
MW-33A	Downgradient	Arsenic, dissolved	9	100%	0.37	0.25 ug/L		Z	0.462 ug/L	No	9
MW-33A	Downgradient	Iron, dissolved	9	83%	5.1	5.1 mg/L		A**	0.30 mg/L	Yes	No
MW-33A	Downgradient	Manganese, dissolved	9	100%	0.11	0.11 mg/L		**A	0.05 mg/L	Yes	No
MW-33A	Downgradient	cis-1,2-dichloroethene	9	%0	0.81 (ND)	0.81 ug/L		m	35 ug/L	No	9
MW-33A	Downgradient	Ethyl ether	9	%0	0.72 (ND)	0.72 ug/L		m	50 ug/L	No	No
MW-33A	Downgradient	Trichloroethene	9	%0	0.46 (ND)	0.46 ug/L		В	1.0 ug/L	No	No
MW-33A	Downgradient	Vinyl Chloride	9	%0	0.02 (ND)	0.02 ug/L		~	0.20 ug/L	No	No
MW-33A	Downgradient	Ammonia as N	9	83%	0.28	0.28 mg/L		A***	0.19 mg/L	Yes	No
MW-33C	Downgradient	1,1-Dichloroethane	12	%0	0.38 (ND)	0.38 ug/L		В	50 ug/L	No	No
MW-33C	Downgradient	Downgradient 1,4-Dichlorobenzene	12	%0	0.84 (ND)	0.84 ug/L		В	2.0 ug/L	No	No
MW-33C	Downgradient	Downgradient Arsenic, dissolved	12	100%	2.66	2.38 ug/L		N	0.462 ug/L	Yes	Yes (▼)
MW-33C	Downgradient	Downgradient Iron, dissolved	12	17%	0.38	0.38 mg/L		⋖	0.3 mg/L	Yes	No No
MW-33C	Downgradient	Downgradient   Manganese, dissolved	12	100%	0.20	0.15 mg/L		Z	0.05 mg/L	Yes	No
MW-33C	Downgradient	Downgradient cis-1,2-dichloroethene	12	%0	0.81 (ND)	0.81 ug/L		m	35 ug/L	No	9
MW-33C	Downgradient Ethyl ether	Ethyl ether	12	%0	0.72 (ND)	0.72 ug/L		В	50 ug/L	No	No
MW-33C	Downgradient	Downgradient   Trichloroethene	12	%0	0.46 (ND)	0.46 ug/L		2	1.0 ug/L	No	No
MW-33C	Downgradient	Downgradient Vinyl Chloride	12	%0	0.02 (ND)	0.02 ug/L		m	0.20 ug/L	No	9
MW-33C	Downgradient	Ammonia as N	12	25%	0.15	0.15 mg/L		A	0.19 mg/L	No	No
MW-36A	Downgradient	Downgradient 1,1-Dichloroethane	12	%0	0.38 (ND)	0.38 ug/L		m	20 ng/L	No	No No
MW-36A	Downgradient	Downgradient 1,4-Dichlorobenzene	12	%0	0.84 (ND)	0.84 ug/L		В	2.0 ug/L	No	8
MW-36A	Downgradient	Downgradient Arsenic, dissolved	12	100%	0.81	0.73 ug/L		Z	0.462 ug/L	Yes	Yes (▼)

## 

Olympic View Sanitary Landfill

Statistical Methodology: calculation of 95% UCL of mean per MTCAStat

Data Input (general): 3-year "moving window", updated annually

Data Input (specific): January 1, 2012 through December 31, 2014

Wells Evalua	ated: (1) Complia	Wells Evaluated: (1) Compliance MW-15R, MW-34A, MW-34C, MW-39, MW-43; (2) Downgradient MW-9+, MW-29A, MW-32, MW-33A, MW-33C, MW-36A	W-34C	MW-39, N	JW-42, MW-4;	3; (2) Downgradie	ent MW-9	", MW-29A, MW-32, MW-33	4, MW-33C, MW-36A	
Monitoring	Monitoring Well Type	Monitoring Corrective Action Well Type Monitoring Parameter	EZ	% Detect	Max <sup>[2]</sup>	95% UCL of Mean <sup>[3]</sup> Units <sup>[4]</sup>	[4] Note	Groundwater Cleanup Level <sup>[5]</sup> Units <sup>[4]</sup>	Does 95% UCL Exceed Cleanup Level?	Significant Trend? <sup>[6]</sup>
MW-36A	Downgradient		12	17%	0.13	0.13 mg/L	4	0.3 mg/L	No	9N
MW-36A	Downgradient	Downgradient Manganese, dissolved	12	28%	0.0063	0.003 mg/L	3	0.05 mg/L	No	9N
MW-36A	Downgradient	Downgradient cis-1,2-dichloroethene	12	%0	0.81 (ND)	0.81 ug/L	Ф	35 ug/L	No	8
MW-36A	Downgradient Ethyl ether	Ethyl ether	12	%0	0.72 (ND)	0.72 ug/L	В	50 ug/L	No	9
MW-36A	Downgradient	Downgradient Trichloroethene	12	%0	0.46 (ND)	0.46 ug/L	Ф	1.0 ug/L	No	No No
MW-36A	Downgradient	Downgradient Vinyl Chloride	12	8.3%	0.063	0.063 ug/L	¥	0.20 ug/L	No	No
MW-36A	Downgradient	Downgradient Ammonia as N	12 <sup>[8]</sup>	25%	0.072	0.072 mg/L	A	0.19 mg/L	No	No
NOTES:										

N = number of data points used for UCL calculation of the mean; only SIM results used for Vinyl Chloride (e.g., duplicate results with higher RLs by non-SIM were omitted) Well MW-9 is no longer routinely sampled and no longer included on this table

[2] MAX = maximum detected result in the data set; if no detected results, then = maximum reporting limit for non-detect results (indicated with ND).

<sup>1</sup> A 3-year moving data set is used for calculation of the UCL.

4] ug/L - micrograms per liter; mg/L = milligrams per liter.

<sup>3]</sup> Groundwater Cleanup Levels are listed on Table 3 of the October 2010 Draft Cleanup Action Plan.

of Trend analysis results are based on data for the period January 2005 through December 2014; arrows indicated increasing (▲) or decreasing (▼) trends.

<sup>7</sup> For MW-15R, gross outlier of 0.31 mg/L from 6-7-12 sampling event was removed prior to UCL calculation

<sup>3</sup> For MW-34C, gross outliers of 25 mg/L from 3-4-14 and 59 mg/L from 9-23-14 were removed prior to UCL calculation 8) For MW-36A, gross outlier of 0.30 mg/L from 6-7-12 sampling event was removed prior to UCL calculation

<sup>o]</sup> For MW-42, gross outlier of 59 mg/L from 9-3-13 was removed prior to UCL calculation

A = Detection frequency of data set too low to calculate 95% UCL of mean; therefore, the highest detected result in the data set used to represent 95% UCL of mean.

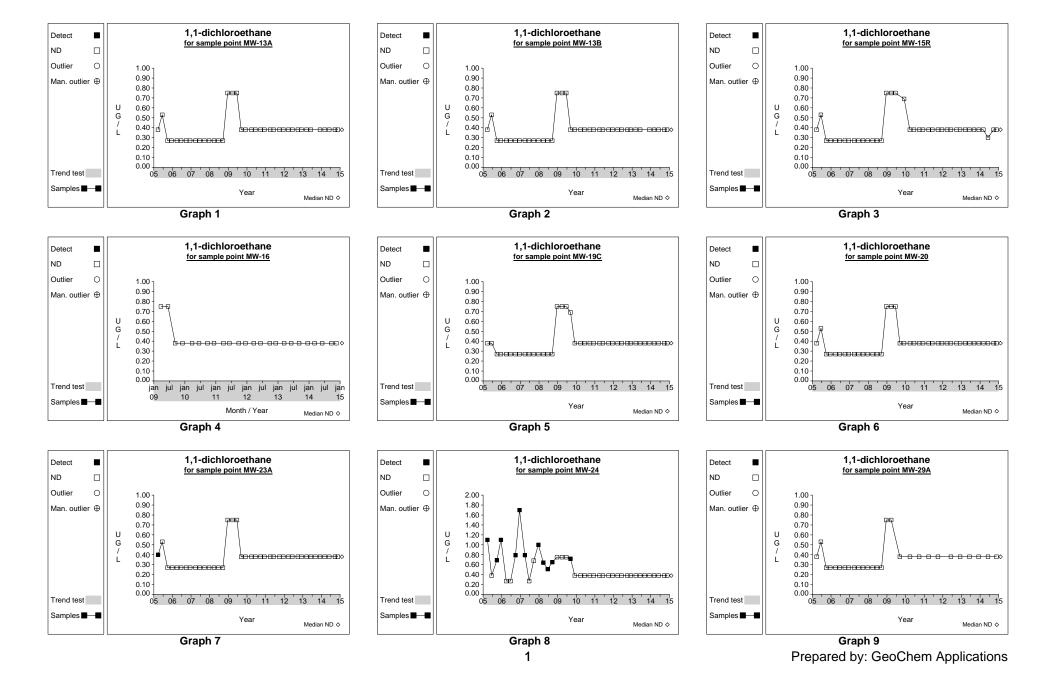
A\* = Same as note "A" except that the highest value in the data set is below the reporting limit of one or more non-detected results; therefore, the highest reporting limit is used to represent the 95% UCL of he mean.

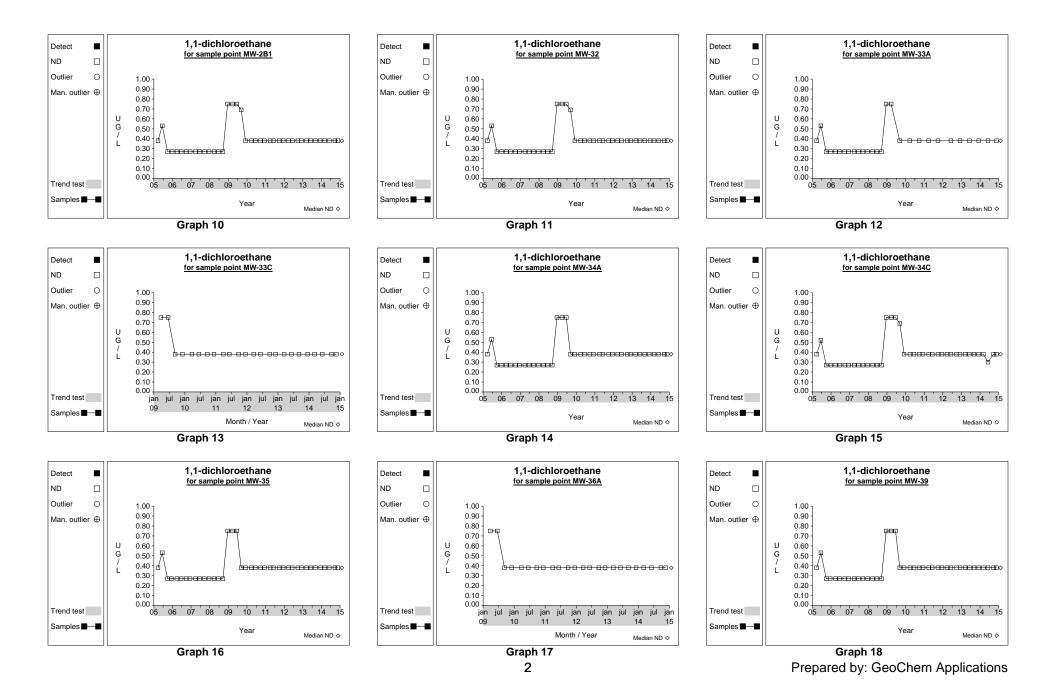
A\*\* = MTCAStat suggests use of lognormal formula but calculation of 95% UCL of mean by Land's formula provides unrealistic result; therefore, the highest detected result is used to represent the 95% UCL of the mean

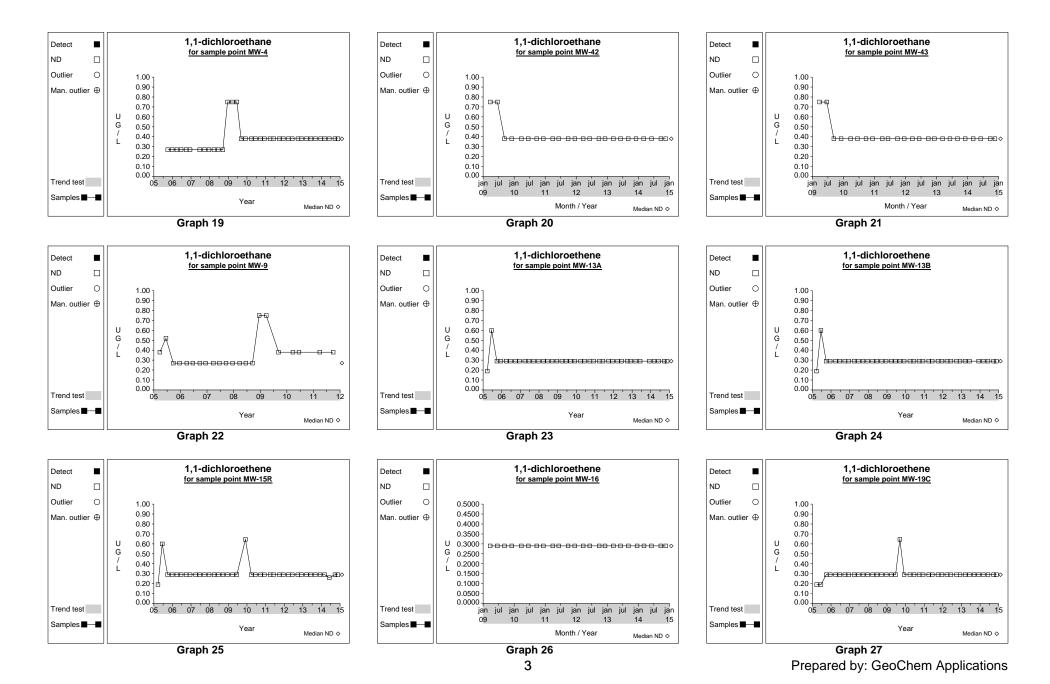
4\*\*\* = MTCAStat suggests use of the Z-score method but then cites inability to calculate due to presence of censored value; therefore, the highest detected result is used to represent the 95% UCL of the

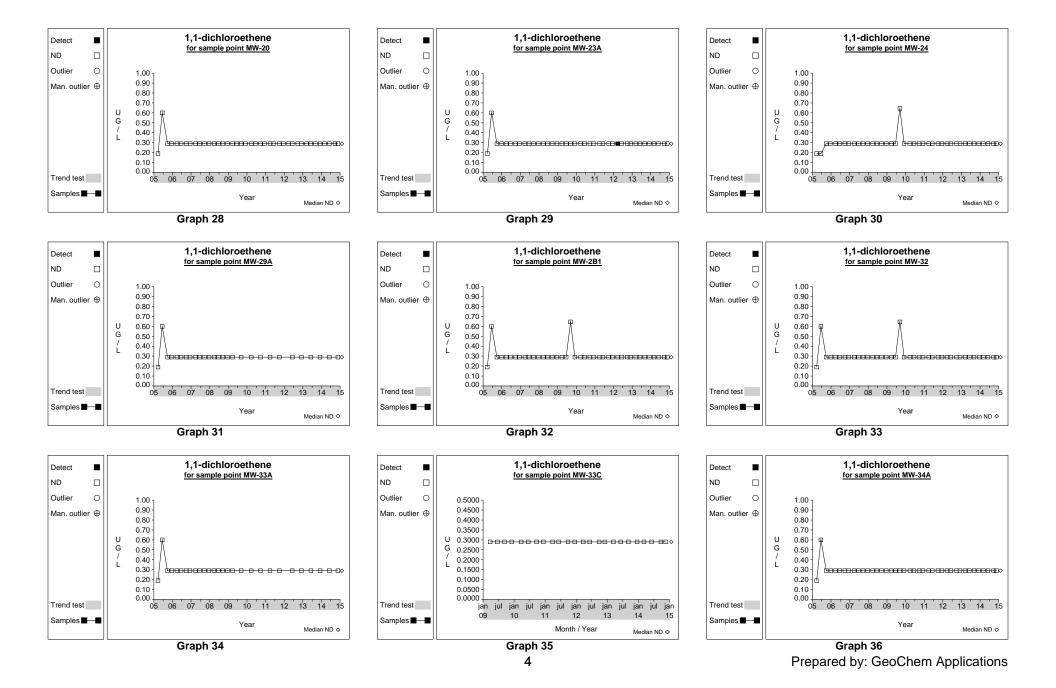
B = Detection frequency = 0; therefore, the highest reporting limit in the data set is used to represent the 95% UCL of mean.

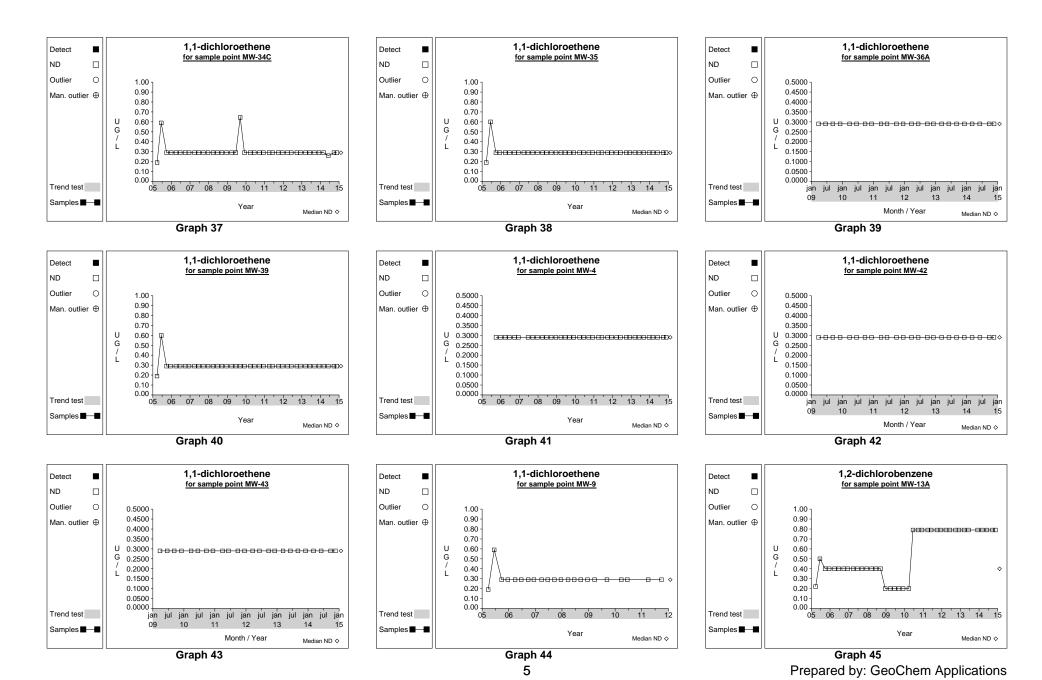
<b>TABLE 3</b>	3-1: 2014	TABLE 3-1: 2014 Annual Groundwater Cleanup Level Statistical Evaluation Summary	ater	Clean	Ip Level	Statistical E	-valu	ation Sumi	nary		
Olympic Vie	Olympic View Sanitary Landfill	Landfill									
Statistical M	ethodology:	Statistical Methodology: calculation of 95% UCL of mean per MTCAStat	nean p	er MTCAS	Stat						
Data Input (g	general): 3-ye	Data Input (general): 3-year "moving window", updated annually	d annu	ally							
Data Input (s	specific): Janu	Data Input (specific): January 1, 2012 through December 31, 2014	nber 31	, 2014							
Wells Evalua	ated: (1) Compl	Wells Evaluated: (1) Compliance MW-15R, MW-34A, MW-34C, MW-39, MW-42, MW-43; (2) Downgradient MW-9+, MW-29A, MW-32, MW-33A, MW-33C, MW-36A	1W-34C	, MW-39, N	IW-42, MW-4	13; (2) Downgradient	MM-9⁺	, MW-29A, MW-3	2, MW-33A	v, MW-33C, MW-36A	
Monitoring Well	Monitoring Well Type	Monitoring Corrective Action Well Type Monitoring Parameter	<b>N</b> <sup>[1]</sup>	N <sup>[1]</sup> Detect	Max <sup>[2]</sup>	95% UCL of Mean <sup>[3]</sup> Units <sup>[4]</sup>	Note	Groundwater Cleanup Level <sup>[5]</sup> Units <sup>[4]</sup>	Units <sup>[4]</sup>	Does 95% UCL Exceed Cleanup Level?	Significant Trend? <sup>[6]</sup>
LN = The 95% L	JCL of the mean is	LN = The 95% UCL of the mean is calculated using Land's formula since lognormal distribution is indicated.	since lo	gnormal dist	ribution is indi	cated.					
N = The 95% UC	CL of the mean is	N = The 95% UCL of the mean is calculated using a normal-based t-statistic since a normal distribution is indicated.	t-statisti	c since a no	rmal distributio	n is indicated.					
Z = the 95% UC	L of the mean is c	Z = the 95% UCL of the mean is calculated using the Z-score method in MTCAStat since neither normal nor lognormal distribution can be determined.	IM ui bo	-CAStat sinc	e neither norm	nal nor lognormal distrib	ution can	be determined.			

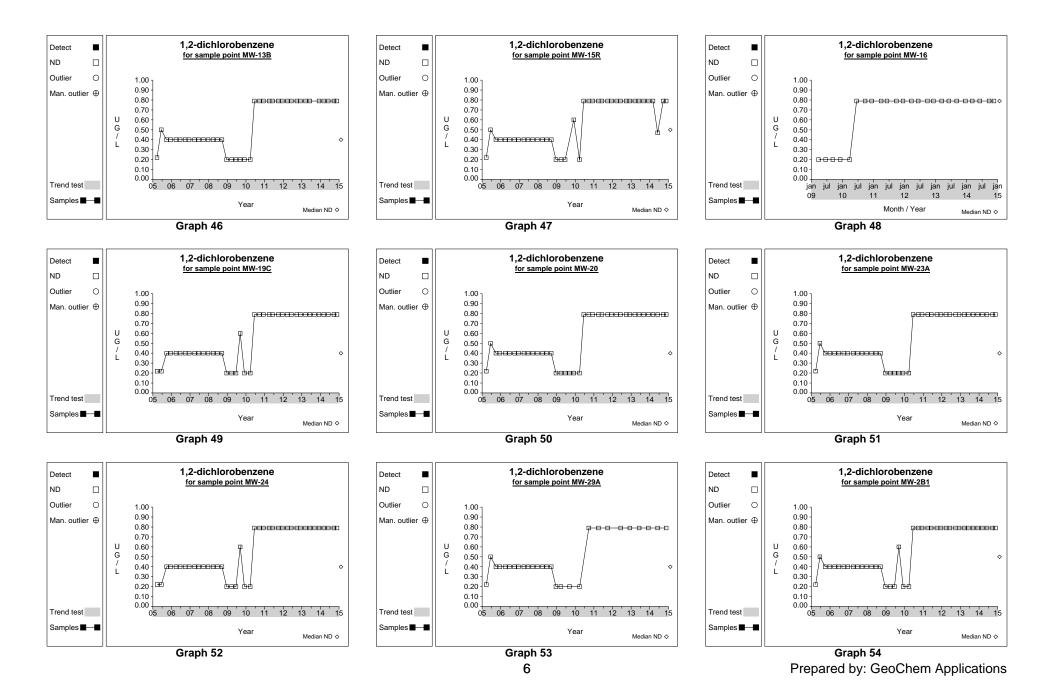


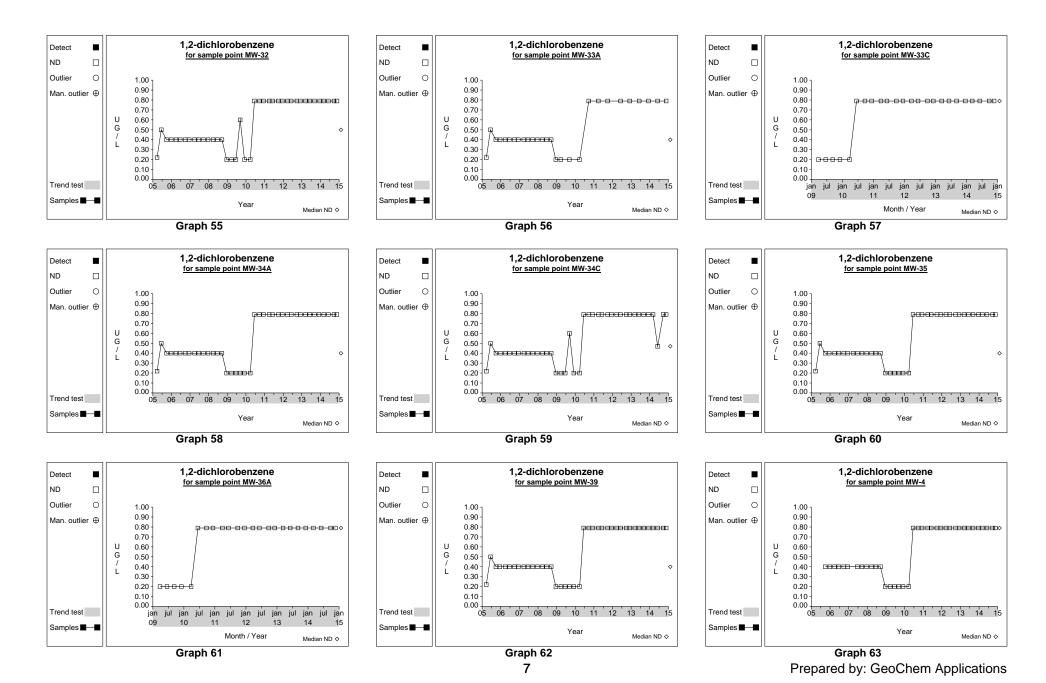


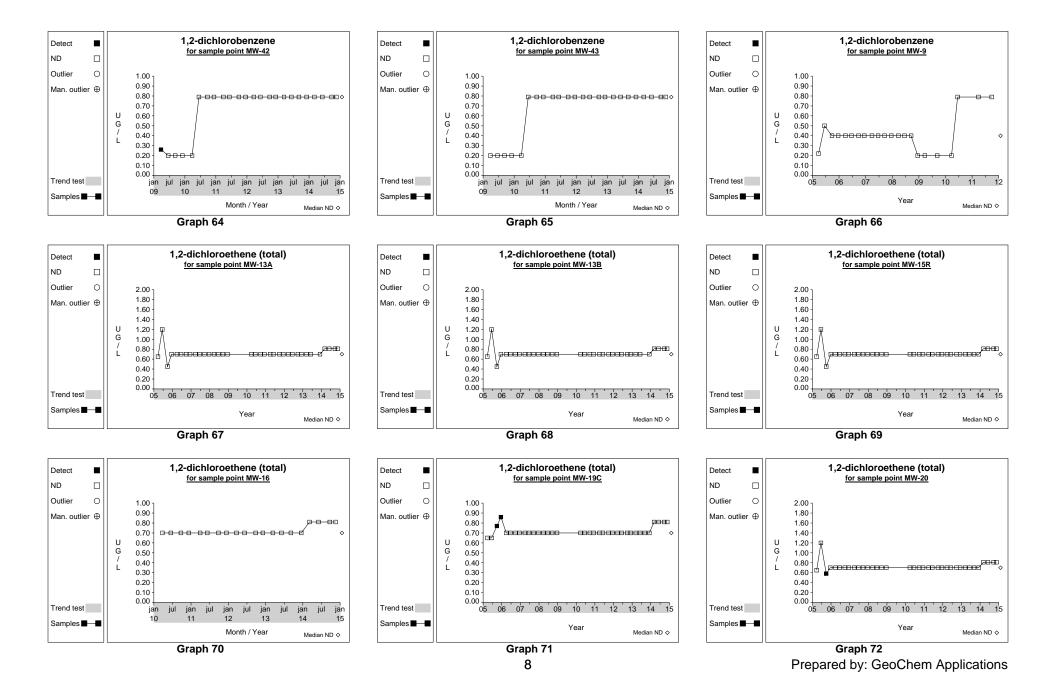


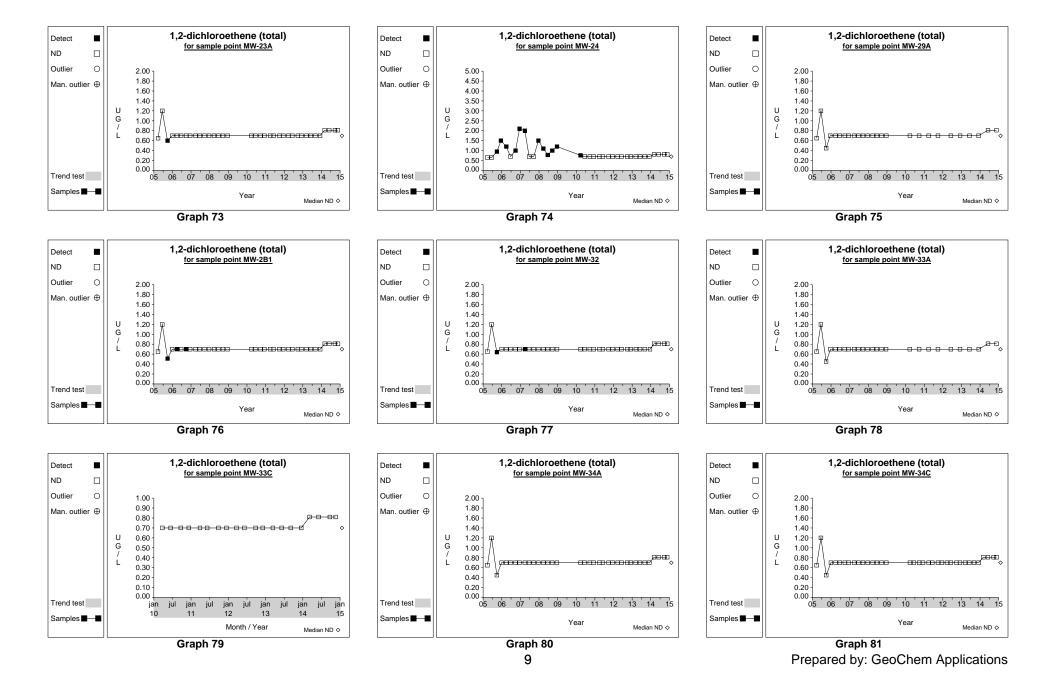


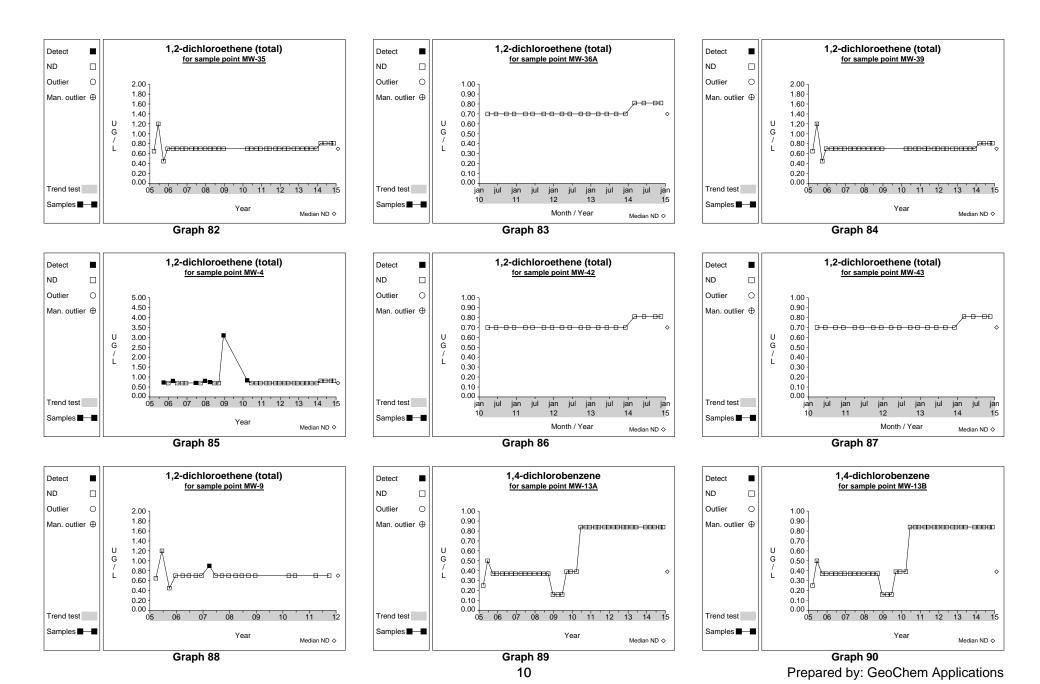


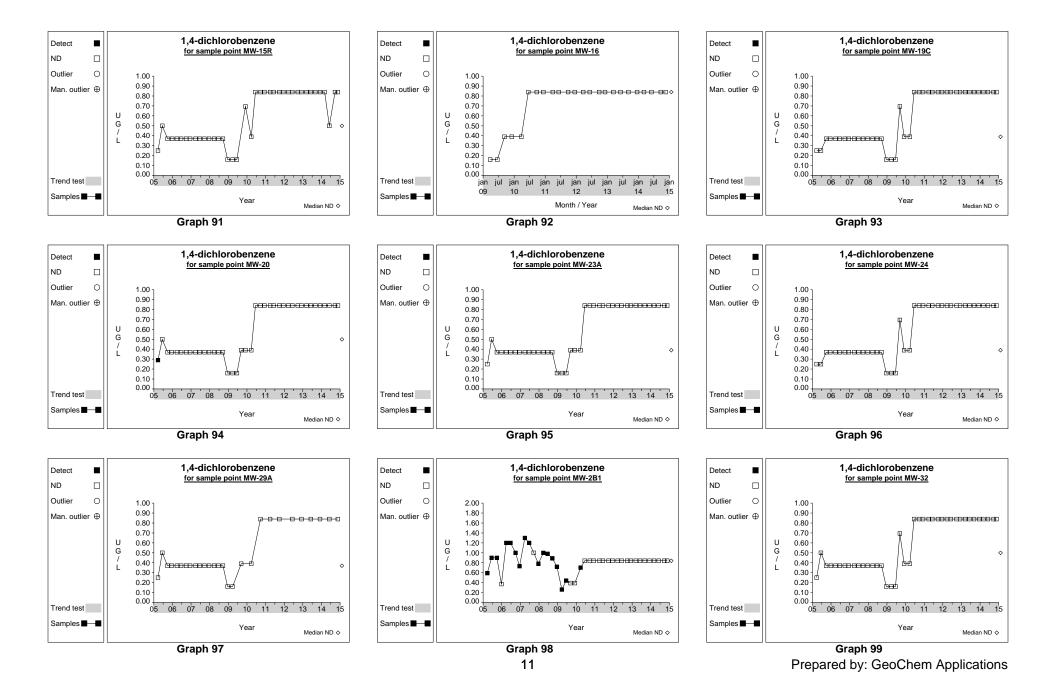


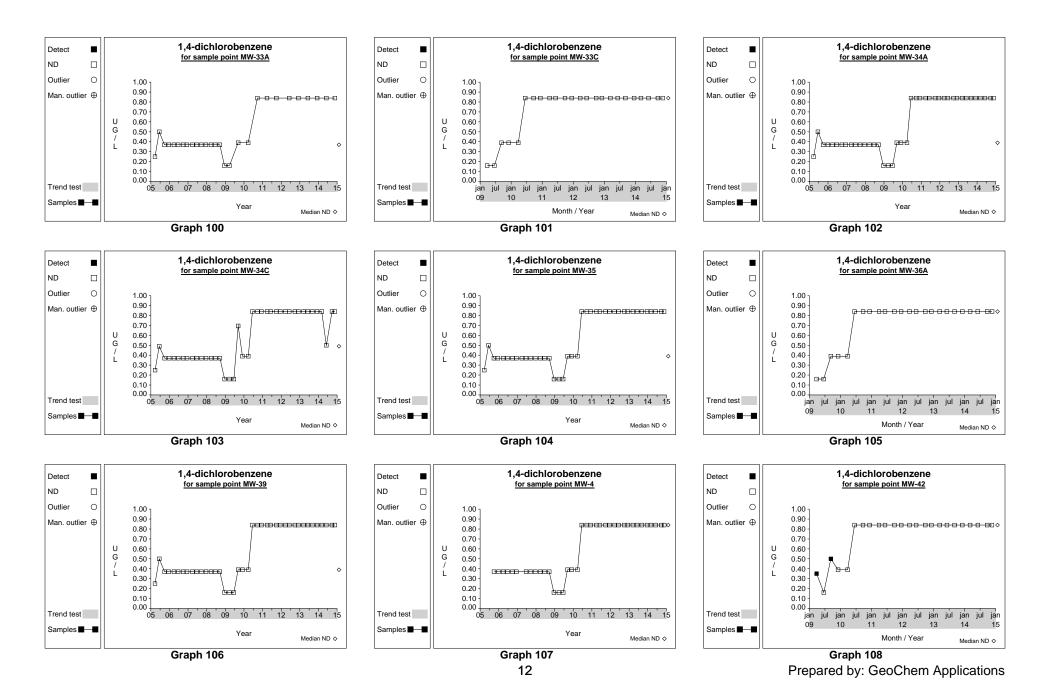


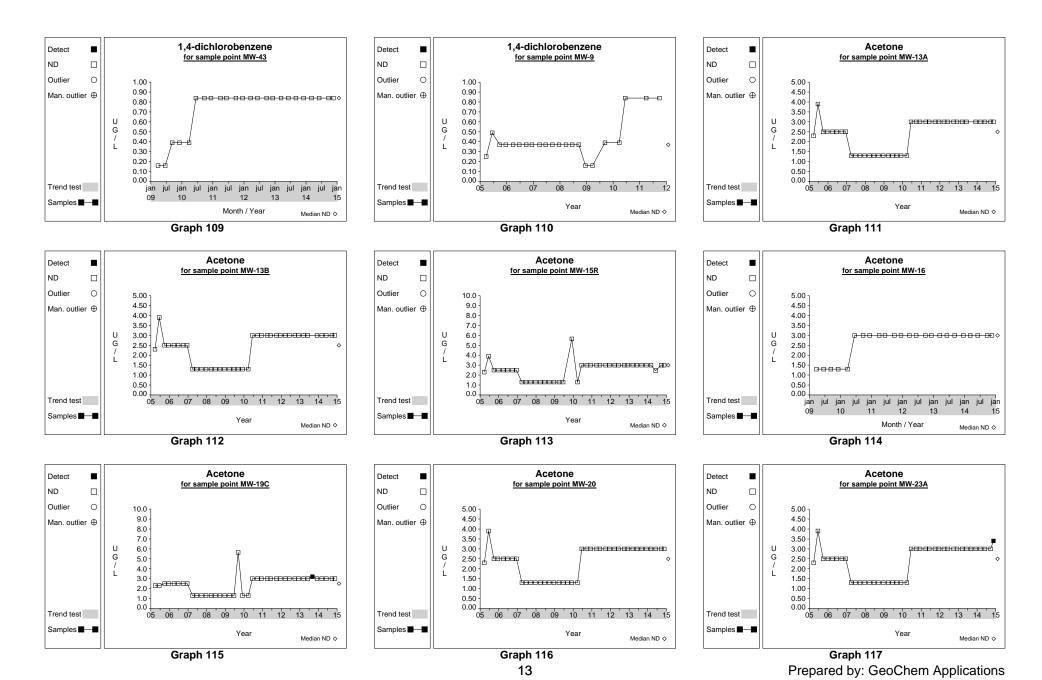


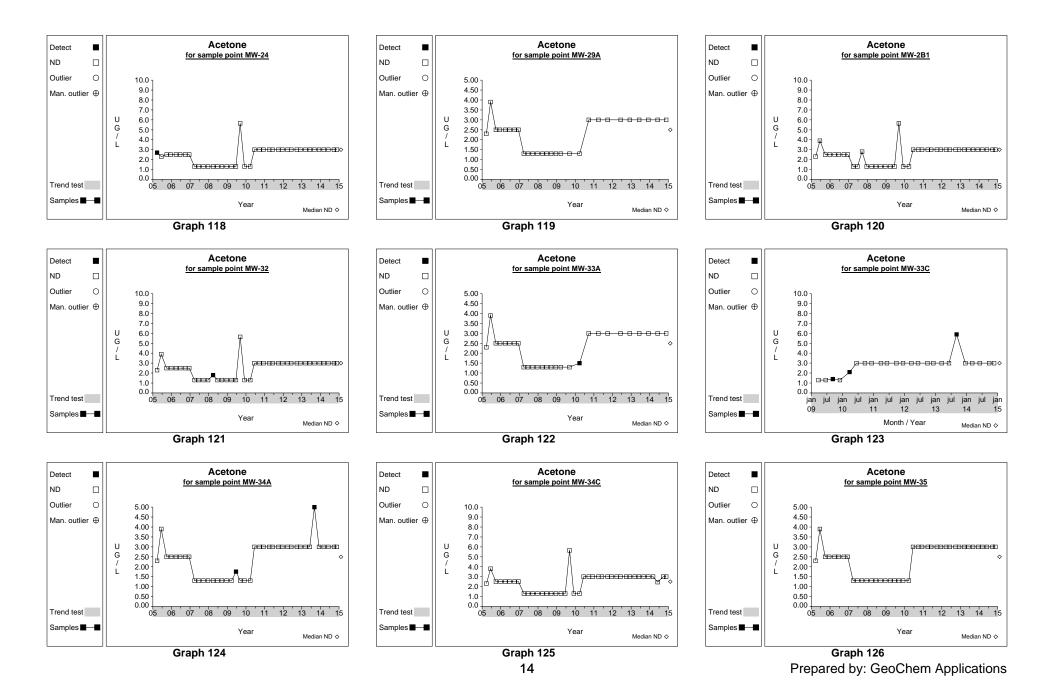


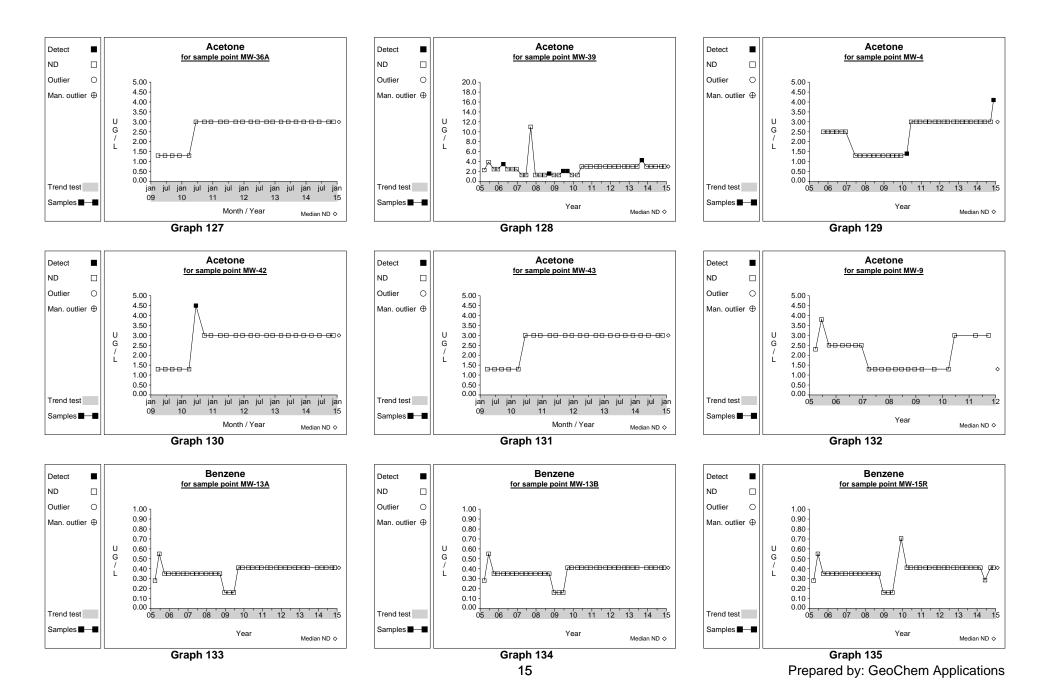


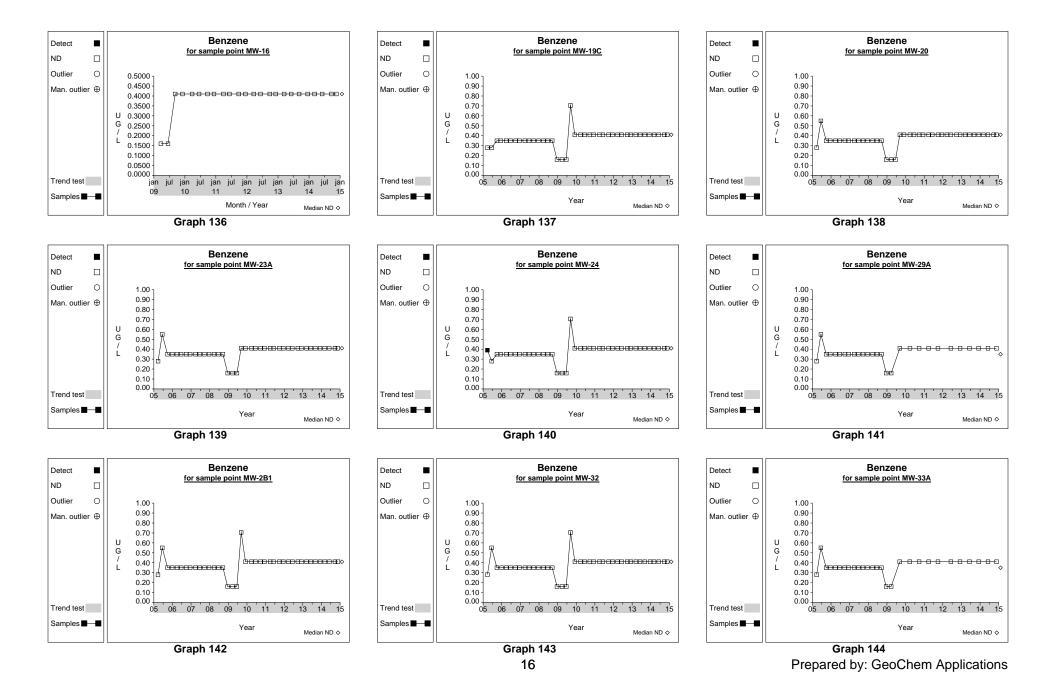






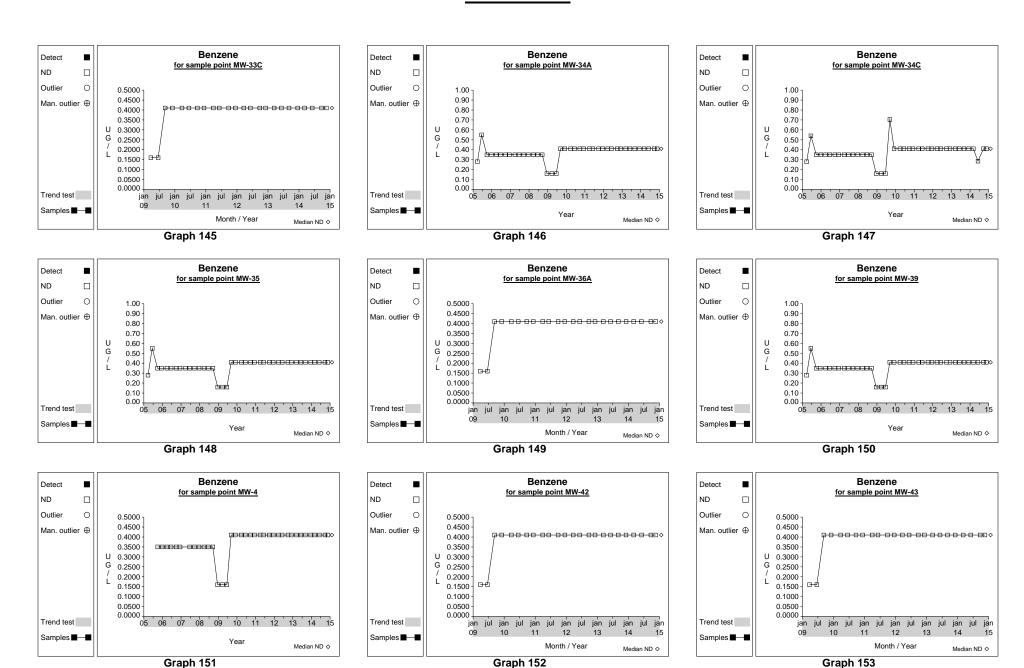




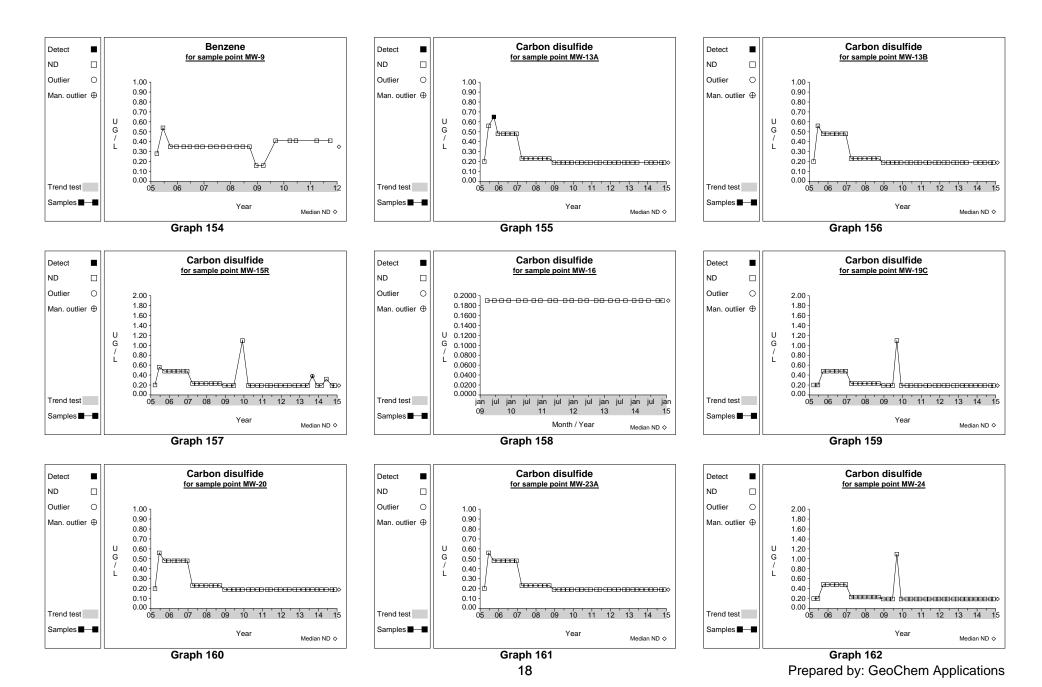


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### **Time Series**

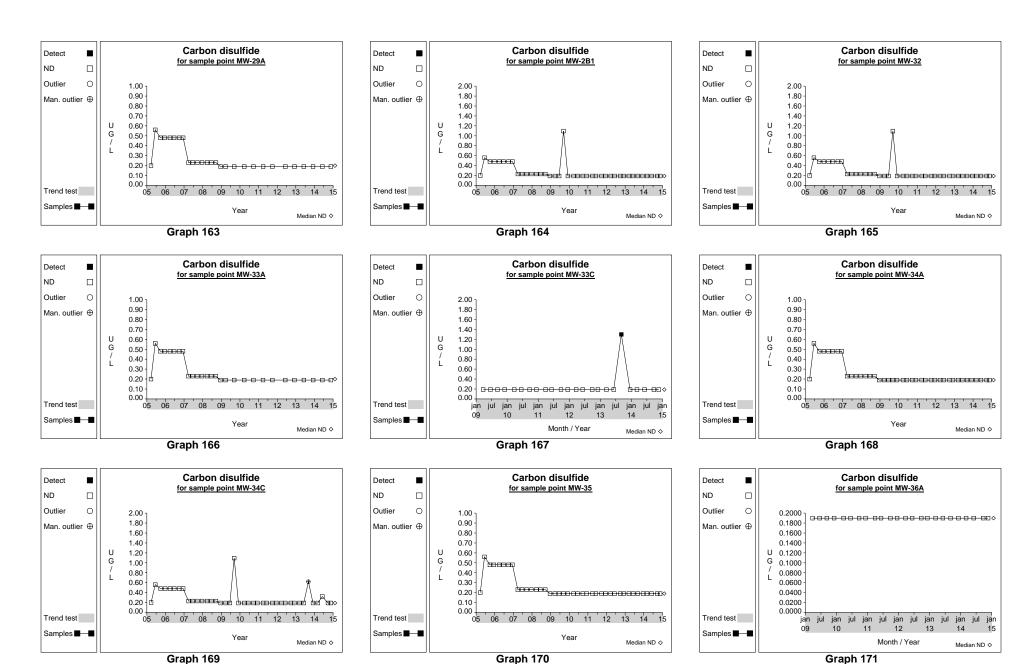


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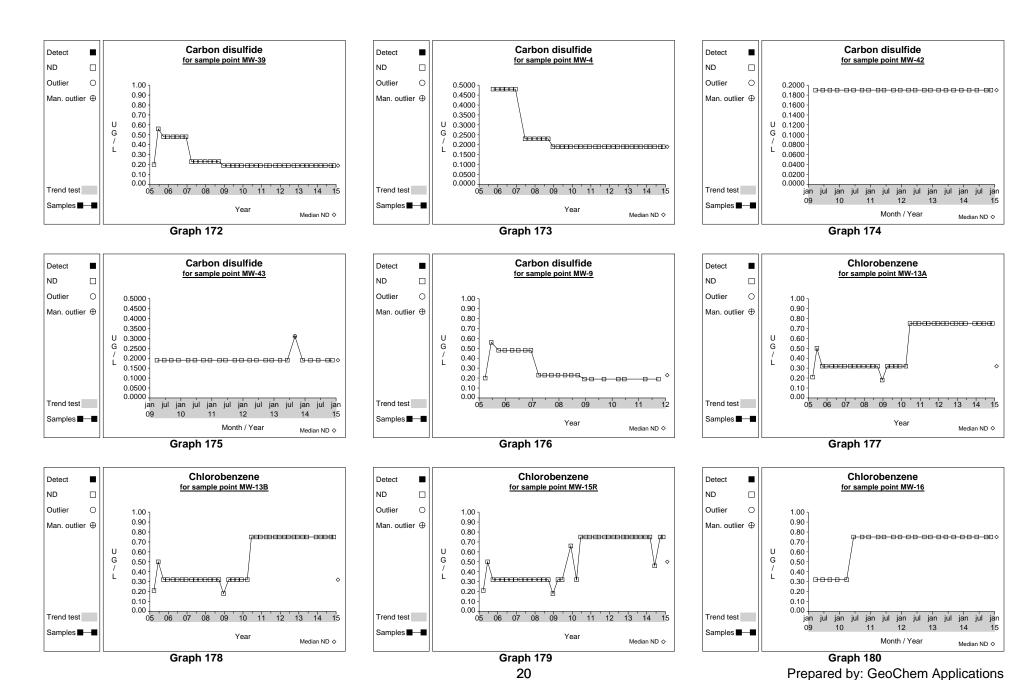


