

Appendix D

Data Validation

D-1: Validation of Data Generated by King County
Environmental Laboratory

D-2: Validation of Data Generated by AXYS Analytical
Laboratory

Appendix D-1:
Validation of Data Generated by King County
Environmental Laboratory



Technical Memorandum

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To: Richard Jack, King County Toxicology and Contaminant Assessment Group
Debra Williston, King County Toxicology and Contaminant Assessment Group

From: Carly Greyell, King County Toxicology and Contaminant Assessment Group
Scott Mickelson, King County Marine and Sediment Assessment Group

Subject: Data Validation Report
Michigan CSO Study Dry Weather Baseflow Samples – Winter/Spring 2013 and 2014

This technical memorandum summarizes the data validation review performed on 19 dry weather samples collected from within the Michigan Combined Sewer Overflow (CSO) Basin between September 16, 2013 and October 29, 2014. The sampling and analysis of these samples are specified in the project sampling and analysis plan (SAP): *Lower Duwamish Waterway Source Control, Brandon Combined Sewer Basin Study, Sampling and Analysis Plan* (King County 2011) and the SAP addendum *Lower Duwamish Waterway Source Control, Michigan Combined Sewer Basin Study, Sampling and Analysis Plan Addendum* (King County 2013). The 19 dry weather baseflow samples were submitted for analysis of total and dissolved organic carbon (TOC and DOC), total suspended solids (TSS), total and dissolved metals, including mercury, polycyclic aromatic hydrocarbons (PAHs) and phthalates.

1.0 INTRODUCTION

This data validation review has been based, in part, on guidance found in *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review* (EPA 2008) and *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review* (EPA 2010), as well as the project SAP (King County 2011) and SAP addendum (King County 2013). Materials reviewed included Batch Reports and Analytical Quality Control (QC) Reports downloaded from the King County Laboratory Information System (LIMS) database and are included in this memorandum as Attachment A. Also reviewed were data anomaly forms (DAF), which are available upon request. The QC parameters reviewed during this data validation include; holding time, method blanks, spike blanks, laboratory control samples, matrix spikes, matrix spike duplicates, laboratory duplicates, and surrogates, all of which are described below.

1.1. Holding Time

The analytical holding time is a method-specific timeframe, during which sample preparation and analysis should occur to provide valid data. All samples should be analyzed within this prescribed holding time.

1.2. Method Blank

A method blank is an aliquot of clean reference matrix that is generally processed through the entire analytical procedure. Analysis of the method blank is used to evaluate the levels of contamination that might be associated with the processing and analysis of samples. Method blanks were used during all analyses. All method blank results should be less than the method detection limit (MDL).

1.3. Spike Blanks

A spike blank is an aliquot of the clean reference matrix used for the method blank, to which a known concentration of target analyte(s) has been added. The spiked aliquot is processed through the entire analytical procedure. Analysis of the spike blank is used as an indicator of method accuracy. Spike blanks were used during organics, metals, and TOC/DOC analyses. Spike blanks are not addressed in the *National Functional Guidelines*, however, King County has empirically-derived control limits for spike blank analytes, which are shown on the attached QC reports. Spike blank results should be within these control limits.

1.4. Matrix Spike

A matrix spike is a sample aliquot fortified with a known concentration of a target analyte(s). The spiked sample is processed through the entire analytical procedure. Analysis of the matrix spike is used as an indicator of sample matrix effect on the recovery of target analyte(s). Matrix spikes were used during organics, metals, and TOC/DOC analyses. Control limits for individual organic analytes and organic carbon are not addressed in the *National Functional Guidelines*, however, King County has empirically-derived control limits for percent recoveries of these matrix spike analytes, which are shown on the attached QC reports. Matrix spike recoveries should be within these control limits. Control limits for trace metal matrix spike recoveries are addressed in the *National Functional Guidelines*. All trace metal matrix spike recoveries should be within the 75 to 125% control limits for all analytes (EPA 2010).

1.5. Matrix Spike Duplicate

A matrix spike duplicate is a second sample aliquot fortified with a known concentration of a target analyte(s). The spiked sample is processed through the entire analytical procedure. Analysis of the matrix spike duplicate is used as an additional indicator of sample matrix effect on the recovery of target analyte(s) as well as an indicator of method precision. A matrix spike duplicate was used routinely during mercury and organics analysis. The relative percent difference (RPD) between matrix spike and matrix spike duplicate results for organic analytes are not addressed in the *National Functional Guidelines*, however, King

County used an empirically-derived control limit of 40% for this project. The RPD control limit between mercury matrix spike duplicate results is 20% (EPA 2010).

1.6. Laboratory Control Sample

A laboratory control sample is a sample of known analyte concentration(s) that is prepared in the lab from a separate source of analyte(s) relative to the calibration standards. Since the laboratory control sample analysis should follow the entire analytical process, it should be stored and prepared following the same procedures as a field sample. Analysis of a laboratory control sample is used as an indicator of method accuracy and long-term analytical precision. Laboratory control samples were used during TOC/DOC and TSS analyses. King County used percent recovery control limits of 85 to 115% for TOC/DOC analysis and 80 to 120% for TSS analysis on this project. Percent recoveries for laboratory control sample results should be within these control limits.

1.7. Laboratory Duplicate

A laboratory duplicate is a second aliquot of a sample, processed concurrently and in an identical manner with the original sample. Analysis of the laboratory duplicate is used as an indicator of method precision and laboratory subsampling procedures. The laboratory duplicate can also be used to provide information regarding the homogeneity of the sample matrix. Laboratory duplicates were used during TOC/DOC, TSS and ICPMS metals analyses. QC results are reported as an RPD between the sample and laboratory duplicate results. Control limits for conventional analyses are also not addressed under the *National Functional Guidelines*. King County used RPD control limits of 20% for TOC/DOC analysis and 25% for TSS analysis. The RPD for laboratory duplicate results should be below these control limits. Control limits for ICP-MS laboratory duplicates are addressed in the *National Function Guidelines*. The RPD between all trace metal laboratory duplicate results should be below 20% (EPA 2010). Laboratory duplicate RPD results for samples in which the concentration is less than the reporting detection limit (RDL) will not be qualified based solely on whether the RPD is greater than the QC limit. This is based on the inherent analytical variability between the MDL and RDL, which is the limit of practical quantitation.

1.8. Surrogates

A surrogate is a known concentration of non-target analyte which is added to each sample (both analytical and QC samples) prior to extraction and analysis for all trace organic analyses. Surrogate recovery is used as a sample-specific indication of method or matrix bias for target analytes. The surrogate is selected to behave in a similar manner to the target analytes.

The King County Environmental Laboratory used two surrogate compounds during analysis of trace organic compounds, 2-fluorobiphenyl and d14-terphenyl. King County has empirically-derived laboratory QC control limits for these surrogate recoveries, which are 33-96% and 63-125%, respectively. Surrogate recoveries for all analytical and QC samples should be within these control limits. These two surrogate compounds are not addressed in *National Functional Guidelines*.

2.0 CONVENTIONALS

Conventional analytes included total suspended solids and total and dissolved organic carbon. LIMS batch and analytical QC reports for conventional analyses are included as Attachment A to this memorandum.

2.1. Total Suspended Solids

Nineteen samples were submitted for TSS analysis by gravimetric determination following Standard Method SM2540-D (APHA 1998). The samples were batched into the six work groups shown in Table 2-1. Each work group included analysis of a minimum of three QC sample-types; method blanks, laboratory control samples, and laboratory duplicates.

Table 2-1
TSS Work Groups and QC Samples

Work Group	Samples	MB	LCS	LD
WG129042	L58795-1 through -3	X	X	X
WG129099	L58826-1 through -3	X	X	X
WG129578	L58993-1 through -3 and L59024-1 through -3	X	X	X
WG129658	L59070-1 through -3	X	X	X
WG133622	L60526-1 and -2	X	X	X
WG133813	L60671-1 and -2	X	X	X

2.1.1. Holding Time

All TSS samples were analyzed within the seven-day holding time.

2.1.2. Method Blank Results

TSS results in the method blanks associated with all work groups were less than the MDL.

2.1.3. Laboratory Control Sample Results

TSS recoveries in the laboratory control samples associated with all work groups were within the 80 to 120% QC limits, ranging from 89 to 113%.

2.1.4. Laboratory Duplicate Results

RPDs between TSS results in the laboratory duplicates associated with this project were below the 25% QC limit, when the sample TSS result was above the RDL ranging from 2 to 20%.

2.1.5. Total Suspended Solids Data Usability

As a general data reporting format, sample results that are reported as "<RDL" should be qualified with a "J" flag and considered estimated with an unknown bias. All other TSS results for this dataset may be used as reported, without qualification.

2.2. Total and Dissolved Organic Carbon

Nineteen samples were submitted for TOC/DOC analysis by Standard Method SM5310-B (APHA 1998), which is a high-temperature combustion/infrared detection method. The samples were batched into the five work groups shown in Table 2-2. Each work group included analysis of a minimum of five QC sample-types; method blanks, spike blanks, laboratory control samples, matrix spikes, and laboratory duplicates.

Table 2-2
TOC/DOC Work Groups and QC Samples

Work Group	Samples	MB	SB	LCS	MS	LD
WG129096	L58795-1 through -3	X	X	X	X	X
WG129192	L58826-1 through -3	X	X	X	X	X
WG129586	L58993-1 through -3 and L59024-1 through -3	X	X	X	X	X
WG129800	L59070-1 through -3	X	X	X	X	X
WG133758	L60671-1 through -2 and L60671-1 through -2	X	X	X	X	X

2.2.1. Holding Time

All 19 TOC/DOC samples were analyzed within the prescribed 28-day holding time.

2.2.2. Method Blank Results

TOC and DOC results in the method blanks associated with all work groups were less than the MDL.

2.2.3. Spike Blank Results

The spike blank recoveries for TOC and DOC in each of the work groups were all within the laboratory QC limits of 80 to 120%, ranging from 95 to 117%.

2.2.4. Laboratory Control Sample Results

TOC and DOC recoveries in the laboratory control samples associated with each of the work groups were all within the 85 to 115% QC limits, ranging from 91 to 107%.

2.2.5. Matrix Spike Results

TOC and DOC matrix spike recoveries in each of the work groups were all within the 75 to 125% QC limits, ranging from 86 to 113%.

2.2.6. Laboratory Duplicate Results

RPDs between TOC and DOC results in the project-specific laboratory duplicates in each of the work groups were all less than the 20% QC limit, ranging from 1 to 16%.

2.2.7. Total and Dissolved Organic Carbon Data Usability

As a general data reporting format, sample results that are reported as “<RDL” should be qualified with a “J” flag and considered estimated with an unknown bias. All other

total and dissolved organic carbon results for this dataset may be used as reported, without qualification.

3.0 TRACE METALS

Nineteen samples were submitted for analysis of total and dissolved metals, which included mercury and other trace metals. LIMS batch and analytical QC reports for metals analyses are included as Attachment A to this memorandum.

3.1. Total and Dissolved Mercury

Total and dissolved mercury analysis was performed using cold vapor atomic absorption spectroscopy (CVAA) according to EPA Method 245.1 (EPA 1994). The 19 samples were batched into the four work groups shown in Table 3-1. Each work group included analysis of a minimum of four QC sample-types; method blanks, spike blanks, matrix spikes, and matrix spike duplicates.

Table 3-1
Mercury (Total and Dissolved) Work Groups and QC Samples

Work Group	Samples	MB	SB	MS	MSD
WG129302	L58795-1 through -3 and L58826-1 through -3	X	X	X	X
WG129614	L58993-1 through -3 (dissolved only), L59024-1 through -2 and L59024-3 (dissolved only)	X	X	X	X
WG129745	L58993-1 through -3 (total only), L59024-3 (total only) and L59070-1 through -3	X	X	X	X
WG133701	L60526-1 and -2	X	X	X	X
WG133844	L60671-1 and -2	X	X	X	X

3.1.1. Holding Time

All 19 total and dissolved mercury samples were analyzed within the prescribed 28-day holding time.

3.1.2. Method Blank Results

Both total and dissolved mercury results in the method blanks associated with each of the work groups were all less than the MDL.

3.1.3. Spike Blank Results

Mercury spike blank recoveries in each of the work groups were all within the laboratory QC limits of 85 to 115%, ranging from 96 to 101%.

3.1.4. Matrix Spike and Matrix Spike Duplicate Results

The mercury matrix spike and matrix spike duplicate recoveries in each of the work groups were all within the 75 to 125% QC limits, ranging from 77 to 109%, and the RPDs between matrix spike duplicate results were all less than the 20% QC limit, ranging from 0 to 10%.

3.1.5. Sample Handling Issue

All dissolved mercury samples were filtered outside of the method-specified 15-minute holding time. As a result, all dissolved mercury results should be qualified with a “J” flag and considered estimated with an unknown bias.

3.1.6. Total and Dissolved Mercury Data Usability

As a general data reporting format, sample results that are reported as “<MDL” should be assigned a “U” flag in all cases and results that are reported as “<RDL” should be qualified with a “J” flag and considered estimated with an unknown bias. All dissolved mercury results should be qualified with a “J” flag and considered estimated with an unknown bias, due to being filtered outside the hold time. All other total and dissolved mercury results for this dataset may be used as reported, without qualification.

3.2. Total ICP-MS Metals

Total metals, including arsenic, cadmium, chromium, copper, lead, nickel, silver, vanadium, and zinc, were analyzed by inductively coupled plasma mass spectroscopy (ICP-MS) following EPA Methods 200.8 (EPA 1995). The samples were batched into the three work groups shown in Table 3-2. Each of the work groups included a minimum of four QC sample-types; method blanks, spike blanks, matrix spikes, and laboratory duplicates.

Table 3-2
Total ICP-MS Work Groups and QC Samples

Work Group	Samples	MB	SB	MS	LD
WG129626	L58795-1 through -3, L58826-1 through -3, L58993-1 through -3 and L59024-1 through -3.	X	X	X	X
WG129956	L59070-1 through -3	X	X	X	X
WG133974	L60526-1 through -2 and L60671-1 through -2	X	X	X	X

3.2.1. Holding Time

All 19 total metal samples were analyzed within the prescribed 6-month holding time.

3.2.2. Method Blank Results

Results for each total metal in all method blanks were less than the MDL.

3.2.3. Spike Blank Results

All total metal spike blank recoveries in each of the two work groups were within the 85 to 115% QC limits, ranging from 90 to 108%.

3.2.4. Matrix Spike Results

The recoveries for zinc in the matrix spike associated with work groups WG129956 and WG133974 could not be properly assessed from a QC standpoint due to the low spike-to-sample concentration ratio, which did not meet the “4X” rule for evaluating matrix spike recoveries (EPA 2010), but the zinc results in this work group may be used as reported, without qualification, because the spike blank results can be used to evaluate

accuracy for zinc in this work group. All other total metal matrix spike recoveries in the two work groups were within the 75 to 125% QC limits, ranging from 77 to 106%.

3.2.5. Laboratory Duplicate Results

RPDs between total metal laboratory duplicate results in each of the two work groups were all below the 20% QC limit, when the result concentration was greater than the RDL. RPDs ranged from 1 to 5%.

3.2.6. Total ICP-MS Metals Data Usability

As a general data reporting format, sample results that are reported as “<MDL” should be assigned a “U” flag in all cases and results that are reported as “<RDL” should be qualified with a “J” flag and considered estimated with an unknown bias. All other total metals results for this dataset may be used as reported, without qualification.

3.3. Dissolved ICP-MS Metals

Dissolved metals, including arsenic, cadmium, chromium, copper, lead, nickel, silver, vanadium, and zinc, were analyzed by inductively coupled plasma mass spectroscopy (ICP-MS) following EPA Methods 200.8 (EPA 1995). The samples were batched into the three work groups shown in Table 3-3. Each of these work groups included a minimum of four QC sample-types; method blanks, spike blanks, matrix spikes, and laboratory duplicates.

Table 3-3
Dissolved ICP-MS Work Groups and QC Samples

Work Group	Samples	MB	SB	MS	LD
WG129597	L58795-1 through -3, L58826-1 through -3, L58993-1 through -3 and L59024-1 through -3.	X	X	X	X
WG129957	L59070-1 through -3	X	X	X	X
WG133975	L60526-1 through -2 and L60671-1 through -2	X	X	X	X

3.3.1. Holding Time

All 19 dissolved metal samples were analyzed within the prescribed 6-month holding time.

3.3.2. Method Blank Results

Results for each dissolved metal in the method blank associated with the work groups were all less than the MDL.

3.3.3. Spike Blank Results

All dissolved metal spike blank recoveries in the work groups were within the 85 to 115% QC limits, ranging from 91 to 106%.

3.3.4. Matrix Spike Results

All dissolved metal matrix spike recoveries in the work groups were within the 75 to 125% QC limits, 88 to 106%.

3.3.5. Laboratory Duplicate Results

RPDs between dissolved metals laboratory duplicate results in the work groups were all below the 20% QC limit, ranging from 0 to 3%.

3.3.6. Sampling Handling Issue

All dissolved ICP-MS metals samples were filtered outside of the method-specified 15-minute holding time. As a result, all dissolved ICP-MS metals results should be qualified with a “J” flag and considered estimated with an unknown bias.

3.3.7. Dissolved ICP-MS Metals Data Usability

As a general data reporting format, sample results that are reported as “<MDL” should be assigned a “U” flag in all cases and results that are reported as “<RDL” should be qualified with a “J” flag and considered estimated with an unknown bias. All dissolved metal results should be qualified with a “J” flag and considered estimated with an unknown bias, due to being filtered outside the hold time. No further qualifications were necessary.

4.0 TRACE ORGANICS

Nineteen water samples were submitted for analysis of PAH compounds and phthalates by gas chromatography mass spectroscopy (GC-MS) following EPA Methods 3520C/8270D – SW846 (EPA 2007). The instrument method was modified by the use of a large volume injector (LVI) and analysis using selected ion monitoring (SIM). The samples were batched into the six work groups shown, each of which included a minimum of five QC sample-types; method blanks, spike blanks, matrix spikes, matrix spike duplicates and surrogates. LIMS batch and analytical QC reports for PAH analysis are included as Attachment B to this memorandum.

Table 4-1
Trace Organics Work Groups and QC Samples

Work Group	Samples	MB	SB/SBD	MS	MSD	Surrogate
WG129113	L58795-1 through -3	X	X	X	X	X
WG129121	L58826-1 through -3	X	X	X	X	X
WG129485	L58993-1 through -3 and L59024-1 through -3	X	X	X	X	X
WG129695	L59070-1 through -3	X	X	X	X	X
WG133636	L60526-1 and -2	X	X	X	X	X
WG133887	L60671-1 and -2	X	X	X	X	X

4.1. Holding Time

All 19 samples were extracted within the 7-day holding time and analyzed within the subsequent 40-day holding time.