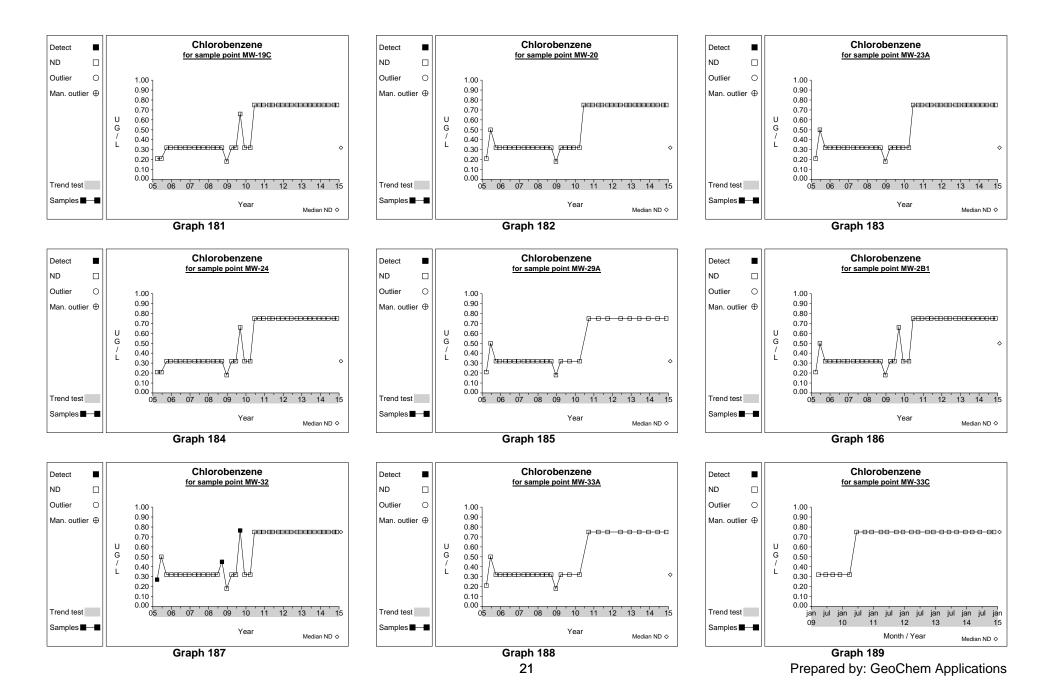
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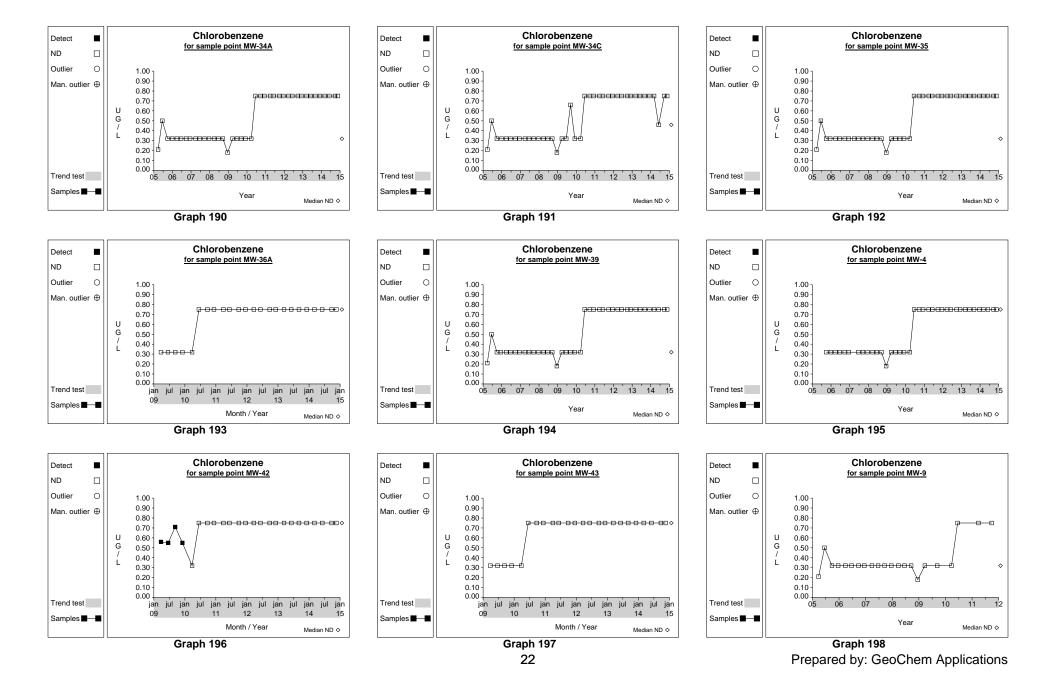
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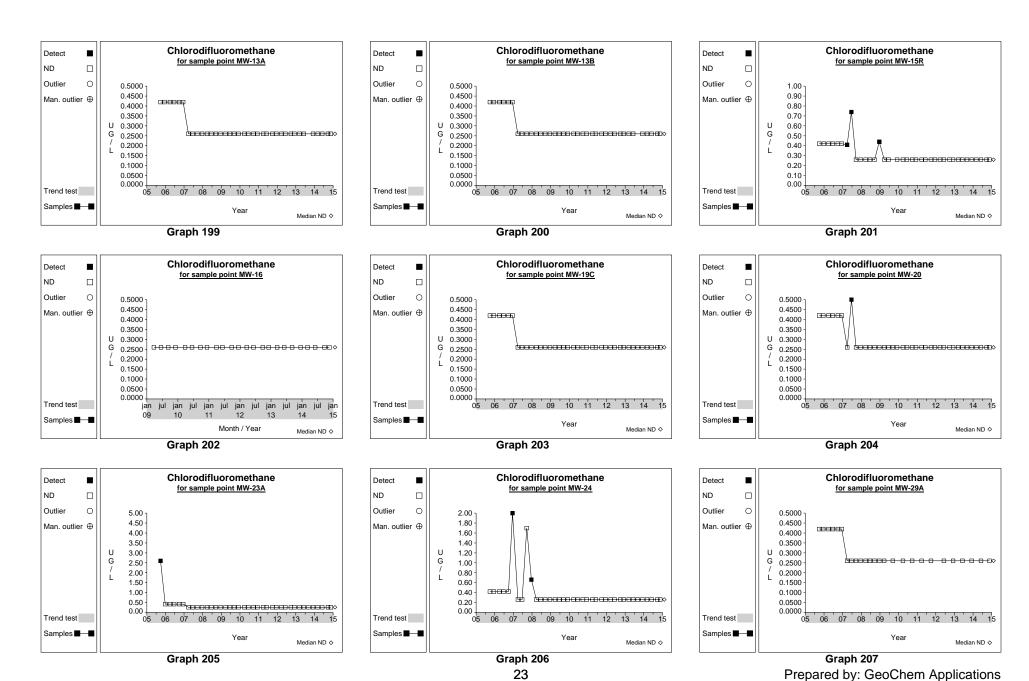


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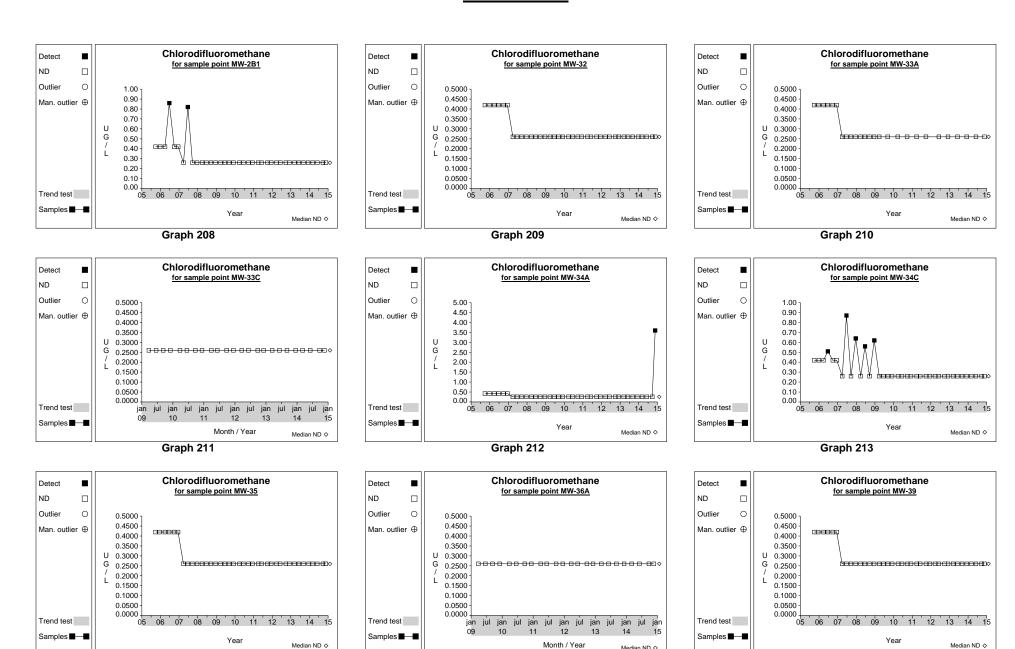


Graph 214

Graph 216

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### **Time Series**

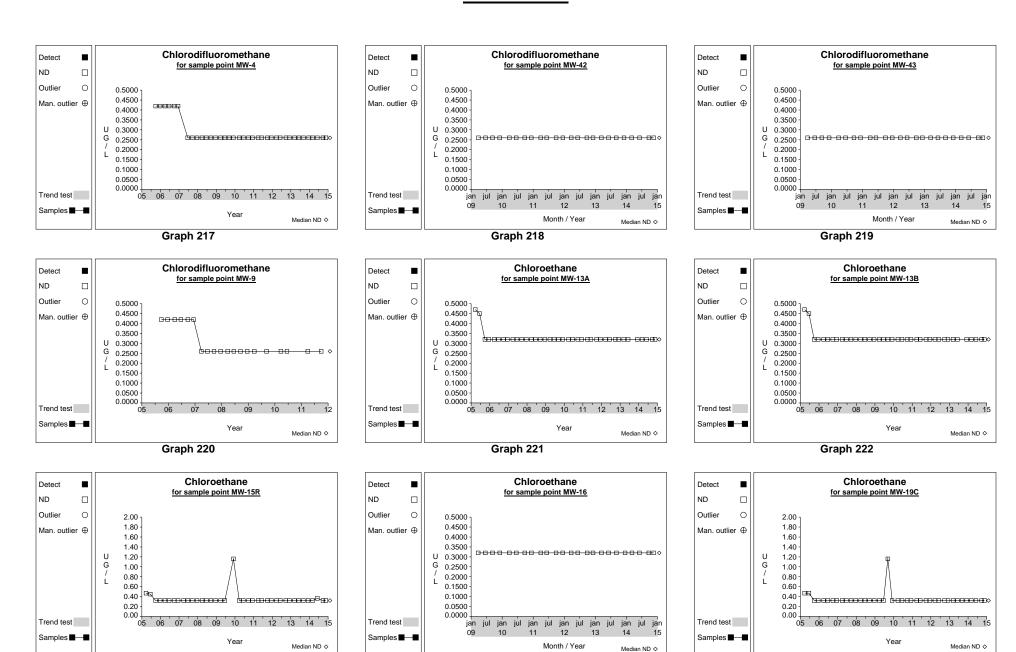


Graph 215

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Graph 223

### **Time Series**

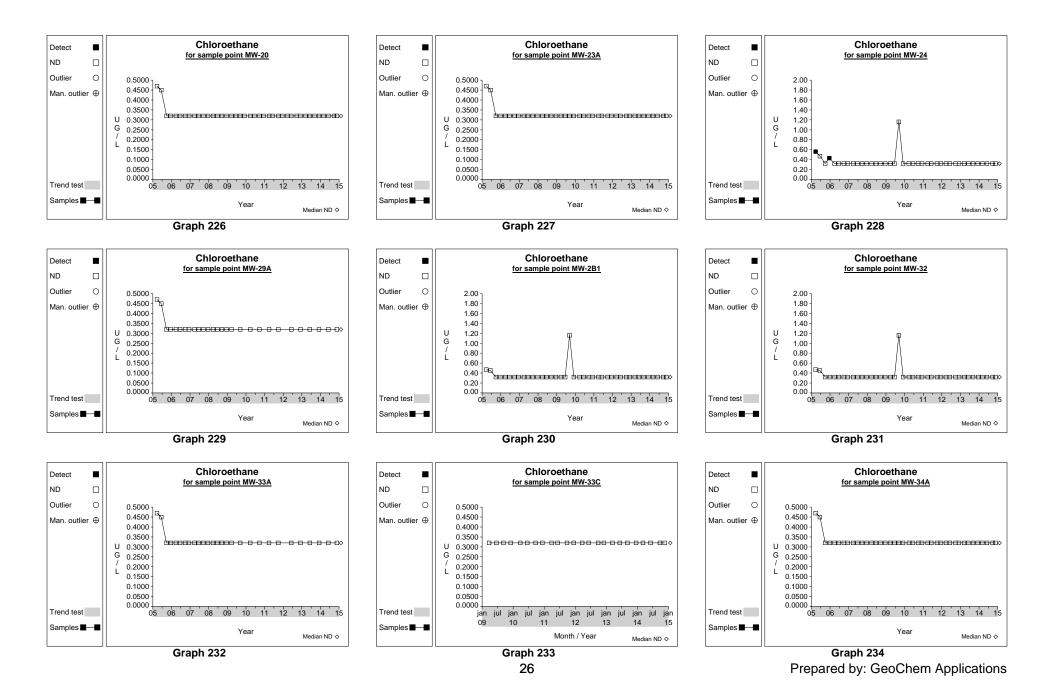


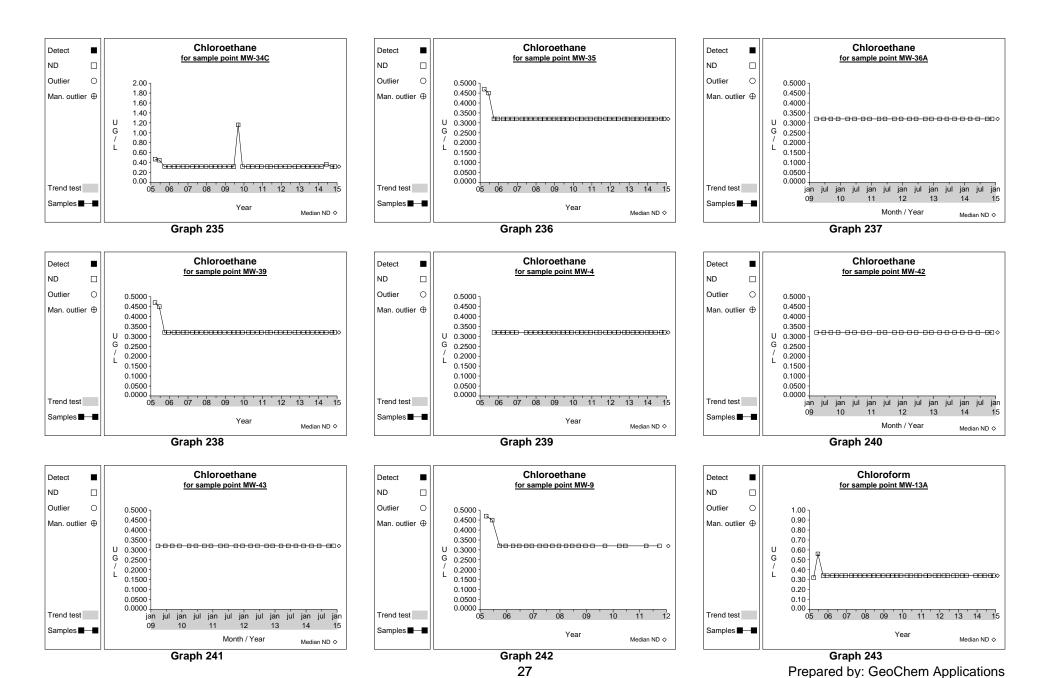
Graph 224

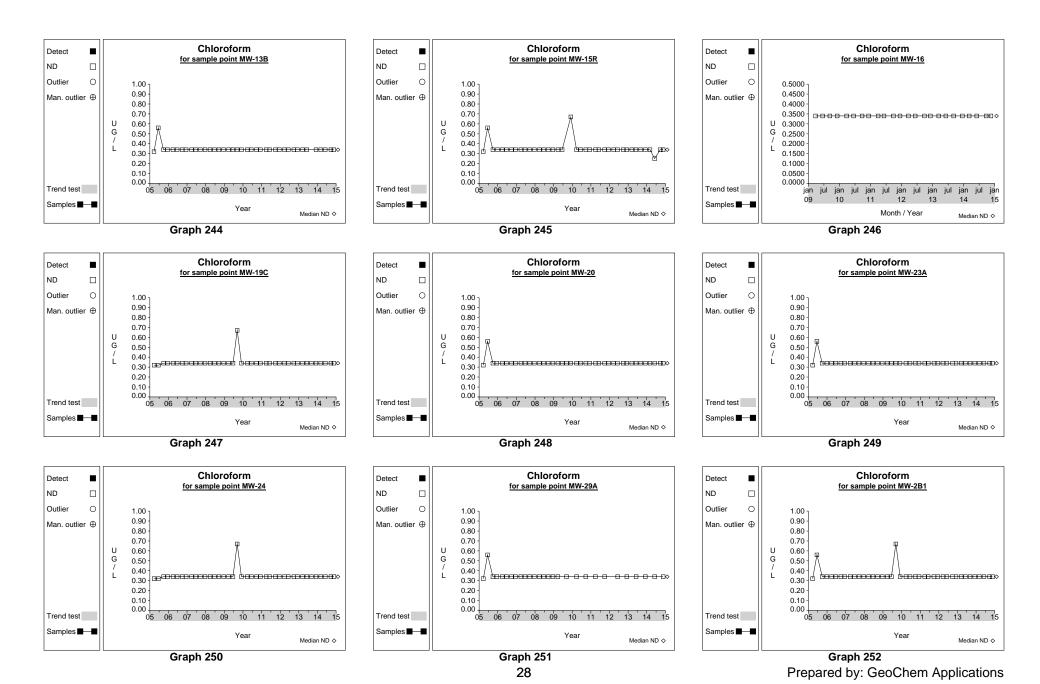
25

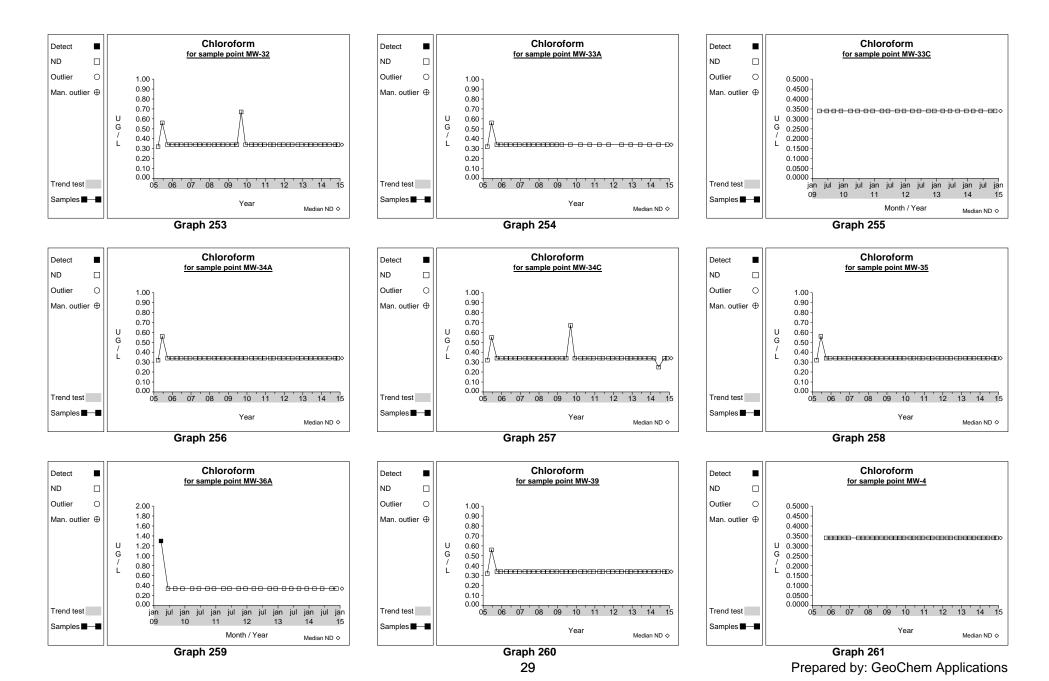
Prepared by: GeoChem Applications

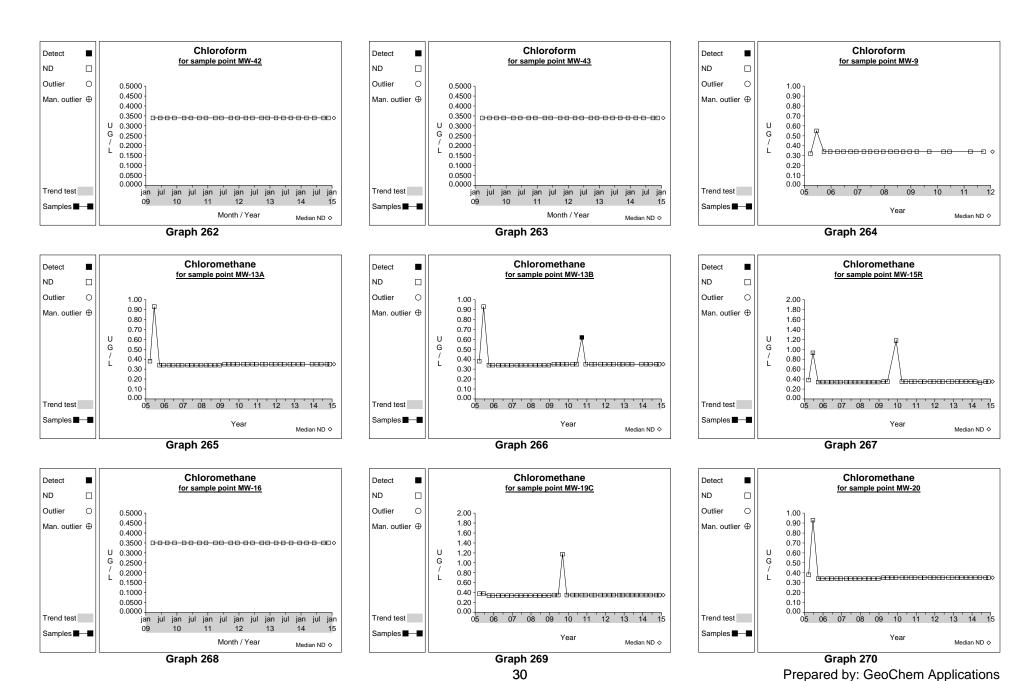
Graph 225

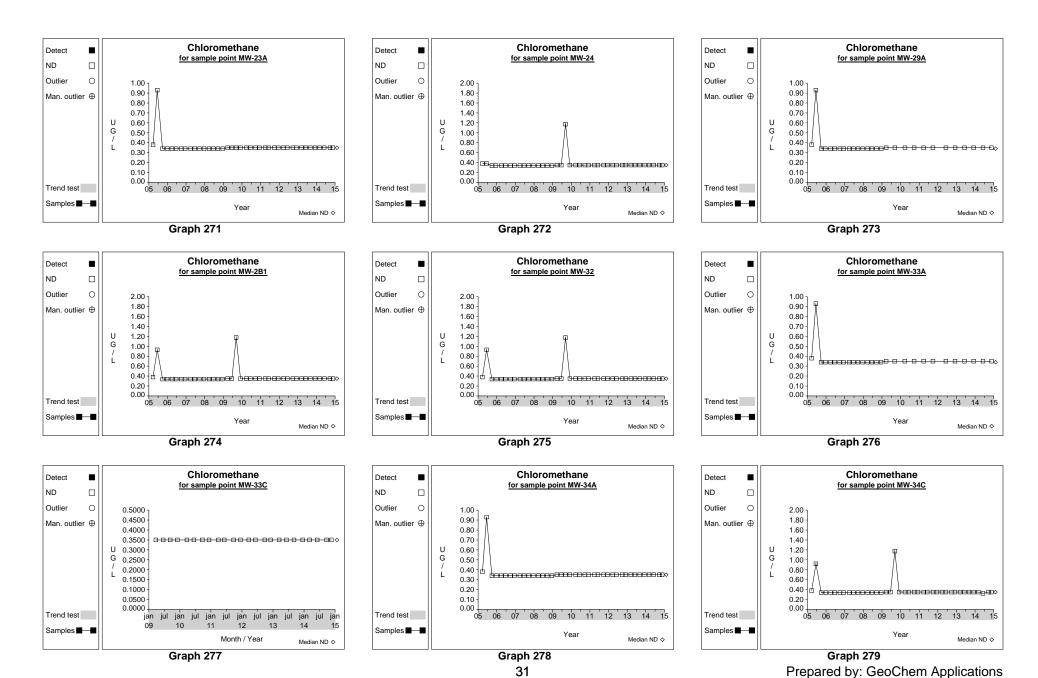






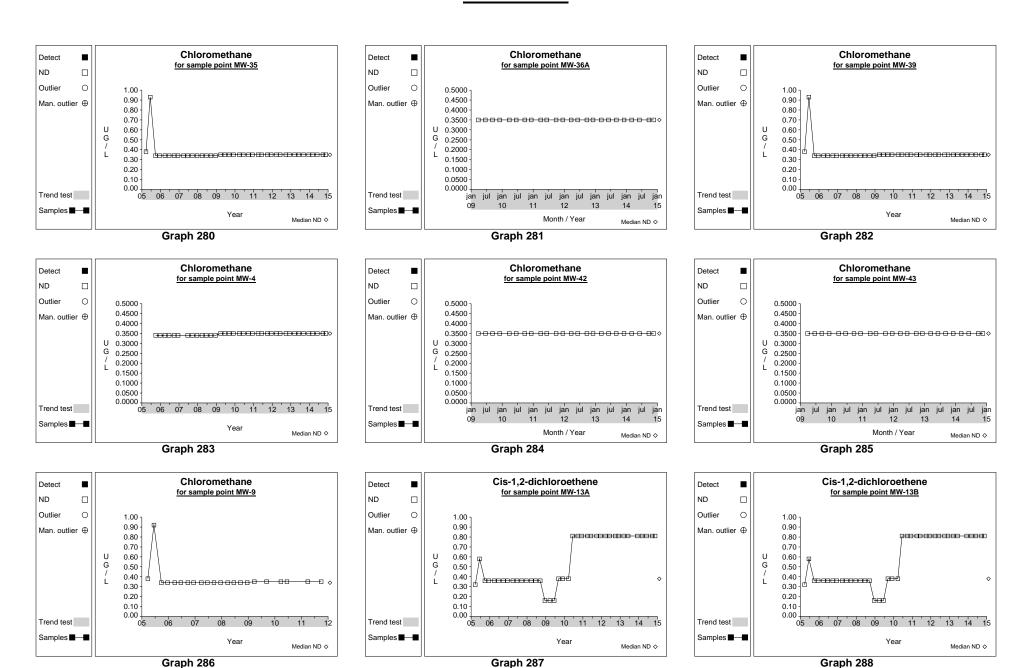




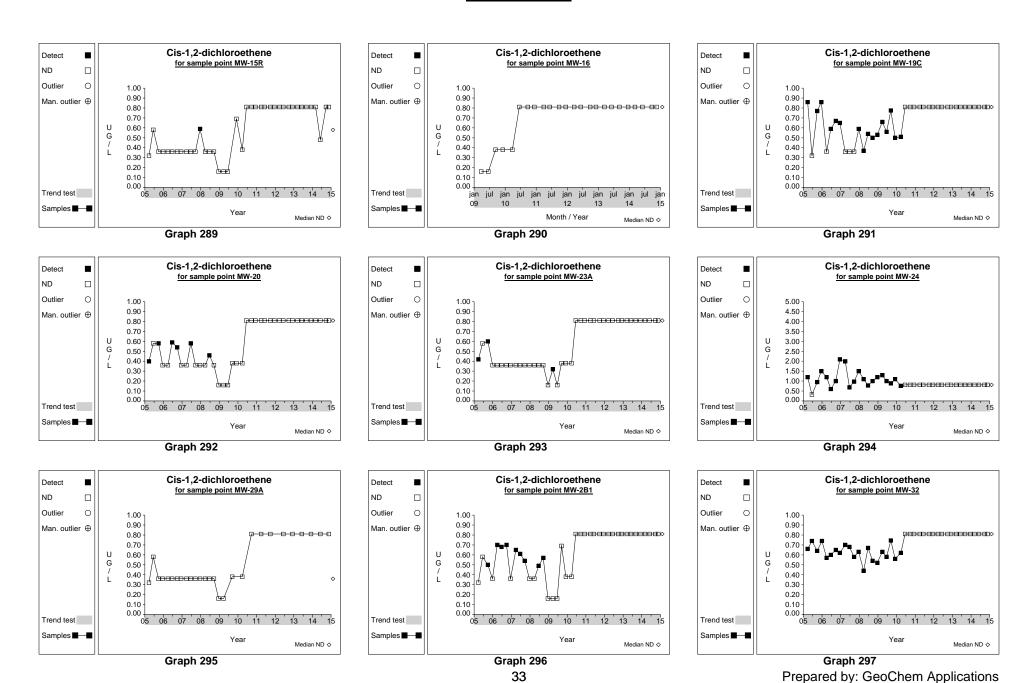


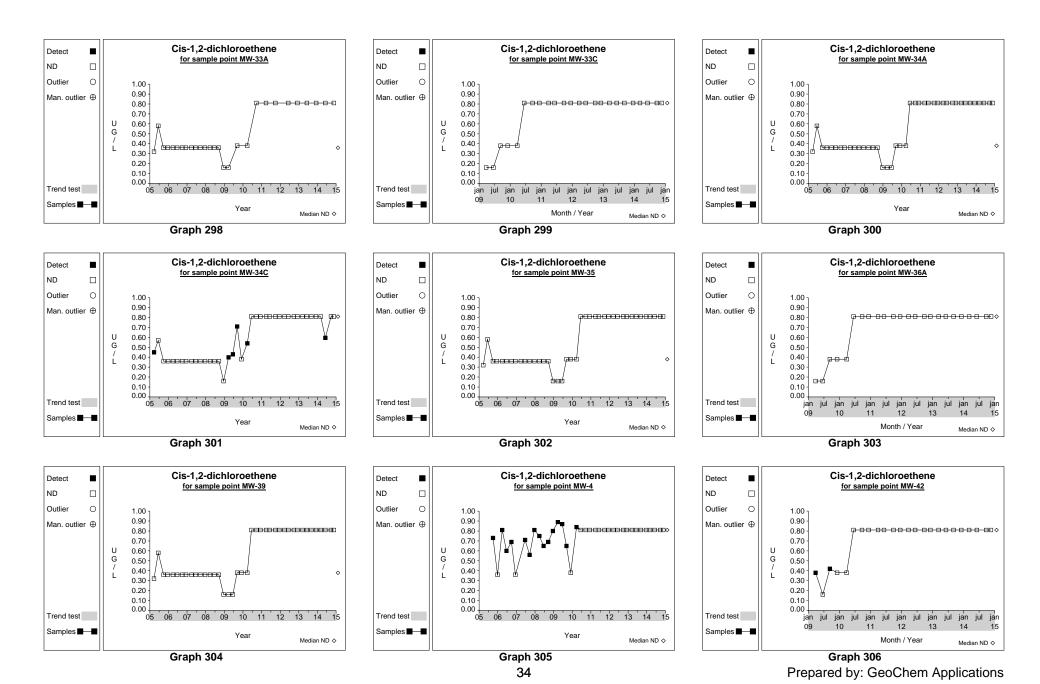
Prepared by: GeoChem Applications

### **Time Series**

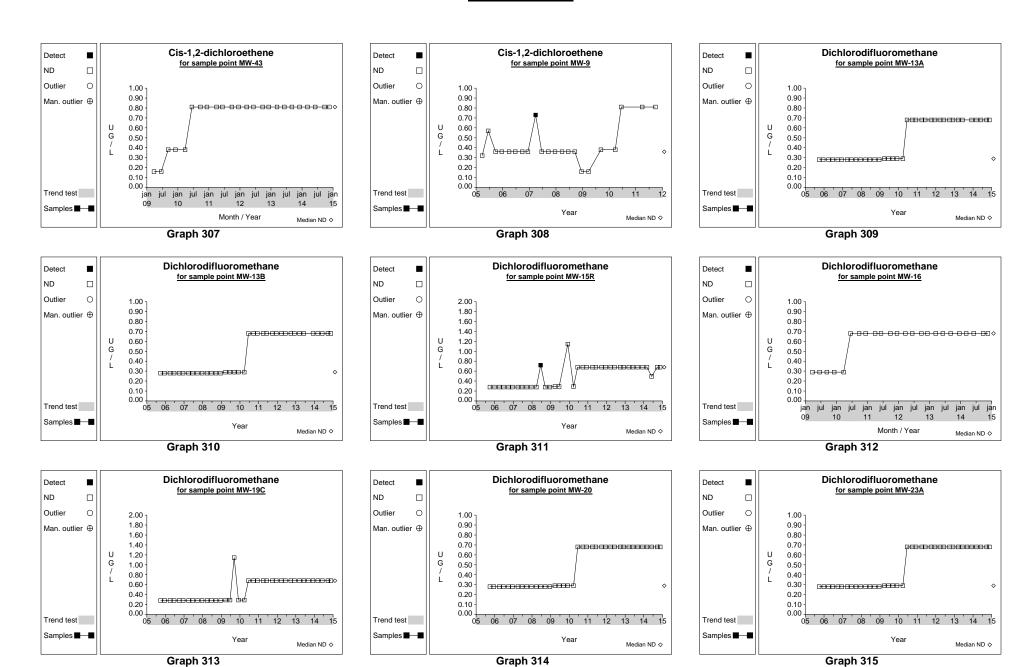


32

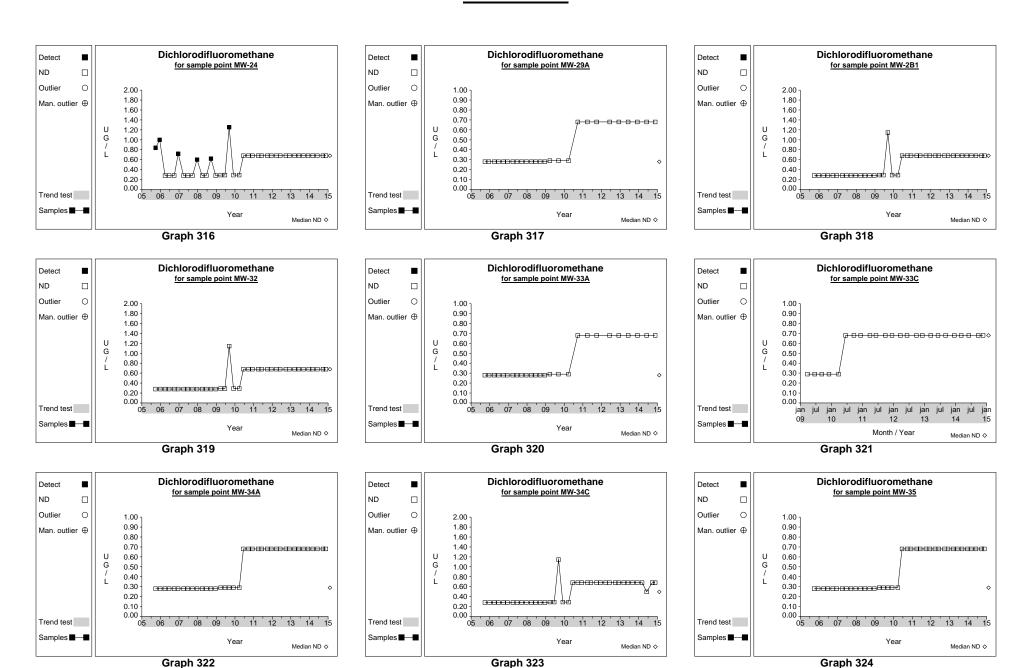




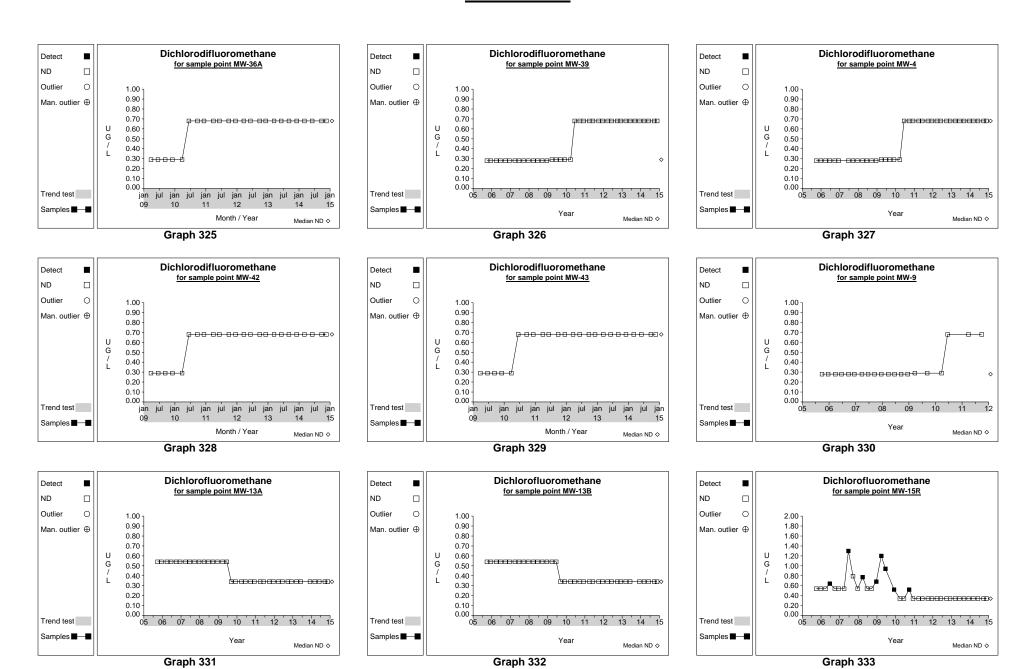
## **Time Series**

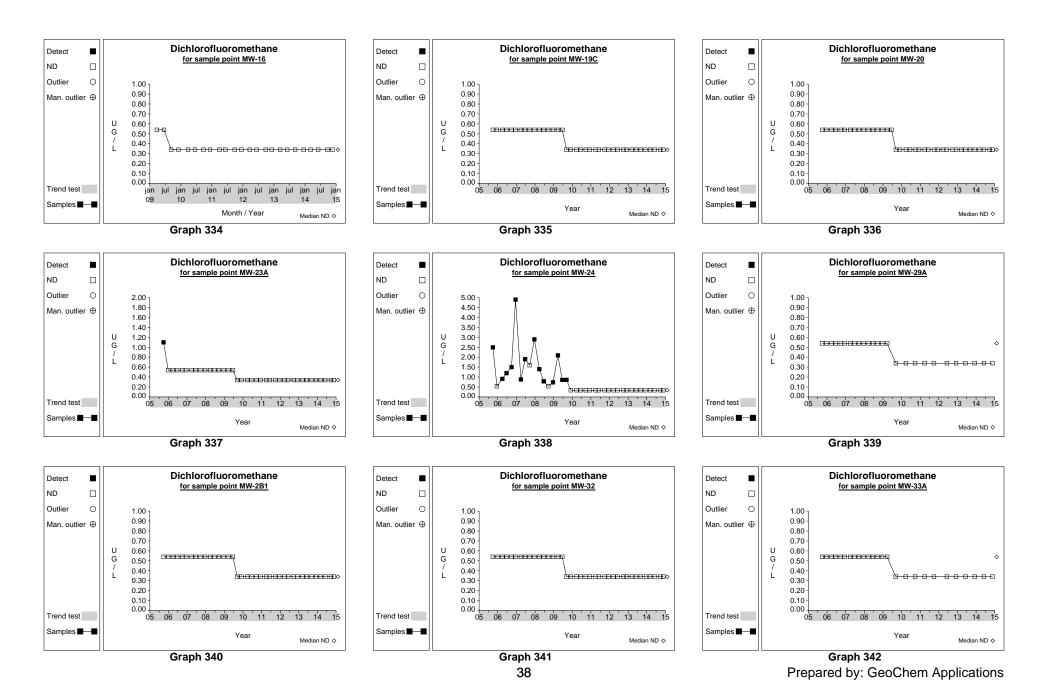


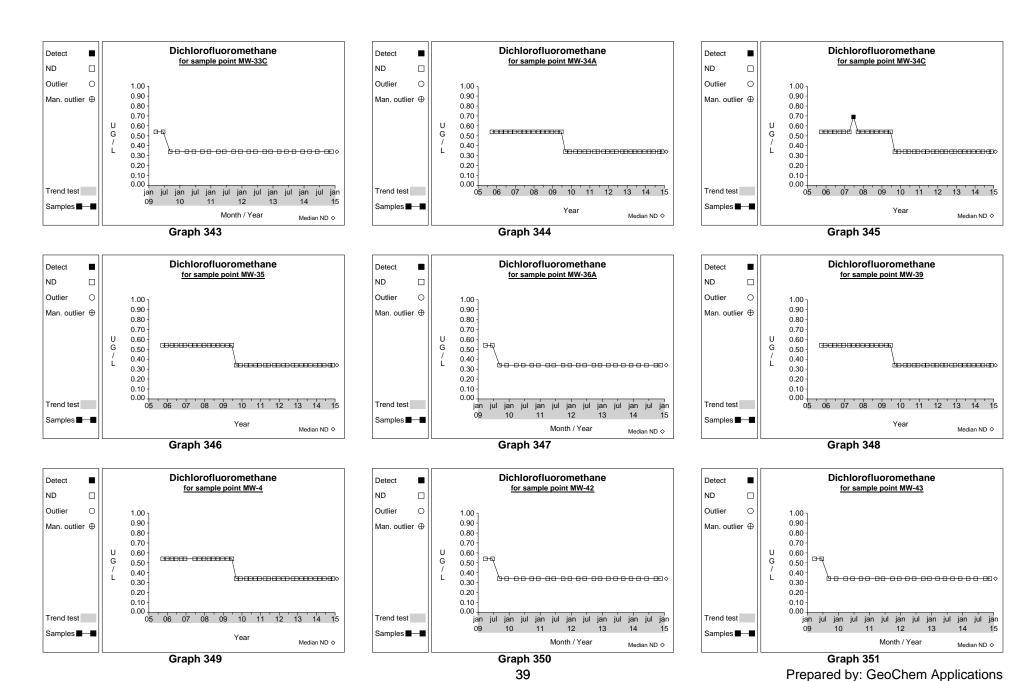
## **Time Series**

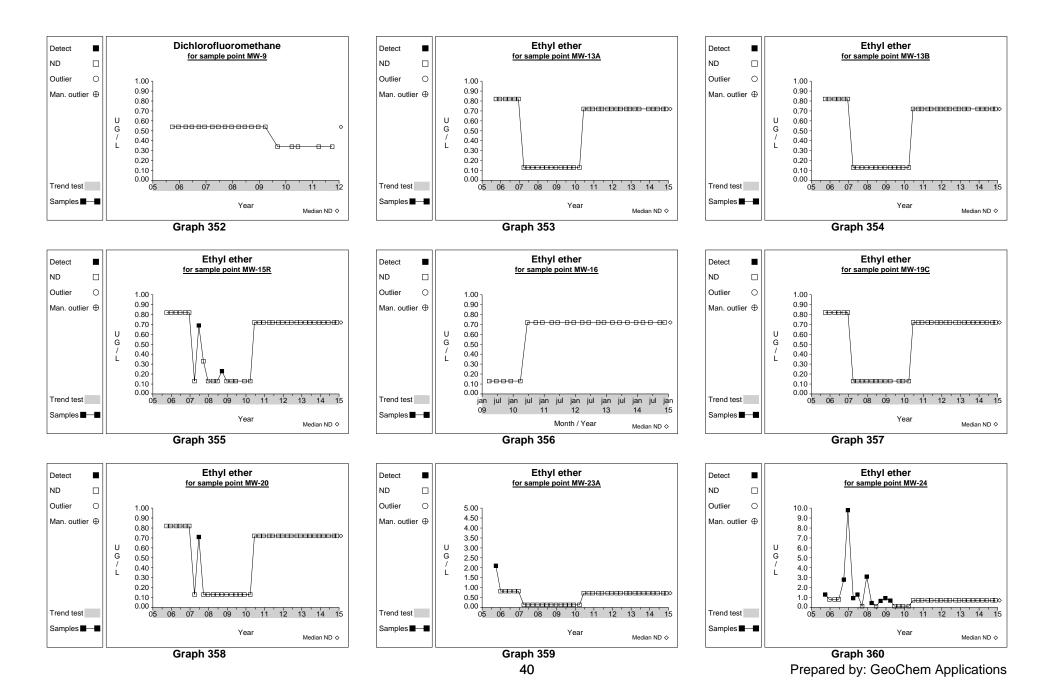


# **Time Series**

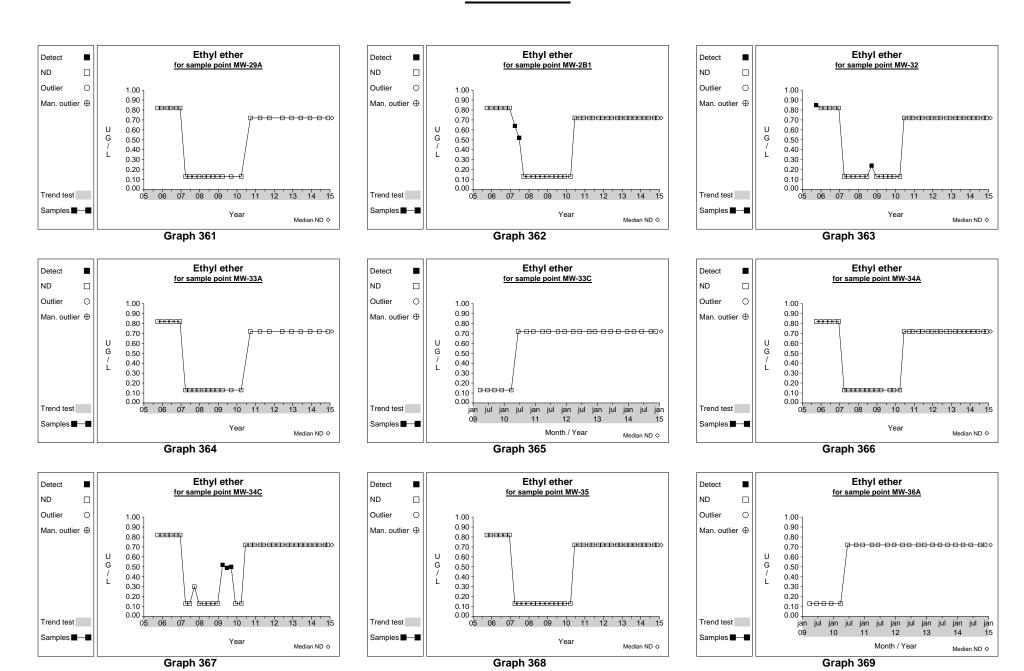


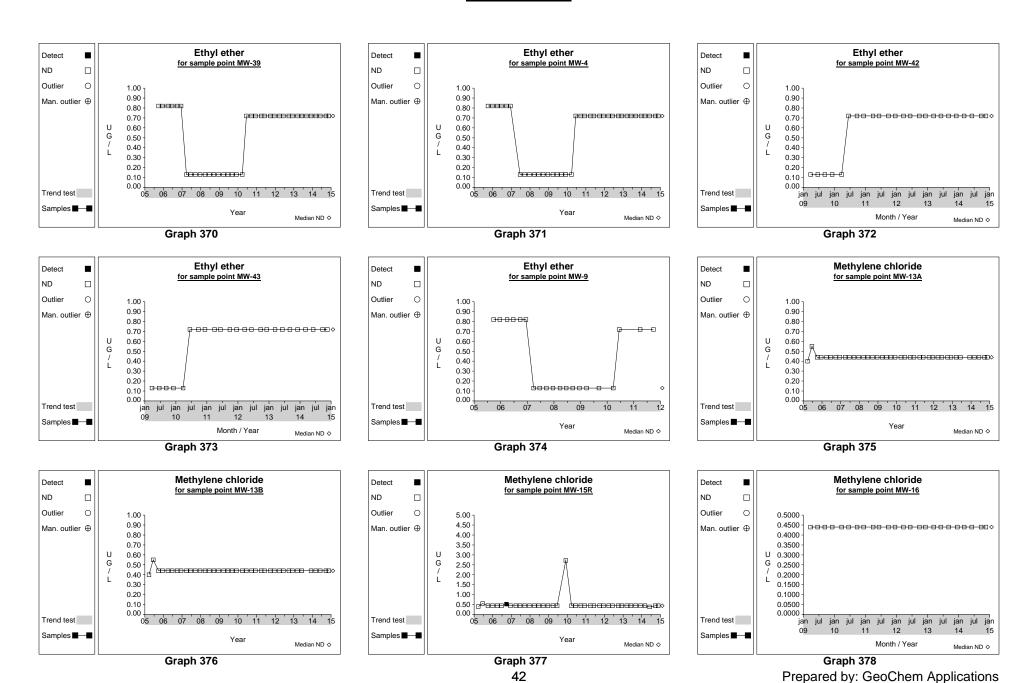


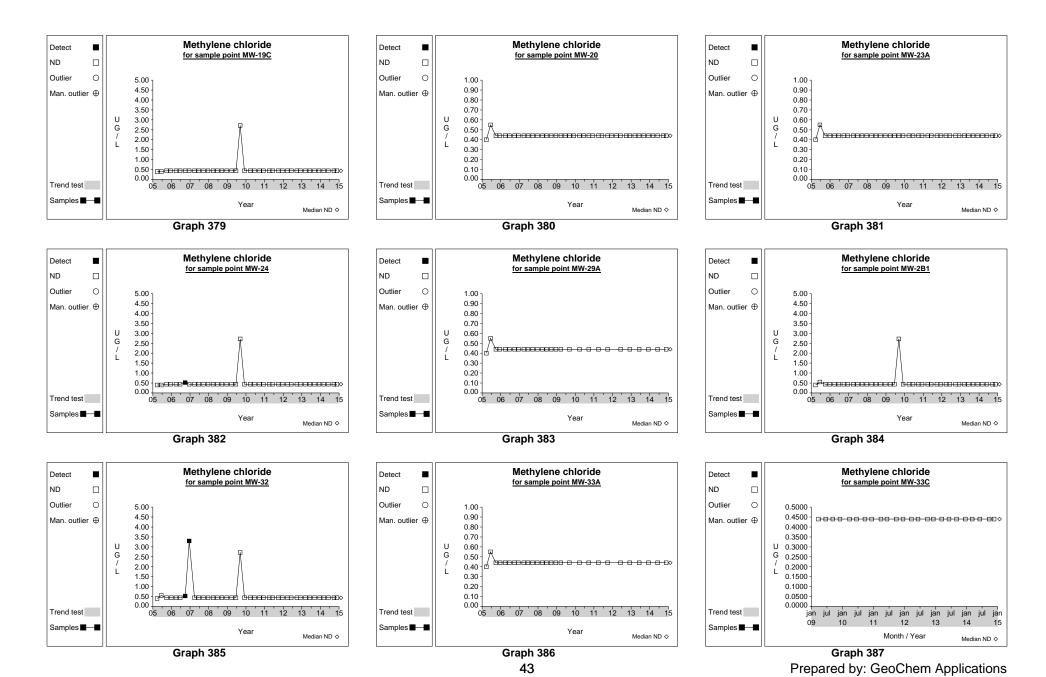


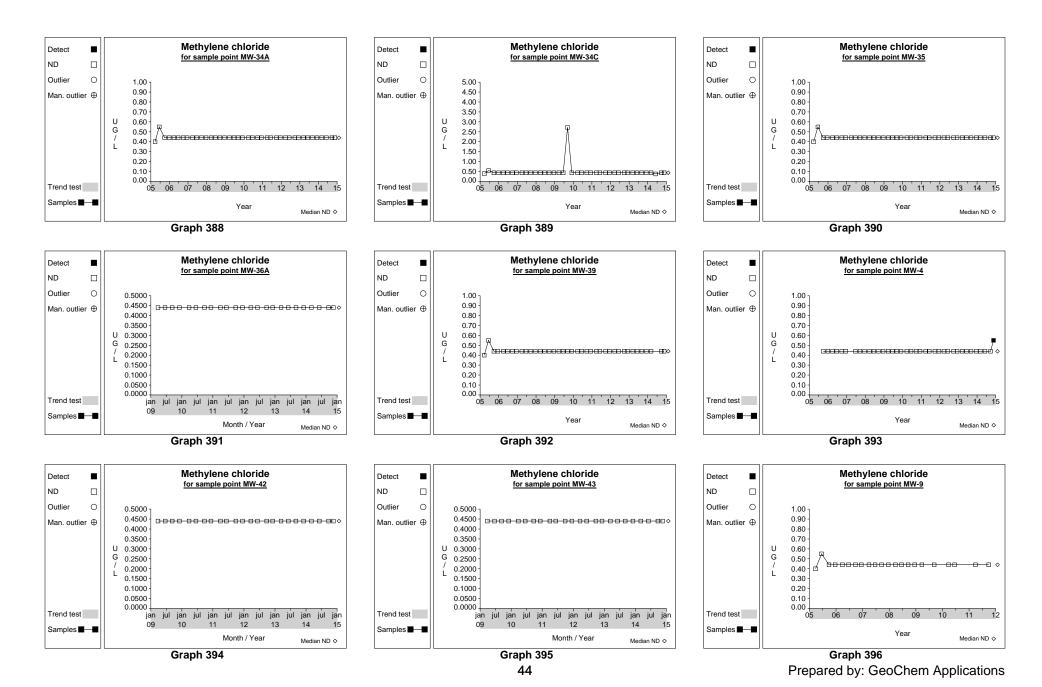


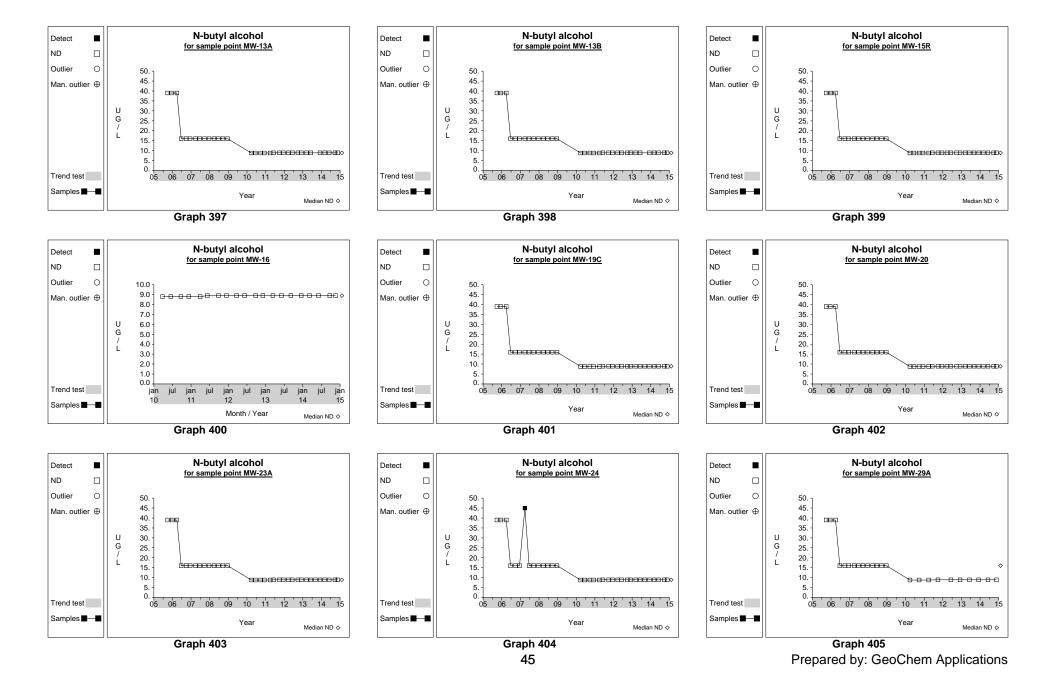
## **Time Series**

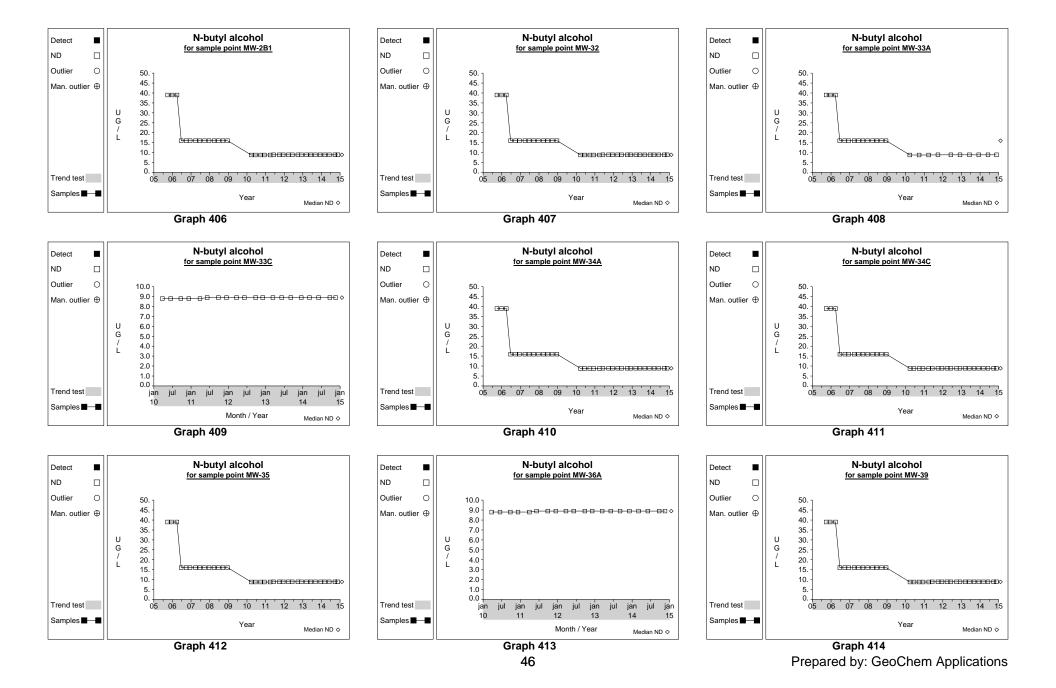




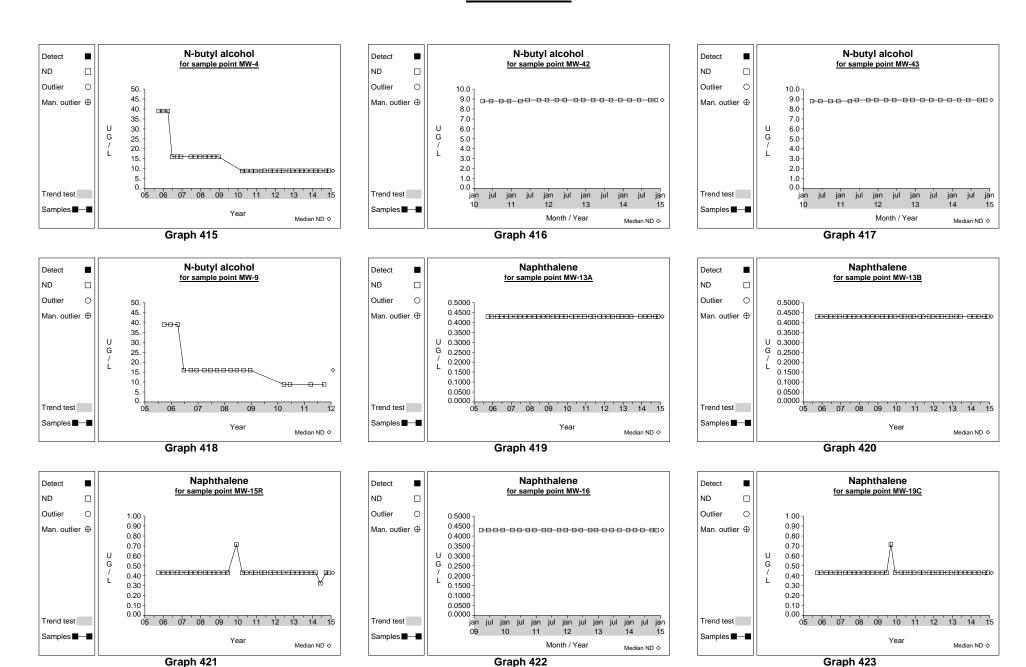


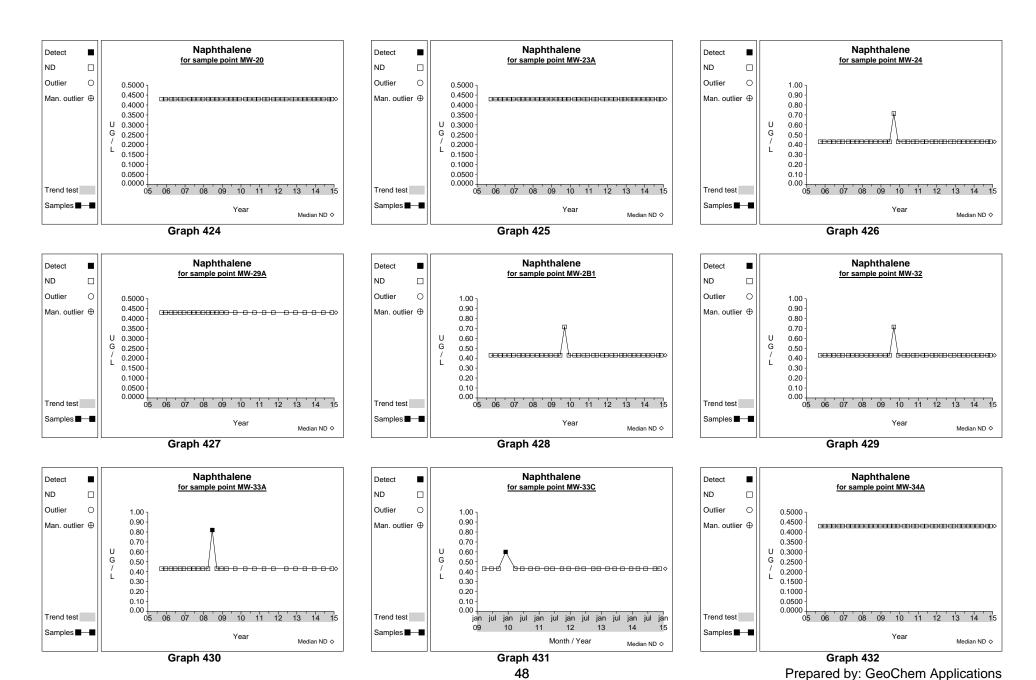


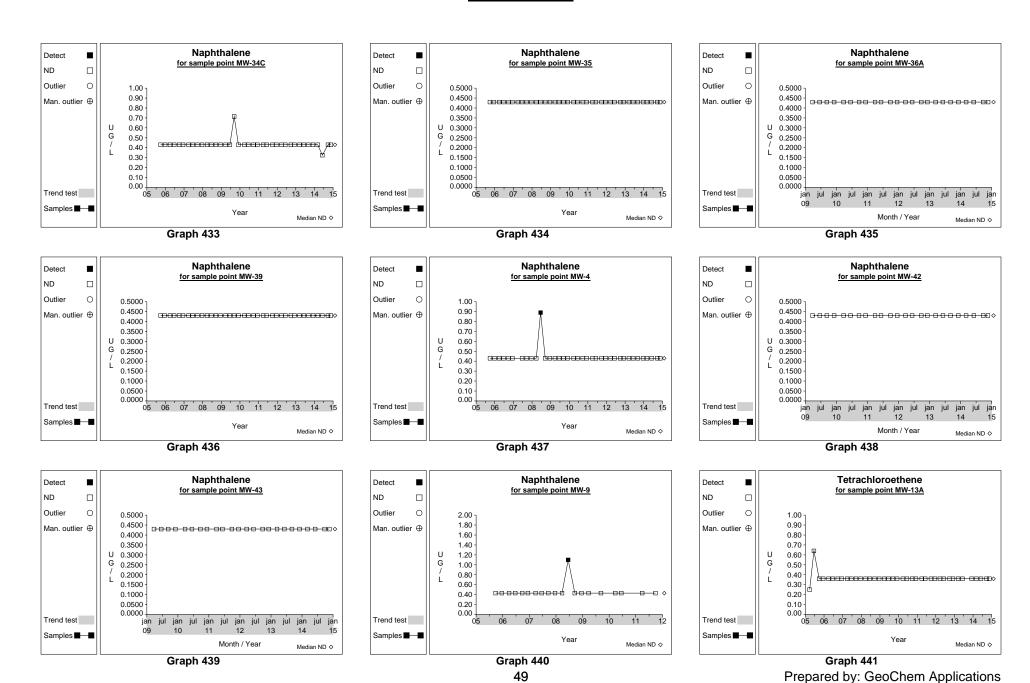


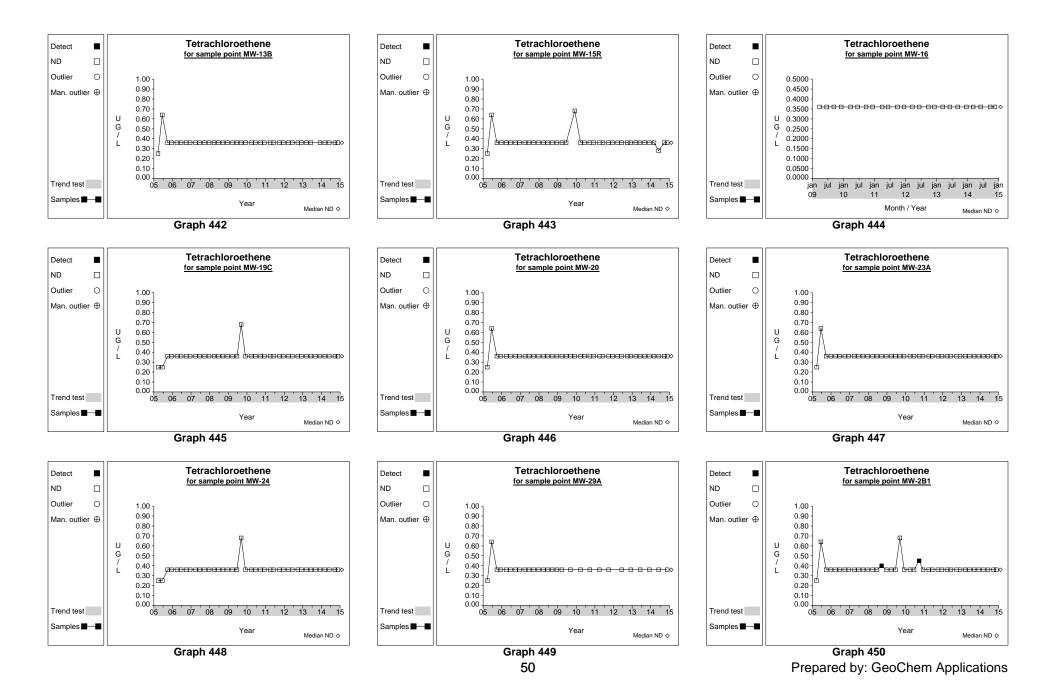


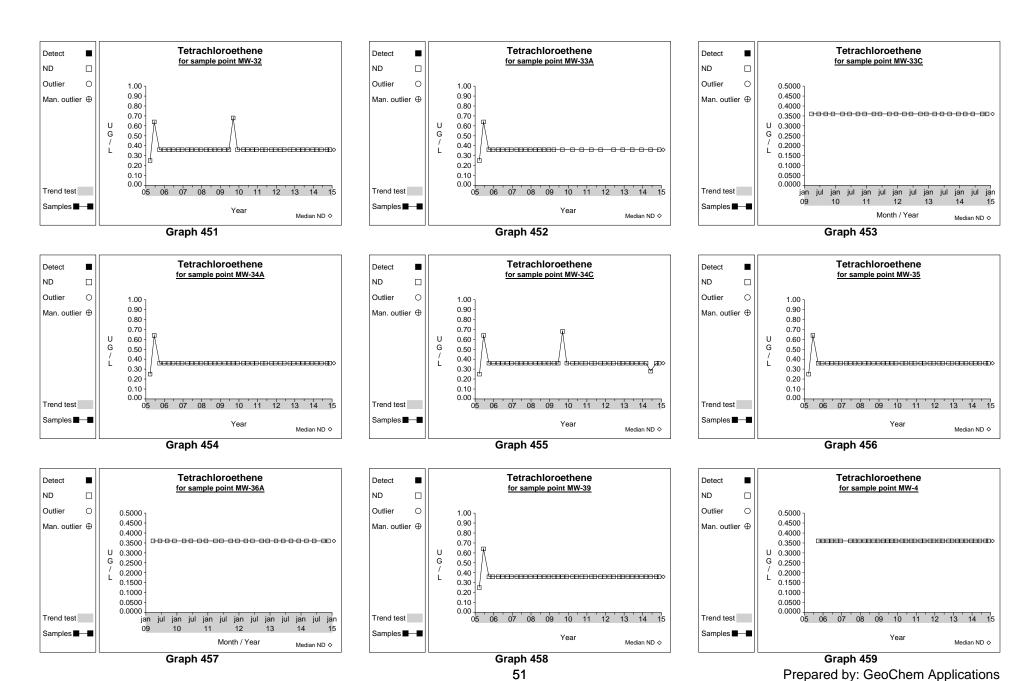
## **Time Series**



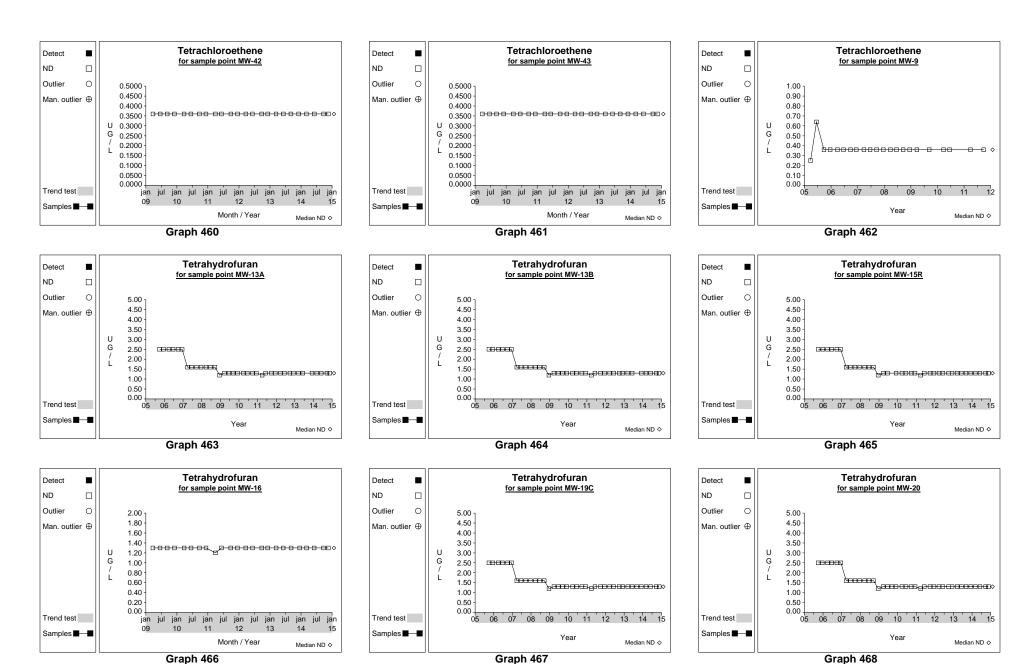


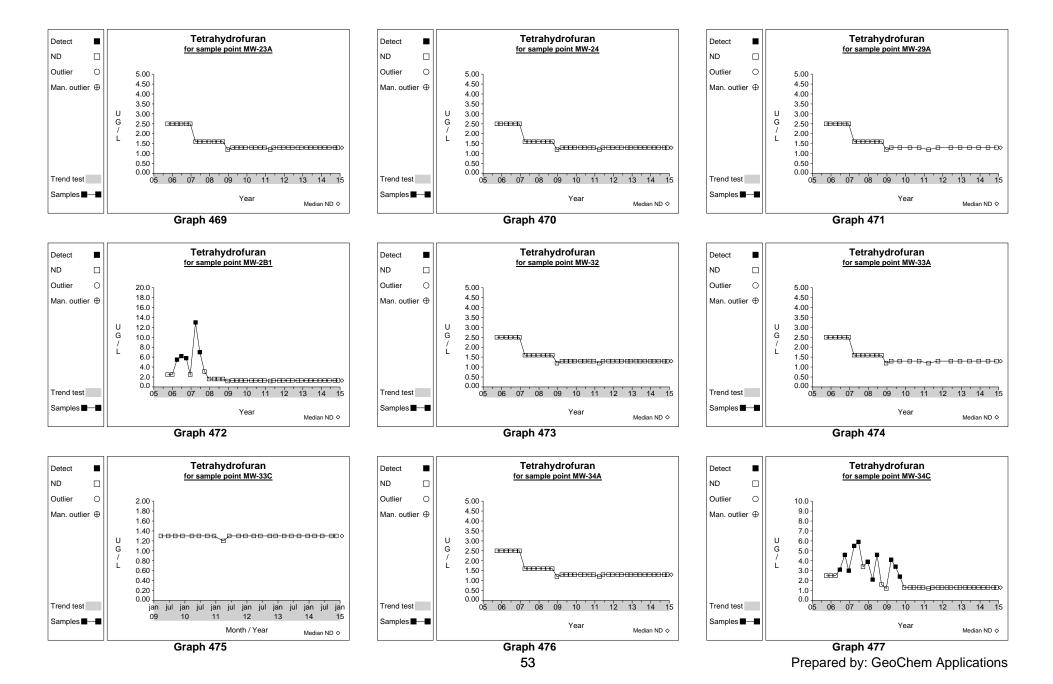


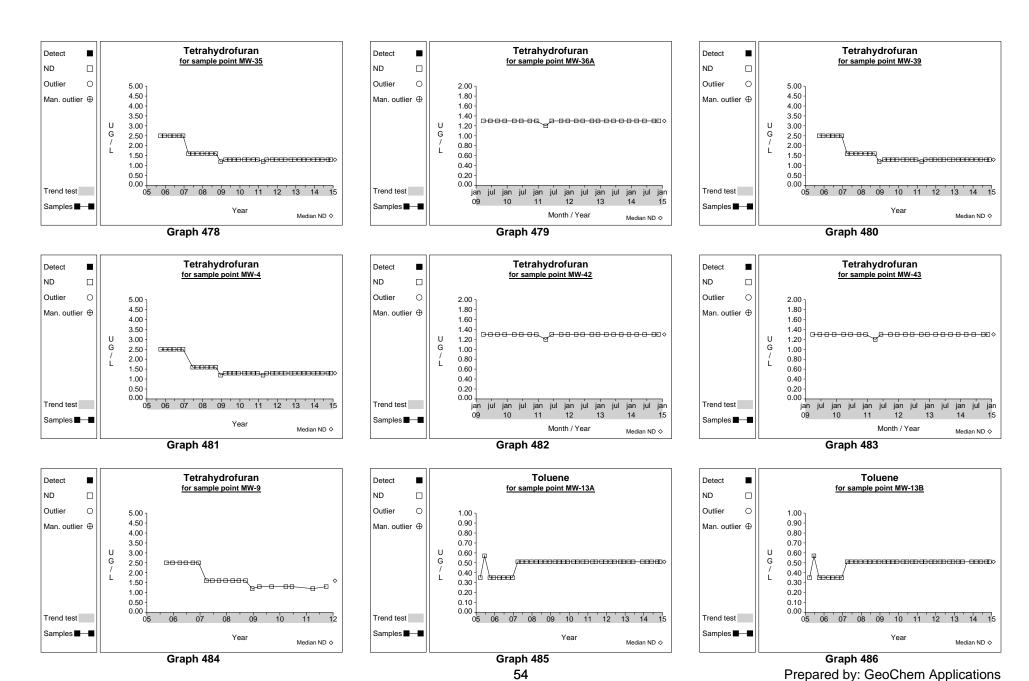


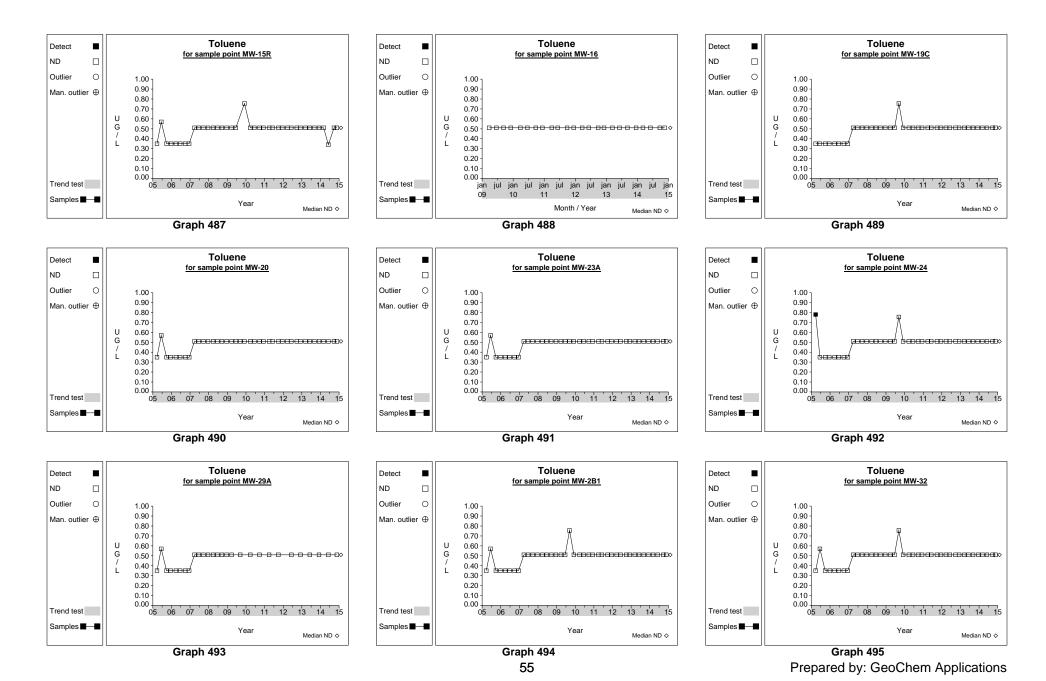


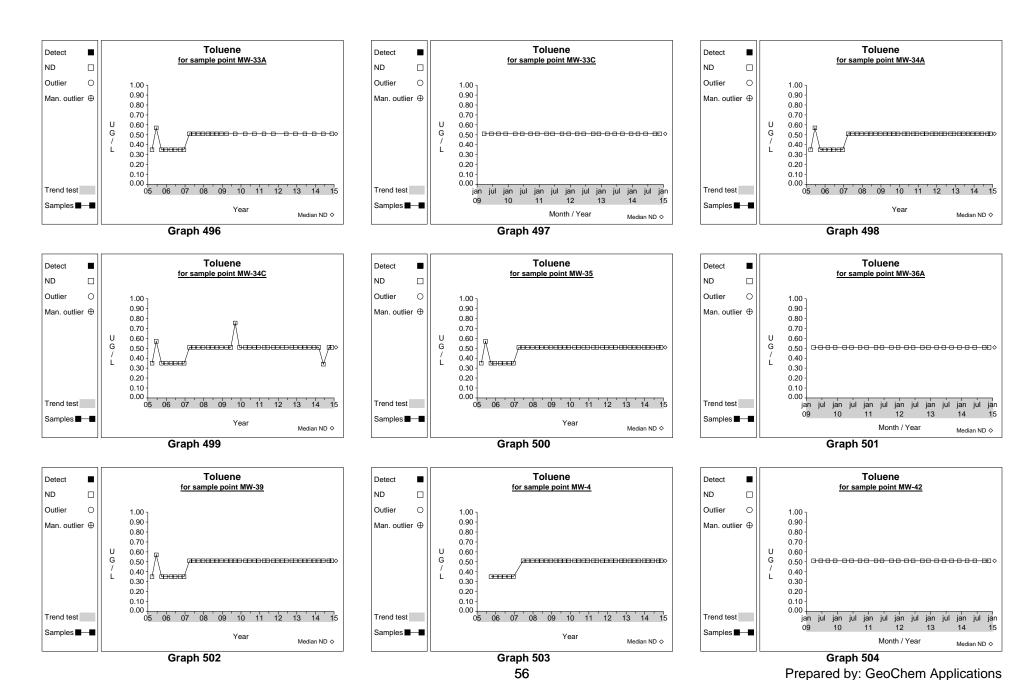
## **Time Series**

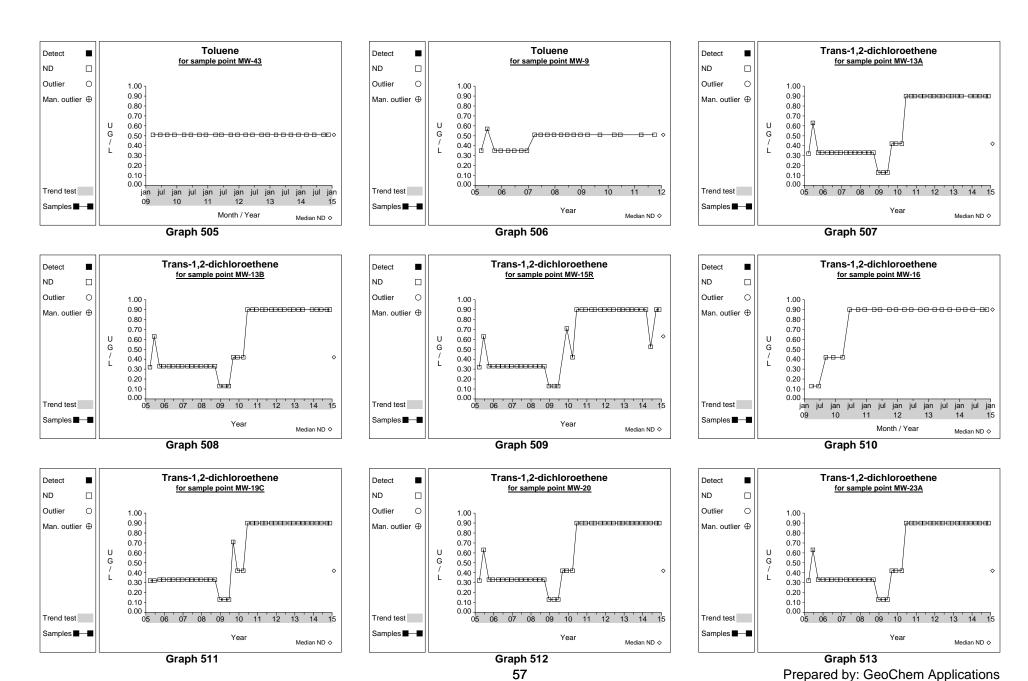




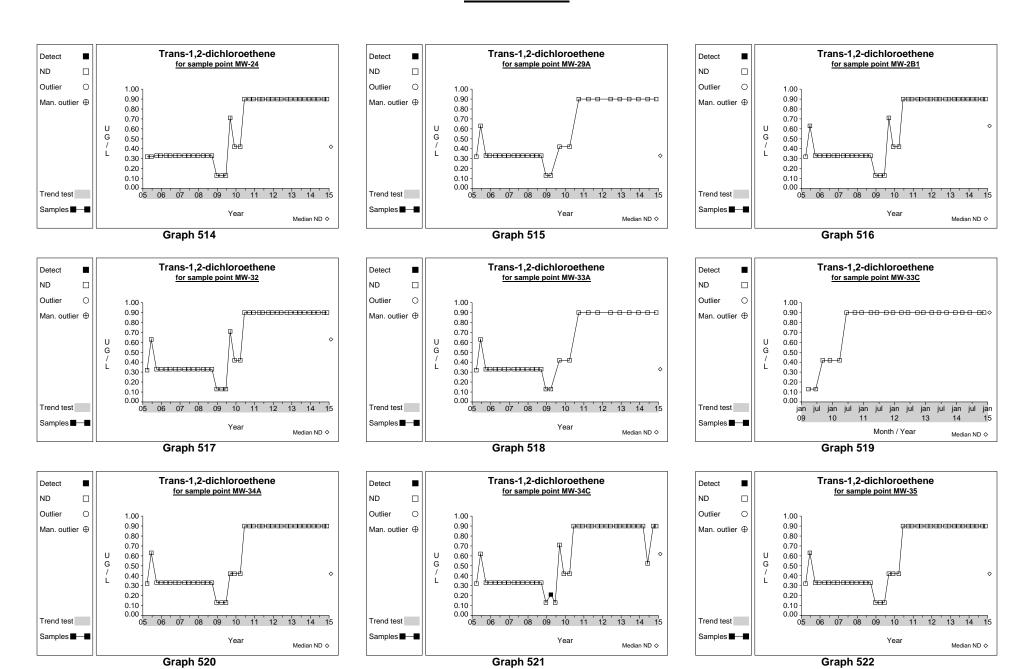


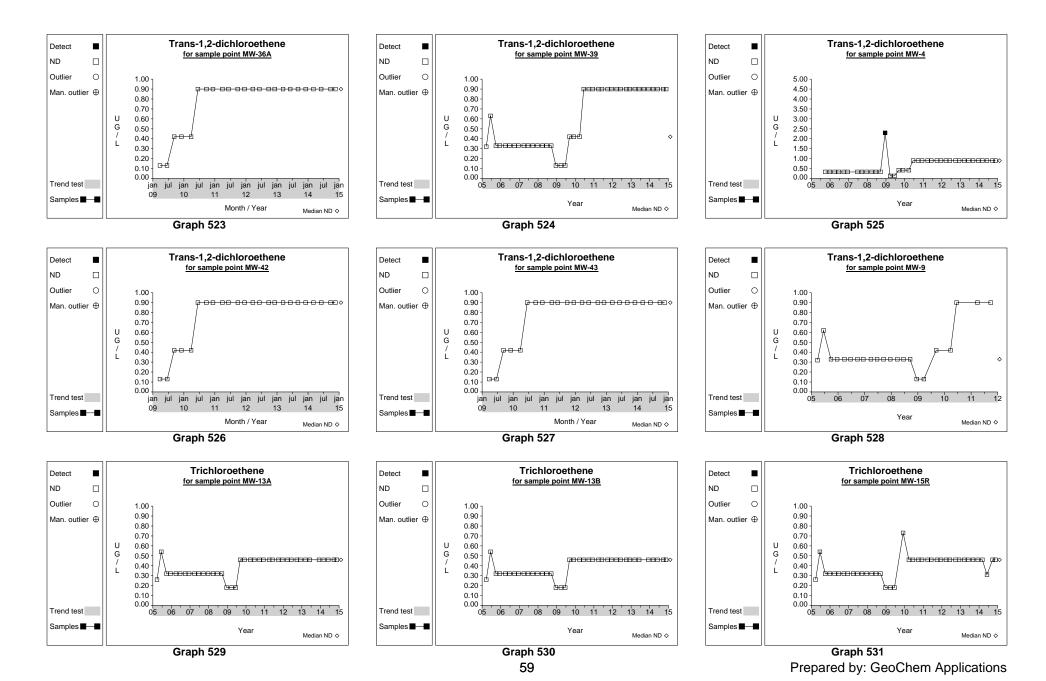


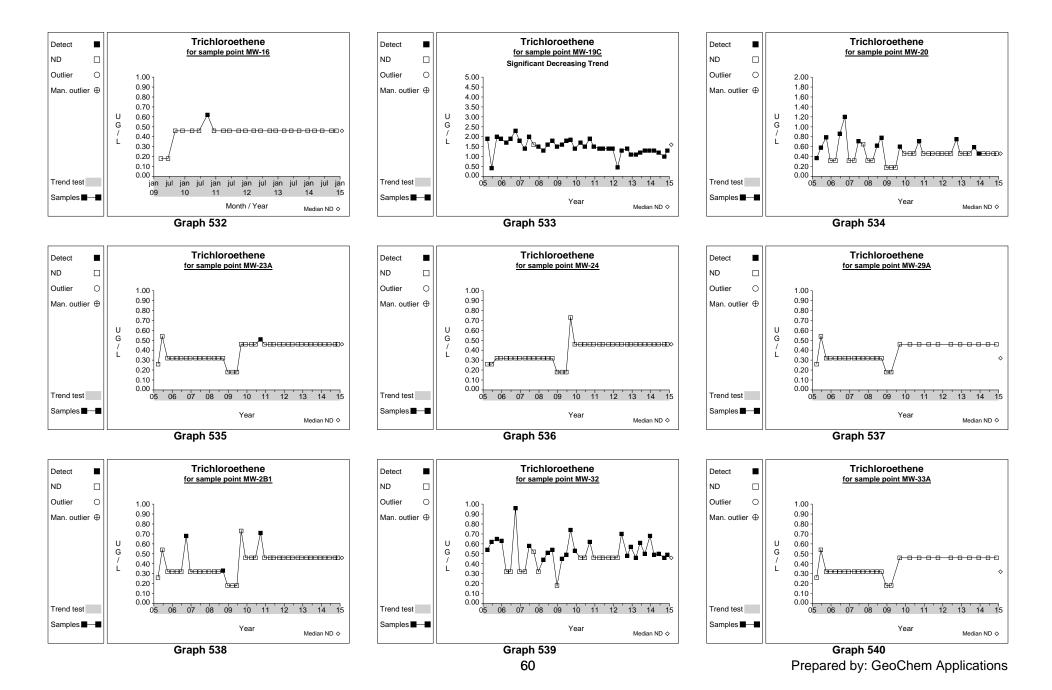


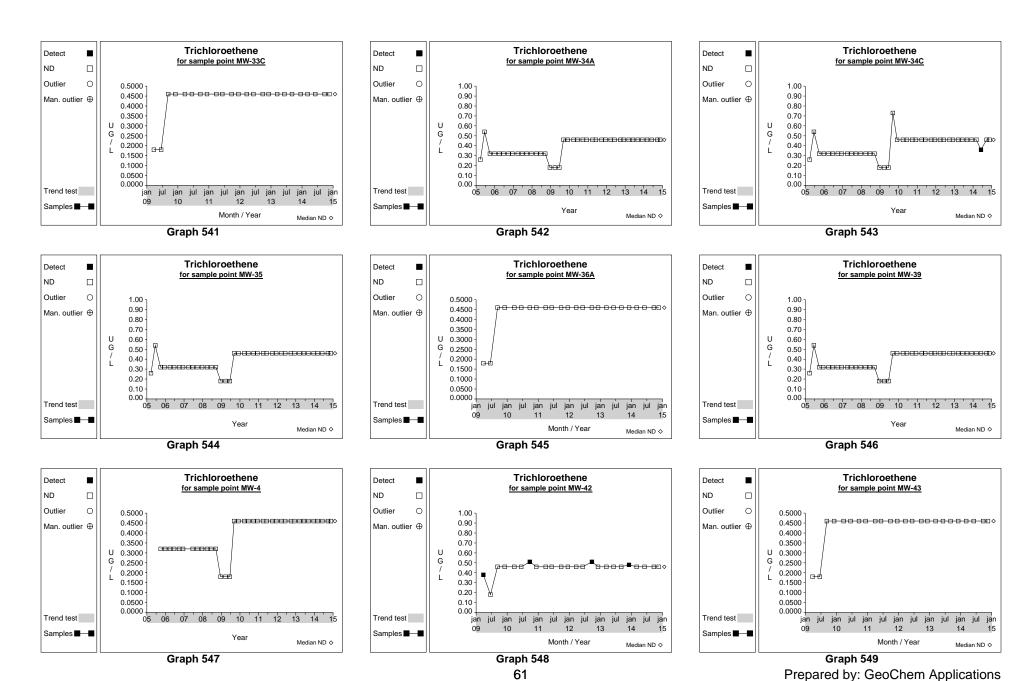


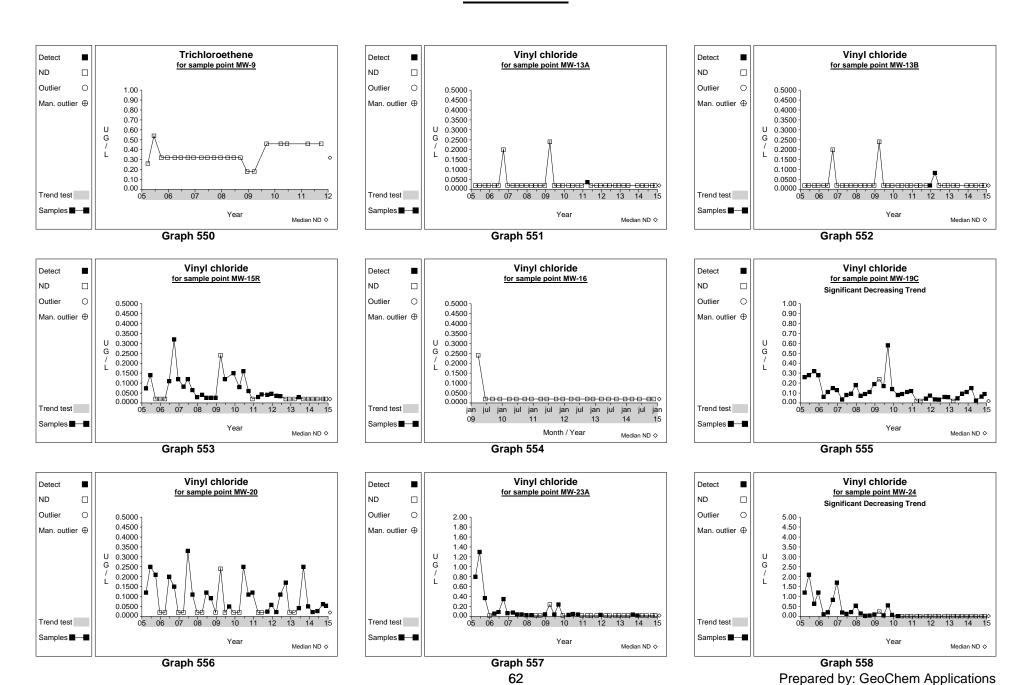
## **Time Series**

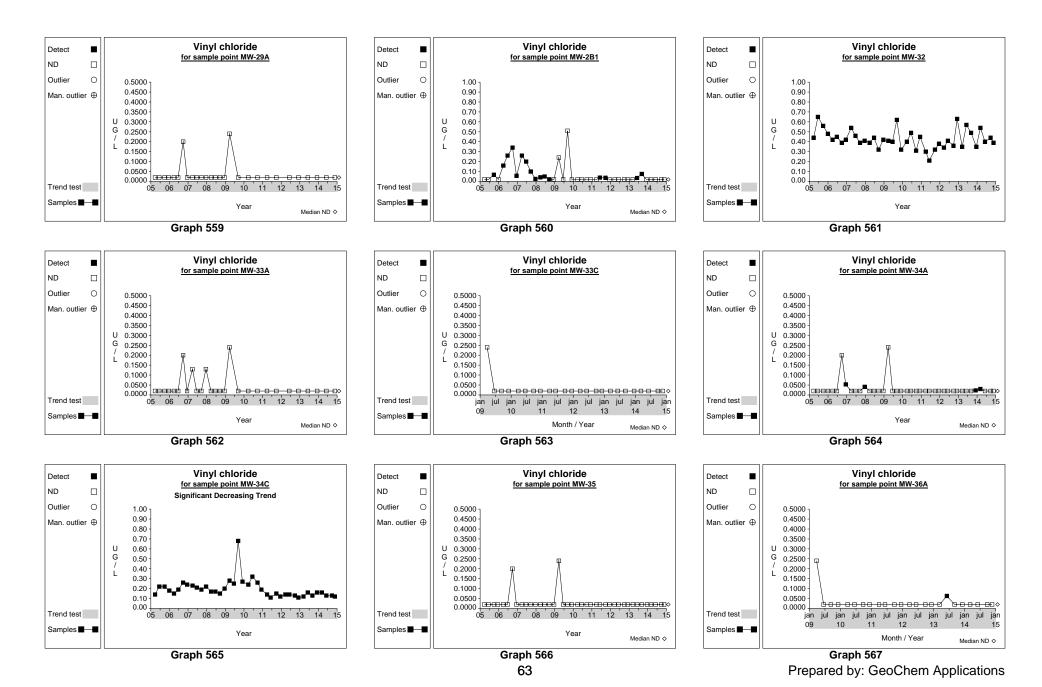


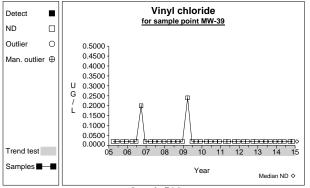


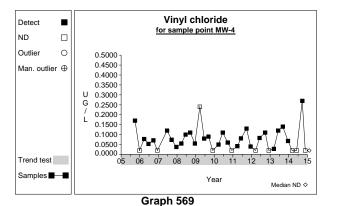


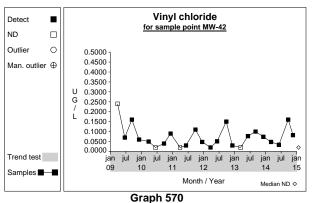












Graph 568

Vinyl chloride Detect for sample point MW-43 ND Outlier 0 0.5000 -0.4500 Man. outlier ⊕ 0.4000 -0.3500 -U 0.3000 -G <sub>0.2500</sub> 0.2000 0.1500 0.1000 -0.0500 -Trend test jan jul jan jul jan jul jan jul jan jul jan Samples -Month / Year Median ND ♦

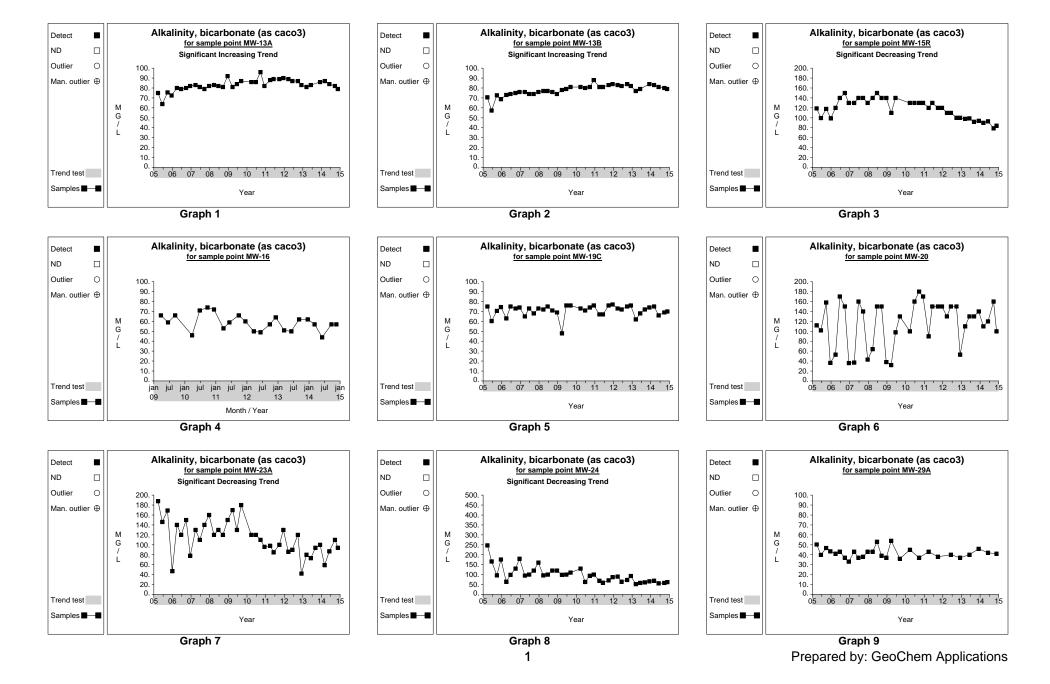
Graph 571

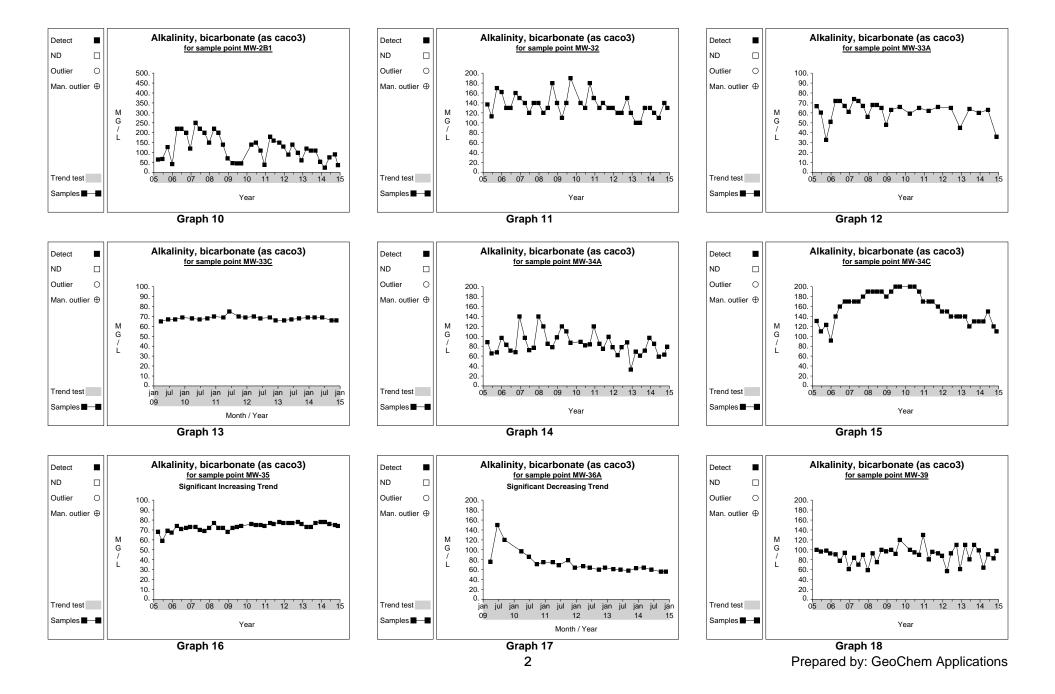
for sample point MW-9 ND Outlier 0 0.5000 0.4500 Man. outlier  $\oplus$ 0.4000 0.3500 0.3000 0.2500 0.2000 0.1500 0.1000 0.0500 0.0000 <del>600000</del> Trend test 08 09 Samples -Year Median ND ♦