4.2. Method Blank Results

Between one and three phthalate compounds were detected in the six method blanks associated with these work groups. No PAHs were detected in any method blanks. In one work groups, diethyl phthalate was detected above the RDL, and in two others, bis(2-

ethylhexyl)phthalate was detected above the RDL. All other phthalates were detected at concentrations below the RDL. Based on the recommendations in *National Function Guidelines* (EPA 2008), the following data qualification regime should be employed as a result of method blank contamination:

- When both the method blank concentration and the sample concentration are less than the RDL, the sample value should be reported as the numeric RDL value and the result should be qualified with a “U” flag and considered undetected.
- When the method blank concentration is less than the RDL and the sample concentration is greater than the RDL but less than five times the method blank concentration, the numeric sample value should be used as reported but the result should be qualified with a “U” flag and considered undetected.
- When the method blank concentration is less than the RDL and the sample concentration is greater than the RDL and greater than five times the method blank concentration, the sample result may be used as reported, without qualification.

Table 4-2 details qualifications based on method blank contamination for these work groups.

Table 4-2
Trace Organics Qualifications Due to Method Blank Contamination

Work Group	Compound Detected in MB	Conc. Found	Qualification Outcomes
WG129113	Diethyl phthalate	<RDL	No qualifications based on blank contamination.
WG129121	Diethyl phthalate	<RDL	No qualifications based on blank contamination.
	Di-n-butyl phthalate	<RDL	L58826-1 through -3 results were <RDL; it was qualified with a “U” flag and the RDL value was used to represent the level of detection.
WG129485	Diethyl phthalate	<RDL	L59024-3 result was <RDL; it was qualified with a “U” flag and the RDL value was used to represent the level of detection.
	Di-n-butyl phthalate	<RDL	L58993-1 through -2 and L59024-2 results were <RDL; they were qualified with a “U” flag and the RDL values were used to represent the level of detection. L5899-3 and L59024-1 through -2 results were <MDL.
	Bis(2-ethylhexyl)phthalate	>RDL	All bis(2-ethylhexyl)phthalate results in this work group were rejected because of severe blank contamination, high spike blank recovery and both high and low matrix spike and matrix spike duplicate recoveries (see Section 4.3 and 4.4)
WG129695	Diethyl phthalate	>RDL	No qualifications based on blank contamination.
WG133636	Diethyl phthalate	<RDL	No qualifications based on blank contamination.
	Di-n-butyl phthalate	<RDL	Results in L60526-1 and -2 were <RDL; they were qualified with “U” flags and the RDL values were used to represent the level of detection.
WG133887	Diethyl phthalate	<RDL	L60671-1 result was <RDL; it was qualified with a “U” flag and the RDL value was used to represent the level of detection.
	Di-n-butyl phthalate	<RDL	L60671-1 result was <RDL; it was qualified with a

Work Group	Compound Detected in MB	Conc. Found	Qualification Outcomes
			"U" flag and the RDL value was used to represent the level of detection. The result in L60671-2 was <MDL.
	Bis(2-ethylhexyl)phthalate	>RDL	Results in L60671-1 and -2 were <RDL; they were qualified with "U" flags and the RDL values were used to represent the level of detection.

4.3. Spike Blank Results

The 2-methylnaphthalene recovery of 30% in the spike blank associated with work group WG129113 was below the 40% lower QC limit. All associated sample data for 2-methylnaphthalene should be qualified with a "J" flag and considered estimated with a low bias.

The 2-methylnaphthalene recovery of 28% in the spike blank associated with work group WG129121 was below the 40% lower QC limit. All associated sample data for 2-methylnaphthalene should be qualified with a "J" flag and considered estimated with a low bias.

The acenaphthene recovery of 34% in the spike blank associated with work group WG129121 was below the 37% lower QC limit. All associated sample data for acenaphthene should be qualified with a "J" flag and considered estimated with a low bias.

The fluorene recovery of 43% in the spike blank associated with work group WG129121 was below the 54% lower QC limit. All associated sample data for fluorene should be qualified with a "J" flag and considered estimated with a low bias.

The bis(2-ethylhexyl)phthalate recovery of 358% in the spike blank associated with work group WG129485 exceeded the 160% upper QC limit. All bis(2-ethylhexyl)phthalate results in this work group were rejected because of severe blank contamination, high spike blank recovery and both high and low matrix spike and matrix spike duplicate recoveries (see Section 4.2 and 4.4)

The 2-methylnaphthalene recoveries of 18% and 25% in the spike blank and spike blank duplicate associated with work group WG133636 were below the 40% lower QC limit. All associated sample data for 2-methylnaphthalene should be qualified with a "J" flag and considered estimated with a low bias.

The acenaphthene recovery of 31% in the spike blank associated with work group WG133636 was below the 37% lower QC limit, but the spike blank duplicate recovery of 44% was within QC limits. Since the RPD between these recoveries was within the 40% QC limit and the average between the two was within the spike blank recovery QC limits, no qualifications are suggested for acenaphthene in this work group based on spike blank results.

The bis(2-ethylhexyl)phthalate recover of -276% in the spike blank associated with work group WG133887 was well below the 40% lower QC limit. This low recovery was due to

subtracting the relatively high blank concentration and not necessarily because of true low recovery. No qualifications were necessary based on this spike blank result.

All other spike blank recoveries were within the QC limits. Table 4-3 details qualifications based on spike blank results for these work groups.

Table 4-3
Trace Organics Qualifications Due to Spike Blank Results

Work Group	Compound	SB (SBD) % Recovery	Qualification Outcomes
WG129113	2-methylnaphthalene	30%	L58795-2 result qualified with a “J” flag and considered estimated with a low bias. L58795-1 and -3 results <MDL; qualified with a “UJ” flag and considered estimated with a low bias.
WG129121	2-methylnaphthalene	28%	L58826-2 result qualified with a “J” flag and considered estimated with a low bias. L58826-1 and -3 results <MDL; qualified with a “UJ” flag and considered estimated with a low bias.
	Acenaphthene	34%	L58826-2 result qualified with a “J” flag and considered estimated with a low bias. L58826-1 and -3 results <MDL; qualified with a “UJ” flag and considered estimated with a low bias.
	Fluorene	43%	L58826-2 result qualified with a “J” flag and considered estimated with a low bias. L58826-1 and -3 results <MDL; qualified with a “UJ” flag and considered estimated with a low bias.
WG129485	Bis (2-ethylhexyl)phthalate	358%	All bis(2-ethylhexyl)phthalate results in this work group were rejected because of severe blank contamination, high spike blank recovery and both high and low matrix spike and matrix spike duplicate recoveries (see Section 4.2 and 4.4)
WG133636	2-methylnaphthalene	18% (25%)	L60526-1 and -2 results qualified with a “J” flag and considered estimated with a low bias.

4.4. Matrix Spikes/Matrix Spike Duplicates

The 2-methylnaphthalene recovery of 35% in the matrix spike duplicate associated with work group WG129121 was below the 40% lower QC limit. The matrix spike recovery of 43% was within the QC limit and the RPD between the matrix spike and matrix spike duplicate results was 20%, within the 40% QC limit. The average was taken between the matrix spike and matrix spike duplicate recoveries, but this was also below the QC limit. 2-methylnaphthalene was not detected in the sample on which the matrix spike was performed, and so the result should be qualified with a “UJ” flag and considered estimated with a low bias. This flag was already recommended due to the low recovery in the spike blank associated with this work group.

The benzo(a)anthracene recoveries of 57% and 59% in the matrix spike and matrix spike duplicate associated with work group WG129121 were below the 62% lower QC limit. The

3% RPD between these results was within the 40% QC limit. Benzo(a)anthracene was not detected in the sample on which the matrix spike was performed, and so the result should be qualified with a "UJ" flag and considered estimated with a low bias.

The bis(2-ethylhexyl)phthalate recoveries of -164% and -169% in the matrix spike and matrix spike duplicate associated with work group WG129121 were below the 40% lower QC limit. The RPD between these results was 5%, within the 40% QC limit. The bis(2-ethylhexyl)phthalate result in the sample on which the matrix spike was performed was already qualified with a "J" flag because it was <RDL, but it should be considered estimated with a low bias.

The bis(2-ethylhexyl)phthalate recoveries of 209% and -620% in the matrix spike and matrix spike duplicate associated with work group WG129485 were below the 40% lower QC limit. The RPD between these results was 161%, which is outside the 40% QC limit. There was also evidence of severe blank contamination and high spike blank recovery in this work group (see Section 4.2 and 4.3). All bis(2-ethylhexyl)phthalate results in this work group should be qualified with an "R" flag and rejected.

The fluoranthene recoveries of 54% in both the matrix spike and matrix spike duplicate associated with work group WG129695 were below the 58% lower QC limit. The 0% RPD between these results was within the 40% QC limit. Fluoranthene was not detected in the sample on which the matrix spike was performed, and so the result should be qualified with a "UJ" flag and considered estimated with a low bias.

The benzo(a)anthracene recoveries of 53% and 51% in the matrix spike and matrix spike duplicate associated with work group WG129695 were below the 62% lower QC limit. The 3% RPD between these results was within the 40% QC limit. Benzo(a)anthracene was not detected in the sample on which the matrix spike was performed, and so the result should be qualified with a "UJ" flag and considered estimated with a low bias.

The benzo(b,j,k)fluoranthene recoveries of 42% in both the matrix spike and matrix spike duplicate associated with work group WG129695 were below the 45% lower QC limit. The 0% RPD between these results was within the 40% QC limit. Benzo(b,j,k)fluoranthene was not detected in the sample on which the matrix spike was performed, and so the result should be qualified with a "UJ" flag and considered estimated with a low bias.

In work group WG133887, the recoveries for eight out of 22 compounds in the matrix spike and matrix spike duplicates could not be properly assessed from a QC standpoint due to the low spike-to-sample concentration ratio, which did not meet the "4X" rule for evaluating matrix spike recoveries (EPA 2010). All of these compounds performed well in the spike blank, except bis(2-ethylhexyl)phthalate (due to blank contamination), and do not require qualifications based on matrix spike results. Because accuracy for bis(2-ethylhexyl)phthalate could not be properly assessed by the spike blank (See Section 4.3), or the matrix spike, all bis(2-ethylhexyl)phthalate results in this workgroup should be qualified with "J" flags and considered estimated with unknown bias.

The dimethyl phthalate recoveries of 199% and 166% in the matrix spike and matrix spike duplicates associated with work group WG133887 were above the upper QC limit. The 18% RPD between these results was within the 40% QC limit. Dimethyl phthalate was not detected in the sample on which the matrix spike was performed, and so the result should not be qualified based on matrix spike results.

The acenaphthylene recoveries of 113% and 22% in the matrix spike and matrix spike duplicates associated with work group WG133887 were outside the QC limits of 51-103%. The acenaphthylene result in the sample on which the matrix spike was performed should be qualified with a "J" flag, and considered estimated with unknown bias.

The fluoranthene recoveries of 121% and 33% in the matrix spike and matrix spike duplicates associated with work group WG133887 were outside the QC limits of 58-115%. The fluoranthene result in the sample on which the matrix spike was performed should be qualified with a "J" flag, and considered estimated with unknown bias.

The benzo(a)anthracene recovery of 25% in the matrix spike duplicate associated with work group WG133887 was below the lower QC limit of 62%. The matrix spike recovery was within the QC limits at 116%, and the RPD between these results was within the 40% QC limit. The average between the matrix spike and matrix spike duplicate result was outside the QC limits at benzo(a)anthracene result in the sample on which the matrix spike was performed should be qualified with a "J" flag, and considered estimated with unknown bias.

The benzyl butyl phthalate recoveries of 208% and 165% in the matrix spike and matrix spike duplicates associated with work group WG133887 were above the upper QC limit. The 23% RPD between these results was within the 40% QC limit. Benzyl butyl phthalate was not detected in the sample on which the matrix spike was performed, and so the result should not be qualified based on matrix spike results.

There was no matrix spike performed for work group WG133636, but the spike blank and spike blank duplicate can be used to assess accuracy for this work group.

All other matrix spike and matrix spike duplicate recoveries were within the QC limits and all other RPDs between results were below the 40% QC limit. Table 4-4 details qualifications based on matrix spike and matrix spike duplicate results for these work groups.

Table 4-4
Trace Organics Qualifications Due to Matrix Spike and Matrix Spike Duplicate Results

Work Group	Compound	MS; MSD % Recovery	Qualification Outcomes
WG129121	2-methylnaphthalene	43%; 35%	L58826-1 result is <MDL; qualified with a "UJ" flag and considered estimated with a low bias.
	Benzo(a)anthracene	57%; 59%	L58826-1 result is <MDL; qualified with a "UJ" flag and considered estimated with a low bias.
	Bis(2-ethylhexyl)phthalate	27%; 26%	L58826-1 result is <RDL; qualified with a "J" flag and considered estimated with a low bias.
WG129485	Bis(2-ethylhexyl)phthalate	209%; -620%	All bis(2-ethylhexyl)phthalate results in this work group were rejected because of severe blank contamination, high spike blank recovery and both high and low matrix spike and matrix spike duplicate recoveries (see Section 4.2 and 4.3)
WG129695	Fluoranthene	54%; 54%	L59070-1 result is <MDL; qualified with a "UJ" flag and considered estimated with a low bias.
	Benzo(a)anthracene	53%; 51%	L59070-1 result is <MDL; qualified with a "UJ" flag and considered estimated with a low bias.
	Benzo(b,j,k)fluoranthene	42%; 42%	L59070-1 result is <MDL; qualified with a "UJ" flag and considered estimated with a low bias.
WG133887	Naphthalene, 2-methylnaphthlanene, acenaphthene, fluorene, phenanthrene, pyrene, chrysene, di-n-octyl phthalate	All outside QC limits.	The 4x rule was not met, accuracy could not be assessed by the matrix spike, but the spike blank results were acceptable; therefore, results in L60671-1 should not be qualified based on matrix spike results.
	Bis(2-ethylhexyl)phthalate	All outside QC limits.	The 4x rule was not met, accuracy could not be assessed by the matrix spike, and the method blank concentration interfered with the spike blank results. The method blank indicated the sample results should be considered non-detects; therefore, results in L60671-1 and -2 should be qualified with "UJ" flags and considered estimated non-detects with unknown bias based on the lack of accuracy information in this workgroup and the method blank contamination.
	Dimethyl phthalate	199%; 166%	L60671-1 result is <MDL; no qualification necessary based on matrix spike results.
	Benzyl butyl phthalate	208%; 165%	L60671-1 result is <MDL; no qualification necessary based on matrix spike results.
	Acenaphthylene	113%; 22%	L60671-1 result should be qualified with a "J" flag and considered estimated with unknown bias.
	Fluoranthene	121%; 33%	L60671-1 result should be qualified with a "J" flag and considered estimated with unknown bias.
	Benzo(a)anthracene	116%*; 25%	L60671-1 result should be qualified with a "J" flag and considered estimated with unknown bias.

*This recovery is within QC limits.

4.5. Surrogates

Recoveries of the surrogates 2-fluorobiphenyl and d14-terphenyl in analytical and QC samples in each of the 6 work groups were within the 33-96% and 63-125% QC limits, respectively, except the 103% 2-fluorobiphenyl recovery in sample L60671-2 in workgroup WG133887. See Table 4-5 for a list of recommended qualifications.

Table 4-5
Trace Organics Qualifications Due to Surrogate Results

Work Group	Compound	Qualification Outcomes
WG133887	2-methylnaphthalene, naphthalene, dimethyl phthalate	L60671-1 result is <RDL; qualified with a “J” flag and considered estimated with unknown bias.
	Acenaphthene, acenaphthylene, fluorene	L60671-1 result is <MDL; no qualifications needed based on surrogate results.
	Diethyl phthalate	L60671-1 result should be qualified with a “J” flag and considered estimated with high bias

4.6. Trace Organics Data Usability

As a general data reporting format, sample results that are reported as “<MDL” should be assigned a “U” flag in all cases and results that are reported as “<RDL” should be qualified with a “J” flag and considered estimated with an unknown bias. Trace organic analytical results for the 19 samples included in this dataset may be used as reported, without qualification, with the exceptions summarized in Tables 4-2, 4-3, 4-4, and 4-5. LIMS Batch and QC reports are provided as Attachment A.

5.0 REFERENCES

APHA 1998. *Standard Methods for the Examination of Water and Wastewater*, 20th Edition. American Public Health Association. Washington, D.C.

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King County. 2011. Lower Duwamish Waterway Source Control Brandon Combined Sewer Basin Study – Sampling and Analysis Plan. Prepared by Dean Wilson, Water and Land Resources Division. Seattle, Washington.

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Should you have questions regarding any of the information contained in this data validation memorandum, please don't hesitate to contact me.