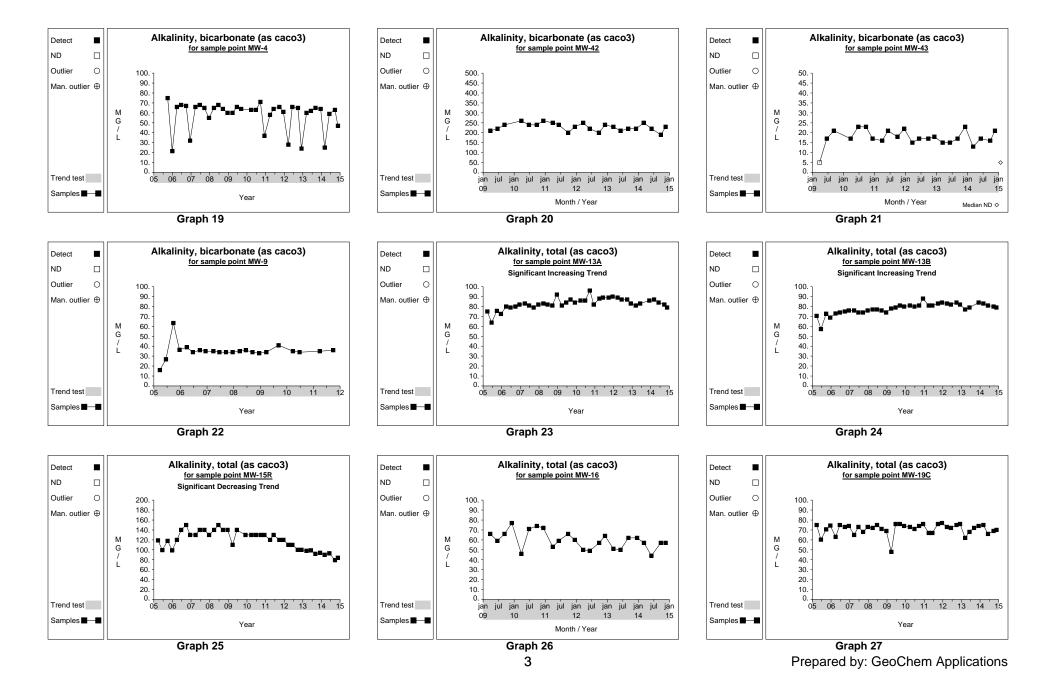
Vinyl chloride

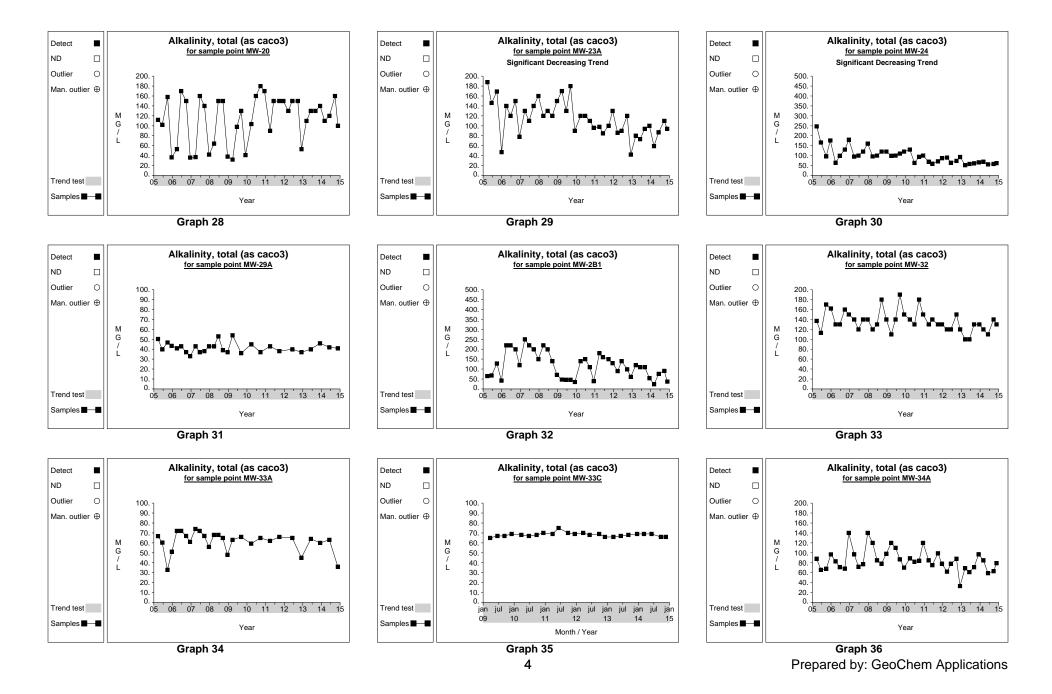
Graph 572

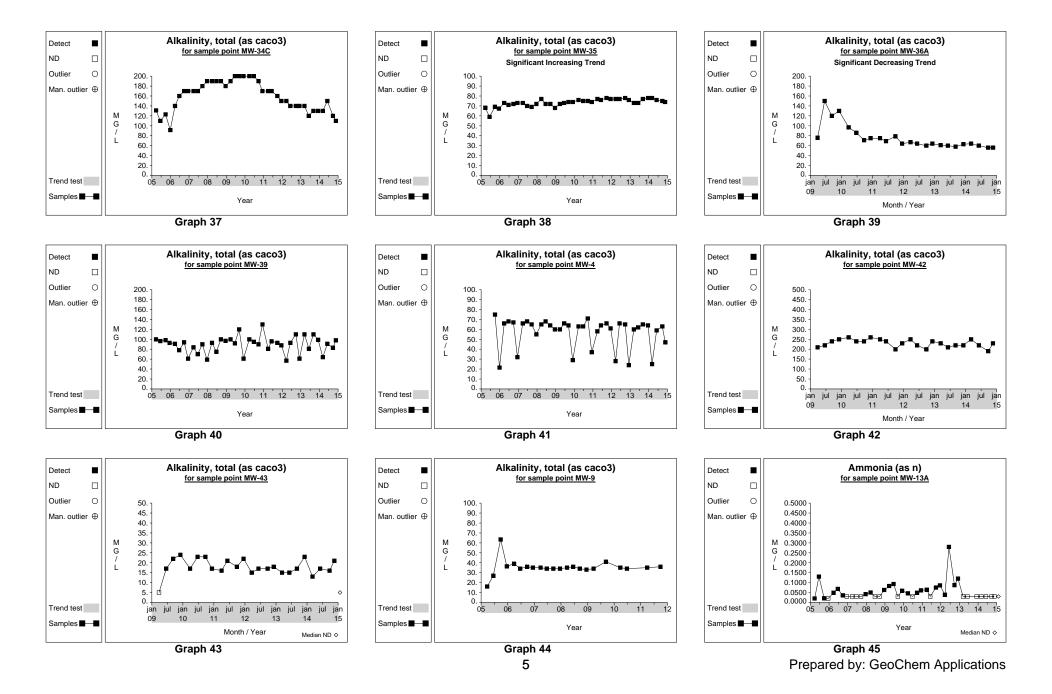
Detect

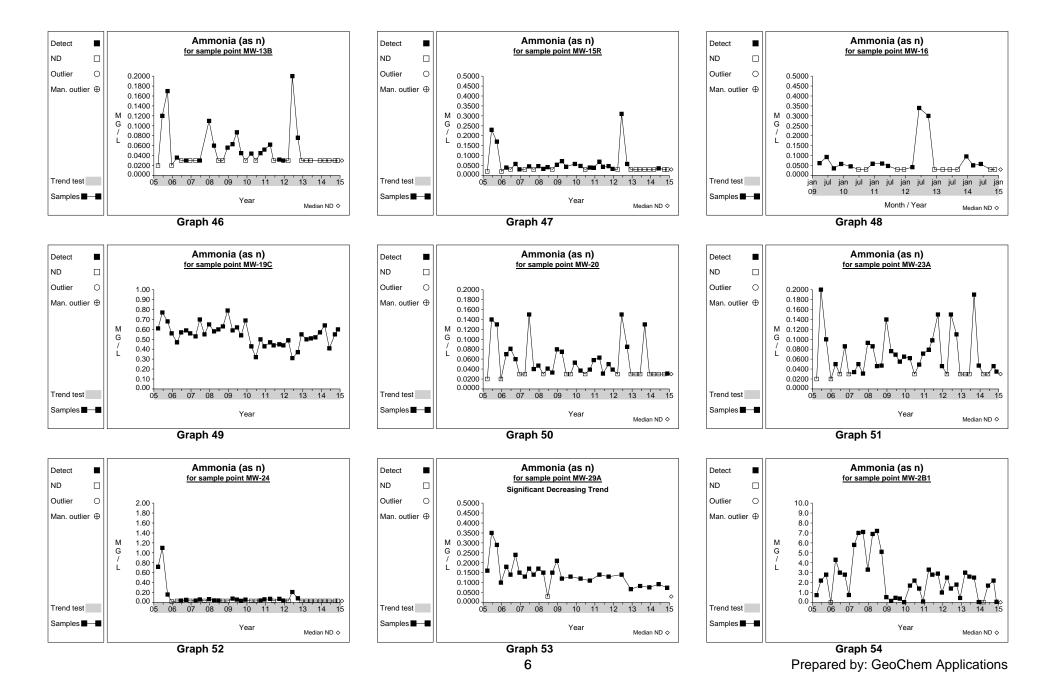


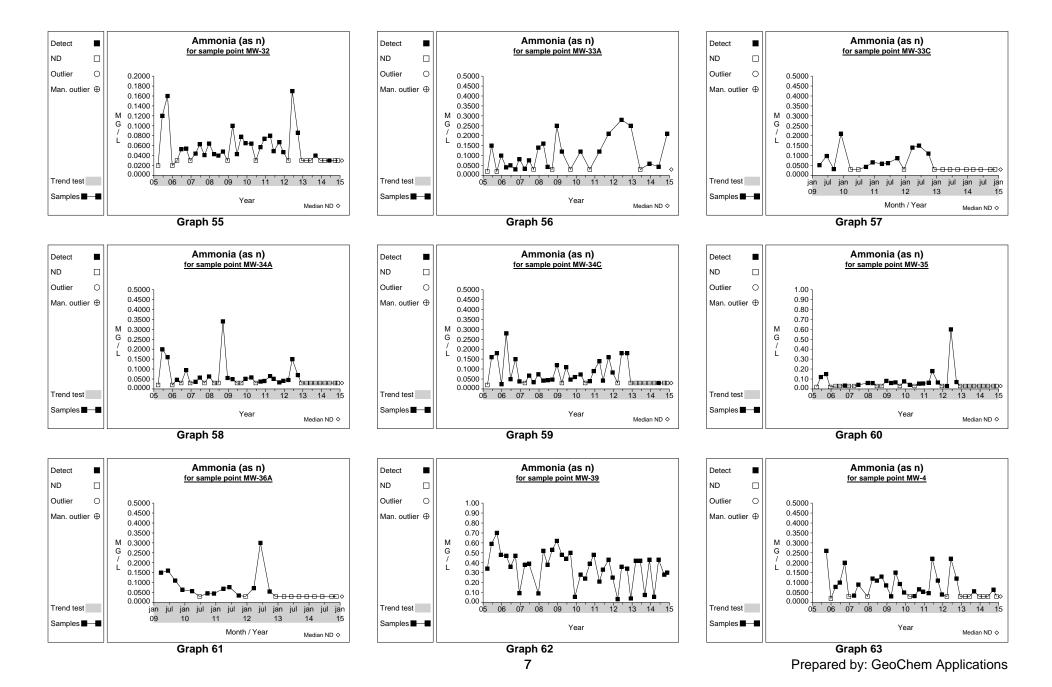




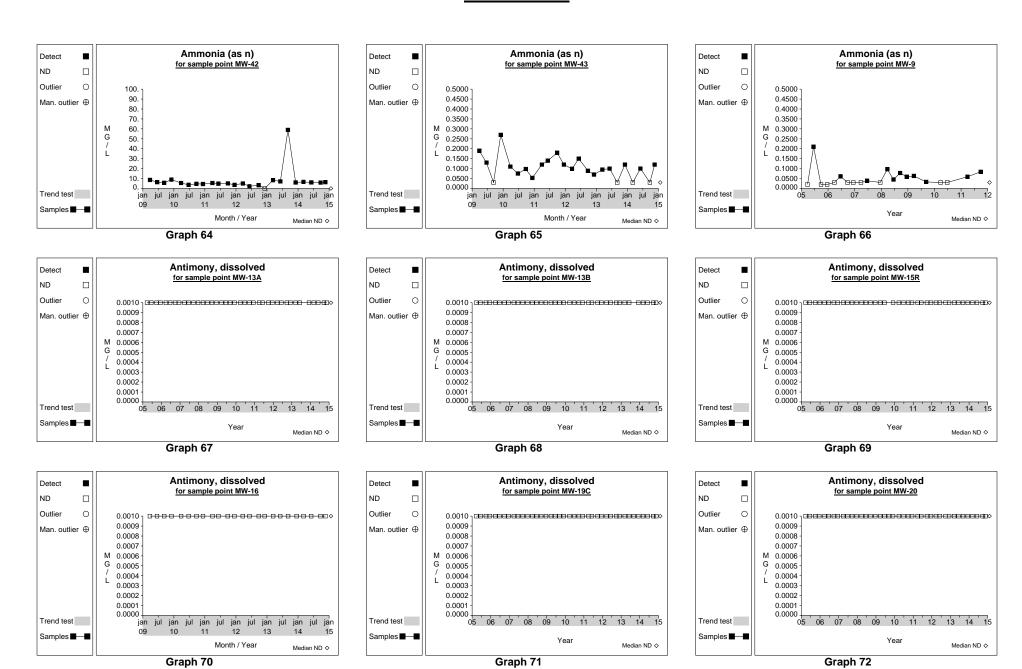


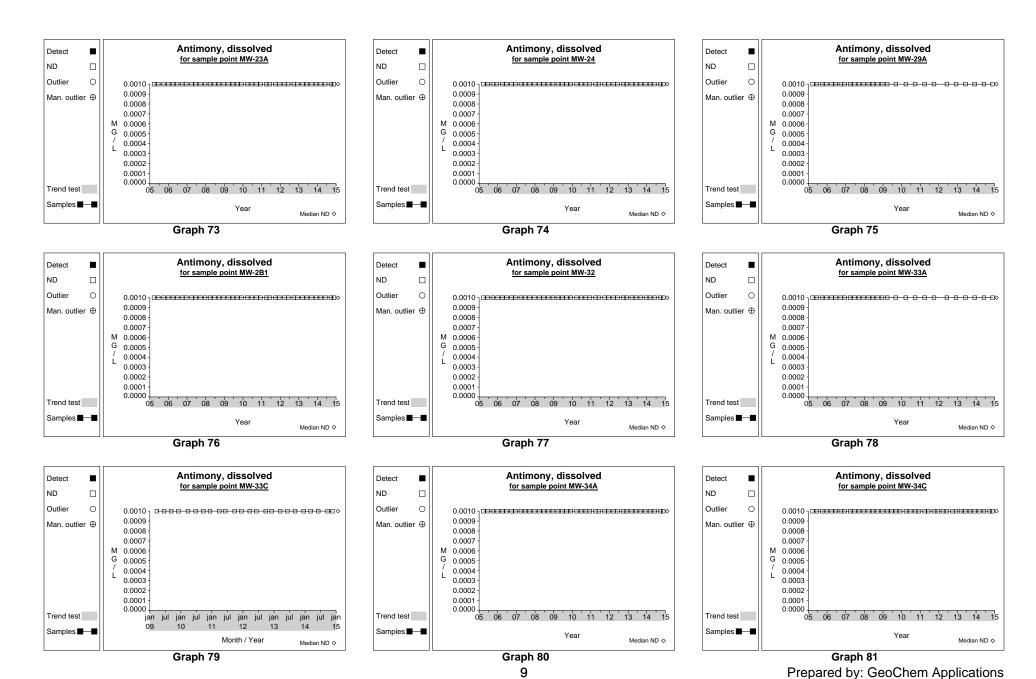




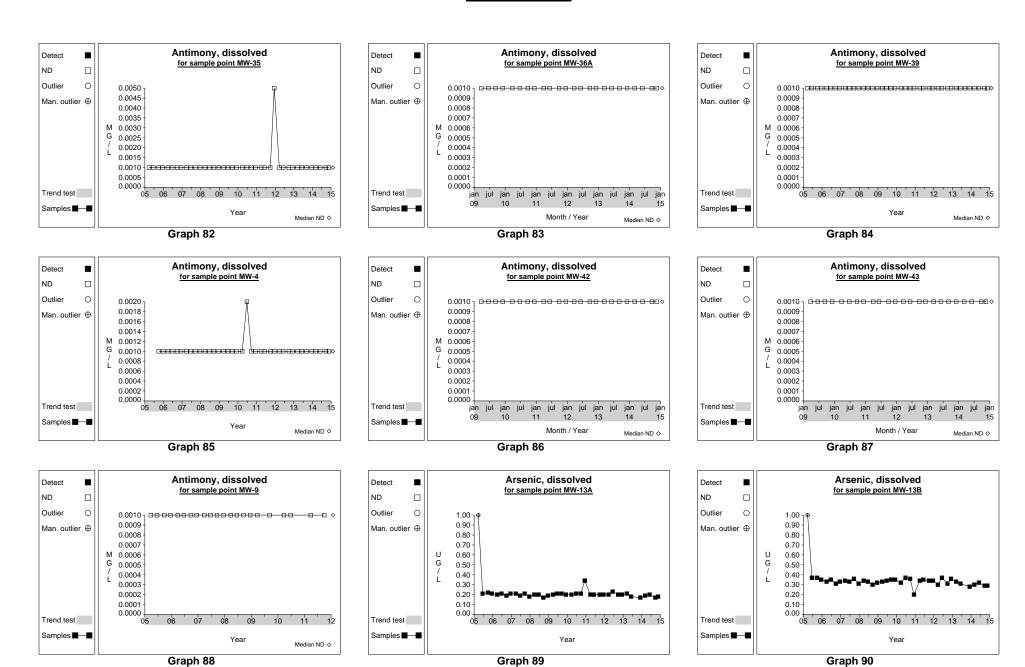


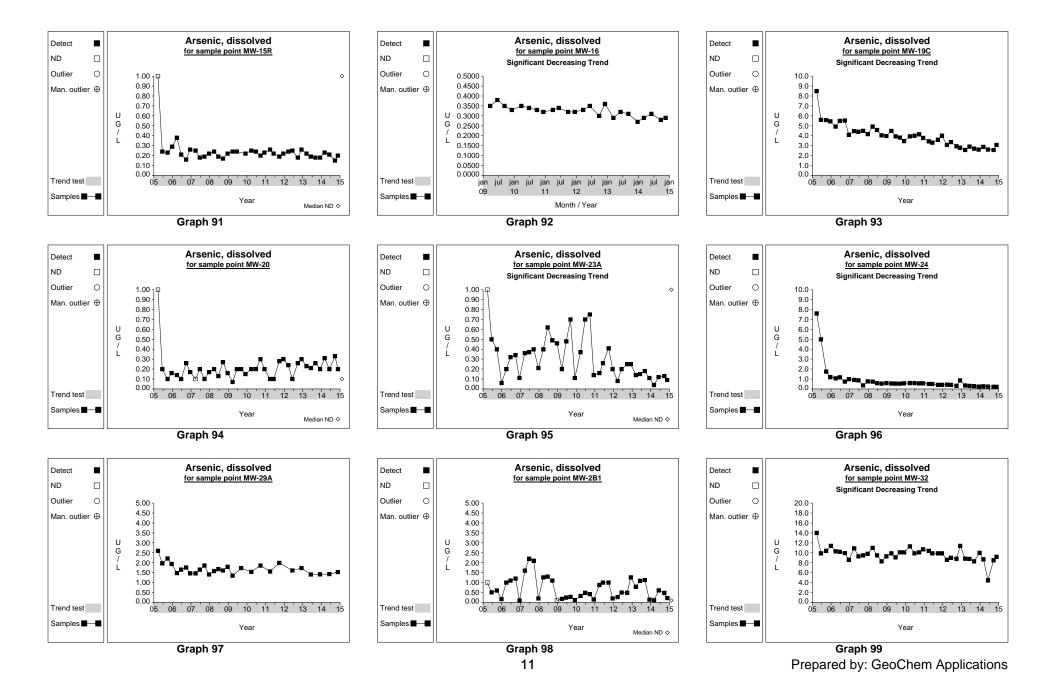
### **Time Series**

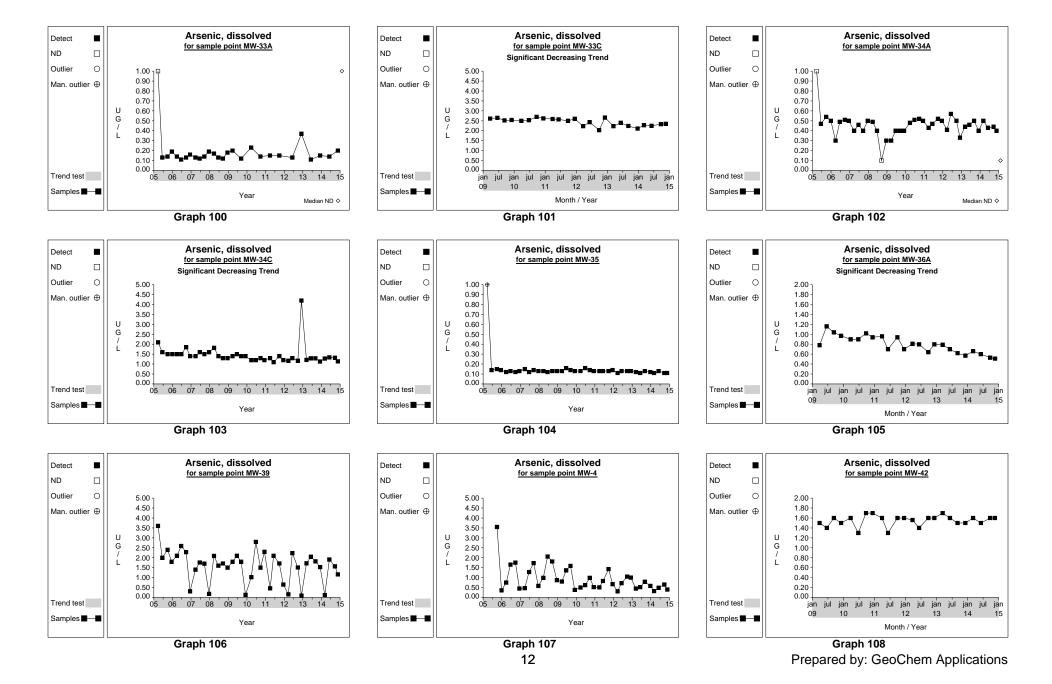


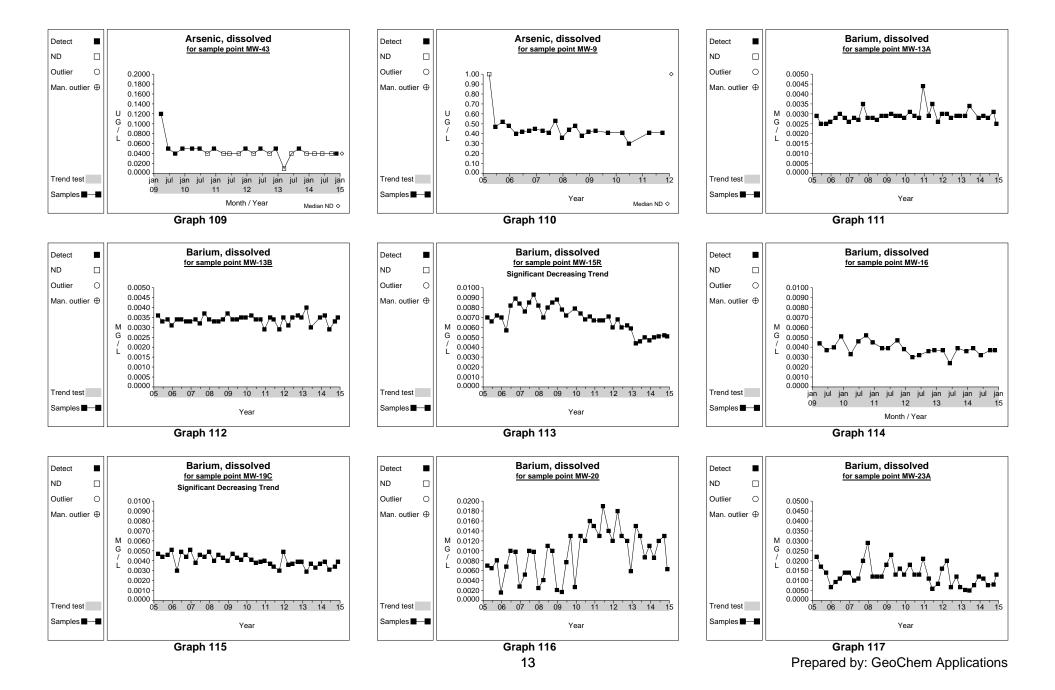


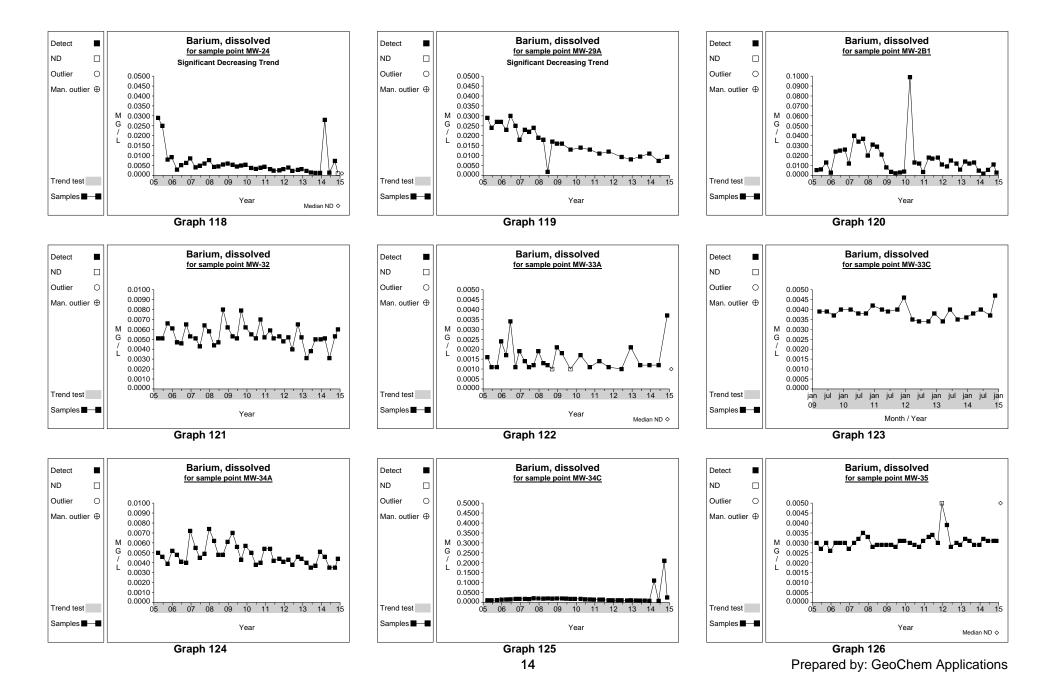
### **Time Series**

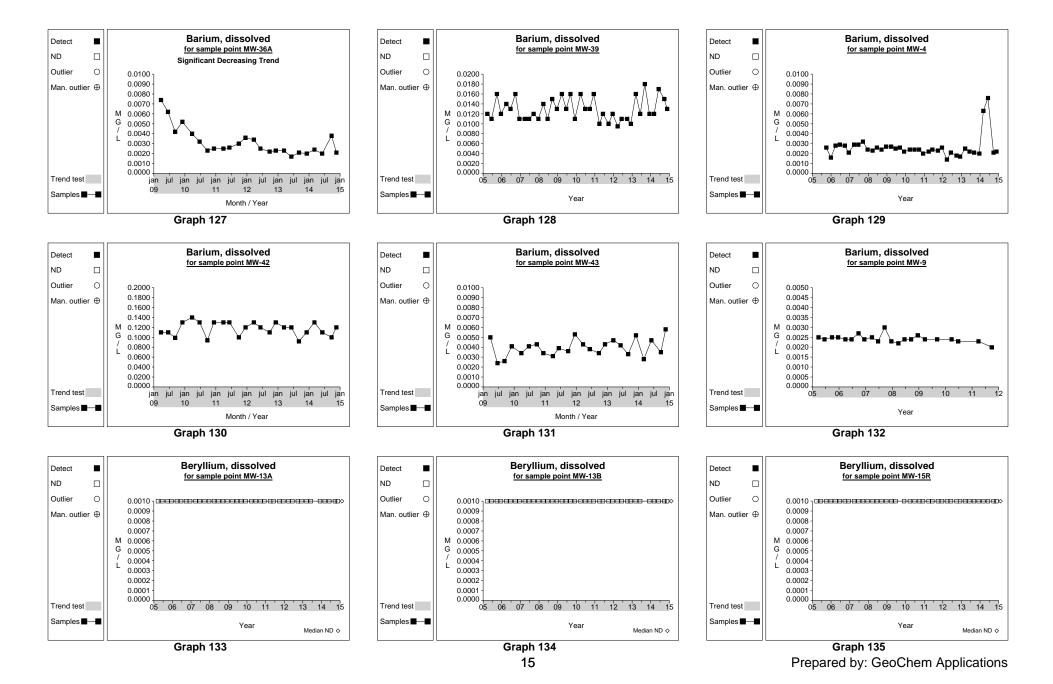




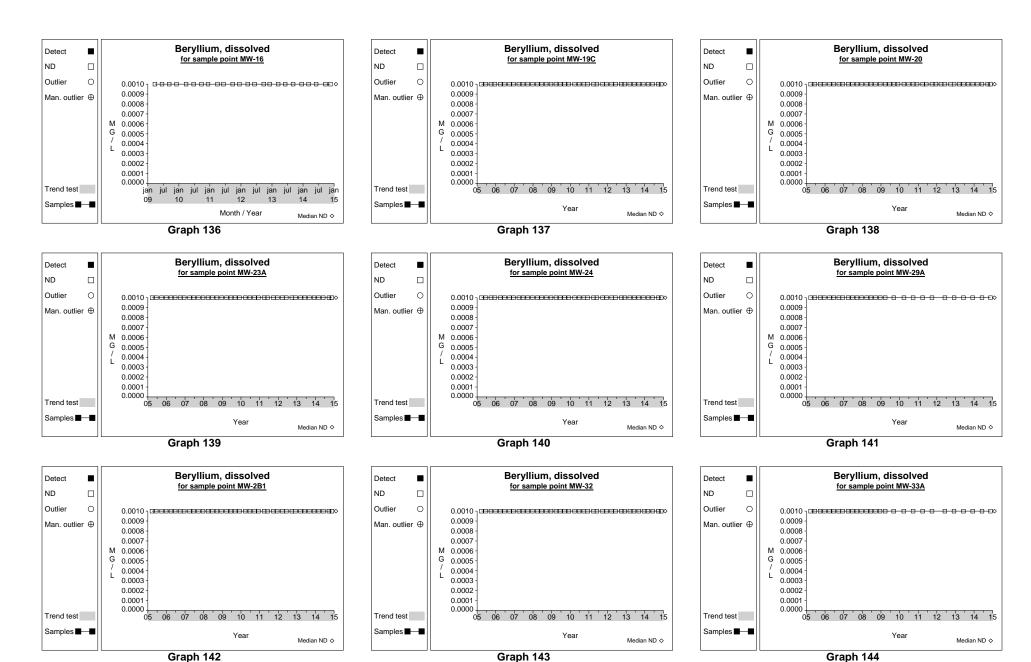


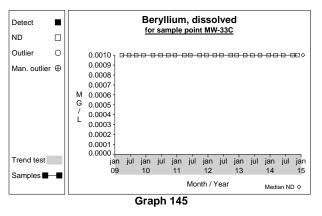


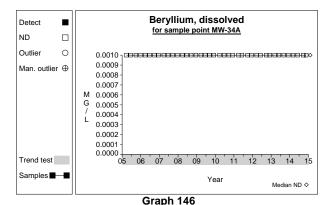


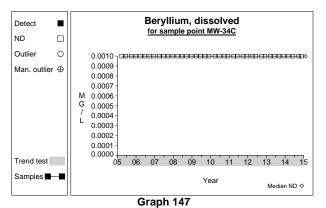


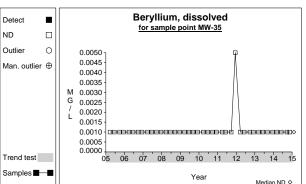
### **Time Series**

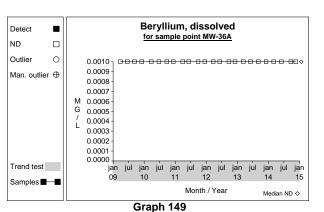


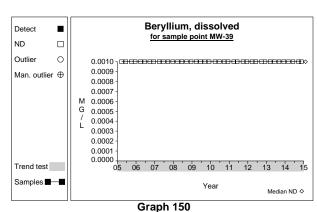










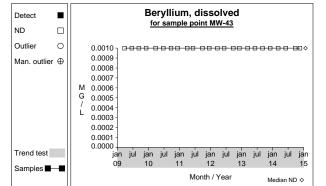


Beryllium, dissolved for sample point MW-4

Detect

Graph 148

Bervllium, dissolved Detect for sample point MW-42 ND Outlier 0 0.0010 1 <del>□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □</del> ○ 0.0009 Man. outlier ⊕ 0.0008 0.0007 M 0.0006 0.0005 0.0004 0.0003 0.0002 0.0001 0.0000 Trend test jan jul jan jul jan jul jan jul jan jul jan 12 13 Samples -Month / Year Median ND ♦



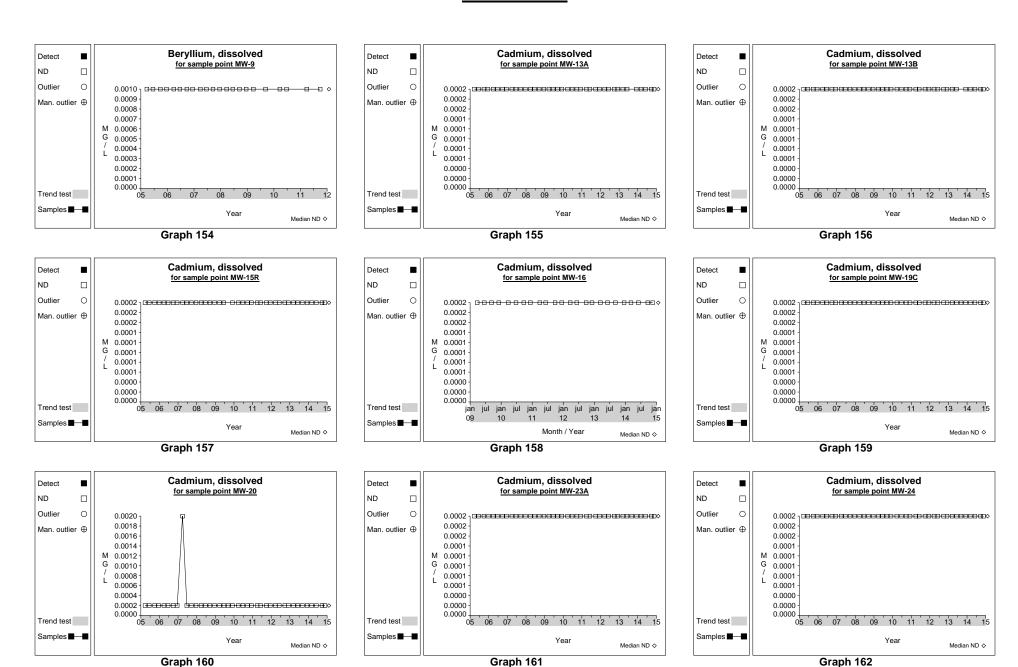
ND Outlier 0 0.0020 -0.0018 Man. outlier ⊕ 0.0016 0.0014 M 0.0012 G 0.0010 0.0008 0.0006 0.0004 0.0002 05 06 07 08 09 10 11 12 13 14 15 Trend test Samples -Year Median ND ♦

Graph 151

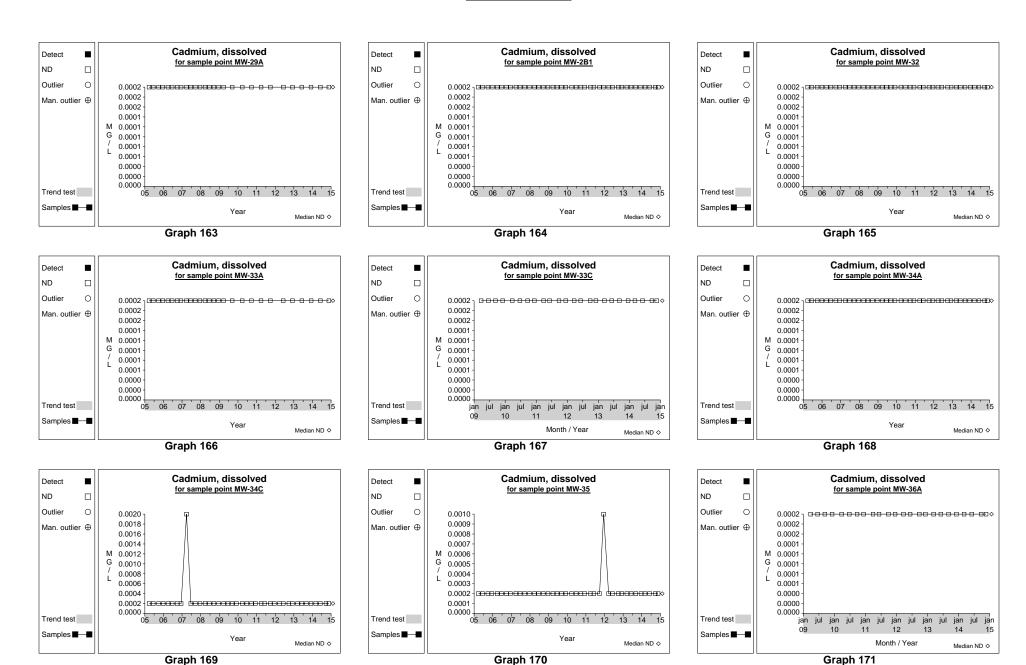
Graph 152 17

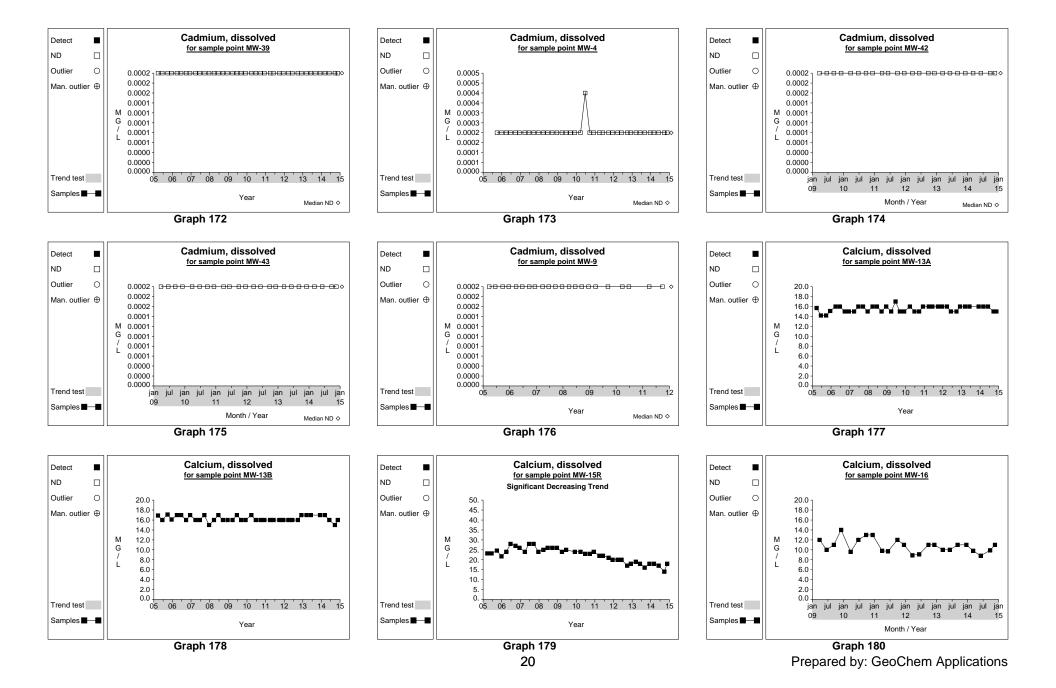
Graph 153
Prepared by: GeoChem Applications

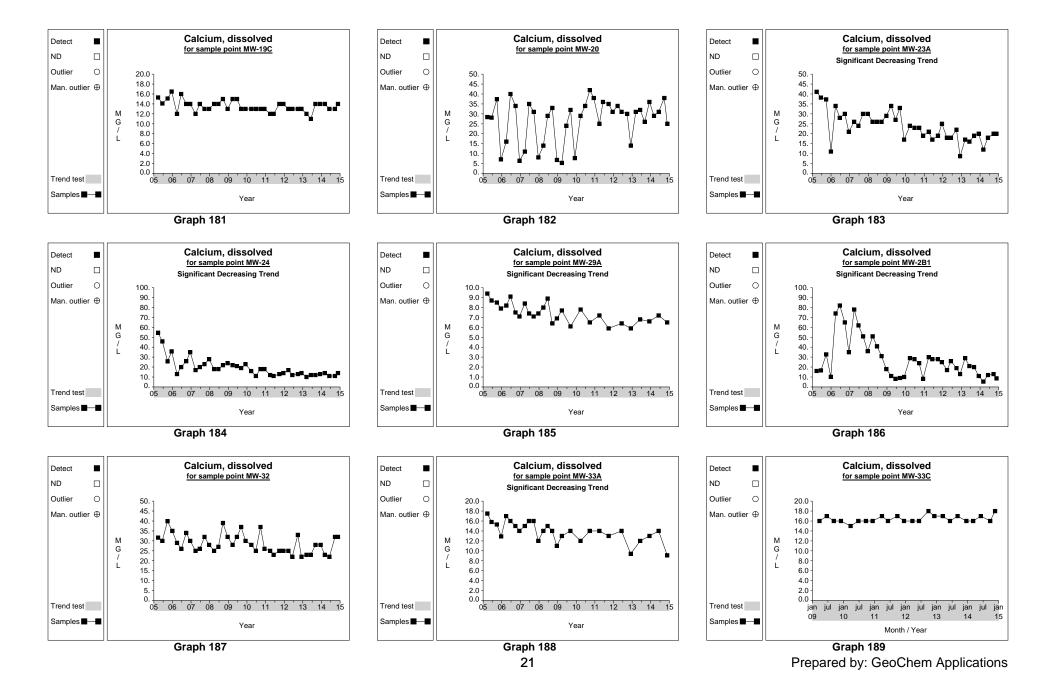
### **Time Series**

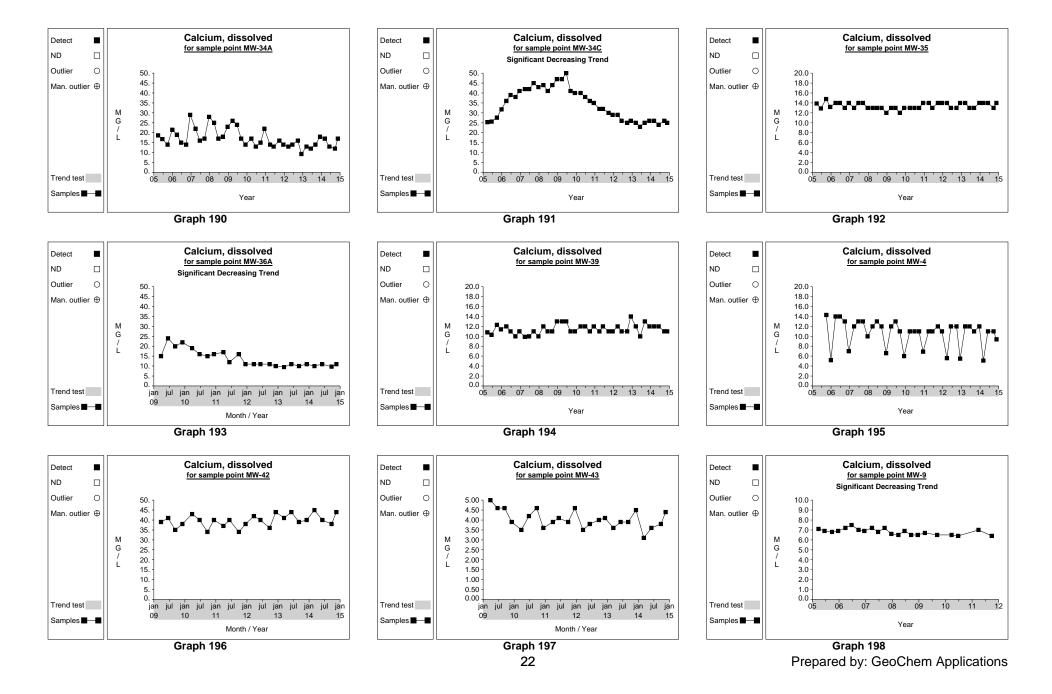


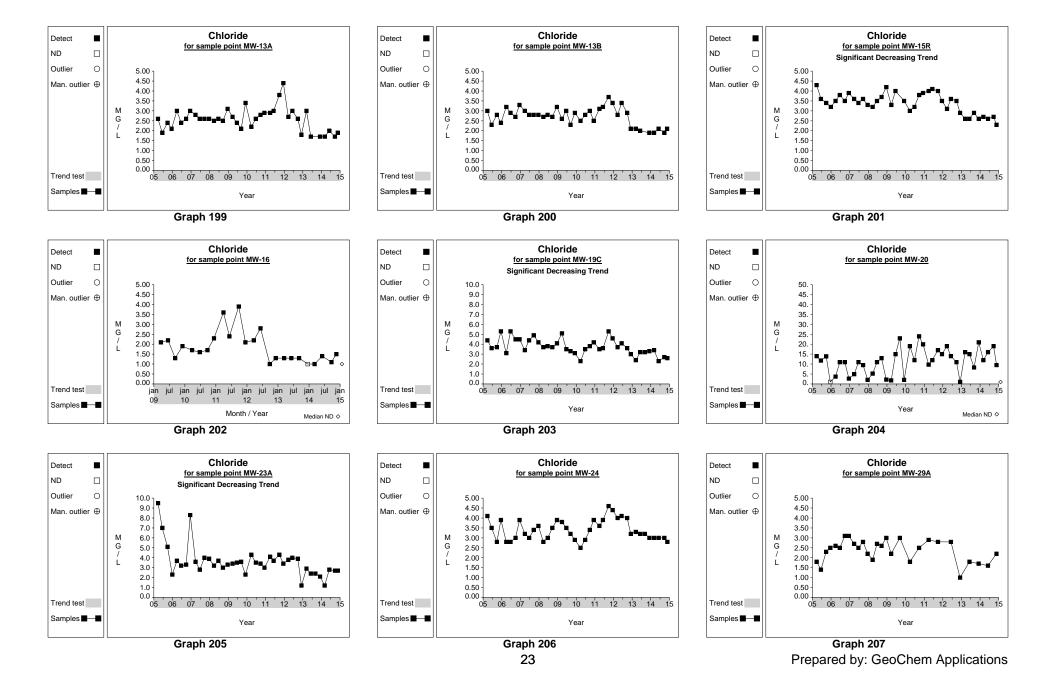
### **Time Series**

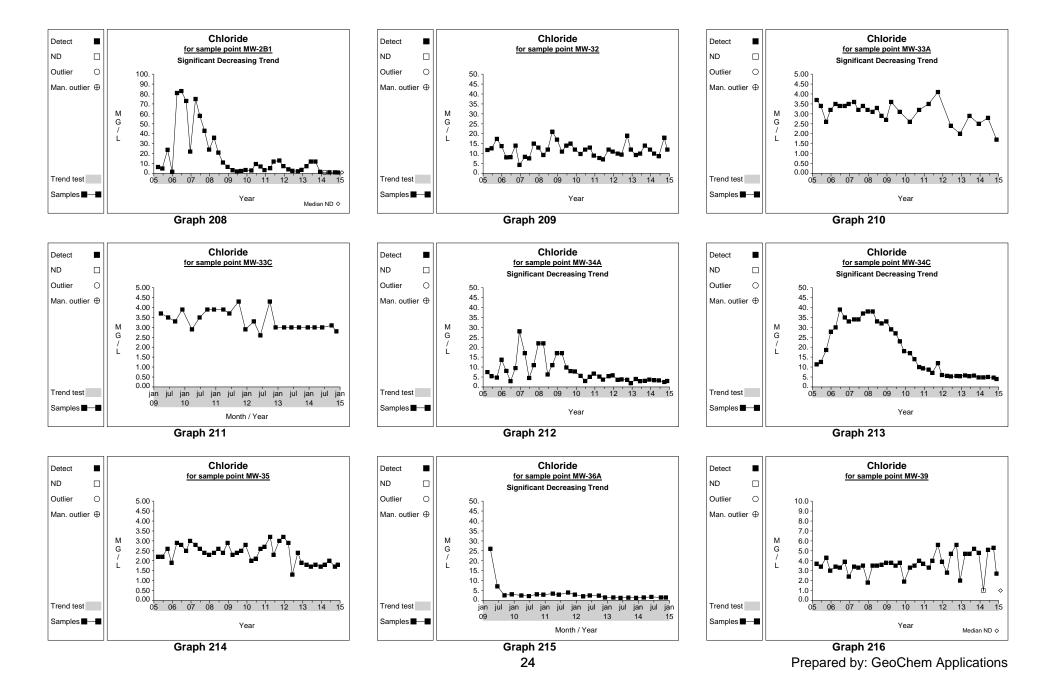


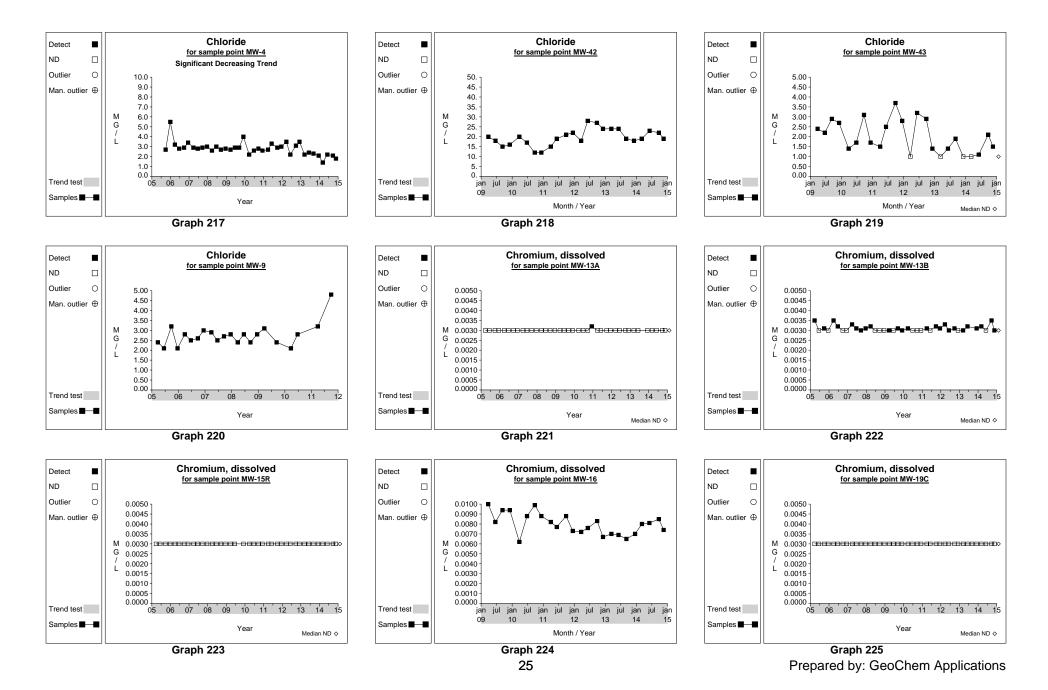


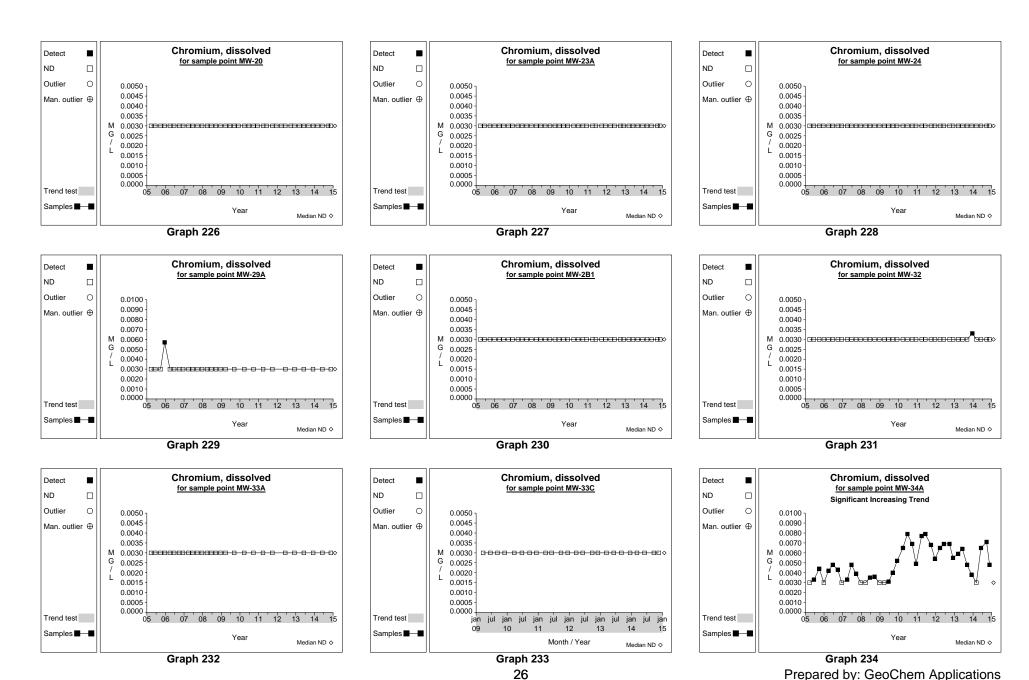




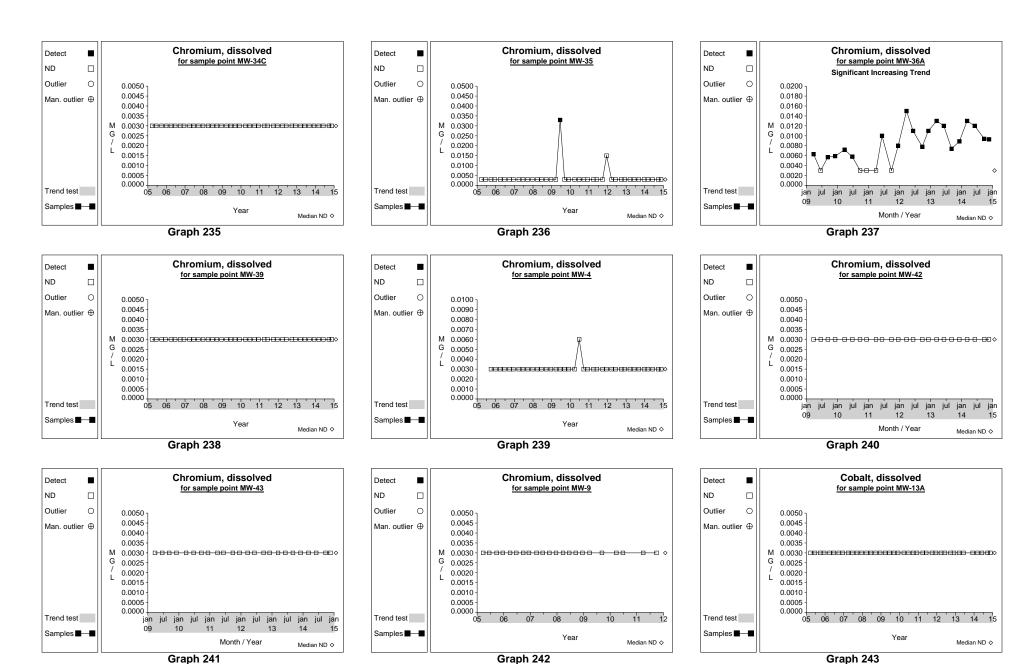


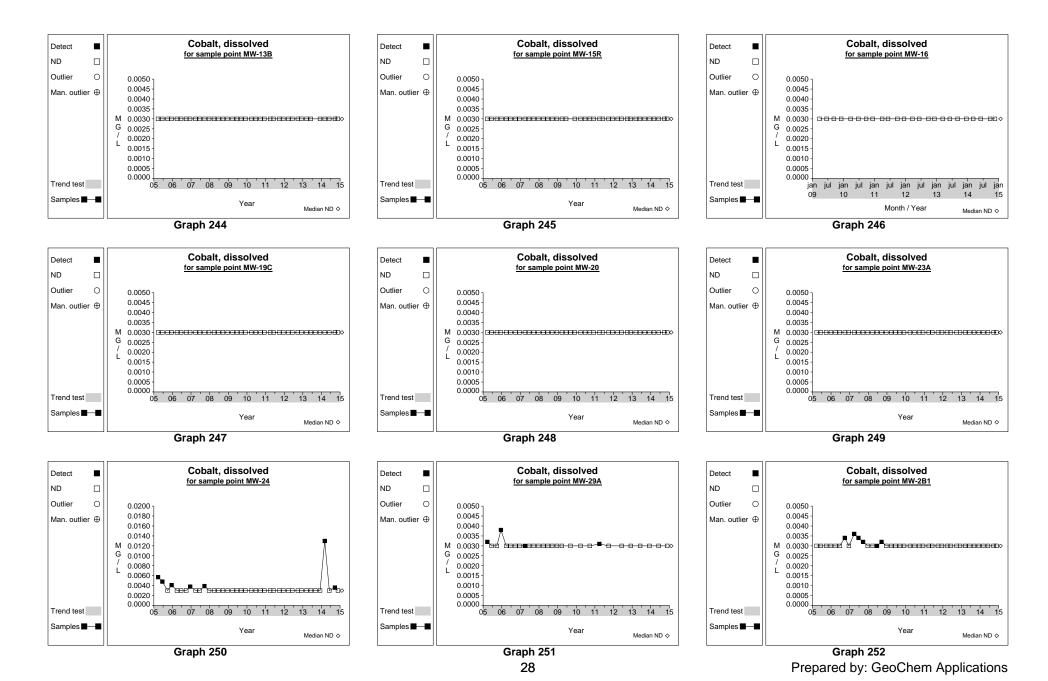




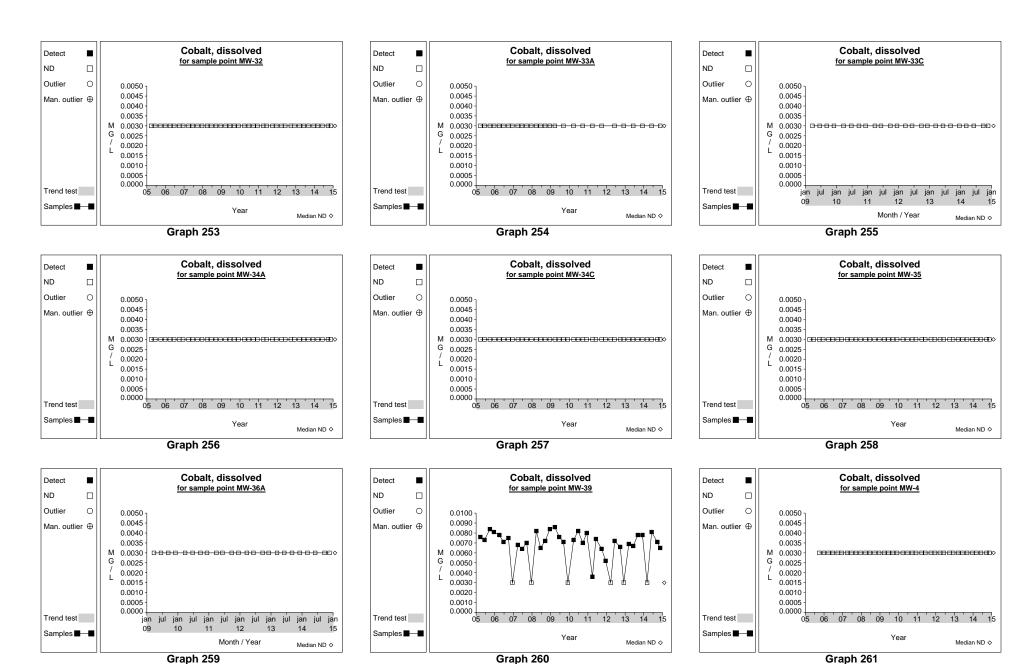


### **Time Series**

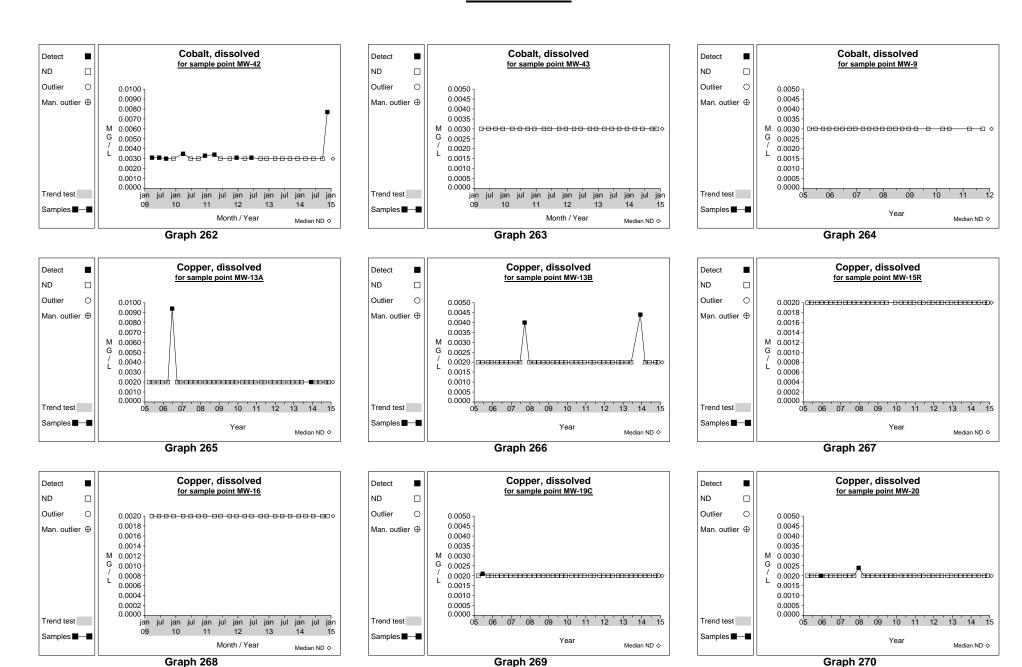


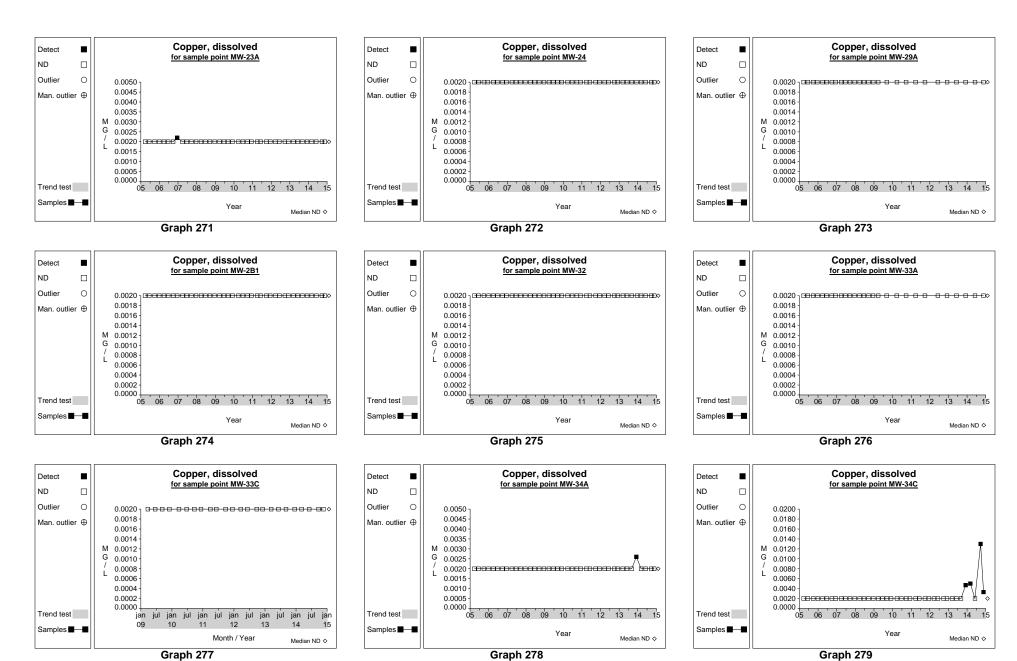


### **Time Series**



### **Time Series**

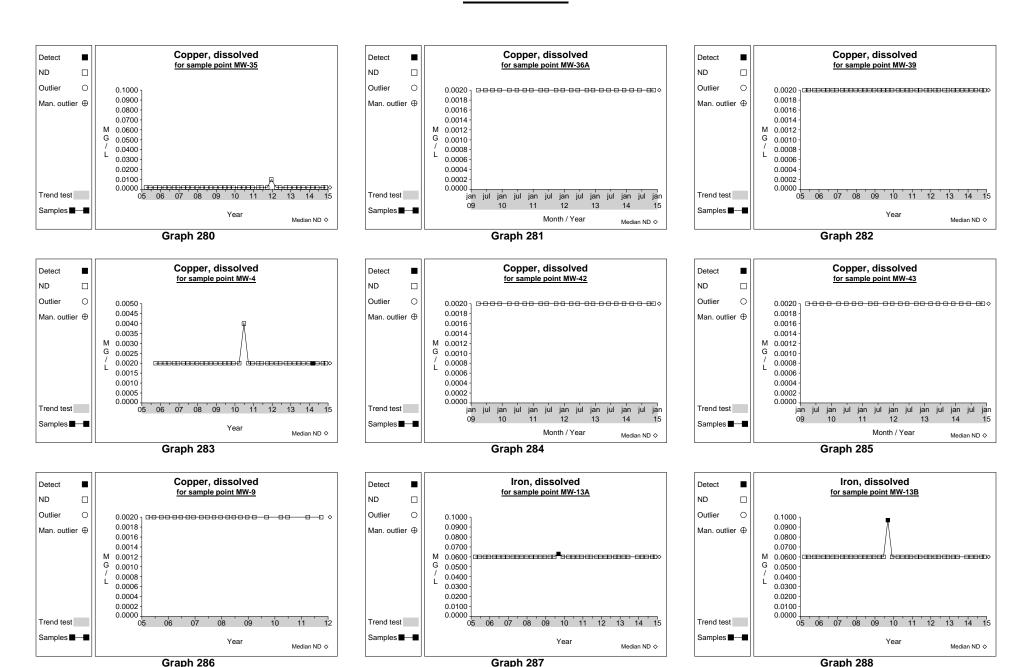


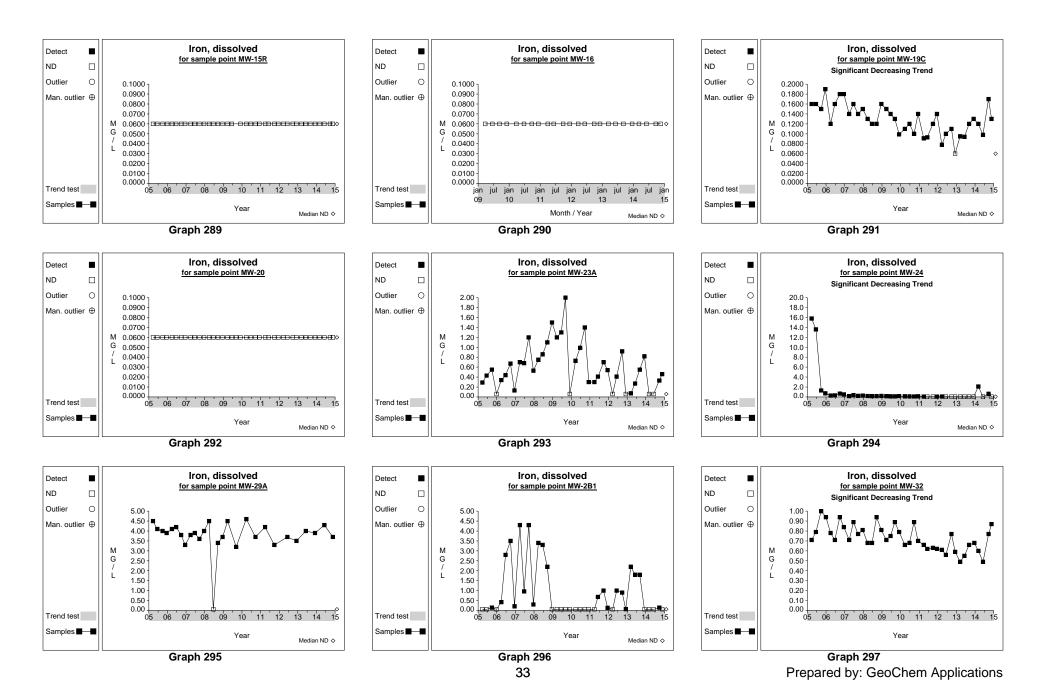


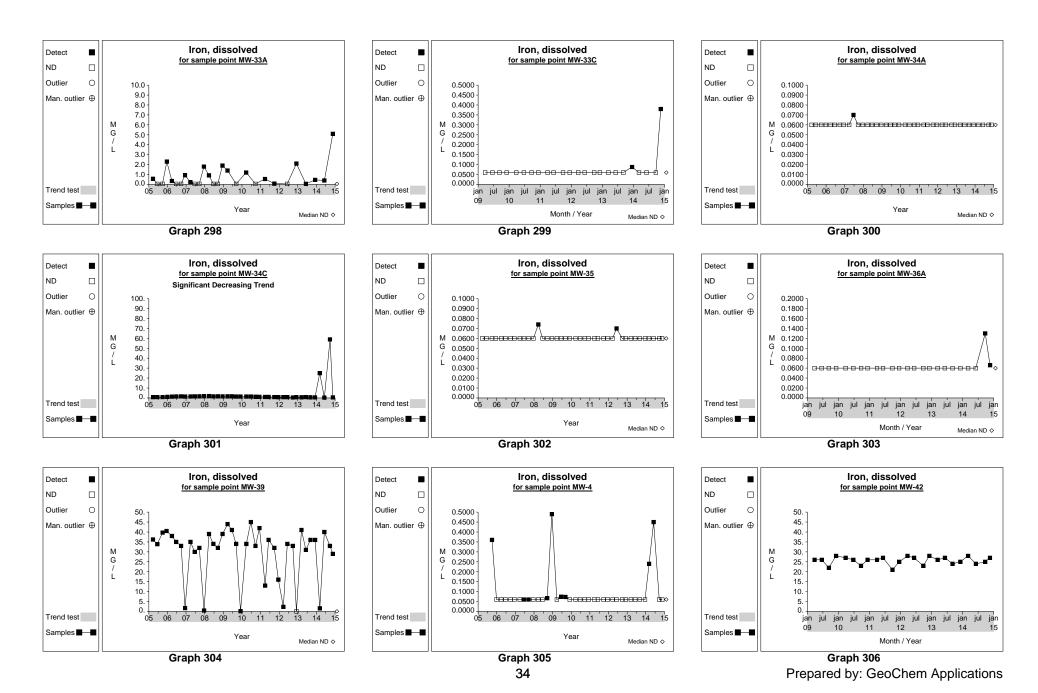
31

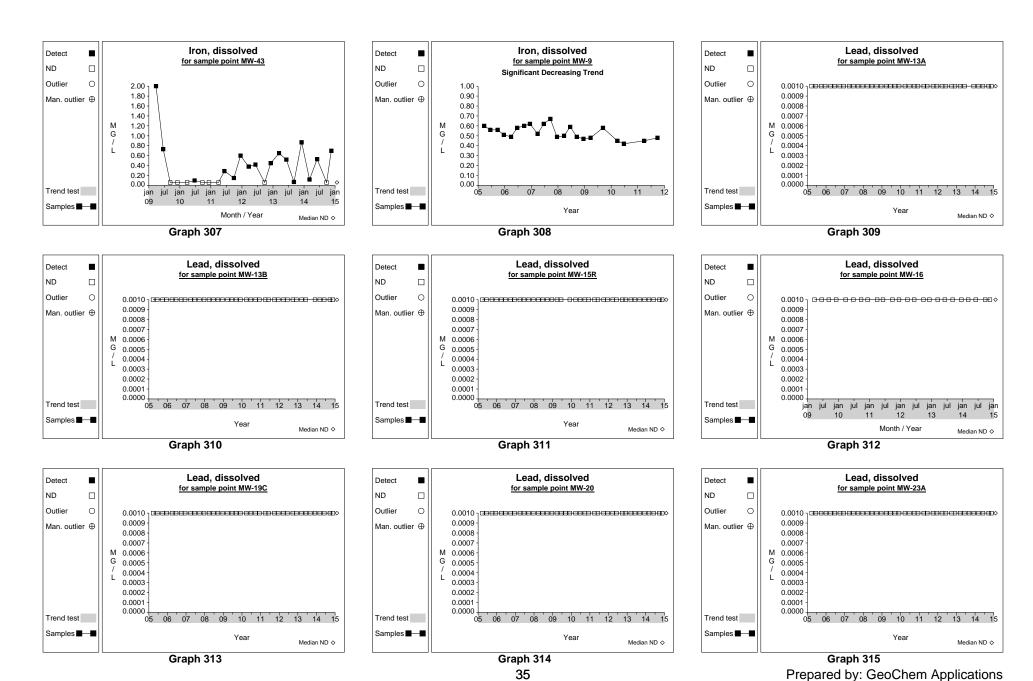
Prepared by: GeoChem Applications

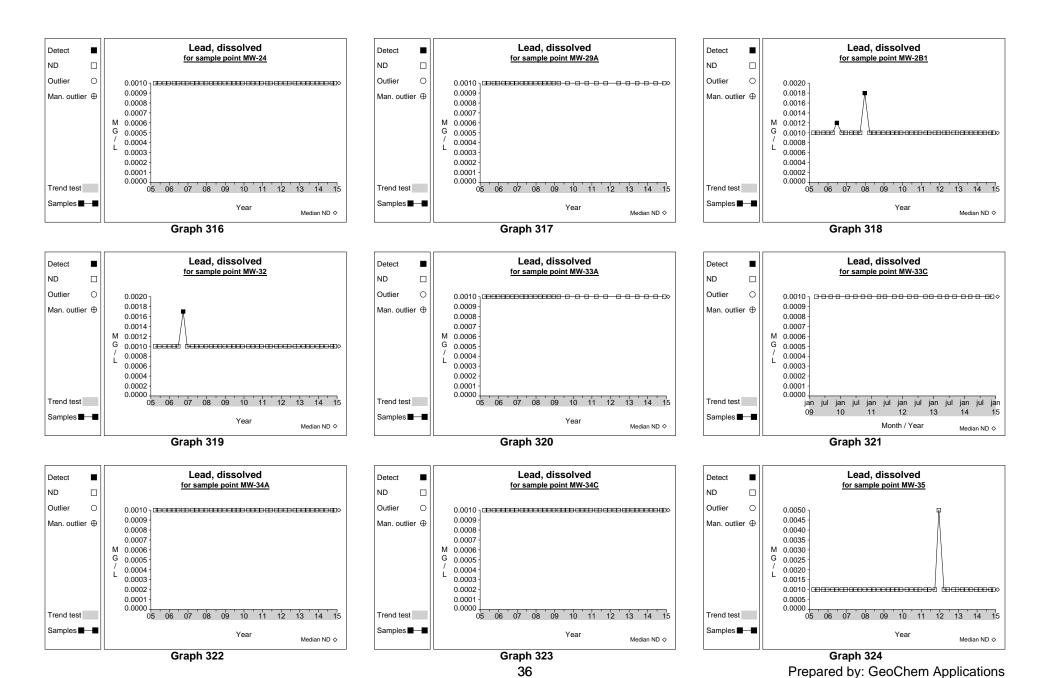
### **Time Series**

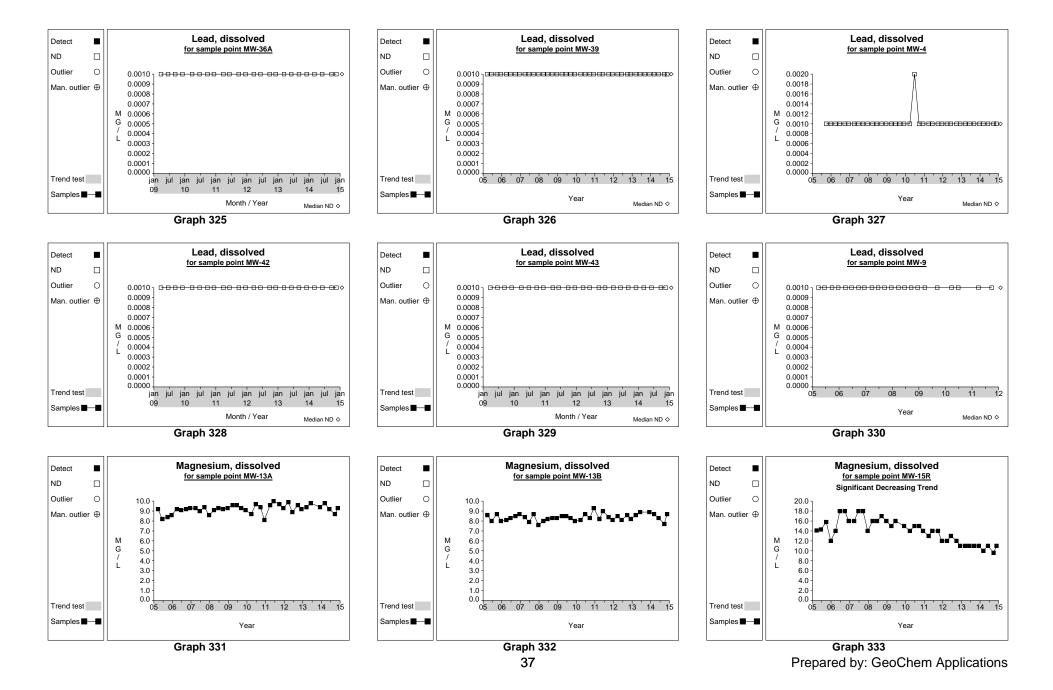


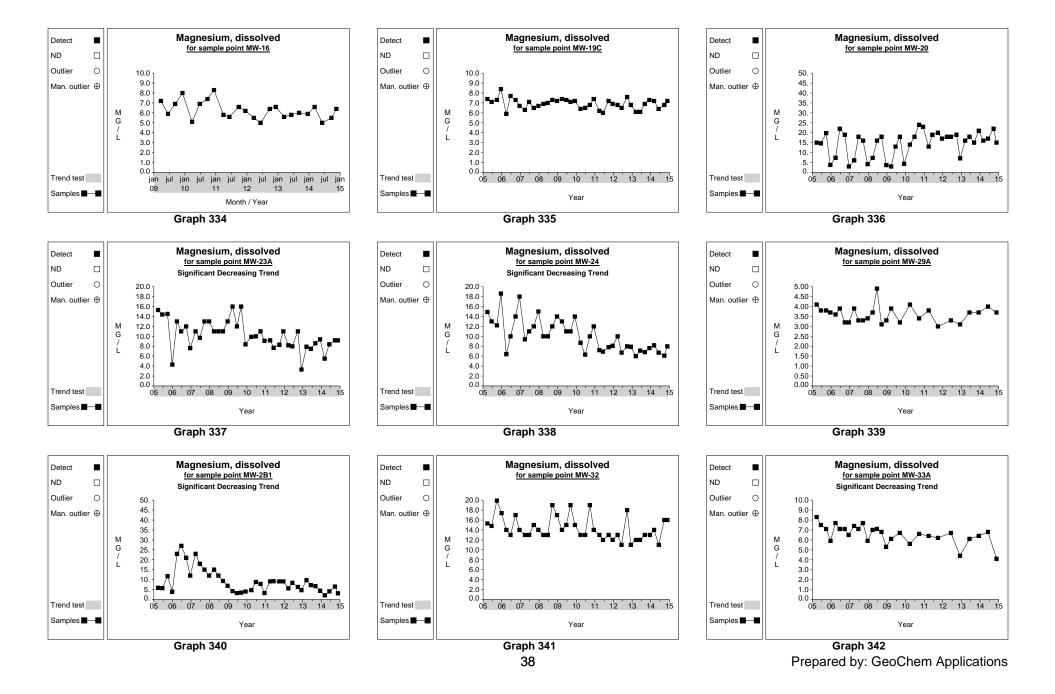


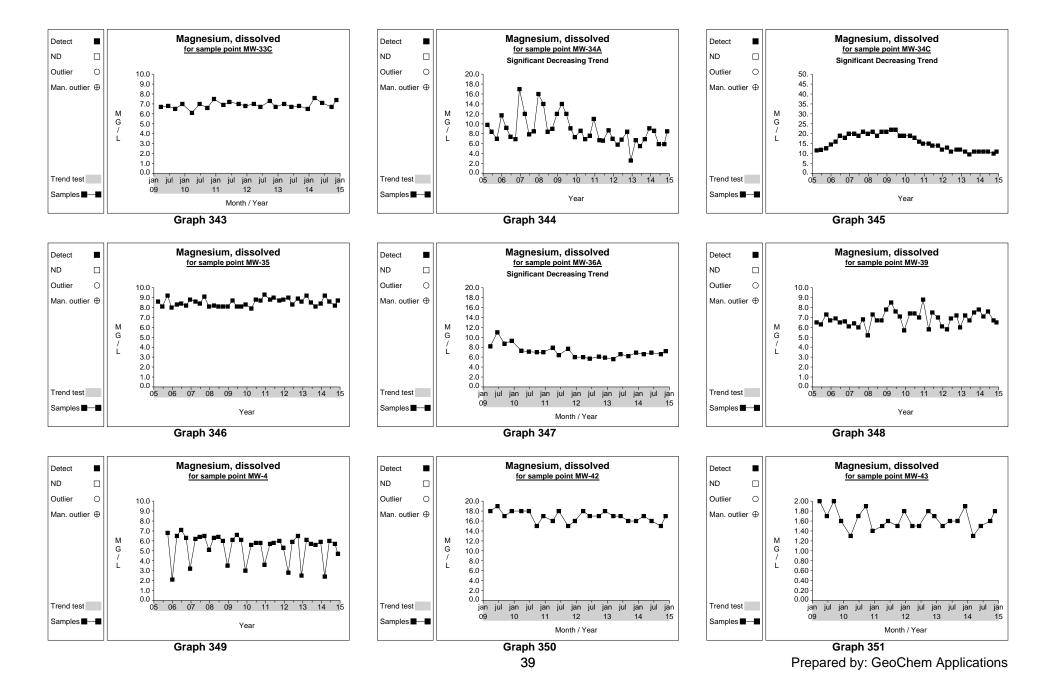


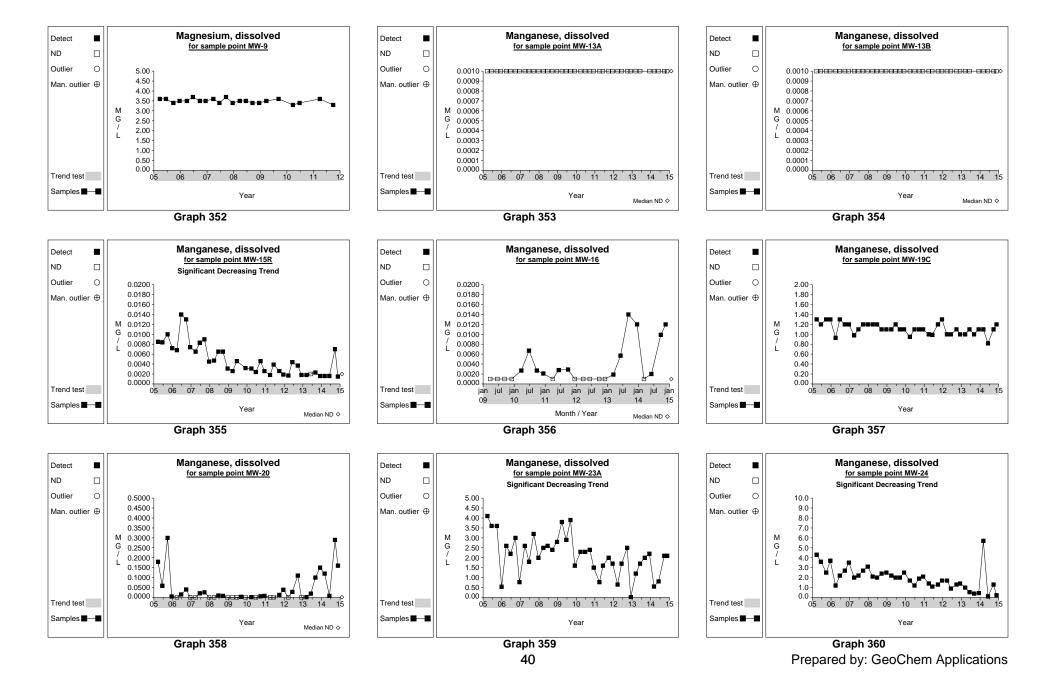


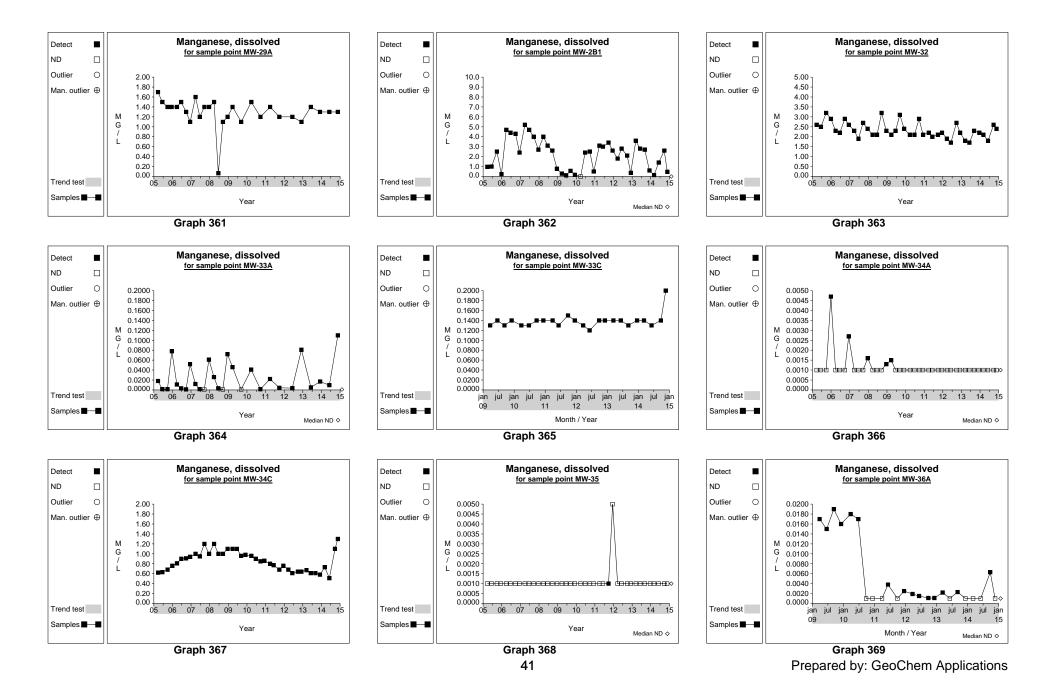


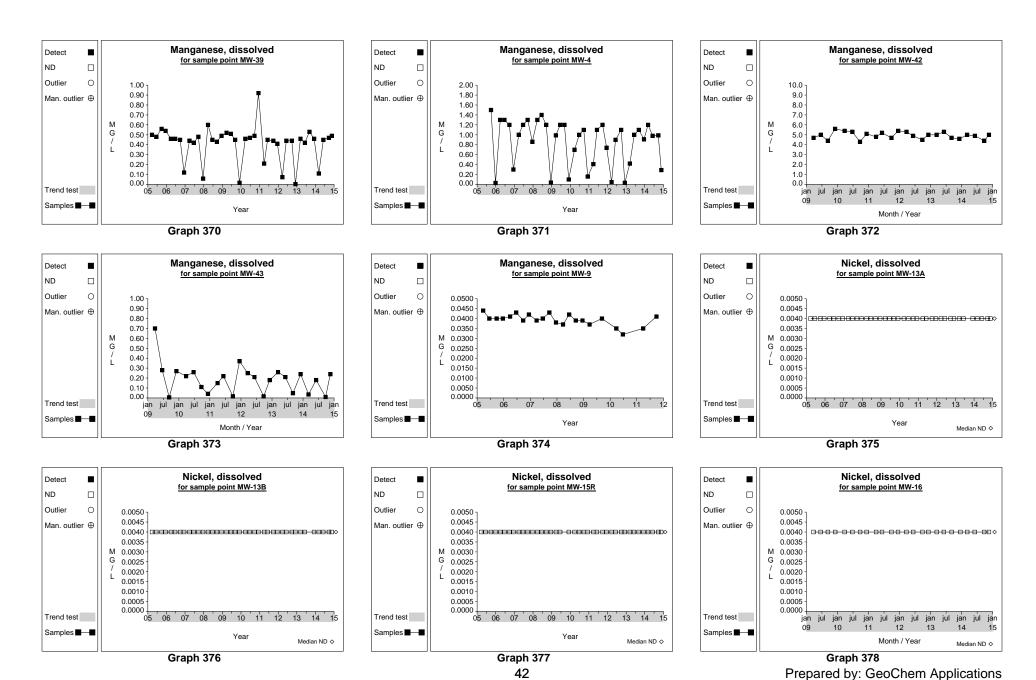


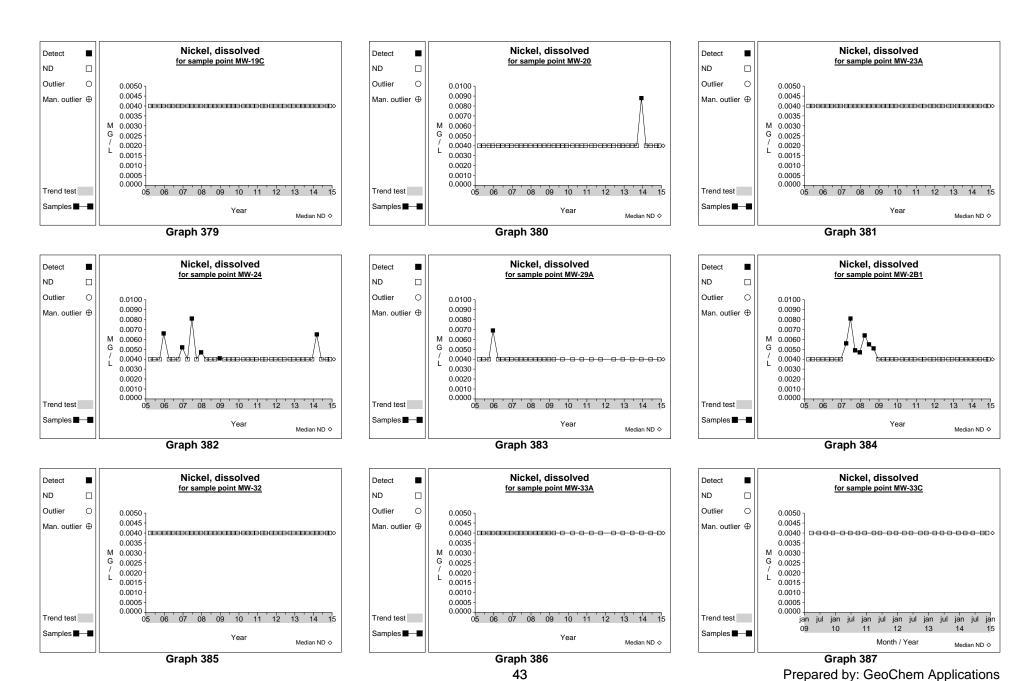






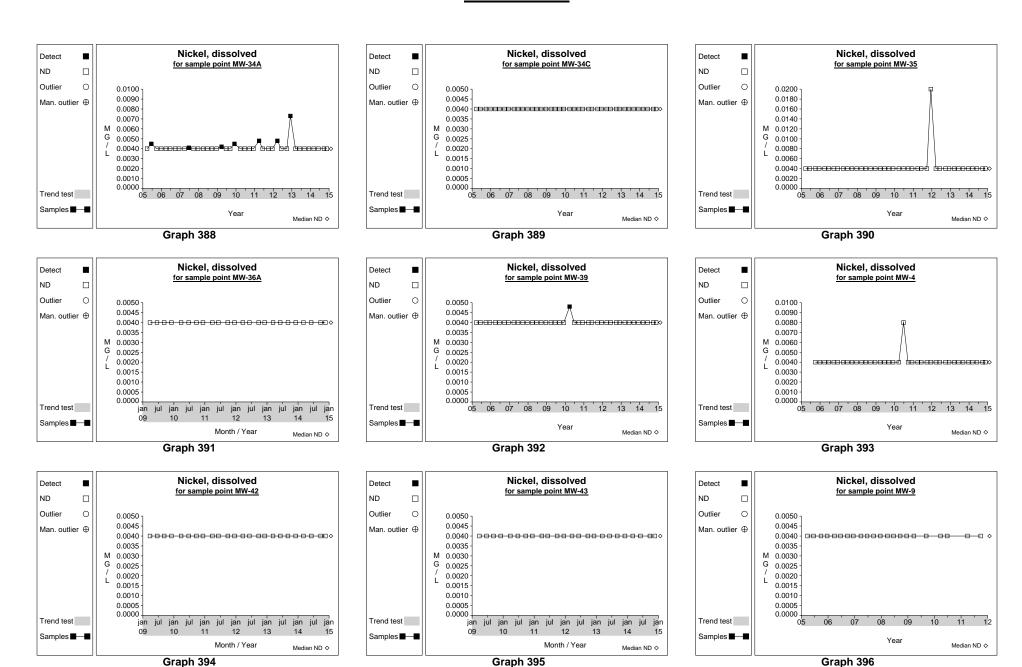




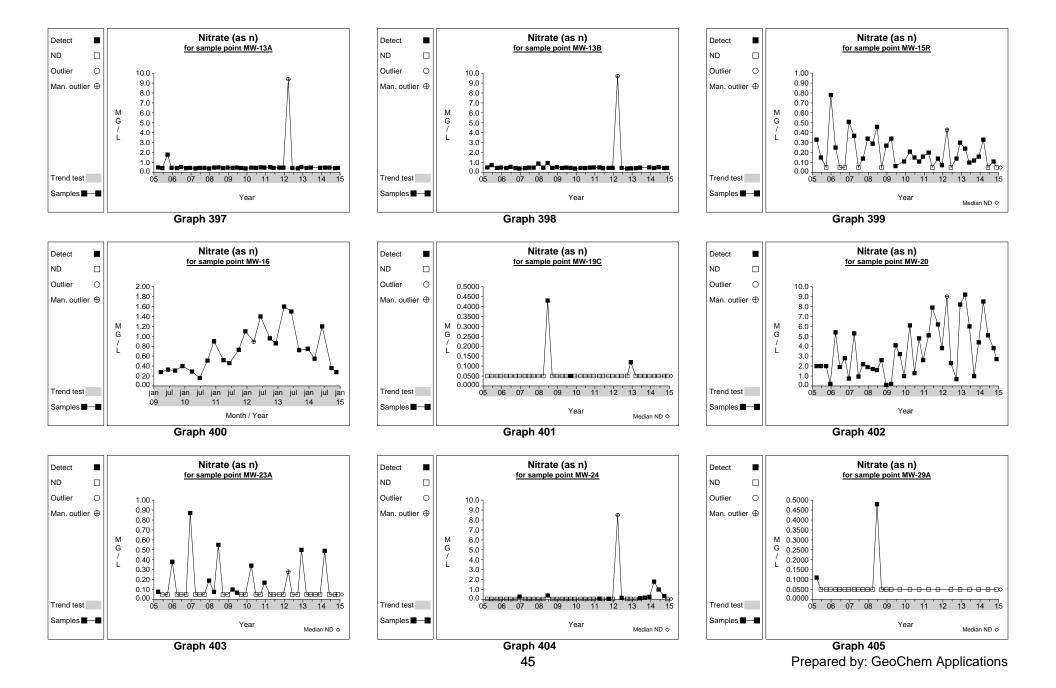


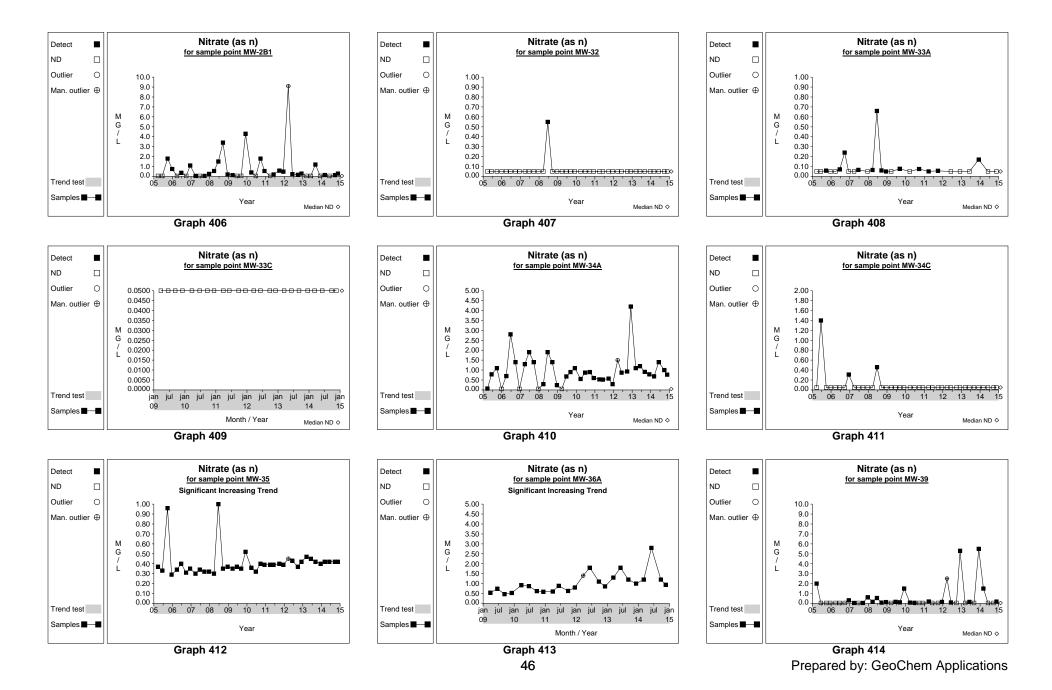
Prepared by: GeoChem Applications

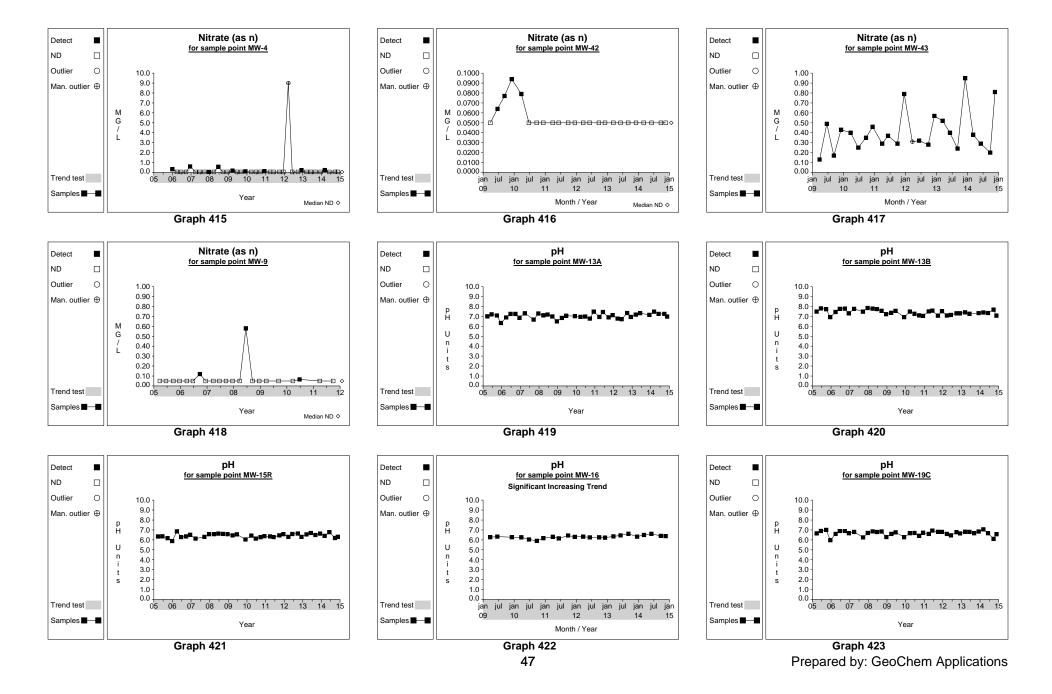
#### **Time Series**

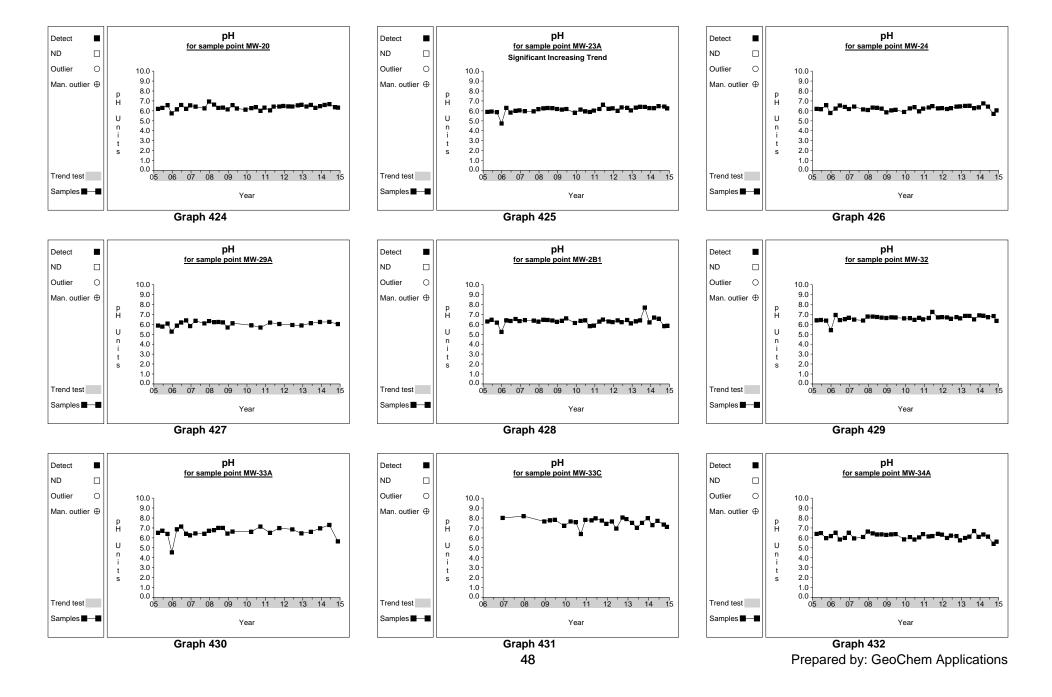


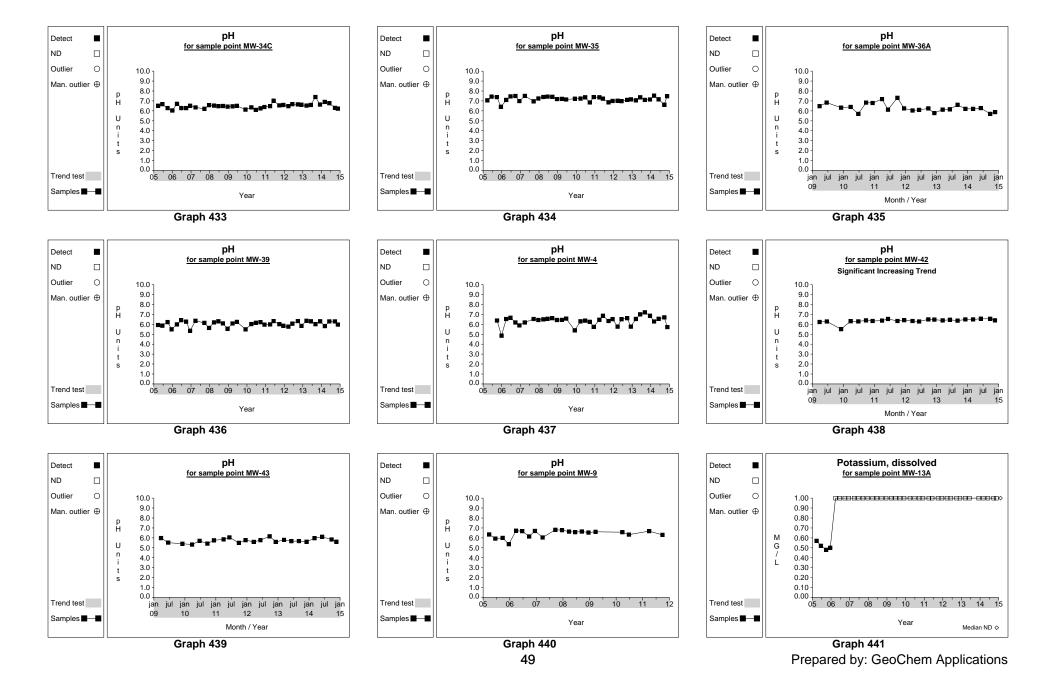
44

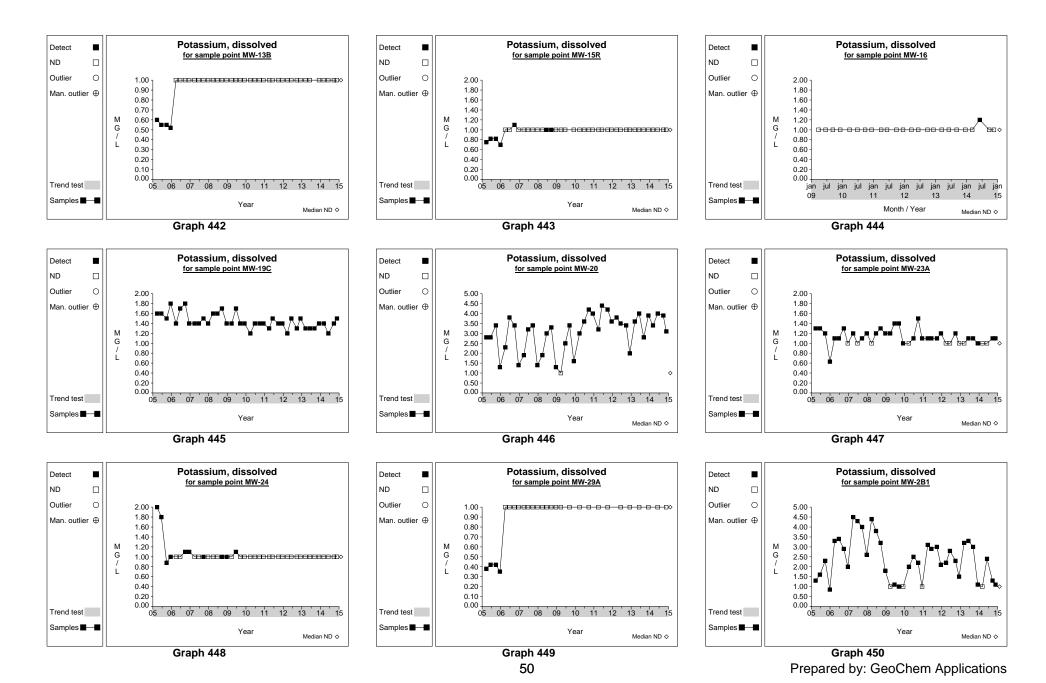


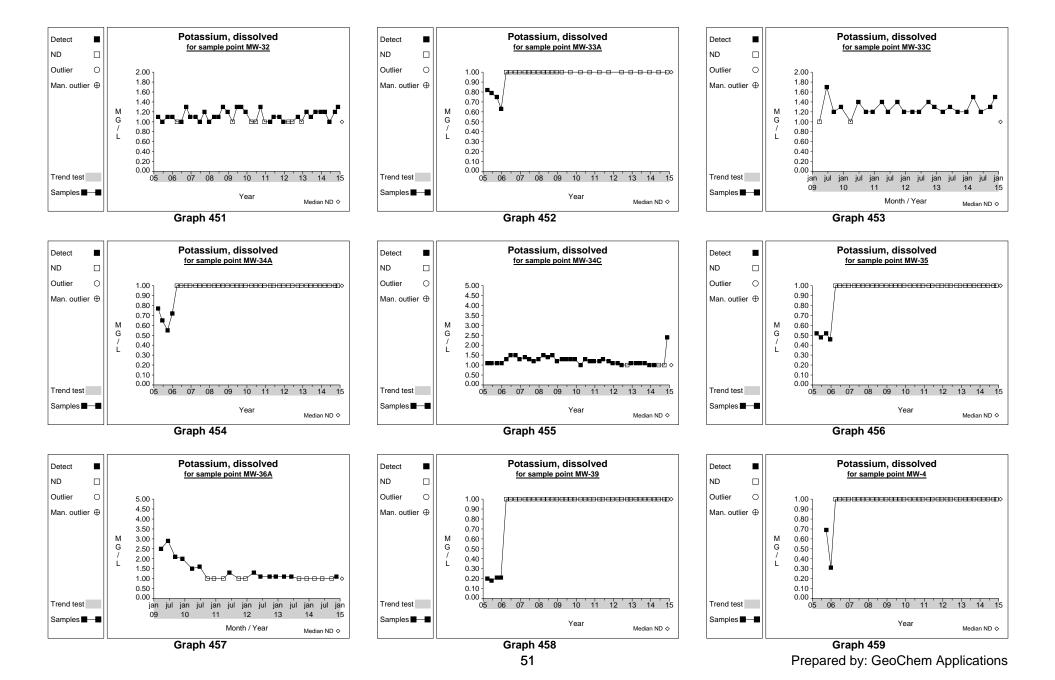


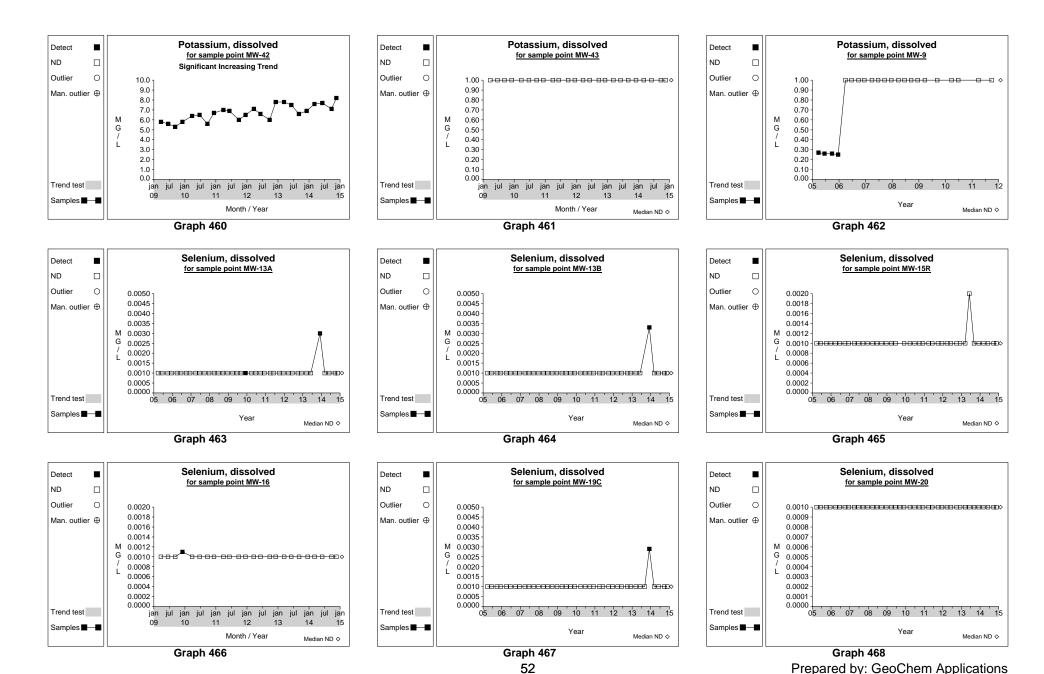


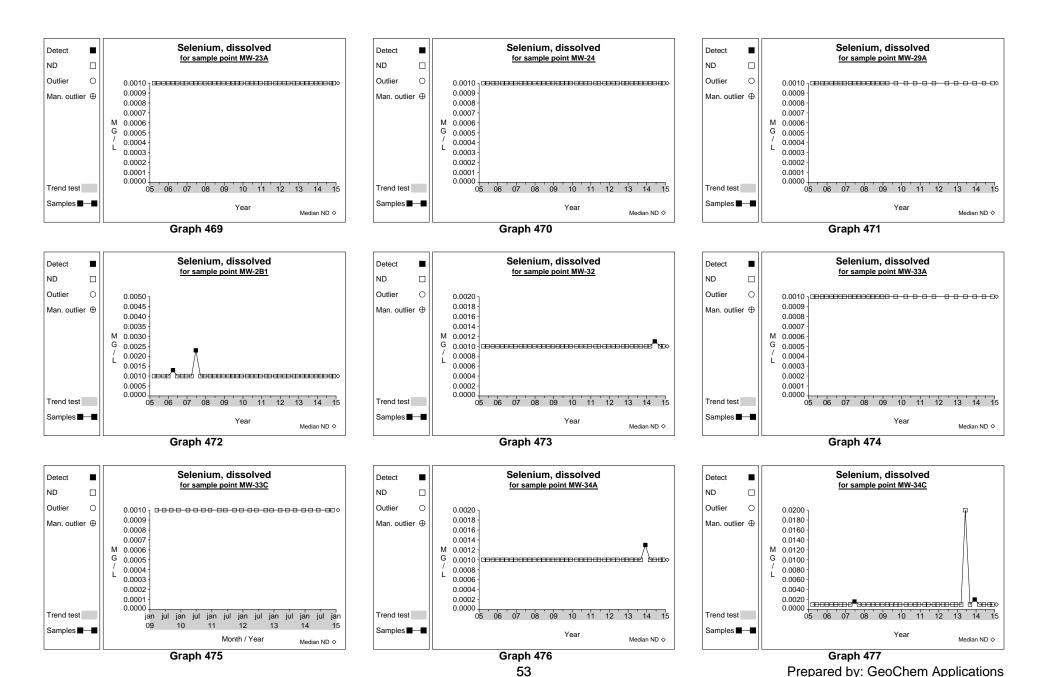






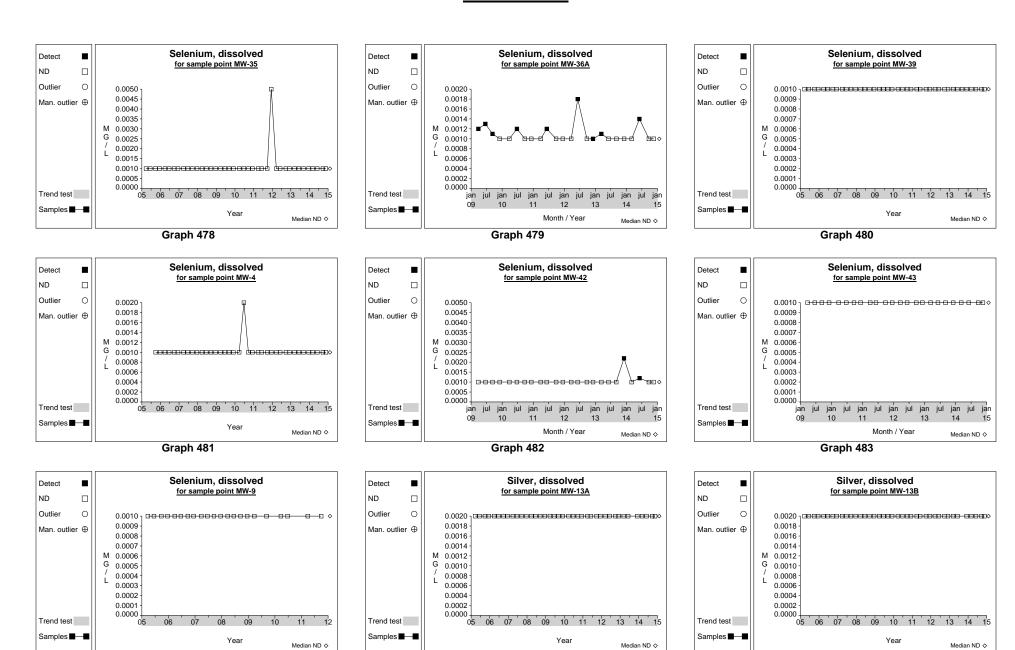






Graph 484

### **Time Series**



Graph 485

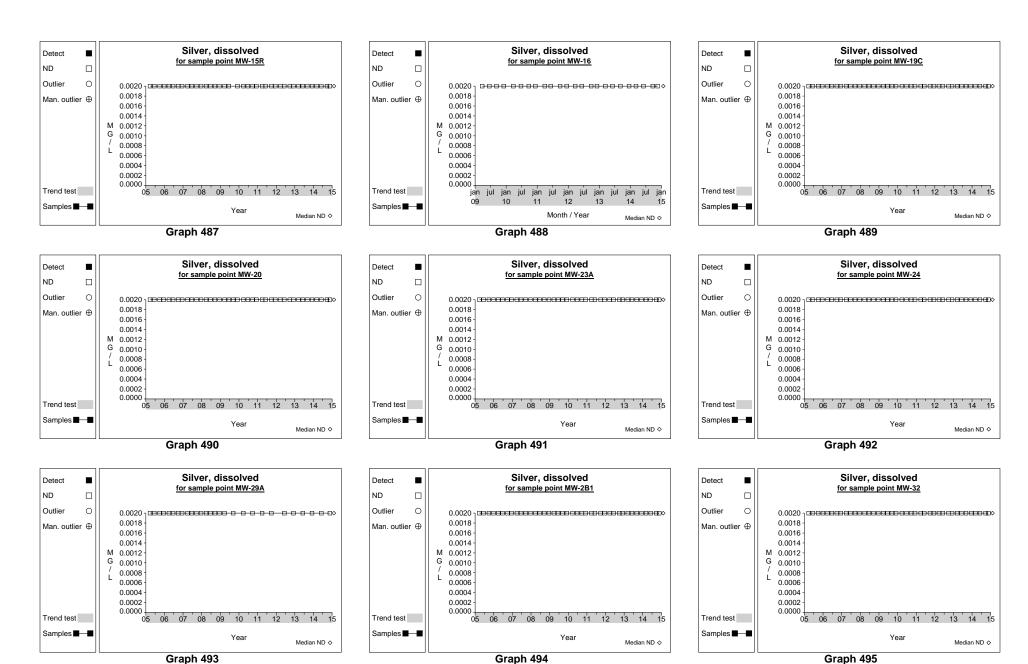
54

Prepared by: GeoChem Applications

Graph 486

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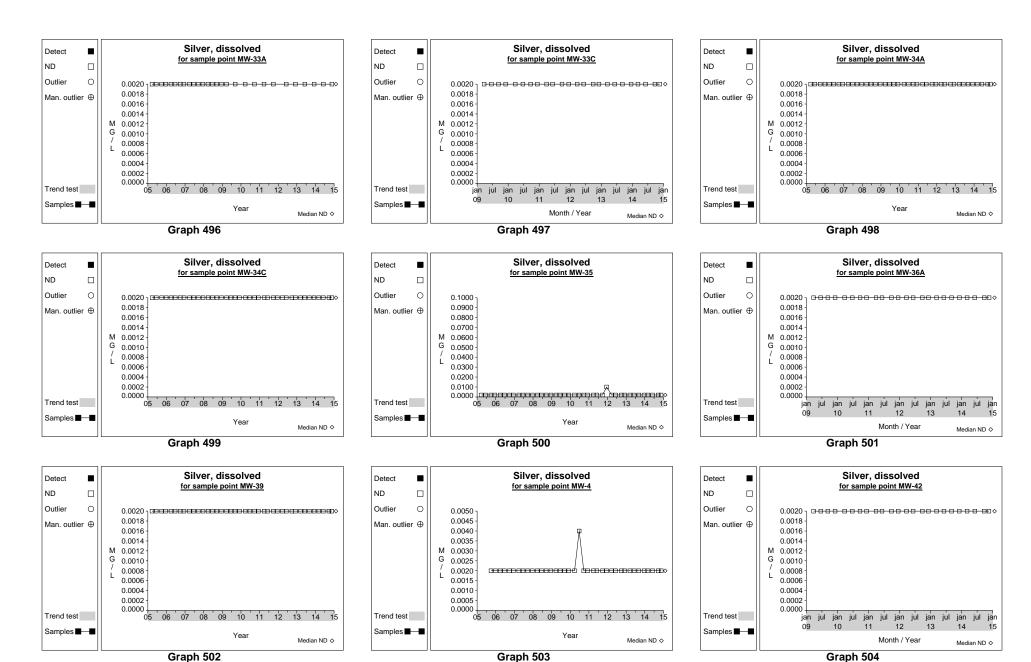
### **Time Series**