Sincerely,

Carly Greyell
King County, Toxicology and Contaminant Assessment Group
206-477-4703
carly.greyell@kingcounty.gov

ATTACHMENT A

CONVENTIONAL, METALS AND TRACE ORGANICS ANALYSES LIMS BATCH AND QC REPORTS

LIMSView Batch Report for Michigan Basin CSO - Data Validation for Dry Baseflow

WG129096 (toc/doc) Department: 3 - Conventionals Move Date: 2013-10-25 11:08:15

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L58593-1	421250ON	Ambient Offshore Water Column-North	CVDOC	FRESH WTR	9/16/2013	9/17/2013	9/26/2013	
L58593-1	421250ON	Ambient Offshore Water Column-North	CVTOC	FRESH WTR	9/16/2013	9/26/2013	9/26/2013	
L58593-2	421250ON	Ambient Offshore Water Column-North	CVDOC	FRESH WTR	9/16/2013	9/17/2013	9/26/2013	
L58593-2	421250ON	Ambient Offshore Water Column-North	CVTOC	FRESH WTR	9/16/2013	9/25/2013	9/25/2013	
L58593-3	421250ON	Ambient Offshore Water Column-North	CVDOC	FRESH WTR	9/16/2013	9/17/2013	9/26/2013	
L58593-3	421250ON	Ambient Offshore Water Column-North	CVTOC	FRESH WTR	9/16/2013	9/25/2013	9/25/2013	
L58594-1	421250ON	Ambient Offshore Water Column-North	CVDOC	SALT WTR	9/16/2013	9/17/2013	9/26/2013	
L58594-1	421250ON	Ambient Offshore Water Column-North	CVTOC	SALT WTR	9/16/2013	9/25/2013	9/25/2013	
L58594-2	421250ON	Ambient Offshore Water Column-North	CVDOC	SALT WTR	9/16/2013	9/17/2013	9/26/2013	
L58594-2	421250ON	Ambient Offshore Water Column-North	CVTOC	SALT WTR	9/16/2013	9/25/2013	9/25/2013	
L58594-3	421250ON	Ambient Offshore Water Column-North	CVDOC	SALT WTR	9/16/2013	9/17/2013	9/26/2013	
L58594-3	421250ON	Ambient Offshore Water Column-North	CVTOC	SALT WTR	9/16/2013	9/25/2013	9/25/2013	
L58791-1	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	FRESH WTR	9/19/2013	9/20/2013	9/26/2013	SAMP
L58795-1	423589-320-4	CSO Basin Study	CVDOC	SEWER WTR	9/19/2013	9/20/2013	9/26/2013	
L58795-2	423589-320-4	CSO Basin Study	CVDOC	SEWER WTR	9/19/2013	9/20/2013	9/26/2013	
L58795-3	423589-320-4	CSO Basin Study	CVDOC	SEWER WTR	9/19/2013	9/20/2013	9/26/2013	
WG129096-1	MB		CVTOC	BLANK WTR		9/25/2013	9/25/2013	MB2 130925
WG129096-2	LCS		CVTOC	BLANK WTR		9/25/2013	9/25/2013	LEVEL1
WG129096-3	SB		CVTOC	BLANK WTR		9/25/2013	9/25/2013	WG129096-1
WG129096-4	MS		CVTOC	SALT WTR		9/25/2013	9/25/2013	L58594-1
WG129096-5	MB		CVTOC	BLANK WTR		9/26/2013	9/26/2013	MB1 130926
WG129096-6	LD		CVTOC	FRESH WTR		9/26/2013	9/26/2013	L58593-1
WG129096-7	LCS		CVTOC	BLANK WTR		9/26/2013	9/26/2013	LEVEL1
WG129096-8	MB		CVDOC	BLANK WTR		9/20/2013	9/26/2013	MB1 130920
WG129096-9	SB		CVDOC	BLANK WTR		9/20/2013	9/26/2013	WG129096-8
WG129096-10	LD		CVDOC	SEWER WTR		9/20/2013	9/26/2013	L58795-1
WG129096-11	MS		CVDOC	SEWER WTR		9/20/2013	9/26/2013	L58795-1
WG129096-12	LCS		CVDOC	BLANK WTR		9/26/2013	9/26/2013	LEVEL1
WG129096-13	MB		CVDOC	BLANK WTR		9/17/2013	9/26/2013	MB1 130917
WG129096-14	LD		CVDOC	FRESH WTR		9/17/2013	9/26/2013	L58593-2
WG129096-15	MS		CVDOC	SALT WTR		9/17/2013	9/26/2013	L58594-2

WG129192 (toc/doc) Department: 3 - Conventionals Move Date: 2013-10-11 09:28:22

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L58466-3	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	9/30/2013	10/2/2013	10/2/2013	
L58636-1	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	9/27/2013	10/2/2013	10/2/2013	

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L58636-3	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	9/27/2013	10/2/2013	10/2/2013
L58826-1	423589-320-4	CSO Basin Study	CVDOC	SEWER WTR	9/25/2013	9/27/2013	10/2/2013
L58826-1	423589-320-4	CSO Basin Study	CVTOC	SEWER WTR	9/25/2013	10/2/2013	10/2/2013
L58826-2	423589-320-4	CSO Basin Study	CVDOC	SEWER WTR	9/25/2013	9/27/2013	10/2/2013
L58826-2	423589-320-4	CSO Basin Study	CVTOC	SEWER WTR	9/25/2013	10/2/2013	10/2/2013
L58826-3	423589-320-4	CSO Basin Study	CVDOC	SEWER WTR	9/25/2013	9/27/2013	10/2/2013
L58826-3	423589-320-4	CSO Basin Study	CVTOC	SEWER WTR	9/25/2013	10/4/2013	10/4/2013
L58842-1	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTOC	LEACHATE	10/2/2013	10/3/2013	10/3/2013
L58842-3	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTOC	LEACHATE	10/2/2013	10/2/2013	10/2/2013
L58842-4	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTOC	LEACHATE	10/2/2013	10/2/2013	10/2/2013
L58842-5	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTOC	LEACHATE	10/2/2013	10/2/2013	10/2/2013
L58855-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/3/2013	10/3/2013	10/3/2013
L58855-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/3/2013	10/3/2013	10/3/2013
L58861-1	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	STORM WTR	10/1/2013	10/2/2013	10/3/2013 SAMP
L58861-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	STORM WTR	10/1/2013	10/2/2013	10/2/2013 SAMP
L58861-2	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	STORM WTR	10/1/2013	10/2/2013	10/3/2013 SAMP
L58861-2	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	STORM WTR	10/1/2013	10/2/2013	10/2/2013 SAMP
L58861-3	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	STORM WTR	10/1/2013	10/2/2013	10/3/2013 FREP
L58861-3	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	STORM WTR	10/1/2013	10/2/2013	10/2/2013 FREP
WG129192-1	MB		CVTOC	BLANK WTR		10/2/2013	10/2/2013 MB1 131002
WG129192-2	LCS		CVTOC	BLANK WTR		10/2/2013	10/2/2013 LEVEL1
WG129192-3	SB		CVTOC	BLANK WTR		10/2/2013	10/2/2013 WG129192-1
WG129192-4	LD		CVTOC	GRND WTR		10/2/2013	10/2/2013 L58636-1
WG129192-5	MS		CVTOC	GRND WTR		10/2/2013	10/2/2013 L58636-1
WG129192-6	LD		CVTOC	STORM WTR		10/2/2013	10/2/2013 L58861-3
WG129192-7	MS		CVTOC	STORM WTR		10/2/2013	10/2/2013 L58861-3
WG129192-8	LD		CVTOC	FRESH WTR		10/2/2013	10/2/2013 L58466-3
WG129192-9	MS		CVTOC	FRESH WTR		10/2/2013	10/2/2013 L58466-3
WG129192-10	MB		CVDOC	BLANK WTR		9/27/2013	10/2/2013 MB1 130927
WG129192-11	LCS		CVDOC	BLANK WTR		10/2/2013	10/2/2013 LEVEL1
WG129192-12	SB		CVDOC	BLANK WTR		9/27/2013	10/2/2013 WG129192-10
WG129192-13	LD		CVDOC	SEWER WTR		9/27/2013	10/2/2013 L58826-1
WG129192-14	MS		CVDOC	SEWER WTR		9/27/2013	10/2/2013 L58826-1
WG129192-15	MB		CVTOC	BLANK WTR		10/2/2013	10/2/2013 MB2 131002
WG129192-16	LCS		CVTOC	BLANK WTR		10/2/2013	10/2/2013 LEVEL1
WG129192-17	LD		CVTOC	LEACHATE		10/2/2013	10/2/2013 L58842-3
WG129192-18	MS		CVTOC	LEACHATE		10/2/2013	10/2/2013 L58842-3
WG129192-19	MB		CVDOC	BLANK WTR		10/2/2013	10/3/2013 MB1 131002
WG129192-20	LCS		CVDOC	BLANK WTR		10/3/2013	10/3/2013 LEVEL1
WG129192-21	SB		CVDOC	BLANK WTR		10/2/2013	10/3/2013 WG129192-19
WG129192-22	LD		CVDOC	STORM WTR		10/2/2013	10/3/2013 L58861-2

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WG129192-23 MS	CVDOC	STORM WTR	10/2/2013	10/3/2013	L58861-2
WG129192-24 MB	CVTOC	BLANK WTR	10/3/2013	10/3/2013	MB1 131003
WG129192-25 LCS	CVTOC	BLANK WTR	10/3/2013	10/3/2013	LEVEL1
WG129192-26 MB	CVTOC	BLANK WTR	10/3/2013	10/3/2013	MB2 131003
WG129192-27 LCS	CVTOC	BLANK WTR	10/3/2013	10/3/2013	LEVEL1
WG129192-28 SB	CVTOC	BLANK WTR	10/3/2013	10/3/2013	WG129192-26
WG129192-29 MS	CVTOC	GRND WTR	10/3/2013	10/3/2013	L58855-1
WG129192-30 LD	CVTOC	GRND WTR	10/3/2013	10/3/2013	L58855-1
WG129192-31 MB	CVTOC	BLANK WTR	10/4/2013	10/4/2013	MB1 131004
WG129192-32 LCS	CVTOC	BLANK WTR	10/4/2013	10/4/2013	LEVEL1
WG129192-33 SB	CVTOC	BLANK WTR	10/4/2013	10/4/2013	WG129192-31
WG129192-34 LD	CVTOC	SEWER WTR	10/4/2013	10/4/2013	L58826-3
WG129192-35 MS	CVTOC	SEWER WTR	10/4/2013	10/4/2013	L58826-3

WG129586 (toc) Department: 3 - Conventionals Move Date: 2013-11-01 18:04:45

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L58758-1	421250ON	Ambient Offshore Water Column-North	CVDOC	FRESH WTR	10/21/2013	10/22/2013	10/25/2013	
L58758-1	421250ON	Ambient Offshore Water Column-North	CVTOC	FRESH WTR	10/21/2013	10/23/2013	10/23/2013	
L58758-2	421250ON	Ambient Offshore Water Column-North	CVDOC	FRESH WTR	10/21/2013	10/22/2013	10/25/2013	
L58758-2	421250ON	Ambient Offshore Water Column-North	CVTOC	FRESH WTR	10/21/2013	10/23/2013	10/23/2013	
L58758-3	421250ON	Ambient Offshore Water Column-North	CVDOC	FRESH WTR	10/21/2013	10/22/2013	10/25/2013	
L58758-3	421250ON	Ambient Offshore Water Column-North	CVTOC	FRESH WTR	10/21/2013	10/23/2013	10/23/2013	
L58759-1	421250ON	Ambient Offshore Water Column-North	CVDOC	SALT WTR	10/21/2013	10/22/2013	10/25/2013	
L58759-1	421250ON	Ambient Offshore Water Column-North	CVTOC	SALT WTR	10/21/2013	10/23/2013	10/23/2013	
L58759-2	421250ON	Ambient Offshore Water Column-North	CVDOC	SALT WTR	10/21/2013	10/22/2013	10/25/2013	
L58759-2	421250ON	Ambient Offshore Water Column-North	CVTOC	SALT WTR	10/21/2013	10/23/2013	10/23/2013	
L58759-3	421250ON	Ambient Offshore Water Column-North	CVDOC	SALT WTR	10/21/2013	10/22/2013	10/25/2013	
L58759-3	421250ON	Ambient Offshore Water Column-North	CVTOC	SALT WTR	10/21/2013	10/23/2013	10/23/2013	
L58856-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/17/2013	10/23/2013	10/23/2013	
L58856-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/17/2013	10/23/2013	10/23/2013	
L58897-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/24/2013	10/24/2013	10/24/2013	
L58899-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/17/2013	10/23/2013	10/23/2013	
L58899-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/16/2013	10/23/2013	10/23/2013	
L58899-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/17/2013	10/23/2013	10/23/2013	
L58899-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/16/2013	10/23/2013	10/23/2013	
L58901-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/22/2013	10/23/2013	10/23/2013	
L58901-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/18/2013	10/23/2013	10/23/2013	
L58901-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/18/2013	10/23/2013	10/23/2013	
L58901-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/18/2013	10/24/2013	10/24/2013	

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L58902-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/18/2013	10/23/2013	10/23/2013	
L58905-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/21/2013	10/23/2013	10/23/2013	
L58905-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/24/2013	10/24/2013	10/24/2013	
L58905-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/22/2013	10/23/2013	10/23/2013	
L58905-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/22/2013	10/23/2013	10/23/2013	
L58948-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/22/2013	10/23/2013	10/23/2013	
L58948-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/24/2013	10/24/2013	10/24/2013	
L58948-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/24/2013	10/24/2013	10/24/2013	
L58949-1	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	10/23/2013	10/23/2013	10/23/2013	
L58949-2	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	10/23/2013	10/23/2013	10/23/2013	
L58949-3	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	10/23/2013	10/23/2013	10/23/2013	
L58949-4	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	10/23/2013	10/23/2013	10/23/2013	
L58949-5	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	10/23/2013	10/23/2013	10/23/2013	
L58949-6	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	10/23/2013	10/23/2013	10/23/2013	
L58949-7	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	10/23/2013	10/23/2013	10/23/2013	
L58949-8	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	10/23/2013	10/23/2013	10/23/2013	
L58949-9	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	10/24/2013	10/25/2013	10/25/2013	
L58949-10	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	10/23/2013	10/23/2013	10/23/2013	
L58949-11	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	10/23/2013	10/23/2013	10/23/2013	
L58951-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/25/2013	10/25/2013	10/25/2013	
L58952-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/25/2013	10/25/2013	10/25/2013	
L58952-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/25/2013	10/25/2013	10/25/2013	
L58952-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/25/2013	10/25/2013	10/25/2013	
L58976-1	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	FRESH WTR	10/17/2013	10/18/2013	10/25/2013	SAMP
L58976-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRESH WTR	10/17/2013	10/23/2013	10/23/2013	SAMP
L58976-2	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	FRESH WTR	10/17/2013	10/18/2013	10/25/2013	SAMP
L58976-2	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRESH WTR	10/17/2013	10/23/2013	10/23/2013	SAMP
L58993-1	423589-320-4	CSO Basin Study	CVDOC	SEWER WTR	10/21/2013	10/23/2013	10/25/2013	
L58993-1	423589-320-4	CSO Basin Study	CVTOC	SEWER WTR	10/21/2013	10/25/2013	10/25/2013	
L58993-2	423589-320-4	CSO Basin Study	CVDOC	SEWER WTR	10/21/2013	10/23/2013	10/25/2013	
L58993-2	423589-320-4	CSO Basin Study	CVTOC	SEWER WTR	10/21/2013	10/25/2013	10/25/2013	
L58993-3	423589-320-4	CSO Basin Study	CVDOC	SEWER WTR	10/21/2013	10/23/2013	10/25/2013	
L58993-3	423589-320-4	CSO Basin Study	CVTOC	SEWER WTR	10/21/2013	10/25/2013	10/25/2013	
L59024-1	423589-320-4	CSO Basin Study	CVDOC	SEWER WTR	10/22/2013	10/23/2013	10/25/2013	
L59024-1	423589-320-4	CSO Basin Study	CVTOC	SEWER WTR	10/22/2013	10/25/2013	10/25/2013	
L59024-2	423589-320-4	CSO Basin Study	CVDOC	SEWER WTR	10/22/2013	10/23/2013	10/25/2013	
L59024-2	423589-320-4	CSO Basin Study	CVTOC	SEWER WTR	10/22/2013	10/25/2013	10/25/2013	
L59024-3	423589-320-4	CSO Basin Study	CVDOC	SEWER WTR	10/22/2013	10/23/2013	10/25/2013	
L59024-3	423589-320-4	CSO Basin Study	CVTOC	SEWER WTR	10/22/2013	10/25/2013	10/25/2013	
WG129586-1	MB		CVTOC	BLANK WTR		10/23/2013	10/23/2013	MB1 131023
WG129586-2	LCS		CVTOC	BLANK WTR		10/23/2013	10/23/2013	LEVEL1

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WG129586-3 SB	CVTOC	BLANK WTR	10/23/2013	10/23/2013	WG129586-1
WG129586-4 LD	CVTOC	GRND WTR	10/23/2013	10/23/2013	L58899-6
WG129586-5 MS	CVTOC	GRND WTR	10/23/2013	10/23/2013	L58899-6
WG129586-6 MB	CVTOC	BLANK WTR	10/23/2013	10/23/2013	MB2 131023
WG129586-7 LCS	CVTOC	BLANK WTR	10/23/2013	10/23/2013	LEVEL1
WG129586-8 SB	CVTOC	BLANK WTR	10/23/2013	10/23/2013	WG129586-6
WG129586-9 LD	CVTOC	FRESH WTR	10/23/2013	10/23/2013	L58949-8
WG129586-10 MS	CVTOC	FRESH WTR	10/23/2013	10/23/2013	L58949-8
WG129586-11 MB	CVTOC	BLANK WTR	10/24/2013	10/24/2013	MB1 131024
WG129586-12 LCS	CVTOC	BLANK WTR	10/24/2013	10/24/2013	LEVEL1
WG129586-13 SB	CVTOC	BLANK WTR	10/24/2013	10/24/2013	WG129586-11
WG129586-14 MB	CVTOC	BLANK WTR	10/25/2013	10/25/2013	MB1 131025
WG129586-15 LCS	CVTOC	BLANK WTR	10/25/2013	10/25/2013	LEVEL1
WG129586-16 SB	CVTOC	BLANK WTR	10/25/2013	10/25/2013	WG129586-14
WG129586-17 LCS	CVDOC	BLANK WTR	10/25/2013	10/25/2013	LEVEL1
WG129586-18 SB	CVDOC	BLANK WTR	10/18/2013	10/25/2013	WG129586-19
WG129586-19 MB	CVDOC	BLANK WTR	10/18/2013	10/25/2013	MB1 131018
WG129586-20 MB	CVDOC	BLANK WTR	10/23/2013	10/25/2013	MB1 131023
WG129586-21 LD	CVDOC	SEWER WTR	10/23/2013	10/25/2013	L58993-3
WG129586-22 MS	CVDOC	SEWER WTR	10/23/2013	10/25/2013	L58993-3
WG129586-23 LD	CVTOC	SEWER WTR	10/25/2013	10/25/2013	L59024-1
WG129586-24 MS	CVTOC	SEWER WTR	10/25/2013	10/25/2013	L59024-1
WG129586-25 MB	CVTOC	BLANK WTR	10/25/2013	10/25/2013	MB2 131025
WG129586-26 LCS	CVTOC	BLANK WTR	10/25/2013	10/25/2013	LEVEL1
WG129586-27 LD	CVTOC	GRND WTR	10/25/2013	10/25/2013	L58951-6
WG129586-28 MS	CVTOC	GRND WTR	10/25/2013	10/25/2013	L58951-6
WG129586-29 MS	CVTOC	FRESH WTR	10/23/2013	10/23/2013	L58758-1
WG129586-30 LD	CVTOC	SALT WTR	10/23/2013	10/23/2013	L58759-3
WG129586-31 LD	CVDOC	FRESH WTR	10/18/2013	10/25/2013	L58976-2
WG129586-32 MS	CVDOC	FRESH WTR	10/18/2013	10/25/2013	L58976-2
WG129586-33 MB	CVDOC	BLANK WTR	10/22/2013	10/25/2013	MB1 131022
WG129586-34 MS	CVDOC	FRESH WTR	10/22/2013	10/25/2013	L58758-2
WG129586-35 LD	CVDOC	SALT WTR	10/22/2013	10/25/2013	L58759-1

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Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L58948-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/29/2013	11/6/2013	11/6/2013	
L58951-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/28/2013	11/6/2013	11/6/2013	
L58951-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/28/2013	11/6/2013	11/6/2013	