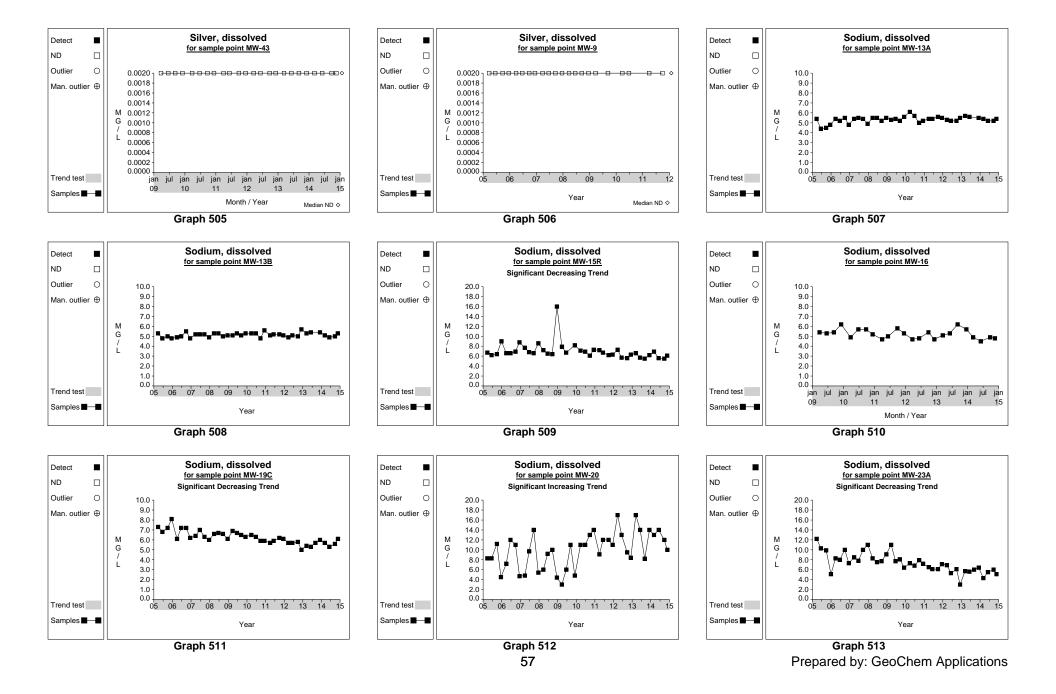
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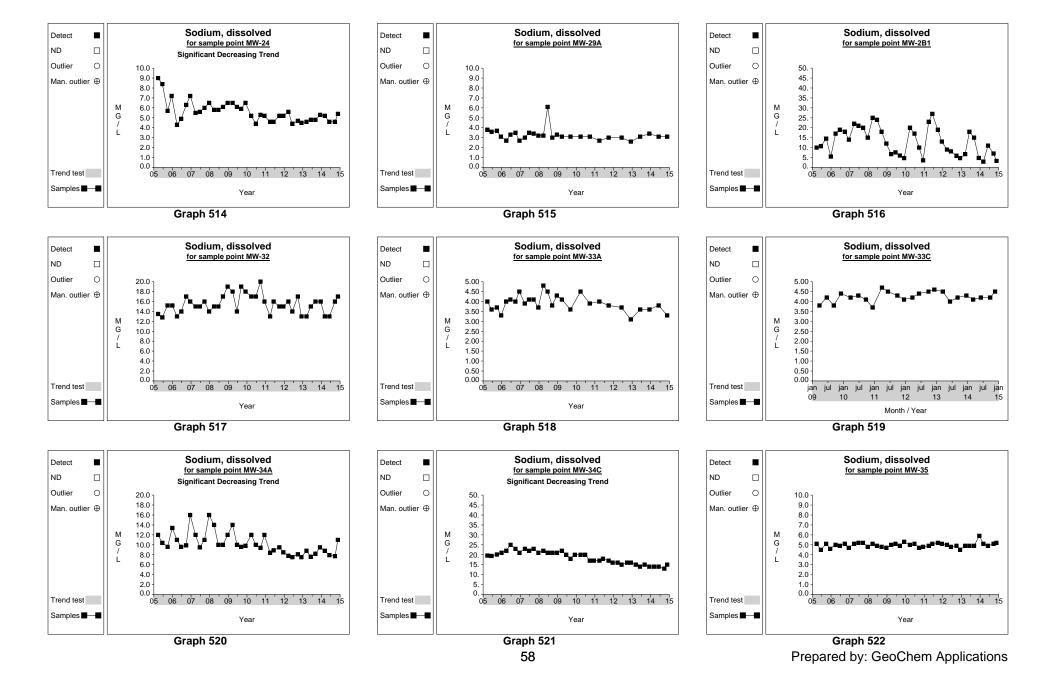
Prepared by: GeoChem Applications

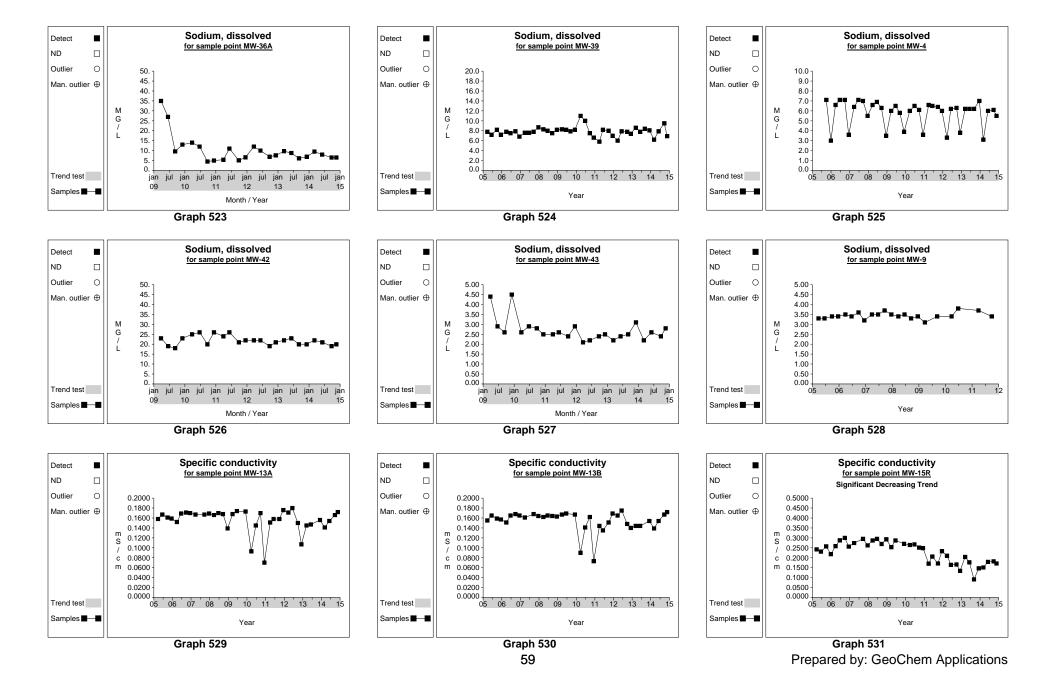
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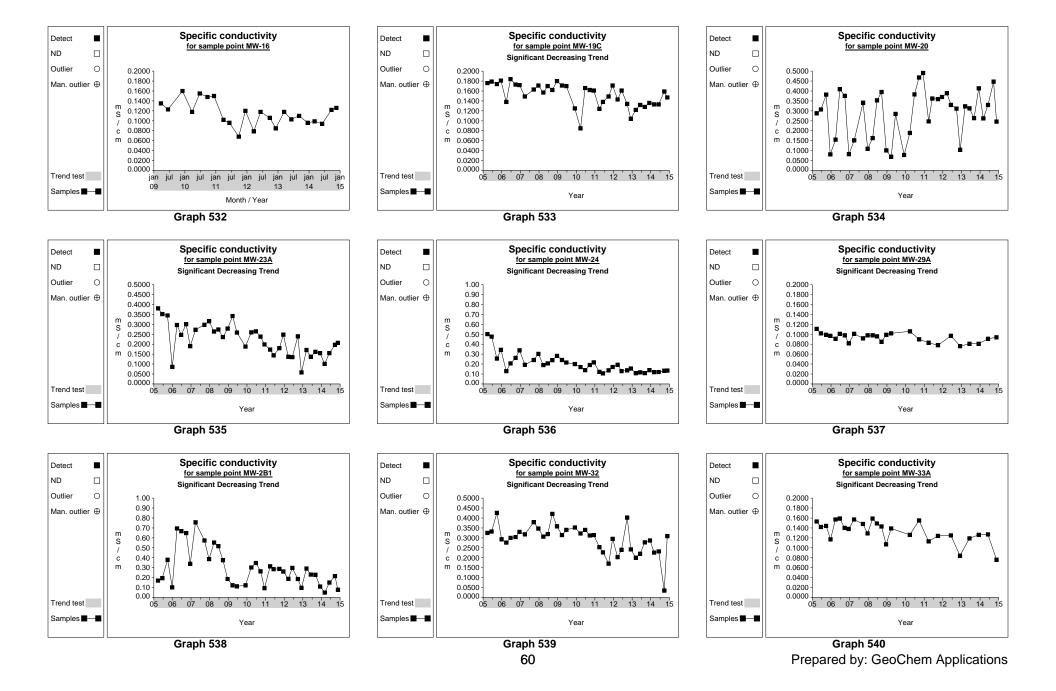


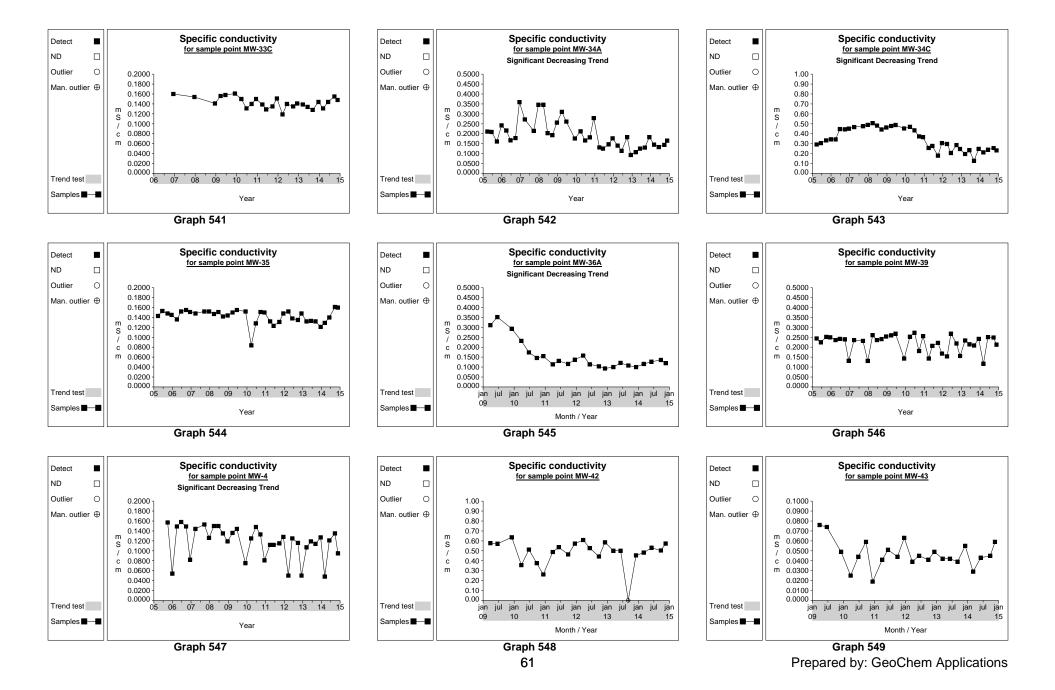
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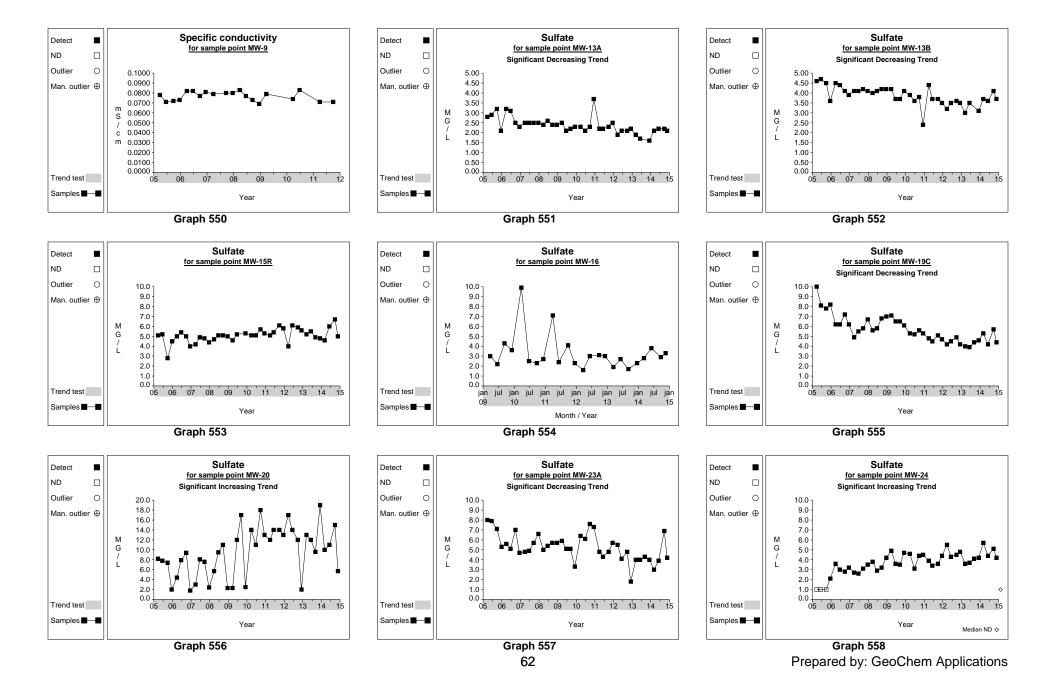


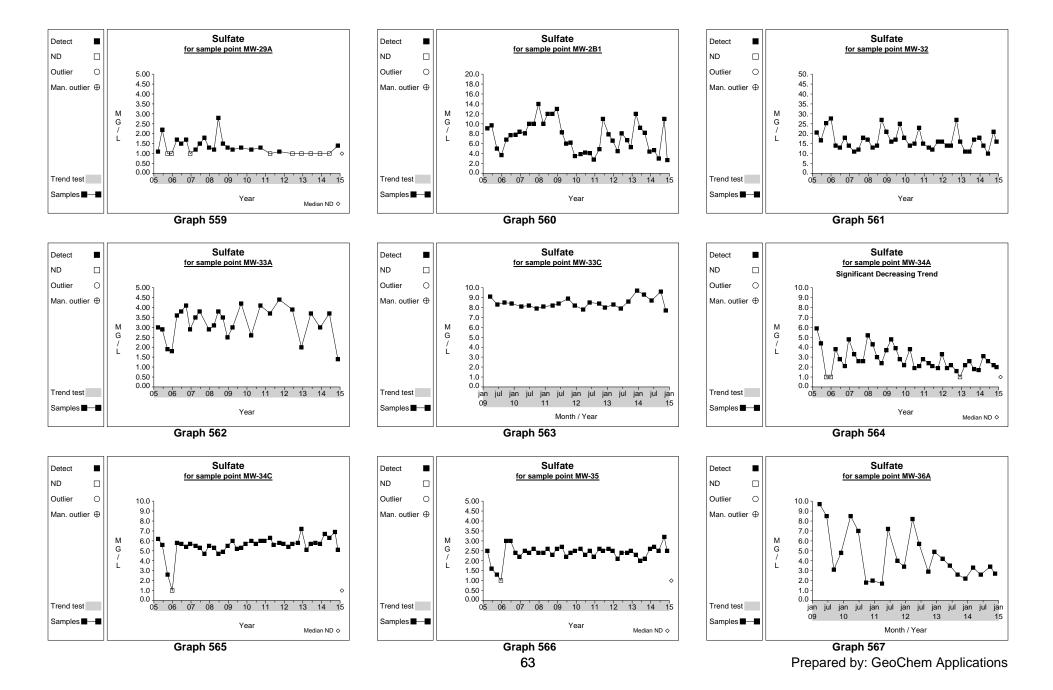


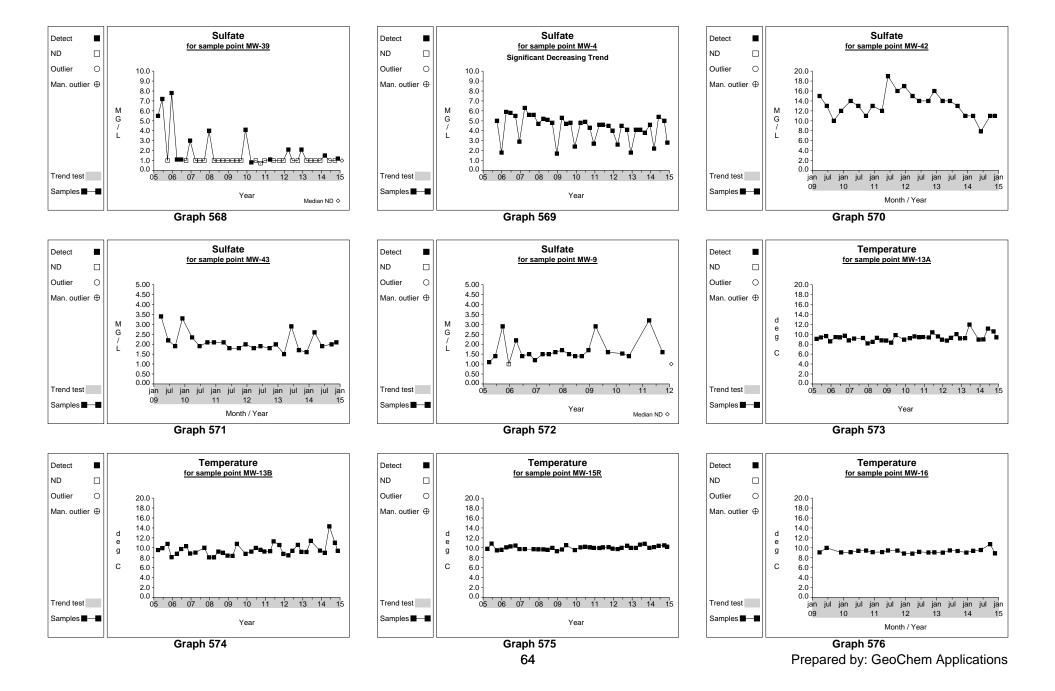


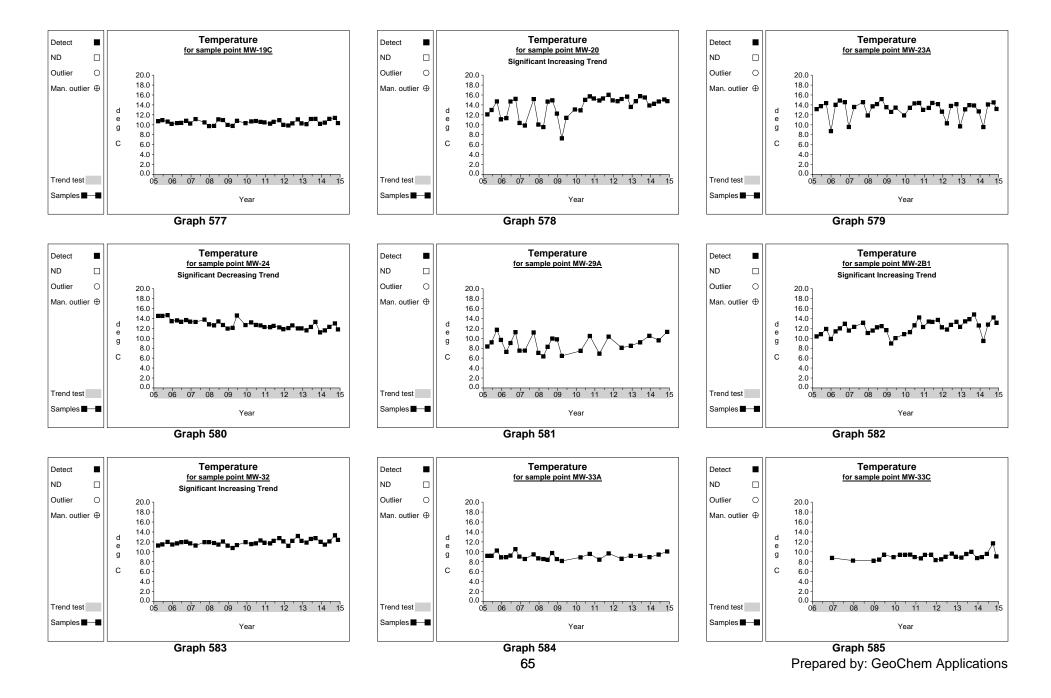


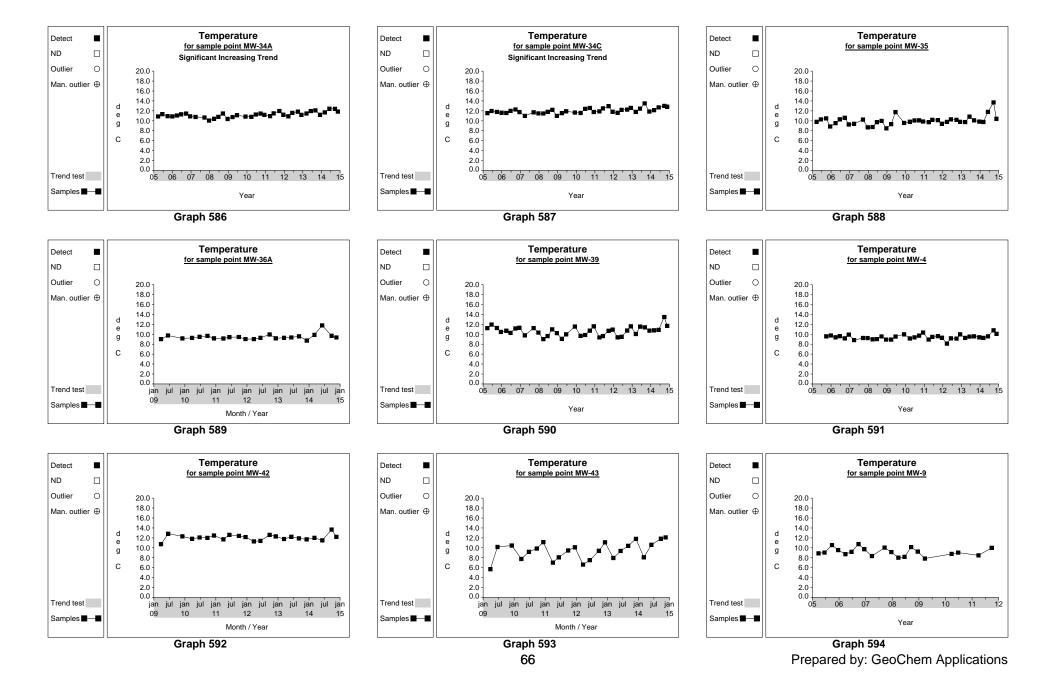






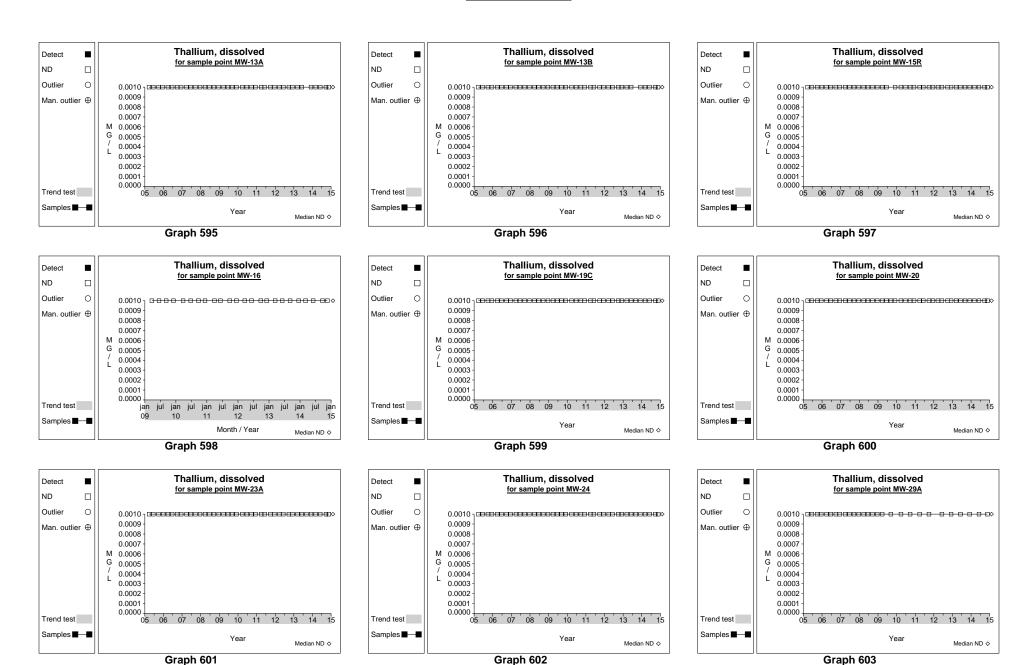






Prepared by: GeoChem Applications

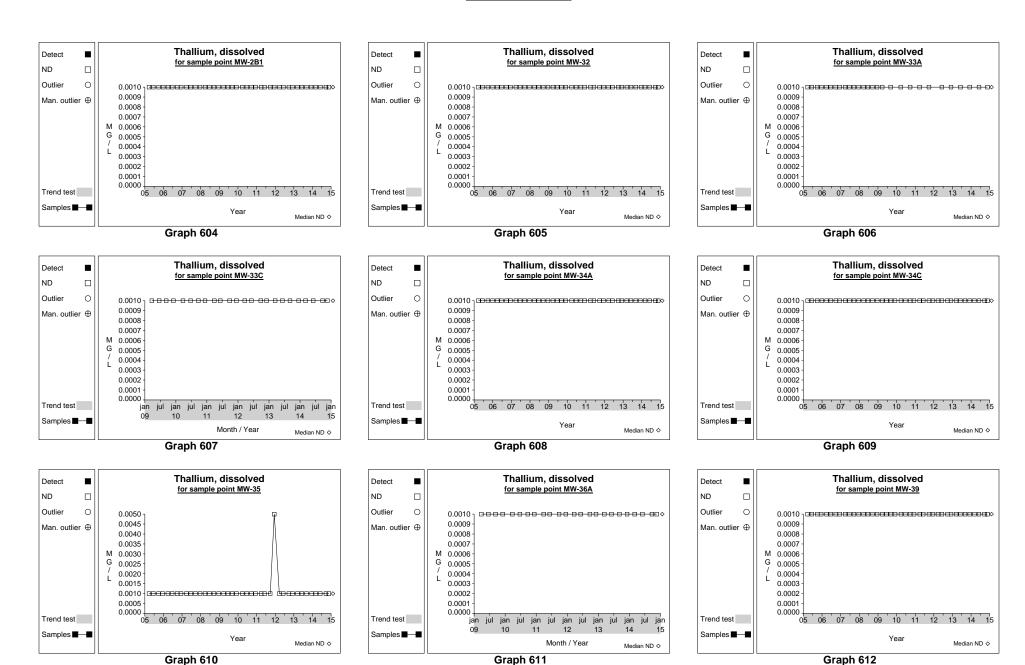
### **Time Series**



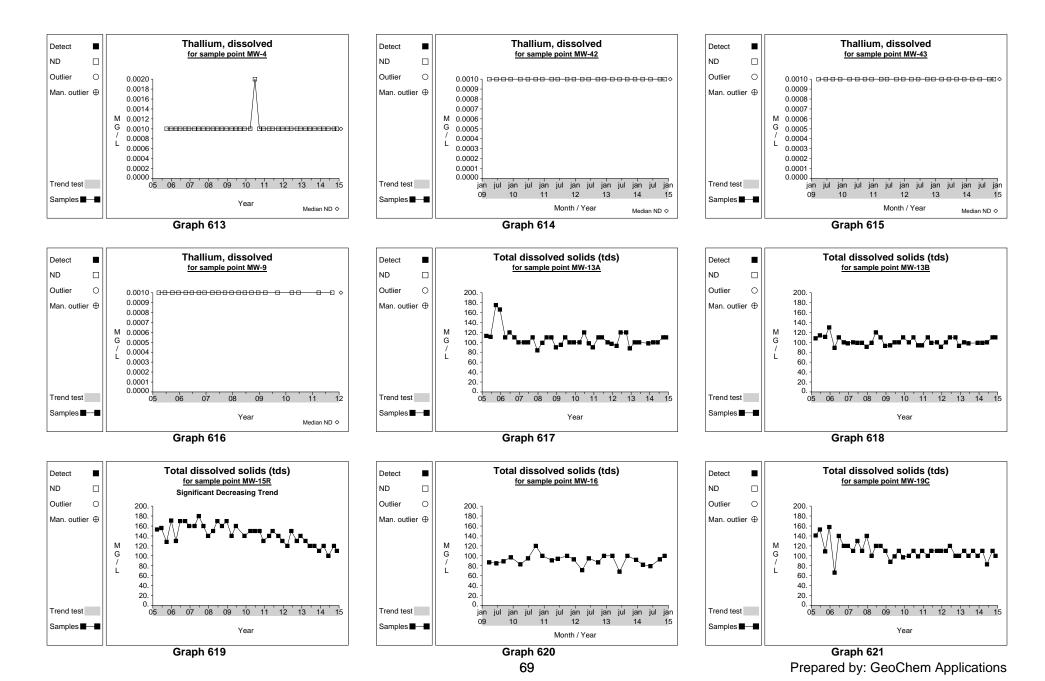
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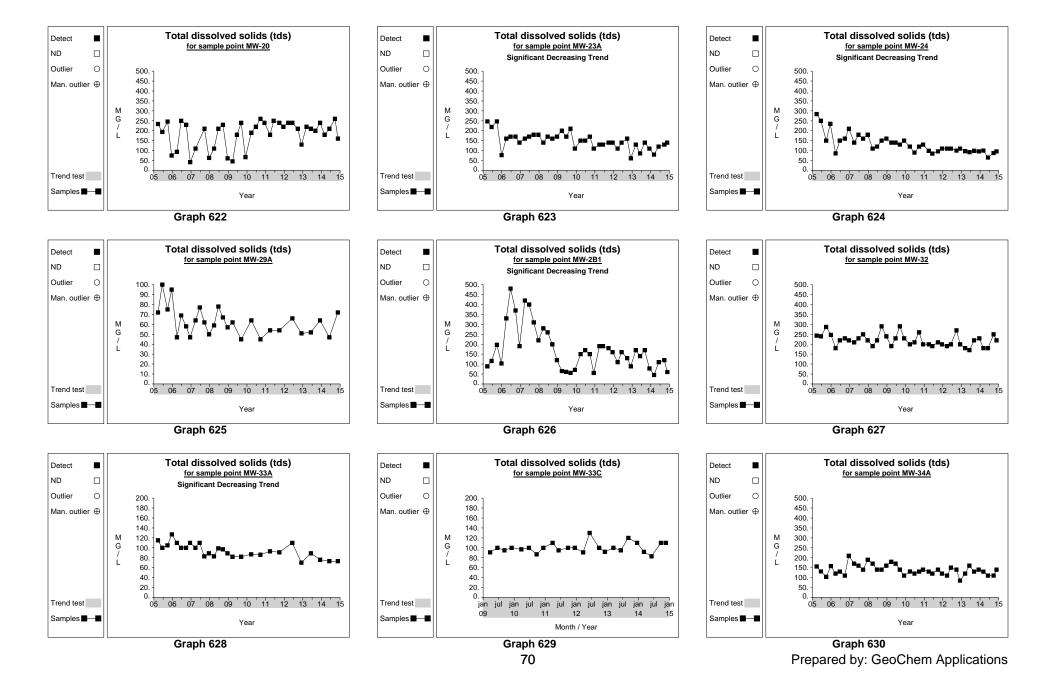
Prepared by: GeoChem Applications

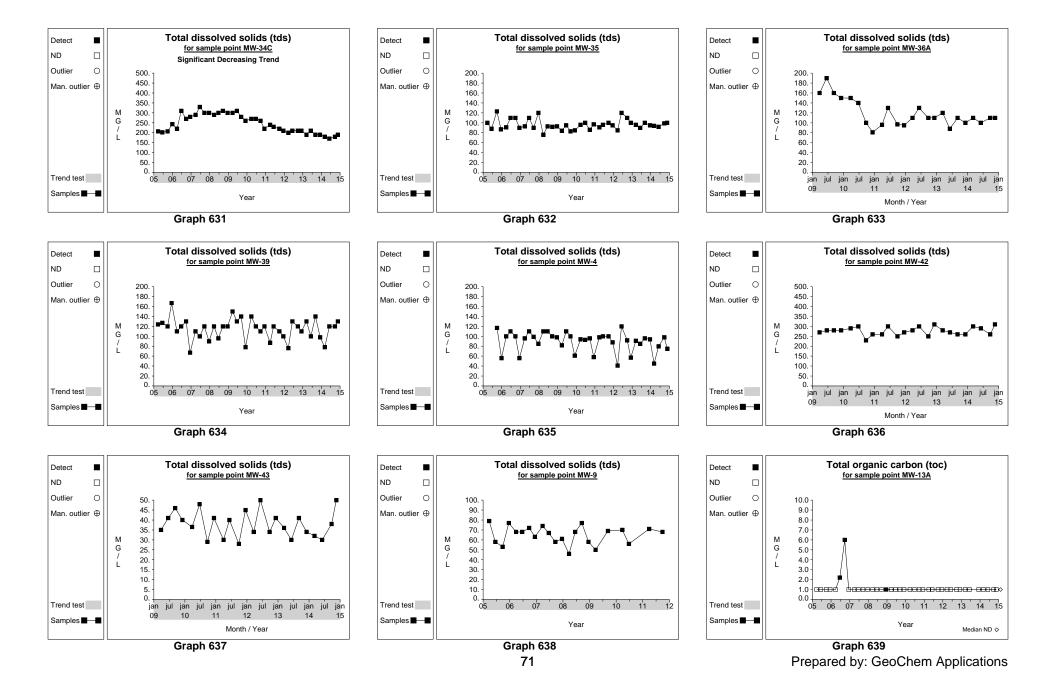
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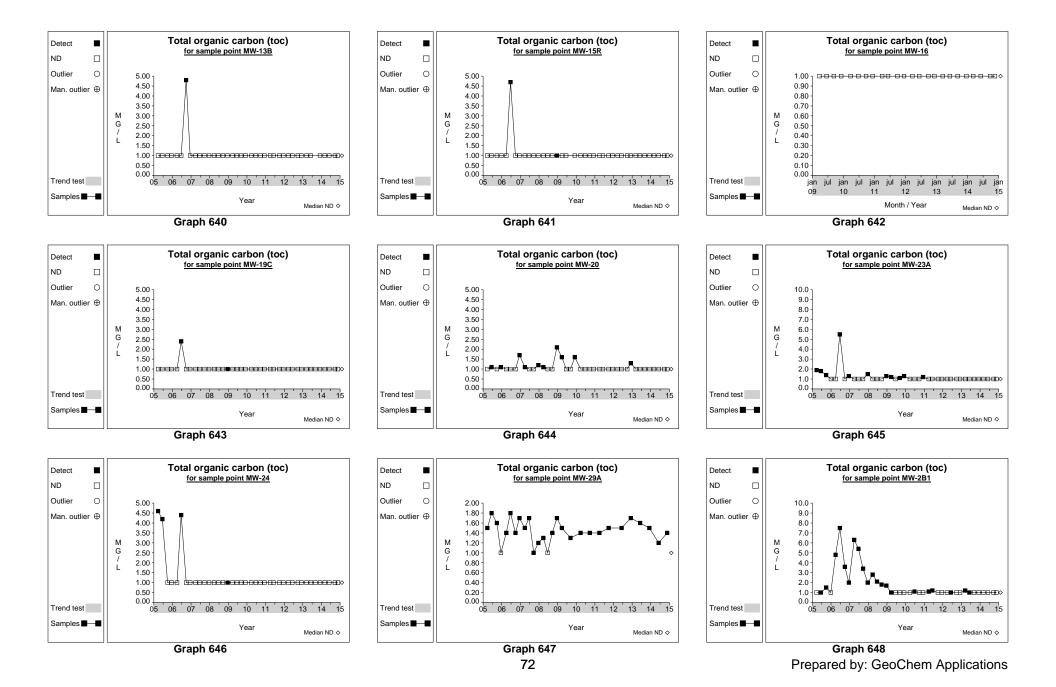


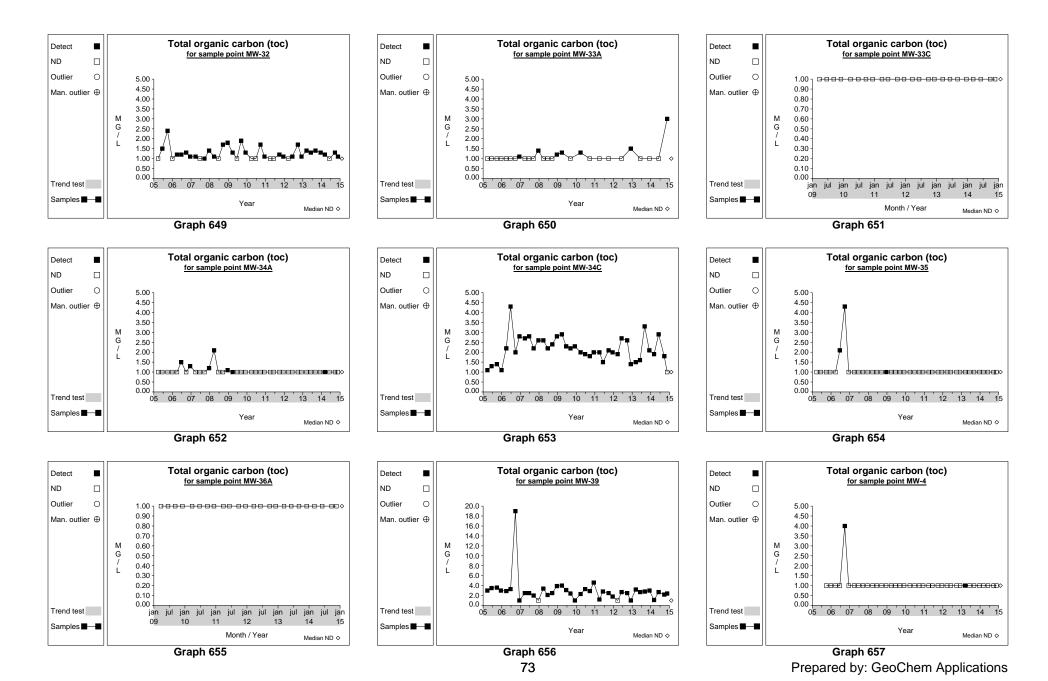
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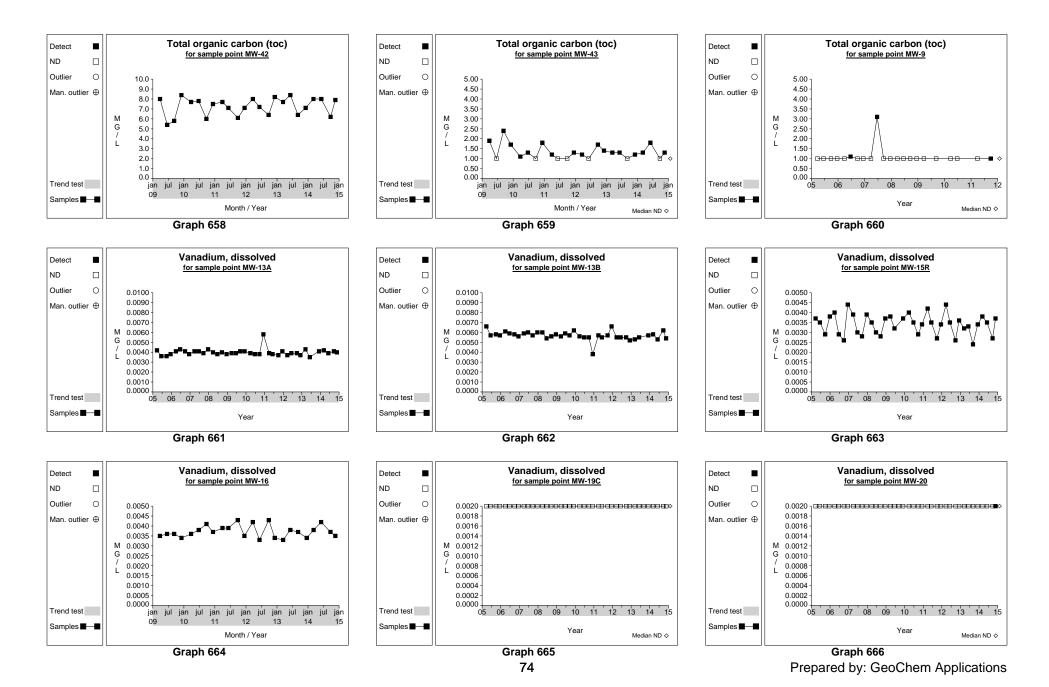


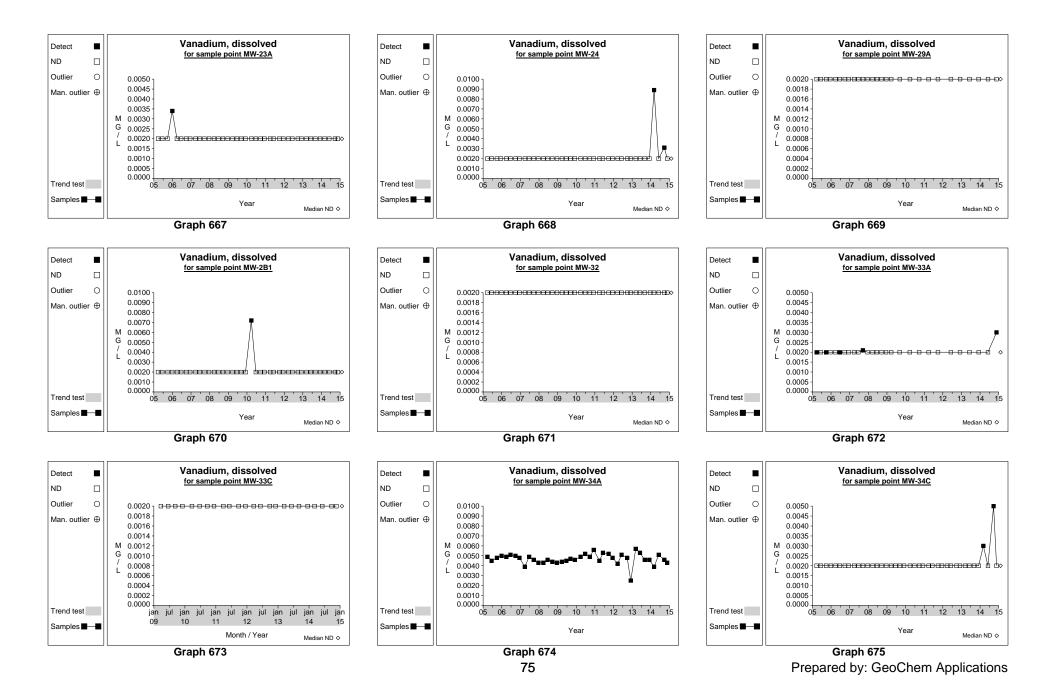


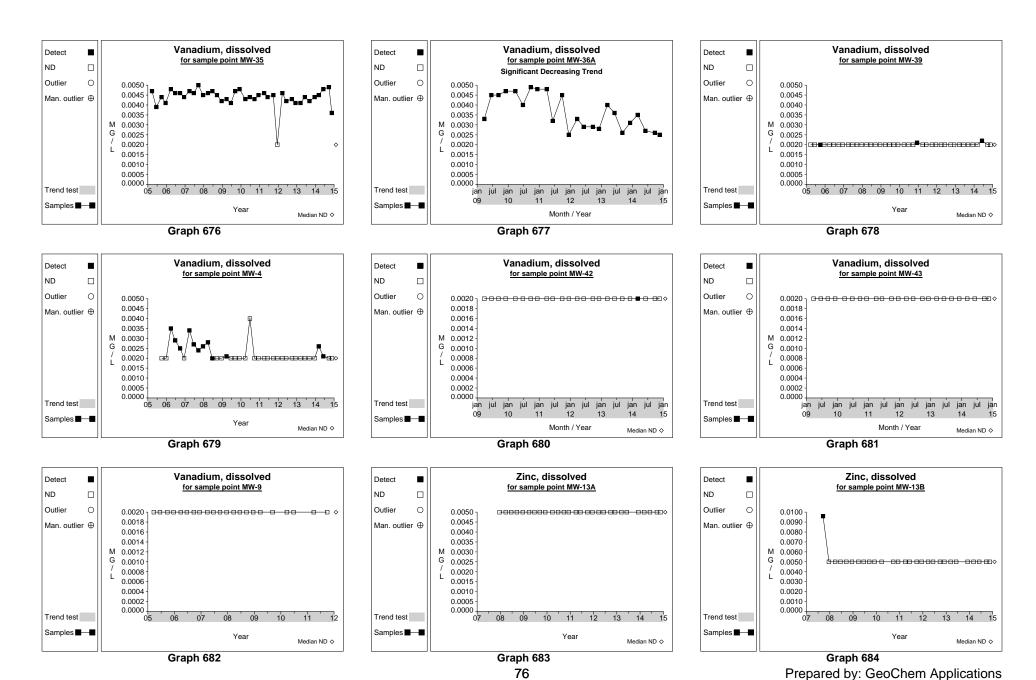




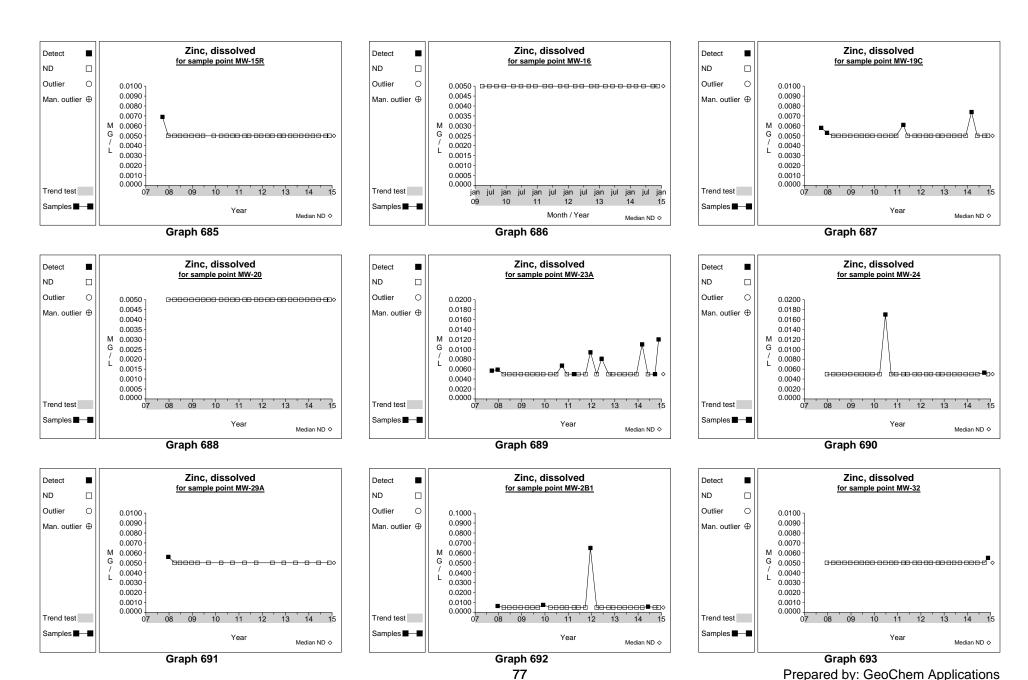




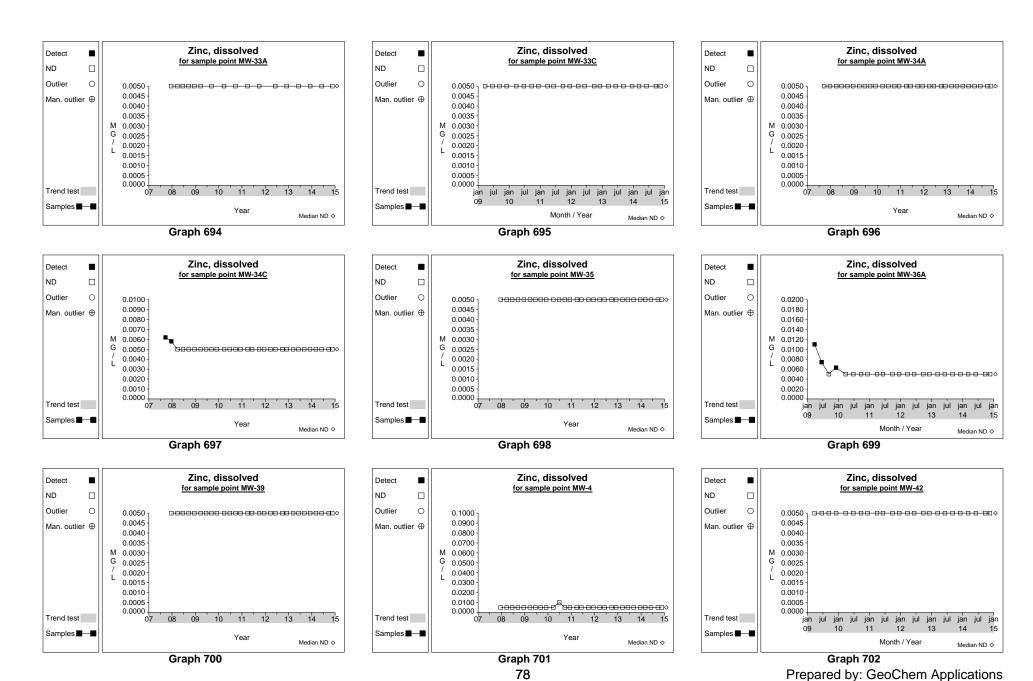




### **Time Series**



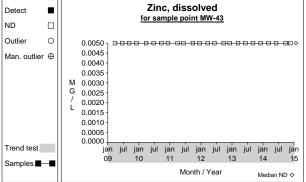
#### **Time Series**

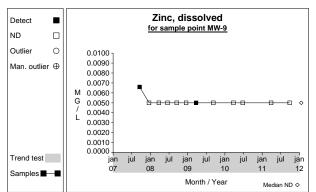


Olympic View [2010senb]