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L58952-1	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	11/7/2013	11/7/2013	11/7/2013
L58954-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/29/2013	11/6/2013	11/6/2013
L58954-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/29/2013	11/7/2013	11/7/2013
L58954-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/28/2013	11/7/2013	11/7/2013
L58954-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/28/2013	11/7/2013	11/7/2013
L59035-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/31/2013	11/6/2013	11/6/2013
L59035-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/31/2013	11/6/2013	11/6/2013
L59064-1	421422-ENGW	SWD-ENGW Enumclaw Groundwater Quarterly	CVTOC	GRND WTR	11/4/2013	11/6/2013	11/6/2013
L59064-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/31/2013	11/6/2013	11/6/2013
L59064-5	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	11/4/2013	11/6/2013	11/6/2013
L59070-1	423589-320-4	CSO Basin Study	CVDOC	SEWER WTR	10/29/2013	10/31/2013	11/7/2013
L59070-1	423589-320-4	CSO Basin Study	CVTOC	SEWER WTR	10/29/2013	11/7/2013	11/7/2013
L59070-2	423589-320-4	CSO Basin Study	CVDOC	SEWER WTR	10/29/2013	10/31/2013	11/7/2013
L59070-2	423589-320-4	CSO Basin Study	CVTOC	SEWER WTR	10/29/2013	11/7/2013	11/7/2013
L59070-3	423589-320-4	CSO Basin Study	CVDOC	SEWER WTR	10/29/2013	10/31/2013	11/7/2013
L59070-3	423589-320-4	CSO Basin Study	CVTOC	SEWER WTR	10/29/2013	11/7/2013	11/7/2013
L59097-1	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	11/7/2013	11/7/2013	11/7/2013
L59097-2	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	11/1/2013	11/6/2013	11/6/2013
L59098-1	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	11/4/2013	11/6/2013	11/6/2013
L59098-2	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	11/7/2013	11/7/2013	11/7/2013
L59099-1	421422-ENGW	SWD-ENGW Enumclaw Groundwater Quarterly	CVTOC	GRND WTR	11/5/2013	11/6/2013	11/6/2013
L59101-1	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	11/7/2013	11/7/2013	11/7/2013
L59101-2	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	11/5/2013	11/6/2013	11/6/2013
L59102-1	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	11/6/2013	11/7/2013	11/7/2013
L59102-2	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	11/6/2013	11/7/2013	11/7/2013
L59106-1	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	11/7/2013	11/7/2013	11/7/2013
L59106-2	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	11/7/2013	11/7/2013	11/7/2013
WG129800-1	MB		CVTOC	BLANK WTR		11/6/2013	11/6/2013 MB1 131106
WG129800-2	LCS		CVTOC	BLANK WTR		11/6/2013	11/6/2013 LEVEL1
WG129800-3	SB		CVTOC	BLANK WTR		11/6/2013	11/6/2013 WG129800-1
WG129800-4	LD		CVTOC	GRND WTR		11/6/2013	11/6/2013 L59035-1
WG129800-5	MS		CVTOC	GRND WTR		11/6/2013	11/6/2013 L59035-1
WG129800-6	MB		CVTOC	BLANK WTR		11/7/2013	11/7/2013 MB1 131107
WG129800-7	LCS		CVTOC	BLANK WTR		11/7/2013	11/7/2013 LEVEL1
WG129800-8	SB		CVTOC	BLANK WTR		11/7/2013	11/7/2013 WG129800-6
WG129800-9	LD		CVTOC	GRND WTR		11/7/2013	11/7/2013 L58954-6
WG129800-10	MS		CVTOC	GRND WTR		11/7/2013	11/7/2013 L58954-6
WG129800-11	LD		CVTOC	SEWER WTR		11/7/2013	11/7/2013 L59070-1
WG129800-12	MS		CVTOC	SEWER WTR		11/7/2013	11/7/2013 L59070-1
WG129800-13	MB		CVDOC	BLANK WTR		10/31/2013	11/7/2013 MB1 131031
WG129800-14	LCS		CVDOC	BLANK WTR		11/7/2013	11/7/2013 LEVEL1

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WG129800-15 SB	CVDOC	BLANK WTR	10/31/2013	11/7/2013	WG129800-13
WG129800-16 LD	CVDOC	SEWER WTR	10/31/2013	11/7/2013	L59070-3
WG129800-17 MS	CVDOC	SEWER WTR	10/31/2013	11/7/2013	L59070-3

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Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L58232-3	421422-CHSW-A5-TD	SWD-CHSW - A5 TD Cedar Hills Surface Area 5 Top Deck	CVTOC	FRESH WTR	9/23/2013	9/25/2013	9/25/2013	
L58232-4	421422-CHSW-A5-TD	SWD-CHSW - A5 TD Cedar Hills Surface Area 5 Top Deck	CVTOC	FRESH WTR	9/23/2013	9/24/2013	9/24/2013	
L58466-1	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	9/24/2013	9/25/2013	9/25/2013	
L58466-2	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	9/25/2013	9/25/2013	9/25/2013	
L58635-3	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTOC	GRND WTR	9/23/2013	9/24/2013	9/24/2013	
L58651-3	421422-HTGW	SWD-HTGW Houghton Groundwater Quarterly	CVTOC	GRND WTR	9/17/2013	9/25/2013	9/25/2013	
L58687-1	421422-HTGW	SWD-HTGW Houghton Groundwater Quarterly	CVTOC	GRND WTR	9/16/2013	9/24/2013	9/24/2013	
L58687-3	421422-HTGW	SWD-HTGW Houghton Groundwater Quarterly	CVTOC	GRND WTR	9/16/2013	9/24/2013	9/24/2013	
L58689-1	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTOC	GRND WTR	9/19/2013	9/24/2013	9/24/2013	
L58689-3	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTOC	GRND WTR	9/24/2013	9/24/2013	9/24/2013	
L58693-1	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTOC	GRND WTR	9/24/2013	9/24/2013	9/24/2013	
L58693-3	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTOC	GRND WTR	9/20/2013	9/24/2013	9/24/2013	
L58693-4	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTOC	GRND WTR	9/20/2013	9/24/2013	9/24/2013	
L58693-5	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTOC	GRND WTR	9/23/2013	9/24/2013	9/24/2013	
L58702-1	421422-VASW	SWD-VASW Vashon Surface Water Quarterly	CVTOC	FRESH WTR	9/18/2013	9/24/2013	9/24/2013	
L58702-3	421422-VASW	SWD-VASW Vashon Surface Water Quarterly	CVTOC	FRESH WTR	9/18/2013	9/24/2013	9/24/2013	
L58702-4	421422-VASW	SWD-VASW Vashon Surface Water Quarterly	CVTOC	FRESH WTR	9/18/2013	9/24/2013	9/24/2013	
L58703-1	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	9/24/2013	9/24/2013	9/24/2013	
L58703-2	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	9/24/2013	9/24/2013	9/24/2013	
L58703-4	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	9/24/2013	9/25/2013	9/25/2013	
L58703-7	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	9/25/2013	9/25/2013	9/25/2013	
L58703-9	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	9/25/2013	9/25/2013	9/25/2013	
L58703-10	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	9/25/2013	9/25/2013	9/25/2013	
L58762-1	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTOC	GRND WTR	9/17/2013	9/24/2013	9/24/2013	
L58791-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRESH WTR	9/19/2013	9/24/2013	9/24/2013	SAMP
L58795-1	423589-320-4	CSO Basin Study	CVTOC	SEWER WTR	9/19/2013	9/25/2013	9/25/2013	
L58795-2	423589-320-4	CSO Basin Study	CVTOC	SEWER WTR	9/19/2013	9/25/2013	9/25/2013	
L58795-3	423589-320-4	CSO Basin Study	CVTOC	SEWER WTR	9/19/2013	9/25/2013	9/25/2013	
L58815-1	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTOC	GRND WTR	9/24/2013	9/24/2013	9/24/2013	
WG129092-1	MB		CVTOC	BLANK WTR		9/24/2013	9/24/2013	MB1 130924
WG129092-2	LCS		CVTOC	BLANK WTR		9/24/2013	9/24/2013	LEVEL1

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WG129092-3 SB	CVTOC	BLANK WTR	9/24/2013	9/24/2013	WG129092-1
WG129092-4 MB	CVTOC	BLANK WTR	9/24/2013	9/24/2013	MB2 130924
WG129092-5 LCS	CVTOC	BLANK WTR	9/24/2013	9/24/2013	LEVEL1
WG129092-6 SB	CVTOC	BLANK WTR	9/24/2013	9/24/2013	WG129092-4
WG129092-7 MB	CVTOC	BLANK WTR	9/25/2013	9/25/2013	MB1 130925
WG129092-8 LCS	CVTOC	BLANK WTR	9/25/2013	9/25/2013	LEVEL1
WG129092-9 SB	CVTOC	BLANK WTR	9/25/2013	9/25/2013	WG129092-7
WG129092-10 LD	CVTOC	GRND WTR	9/25/2013	9/25/2013	L58651-3
WG129092-11 MS	CVTOC	GRND WTR	9/25/2013	9/25/2013	L58651-3
WG129092-12 LD	CVTOC	FRESH WTR	9/25/2013	9/25/2013	L58232-3
WG129092-13 MS	CVTOC	FRESH WTR	9/25/2013	9/25/2013	L58232-3
WG129092-14 LD	CVTOC	SEWER WTR	9/25/2013	9/25/2013	L58795-2
WG129092-15 MS	CVTOC	SEWER WTR	9/25/2013	9/25/2013	L58795-2

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Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L58689-1	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTSS	GRND WTR	9/19/2013	9/25/2013	10/4/2013	
L58702-1	421422-VASW	SWD-VASW Vashon Surface Water Quarterly	CVTSS	FRESH WTR	9/18/2013	9/25/2013	10/4/2013	
L58702-3	421422-VASW	SWD-VASW Vashon Surface Water Quarterly	CVTSS	FRESH WTR	9/18/2013	9/25/2013	10/4/2013	
L58702-4	421422-VASW	SWD-VASW Vashon Surface Water Quarterly	CVTSS	FRESH WTR	9/18/2013	9/25/2013	10/4/2013	
L58703-1	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTSS	FRESH WTR	9/24/2013	9/25/2013	10/4/2013	
L58703-2	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTSS	FRESH WTR	9/24/2013	9/25/2013	10/4/2013	
L58703-4	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTSS	FRESH WTR	9/24/2013	9/25/2013	10/4/2013	
L58703-7	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTSS	FRESH WTR	9/25/2013	9/25/2013	10/4/2013	
L58703-9	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTSS	FRESH WTR	9/25/2013	9/25/2013	10/4/2013	
L58703-10	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTSS	FRESH WTR	9/25/2013	9/25/2013	10/4/2013	
L58704-1	421422-CHSW-P2	SWD-CHSW P - 2 Cedar Hills Surface Water	CVTSS	FRESH WTR	9/25/2013	9/25/2013	10/4/2013	
L58704-2	421422-CHSW-P2	SWD-CHSW P - 2 Cedar Hills Surface Water	CVTSS	FRESH WTR	9/25/2013	9/25/2013	10/4/2013	
L58704-3	421422-CHSW-P2	SWD-CHSW P - 2 Cedar Hills Surface Water	CVTSS	FRESH WTR	9/25/2013	9/25/2013	10/4/2013	
L58751-3	421250BS	Ambient Intertidal Beaches-South	CVTSS	SALT WTR	9/18/2013	9/25/2013	10/4/2013	
L58751-4	421250BS	Ambient Intertidal Beaches-South	CVTSS	SALT WTR	9/18/2013	9/25/2013	10/4/2013	
L58751-5	421250BS	Ambient Intertidal Beaches-South	CVTSS	SALT WTR	9/18/2013	9/25/2013	10/4/2013	
L58751-6	421250BS	Ambient Intertidal Beaches-South	CVTSS	SALT WTR	9/18/2013	9/25/2013	10/4/2013	
L58751-8	421250BS	Ambient Intertidal Beaches-South	CVTSS	SALT WTR	9/18/2013	9/25/2013	10/4/2013	
L58791-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTSS	FRESH WTR	9/19/2013	9/25/2013	10/4/2013	SAMP
L58795-1	423589-320-4	CSO Basin Study	CVTSS	SEWER WTR	9/19/2013	9/25/2013	10/4/2013	

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L58795-2	423589-320-4	CSO Basin Study	CVTSS	SEWER WTR	9/19/2013	9/25/2013	10/4/2013	
L58795-3	423589-320-4	CSO Basin Study	CVTSS	SEWER WTR	9/19/2013	9/25/2013	10/4/2013	
WG129042-1	MB		CVTSS	BLANK WTR		9/25/2013	10/4/2013	MB 130925
WG129042-2	LCS		CVTSS	BLANK WTR		9/25/2013	10/4/2013	LEVEL1
WG129042-3	LD		CVTSS	GRND WTR		9/25/2013	10/4/2013	L58689-1
WG129042-4	LD		CVTSS	FRESH WTR		9/25/2013	10/4/2013	L58703-1
WG129042-5	LD		CVTSS	SALT WTR		9/25/2013	10/4/2013	L58751-3
WG129042-6	LD		CVTSS	FRESH WTR		9/25/2013	10/4/2013	L58791-1
WG129042-7	MB		CVTSS	BLANK WTR		9/25/2013	10/4/2013	MB2 130925
WG129042-8	LCS		CVTSS	BLANK WTR		9/25/2013	10/4/2013	LEVEL1
WG129042-9	LD		CVTSS	SEWER WTR		9/25/2013	10/4/2013	L58795-1

WG129099 (tss for 421422/421161/423) Department: 3 - Conventionals Move Date: 2013-10-09 13:26:55

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L58147-1	421161_FR	IW Surcharge QC - Field Replicate	CVTSS	IW WTR	9/23/2013	9/30/2013	10/1/2013	
L58147-2	421161_FR	IW Surcharge QC - Field Replicate	CVTSS	IW WTR	9/24/2013	9/30/2013	10/1/2013	
L58147-3	421161_FR	IW Surcharge QC - Field Replicate	CVTSS	IW WTR	9/25/2013	9/30/2013	10/1/2013	
L58798-1	421161	IW SURCHARGE	CVTSS	IW WTR	9/24/2013	9/30/2013	10/1/2013	
L58799-1	421161	IW SURCHARGE	CVTSS	IW WTR	9/23/2013	9/30/2013	10/1/2013	
L58799-2	421161	IW SURCHARGE	CVTSS	IW WTR	9/24/2013	9/30/2013	10/1/2013	
L58799-3	421161	IW SURCHARGE	CVTSS	IW WTR	9/25/2013	9/30/2013	10/1/2013	
L58800-2	421161	IW SURCHARGE	CVTSS	IW WTR	9/24/2013	9/30/2013	10/1/2013	
L58800-3	421161	IW SURCHARGE	CVTSS	IW WTR	9/25/2013	9/30/2013	10/1/2013	
L58801-1	421161	IW SURCHARGE	CVTSS	IW WTR	9/24/2013	9/30/2013	10/1/2013	
L58801-2	421161	IW SURCHARGE	CVTSS	IW WTR	9/25/2013	9/30/2013	10/1/2013	
L58802-1	421161	IW SURCHARGE	CVTSS	IW WTR	9/23/2013	9/30/2013	10/1/2013	
L58802-2	421161	IW SURCHARGE	CVTSS	IW WTR	9/24/2013	9/30/2013	10/1/2013	
L58802-3	421161	IW SURCHARGE	CVTSS	IW WTR	9/25/2013	9/30/2013	10/1/2013	
L58804-1	421161	IW SURCHARGE	CVTSS	IW WTR	9/23/2013	9/30/2013	10/1/2013	
L58804-2	421161	IW SURCHARGE	CVTSS	IW WTR	9/24/2013	9/30/2013	10/1/2013	
L58804-3	421161	IW SURCHARGE	CVTSS	IW WTR	9/25/2013	9/30/2013	10/1/2013	
L58805-1	421161	IW SURCHARGE	CVTSS	IW WTR	9/23/2013	9/30/2013	10/1/2013	
L58805-2	421161	IW SURCHARGE	CVTSS	IW WTR	9/24/2013	9/30/2013	10/1/2013	
L58805-3	421161	IW SURCHARGE	CVTSS	IW WTR	9/25/2013	9/30/2013	10/1/2013	
L58807-1	421161	IW SURCHARGE	CVTSS	IW WTR	9/23/2013	9/30/2013	10/1/2013	
L58807-2	421161	IW SURCHARGE	CVTSS	IW WTR	9/24/2013	9/30/2013	10/1/2013	
L58807-3	421161	IW SURCHARGE	CVTSS	IW WTR	9/25/2013	9/30/2013	10/1/2013	
L58808-1	421161	IW SURCHARGE	CVTSS	IW WTR	9/23/2013	9/30/2013	10/1/2013	
L58808-2	421161	IW SURCHARGE	CVTSS	IW WTR	9/24/2013	9/30/2013	10/1/2013	

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L58808-3	421161	IW SURCHARGE	CVTSS	IW WTR	9/25/2013	9/30/2013	10/1/2013	
L58815-1	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTSS	GRND WTR	9/24/2013	9/30/2013	10/1/2013	
L58826-1	423589-320-4	CSO Basin Study	CVTSS	SEWER WTR	9/25/2013	9/30/2013	10/1/2013	
L58826-2	423589-320-4	CSO Basin Study	CVTSS	SEWER WTR	9/25/2013	9/30/2013	10/1/2013	
L58826-3	423589-320-4	CSO Basin Study	CVTSS	SEWER WTR	9/25/2013	9/30/2013	10/1/2013	
WG129099-9	MB		CVTSS	BLANK WTR		9/30/2013	10/1/2013	MB1 130930
WG129099-10	LCS		CVTSS	BLANK WTR		9/30/2013	10/1/2013	LEVEL1
WG129099-11	LD		CVTSS	IW WTR		9/30/2013	10/1/2013	L58798-1
WG129099-12	MB		CVTSS	BLANK WTR		9/30/2013	10/1/2013	MB2 130930
WG129099-13	LCS		CVTSS	BLANK WTR		9/30/2013	10/1/2013	LEVEL1
WG129099-14	LD		CVTSS	IW WTR		9/30/2013	10/1/2013	L58805-1
WG129099-15	LD		CVTSS	GRND WTR		9/30/2013	10/1/2013	L58815-1
WG129099-16	LD		CVTSS	SEWER WTR		9/30/2013	10/1/2013	L58826-2