Analysis prepared on: 2/21/2015

## **Time Series**

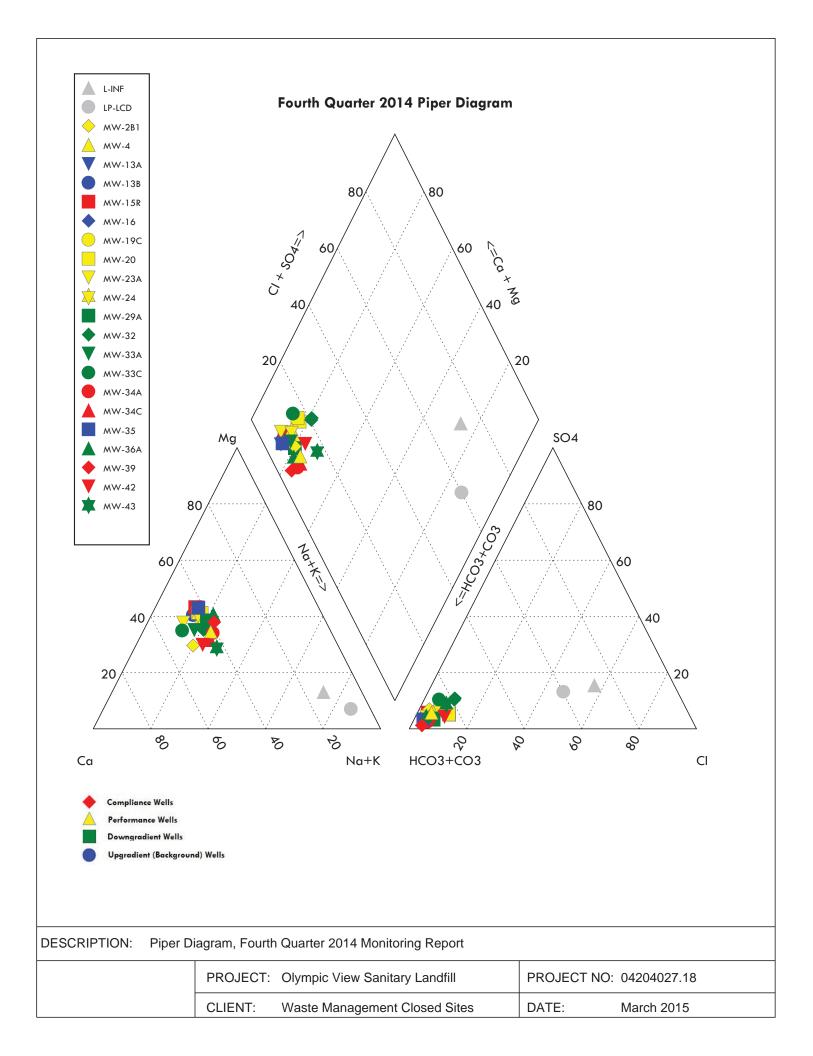




Graph 703 Graph 704

## APPENDIX D

## FOURTH QUARTER 2014 GROUNDWATER GEOCHEMICAL EVALUATION



Location MW-13A Sample Date 11/17/2014

#### **CATIONS**

Major Ions	Conversion Factor	mg/L	meq/L
Na	0.04350	5.4	0.235
K	0.02258	<1	< 0.0256
Ca	0.04990	15	0.749
Mg	0.8229	9.3	0.765

Sum of Cations 1.774

#### **ANIONS**

Major Ions	Conversion Factor	mg/L	meq/L
CI	0.02821	1.9	0.0536
SO4	0.02082	2.1	0.04375
NO3	0.01613	0.46	0.00742
HCO3	0.01639	94.8	1.554
	Sum of Anions		1.66
Sum of lons			3.43
	Balance (% Diffe	erence)	3.375

DESCRIPTION: Fourth Quarter 2014 Cation-Anion Balance

PROJECT:	Olympic View Sanitary Landfill	PROJECT NO:	04204027.18
CLIENT:	Waste Management - Closed Sites	DATE:	March 2015

Location MW-13B Sample Date 11/17/2014

#### **CATIONS**

Major Ions	Conversion Factor	mg/L	meq/L
Na	0.04350	5.3	0.2305
K	0.02258	<1	< 0.0256
Са	0.04990	16	0.798
Mg	0.8229	8.7	0.716

Sum of Cations 1.77

#### **ANIONS**

Major Ions	Conversion Factor	mg/L	meq/L
CI	0.02821	2.1	0.0592
SO4	0.02082	3.7	0.0771
NO3	0.01613	0.47	0.00758
HCO3	0.01639	94.8	1.554
	Sum of Anions		1.698
	Sum of lons		3.47
	Balance (% Diff	erence)	2.1

DESCRIPTION: Fourth Quarter 2014 Cation-Anion Balance

PROJECT: Olympic View Sanitary Landfill PROJECT NO: 04204027.18

Location MW-15R Sample Date 11/19/2014

#### **CATIONS**

Major Ions	Conversion Factor	mg/L	meq/L
Na	0.04350	6.1	0.2653
K	0.02258	<1	< 0.0256
Са	0.04990	18	0.898
Mg	0.8229	11	0.905

Sum of Cations 2.094

#### **ANIONS**

Major Ions	Conversion Factor	mg/L	meq/L
CI	0.02821	2.3	0.0649
SO4	0.02082	5	0.1042
NO3	0.01613	< 0.05	<0.000806
HCO3	0.01639	100.8	1.652
	Sum of Anions		1.822
	Sum of lons		3.92
	Balance (% Diffe	erence)	6.96

Location MW-16 Sample Date 11/18/2014

#### **CATIONS**

Major Ions	Conversion Factor	mg/L	meq/L
Na	0.04350	4.8	0.2088
K	0.02258	<1	< 0.0256
Ca	0.04990	11	0.549
Mg	0.8229	6.4	0.527

Sum of Cations 1.31

#### **ANIONS**

Major Ions	Conversion Factor	mg/L	meq/L
CI	0.02821	1.5	0.0423
SO4	0.02082	3.3	0.0688
NO3	0.01613	0.28	0.00452
HCO3	0.01639	68.4	1.12
	Sum of Anions		1.237
Sum of Ions			2.547
	Balance (% Diffe	erence)	2.88

DESCRIPTION: Fourth Quarter 2014 Cation-Anion Balance

PROJECT: Olympic View Sanitary Landfill PROJECT NO: 04204027.18

Location MW-19C Sample Date 11/20/2014

#### **CATIONS**

Major Ions	Conversion Factor	mg/L	meq/L
Na	0.04350	6.1	0.2653
K	0.02258	1.5	0.0384
Ca	0.04990	14	0.699
Mg	0.8229	7.2	0.592

Sum of Cations 1.595

#### **ANIONS**

Major Ions	Conversion Factor	mg/L	meq/L
CI	0.02821	2.6	0.0733
SO4	0.02082	4.4	0.0917
NO3	0.01613	< 0.05	<0.000806
HCO3	0.01639	84	1.377
	Sum of Anions		1.542
Sum of Ions			3.14
	Balance (% Diffe	erence)	1.668

Location MW-20 Sample Date 11/20/2014

#### **CATIONS**

Major Ions	Conversion Factor	mg/L	meq/L
Na	0.04350	10	0.435
K	0.02258	3.1	0.0793
Ca	0.04990	25	1.248
Mg	0.8229	15	1.234

Sum of Cations 2.996

#### **ANIONS**

Major Ions	Conversion Factor	mg/L	meq/L
CI	0.02821	9.5	0.268
SO4	0.02082	5.7	0.1188
NO3	0.01613	2.7	0.04355
HCO3	0.01639	120	1.967
	Sum of Anions		2.397
	Sum of lons		5.39
	Balance (% Differ	rence)	11.1

DESCRIPTION: Fourth Quarter 2014 Cation-Anion Balance

PROJECT: Olympic View Sanitary Landfill PROJECT NO: 04204027.18

Location MW-20 Sample Date 11/20/2014

#### **CATIONS**

Major Ions	Conversion Factor	mg/L	meq/L
Na	0.04350	8.4	0.3654
K	0.02258	3	0.0767
Ca	0.04990	24	1.198
Mg	0.8229	14	1.152

Sum of Cations 2.79

#### **ANIONS**

Major Ions	Conversion Factor	mg/L	meq/L
CI	0.02821	9.3	0.2623
SO4	0.02082	5.7	0.1188
NO3	0.01613	2.6	0.0419
HCO3	0.01639	118.8	1.947
Sum of Anions			2.37
Sum of Ions			5.16
Balance (% Difference)			8.17

DESCRIPTION: Fourth Quarter 2014 Cation-Anion Balance

PROJECT: Olympic View Sanitary Landfill PROJECT NO: 04204027.18

Location MW-23A Sample Date 11/18/2014

#### **CATIONS**

Major Ions	Conversion Factor	mg/L	meq/L
Na	0.04350	5.1	0.222
K	0.02258	1.1	0.02813
Са	0.04990	20	0.998
Mg	0.8229	9.2	0.757

Sum of Cations 2.005

#### **ANIONS**

	Major Ions	Conversion Factor	mg/L	meq/L
	CI	0.02821	2.7	0.0762
	SO4	0.02082	4.2	0.0875
	NO3	0.01613	< 0.05	<0.000806
	HCO3	0.01639	112.8	1.85
Sum of Anions				2.013
Sum of lons				4.02

Balance (% Difference)

DESCRIPTION: Fourth Quarter 2014 Cation-Anion Balance

PROJECT: Olympic View Sanitary Landfill PROJECT NO: 04204027.18

CLIENT: Waste Management - Closed Sites DATE: March 2015

-0.2004

Location MW-24 Sample Date 11/20/2014

#### **CATIONS**

Major Ions	Conversion Factor	mg/L	meq/L
Na	0.04350	5.4	0.235
K	0.02258	<1	< 0.0256
Са	0.04990	14	0.699
Mg	0.8229	8	0.658

Sum of Cations 1.617

#### **ANIONS**

Major Ions	Conversion Factor	mg/L	meq/L
CI	0.02821	2.8	0.079
SO4	0.02082	4.2	0.0875
NO3	0.01613	< 0.05	<0.000806
HCO3	0.01639	74.4	1.22
	Sum of Anions		1.387
	Sum of lons		3.004

Balance (% Difference) 7.68

DESCRIPTION: Fourth Quarter 2014 Cation-Anion Balance

PROJECT:	Olympic View Sanitary Landfill	PROJECT NO:	04204027.18
CLIENT:	Waste Management - Closed Sites	DATE:	March 2015

Location MW-29A Sample Date 11/18/2014

#### **CATIONS**

Major Ions	Conversion Factor	mg/L	meq/L
Na	0.04350	3.1	0.1348
K	0.02258	<1	< 0.0256
Са	0.04990	6.5	0.3244
Mg	0.8229	3.7	0.3045

Sum of Cations 0.79

#### **ANIONS**

	Major Ions	Conversion Factor	mg/L	meq/L
	CI	0.02821	2.2	0.062
	SO4	0.02082	1.4	0.02917
	NO3	0.01613	< 0.05	<0.000806
	HCO3	0.01639	49.2	0.806
	Sum of Anions			0.898
Sum of lons			1.688	
	Balance (% Difference)			-6.47

DESCRIPTION: Fourth Quarter 2014 Cation-Anion Balance

PROJECT: Olympic View Sanitary Landfill PROJECT NO: 04204027.18

Location MW-2B1 Sample Date 11/20/2014

#### **CATIONS**

Major Ions	Conversion Factor	mg/L	meq/L
Na	0.04350	3.3	0.1435
K	0.02258	1.1	0.02813
Ca	0.04990	8.7	0.434
Mg	0.8229	3.1	0.255

Sum of Cations 0.861

#### **ANIONS**

Major Ions	Conversion Factor	mg/L	meq/L
CI	0.02821	1	0.0282
SO4	0.02082	2.7	0.0563
NO3	0.01613	0.29	0.00468
HCO3	0.01639	44.4	0.728
Sum of Anions			0.817
Sum of Ions			1.678
Balance (% Difference)			2.63

Location MW-32 Sample Date 11/20/2014

#### **CATIONS**

Major Ions	Conversion Factor	mg/L	meq/L
Na	0.04350	17	0.74
K	0.02258	1.3	0.03325
Ca	0.04990	32	1.59 <i>7</i>
Mg	0.8229	16	1.317

Sum of Cations 3.686

#### **ANIONS**

Major Ions	Conversion Factor	mg/L	meq/L
CI	0.02821	12	0.3385
SO4	0.02082	16	0.3333
NO3	0.01613	< 0.05	<0.000806
HCO3	0.01639	156	2.557
Sum of Anions			3.23
Sum of lons			6.92
Balance (% Difference)			6.61

Location MW-32 Sample Date 11/20/2014

#### **CATIONS**

Major Ions	Conversion Factor	mg/L	meq/L
Na	0.04350	17	0.74
K	0.02258	1.4	0.0358
Са	0.04990	33	1.647
Mg	0.8229	16	1.317

Sum of Cations 3.74

#### **ANIONS**

Major Ions	Conversion Factor	mg/L	meq/L
CI	0.02821	12	0.3385
SO4	0.02082	1 <i>7</i>	0.354
NO3	0.01613	< 0.05	<0.000806
HCO3	0.01639	156	2.557
Sum of Anions			3.25
Sum of lons			6.99
Balance (% Difference)			6.99

Location MW-33A Sample Date 11/19/2014

#### **CATIONS**

Major Ions	Conversion Factor	mg/L	meq/L
Na	0.04350	3.3	0.1435
K	0.02258	<1	< 0.0256
Са	0.04990	9.1	0.454
Mg	0.8229	4.1	0.3374

Sum of Cations 0.96

#### **ANIONS**

Major Ions	Conversion Factor	mg/L	meq/L
CI	0.02821	1.7	0.04795
SO4	0.02082	1.4	0.02917
NO3	0.01613	< 0.05	<0.000806
HCO3	0.01639	43.2	0.708
Sum of Anions			0.786
Sum of lons			1.747
	Balance (% Diff	erence)	10.0

DESCRIPTION: Fourth Quarter 2014 Cation-Anion Balance

PROJECT: Olympic View Sanitary Landfill PROJECT NO: 04204027.18

Location MW-33C Sample Date 11/19/2014

#### **CATIONS**

Major Ions	Conversion Factor	mg/L	meq/L
Na	0.04350	4.5	0.1957
K	0.02258	1.5	0.0384
Ca	0.04990	18	0.898
Mg	0.8229	7.4	0.609

Sum of Cations 1.74

#### **ANIONS**

Major Ions	Conversion Factor	mg/L	meq/L
CI	0.02821	2.8	0.079
SO4	0.02082	7.7	0.1604
NO3	0.01613	< 0.05	<0.000806
HCO3	0.01639	79.2	1.298
	1.538		
Sum of lons			3.28
Balance (% Difference)			6.19

Location MW-34A Sample Date 11/19/2014

#### **CATIONS**

Factor	mg/L	meq/L
0.04350	11	0.478
0.02258	<1	< 0.0256
0.04990	1 <i>7</i>	0.848
0.8229	8.5	0.7
	0.02258 0.04990	0.04350 11 0.02258 <1 0.04990 17

Sum of Cations 2.05

#### **ANIONS**

Major Ions	Conversion Factor	mg/L	meq/L	
Cl	0.02821	3	0.0846	
SO4	0.02082	2	0.0417	
NO3	0.01613	0.77	0.01242	
HCO3	0.01639	94.8	1.554	
	Sum of Anions		1.692	
Sum of lons			3.744	
	Balance (% Differ	ence)	9.6	

DESCRIPTION: Fourth Quarter 2014 Cation-Anion Balance

PROJECT: Olympic View Sanitary Landfill PROJECT NO: 04204027.18

Location MW-34C Sample Date 11/19/2014

#### **CATIONS**

Major Ions	Conversion Factor	mg/L	meq/L
Na	0.04350	15	0.652
K	0.02258	2.4	0.0614
Ca	0.04990	25	1.248
Mg	0.8229	11	0.905

Sum of Cations 2.867

#### **ANIONS**

Major Ions	Conversion Factor	mg/L	meq/L
CI	0.02821	4	0.1128
SO4	0.02082	5.1	0.1063
NO3	0.01613	< 0.05	<0.000806
HCO3	0.01639	132	2.163
	2.383		
Sum of Ions			5.25
Balance (% Difference)			9.2

DESCRIPTION: Fourth Quarter 2014 Cation-Anion Balance

PROJECT: Olympic View Sanitary Landfill PROJECT NO: 04204027.18

Location MW-35 Sample Date 11/17/2014

#### **CATIONS**

Major Ions	Conversion Factor	mg/L	meq/L
Na	0.04350	5.2	0.226
K	0.02258	<1	< 0.0256
Са	0.04990	14	0.699
Mg	0.8229	8.7	0.716

Sum of Cations 1.666

#### **ANIONS**

Major Ions	Conversion Factor	mg/L	meq/L
CI	0.02821	1.8	0.0508
SO4	0.02082	2.5	0.0521
NO3	0.01613	0.42	0.00677
HCO3	0.01639	88.8	1.455
	Sum of Anions		1.565
	Sum of lons		3.23
	Balance (% Diffe	rence)	3.136

DESCRIPTION: Fourth Quarter 2014 Cation-Anion Balance

Pl	PROJECT:	Olympic View Sanitary Landfill	PROJECT NO:	04204027.18
С	CLIENT:	Waste Management - Closed Sites	DATE:	March 2015

Location MW-36A Sample Date 11/19/2014

#### **CATIONS**

Conversion Factor	mg/L	meq/L
0.04350	6.5	0.283
0.02258	1.1	0.02813
0.04990	11	0.549
0.8229	7.2	0.592
	Factor 0.04350 0.02258 0.04990	Factor mg/L  0.04350 6.5  0.02258 1.1  0.04990 11

Sum of Cations 1.452

#### **ANIONS**

M	ajor lons	Conversion Factor	mg/L	meq/L
	CI	0.02821	1.5	0.0423
	SO4	0.02082	2.7	0.0563
	NO3	0.01613	0.94	0.01516
	HCO3	0.01639	67.2	1.101
	Sum of Anions			1.215
	Sum of Ions			2.667
		Balance (% Diffe	erence)	8.9

DESCRIPTION: Fourth Quarter 2014 Cation-Anion Balance

PROJECT: Olympic View Sanitary Landfill PROJECT NO: 04204027.18

Location MW-39 Sample Date 11/18/2014

#### **CATIONS**

Major Ions	Conversion Factor	mg/L	meq/L
Na	0.04350	6.9	0.3
K	0.02258	<1	< 0.0256
Ca	0.04990	11	0.549
Mg	0.8229	6.5	0.535

Sum of Cations 1.41

#### **ANIONS**

Major Ions	Conversion Factor	mg/L	meq/L
Cl	0.02821	2.7	0.0762
SO4	0.02082	1.2	0.025
NO3	0.01613	0.19	0.003065
HCO3	0.01639	117.6	1.927
	Sum of Anions		2.03
Sum of Ions			3.44
Balance (% Difference)		-18.08	

DESCRIPTION: Fourth Quarter 2014 Cation-Anion Balance

PROJECT: Olympic View Sanitary Landfill PROJECT NO: 04204027.18

Location MW-4

Sample Date 11/20/2014

#### **CATIONS**

Major Ions	Conversion Factor	mg/L	meq/L
Na	0.04350	5.5	0.239
K	0.02258	<1	< 0.0256
Са	0.04990	9.4	0.469
Mg	0.8229	4.7	0.387

Sum of Cations 1.12

#### **ANIONS**

Major Ions	Conversion Factor	mg/L	meq/L
Cl	0.02821	1.8	0.0508
SO4	0.02082	2.8	0.0583
NO3	0.01613	< 0.05	<0.000806
HCO3	0.01639	56.4	0.924
Sum of Anions			1.034
Sum of lons			2.155
	Balance (% Diffe	erence)	4.01

Location MW-42 Sample Date 11/18/2014

#### **CATIONS**

Major Ions	Conversion Factor	mg/L	meq/L
Na	0.04350	20	0.87
K	0.02258	8.2	0.2097
Ca	0.04990	44	2.196
Mg	0.8229	17	1.4

Sum of Cations 4.67

#### **ANIONS**

Major Ions	Conversion Factor	mg/L	meq/L
CI	0.02821	19	0.536
SO4	0.02082	11	0.229
NO3	0.01613	< 0.05	<0.000806
HCO3	0.01639	276	4.52
	Sum of Anions		5.29
Sum of Ions			9.96
	Balance (% Diff	erence)	-6.17

Location MW-43 Sample Date 11/18/2014

#### **CATIONS**

Major Ions	Conversion Factor	mg/L	meq/L
Na	0.04350	2.8	0.1218
K	0.02258	<1	< 0.0256
Ca	0.04990	4.4	0.2196
Mg	0.8229	1.8	0.148
	Sum of Cations		0.515

#### **ANIONS**

Major Ions	Conversion Factor	mg/L	meq/L
CI	0.02821	1.5	0.0423
SO4	0.02082	2.1	0.04375
NO3	0.01613	0.81	0.01306
HCO3	0.01639	25.2	0.413
	Sum of Anions		0.512
	Sum of lons		1.027
	Balance (% Diff	erence)	0.286

CATION/AN	ION BALANCE						
Location	L-INF						
Sample Date	12/9/2014						
CATIONS							
Major Ions	Conversion Factor	mg/L	meq/L				
Na	0.04350	460	20.0				
K	0.02258	69	1 <i>.</i> <b>76</b> 5				
Ca	0.04990	<b>79</b>	3.94				
Mg	0.8229	47	3.87				
	Sum of Cations		29.6				
ANIONS							
Major Ions	Conversion Factor	mg/L	meq/L				
С		540	15.23				
SO4	0.02082	200	4.17				
NO3	0.01613	48	0.774				
HCO3	0.01639	456	7.47				
	Sum of Anions		27.65				
	Sum of lons		57.2				
	Balance (% Differ	3.386					

DESCRIPTION	Fourth (	Quarter 2014 (	Cation-Anion Balance		
		PROJECT:	Clympic ViewSanitaryLandfill	PROJECT NO.	04204027.18
		CLIENT:	Waste Management - Closed Sites	DATE:	March 2015

Location LP-LCD Sample Date 12/9/2014

#### **CATIONS**

Major Ions	Conversion Factor	mg/L	meq/L
Na	0.04350	790	34.36
K	0.02258	72	1.84
Ca	0.04990	57	2.844
Mg	0.8229	36	2.96

Sum of Cations

#### **ANIONS**

Major Ions	Conversion Factor	mg/L	meq/L									
CI	0.02821	660	18.6									
SO4	0.02082	250	5.21									
NO3	0.01613											
HCO3	0.01639	960.0	15.73									
	Sum of Anions		39.56									
	Sum of Ions		81.6									
	Balance (% Difference)											

DESCRIPTION: Fourth Quarter 2014 Cation-Anion Balance

PF	ROJECT:	Olympic View Sanitary Landfill	PROJECT NO:	04204027.18
CL	LIENT:	Waste Management - Closed Sites	DATE:	March 2015

42.0

# APPENDIX E LANDFILL GAS MONITORING RESULTS

2014 Annual Monitoring Report Olympic View Sanitary Landfill, Kitsap County, Washington Table E1. Historical Results of Methane ( $\mathrm{CH_4}$ ) Measurements

Notes:
OV.GP = Gas Probe
S = Stallow Monitoring Zone
M = Middle Monitoring Zone
D = Deep Monitoring Zone
Detected CH4>0.3% vol.
— Screened interval submerged

04204027.18

Table E2. Historical Results of Carbon Dioxide (CO<sub>2</sub>) Measurements 2014 Annual Monitoring Report Olympic View Sanitary Landfill, Port Orchard, Washington

| Г          |   |  |   |   |   |   |  |   
   
   
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---|
| 3.9        | 4.2   | 5.0  | 3.3   | 5.1   | 7.4   | 5.0   | 3.9  | 4.8   
   
   
   | 6.1   
   
   | 5.1   
   
   
   | 4.4  | 4.6  | 2.4  | 6.2   | 3.8  
   
   | 6.7   
   
  | 7.4  
   
   | 6.9   
   
  | 7.0  
   | 7.1   
   | 1.9   
   | 2.0   | Ξ   | 1.8   
  | 1.9  
   | 2.3   | 1.2   | 1.5   
  | 1.5   | 1.8   | 19.1  |
| 7.3        | 10.1  | 6.1  | 2.2   | 9.5   | 7.8   | 4.0   | 6.2  | 3.5   
   
   
   | 1.7   
   
   | 3.4   
   
   
   | 6.2  | 5.2  | 8.8  | 3.9   | 0.3  
   
   | 1.3   
   
  | 0.8  
   
   | 0.2   
   
  | 1.9  
   | 2.8   
   | 5.1   
   | 2.4   | 2.4   | 2.9   
  | 14.3   
   | 12.4  | 8.9   | 8.5   
  | 18.1  | 12.5  | 8.8   |
| 6.8        | 9.3   | 9.9  | 6.4   | 8.5   | 7.8   | 5.3   | 5.1  | 7.5   
   
   
   | 7.9   
   
   | 5.7   
   
   
   | ı  | 5.1  | 8.9  | 6.4   | 0.3  
   
   | 3.4   
   
  | 10.2   
   
   | 7.3   
   
  | 0.9  
   | 10.0  
   | 11.7  
   | 8.2   | 8.0   | 6.6   
  | 8.6  
   | 7.5   | 9.9   | 8.2   
  | 11.0  | 8.1   | 0.1   |
| 0.1        | 1.3   | ::   | 3.2   | 3.7   | 3.1   | 0.1   | 0.8  | 3.0   
   
   
   | 1.6   
   
   | 1.1   
   
   
   | 2.8  | I  | I  | I   | I  
   
   | 19.5  
   
  | 20.7   
   
   | 14.9  
   
  | 15.6   
   | 3.3   
   | 13.9  
   | 12.4  | 3.6   | 12.4  
  | 3.9  
   | 4.3   | 5.0   | 4.2   
  | 0.9   | 9.9   | 8.2   |
| 3.5        | 3.3   | 3.3  | 3.5   | 3.8   | 3.1   | 2.6   | 2.4  | 2.1   
   
   
   | 2.1   
   
   | 1.7   
   
   
   | 3.2  | 2.0  | 1.8  | 3.0   | 3.1  
   
   | 3.5   
   
  | 3.2  
   
   | 3.0   
   
  | 3.2  
   | 3.3   
   | 3.8   
   | 3.8   | 4.0   | 4.2   
  | 4.7  
   | 4.4   | 4.7   | 5.7   
  | 5.9   | 9.9   | 7.5   |
| 3.6        | 2.9   | 3.7  | 3.3   | 3.9   | 3.5   | 2.3   | 2.3  | 2.9   
   
   
   | 3.5   
   
   | 2.6   
   
   
   | 3.0  | 2.0  | 2.9  | 3.4   | 3  
   
   | 3.9   
   
  | 1.1  
   
   | 2.7   
   
  | 1.2  
   | 1.5   
   | 3.4   
   | 2.9   | 2.1   | 2.9   
  | 4.2  
   | 3.4   | 2.3   | 2.9   
  | 4.4   | 3.6   | 2.7   |
| 1.7        | 1.6   | 1  | ı   | 1.7   | 0.4   | 0.8   | 0.8  | 1.2   
   
   
   | I   
   
   | I   
   
   
   | 0.1  | I  | I  | I   | I  
   
   | 1.0   
   
  | 0.7  
   
   | 0.7   
   
  | 4.1  
   | 0.2   
   | 2.2   
   | 1.5   | 1.3   | 1.8   
  | 2.3  
   | 1.0   | 1.1   | 2.2   
  | 2.2   | 9.0   | :   |
| 1.2        | 1.3   | 1.7  | 2.2   | 1.9   | 1.7   | 1.0   | 6.0  | 1.2   
   
   
   | 1.5   
   
   | 1.1   
   
   
   | 1.9  | 1.0  | 2.0  | 6.0   | 1.7  
   
   | 1.8   
   
  | 1.3  
   
   | 2.2   
   
  | 1.3  
   | 1.8   
   | 2.7   
   | 2.3   | 4.  | 2.3   
  | 2.6  
   | 2.0   | 0.8   | 5.3   
  | 3.1   | 2.5   | 2.1   |
| 1.3        | 1.2   | 2.0  | 1.9   | 1.7   | 1.8   | 1.9   | 1.1  | 1.3   
   
   
   | 1.8   
   
   | 2.2   
   
   
   | 1.9  | 1.4  | 0.7  | 2.3   | 2.4  
   
   | 2.2   
   
  | 1.9  
   
   | 2.3   
   
  | 1.5  
   | 1.5   
   | 2.4   
   | 2.3   | 1.5   | 2.3   
  | 3.1  
   | 1.8   | 1.0   | 5.3   
  | 2.7   | 2.7   | 2.2   |
| 3.5        | 3.0   | I  | ı   | 3.6   | 0.4   | 2.2   | 2.4  | 2.9   
   
   
   | 2.8   
   
   | ı   
   
   
   | 2.4  | ı  | ı  | I   | ı  
   
   | 2.1   
   
  | 0.4  
   
   | 1.6   
   
  | 1.7  
   | 0.2   
   | 2.0   
   | 1.6   | 4.1   | 1.6   
  | 2.1  
   | 1.8   | 1.7   | 1.9   
  | 1.7   | 1.5   | 1.5   |
| 3.2        | 3.4   | 4.2  | 2.5   | 3.5   | 3.9   | 2.4   | 1.8  | 2.2   
   
   
   | 2.8   
   
   | 2.1   
   
   
   | 1.7  | 1.3  | 1.8  | 2.1   | 1.4  
   
   | 2.4   
   
  | 2.0  
   
   | 2.5   
   
  | 1.9  
   | 1.8   
   | 2.6   
   | 2.2   | 1.6   | 2.0   
  | 2.8  
   | 2.5   | 2.0   | 2.3   
  | 2.7   | 2.7   | 1.8   |
| 6.0        | 0.7   | 1.0  | 6.0   | 6.0   | 2.0   | 2.0   | 2.0  | 2.0   
   
   
   | 9.0   
   
   | 9.0   
   
   
   | 2.0  | I  | I  | I   | I  
   
   | 2.8   
   
  | 1.0  
   
   | 2.0   
   
  | 2.0  
   | 0.4   
   | 6.0   
   | 9.0   | 9.0   | 1.7   
  | 0.8  
   | 0.7   | 0.7   | 0.8   
  | 0.7   | 0.7   | 0.7   |
| 1.0        | 0.8   | 1.2  | 0.8   | 7   | 1.1   | 0.8   | 0.7  | 6.0   
   
   
   | 0.8   
   
   | 0.8   
   
   
   | 0.7  | 1.3  | 0.7  | 0.7   | 0.7  
   
   | 3.2   
   
  | 6.0  
   
   | 6.0   
   
  | 0.2  
   | 0.1   
   | 6.0   
   | 9.0   | 9.0   | 2.9   
  | 1.0  
   | 0.8   | 9.0   | 6.0   
  | 1.0   | 0.9   | 0.7   |
| 1.8        | 1.6   | 1.8  | 1.8   | 1.7   | 1.5   | 1.7   | 1.5  | 1.6   
   
   
   | 1.4   
   
   | 1.7   
   
   
   | 1.7  | I  | I  | I   | I  
   
   | 1.7   
   
  | 1.5  
   
   | 1.6   
   
  | 1.7  
   | 1.7   
   | 2.0   
   | 1.9   | 4.1   | 0.7   
  | 1.9  
   | 1.6   | 1.6   | 1.8   
  | 1.6   | 1.7   | 2.0   |
| 2.6        | 2.0   | 2.9  | 1.8   | 2.6   | 2.9   | 2.3   | 1.7  | 1.9   
   
   
   | 2.5   
   
   | 2.6   
   
   
   | 2.3  | 3.2  | 1.7  | 3.0   | 2.1  
   
   | 2.3   
   
  | 2.1  
   
   | 3.5   
   
  | 2.5  
   | 2.3   
   | 2.7   
   | 3.2   | 2.1   | 0.7   
  | 3.0  
   | 2.9   | 2.3   | 2.2   
  | 2.4   | 3.2   | 2.5   |
| 2.6        | 6.1   | 4.0  | 2.0   | 5.4   | 4.5   | 2.6   | 2.5  | 2.8   
   
   
   | 4.6   
   
   | 3.1   
   
   
   | 1.7  | 5.5  | 4.7  | 3.0   | 0.5  
   
   | 2.4   
   
  | 4.1  
   
   | 0.2   
   
  | 2.1  
   | 6.1   
   | 8.9   
   | 4.9   | 2.8   | 7.0   
  | 6.2  
   | 4.6   | 2.6   | 1.2   
  | 7.1   | 4.3   | 0.8   |
| 8.3        | 11.2  | 8.9  | 5.9   | 9.6   | 9.6   | 6.2   | 4.2  | 8.3   
   
   
   | 9.6   
   
   | 0.9   
   
   
   | 4.2  | 1.5  | 2.6  | 9.9   | 1.5  
   
   | 8.3   
   
  | 11.0   
   
   | 8.0   
   
  | 5.1  
   | 6.9   
   | 11.3  
   | 7.6   | 7.7   | 9.2   
  | 10.3   
   | 8.5   | 4.9   | 7.7   
  | 11.7  | 8.1   | 4.7   |
| 12/29/2014 | 9/24/2014   | 6/16/2014  | 3/28/2014   | 12/13/2013  | 7/13/2013   | 5/13/2013   | 2/13/2013  | 11/20/2012  
   
   
   | 8/20/2012   
   
   | 5/18/2012   
   
   
   | 3/12/2012  | 12/22/2011   | 9/27/2011  | 6/29/2011   | 3/16/2011  
   
   | 12/22/2010  
   
  | 9/27/2010  
   
   | 6/29/2010   
   
  | 3/16/2010  
   | 12/8/2009   
   | 9/4/2009  
   | 6/2/2009  | 3/3/2009  | 12/1/2008   
  | 9/5/2008   
   | 6/23/2008   | 3/5/2008  | 12/28/2007  
  | 9/30/2007   | 6/15/2007   | 3/30/2007   |
|            | 8.3 2.6 2.6 1.8 1.0 0.9 3.2 3.5 1.3 1.2 1.7 3.6 3.5 0.1 6.8 7.3 7.3 | 8.3 2.6 2.6 1.8 1.0 0.9 3.2 3.5 1.3 1.2 1.7 3.6 3.5 0.1 6.8 7.3 7.1 1.1 1.2 6.1 2.0 1.6 0.8 0.7 3.4 3.0 1.2 1.2 1.3 1.6 2.9 3.3 1.3 9.3 1.0 10.1 | 1         8.3         2.6         2.6         1.8         1.0         0.9         3.2         1.3         1.2         1.7         3.6         3.5         0.1         6.8         7.3         7.3           11.2         6.1         2.0         1.6         0.8         0.7         3.4         3.0         1.2         1.3         1.6         2.9         3.3         1.3         9.3         10.1         8.1           8.9         4.0         2.9         1.8         1.2         1.0         4.2         -         2.0         1.7         -         3.7         3.3         1.1         6.6         6.1 | 1         8.3         2.6         2.6         1.8         1.0         0.9         3.2         1.3         1.2         1.7         3.6         3.5         0.1         6.8         7.3 | 1         8.3         2.6         2.6         1.8         1.0         0.9         3.2         1.3         1.2         1.7         3.6         3.5         0.1         6.8         7.3 | 1         8.3         2.6         2.6         1.8         1.0         0.9         3.2         1.3         1.2         1.7         3.6         3.5         0.1         6.8         7.3 | 83         26         26         18         10         0.9         32         13         12         17         36         35         01         68         73 | 8.3         2.6         2.6         1.8         1.0         0.9         3.2         1.3         1.2         1.7         3.6         3.5         0.1         6.8         7.3 <th>8.3         2.6         2.6         1.8         1.0         0.9         3.2         1.3         1.2         1.7         3.6         3.5         0.1         6.8         7.3<th>8.3         2.6         2.6         1.8         1.0         0.9         3.2         1.3         1.2         1.7         3.6         3.5         0.1         6.1         7.3<th>83         26         26         18         10         69         32         13         12         17         36         35         01         68         73           11,2         6,1         6,1         10         08         07         34         30         12         15         16         13         13         13         64         73         101    
    101         101</th><th>83         26         26         18         10         69         32         13         12         17         36         35         01         68         7.3           11,2         6.1         2.0         1.2         1.3         1.2         1.4         3.6         3.3         1.3         6.8         7.3           11,2         6.1         2.0         1.4         3.0         1.3         1.3         1.3         6.4         5.3         1.1         6.8         7.3         1.3         1.3         1.1         6.0         6.1         1.1         6.4         1.2         1.3         1.4         8.3         1.3         1.3         1.3         1.1         6.4         1.2         1.4         2.2         —         3.3         3.2         6.4         5.2         9.6         6.1         8.1         9.5&lt;</th><th>83         26         26         18         10         69         32         13         12         17         36         35         01         68         7.3           11.2         6.1         6.1         1.2         1.3         1.2         1.4         3.5         1.3         6.1         6.8         7.3           11.2         6.1         2.0         1.6         0.8         0.7         4.2          3.7         3.3         1.3         6.1         6.1         10.1         10.1         1.1         0.9         2.5          1.7         1.7         1.7         3.9         3.3         3.2         6.1         8.1         6.0         6.1         1.1         0.9         2.2          1.7         1.7         1.7         3.9         3.5         6.1         3.2         6.1         3.7         8.3         3.2         8.3         3.2         8.3</th><th>83         26         26         18         10         69         32         13         12         17         36         35         01         68         73         73           11,2         6,1         20         16         08         07         34         30         12         16         37         33         13         66         61         73         101         78         101         &lt;</th><th>83         26         26         18         10         69         32         13         12         17         36         35         01         68         7.3           11.2         6.1         6.1         1.2         1.3         1.2         1.3         6.4         7.3         10.1           11.2         6.1         2.0         1.6         0.8         0.7         3.4         3.0         1.3         1.3         6.4         6.1         10.1           5.9         1.6         1.6         0.8         0.9         2.5         —         1.3         1.5         6.4         5.2         —         3.3         3.2         6.4         5.0         6.0<th>8.3         2.6         1.6         1.0         0.9         3.2         1.3         1.7         3.6         3.5         0.1         6.1         7.3<th>8.3         2.6         2.6         1.8         1.0         0.9         3.2         1.3         1.2         1.5         3.5         0.1         6.8         7.3         1.3         7.3         1.3         6.8         7.3         1.3         6.8         7.3         1.3         6.8         7.3         1.3         6.8         7.3         1.3         6.8         7.3         1.3         6.8         7.3         1.3         6.8         7.3         1.1         6.8         7.3         1.3         1.3         6.9         7.3         1.1         6.8         7.3         1.3         1.3         1.3         6.9         1.0         1.0         1.0         7.2         1.2<th>8.3         2.6         1.6         1.0         0.9         3.2         1.3         1.2         1.7         3.6         3.5         0.1         6.8         7.3         1.1         6.8         7.3         1.1         6.8         7.3         1.1         6.8         7.3         1.1         6.8         7.3         1.1         6.8         7.3         1.1         6.8         7.3         1.1         6.4         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         3.3         3.3         1.1         6.4         6.2         6.4         3.7         3.3         1.1         6.4         6.2         6.4         3.2         1.2<th>8.3         2.6         1.6         1.0         0.9         3.2         1.3         1.2         1.5         1.0         0.6         9.3         1.3         1.2         1.5         1.0         0.6         0.7         1.0<th>8.3         2.6         1.6         1.0         0.9         3.2         1.3         1.2         1.5         1.6         3.5         1.3         1.3         3.5         1.3         1.5         1.0         0.0         1.0         1.0         1.2         1.3         1.3         1.3         1.3         0.1         0.0         1.0     
   1.0         1.0<th>8.3         2.6         1.8         1.0         0.9         3.5         1.3         1.3         1.5         1.0         6.8         7.3           8.9         4.0         2.0         1.8         1.0         0.0         3.4         3.5         1.3         1.3         1.3         6.4         7.3         1.3         1.0         6.8         7.3         1.0         8.9         1.0         1.0         6.7         1.0         1.0         1.0         6.7         1.0         1.0         6.0         1.0         6.0         1.0         6.0         1.0         6.0         1.0         6.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         1.0         1.0         6.0         6.0         1.0</th><th>8.3         6.4         7.3         8.3         1.0         0.9         3.2         3.5         1.2         1.6         0.0         0.0         3.2         3.5         1.2         1.6         0.0         0.0         0.0         3.2         1.2         1.2         1.6         0.0         0.0         0.0         4.2         —         2.0         1.3         1.3         0.3         1.3         0.1         0.0         0.0         0.0         4.2         —         2.0         1.7         3.5         3.3         1.3         0.1         0.0         0.0         0.0         0.0         1.0         0.0</th><th>8.3         2.6         1.6         0.9         3.2         1.3         1.2         1.7         3.6         3.5         0.1         6.8         7.3           8.9         4.0         2.0         1.0         3.4         3.2         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.0         9.9         1.0         1.0         1.2         1.7         1.7         1.9         3.3         3.5         1.3         1.3         1.0         6.0         1.0</th><th>8.3         2.6         1.6<th>8.3         2.6         1.6         1.0         0.9         3.4         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         0.5         1.3         1.3         1.3         1.3         0.3         1.3         1.3         0.3         1.3         0.3         1.3         0.3<th>8.3         2.6         1.6         1.6         0.6         3.4         3.5         1.3         1.5         0.6         0.7         3.4         3.5         1.2         3.5         3.5         3.5         1.1         6.6         7.3         1.2<th>8.3         2.6         1.8         1.0         0.9         3.2         3.5         1.3         1.5         1.6         0.6         0.7         3.4         3.6         1.2         1.7         3.6         3.5         3.3         1.1         6.6         7.2           8.6         4.0         2.0         1.6         0.0         0.7         3.4         2.0         1.2         1.3         1.3         1.3         6.0         0.0         0.0         0.0         0.0         1.2         1.0         1.0         0.0</th><th>8.3         2.6         1.8         1.0         0.9         3.2         3.5         1.3         1.4         1.0         0.9         3.4         3.6         1.3         1.4         3.6         3.6         1.2         1.3         1.4         3.6         1.2         1.3         1.4         1.4         0.6         0.8         0.7         3.4         1.2         1.2         1.4         0.6         0.8         0.7         0.8         1.2         1.4         3.6         3.7         3.2         3.3         1.1         0.6         0.1         0.1         0.2         0.2         1.2         1.2         1.2         3.7         3.2<th>8.3         6.1         8.4         8.2         8.3         1.2         1.6         9.9         3.2         3.2         1.5         1.6         9.9         3.2         3.2         1.5         1.6         9.9         3.2         3.2         1.2         9.9         9.2         1.2         1.2         1.6         9.9         9.2         1.2         1.7         3.2         3.3        
3.1         6.6         9.1         9.0         9.2         2.0         1.2         1.7         3.2         3.2         3.1         6.6         9.1         9.0         9.2         9.2         1.2         1.7         3.3         3.3         3.1         6.0         9.0         9.0         9.2         1.2         1.7         9.2         3.2         3.3         3.1         6.0         9.2<th>8.3         2.6         1.8         1.0         0.9         3.2         3.3         1.7         3.6         3.5         0.1         6.8         7.3           8.3         4.0         2.0         1.0         0.9         3.2         1.3         1.0         0.6         0.1         0.0         0.0         3.2         1.2         1.0         0.0         0.0         0.0         3.2         1.0         1.0         0.0         0.0         0.0         0.0         1.0         0.0</th><th>1         1         2         1         0         0         3         3         1         1         0         0         3         3         1         3         1         3         4</th></th></th></th></th></th></th></th></th></th></th></th></th></th> | 8.3         2.6         2.6         1.8         1.0         0.9         3.2         1.3         1.2         1.7         3.6         3.5         0.1         6.8         7.3 <th>8.3         2.6         2.6         1.8         1.0         0.9         3.2         1.3         1.2         1.7         3.6         3.5         0.1         6.1         7.3<th>83         26         26         18         10         69         32         13         12         17         36         35         01         68         73           11,2         6,1         6,1         10         08         07         34         30         12         15         16         13         13         13         64         73         101</th><th>83         26         26         18         10         69         32         13         12         17         36         35         01         68         7.3           11,2         6.1         2.0         1.2         1.3         1.2         1.4         3.6         3.3         1.3         6.8         7.3           11,2         6.1         2.0         1.4         3.0         1.3         1.3         1.3         6.4         5.3         1.1         6.8         7.3         1.3         1.3         1.1         6.0         6.1         1.1         6.4         1.2         1.3         1.4         8.3         1.3         1.3         1.3         1.1         6.4         1.2         1.4         2.2         —         3.3         3.2         6.4         5.2         9.6         6.1         8.1         9.5&lt;</th><th>83         26         26         18         10         69         32         13         12         17         36         35         01         68         7.3           11.2         6.1         6.1         1.2         1.3         1.2         1.4         3.5         1.3         6.1         6.8         7.3           11.2         6.1         2.0         1.6         0.8         0.7         4.2          3.7         3.3         1.3         6.1         6.1         10.1         10.1         1.1         0.9         2.5          1.7         1.7         1.7         3.9         3.3         3.2         6.1         8.1         6.0         6.1         1.1         0.9         2.2          1.7         1.7         1.7         3.9         3.5         6.1         3.2         6.1         3.7         8.3         3.2         8.3         3.2         8.3</th><th>83         26         26         18         10         69         32         13         12         17         36         35         01         68         73         73           11,2         6,1         20         16         08         07         34         30         12         16         37         33         13         66         61         73         101         78         101         &lt;</th><th>83         26         26         18         10         69         32  
      13         12         17         36         35         01         68         7.3           11.2         6.1         6.1         1.2         1.3         1.2         1.3         6.4         7.3         10.1           11.2         6.1         2.0         1.6         0.8         0.7         3.4         3.0         1.3         1.3         6.4         6.1         10.1           5.9         1.6         1.6         0.8         0.9         2.5         —         1.3         1.5         6.4         5.2         —         3.3         3.2         6.4         5.0         6.0<th>8.3         2.6         1.6         1.0         0.9         3.2         1.3         1.7         3.6         3.5         0.1         6.1         7.3<th>8.3         2.6         2.6         1.8         1.0         0.9         3.2         1.3         1.2         1.5         3.5         0.1         6.8         7.3         1.3         7.3         1.3         6.8         7.3         1.3         6.8         7.3         1.3         6.8         7.3         1.3         6.8         7.3         1.3         6.8         7.3         1.3         6.8         7.3         1.3         6.8         7.3         1.1         6.8         7.3         1.3         1.3         6.9         7.3         1.1         6.8         7.3         1.3         1.3         1.3         6.9         1.0         1.0         1.0         7.2         1.2<th>8.3         2.6         1.6         1.0         0.9         3.2         1.3         1.2         1.7         3.6         3.5         0.1         6.8         7.3         1.1         6.8         7.3         1.1         6.8         7.3         1.1         6.8         7.3         1.1         6.8         7.3         1.1         6.8         7.3         1.1         6.8         7.3         1.1         6.4         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         3.3         3.3         1.1         6.4         6.2         6.4         3.7         3.3         1.1         6.4         6.2         6.4         3.2         1.2<th>8.3         2.6         1.6         1.0         0.9         3.2         1.3         1.2         1.5         1.0         0.6         9.3         1.3         1.2         1.5         1.0         0.6         0.7         1.0<th>8.3         2.6         1.6         1.0         0.9         3.2         1.3         1.2         1.5         1.6         3.5         1.3         1.3         3.5         1.3         1.5         1.0         0.0         1.0         1.0         1.2         1.3         1.3         1.3         1.3         0.1         0.0         1.0<th>8.3         2.6         1.8         1.0         0.9         3.5         1.3         1.3         1.5         1.0         6.8         7.3           8.9         4.0         2.0         1.8         1.0         0.0         3.4         3.5         1.3         1.3         1.3         6.4         7.3         1.3         1.0         6.8         7.3         1.0         8.9         1.0         1.0         6.7         1.0         1.0         1.0         6.7         1.0         1.0         6.0         1.0         6.0         1.0         6.0         1.0         6.0         1.0         6.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         1.0         1.0         6.0         6.0         1.0</th><th>8.3         6.4         7.3         8.3         1.0         0.9         3.2         3.5         1.2         1.6         0.0         0.0         3.2         3.5         1.2         1.6         0.0         0.0         0.0         3.2         1.2         1.2         1.6         0.0         0.0         0.0         4.2         —         2.0         1.3         1.3         0.3         1.3         0.1         0.0         0.0         0.0         4.2         —         2.0         1.7         3.5         3.3         1.3         0.1         0.0         0.0         0.0         0.0         1.0         0.0</th><th>8.3         2.6         1.6         0.9         3.2         1.3         1.2         1.7         3.6         3.5         0.1         6.8         7.3           8.9         4.0         2.0         1.0         3.4         3.2         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.0         9.9         1.0         1.0         1.2         1.7         1.7         1.9         3.3         3.5         1.3         1.3         1.0         6.0         1.0 
       1.0         1.0</th><th>8.3         2.6         1.6<th>8.3         2.6         1.6         1.0         0.9         3.4         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         0.5         1.3         1.3         1.3         1.3         0.3         1.3         1.3         0.3         1.3         0.3         1.3         0.3<th>8.3         2.6         1.6         1.6         0.6         3.4         3.5         1.3         1.5         0.6         0.7         3.4         3.5         1.2         3.5         3.5         3.5         1.1         6.6         7.3         1.2<th>8.3         2.6         1.8         1.0         0.9         3.2         3.5         1.3         1.5         1.6         0.6         0.7         3.4         3.6         1.2         1.7         3.6         3.5         3.3         1.1         6.6         7.2           8.6         4.0         2.0         1.6         0.0         0.7         3.4         2.0         1.2         1.3         1.3         1.3         6.0         0.0         0.0         0.0         0.0         1.2         1.0         1.0         0.0</th><th>8.3         2.6         1.8         1.0         0.9         3.2         3.5         1.3         1.4         1.0         0.9         3.4         3.6         1.3         1.4         3.6         3.6         1.2         1.3         1.4         3.6         1.2         1.3         1.4         1.4         0.6         0.8         0.7         3.4         1.2         1.2         1.4         0.6         0.8         0.7         0.8         1.2         1.4         3.6         3.7         3.2         3.3         1.1         0.6         0.1         0.1         0.2         0.2         1.2         1.2         1.2         3.7         3.2<th>8.3         6.1         8.4         8.2         8.3         1.2         1.6         9.9         3.2         3.2         1.5         1.6         9.9         3.2         3.2         1.5         1.6         9.9         3.2         3.2         1.2         9.9         9.2         1.2         1.2         1.6         9.9         9.2         1.2         1.7         3.2         3.3         3.1         6.6         9.1         9.0         9.2         2.0         1.2         1.7         3.2         3.2         3.1         6.6         9.1         9.0         9.2         9.2         1.2         1.7         3.3         3.3         3.1         6.0         9.0         9.0         9.2         1.2         1.7         9.2         3.2         3.3         3.1         6.0         9.2<th>8.3         2.6         1.8         1.0         0.9         3.2         3.3         1.7         3.6         3.5         0.1         6.8         7.3           8.3         4.0         2.0         1.0         0.9         3.2         1.3         1.0         0.6         0.1         0.0         0.0         3.2         1.2         1.0         0.0         0.0         0.0         3.2         1.0         1.0         0.0         0.0         0.0         0.0         1.0         0.0</th><th>1         1         2         1         0         0         3         3         1         1         0         0         3         3         1         3         1         3         4</th></th></th></th></th></th></th></th></th></th></th></th></th> | 8.3         2.6         2.6         1.8         1.0         0.9         3.2         1.3         1.2         1.7         3.6         3.5         0.1         6.1         7.3 
       7.3         7.3 <th>83         26         26         18         10         69         32         13         12         17         36         35         01         68         73           11,2         6,1         6,1         10         08         07         34         30         12         15         16         13         13         13         64         73         101</th> <th>83         26         26         18         10         69         32         13         12         17         36         35         01         68         7.3           11,2         6.1         2.0         1.2         1.3         1.2         1.4         3.6         3.3         1.3         6.8         7.3           11,2         6.1         2.0         1.4         3.0         1.3         1.3         1.3         6.4         5.3         1.1         6.8         7.3         1.3         1.3         1.1         6.0         6.1         1.1         6.4         1.2         1.3         1.4         8.3         1.3         1.3         1.3         1.1         6.4         1.2         1.4         2.2         —         3.3         3.2         6.4         5.2         9.6         6.1         8.1         9.5&lt;</th> <th>83         26         26         18         10         69         32         13         12         17         36         35         01         68         7.3           11.2         6.1         6.1         1.2         1.3         1.2         1.4         3.5         1.3         6.1         6.8         7.3           11.2         6.1         2.0         1.6         0.8         0.7         4.2          3.7         3.3         1.3         6.1         6.1         10.1         10.1         1.1         0.9         2.5          1.7         1.7         1.7         3.9         3.3         3.2         6.1         8.1         6.0         6.1         1.1         0.9         2.2          1.7         1.7         1.7         3.9         3.5         6.1         3.2         6.1         3.7         8.3         3.2         8.3         3.2         8.3</th> <th>83         26         26         18         10         69         32         13         12         17         36         35         01         68         73         73           11,2         6,1         20         16         08         07         34         30         12         16         37         33         13         66         61         73         101         78         101         &lt;</th> <th>83         26         26         18         10         69         32         13         12         17         36         35         01         68         7.3           11.2         6.1         6.1         1.2         1.3         1.2         1.3         6.4         7.3         10.1           11.2         6.1         2.0         1.6         0.8         0.7         3.4         3.0         1.3         1.3         6.4         6.1         10.1           5.9         1.6         1.6         0.8         0.9         2.5         —         1.3         1.5         6.4         5.2         —         3.3         3.2         6.4         5.0         6.0<th>8.3         2.6         1.6         1.0         0.9         3.2         1.3         1.7         3.6         3.5         0.1         6.1         7.3<th>8.3         2.6         2.6         1.8         1.0         0.9         3.2         1.3         1.2         1.5         3.5         0.1         6.8         7.3         1.3         7.3         1.3         6.8         7.3         1.3         6.8         7.3         1.3         6.8         7.3         1.3         6.8         7.3         1.3         6.8         7.3         1.3         6.8         7.3         1.3         6.8         7.3         1.1         6.8         7.3         1.3         1.3         6.9         7.3         1.1         6.8         7.3         1.3         1.3         1.3         6.9         1.0         1.0         1.0         7.2         1.2<th>8.3         2.6         1.6         1.0         0.9         3.2         1.3         1.2         1.7         3.6         3.5         0.1         6.8         7.3         1.1         6.8         7.3         1.1         6.8         7.3         1.1         6.8         7.3         1.1         6.8         7.3         1.1         6.8         7.3         1.1         6.8         7.3         1.1         6.4         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         3.3         3.3         1.1         6.4         6.2         6.4         3.7         3.3         1.1         6.4         6.2         6.4         3.2         1.2<th>8.3         2.6         1.6         1.0         0.9         3.2         1.3         1.2         1.5         1.0         0.6        
9.3         1.3         1.2         1.5         1.0         0.6         0.7         1.0<th>8.3         2.6         1.6         1.0         0.9         3.2         1.3         1.2         1.5         1.6         3.5         1.3         1.3         3.5         1.3         1.5         1.0         0.0         1.0         1.0         1.2         1.3         1.3         1.3         1.3         0.1         0.0         1.0<th>8.3         2.6         1.8         1.0         0.9         3.5         1.3         1.3         1.5         1.0         6.8         7.3           8.9         4.0         2.0         1.8         1.0         0.0         3.4         3.5         1.3         1.3         1.3         6.4         7.3         1.3         1.0         6.8         7.3         1.0         8.9         1.0         1.0         6.7         1.0         1.0         1.0         6.7         1.0         1.0         6.0         1.0         6.0         1.0         6.0         1.0         6.0         1.0         6.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         1.0         1.0         6.0         6.0         1.0</th><th>8.3         6.4         7.3         8.3         1.0         0.9         3.2         3.5         1.2         1.6         0.0         0.0         3.2         3.5         1.2         1.6         0.0         0.0         0.0         3.2         1.2         1.2         1.6         0.0         0.0         0.0         4.2         —         2.0         1.3         1.3         0.3         1.3         0.1         0.0         0.0         0.0         4.2         —         2.0         1.7         3.5         3.3         1.3         0.1         0.0         0.0         0.0         0.0         1.0         0.0</th><th>8.3         2.6         1.6         0.9         3.2         1.3         1.2         1.7         3.6         3.5         0.1         6.8         7.3           8.9         4.0         2.0         1.0         3.4         3.2         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.0         9.9         1.0         1.0         1.2         1.7         1.7         1.9         3.3         3.5         1.3         1.3         1.0         6.0         1.0</th><th>8.3         2.6         1.6<th>8.3         2.6         1.6         1.0         0.9         3.4         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         0.5         1.3         1.3         1.3         1.3         0.3         1.3         1.3         0.3         1.3         0.3         1.3         0.3<th>8.3         2.6         1.6         1.6         0.6         3.4         3.5         1.3         1.5         0.6         0.7         3.4         3.5         1.2         3.5         3.5         3.5         1.1         6.6         7.3         1.2<th>8.3         2.6         1.8         1.0         0.9         3.2         3.5         1.3         1.5         1.6         0.6         0.7         3.4         3.6         1.2         1.7         3.6         3.5         3.3         1.1         6.6         7.2           8.6         4.0         2.0         1.6         0.0         0.7         3.4         2.0         1.2         1.3         1.3         1.3         6.0         0.0         0.0         0.0         0.0         1.2         1.0         1.0         0.0        
0.0         0.0</th><th>8.3         2.6         1.8         1.0         0.9         3.2         3.5         1.3         1.4         1.0         0.9         3.4         3.6         1.3         1.4         3.6         3.6         1.2         1.3         1.4         3.6         1.2         1.3         1.4         1.4         0.6         0.8         0.7         3.4         1.2         1.2         1.4         0.6         0.8         0.7         0.8         1.2         1.4         3.6         3.7         3.2         3.3         1.1         0.6         0.1         0.1         0.2         0.2         1.2         1.2         1.2         3.7         3.2<th>8.3         6.1         8.4         8.2         8.3         1.2         1.6         9.9         3.2         3.2         1.5         1.6         9.9         3.2         3.2         1.5         1.6         9.9         3.2         3.2         1.2         9.9         9.2         1.2         1.2         1.6         9.9         9.2         1.2         1.7         3.2         3.3         3.1         6.6         9.1         9.0         9.2         2.0         1.2         1.7         3.2         3.2         3.1         6.6         9.1         9.0         9.2         9.2         1.2         1.7         3.3         3.3         3.1         6.0         9.0         9.0         9.2         1.2         1.7         9.2         3.2         3.3         3.1         6.0         9.2<th>8.3         2.6         1.8         1.0         0.9         3.2         3.3         1.7         3.6         3.5         0.1         6.8         7.3           8.3         4.0         2.0         1.0         0.9         3.2         1.3         1.0         0.6         0.1         0.0         0.0         3.2         1.2         1.0         0.0         0.0         0.0         3.2         1.0         1.0         0.0         0.0         0.0         0.0         1.0         0.0</th><th>1         1         2         1         0         0         3         3         1         1         0         0         3         3         1         3         1         3         4</th></th></th></th></th></th></th></th></th></th></th></th> | 83         26         26         18         10         69         32         13         12         17         36         35         01         68         73           11,2         6,1         6,1         10         08         07         34         30         12         15         16         13         13         13         64         73         101 | 83         26         26         18         10         69         32         13         12         17         36         35         01         68         7.3           11,2         6.1         2.0         1.2         1.3         1.2         1.4         3.6         3.3         1.3         6.8         7.3           11,2         6.1         2.0         1.4         3.0         1.3         1.3         1.3         6.4         5.3         1.1         6.8         7.3         1.3         1.3         1.1         6.0         6.1         1.1         6.4         1.2         1.3         1.4         8.3         1.3         1.3         1.3         1.1         6.4         1.2         1.4         2.2         —         3.3         3.2         6.4         5.2         9.6         6.1         8.1         9.5< | 83         26         26         18         10         69         32         13         12         17         36         35         01         68         7.3           11.2         6.1         6.1         1.2         1.3         1.2         1.4         3.5         1.3         6.1         6.8         7.3           11.2         6.1         2.0         1.6         0.8         0.7         4.2          3.7         3.3         1.3         6.1         6.1         10.1         10.1         1.1         0.9         2.5          1.7         1.7         1.7         3.9         3.3         3.2         6.1         8.1         6.0         6.1         1.1         0.9         2.2          1.7         1.7         1.7         3.9         3.5         6.1         3.2         6.1         3.7         8.3         3.2         8.3         3.2         8.3 | 83         26         26         18         10         69         32         13         12         17         36         35         01         68         73         73           11,2         6,1         20         16         08         07         34         30         12         16         37         33         13         66         61         73         101         78         101         < | 83         26         26         18         10         69         32         13         12         17         36         35         01         68         7.3           11.2         6.1         6.1         1.2         1.3         1.2         1.3         6.4         7.3         10.1           11.2         6.1         2.0         1.6         0.8         0.7         3.4         3.0         1.3         1.3         6.4         6.1         10.1           5.9         1.6         1.6         0.8         0.9         2.5         —         1.3         1.5         6.4         5.2         —         3.3   
     3.2         6.4         5.0         6.0 <th>8.3         2.6         1.6         1.0         0.9         3.2         1.3         1.7         3.6         3.5         0.1         6.1         7.3<th>8.3         2.6         2.6         1.8         1.0         0.9         3.2         1.3         1.2         1.5         3.5         0.1         6.8         7.3         1.3         7.3         1.3         6.8         7.3         1.3         6.8         7.3         1.3         6.8         7.3         1.3         6.8         7.3         1.3         6.8         7.3         1.3         6.8         7.3         1.3         6.8         7.3         1.1         6.8         7.3         1.3         1.3         6.9         7.3         1.1         6.8         7.3         1.3         1.3         1.3         6.9         1.0         1.0         1.0         7.2         1.2<th>8.3         2.6         1.6         1.0         0.9         3.2         1.3         1.2         1.7         3.6         3.5         0.1         6.8         7.3         1.1         6.8         7.3         1.1         6.8         7.3         1.1         6.8         7.3         1.1         6.8         7.3         1.1         6.8         7.3         1.1         6.8         7.3         1.1         6.4         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         3.3         3.3         1.1         6.4         6.2         6.4         3.7         3.3         1.1         6.4         6.2         6.4         3.2         1.2<th>8.3         2.6         1.6         1.0         0.9         3.2         1.3         1.2         1.5         1.0         0.6         9.3         1.3         1.2         1.5         1.0         0.6         0.7         1.0<th>8.3         2.6         1.6         1.0         0.9         3.2         1.3         1.2         1.5         1.6         3.5         1.3         1.3         3.5         1.3         1.5         1.0         0.0         1.0         1.0         1.2         1.3         1.3         1.3         1.3         0.1         0.0         1.0<th>8.3         2.6         1.8         1.0         0.9         3.5         1.3         1.3         1.5         1.0         6.8         7.3           8.9         4.0         2.0         1.8         1.0         0.0         3.4         3.5         1.3         1.3         1.3         6.4         7.3         1.3         1.0         6.8         7.3         1.0         8.9         1.0         1.0         6.7         1.0         1.0         1.0         6.7         1.0         1.0         6.0         1.0         6.0         1.0         6.0         1.0         6.0         1.0         6.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         1.0         1.0         6.0         6.0         1.0</th><th>8.3         6.4         7.3         8.3         1.0         0.9         3.2         3.5         1.2         1.6         0.0         0.0         3.2         3.5         1.2         1.6         0.0         0.0         0.0         3.2         1.2         1.2         1.6         0.0         0.0         0.0         4.2         —         2.0         1.3         1.3         0.3         1.3         0.1         0.0         0.0         0.0         4.2         —         2.0         1.7         3.5         3.3         1.3         0.1         0.0         0.0         0.0         0.0         1.0         0.0</th><th>8.3         2.6         1.6         0.9         3.2         1.3         1.2         1.7         3.6         3.5         0.1         6.8         7.3           8.9         4.0         2.0         1.0         3.4         3.2         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.0         9.9         1.0         1.0         1.2         1.7         1.7         1.9         3.3         3.5         1.3         1.3         1.0         6.0         1.0</th><th>8.3         2.6         1.6         1.6         1.6         1.6         1.6         1.6         1.6         1.6         1.6         1.6         1.6         1.6         1.6         1.6         1.6         1.6
        1.6         1.6<th>8.3         2.6         1.6         1.0         0.9         3.4         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         0.5         1.3         1.3         1.3         1.3         0.3         1.3         1.3         0.3         1.3         0.3         1.3         0.3<th>8.3         2.6         1.6         1.6         0.6         3.4         3.5         1.3         1.5         0.6         0.7         3.4         3.5         1.2         3.5         3.5         3.5         1.1         6.6         7.3         1.2<th>8.3         2.6         1.8         1.0         0.9         3.2         3.5         1.3         1.5         1.6         0.6         0.7         3.4         3.6         1.2         1.7         3.6         3.5         3.3         1.1         6.6         7.2           8.6         4.0         2.0         1.6         0.0         0.7         3.4         2.0         1.2         1.3         1.3         1.3         6.0         0.0         0.0         0.0         0.0         1.2         1.0         1.0         0.0</th><th>8.3         2.6         1.8         1.0         0.9         3.2         3.5         1.3         1.4         1.0         0.9         3.4         3.6         1.3         1.4         3.6         3.6         1.2         1.3         1.4         3.6         1.2         1.3         1.4         1.4         0.6         0.8         0.7         3.4         1.2         1.2         1.4         0.6         0.8         0.7         0.8         1.2         1.4         3.6         3.7         3.2         3.3         1.1         0.6         0.1         0.1         0.2         0.2         1.2         1.2         1.2         3.7         3.2<th>8.3         6.1         8.4         8.2         8.3         1.2         1.6         9.9         3.2         3.2         1.5         1.6         9.9         3.2         3.2         1.5         1.6         9.9         3.2         3.2         1.2         9.9         9.2         1.2         1.2         1.6         9.9         9.2         1.2         1.7         3.2         3.3         3.1         6.6         9.1         9.0         9.2         2.0         1.2         1.7         3.2         3.2         3.1         6.6         9.1         9.0         9.2         9.2         1.2         1.7         3.3         3.3         3.1         6.0         9.0         9.0         9.2         1.2         1.7         9.2         3.2         3.3         3.1         6.0         9.2<th>8.3         2.6         1.8         1.0         0.9         3.2         3.3         1.7         3.6         3.5         0.1         6.8         7.3           8.3         4.0         2.0         1.0         0.9         3.2         1.3         1.0         0.6         0.1         0.0         0.0         3.2         1.2         1.0         0.0         0.0         0.0         3.2         1.0         1.0         0.0         0.0         0.0         0.0         1.0         0.0</th><th>1         1         2         1         0         0         3         3         1         1         0         0         3         3         1         3         1         3         4</th></th></th></th></th></th></th></th></th></th></th> | 8.3         2.6         1.6         1.0         0.9         3.2         1.3         1.7         3.6         3.5         0.1         6.1         7.3        
7.3         7.3         7.3         7.3         7.3         7.3         7.3         7.3         7.3         7.3         7.3         7.3         7.3         7.3         7.3 <th>8.3         2.6         2.6         1.8         1.0         0.9         3.2         1.3         1.2         1.5         3.5         0.1         6.8         7.3         1.3         7.3         1.3         6.8         7.3         1.3         6.8         7.3         1.3         6.8         7.3         1.3         6.8         7.3         1.3         6.8         7.3         1.3         6.8         7.3         1.3         6.8         7.3         1.1         6.8         7.3         1.3         1.3         6.9         7.3         1.1         6.8         7.3         1.3         1.3         1.3         6.9         1.0         1.0         1.0         7.2         1.2<th>8.3         2.6         1.6         1.0         0.9         3.2         1.3         1.2         1.7         3.6         3.5         0.1         6.8         7.3         1.1         6.8         7.3         1.1         6.8         7.3         1.1         6.8         7.3         1.1         6.8         7.3         1.1         6.8         7.3         1.1         6.8         7.3         1.1         6.4         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         3.3         3.3         1.1         6.4         6.2         6.4         3.7         3.3         1.1         6.4         6.2         6.4         3.2         1.2<th>8.3         2.6         1.6         1.0         0.9         3.2         1.3         1.2         1.5         1.0         0.6         9.3         1.3         1.2         1.5         1.0         0.6         0.7         1.0<th>8.3         2.6         1.6         1.0         0.9         3.2         1.3         1.2         1.5         1.6         3.5         1.3         1.3         3.5         1.3         1.5         1.0         0.0         1.0         1.0         1.2         1.3         1.3         1.3         1.3         0.1         0.0         1.0<th>8.3         2.6         1.8         1.0         0.9         3.5         1.3         1.3         1.5         1.0         6.8         7.3           8.9         4.0         2.0         1.8         1.0         0.0         3.4         3.5         1.3         1.3         1.3         6.4         7.3         1.3         1.0         6.8         7.3         1.0         8.9         1.0         1.0         6.7         1.0         1.0         1.0         6.7         1.0         1.0         6.0         1.0         6.0         1.0         6.0         1.0         6.0         1.0         6.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         1.0         1.0         6.0         6.0         1.0</th><th>8.3         6.4         7.3         8.3         1.0         0.9         3.2         3.5         1.2         1.6         0.0         0.0         3.2         3.5         1.2         1.6         0.0         0.0         0.0         3.2         1.2         1.2         1.6         0.0         0.0         0.0         4.2         —         2.0         1.3         1.3         0.3         1.3         0.1         0.0         0.0         0.0         4.2         —         2.0         1.7         3.5         3.3         1.3         0.1         0.0         0.0         0.0         0.0         1.0         0.0</th><th>8.3         2.6         1.6         0.9         3.2         1.3         1.2         1.7         3.6         3.5         0.1         6.8         7.3           8.9         4.0         2.0         1.0         3.4         3.2         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.0         9.9         1.0         1.0         1.2         1.7         1.7         1.9         3.3         3.5         1.3         1.3         1.0         6.0         1.0</th><th>8.3         2.6         1.6<th>8.3         2.6         1.6         1.0         0.9         3.4         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         0.5         1.3         1.3         1.3         1.3         0.3         1.3         1.3         0.3         1.3         0.3         1.3         0.3         0.3         0.3         0.3         0.3         0.3         0.3         0.3         0.3         0.3         0.3         0.3         0.3         0.3         0.3         0.3         0.3     
   0.3         0.3<th>8.3         2.6         1.6         1.6         0.6         3.4         3.5         1.3         1.5         0.6         0.7         3.4         3.5         1.2         3.5         3.5         3.5         1.1         6.6         7.3         1.2<th>8.3         2.6         1.8         1.0         0.9         3.2         3.5         1.3         1.5         1.6         0.6         0.7         3.4         3.6         1.2         1.7         3.6         3.5         3.3         1.1         6.6         7.2           8.6         4.0         2.0         1.6         0.0         0.7         3.4         2.0         1.2         1.3         1.3         1.3         6.0         0.0         0.0         0.0         0.0         1.2         1.0         1.0         0.0</th><th>8.3         2.6         1.8         1.0         0.9         3.2         3.5         1.3         1.4         1.0         0.9         3.4         3.6         1.3         1.4         3.6         3.6         1.2         1.3         1.4         3.6         1.2         1.3         1.4         1.4         0.6         0.8         0.7         3.4         1.2         1.2         1.4         0.6         0.8         0.7         0.8         1.2         1.4         3.6         3.7         3.2         3.3         1.1         0.6         0.1         0.1         0.2         0.2         1.2         1.2         1.2         3.7         3.2<th>8.3         6.1         8.4         8.2         8.3         1.2         1.6         9.9         3.2         3.2         1.5         1.6         9.9         3.2         3.2         1.5         1.6         9.9         3.2         3.2         1.2         9.9         9.2         1.2         1.2         1.6         9.9         9.2         1.2         1.7         3.2         3.3         3.1         6.6         9.1         9.0         9.2         2.0         1.2         1.7         3.2         3.2         3.1         6.6         9.1         9.0         9.2         9.2         1.2         1.7         3.3         3.3         3.1         6.0         9.0         9.0         9.2         1.2         1.7         9.2         3.2         3.3         3.1         6.0         9.2<th>8.3         2.6         1.8         1.0         0.9         3.2         3.3         1.7         3.6         3.5         0.1         6.8         7.3           8.3         4.0         2.0         1.0         0.9         3.2         1.3         1.0         0.6         0.1         0.0         0.0         3.2         1.2         1.0         0.0         0.0         0.0         3.2         1.0         1.0         0.0         0.0         0.0         0.0         1.0         0.0</th><th>1         1         2         1         0         0         3         3         1         1         0         0         3         3         1         3         1         3         4</th></th></th></th></th></th></th></th></th></th> | 8.3         2.6         2.6         1.8         1.0         0.9         3.2         1.3         1.2         1.5         3.5         0.1         6.8         7.3         1.3         7.3         1.3         6.8         7.3         1.3         6.8         7.3         1.3         6.8         7.3         1.3         6.8         7.3         1.3         6.8         7.3         1.3         6.8         7.3         1.3         6.8         7.3         1.1         6.8         7.3         1.3         1.3         6.9         7.3         1.1         6.8         7.3         1.3         1.3         1.3         6.9         1.0         1.0         1.0         7.2         1.2 <th>8.3         2.6         1.6         1.0         0.9         3.2         1.3         1.2         1.7         3.6         3.5         0.1         6.8         7.3         1.1         6.8         7.3         1.1         6.8         7.3         1.1         6.8         7.3         1.1         6.8         7.3         1.1         6.8         7.3         1.1         6.8         7.3         1.1         6.4         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         3.3         3.3         1.1         6.4         6.2         6.4         3.7         3.3         1.1         6.4         6.2         6.4         3.2         1.2<th>8.3         2.6         1.6         1.0         0.9         3.2         1.3         1.2         1.5         1.0         0.6         9.3         1.3         1.2         1.5         1.0
        0.6         0.7         1.0<th>8.3         2.6         1.6         1.0         0.9         3.2         1.3         1.2         1.5         1.6         3.5         1.3         1.3         3.5         1.3         1.5         1.0         0.0         1.0         1.0         1.2         1.3         1.3         1.3         1.3         0.1         0.0         1.0<th>8.3         2.6         1.8         1.0         0.9         3.5         1.3         1.3         1.5         1.0         6.8         7.3           8.9         4.0         2.0         1.8         1.0         0.0         3.4         3.5         1.3         1.3         1.3         6.4         7.3         1.3         1.0         6.8         7.3         1.0         8.9         1.0         1.0         6.7         1.0         1.0         1.0         6.7         1.0         1.0         6.0         1.0         6.0         1.0         6.0         1.0         6.0         1.0         6.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         1.0         1.0         6.0         6.0         1.0</th><th>8.3         6.4         7.3         8.3         1.0         0.9         3.2         3.5         1.2         1.6         0.0         0.0         3.2         3.5         1.2         1.6         0.0         0.0         0.0         3.2         1.2         1.2         1.6         0.0         0.0         0.0         4.2         —         2.0         1.3         1.3         0.3         1.3         0.1         0.0         0.0         0.0         4.2         —         2.0         1.7         3.5         3.3         1.3         0.1         0.0         0.0         0.0         0.0         1.0         0.0</th><th>8.3         2.6         1.6         0.9         3.2         1.3         1.2         1.7         3.6         3.5         0.1         6.8         7.3           8.9         4.0         2.0         1.0         3.4         3.2         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.0         9.9         1.0         1.0         1.2         1.7         1.7         1.9         3.3         3.5         1.3         1.3         1.0         6.0         1.0</th><th>8.3         2.6         1.6<th>8.3         2.6         1.6         1.0         0.9         3.4         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         0.5         1.3         1.3         1.3         1.3         0.3         1.3         1.3         0.3         1.3         0.3         1.3         0.3<th>8.3         2.6         1.6         1.6         0.6         3.4         3.5         1.3         1.5         0.6         0.7         3.4         3.5         1.2         3.5         3.5         3.5         1.1         6.6         7.3         1.2<th>8.3         2.6         1.8         1.0         0.9         3.2         3.5         1.3         1.5         1.6         0.6         0.7         3.4         3.6         1.2         1.7         3.6         3.5         3.3         1.1         6.6         7.2           8.6         4.0         2.0         1.6         0.0         0.7         3.4         2.0         1.2         1.3         1.3         1.3         6.0         0.0         0.0         0.0         0.0         1.2         1.0         1.0         0.0   
     0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0</th><th>8.3         2.6         1.8         1.0         0.9         3.2         3.5         1.3         1.4         1.0         0.9         3.4         3.6         1.3         1.4         3.6         3.6         1.2         1.3         1.4         3.6         1.2         1.3         1.4         1.4         0.6         0.8         0.7         3.4         1.2         1.2         1.4         0.6         0.8         0.7         0.8         1.2         1.4         3.6         3.7         3.2         3.3         1.1         0.6         0.1         0.1         0.2         0.2         1.2         1.2         1.2         3.7         3.2<th>8.3         6.1         8.4         8.2         8.3         1.2         1.6         9.9         3.2         3.2         1.5         1.6         9.9         3.2         3.2         1.5         1.6         9.9         3.2         3.2         1.2         9.9         9.2         1.2         1.2         1.6         9.9         9.2         1.2         1.7         3.2         3.3         3.1         6.6         9.1         9.0         9.2         2.0         1.2         1.7         3.2         3.2         3.1         6.6         9.1         9.0         9.2         9.2         1.2         1.7         3.3         3.3         3.1         6.0         9.0         9.0         9.2         1.2         1.7         9.2         3.2         3.3         3.1         6.0         9.2<th>8.3         2.6         1.8         1.0         0.9         3.2         3.3         1.7         3.6         3.5         0.1         6.8         7.3           8.3         4.0         2.0         1.0         0.9         3.2         1.3         1.0         0.6         0.1         0.0         0.0         3.2         1.2         1.0         0.0         0.0         0.0         3.2         1.0         1.0         0.0         0.0         0.0         0.0         1.0         0.0</th><th>1         1         2         1         0         0         3         3         1         1         0         0         3         3         1         3         1         3         4</th></th></th></th></th></th></th></th></th> | 8.3         2.6         1.6         1.0         0.9         3.2         1.3         1.2         1.7         3.6         3.5         0.1         6.8         7.3         1.1         6.8         7.3         1.1         6.8         7.3         1.1         6.8         7.3         1.1         6.8         7.3         1.1         6.8         7.3         1.1         6.8         7.3         1.1         6.4         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         3.3         3.3         1.1         6.4         6.2         6.4         3.7         3.3         1.1         6.4         6.2         6.4         3.2         1.2 <th>8.3         2.6         1.6         1.0         0.9         3.2         1.3         1.2         1.5         1.0         0.6         9.3         1.3         1.2         1.5         1.0         0.6         0.7         1.0<th>8.3         2.6         1.6         1.0         0.9         3.2         1.3         1.2         1.5         1.6         3.5         1.3         1.3         3.5         1.3         1.5         1.0         0.0         1.0         1.0         1.2         1.3         1.3         1.3         1.3         0.1         0.0         1.0<th>8.3         2.6         1.8         1.0         0.9         3.5         1.3         1.3         1.5         1.0         6.8         7.3           8.9         4.0         2.0         1.8         1.0         0.0         3.4         3.5         1.3         1.3         1.3         6.4         7.3         1.3         1.0         6.8         7.3         1.0         8.9         1.0         1.0         6.7         1.0         1.0         1.0         6.7         1.0         1.0         6.0         1.0         6.0         1.0         6.0         1.0         6.0         1.0         6.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         1.0         1.0         6.0         6.0         1.0</th><th>8.3         6.4         7.3         8.3         1.0         0.9         3.2         3.5         1.2         1.6         0.0         0.0         3.2         3.5         1.2         1.6         0.0         0.0         0.0         3.2         1.2         1.2         1.6         0.0         0.0         0.0         4.2         —         2.0         1.3         1.3         0.3         1.3         0.1         0.0         0.0         0.0         4.2         —         2.0         1.7         3.5         3.3         1.3         0.1         0.0         0.0  
      0.0         0.0         1.0         0.0</th><th>8.3         2.6         1.6         0.9         3.2         1.3         1.2         1.7         3.6         3.5         0.1         6.8         7.3           8.9         4.0         2.0         1.0         3.4         3.2         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.0         9.9         1.0         1.0         1.2         1.7         1.7         1.9         3.3         3.5         1.3         1.3         1.0         6.0         1.0</th><th>8.3         2.6         1.6<th>8.3         2.6         1.6         1.0         0.9         3.4         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         0.5         1.3         1.3         1.3         1.3         0.3         1.3         1.3         0.3         1.3         0.3         1.3         0.3<th>8.3         2.6         1.6         1.6         0.6         3.4         3.5         1.3         1.5         0.6         0.7         3.4         3.5         1.2         3.5         3.5         3.5         1.1         6.6         7.3         1.2<th>8.3         2.6         1.8         1.0         0.9         3.2         3.5         1.3         1.5         1.6         0.6         0.7         3.4         3.6         1.2         1.7         3.6         3.5         3.3         1.1         6.6         7.2           8.6         4.0         2.0         1.6         0.0         0.7         3.4         2.0         1.2         1.3         1.3         1.3         6.0         0.0         0.0         0.0         0.0         1.2         1.0         1.0         0.0</th><th>8.3         2.6         1.8         1.0         0.9         3.2         3.5         1.3         1.4         1.0         0.9         3.4         3.6         1.3         1.4         3.6         3.6         1.2         1.3         1.4         3.6         1.2         1.3         1.4         1.4         0.6         0.8         0.7         3.4         1.2         1.2         1.4         0.6         0.8         0.7         0.8         1.2         1.4         3.6         3.7         3.2         3.3         1.1         0.6         0.1         0.1         0.2         0.2         1.2         1.2         1.2         3.7         3.2<th>8.3         6.1         8.4         8.2         8.3         1.2         1.6         9.9         3.2         3.2         1.5         1.6         9.9         3.2         3.2         1.5         1.6         9.9         3.2         3.2         1.2         9.9         9.2         1.2         1.2         1.6         9.9         9.2         1.2         1.7         3.2         3.3         3.1         6.6         9.1         9.0         9.2         2.0         1.2         1.7         3.2         3.2         3.1         6.6         9.1         9.0         9.2         9.2         1.2         1.7         3.3         3.3         3.1         6.0         9.0         9.0         9.2         1.2         1.7         9.2         3.2         3.3         3.1         6.0         9.2<th>8.3         2.6         1.8         1.0         0.9         3.2         3.3         1.7         3.6         3.5         0.1         6.8         7.3           8.3         4.0         2.0         1.0         0.9         3.2         1.3         1.0         0.6         0.1         0.0         0.0         3.2         1.2         1.0         0.0         0.0         0.0         3.2         1.0         1.0         0.0         0.0         0.0         0.0         1.0         0.0</th><th>1         1         2         1         0         0         3         3         1         1         0         0         3         3     
   1         3         1         3         4</th></th></th></th></th></th></th></th> | 8.3         2.6         1.6         1.0         0.9         3.2         1.3         1.2         1.5         1.0         0.6         9.3         1.3         1.2         1.5         1.0         0.6         0.7         1.0 <th>8.3         2.6         1.6         1.0         0.9         3.2         1.3         1.2         1.5         1.6         3.5         1.3         1.3         3.5         1.3         1.5         1.0         0.0         1.0         1.0         1.2         1.3         1.3         1.3         1.3         0.1         0.0         1.0<th>8.3         2.6         1.8         1.0         0.9         3.5         1.3         1.3         1.5         1.0         6.8         7.3           8.9         4.0         2.0         1.8         1.0         0.0         3.4         3.5         1.3         1.3         1.3         6.4         7.3         1.3         1.0         6.8         7.3         1.0         8.9         1.0         1.0         6.7         1.0         1.0         1.0         6.7         1.0         1.0         6.0         1.0         6.0         1.0         6.0         1.0         6.0         1.0         6.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         1.0         1.0         6.0         6.0         1.0</th><th>8.3         6.4         7.3         8.3         1.0         0.9         3.2         3.5         1.2         1.6         0.0         0.0         3.2         3.5         1.2         1.6         0.0         0.0         0.0         3.2         1.2         1.2         1.6         0.0         0.0         0.0         4.2         —         2.0         1.3         1.3         0.3         1.3         0.1         0.0         0.0         0.0         4.2         —         2.0         1.7         3.5         3.3         1.3         0.1         0.0         0.0         0.0         0.0         1.0         0.0</th><th>8.3         2.6         1.6         0.9         3.2         1.3         1.2         1.7         3.6         3.5         0.1         6.8         7.3           8.9         4.0         2.0         1.0         3.4         3.2         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.0         9.9         1.0         1.0         1.2         1.7         1.7         1.9         3.3         3.5         1.3         1.3         1.0         6.0         1.0</th><th>8.3         2.6         1.6<th>8.3         2.6         1.6         1.0         0.9         3.4         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         0.5         1.3         1.3         1.3         1.3         0.3         1.3         1.3         0.3         1.3         0.3         1.3         0.3<th>8.3         2.6         1.6         1.6         0.6         3.4         3.5         1.3         1.5         0.6         0.7         3.4         3.5         1.2         3.5         3.5         3.5         1.1         6.6         7.3         1.2
        1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2         1.2<th>8.3         2.6         1.8         1.0         0.9         3.2         3.5         1.3         1.5         1.6         0.6         0.7         3.4         3.6         1.2         1.7         3.6         3.5         3.3         1.1         6.6         7.2           8.6         4.0         2.0         1.6         0.0         0.7         3.4         2.0         1.2         1.3         1.3         1.3         6.0         0.0         0.0         0.0         0.0         1.2         1.0         1.0         0.0</th><th>8.3         2.6         1.8         1.0         0.9         3.2         3.5         1.3         1.4         1.0         0.9         3.4         3.6         1.3         1.4         3.6         3.6         1.2         1.3         1.4         3.6         1.2         1.3         1.4         1.4         0.6         0.8         0.7         3.4         1.2         1.2         1.4         0.6         0.8         0.7         0.8         1.2         1.4         3.6         3.7         3.2         3.3         1.1         0.6         0.1         0.1         0.2         0.2         1.2         1.2         1.2         3.7         3.2<th>8.3         6.1         8.4         8.2         8.3         1.2         1.6         9.9         3.2         3.2         1.5         1.6         9.9         3.2         3.2         1.5         1.6         9.9         3.2         3.2         1.2         9.9         9.2         1.2         1.2         1.6         9.9         9.2         1.2         1.7         3.2         3.3         3.1         6.6         9.1         9.0         9.2         2.0         1.2         1.7         3.2         3.2         3.1         6.6         9.1         9.0         9.2         9.2         1.2         1.7         3.3         3.3         3.1         6.0         9.0         9.0         9.2         1.2         1.7         9.2         3.2         3.3         3.1         6.0         9.2<th>8.3         2.6         1.8         1.0         0.9         3.2         3.3         1.7         3.6         3.5         0.1         6.8         7.3           8.3         4.0         2.0         1.0         0.9         3.2         1.3         1.0         0.6         0.1         0.0         0.0         3.2         1.2         1.0         0.0         0.0         0.0         3.2         1.0         1.0         0.0         0.0         0.0         0.0         1.0         0.0</th><th>1         1         2         1         0         0         3         3         1         1         0         0         3         3         1         3         1         3         4</th></th></th></th></th></th></th> | 8.3         2.6         1.6         1.0         0.9         3.2         1.3         1.2         1.5         1.6         3.5         1.3         1.3         3.5         1.3         1.5         1.0         0.0         1.0         1.0         1.2         1.3         1.3         1.3         1.3         0.1         0.0         1.0 <th>8.3         2.6         1.8         1.0         0.9         3.5         1.3         1.3         1.5         1.0         6.8         7.3           8.9         4.0         2.0         1.8         1.0         0.0         3.4         3.5         1.3         1.3         1.3         6.4         7.3         1.3         1.0         6.8         7.3         1.0         8.9         1.0         1.0         6.7         1.0         1.0         1.0         6.7         1.0         1.0         6.0         1.0         6.0         1.0         6.0         1.0         6.0         1.0         6.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         1.0         1.0         6.0         6.0         1.0</th> <th>8.3         6.4         7.3         8.3         1.0         0.9         3.2         3.5         1.2         1.6         0.0         0.0         3.2         3.5         1.2         1.6         0.0         0.0         0.0         3.2         1.2         1.2         1.6         0.0         0.0         0.0         4.2         —         2.0         1.3         1.3         0.3         1.3         0.1         0.0         0.0         0.0         4.2         —         2.0         1.7         3.5         3.3         1.3         0.1         0.0         0.0         0.0         0.0         1.0         0.0</th> <th>8.3         2.6         1.6         0.9         3.2         1.3         1.2         1.7         3.6         3.5         0.1         6.8         7.3           8.9         4.0         2.0         1.0         3.4         3.2         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.0         9.9         1.0         1.0         1.2         1.7         1.7         1.9         3.3         3.5         1.3         1.3         1.0         6.0         1.0         1.0         1.0        
1.0         1.0</th> <th>8.3         2.6         1.6<th>8.3         2.6         1.6         1.0         0.9         3.4         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         0.5         1.3         1.3         1.3         1.3         0.3         1.3         1.3         0.3         1.3         0.3         1.3         0.3<th>8.3         2.6         1.6         1.6         0.6         3.4         3.5         1.3         1.5         0.6         0.7         3.4         3.5         1.2         3.5         3.5         3.5         1.1         6.6         7.3         1.2<th>8.3         2.6         1.8         1.0         0.9         3.2         3.5         1.3         1.5         1.6         0.6         0.7         3.4         3.6         1.2         1.7         3.6         3.5         3.3         1.1         6.6         7.2           8.6         4.0         2.0         1.6         0.0         0.7         3.4         2.0         1.2         1.3         1.3         1.3         6.0         0.0         0.0         0.0         0.0         1.2         1.0         1.0         0.0</th><th>8.3         2.6         1.8         1.0         0.9         3.2         3.5         1.3         1.4         1.0         0.9         3.4         3.6         1.3         1.4         3.6         3.6         1.2         1.3         1.4         3.6         1.2         1.3         1.4         1.4         0.6         0.8         0.7         3.4         1.2         1.2         1.4         0.6         0.8         0.7         0.8         1.2         1.4         3.6         3.7         3.2         3.3         1.1         0.6         0.1         0.1         0.2         0.2         1.2         1.2         1.2         3.7         3.2<th>8.3         6.1         8.4         8.2         8.3         1.2         1.6         9.9         3.2         3.2         1.5         1.6         9.9         3.2         3.2         1.5         1.6         9.9         3.2         3.2         1.2         9.9         9.2         1.2         1.2         1.6         9.9         9.2         1.2         1.7         3.2         3.3         3.1         6.6         9.1         9.0         9.2         2.0         1.2         1.7         3.2         3.2         3.1         6.6         9.1         9.0         9.2         9.2         1.2         1.7         3.3         3.3         3.1         6.0         9.0         9.0         9.2         1.2         1.7         9.2         3.2         3.3         3.1         6.0         9.2<th>8.3         2.6         1.8         1.0         0.9         3.2         3.3         1.7         3.6         3.5         0.1         6.8         7.3           8.3         4.0         2.0         1.0         0.9         3.2         1.3         1.0         0.6         0.1         0.0         0.0         3.2         1.2         1.0         0.0         0.0         0.0         3.2         1.0         1.0         0.0         0.0         0.0         0.0         1.0         0.0</th><th>1         1         2         1         0         0         3         3         1         1         0         0         3         3         1         3         1         3         4</th></th></th></th></th></th> | 8.3         2.6         1.8         1.0         0.9         3.5         1.3         1.3         1.5         1.0         6.8         7.3           8.9         4.0         2.0         1.8         1.0         0.0    
    3.4         3.5         1.3         1.3         1.3         6.4         7.3         1.3         1.0         6.8         7.3         1.0         8.9         1.0         1.0         6.7         1.0         1.0         1.0         6.7         1.0         1.0         6.0         1.0         6.0         1.0         6.0         1.0         6.0         1.0         6.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         6.0         1.0         1.0         1.0         1.0         6.0         6.0         1.0 | 8.3         6.4         7.3         8.3         1.0         0.9         3.2         3.5         1.2         1.6         0.0         0.0         3.2         3.5         1.2         1.6         0.0         0.0         0.0         3.2         1.2         1.2         1.6         0.0         0.0         0.0         4.2         —         2.0         1.3         1.3         0.3         1.3         0.1         0.0         0.0         0.0         4.2         —         2.0         1.7         3.5         3.3         1.3         0.1         0.0         0.0         0.0         0.0         1.0         0.0 | 8.3         2.6         1.6         0.9         3.2         1.3         1.2         1.7         3.6         3.5         0.1         6.8         7.3           8.9         4.0         2.0         1.0         3.4         3.2         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.0         9.9         1.0         1.0         1.2         1.7         1.7         1.9         3.3         3.5         1.3         1.3         1.0         6.0         1.0 | 8.3         2.6         1.6 <th>8.3         2.6         1.6         1.0         0.9         3.4         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         0.5         1.3         1.3         1.3         1.3         0.3         1.3         1.3         0.3         1.3         0.3         1.3         0.3<th>8.3         2.6         1.6         1.6         0.6         3.4         3.5         1.3         1.5         0.6         0.7         3.4         3.5         1.2         3.5         3.5         3.5         1.1         6.6         7.3         1.2<th>8.3         2.6         1.8         1.0         0.9         3.2         3.5         1.3         1.5         1.6         0.6         0.7         3.4         3.6         1.2         1.7         3.6         3.5         3.3         1.1         6.6         7.2           8.6         4.0         2.0         1.6         0.0         0.7         3.4         2.0         1.2         1.3         1.3         1.3         6.0         0.0         0.0         0.0         0.0         1.2         1.0         1.0         0.0</th><th>8.3         2.6         1.8         1.0         0.9         3.2         3.5         1.3         1.4         1.0         0.9         3.4         3.6         1.3         1.4         3.6         3.6         1.2         1.3         1.4         3.6         1.2         1.3         1.4         1.4         0.6         0.8         0.7         3.4         1.2         1.2         1.4         0.6         0.8         0.7         0.8         1.2         1.4         3.6         3.7         3.2         3.3         1.1         0.6         0.1         0.1         0.2         0.2         1.2         1.2         1.2         3.7         3.2<th>8.3         6.1         8.4         8.2         8.3         1.2         1.6         9.9         3.2         3.2         1.5         1.6         9.9         3.2         3.2         1.5         1.6         9.9         3.2         3.2         1.2         9.9         9.2         1.2         1.2         1.6         9.9         9.2         1.2         1.7         3.2         3.3         3.1         6.6         9.1         9.0         9.2         2.0         1.2         1.7         3.2         3.2         3.1         6.6         9.1         9.0         9.2         9.2         1.2         1.7         3.3         3.3         3.1         6.0         9.0         9.0         9.2         1.2         1.7         9.2         3.2         3.3         3.1         6.0         9.2         9.2         9.2         9.2         9.2         9.2         9.2         9.2         9.2         9.2         9.2         9.2         9.2         9.2         9.2         9.2         9.2        
9.2         9.2         9.2         9.2         9.2         9.2         9.2         9.2         9.2         9.2         9.2         9.2         9.2         9.2         9.2         9.2<th>8.3         2.6         1.8         1.0         0.9         3.2         3.3         1.7         3.6         3.5         0.1         6.8         7.3           8.3         4.0         2.0         1.0         0.9         3.2         1.3         1.0         0.6         0.1         0.0         0.0         3.2         1.2         1.0         0.0         0.0         0.0         3.2         1.0         1.0         0.0         0.0         0.0         0.0         1.0         0.0</th><th>1         1         2         1         0         0         3         3         1         1         0         0         3         3         1         3         1         3         4</th></th></th></th></th> | 8.3         2.6         1.6         1.0         0.9         3.4         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         0.5         1.3         1.3         1.3         1.3         0.3         1.3         1.3         0.3         1.3         0.3         1.3         0.3 <th>8.3         2.6         1.6         1.6         0.6         3.4         3.5         1.3         1.5         0.6         0.7         3.4         3.5         1.2         3.5         3.5         3.5         1.1         6.6         7.3         1.2<th>8.3         2.6         1.8         1.0         0.9         3.2         3.5         1.3         1.5         1.6         0.6         0.7         3.4         3.6         1.2         1.7         3.6         3.5         3.3         1.1         6.6         7.2           8.6         4.0         2.0         1.6         0.0         0.7         3.4         2.0         1.2         1.3         1.3         1.3         6.0         0.0         0.0         0.0         0.0         1.2         1.0         1.0         0.0</th><th>8.3         2.6         1.8         1.0         0.9         3.2         3.5         1.3         1.4         1.0         0.9         3.4         3.6         1.3         1.4         3.6         3.6         1.2         1.3         1.4         3.6         1.2         1.3         1.4         1.4         0.6         0.8         0.7         3.4         1.2         1.2         1.4         0.6         0.8         0.7         0.8         1.2         1.4         3.6         3.7         3.2         3.3         1.1         0.6         0.1         0.1         0.2         0.2         1.2         1.2         1.2         3.7         3.2<th>8.3         6.1         8.4         8.2         8.3         1.2         1.6         9.9         3.2         3.2         1.5         1.6         9.9         3.2         3.2         1.5         1.6         9.9         3.2         3.2         1.2         9.9         9.2         1.2         1.2         1.6         9.9         9.2         1.2         1.7         3.2         3.3         3.1         6.6         9.1         9.0         9.2         2.0         1.2         1.7         3.2         3.2         3.1         6.6         9.1         9.0         9.2         9.2         1.2         1.7         3.3         3.3         3.1         6.0         9.0         9.0         9.2         1.2         1.7         9.2         3.2         3.3         3.1         6.0         9.2<th>8.3         2.6         1.8         1.0         0.9         3.2         3.3         1.7         3.6         3.5         0.1         6.8         7.3           8.3         4.0         2.0         1.0         0.9         3.2         1.3         1.0         0.6         0.1         0.0         0.0         3.2         1.2         1.0         0.0         0.0         0.0         3.2         1.0         1.0         0.0         0.0         0.0         0.0         1.0         0.0</th><th>1         1         2         1         0         0         3         3         1         1         0         0         3         3         1         3         1         3         4   
     4         4</th></th></th></th> | 8.3         2.6         1.6         1.6         0.6         3.4         3.5         1.3         1.5         0.6         0.7         3.4         3.5         1.2         3.5         3.5         3.5         1.1         6.6         7.3         1.2 <th>8.3         2.6         1.8         1.0         0.9         3.2         3.5         1.3         1.5         1.6         0.6         0.7         3.4         3.6         1.2         1.7         3.6         3.5         3.3         1.1         6.6         7.2           8.6         4.0         2.0         1.6         0.0         0.7         3.4         2.0         1.2         1.3         1.3         1.3         6.0         0.0         0.0         0.0         0.0         1.2         1.0         1.0         0.0</th> <th>8.3         2.6         1.8         1.0         0.9         3.2         3.5         1.3         1.4         1.0         0.9         3.4         3.6         1.3         1.4         3.6         3.6         1.2         1.3         1.4         3.6         1.2         1.3         1.4         1.4         0.6         0.8         0.7         3.4         1.2         1.2         1.4         0.6         0.8         0.7         0.8         1.2         1.4         3.6         3.7         3.2         3.3         1.1         0.6         0.1         0.1         0.2         0.2         1.2         1.2         1.2         3.7         3.2<th>8.3         6.1         8.4         8.2         8.3         1.2         1.6         9.9         3.2         3.2         1.5         1.6         9.9         3.2         3.2         1.5         1.6         9.9         3.2         3.2         1.2         9.9         9.2         1.2         1.2         1.6         9.9         9.2         1.2         1.7         3.2         3.3         3.1         6.6         9.1         9.0         9.2         2.0         1.2         1.7         3.2         3.2         3.1         6.6         9.1         9.0         9.2         9.2         1.2         1.7         3.3         3.3         3.1         6.0         9.0         9.0         9.2         1.2         1.7         9.2         3.2         3.3         3.1         6.0         9.2<th>8.3         2.6         1.8         1.0         0.9         3.2         3.3         1.7         3.6         3.5         0.1         6.8         7.3           8.3         4.0         2.0         1.0         0.9         3.2         1.3         1.0         0.6         0.1         0.0         0.0         3.2         1.2         1.0         0.0         0.0         0.0         3.2         1.0         1.0         0.0         0.0         0.0         0.0         1.0         0.0</th><th>1         1         2         1         0         0         3         3         1         1         0         0         3         3         1         3         1         3         4</th></th></th> | 8.3         2.6         1.8         1.0         0.9         3.2         3.5         1.3         1.5         1.6         0.6         0.7         3.4         3.6         1.2         1.7         3.6         3.5         3.3         1.1         6.6         7.2           8.6         4.0         2.0         1.6         0.0         0.7         3.4         2.0         1.2         1.3         1.3         1.3         6.0         0.0         0.0         0.0         0.0         1.2         1.0         1.0         0.0 | 8.3         2.6         1.8         1.0         0.9         3.2         3.5         1.3         1.4         1.0         0.9         3.4         3.6         1.3         1.4         3.6         3.6         1.2         1.3         1.4         3.6         1.2         1.3         1.4         1.4         0.6         0.8         0.7         3.4         1.2         1.2         1.4         0.6         0.8         0.7         0.8         1.2         1.4         3.6         3.7         3.2         3.3         1.1         0.6         0.1         0.1         0.2         0.2         1.2         1.2         1.2         3.7         3.2 <th>8.3         6.1         8.4         8.2         8.3         1.2         1.6         9.9         3.2         3.2         1.5         1.6         9.9         3.2         3.2         1.5         1.6         9.9         3.2         3.2         1.2         9.9         9.2         1.2         1.2         1.6         9.9         9.2         1.2         1.7         3.2   
     3.3         3.1         6.6         9.1         9.0         9.2         2.0         1.2         1.7         3.2         3.2         3.1         6.6         9.1         9.0         9.2         9.2         1.2         1.7         3.3         3.3         3.1         6.0         9.0         9.0         9.2         1.2         1.7         9.2         3.2         3.3         3.1         6.0         9.2<th>8.3         2.6         1.8         1.0         0.9         3.2         3.3         1.7         3.6         3.5         0.1         6.8         7.3           8.3         4.0         2.0         1.0         0.9         3.2         1.3         1.0         0.6         0.1         0.0         0.0         3.2         1.2         1.0         0.0         0.0         0.0         3.2         1.0         1.0         0.0         0.0         0.0         0.0         1.0         0.0</th><th>1         1         2         1         0         0         3         3         1         1         0         0         3         3         1         3         1         3         4</th></th> | 8.3         6.1         8.4         8.2         8.3         1.2         1.6         9.9         3.2         3.2         1.5         1.6         9.9         3.2         3.2         1.5         1.6         9.9         3.2         3.2         1.2         9.9         9.2         1.2         1.2         1.6         9.9         9.2         1.2         1.7         3.2         3.3         3.1         6.6         9.1         9.0         9.2         2.0         1.2         1.7         3.2         3.2         3.1         6.6         9.1         9.0         9.2         9.2         1.2         1.7         3.3         3.3         3.1         6.0         9.0         9.0         9.2         1.2         1.7         9.2         3.2         3.3         3.1         6.0         9.2 <th>8.3         2.6         1.8         1.0         0.9         3.2         3.3         1.7         3.6         3.5         0.1         6.8         7.3           8.3         4.0         2.0         1.0         0.9         3.2         1.3         1.0         0.6         0.1         0.0         0.0         3.2         1.2         1.0         0.0         0.0         0.0         3.2         1.0         1.0         0.0         0.0         0.0         0.0         1.0         0.0</th> <th>1         1         2         1         0         0         3         3         1         1         0         0         3         3         1         3         1         3         4</th> | 8.3         2.6         1.8         1.0         0.9         3.2         3.3         1.7         3.6         3.5         0.1         6.8         7.3           8.3         4.0         2.0         1.0         0.9         3.2         1.3         1.0         0.6         0.1         0.0         0.0         3.2         1.2         1.0         0.0         0.0         0.0         3.2         1.0         1.0         0.0         0.0         0.0         0.0         1.0         0.0 | 1         1         2         1         0         0         3         3         1         1         0         0         3         3         1         3         1         3         4 |

Notes:

OV-GP = Gas Probe
S = Stallow Monitoring Zone
M = Middle Monitoring Zone
D = Deep Monitoring Zone
Detected CO2>0.3% vol.
— Sareened interval submerged

2014 Annual Monitoring Report Olympic View Sanitary Landfill, Port Orchard, Washington Table E3. Historical Results of Oxygen  $(\mathsf{O}_2)$  Measurements

P16	4	7	6	8	-	9	4	6	8	3	0	9	2	8	8	3	2	9	01	4	4	3	6	5	8	5	_	3	9	7	0	8
OV-GP16	16.4	17.7	16.9	16.8	16.1	13.6	15.4	15.9	13.8	15.3	15.0	15.6	15.2	18.8	14.8	15.3	11.2	12.6	9.2	10.4	10.4	19.3	18.9	19.5	18.8	19.5	19.1	20.3	19.6	19.7	20.0	18.8
OV-GP15	0:0	3.2	0.0	5.8	1.2	0.0	7.2	0.3	7.2	19.1	13.0	0:0	12.4	4.4	6.5	20.4	19.4	20.3	19.6	10.0	5.3	3.3	6.2	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0
OV-GP14	5.7	7.0	5.9	5.5	3.9	0.0	6.2	5.8	5.2	4.3	5.5	I	6.7	7.6	4.8	20.6	18.6	8.2	4.5	2.8	1.8	3.0	3.0	2.7	1.6	5.0	4.3	5.5	2.2	4.3	3.7	20.9
OV-GP13D	20.7	19.5	20.1	18.2	17.3	18.0	20.8	20.2	18.1	18.4	19.8	18.3	I	I	I	I	19.5	20.7	14.9	15.6	15.7	13.9	12.4	13.7	12.4	13.0	10.5	8.5	10.6	6.5	5.5	2.1
OV-GP13M	17.5	17.7	17.3	18.1	17.3	17.7	17.9	17.1	18.9	17.5	19.1	17.6	18.4	18.8	14.9	15	14.5	15.3	13.4	12.7	15.2	14.3	12.6	13.4	13.1	11.7	11.3	8.8	0.9	7.8	9.9	2.5
OV-GP13S	17.5	18.5	17.7	18.3	17.6	17.0	18.2	18.6	17.9	16.9	18.0	18.2	17.7	18.3	17.2	16.6	14.7	17.5	15.8	17.0	17.9	17.3	15.3	16.3	16.4	15.8	16.3	15.4	14.7	14.5	15.3	12.7
OV-GP12D	16.4	15.2	I	I	16.6	19.1	18.7	18.1	16.8	I	I	21.4	I	I	I	I	18.8	19.4	18.4	18.0	20.1	14.3	17.0	16.7	15.2	14.4	18.1	18.4	15.3	12.2	18.4	17.0
OV-GP12M	19.5	18.7	18.8	18.2	17.8	16.3	20.0	20.2	18.9	18.0	19.3	17.7	19.3	19.9	19.8	17.4	16.1	19.0	16.8	20.9	17.9	15.9	16.3	19.0	16.5	17.1	17.5	20.0	15.0	13.9	17.7	17.1
OV-GP125	20.1	19.5	19.1	18.7	18.5	17.3	19.6	20.5	18.9	18.3	19.2	18.0	19.6	20.4	19.4	16.7	16.1	19.0	16.8	20.9	17.9	15.9	16.3	19.0	16.5	17.1	17.5	20.0	15.0	16.4	17.7	17.1
OV-GP11D	14.4	17.4	I	I	11.5	20.2	15.7	14.2	14.0	12.5	I	15.4	I	I	I	I	16.4	20.5	18.1	18.9	21.7	19.6	19.0	19.3	19.1	19.4	19.2	18.2	18.5	19.6	18.8	16.7
OV-GP115	17.9	18.6	16.9	18.7	17.6	16.9	18.2	18.9	18.9	17.9	18.1	19.1	18.9	20.0	18.7	16.5	16.5	19.1	17.3	18.0	19.3	20.1	18.3	18.8	18.9	19.1	18.9	18.8	18.8	19.2	18.1	17.7
OV-GP10D	19.8	19.4	18.5	18.8	19.3	19.2	18.7	18.4	19.7	18.6	19.3	18.6	I	ı	I	ı	10.1	20.6	18.3	19.3	21.6	20.2	18.9	18.9	19.1	19.7	19.3	18.7	19.0	19.5	18.9	18.4
OV-GP10S	20.5	20.4	20.0	20.9	20.1	20.0	20.1	20.4	20.2	19.3	19.8	20.1	19.8	20.6	20.2	20.5	11.1	20.5	19.3	21.6	21.3	21.1	20.1	20.4	17.6	20.5	20.1	20.2	20.3	20.0	20.1	19.9
OV-GP-9D	19.6	19.6	18.8	19.5	19.6	19.1	19.0	18.2	19.5	18.4	18.7	19.0	I	I	I	ı	17.8	19.0	18.0	19.3	18.8	19.8	18.3	18.9	19.6	19.3	19.3	19.5	18.9	19.3	18.8	18.1
OV-GP-9S	18.5	19.9	18.5	19.0	19.4	18.5	18.8	19.2	18.0	18.5	17.7	18.6	17.6	19.9	17.9	18.3	16.3	18.5	16.6	18.4	16.6	19.8	17.0	18.8	20.2	18.9	18.5	19.3	17.7	19.7	18.4	17.7
0V-GP-08	5.3	8.6	5.7	3.3	6.3	5.8	8.4	7.4	4.5	6.7	5.8	5.4	5.7	10.8	6.5	20.7	2.4	2.6	20.1	8.5	0.9	6.4	3.4	7.5	1.0	8.0	10.8	13.6	2.7	5.7	7.2	6.8
OV-GP-07	3.6	8.3	3.7	4.8	4.9	4.4	4.5	4.0	4.8	5.0	4.2	3.5	20.0	8.9	3.6	20.1	1.8	9.9	3.5	3.0	2.5	7.5	2.4	2.9	1.4	8.9	0.9	4.0	3.9	6.2	4.8	4.6
Date Monitored	12/29/2014	9/24/2014	6/16/2014	3/28/2014	12/13/2013	7/13/2013	5/13/2013	2/13/2013	11/20/2012	8/20/2012	5/18/2012	3/12/2012	12/22/2011	9/27/2011	6/29/2011	3/16/2011	12/22/2010	9/27/2010	6/29/2010	3/16/2010	12/8/2009	9/4/2009	6/5/2009	3/3/2009	12/1/2008	9/5/2008	6/23/2008	3/5/2008	12/28/2007	9/30/2007	6/15/2007	3/30/2007

Notes:

OV-GP = Gas Probe
S = Shallow Monitoring Zone
M = Middle Monitoring Zone
D = Deep Monitoring Zone
Depressed O2<20.3% vol.
— Screened interval submerged