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Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L58856-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/17/2013	10/24/2013	10/31/2013	
L58856-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/17/2013	10/24/2013	10/31/2013	
L58899-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/17/2013	10/24/2013	10/31/2013	
L58899-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/17/2013	10/24/2013	10/31/2013	
L58901-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/22/2013	10/24/2013	10/31/2013	
L58901-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/18/2013	10/24/2013	10/31/2013	
L58901-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/18/2013	10/24/2013	10/31/2013	
L58901-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/18/2013	10/24/2013	10/31/2013	
L58902-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/18/2013	10/24/2013	10/31/2013	
L58905-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/21/2013	10/24/2013	10/31/2013	
L58905-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/24/2013	10/24/2013	10/31/2013	
L58905-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/22/2013	10/24/2013	10/31/2013	
L58905-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/22/2013	10/24/2013	10/31/2013	
L58948-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/22/2013	10/24/2013	10/31/2013	
L58948-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/24/2013	10/24/2013	10/31/2013	
L58948-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/24/2013	10/24/2013	10/31/2013	
L58949-1	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTSS	FRESH WTR	10/23/2013	10/24/2013	10/31/2013	
L58949-2	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTSS	FRESH WTR	10/23/2013	10/24/2013	10/31/2013	
L58949-3	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTSS	FRESH WTR	10/23/2013	10/24/2013	10/31/2013	
L58949-4	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTSS	FRESH WTR	10/23/2013	10/24/2013	10/31/2013	
L58949-5	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTSS	FRESH WTR	10/23/2013	10/24/2013	10/31/2013	
L58949-6	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTSS	FRESH WTR	10/23/2013	10/24/2013	10/31/2013	
L58949-7	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTSS	FRESH WTR	10/23/2013	10/24/2013	10/31/2013	

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L58949-8	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTSS	FRESH WTR	10/23/2013	10/24/2013	10/31/2013	
L58949-9	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTSS	FRESH WTR	10/24/2013	10/24/2013	10/31/2013	
L58949-10	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTSS	FRESH WTR	10/23/2013	10/24/2013	10/31/2013	
L58949-11	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTSS	FRESH WTR	10/23/2013	10/24/2013	10/31/2013	
L58988-1	422019	WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	10/21/2013	10/24/2013	10/31/2013	
L58988-2	422019	WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	10/21/2013	10/24/2013	10/31/2013	
L58988-3	422019	WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	10/21/2013	10/24/2013	10/31/2013	
L58988-4	422019	WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	10/21/2013	10/24/2013	10/31/2013	
L58988-5	422019	WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	10/21/2013	10/24/2013	10/31/2013	
L58988-6	422019	WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	10/21/2013	10/24/2013	10/31/2013	
L58988-7	422019	WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	10/21/2013	10/24/2013	10/31/2013	
L58988-8	422019	WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	10/21/2013	10/24/2013	10/31/2013	
L58988-9	422019	WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	10/21/2013	10/24/2013	10/31/2013	
L58988-10	422019	WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	10/21/2013	10/24/2013	10/31/2013	
L58988-11	422019	WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	10/21/2013	10/24/2013	10/31/2013	
L58988-12	422019	WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	10/21/2013	10/24/2013	10/31/2013	
L58993-1	423589-320-4	CSO Basin Study	CVTSS	SEWER WTR	10/21/2013	10/24/2013	10/31/2013	
L58993-2	423589-320-4	CSO Basin Study	CVTSS	SEWER WTR	10/21/2013	10/24/2013	10/31/2013	
L58993-3	423589-320-4	CSO Basin Study	CVTSS	SEWER WTR	10/21/2013	10/24/2013	10/31/2013	
L59024-1	423589-320-4	CSO Basin Study	CVTSS	SEWER WTR	10/22/2013	10/24/2013	10/31/2013	
L59024-2	423589-320-4	CSO Basin Study	CVTSS	SEWER WTR	10/22/2013	10/24/2013	10/31/2013	
L59024-3	423589-320-4	CSO Basin Study	CVTSS	SEWER WTR	10/22/2013	10/24/2013	10/31/2013	
WG129578-1	MB		CVTSS	BLANK WTR		10/24/2013	10/31/2013	MB1 131024
WG129578-2	LCS		CVTSS	BLANK WTR		10/24/2013	10/31/2013	LEVEL1
WG129578-3	LD		CVTSS	GRND WTR		10/24/2013	10/31/2013	L58856-1
WG129578-4	MB		CVTSS	BLANK WTR		10/24/2013	10/31/2013	MB2 131024
WG129578-5	LCS		CVTSS	BLANK WTR		10/24/2013	10/31/2013	LEVEL1
WG129578-6	LD		CVTSS	FRESH WTR		10/24/2013	10/31/2013	L58949-1
WG129578-7	LD		CVTSS	FRESH WTR		10/24/2013	10/31/2013	L58988-1
WG129578-8	MB		CVTSS	BLANK WTR		10/24/2013	10/31/2013	MB3 131024
WG129578-9	LCS		CVTSS	BLANK WTR		10/24/2013	10/31/2013	LEVEL1
WG129578-10	LD		CVTSS	SEWER WTR		10/24/2013	10/31/2013	L58993-1

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Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L58897-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/24/2013	10/31/2013	11/5/2013	
L58948-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/29/2013	10/31/2013	11/5/2013	
L58951-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/28/2013	10/31/2013	11/5/2013	
L58951-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/28/2013	10/31/2013	11/5/2013	

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L58951-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/28/2013	10/31/2013	11/5/2013	
L58951-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/25/2013	10/31/2013	11/5/2013	
L58952-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/25/2013	10/31/2013	11/5/2013	
L58952-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/25/2013	10/31/2013	11/5/2013	
L58952-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/25/2013	10/31/2013	11/5/2013	
L58954-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/29/2013	10/31/2013	11/5/2013	
L58954-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/29/2013	10/31/2013	11/5/2013	
L58954-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/28/2013	10/31/2013	11/5/2013	
L58954-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/28/2013	10/31/2013	11/5/2013	
L59035-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/31/2013	10/31/2013	11/5/2013	
L59035-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/31/2013	10/31/2013	11/5/2013	
L59064-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/31/2013	10/31/2013	11/5/2013	
L59070-1	423589-320-4	CSO Basin Study	CVTSS	SEWER WTR	10/29/2013	10/31/2013	11/5/2013	
L59070-2	423589-320-4	CSO Basin Study	CVTSS	SEWER WTR	10/29/2013	10/31/2013	11/5/2013	
L59070-3	423589-320-4	CSO Basin Study	CVTSS	SEWER WTR	10/29/2013	10/31/2013	11/5/2013	
WG129658-1	MB		CVTSS	BLANK WTR		10/31/2013	11/5/2013	MB1 131031
WG129658-2	LCS		CVTSS	BLANK WTR		10/31/2013	11/5/2013	LEVEL1
WG129658-3	LD		CVTSS	GRND WTR		10/31/2013	11/5/2013	L58948-2
WG129658-4	LD		CVTSS	SEWER WTR		10/31/2013	11/5/2013	L59070-2

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Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L60382-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	7/2/2014	7/8/2014	7/11/2014	
L60484-1	4212500N	Ambient Offshore Water Column-North	CVTSS	SALT WTR	7/7/2014	7/8/2014	7/11/2014	
L60484-2	4212500N	Ambient Offshore Water Column-North	CVTSS	SALT WTR	7/7/2014	7/8/2014	7/11/2014	
L60484-3	4212500N	Ambient Offshore Water Column-North	CVTSS	SALT WTR	7/7/2014	7/8/2014	7/11/2014	
L60484-4	4212500N	Ambient Offshore Water Column-North	CVTSS	SALT WTR	7/7/2014	7/8/2014	7/11/2014	
L60484-5	4212500N	Ambient Offshore Water Column-North	CVTSS	SALT WTR	7/7/2014	7/8/2014	7/11/2014	
L60484-6	4212500N	Ambient Offshore Water Column-North	CVTSS	SALT WTR	7/7/2014	7/8/2014	7/11/2014	
L60484-7	4212500N	Ambient Offshore Water Column-North	CVTSS	SALT WTR	7/7/2014	7/8/2014	7/11/2014	
L60484-8	4212500N	Ambient Offshore Water Column-North	CVTSS	SALT WTR	7/7/2014	7/8/2014	7/11/2014	
L60484-9	4212500N	Ambient Offshore Water Column-North	CVTSS	SALT WTR	7/7/2014	7/8/2014	7/11/2014	
L60484-10	4212500N	Ambient Offshore Water Column-North	CVTSS	SALT WTR	7/7/2014	7/8/2014	7/11/2014	
L60484-11	4212500N	Ambient Offshore Water Column-North	CVTSS	SALT WTR	7/7/2014	7/8/2014	7/11/2014	
L60484-12	4212500N	Ambient Offshore Water Column-North	CVTSS	SALT WTR	7/7/2014	7/8/2014	7/11/2014	FREP@L60484-13
L60484-13	4212500N	Ambient Offshore Water Column-North	CVTSS	SALT WTR	7/7/2014	7/8/2014	7/11/2014	
L60484-14	4212500N	Ambient Offshore Water Column-North	CVTSS	SALT WTR	7/7/2014	7/8/2014	7/11/2014	
L60484-15	4212500N	Ambient Offshore Water Column-North	CVTSS	SALT WTR	7/7/2014	7/8/2014	7/11/2014	
L60484-16	4212500N	Ambient Offshore Water Column-North	CVTSS	SALT WTR	7/7/2014	7/8/2014	7/11/2014	

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L60484-17	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	7/7/2014	7/8/2014	7/11/2014
L60484-18	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	7/7/2014	7/8/2014	7/11/2014
L60484-19	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	7/7/2014	7/8/2014	7/11/2014
L60484-20	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	7/7/2014	7/8/2014	7/11/2014
L60484-21	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	7/7/2014	7/8/2014	7/11/2014
L60484-22	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	7/7/2014	7/8/2014	7/11/2014
L60484-23	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	7/7/2014	7/8/2014	7/11/2014
L60484-24	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	7/7/2014	7/8/2014	7/11/2014
L60484-25	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	7/7/2014	7/8/2014	7/11/2014
L60484-26	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	7/7/2014	7/8/2014	7/11/2014
L60484-27	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	7/7/2014	7/8/2014	7/11/2014
L60484-28	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	7/7/2014	7/8/2014	7/11/2014
L60484-29	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	7/7/2014	7/8/2014	7/11/2014
L60484-30	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	7/7/2014	7/8/2014	7/11/2014
L60484-31	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	7/7/2014	7/8/2014	7/11/2014
L60484-32	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	7/7/2014	7/8/2014	7/11/2014
L60484-33	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	7/7/2014	7/8/2014	7/11/2014
L60501-3	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	7/2/2014	7/8/2014	7/11/2014
L60501-4	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	7/2/2014	7/8/2014	7/11/2014
L60526-1	423589-320-4	CSO Basin Study	CVTSS	SEWER WTR	7/7/2014	7/8/2014	7/11/2014
L60526-2	423589-320-4	CSO Basin Study	CVTSS	SEWER WTR	7/7/2014	7/8/2014	7/11/2014
L60552-3	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	7/2/2014	7/8/2014	7/11/2014
L60576-1	421240A	STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	7/2/2014	7/8/2014	7/11/2014
L60576-2	421240A	STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	7/2/2014	7/8/2014	7/11/2014
L60576-3	421240A	STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	7/2/2014	7/8/2014	7/11/2014
L60576-4	421240A	STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	7/2/2014	7/8/2014	7/11/2014
L60576-5	421240A	STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	7/2/2014	7/8/2014	7/11/2014
L60576-6	421240A	STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	7/2/2014	7/8/2014	7/11/2014
L60576-7	421240A	STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	7/2/2014	7/8/2014	7/11/2014
L60576-8	421240A	STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	7/2/2014	7/8/2014	7/11/2014
L60576-9	421240A	STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	7/2/2014	7/8/2014	7/11/2014
L60576-10	421240A	STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	7/2/2014	7/8/2014	7/11/2014
L60576-11	421240A	STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	7/2/2014	7/8/2014	7/11/2014
L60576-12	421240A	STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	7/2/2014	7/8/2014	7/11/2014
L60576-13	421240A	STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	7/2/2014	7/8/2014	7/11/2014
L60577-1	421195-190	Vashon Island Surface Water	CVTSS	FRESH WTR	7/2/2014	7/8/2014	7/11/2014
L60577-2	421195-190	Vashon Island Surface Water	CVTSS	FRESH WTR	7/2/2014	7/8/2014	7/11/2014
L60577-3	421195-190	Vashon Island Surface Water	CVTSS	FRESH WTR	7/2/2014	7/8/2014	7/11/2014
L60577-4	421195-190	Vashon Island Surface Water	CVTSS	FRESH WTR	7/2/2014	7/8/2014	7/11/2014
L60578-1	421240A	STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	7/2/2014	7/8/2014	7/11/2014
L60578-2	421240A	STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	7/2/2014	7/8/2014	7/11/2014

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L60578-3	421240A	STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	7/2/2014	7/8/2014	7/11/2014	
L60578-4	421240A	STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	7/2/2014	7/8/2014	7/11/2014	
L60578-5	421240A	STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	7/2/2014	7/8/2014	7/11/2014	
L60602-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	7/8/2014	7/8/2014	7/11/2014	
L60602-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	7/8/2014	7/8/2014	7/11/2014	
L60602-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	7/8/2014	7/8/2014	7/11/2014	
L60603-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	7/7/2014	7/8/2014	7/11/2014	
L60603-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	7/7/2014	7/8/2014	7/11/2014	
WG133622-1	MB		CVTSS	BLANK WTR		7/8/2014	7/11/2014	MB1 7/8/14
WG133622-2	LCS		CVTSS	BLANK WTR		7/8/2014	7/11/2014	LEVEL1
WG133622-3	LD		CVTSS	FRESH WTR		7/8/2014	7/11/2014	L60578-3
WG133622-4	LD		CVTSS	FRESH WTR		7/8/2014	7/11/2014	L60576-9
WG133622-5	MB		CVTSS	BLANK WTR		7/8/2014	7/11/2014	MB2 7/8/14
WG133622-6	LCS		CVTSS	BLANK WTR		7/8/2014	7/11/2014	LEVEL1
WG133622-7	LD		CVTSS	GRND WTR		7/8/2014	7/11/2014	L60382-1
WG133622-8	MB		CVTSS	BLANK WTR		7/8/2014	7/11/2014	MB3 7/8/14
WG133622-9	LCS		CVTSS	BLANK WTR		7/8/2014	7/11/2014	LEVEL1
WG133622-10	LD		CVTSS	SALT WTR		7/8/2014	7/11/2014	L60484-10
WG133622-11	LD		CVTSS	SALT WTR		7/8/2014	7/11/2014	L60484-19
WG133622-12	MB		CVTSS	BLANK WTR		7/8/2014	7/11/2014	MB4 7/8/14
WG133622-13	LCS		CVTSS	BLANK WTR		7/8/2014	7/11/2014	LEVEL1
WG133622-14	LD		CVTSS	SALT WTR		7/8/2014	7/11/2014	L60484-33
WG133622-15	LD		CVTSS	SEWER WTR		7/8/2014	7/11/2014	L60526-2

WG133758 (TOC, DOC/421422, 423589) Department: 3 - Conventionals Move Date: 23-JUL-14

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L60363-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	7/11/2014	7/15/2014	7/15/2014	
L60363-3	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	7/11/2014	7/15/2014	7/15/2014	
L60526-1	423589-320-4	CSO Basin Study	CVDOC	SEWER WTR	7/7/2014	7/8/2014	7/16/2014	
L60526-1	423589-320-4	CSO Basin Study	CVTOC	SEWER WTR	7/7/2014	7/15/2014	7/15/2014	
L60526-2	423589-320-4	CSO Basin Study	CVDOC	SEWER WTR	7/7/2014	7/8/2014	7/15/2014	
L60526-2	423589-320-4	CSO Basin Study	CVTOC	SEWER WTR	7/7/2014	7/15/2014	7/15/2014	
L60602-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	7/8/2014	7/15/2014	7/15/2014	
L60602-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	7/8/2014	7/15/2014	7/15/2014	
L60602-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	7/8/2014	7/15/2014	7/15/2014	
L60602-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	7/9/2014	7/15/2014	7/15/2014	
L60603-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	7/7/2014	7/15/2014	7/15/2014	
L60603-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	7/7/2014	7/15/2014	7/15/2014	
L60604-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	7/9/2014	7/15/2014	7/15/2014	

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L60604-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	7/14/2014	7/15/2014	7/15/2014
L60604-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	7/14/2014	7/15/2014	7/15/2014
L60604-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	7/15/2014	7/15/2014	7/15/2014
L60658-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	7/15/2014	7/15/2014	7/15/2014
L60658-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	7/16/2014	7/16/2014	7/16/2014
L60658-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	7/17/2014	7/17/2014	7/17/2014
L60661-1	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTOC	LEACHATE	7/15/2014	7/16/2014	7/16/2014
L60661-3	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTOC	LEACHATE	7/16/2014	7/16/2014	7/16/2014
L60661-4	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTOC	LEACHATE	7/16/2014	7/16/2014	7/16/2014
L60661-5	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTOC	LEACHATE	7/16/2014	7/16/2014	7/16/2014
L60671-1	423589-320-4	CSO Basin Study	CVDOC	SEWER WTR	7/16/2014	7/17/2014	7/17/2014
L60671-1	423589-320-4	CSO Basin Study	CVTOC	SEWER WTR	7/16/2014	7/17/2014	7/17/2014
L60671-2	423589-320-4	CSO Basin Study	CVDOC	SEWER WTR	7/16/2014	7/17/2014	7/17/2014
L60671-2	423589-320-4	CSO Basin Study	CVTOC	SEWER WTR	7/16/2014	7/17/2014	7/17/2014
WG133758-1	MB		CVDOC	BLANK WTR		7/8/2014	7/15/2014 MB1 07/08/14 14:00
WG133758-2	SB		CVDOC	BLANK WTR		7/8/2014	7/15/2014 WG133758-1
WG133758-3	LCS		CVDOC	BLANK WTR		7/15/2014	7/15/2014 LEVEL1
WG133758-4	MB		CVTOC	BLANK WTR		7/15/2014	7/15/2014 MB1 07/15/14
WG133758-5	SB		CVTOC	BLANK WTR		7/15/2014	7/15/2014 WG133758-4
WG133758-6	LCS		CVTOC	BLANK WTR		7/15/2014	7/15/2014 LEVEL1
WG133758-7	LD		CVTOC	GRND WTR		7/15/2014	7/15/2014 L60602-5
WG133758-8	MS		CVTOC	GRND WTR		7/15/2014	7/15/2014 L60602-5
WG133758-9	LD		CVTOC	SEWER WTR		7/15/2014	7/15/2014 L60526-2
WG133758-10	MS		CVTOC	SEWER WTR		7/15/2014	7/15/2014 L60526-2
WG133758-11	MB		CVDOC	BLANK WTR		7/8/2014	7/16/2014 MB1 07/08/14 14:00
WG133758-12	SB		CVDOC	BLANK WTR		7/8/2014	7/16/2014 WG133758-11
WG133758-13	LCS		CVDOC	BLANK WTR		7/16/2014	7/16/2014 LEVEL1
WG133758-14	LD		CVDOC	SEWER WTR		7/8/2014	7/16/2014 L60526-1
WG133758-15	MS		CVDOC	SEWER WTR		7/8/2014	7/16/2014 L60526-1
WG133758-16	MB		CVTOC	BLANK WTR		7/16/2014	7/16/2014 MB1 07/16/14
WG133758-17	SB		CVTOC	BLANK WTR		7/16/2014	7/16/2014 WG133758-16
WG133758-18	LCS		CVTOC	BLANK WTR		7/16/2014	7/16/2014 LEVEL1
WG133758-19	LD		CVTOC	LEACHATE		7/16/2014	7/16/2014 L60661-4
WG133758-20	MS		CVTOC	LEACHATE		7/16/2014	7/16/2014 L60661-4
WG133758-21	MB		CVDOC	BLANK WTR		7/17/2014	7/17/2014 MB1 07/17/14 13:00
WG133758-22	LCS		CVDOC	BLANK WTR		7/17/2014	7/17/2014 LEVEL1
WG133758-23	MB		CVTOC	BLANK WTR		7/17/2014	7/17/2014 MB2 07/17/14
WG133758-24	LCS		CVTOC	BLANK WTR		7/17/2014	7/17/2014 LEVEL1

WG133813 (Assorted TSS: 7/17/14) Department: 3 - Conventionals Move Date: 01-AUG-14

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Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L60605-1		421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	7/15/2014	7/18/2014	7/21/2014	
L60605-2		421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	7/15/2014	7/18/2014	7/21/2014	
L60605-3		421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	7/15/2014	7/18/2014	7/21/2014	
L60605-4		421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	7/15/2014	7/18/2014	7/21/2014	
L60605-5		421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	7/15/2014	7/18/2014	7/21/2014	
L60605-22		421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	7/15/2014	7/18/2014	7/21/2014	
L60605-23		421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	7/15/2014	7/18/2014	7/21/2014	
L60605-25		421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	7/15/2014	7/18/2014	7/21/2014	
L60605-26		421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	7/15/2014	7/18/2014	7/21/2014	
L60605-27		421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	7/15/2014	7/18/2014	7/21/2014	
L60605-29		421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	7/15/2014	7/18/2014	7/21/2014	
L60605-31		421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	7/15/2014	7/18/2014	7/21/2014	
L60605-32		421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	7/15/2014	7/18/2014	7/21/2014	
L60605-33		421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	7/15/2014	7/18/2014	7/21/2014	
L60605-37		421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	7/14/2014	7/18/2014	7/21/2014	
L60605-38		421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	7/14/2014	7/18/2014	7/21/2014	
L60605-39		421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	7/14/2014	7/18/2014	7/21/2014	
L60605-40		421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	7/14/2014	7/18/2014	7/21/2014	
L60605-41		421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	7/14/2014	7/18/2014	7/21/2014	
L60605-42		421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	7/14/2014	7/18/2014	7/21/2014	
L60605-44		421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	7/14/2014	7/18/2014	7/21/2014	
L60605-45		421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	7/14/2014	7/18/2014	7/21/2014	
L60605-46		421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	7/14/2014	7/18/2014	7/21/2014	
L60605-47		421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	7/14/2014	7/18/2014	7/21/2014	
L60605-48		421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	7/14/2014	7/18/2014	7/21/2014	
L60605-49		421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	7/14/2014	7/18/2014	7/21/2014	
L60671-1	423589-320-4	CSO Basin Study	CVTSS	SEWER WTR	7/16/2014	7/18/2014	7/21/2014	
L60671-2	423589-320-4	CSO Basin Study	CVTSS	SEWER WTR	7/16/2014	7/18/2014	7/21/2014	
WG133813-1	MB		CVTSS	BLANK WTR		7/18/2014	7/21/2014	MB1 7/18/14
WG133813-2	LCS		CVTSS	FRESH WTR		7/18/2014	7/21/2014	LEVEL1
WG133813-3	LD		CVTSS	FRESH WTR		7/18/2014	7/21/2014	L60605-4
WG133813-4	MB		CVTSS	BLANK WTR		7/18/2014	7/21/2014	MB2 7/18/14
WG133813-5	LCS		CVTSS	BLANK WTR		7/18/2014	7/21/2014	LEVEL1
WG133813-6	LD		CVTSS	FRESH WTR		7/18/2014	7/21/2014	L60605-45
WG133813-7	LD		CVTSS	SEWER WTR		7/18/2014	7/21/2014	L60671-1

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WG129302 (CSO) Department: 6 - Metals Move Date: 2013-10-18 14:51:12

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L58795-1	423589-320-4	CSO Basin Study	MTHG-LOW	SEWER WTR	9/19/2013	10/8/2013	10/14/2013	
L58795-1	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	SEWER WTR	9/19/2013	10/8/2013	10/14/2013	
L58795-2	423589-320-4	CSO Basin Study	MTHG-LOW	SEWER WTR	9/19/2013	10/8/2013	10/14/2013	
L58795-2	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	SEWER WTR	9/19/2013	10/8/2013	10/14/2013	
L58795-3	423589-320-4	CSO Basin Study	MTHG-LOW	SEWER WTR	9/19/2013	10/8/2013	10/14/2013	
L58795-3	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	SEWER WTR	9/19/2013	10/8/2013	10/14/2013	
L58826-1	423589-320-4	CSO Basin Study	MTHG-LOW	SEWER WTR	9/25/2013	10/8/2013	10/14/2013	
L58826-1	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	SEWER WTR	9/25/2013	10/8/2013	10/14/2013	
L58826-2	423589-320-4	CSO Basin Study	MTHG-LOW	SEWER WTR	9/25/2013	10/8/2013	10/14/2013	
L58826-2	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	SEWER WTR	9/25/2013	10/8/2013	10/14/2013	
L58826-3	423589-320-4	CSO Basin Study	MTHG-LOW	SEWER WTR	9/25/2013	10/8/2013	10/14/2013	
L58826-3	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	SEWER WTR	9/25/2013	10/8/2013	10/14/2013	
L58889-1	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	MTHG-LOW	BLANK WTR	10/7/2013	10/8/2013	10/14/2013	
L58889-2	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	MTHG-LOW	BLANK WTR	10/7/2013	10/8/2013	10/14/2013	
L58889-3	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	MTHG-LOW	BLANK WTR	10/7/2013	10/8/2013	10/14/2013	
WG129302-1	MB		MTHG-LOW	BLANK WTR		10/8/2013	10/14/2013	METHOD BLANK
WG129302-1	MB		MTHG-LOW-DISS	BLANK WTR		10/8/2013	10/14/2013	METHOD BLANK
WG129302-2	SB		MTHG-LOW	BLANK WTR		10/8/2013	10/14/2013	WG129302-1 HG-LLOW
WG129302-3	MS		MTHG-LOW-DISS	SEWER WTR		10/8/2013	10/14/2013	L58826-3 HG-LLOW WG129302-3 L58826-3
WG129302-4	MSD		MTHG-LOW-DISS	SEWER WTR		10/8/2013	10/14/2013	HG-LLOW-MSD

WG129614 (LDWG Air Deposition, CSO) Department: 6 - Metals Move Date: 2013-11-06 15:18:19

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L58204-3	423589-310-4	LDWG Air Deposition	MTHG-LOW	AIRDEPBULK	8/1/2013	10/30/2013	10/30/2013	
L58204-8	423589-310-4	LDWG Air Deposition	MTHG-LOW	AIRDEPBULK	8/1/2013	10/30/2013	10/30/2013	
L58381-3	423589-310-4	LDWG Air Deposition	MTHG-LOW	AIRDEPBULK	8/29/2013	10/30/2013	10/30/2013	
L58381-6	423589-310-4	LDWG Air Deposition	MTHG-LOW	AIRDEPBULK	8/29/2013	10/30/2013	10/30/2013	
L58550-3	423589-310-4	LDWG Air Deposition	MTHG-LOW	AIRDEPBULK	9/5/2013	10/30/2013	10/30/2013	
L58550-6	423589-310-4	LDWG Air Deposition	MTHG-LOW	AIRDEPBULK	9/5/2013	10/30/2013	10/30/2013	
L58664-3	423589-310-4	LDWG Air Deposition	MTHG-LOW	AIRDEPBULK	9/25/2013	10/30/2013	10/30/2013	
L58664-6	423589-310-4	LDWG Air Deposition	MTHG-LOW	AIRDEPBULK	9/25/2013	10/30/2013	10/30/2013	
L58872-6	423589-310-4	LDWG Air Deposition	MTHG-LOW	AIRDEPBULK	10/17/2013	10/30/2013	10/30/2013	

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L58993-1	423589-320-4	CSO Basin Study	MTHG-LOW-DISS SEWER WTR	10/21/2013	10/30/2013	10/30/2013	
L58993-2	423589-320-4	CSO Basin Study	MTHG-LOW-DISS SEWER WTR	10/21/2013	10/30/2013	10/30/2013	
L58993-3	423589-320-4	CSO Basin Study	MTHG-LOW-DISS SEWER WTR	10/21/2013	10/30/2013	10/30/2013	
L59024-1	423589-320-4	CSO Basin Study	MTHG-LOW SEWER WTR	10/22/2013	10/30/2013	10/30/2013	
L59024-1	423589-320-4	CSO Basin Study	MTHG-LOW-DISS SEWER WTR	10/22/2013	10/30/2013	10/30/2013	
L59024-2	423589-320-4	CSO Basin Study	MTHG-LOW SEWER WTR	10/22/2013	10/30/2013	10/30/2013	
L59024-2	423589-320-4	CSO Basin Study	MTHG-LOW-DISS SEWER WTR	10/22/2013	10/30/2013	10/30/2013	
L59024-3	423589-320-4	CSO Basin Study	MTHG-LOW-DISS SEWER WTR	10/22/2013	10/30/2013	10/30/2013	
WG129614-1	MB		MTHG-LOW BLANK WTR		10/30/2013	10/30/2013	METHOD BLANK
WG129614-1	MB		MTHG-LOW-DISS BLANK WTR		10/30/2013	10/30/2013	METHOD BLANK
WG129614-2	SB		MTHG-LOW BLANK WTR		10/30/2013	10/30/2013	WG129614-1 HG-LLOW
WG129614-3	MS		MTHG-LOW-DISS SEWER WTR		10/30/2013	10/30/2013	L59024-3 HG-LLOW WG129614-3 L59024-3
WG129614-4	MSD		MTHG-LOW-DISS SEWER WTR		10/30/2013	10/30/2013	HG-LLOW-MSD
WG129614-5	MS		MTHG-LOW AIRDEPBULK		10/30/2013	10/30/2013	L58664-6 HG-LLOW WG129614-5 L58664-6
WG129614-6	MSD		MTHG-LOW AIRDEPBULK		10/30/2013	10/30/2013	HG-LLOW-MSD

WG129745 (CSO Basin) Department: 6 - Metals Move Date: 2013-11-20 11:51:43

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L58993-1	423589-320-4	CSO Basin Study	MTHG-LOW	SEWER WTR	10/21/2013	11/6/2013	11/7/2013	
L58993-2	423589-320-4	CSO Basin Study	MTHG-LOW	SEWER WTR	10/21/2013	11/6/2013	11/7/2013	
L58993-3	423589-320-4	CSO Basin Study	MTHG-LOW	SEWER WTR	10/21/2013	11/6/2013	11/7/2013	
L59024-3	423589-320-4	CSO Basin Study	MTHG-LOW	SEWER WTR	10/22/2013	11/6/2013	11/7/2013	
L59070-1	423589-320-4	CSO Basin Study	MTHG-LOW	SEWER WTR	10/29/2013	11/6/2013	11/7/2013	
L59070-1	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	SEWER WTR	10/29/2013	11/6/2013	11/7/2013	
L59070-2	423589-320-4	CSO Basin Study	MTHG-LOW	SEWER WTR	10/29/2013	11/6/2013	11/7/2013	
L59070-2	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	SEWER WTR	10/29/2013	11/6/2013	11/7/2013	
L59070-3	423589-320-4	CSO Basin Study	MTHG-LOW	SEWER WTR	10/29/2013	11/6/2013	11/7/2013	
L59070-3	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	SEWER WTR	10/29/2013	11/6/2013	11/7/2013	
WG129745-1	MB		MTHG-LOW	BLANK WTR		11/6/2013	11/7/2013	METHOD BLANK
WG129745-1	MB		MTHG-LOW-DISS	BLANK WTR		11/6/2013	11/7/2013	METHOD BLANK
WG129745-2	SB		MTHG-LOW-DISS	BLANK WTR		11/6/2013	11/7/2013	WG129745-1 HG-LLOW
WG129745-3	MS		MTHG-LOW-DISS	SEWER WTR		11/6/2013	11/7/2013	L59070-1 HG-LLOW WG129745-3 L59070-1
WG129745-4	MSD		MTHG-LOW-DISS	SEWER WTR		11/6/2013	11/7/2013	HG-LLOW-MSD

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WG133701 (CSO) Department: 6 - Metals Move Date: 16-JUL-14

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L60526-1	423589-320-4	CSO Basin Study	MTHG-LOW	SEWER WTR	7/7/2014	7/11/2014	7/14/2014	
L60526-1	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	SEWER WTR	7/7/2014	7/11/2014	7/14/2014	
L60526-2	423589-320-4	CSO Basin Study	MTHG-LOW	SEWER WTR	7/7/2014	7/11/2014	7/14/2014	
L60526-2	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	SEWER WTR	7/7/2014	7/11/2014	7/14/2014	
WG133701-1	MB		MTHG-LOW	BLANK WTR		7/11/2014	7/14/2014	MB140711
WG133701-1	MB		MTHG-LOW-DISS	BLANK WTR		7/11/2014	7/14/2014	MB140711
WG133701-2	SB		MTHG-LOW	BLANK WTR		7/11/2014	7/14/2014	WG133701-1 HG-LLOW
WG133701-3	MS		MTHG-LOW	SEWER WTR		7/11/2014	7/14/2014	L60526-2 HG-LLOW WG133701-3 L60526-2
WG133701-4	MSD		MTHG-LOW	SEWER WTR		7/11/2014	7/14/2014	HG-LLOW-MSD

WG133844 (CSO Basin) Department: 6 - Metals Move Date: 30-JUL-14

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L60671-1	423589-320-4	CSO Basin Study	MTHG-LOW	SEWER WTR	7/16/2014	7/21/2014	7/23/2014	
L60671-1	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	SEWER WTR	7/16/2014	7/21/2014	7/23/2014	
L60671-2	423589-320-4	CSO Basin Study	MTHG-LOW	SEWER WTR	7/16/2014	7/21/2014	7/23/2014	
L60671-2	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	SEWER WTR	7/16/2014	7/21/2014	7/23/2014	
WG133844-1	MB		MTHG-LOW	BLANK WTR		7/21/2014	7/23/2014	MB140721
WG133844-1	MB		MTHG-LOW-DISS	BLANK WTR		7/21/2014	7/23/2014	MB140721
WG133844-2	SB		MTHG-LOW	BLANK WTR		7/21/2014	7/23/2014	WG133844-1 HG-LLOW
WG133844-3	MS		MTHG-LOW	SEWER WTR		7/21/2014	7/23/2014	L60671-2 HG-LLOW WG133844-3 L60671-2
WG133844-4	MSD		MTHG-LOW	SEWER WTR		7/21/2014	7/23/2014	HG-LLOW-MSD

WG129626 (CSO Basin) Department: 6 - Metals Move Date: 2013-11-05 11:08:05

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L58795-1	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	9/19/2013	10/30/2013	10/30/2013	
L58795-2	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	9/19/2013	10/30/2013	10/30/2013	
L58795-3	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	9/19/2013	10/30/2013	10/30/2013	
L58826-1	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	9/25/2013	10/30/2013	10/30/2013	
L58826-2	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	9/25/2013	10/30/2013	10/30/2013	
L58826-3	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	9/25/2013	10/30/2013	10/30/2013	
L58993-1	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	10/21/2013	10/30/2013	10/30/2013	
L58993-2	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	10/21/2013	10/30/2013	10/30/2013	

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L58993-3	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	10/21/2013	10/30/2013	10/30/2013	
L59024-1	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	10/22/2013	10/30/2013	10/30/2013	
L59024-2	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	10/22/2013	10/30/2013	10/30/2013	
L59024-3	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	10/22/2013	10/30/2013	10/30/2013	
WG129626-1	MB		MTICPMS	BLANK WTR		10/30/2013	10/30/2013	METHOD BLANK
WG129626-2	SB		MTICPMS	BLANK WTR		10/30/2013	10/30/2013	WG129626-1 MS-20
WG129626-3	LD		MTICPMS	SEWER WTR		10/30/2013	10/30/2013	L58993-1 RPD-LIQ
WG129626-4	MS		MTICPMS	SEWER WTR		10/30/2013	10/30/2013	L58993-1 MS-20

WG129956 (11/19/13 CSO BASIN TOTALS) Department: 6 - Metals Move Date: 2013-11-26 13:52:31

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59070-1	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	10/29/2013	11/19/2013	11/20/2013	
L59070-2	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	10/29/2013	11/19/2013	11/20/2013	
L59070-3	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	10/29/2013	11/19/2013	11/20/2013	
L59155-1	423589-320-4	CSO Basin Study	MTICPMS	STORM WTR	11/6/2013	11/19/2013	11/20/2013	
L59155-3	423589-320-4	CSO Basin Study	MTICPMS	STORM WTR	11/6/2013	11/19/2013	11/20/2013	
WG129956-1	MB		MTICPMS	BLANK WTR		11/19/2013	11/20/2013	METHOD BLANK
WG129956-2	SB		MTICPMS	BLANK WTR		11/19/2013	11/20/2013	WG129956-1 MS-20
WG129956-3	LD		MTICPMS	SEWER WTR		11/19/2013	11/20/2013	L59070-2 RPD-LIQ
WG129956-4	MS		MTICPMS	SEWER WTR		11/19/2013	11/20/2013	L59070-2 MS-20

WG129597 (CSO Basin) Department: 6 - Metals Move Date: 2013-11-05 11:11:49

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L58795-1	423589-320-4	CSO Basin Study	MTICPMS-DISS	SEWER WTR	9/19/2013	10/29/2013	10/29/2013	
L58795-2	423589-320-4	CSO Basin Study	MTICPMS-DISS	SEWER WTR	9/19/2013	10/29/2013	10/29/2013	
L58795-3	423589-320-4	CSO Basin Study	MTICPMS-DISS	SEWER WTR	9/19/2013	10/29/2013	10/29/2013	
L58826-1	423589-320-4	CSO Basin Study	MTICPMS-DISS	SEWER WTR	9/25/2013	10/29/2013	10/29/2013	
L58826-2	423589-320-4	CSO Basin Study	MTICPMS-DISS	SEWER WTR	9/25/2013	10/29/2013	10/29/2013	
L58826-3	423589-320-4	CSO Basin Study	MTICPMS-DISS	SEWER WTR	9/25/2013	10/29/2013	10/29/2013	
L58993-1	423589-320-4	CSO Basin Study	MTICPMS-DISS	SEWER WTR	10/21/2013	10/29/2013	10/29/2013	
L58993-2	423589-320-4	CSO Basin Study	MTICPMS-DISS	SEWER WTR	10/21/2013	10/29/2013	10/29/2013	
L58993-3	423589-320-4	CSO Basin Study	MTICPMS-DISS	SEWER WTR	10/21/2013	10/29/2013	10/29/2013	
L59024-1	423589-320-4	CSO Basin Study	MTICPMS-DISS	SEWER WTR	10/22/2013	10/29/2013	10/29/2013	
L59024-2	423589-320-4	CSO Basin Study	MTICPMS-DISS	SEWER WTR	10/22/2013	10/29/2013	10/29/2013	
L59024-3	423589-320-4	CSO Basin Study	MTICPMS-DISS	SEWER WTR	10/22/2013	10/29/2013	10/29/2013	
WG129597-1	MB		MTICPMS-DISS	BLANK WTR		10/29/2013	10/29/2013	METHOD BLANK
WG129597-2	SB		MTICPMS-DISS	BLANK WTR		10/29/2013	10/29/2013	WG129597-1 MS-20

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WG129597-3 LD	MTICPMS-DISS	SEWER WTR	10/29/2013	10/29/2013	L58795-2 RPD-LIQ
WG129597-4 MS	MTICPMS-DISS	SEWER WTR	10/29/2013	10/29/2013	L58795-2 MS-20

WG129957 (11/19/13 CSO BASIN DISS) Department: 6 - Metals Move Date: 2013-11-26 13:52:38

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59070-1	423589-320-4	CSO Basin Study	MTICPMS-DISS	SEWER WTR	10/29/2013	11/19/2013	11/20/2013	
L59070-2	423589-320-4	CSO Basin Study	MTICPMS-DISS	SEWER WTR	10/29/2013	11/19/2013	11/20/2013	
L59070-3	423589-320-4	CSO Basin Study	MTICPMS-DISS	SEWER WTR	10/29/2013	11/19/2013	11/20/2013	
L59155-1	423589-320-4	CSO Basin Study	MTICPMS-DISS	STORM WTR	11/6/2013	11/19/2013	11/20/2013	
L59155-3	423589-320-4	CSO Basin Study	MTICPMS-DISS	STORM WTR	11/6/2013	11/19/2013	11/20/2013	
WG129957-1 MB			MTICPMS-DISS	BLANK WTR		11/19/2013	11/20/2013	METHOD BLANK
WG129957-2 SB			MTICPMS-DISS	BLANK WTR		11/19/2013	11/20/2013	WG129957-1 MS-20
WG129957-3 LD			MTICPMS-DISS	SEWER WTR		11/19/2013	11/20/2013	L59070-2 RPD-LIQ
WG129957-4 MS			MTICPMS-DISS	SEWER WTR		11/19/2013	11/20/2013	L59070-2 MS-20

WG133974 (CSO Basin) Department: 6 - Metals Move Date: 05-AUG-14

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L60526-1	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	7/7/2014	7/28/2014	7/29/2014	
L60526-2	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	7/7/2014	7/28/2014	7/29/2014	
L60671-1	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	7/16/2014	7/28/2014	7/29/2014	
L60671-2	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	7/16/2014	7/28/2014	7/29/2014	
WG133974-1 MB			MTICPMS	BLANK WTR		7/28/2014	7/29/2014	METHOD BLANK
WG133974-2 SB			MTICPMS	BLANK WTR		7/28/2014	7/29/2014	WG133974-1 MS-20
WG133974-3 LD			MTICPMS	SEWER WTR		7/28/2014	7/29/2014	L60671-2 RPD-LIQ
WG133974-4 MS			MTICPMS	SEWER WTR		7/28/2014	7/29/2014	L60671-2 MS-20

WG133975 (CSO Basin) Department: 6 - Metals Move Date: 05-AUG-14

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L60526-1	423589-320-4	CSO Basin Study	MTICPMS-DISS	SEWER WTR	7/7/2014	7/29/2014	7/29/2014	
L60526-2	423589-320-4	CSO Basin Study	MTICPMS-DISS	SEWER WTR	7/7/2014	7/29/2014	7/29/2014	
L60671-1	423589-320-4	CSO Basin Study	MTICPMS-DISS	SEWER WTR	7/16/2014	7/29/2014	7/29/2014	
L60671-2	423589-320-4	CSO Basin Study	MTICPMS-DISS	SEWER WTR	7/16/2014	7/29/2014	7/29/2014	
WG133975-1 MB			MTICPMS-DISS	BLANK WTR		7/29/2014	7/29/2014	METHOD BLANK
WG133975-2 SB			MTICPMS-DISS	BLANK WTR		7/29/2014	7/29/2014	WG133975-1 MS-20

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WG133975-3 LD	MTICPMS-DISS	SEWER WTR	7/29/2014	7/29/2014	L60671-2 RPD-LIQ
WG133975-4 MS	MTICPMS-DISS	SEWER WTR	7/29/2014	7/29/2014	L60671-2 MS-20

WG129113 (BL#138) Department: 7 - Organics Move Date: 2013-11-07 06:20:08

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L58795-1	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	SEWER WTR	9/19/2013	9/26/2013	10/30/2013	
L58795-2	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	SEWER WTR	9/19/2013	9/26/2013	10/31/2013	
L58795-3	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	SEWER WTR	9/19/2013	9/26/2013	10/31/2013	
WG129113-1 MB			ORPAHPHTH-SIM	BLANK WTR		9/26/2013	10/30/2013	MB300913
WG129113-2 SB			ORPAHPHTH-SIM	BLANK WTR		9/26/2013	10/30/2013	WG129113-1
WG129113-3 MS			ORPAHPHTH-SIM	SEWER WTR		9/26/2013	10/31/2013	L58795-3
WG129113-4 MSD			ORPAHPHTH-SIM	SEWER WTR		9/26/2013	10/31/2013	WG129113-3 L58795-3

WG129121 (BL#140 pahpth-sim) Department: 7 - Organics Move Date: 2013-11-08 09:10:30

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L58826-1	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	SEWER WTR	9/25/2013	10/1/2013	10/31/2013	
L58826-2	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	SEWER WTR	9/25/2013	10/1/2013	10/31/2013	
L58826-3	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	SEWER WTR	9/25/2013	10/1/2013	10/31/2013	
WG129121-1 MB			ORPAHPHTH-SIM	BLANK WTR		10/1/2013	10/30/2013	MB131001
WG129121-2 SB			ORPAHPHTH-SIM	BLANK WTR		10/1/2013	10/30/2013	WG129121-1
WG129121-3 MS			ORPAHPHTH-SIM	SEWER WTR		10/1/2013	10/31/2013	L58826-1
WG129121-4 MSD			ORPAHPHTH-SIM	SEWER WTR		10/1/2013	10/31/2013	WG129121-3 L58826-1

WG129485 (BL#143) Department: 7 - Organics Move Date: 2013-12-11 10:22:15

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L58993-1	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	SEWER WTR	10/21/2013	10/23/2013	11/1/2013	
L58993-2	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	SEWER WTR	10/21/2013	10/23/2013	11/1/2013	
L58993-3	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	SEWER WTR	10/21/2013	10/23/2013	11/1/2013	
L59024-1	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	SEWER WTR	10/22/2013	10/23/2013	11/21/2013	
L59024-2	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	SEWER WTR	10/22/2013	10/23/2013	11/1/2013	
L59024-3	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	SEWER WTR	10/22/2013	10/23/2013	11/1/2013	
WG129485-1 MB			ORPAHPHTH-SIM	BLANK WTR		10/23/2013	11/1/2013	MB131023
WG129485-2 SB			ORPAHPHTH-SIM	BLANK WTR		10/23/2013	11/1/2013	WG129485-1
WG129485-3 MS			ORPAHPHTH-SIM	SEWER WTR		10/23/2013	11/1/2013	L58993-1
WG129485-4 MSD			ORPAHPHTH-SIM	SEWER WTR		10/23/2013	11/1/2013	WG129485-3 L58993-1

LIMSView Batch Report for Michigan Basin CSO - Data Validation for Dry Baseflow

WG129695 (BL#147 PAHPH-th-sim) Department: 7 - Organics Move Date: 2013-12-06 14:18:15

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59070-1	423589-320-4	CSO Basin Study	ORPAHPH-th-SIM	SEWER WTR	10/29/2013	11/5/2013	11/22/2013	
L59070-2	423589-320-4	CSO Basin Study	ORPAHPH-th-SIM	SEWER WTR	10/29/2013	11/5/2013	11/22/2013	
L59070-3	423589-320-4	CSO Basin Study	ORPAHPH-th-SIM	SEWER WTR	10/29/2013	11/5/2013	11/26/2013	
WG129695-1	MB		ORPAHPH-th-SIM	BLANK WTR		11/5/2013	11/22/2013	MB131105
WG129695-2	SB		ORPAHPH-th-SIM	BLANK WTR		11/5/2013	11/22/2013	WG129695-1
WG129695-3	MS		ORPAHPH-th-SIM	SEWER WTR		11/5/2013	11/22/2013	L59070-1
WG129695-4	MSD		ORPAHPH-th-SIM	SEWER WTR		11/5/2013	11/22/2013	WG129695-3 L59070-1

WG133636 (bl#208 pahphth-sim) Department: 7 - Organics Move Date: 17-JUL-14

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L60526-1	423589-320-4	CSO Basin Study	ORPAHPH-th-SIM	SEWER WTR	7/7/2014	7/9/2014	7/14/2014	
L60526-2	423589-320-4	CSO Basin Study	ORPAHPH-th-SIM	SEWER WTR	7/7/2014	7/9/2014	7/14/2014	
WG133636-1	MB		ORPAHPH-th-SIM	BLANK WTR		7/9/2014	7/14/2014	MB140709
WG133636-2	SB		ORPAHPH-th-SIM	BLANK WTR		7/9/2014	7/14/2014	WG133636-1 WG133636-2
WG133636-3	SBD		ORPAHPH-th-SIM	BLANK WTR		7/9/2014	7/14/2014	WG133636-1

WG133637 (dl#395 wtph-dx) Department: 7 - Organics Move Date: 29-JUL-14

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L60526-1	423589-320-4	CSO Basin Study	ORWTPH-DX	SEWER WTR	7/7/2014	7/9/2014	7/15/2014	
L60526-2	423589-320-4	CSO Basin Study	ORWTPH-DX	SEWER WTR	7/7/2014	7/9/2014	7/15/2014	
WG133637-1	MB		ORWTPH-DX	BLANK WTR		7/9/2014	7/15/2014	MB140709
WG133637-2	SB		ORWTPH-DX	BLANK WTR		7/9/2014	7/15/2014	WG133637-1
WG133637-3	LD		ORWTPH-DX	SEWER WTR		7/9/2014	7/15/2014	L60526-1

WG133887 (bl#213 pahphth-sim) Department: 7 - Organics Move Date: 07-AUG-14

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L60671-1	423589-320-4	CSO Basin Study	ORPAHPH-th-SIM	SEWER WTR	7/16/2014	7/23/2014	7/29/2014	
L60671-2	423589-320-4	CSO Basin Study	ORPAHPH-th-SIM	SEWER WTR	7/16/2014	7/23/2014	7/29/2014	
WG133887-1	MB		ORPAHPH-th-SIM	BLANK WTR		7/23/2014	7/29/2014	MB140723

LIMSView Batch Report for Michigan Basin CSO - Data Validation for Dry Baseflow

WG133887-2 SB	ORPAHPHTH-SIM BLANK WTR	7/23/2014	7/29/2014	WG133887-1
WG133887-3 MS	ORPAHPHTH-SIM SEWER WTR	7/23/2014	7/29/2014	L60671-1
WG133887-4 MSD	ORPAHPHTH-SIM SEWER WTR	7/23/2014	7/29/2014	WG133887-3 L60671-1

LIMSVIEW QC Report for Michigan Basin CSO - Data Validation for Dry Baseflow

Workgroup: WG129096 (toc/doc) Run ID: R190925

MB:WG129096-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

LCS:WG129096-2 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	9.69	97		85--115

SB:WG129096-3 MB:WG129096-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	10	100		80--120

MS:WG129096-4 L58594-1 Matrix: SALT WTR Listtype:CVTOC Method:SM5310-B Project:421250ON Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	1.28	10	10.5	92		75--125

MB:WG129096-5 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

LD:WG129096-6 L58593-1 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421250ON Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	1.44	1.34	7		0--20

LCS:WG129096-7 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	10.7	107		85--115

MB:WG129096-8 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	

LIMSVIEW QC Report for Michigan Basin CSO - Data Validation for Dry Baseflow

SB:WG129096-9 MB:WG129096-8 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	10	10.2	102		80--120

LD:WG129096-10 L58795-1 Matrix: SEWER WTR Listtype:CVDOC Method:SM5310-B Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	5	10	mg/L	15	13.8	8		0--20

MS:WG129096-11 L58795-1 Matrix: SEWER WTR Listtype:CVDOC Method:SM5310-B Project:423589-320-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	5	10	mg/L	15	10	102	87		75--125

LCS:WG129096-12 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	10	9.13	91		85--115

MB:WG129096-13 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	

LD:WG129096-14 L58593-2 Matrix: FRESH WTR Listtype:CVDOC Method:SM5310-B Project:421250ON Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	1.58	1.59	1		0--20

MS:WG129096-15 L58594-2 Matrix: SALT WTR Listtype:CVDOC Method:SM5310-B Project:421250ON Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	1.23	10	10.9	96		75--125

Workgroup: WG129192 (toc,doc) Run ID: R191013

MB:WG129192-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

LIMSVIEW QC Report for Michigan Basin CSO - Data Validation for Dry Baseflow

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

LCS:WG129192-2 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	10.4	104		85--115

SB:WG129192-3 MB:WG129192-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	10.4	104		80--120

LD:WG129192-4 L58636-1 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-VAGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	<MDL			0--20

MS:WG129192-5 L58636-1 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-VAGW Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	10.9	109		75--125

LD:WG129192-6 L58861-3 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	2.14	2.27	6		0--20

MS:WG129192-7 L58861-3 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	2.14	10	12.1	99		75--125

LD:WG129192-8 L58466-3 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHSW-M Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	5	10	mg/L	12.1	12.4	2		0--20

MS:WG129192-9 L58466-3 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHSW-M Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
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LIMSVIEW QC Report for Michigan Basin CSO - Data Validation for Dry Baseflow

Total Organic Carbon 5 10 mg/L 12.1 10 115 103 75--125

MB:WG129192-10 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	

LCS:WG129192-11 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	10	10.2	102		85--115

SB:WG129192-12 MB:WG129192-10 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	10	10	100		80--120

LD:WG129192-13 L58826-1 Matrix: SEWER WTR Listtype:CVDOC Method:SM5310-B Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon		5	10 mg/L	20.1	19	6		0--20

MS:WG129192-14 L58826-1 Matrix: SEWER WTR Listtype:CVDOC Method:SM5310-B Project:423589-320-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon		5	10 mg/L	20.1	10	118	98		75--125

MB:WG129192-15 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

LCS:WG129192-16 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	9.98	100		85--115

LD:WG129192-17 L58842-3 Matrix: LEACHATE Listtype:CVTOC Method:SM5310-B Project:421422-CHLS-M Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon		5	10 mg/L	17.4	16.6	5		0--20

LIMSVIEW QC Report for Michigan Basin CSO - Data Validation for Dry Baseflow

MS:WG129192-18 L58842-3 Matrix: LEACHATE Listtype:CVTOC Method:SM5310-B Project:421422-CHLS-M Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon		5	10 mg/L	17.4	10	118	101		75--125

MB:WG129192-19 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5		1 mg/L	<MDL	

LCS:WG129192-20 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5		1 mg/L	10	10.4	104		85--115

SB:WG129192-21 MB:WG129192-19 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5		1 mg/L	<MDL	10	11.7	117		80--120

LD:WG129192-22 L58861-2 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	0.5		1 mg/L	1.84	1.85	1		0--20

MS:WG129192-23 L58861-2 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5		1 mg/L	1.84	10	12.1	103		75--125

MB:WG129192-24 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5		1 mg/L	<MDL	

LCS:WG129192-25 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5		1 mg/L	10	10.4	104		85--115

LIMSVIEW QC Report for Michigan Basin CSO - Data Validation for Dry Baseflow

MB:WG129192-26 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

LCS:WG129192-27 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	10.1	101		85--115

SB:WG129192-28 MB:WG129192-26 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	10.1	101		80--120

MS:WG129192-29 L58855-1 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	2.47	10	12.5	100		75--125

LD:WG129192-30 L58855-1 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	2.47	2.34	5		0--20

MB:WG129192-31 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

LCS:WG129192-32 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	10.1	101		85--115

SB:WG129192-33 MB:WG129192-31 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	10.3	103		80--120

LD:WG129192-34 L58826-3 Matrix: SEWER WTR Listtype:CVTOC Method:SM5310-B Project:423589-320-4 Pkey:STD

LIMSVIEW QC Report for Michigan Basin CSO - Data Validation for Dry Baseflow

(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	15	30	mg/L	84.3	92	9		0--20

MS:WG129192-35 L58826-3 Matrix: SEWER WTR Listtype:CVTOC Method:SM5310-B Project:423589-320-4 Pkey:STD

(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	15	30	mg/L	84.3	10	423	113		75--125

Workgroup: WG129586 (toc) Run ID: R191626

MB:WG129586-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

LCS:WG129586-2 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD

(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	9.83	98		85--115

SB:WG129586-3 MB:WG129586-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD

(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	9.53	95		80--120

LD:WG129586-4 L58899-6 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD

(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	1.23	1.25	1		0--20

MS:WG129586-5 L58899-6 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD

(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	1.23	10	10.9	97		75--125

MB:WG129586-6 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

LIMSVIEW QC Report for Michigan Basin CSO - Data Validation for Dry Baseflow

LCS:WG129586-7 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD

(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5		1 mg/L	10	9.83	98		85--115

SB:WG129586-8 MB:WG129586-6 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD

(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5		1 mg/L	<MDL	10	9.58	96		80--120

LD:WG129586-9 L58949-8 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHSW-Q Pkey:STD

(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5		1 mg/L	4.68	4.72	1		0--20

MS:WG129586-10 L58949-8 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHSW-Q Pkey:STD

(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5		1 mg/L	4.68	10	15.7	110		75--125

MB:WG129586-11 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5		1 mg/L	<MDL	

LCS:WG129586-12 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD

(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5		1 mg/L	10	10.4	104		85--115

SB:WG129586-13 MB:WG129586-11 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD

(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5		1 mg/L	<MDL	10	10.1	101		80--120

MB:WG129586-14 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5		1 mg/L	<MDL	

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LCS:WG129586-15 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	10.4	104		85--115

SB:WG129586-16 MB:WG129586-14 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	10.3	103		80--120

LCS:WG129586-17 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	10	9.87	99		85--115

SB:WG129586-18 MB:WG129586-19 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	10	10.2	102		80--120

MB:WG129586-19 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	

MB:WG129586-20 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	

LD:WG129586-21 L58993-3 Matrix: SEWER WTR Listtype:CVDOC Method:SM5310-B Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	5	10	mg/L	56.8	56.6	0		0--20

MS:WG129586-22 L58993-3 Matrix: SEWER WTR Listtype:CVDOC Method:SM5310-B Project:423589-320-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	5	10	mg/L	56.8	10	151	95		75--125

LD:WG129586-23 L59024-1 Matrix: SEWER WTR Listtype:CVTOC Method:SM5310-B Project:423589-320-4 Pkey:STD

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(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	18	35	mg/L	73	80.3	10		0--20

MS:WG129586-24 L59024-1 Matrix: SEWER WTR Listtype:CVTOC Method:SM5310-B Project:423589-320-4 Pkey:STD

(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	18	35	mg/L	73	10	373	86		75--125

MB:WG129586-25 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

LCS:WG129586-26 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD

(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	10.1	101		85--115

LD:WG129586-27 L58951-6 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD

(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	0.95	0.91			0--20

MS:WG129586-28 L58951-6 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD

(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	0.95	10	10.7	97		75--125

MS:WG129586-29 L58758-1 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421250ON Pkey:STD

(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	1.38	10	12.6	112		75--125

LD:WG129586-30 L58759-3 Matrix: SALT WTR Listtype:CVTOC Method:SM5310-B Project:421250ON Pkey:STD

(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	1.27	1.41	10		0--20

LD:WG129586-31 L58976-2 Matrix: FRESH WTR Listtype:CVDOC Method:SM5310-B Project:423589-330-4 Pkey:STD

(Lab Duplicate)

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Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	1.03	1.04		1	0--20

MS:WG129586-32 L58976-2 Matrix: FRESH WTR Listtype:CVDOC Method:SM5310-B Project:423589-330-4 Pkey:STD (Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	1.03	10	11.1	101		75--125

MB:WG129586-33 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD (Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	

MS:WG129586-34 L58758-2 Matrix: FRESH WTR Listtype:CVDOC Method:SM5310-B Project:421250ON Pkey:STD (Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	1.5	10	12.2	107		75--125

LD:WG129586-35 L58759-1 Matrix: SALT WTR Listtype:CVDOC Method:SM5310-B Project:421250ON Pkey:STD (Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	1.26	1.33		5	0--20

Workgroup: WG129800 (toc/doc) Run ID: R191844

MB:WG129800-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD (Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

LCS:WG129800-2 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD (Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	10.6	106		85--115

SB:WG129800-3 MB:WG129800-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD (Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	10.2	102		80--120

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LD:WG129800-4 L59035-1 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	<MDL			0--20

MS:WG129800-5 L59035-1 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL		10	10.4	104	75--125

MB:WG129800-6 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

LCS:WG129800-7 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	9.94	99		85--115

SB:WG129800-8 MB:WG129800-6 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	10.7	107		80--120

LD:WG129800-9 L58954-6 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	<MDL			0--20

MS:WG129800-10 L58954-6 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	10.1	101		75--125

LD:WG129800-11 L59070-1 Matrix: SEWER WTR Listtype:CVTOC Method:SM5310-B Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	18	35	mg/L	43.2	42.9	1		0--20

MS:WG129800-12 L59070-1 Matrix: SEWER WTR Listtype:CVTOC Method:SM5310-B Project:423589-320-4 Pkey:STD

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(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	18	35	mg/L	43.2	10	381	97		75--125

MB:WG129800-13 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	

LCS:WG129800-14 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD

(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	10	9.87	99		85--115

SB:WG129800-15 MB:WG129800-13 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD

(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	10	9.75	98		80--120

LD:WG129800-16 L59070-3 Matrix: SEWER WTR Listtype:CVDOC Method:SM5310-B Project:423589-320-4 Pkey:STD

(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	10	20	mg/L	64.3	66.2	3		0--20

MS:WG129800-17 L59070-3 Matrix: SEWER WTR Listtype:CVDOC Method:SM5310-B Project:423589-320-4 Pkey:STD

(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	10	20	mg/L	64.3	10	256	96		75--125

Workgroup: WG129092 (toc) Run ID: R190766

MB:WG129092-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

LCS:WG129092-2 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD

(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	10.1	101		85--115

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SB:WG129092-3 MB:WG129092-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	10.1	101		80--120

MB:WG129092-4 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

LCS:WG129092-5 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	10.3	103		85--115

SB:WG129092-6 MB:WG129092-4 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	10.3	103		80--120

MB:WG129092-7 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

LCS:WG129092-8 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	10.4	104		85--115

SB:WG129092-9 MB:WG129092-7 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	10.8	108		80--120

LD:WG129092-10 L58651-3 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-HTGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	2.5	5	mg/L	15	15.7	5		0--20

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MS:WG129092-11 L58651-3 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-HTGW Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	2.5		5 mg/L	15	10	67.5	105		75--125

LD:WG129092-12 L58232-3 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHSW-A5-TD Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	2.5		5 mg/L	19.5	20.7	6		0--20

MS:WG129092-13 L58232-3 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHSW-A5-TD Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	2.5		5 mg/L	19.5	10	72.9	107		75--125

LD:WG129092-14 L58795-2 Matrix: SEWER WTR Listtype:CVTOC Method:SM5310-B Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	10		20 mg/L	98.8	99.4	1		0--20

MS:WG129092-15 L58795-2 Matrix: SEWER WTR Listtype:CVTOC Method:SM5310-B Project:423589-320-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	10		20 mg/L	98.8	10	309	105		75--125

Workgroup: WG129042 (tss for 421422) Run ID: R190848

MB:WG129042-1 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Suspended Solids	0.5		1 mg/L	<MDL	

LCS:WG129042-2 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids		5	10 mg/L	100	99	99		80--120

LD:WG129042-3 L58689-1 Matrix: GRND WTR Listtype:CVTSS Method:SM2540-D Project:421422-PUGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
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Total Suspended Solids 1 2 mg/L <MDL <MDL 0--25

LD:WG129042-4 L58703-1 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:421422-CHSW-Q Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	2.5	5	mg/L	6.5	5.5	17		0--25

LD:WG129042-5 L58751-3 Matrix: SALT WTR Listtype:CVTSS Method:SM2540-D Project:421250BS Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	20	mg/L	5.2	4			0--25

LD:WG129042-6 L58791-1 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:423589-330-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	2	mg/L	2	2.2	10		0--25

MB:WG129042-7 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Suspended Solids	0.5	1	mg/L	<MDL	

LCS:WG129042-8 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	100	100		80--120

LD:WG129042-9 L58795-1 Matrix: SEWER WTR Listtype:CVTSS Method:SM2540-D Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	10	20	mg/L	304	268	13		0--25

Workgroup: WG129099 (tss for 421422/421161/423589) Run ID: R190918

MB:WG129099-9 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Suspended Solids	0.5	1	mg/L	<MDL	

LCS:WG129099-10 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD

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(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	92	92		80--120

LD:WG129099-11 L58798-1 Matrix: IW WTR Listtype:CVTSS Method:SM2540-D Project:421161 Pkey:STD

(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	20	40	mg/L	568	692	20		0--25

MB:WG129099-12 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Suspended Solids	0.5	1	mg/L	<MDL	

LCS:WG129099-13 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD

(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	101	101		80--120

LD:WG129099-14 L58805-1 Matrix: IW WTR Listtype:CVTSS Method:SM2540-D Project:421161 Pkey:STD

(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	20	40	mg/L	564	548	3		0--25

LD:WG129099-15 L58815-1 Matrix: GRND WTR Listtype:CVTSS Method:SM2540-D Project:421422-PUGW Pkey:STD

(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	2	mg/L	1.2	<MDL			0--25

LD:WG129099-16 L58826-2 Matrix: SEWER WTR Listtype:CVTSS Method:SM2540-D Project:423589-320-4 Pkey:STD

(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	20	40	mg/L	228	272	18		0--25

Workgroup: WG129578 (tss for 421422/422019/423589) Run ID: R191625

MB:WG129578-1 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Suspended Solids	0.5	1	mg/L	<MDL	

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LCS:WG129578-2 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	93	93		80--120

LD:WG129578-3 L58856-1 Matrix: GRND WTR Listtype:CVTSS Method:SM2540-D Project:421422-CHGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	2	mg/L	4.8	5.2	8		0--25

MB:WG129578-4 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Suspended Solids	0.5	1	mg/L	<MDL	

LCS:WG129578-5 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	92	92		80--120

LD:WG129578-6 L58949-1 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:421422-CHSW-Q Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	2	mg/L	1.2	<MDL			0--25

LD:WG129578-7 L58988-1 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:422019 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	2	mg/L	<MDL	<MDL			0--25

MB:WG129578-8 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Suspended Solids	0.5	1	mg/L	<MDL	

LCS:WG129578-9 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	101	101		80--120

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LD:WG129578-10 L58993-1 Matrix: SEWER WTR Listtype:CVTSS Method:SM2540-D Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids		5	10 mg/L	108	120		11	0--25

Workgroup: WG129658 (tss for 421422/) Run ID: R191750

MB:WG129658-1 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Suspended Solids		0.5	1 mg/L	<MDL	

LCS:WG129658-2 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids		5	10 mg/L	100	94	94		80--120

LD:WG129658-3 L58948-2 Matrix: GRND WTR Listtype:CVTSS Method:SM2540-D Project:421422-CHGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids		1	2 mg/L	<MDL	<MDL			0--25

LD:WG129658-4 L59070-2 Matrix: SEWER WTR Listtype:CVTSS Method:SM2540-D Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids		10	20 mg/L	226	222		2	0--25

Workgroup: WG133622 (Assorted TSS) Run ID: R196710

MB:WG133622-1 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Suspended Solids		0.5	1 mg/L	<MDL	

LCS:WG133622-2 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids		5	10 mg/L	100	89.3	89		80--120

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LD:WG133622-3 L60578-3 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:421240A Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	0.5	1.1	mg/L	4.97	5.15	4		0--25

LD:WG133622-4 L60576-9 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:421240A Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	0.5	1	mg/L	1.28	1.75	31 *		0--25

MB:WG133622-5 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Suspended Solids	0.5	1	mg/L	<MDL	

LCS:WG133622-6 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	100	100		80--120

LD:WG133622-7 L60382-1 Matrix: GRND WTR Listtype:CVTSS Method:SM2540-D Project:421422-CHGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	2	mg/L	3.88	3.38	14		0--25

MB:WG133622-8 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Suspended Solids	0.5	1	mg/L	<MDL	

LCS:WG133622-9 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	96.4	96		80--120

LD:WG133622-10 L60484-10 Matrix: SALT WTR Listtype:CVTSS Method:SM2540-D Project:421250ON Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	20	mg/L	5.7	1.3			0--25

LD:WG133622-11 L60484-19 Matrix: SALT WTR Listtype:CVTSS Method:SM2540-D Project:421250ON Pkey:STD

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(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids		1	20 mg/L	2.4	5			0--25

MB:WG133622-12 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Suspended Solids		0.5	1 mg/L	<MDL	

LCS:WG133622-13 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD

(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids		5	10 mg/L	100	95.6	96		80--120

LD:WG133622-14 L60484-33 Matrix: SALT WTR Listtype:CVTSS Method:SM2540-D Project:421250ON Pkey:STD

(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids		1	20 mg/L	3.6	2.1			0--25

LD:WG133622-15 L60526-2 Matrix: SEWER WTR Listtype:CVTSS Method:SM2540-D Project:423589-320-4 Pkey:STD

(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids		10	20 mg/L	234	264	12		0--25

Workgroup: WG133758 (TOC, DOC/421422, 423589) Run ID: R196841

MB:WG133758-1 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon		0.5	1 mg/L	<MDL	

SB:WG133758-2 MB:WG133758-1 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD

(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon		0.5	1 mg/L	<MDL	10	9.82	98		80--120

LCS:WG133758-3 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD

(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon		0.5	1 mg/L	10	10.1	101		85--115

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MB:WG133758-4 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

SB:WG133758-5 MB:WG133758-4 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	10	100		80--120

LCS:WG133758-6 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	10.3	103		85--115

LD:WG133758-7 L60602-5 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	<MDL			0--20

MS:WG133758-8 L60602-5 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	10.2	102		75--125

LD:WG133758-9 L60526-2 Matrix: SEWER WTR Listtype:CVTOC Method:SM5310-B Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	18	35	mg/L	63.2	73.9	16		0--20

MS:WG133758-10 L60526-2 Matrix: SEWER WTR Listtype:CVTOC Method:SM5310-B Project:423589-320-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	18	35	mg/L	63.2	10	420	102		75--125

MB:WG133758-11 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	

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SB:WG133758-12 MB:WG133758-11 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5		1 mg/L	<MDL	10	9.71	97		80--120

LCS:WG133758-13 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5		1 mg/L	10	9.88	99		85--115

LD:WG133758-14 L60526-1 Matrix: SEWER WTR Listtype:CVDOC Method:SM5310-B Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon		5	10 mg/L	61.5	66.8		8	0--20

MS:WG133758-15 L60526-1 Matrix: SEWER WTR Listtype:CVDOC Method:SM5310-B Project:423589-320-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon		5	10 mg/L	61.5	10	162	101		75--125

MB:WG133758-16 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5		1 mg/L	<MDL	

SB:WG133758-17 MB:WG133758-16 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5		1 mg/L	<MDL	10	9.64	96		80--120

LCS:WG133758-18 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5		1 mg/L	10	10	100		85--115

LD:WG133758-19 L60661-4 Matrix: LEACHATE Listtype:CVTOC Method:SM5310-B Project:421422-CHLS-M Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon		25	50 mg/L	490	489		0	0--20

MS:WG133758-20 L60661-4 Matrix: LEACHATE Listtype:CVTOC Method:SM5310-B Project:421422-CHLS-M Pkey:STD

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(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	25	50	mg/L	490	10	957	93		75--125

MB:WG133758-21 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	

LCS:WG133758-22 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD

(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	10	10.1	101		85--115

MB:WG133758-23 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

LCS:WG133758-24 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD

(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	10.3	103		85--115

Workgroup: WG133813 (Assorted TSS: 7/17/14) Run ID: R196836

MB:WG133813-1 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Suspended Solids	0.5	1	mg/L	<MDL	

LCS:WG133813-2 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD

(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	113	113		80--120

LD:WG133813-3 L60605-4 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:421235 Pkey:STD

(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	0.5	1	mg/L	1.49	1.43	4		0--25

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MB:WG133813-4 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Suspended Solids	0.5	1	mg/L	<MDL	

LCS:WG133813-5 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	94	94		80--120

LD:WG133813-6 L60605-45 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:421235 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	0.5	1	mg/L	1.68	1.58	6		0--25

LD:WG133813-7 L60671-1 Matrix: SEWER WTR Listtype:CVTSS Method:SM2540-D Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	17	33	mg/L	907	805	12		0--25

Workgroup: WG129302 (CSO) Run ID: R191071

MB:WG129302-1 Matrix: BLANK WTR Listtype:MTHG-LOW Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Total, CVAA	0.005	0.015	ug/L	<MDL	

MB:WG129302-1 Matrix: BLANK WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	

SB:WG129302-2 MB:WG129302-1 Matrix: BLANK WTR Listtype:MTHG-LOW Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Mercury, Total, CVAA	0.005	0.015	ug/L	<MDL	0.05	0.0503	101		85--115

MSD:WG129302-4 MS:WG129302-3 L58826-3 Matrix: SEWER WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project:423589-320-4 Pkey:STD
(Matrix Spike Duplicate, Matrix Spike)

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Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueValue	MSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Mercury, Dissolved, CVAA	0.005	0.015	ug/L		0.01	0.05	0.0531	86	75--125	0.05	0.0588	97		10		0--20

Workgroup: WG129614 (LDWG Air Deposition, CSO Basin) Run ID: R191497

MB:WG129614-1 Matrix: BLANK WTR Listtype:MTHG-LOW Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Total, CVAA	0.005	0.015	ug/L	<MDL	

MB:WG129614-1 Matrix: BLANK WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	

SB:WG129614-2 MB:WG129614-1 Matrix: BLANK WTR Listtype:MTHG-LOW Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Mercury, Total, CVAA	0.005	0.015	ug/L	<MDL	0.05	0.048	96		85--115

MSD:WG129614-4 MS:WG129614-3 L59024-3 Matrix: SEWER WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project:423589-320-4 Pkey:STD
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueValue	MSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Mercury, Dissolved, CVAA	0.005	0.015	ug/L		0.007	0.05	0.0527	91	75--125	0.05	0.0547	95		4		0--20

MSD:WG129614-6 MS:WG129614-5 L58664-6 Matrix: AIRDEPBULK Listtype:MTHG-LOW Method:EPA 245.1*SW846 7470A Project:423589-310-4 Pkey:STD
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueValue	MSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Mercury, Total, CVAA	0.005	0.015	ug/L		0.011	0.05	0.061	99	75--125	0.05	0.0601	97		2		0--20

Workgroup: WG129745 (CSO Basin) Run ID: R191978

MB:WG129745-1 Matrix: BLANK WTR Listtype:MTHG-LOW Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Total, CVAA	0.005	0.015	ug/L	<MDL	

MB:WG129745-1 Matrix: BLANK WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

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Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	

SB:WG129745-2 MB:WG129745-1 Matrix: BLANK WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	0.05	0.0499	100		85--115

MSD:WG129745-4 MS:WG129745-3 L59070-1 Matrix: SEWER WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project:423589-320-4 Pkey:STD
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueValue	MSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	0.05	0.054	108		75--125	0.05	0.0544	109		1		0--20

Workgroup: WG133701 (CSO) Run ID: R196712

MB:WG133701-1 Matrix: BLANK WTR Listtype:MTHG-LOW Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Total, CVAA	0.005	0.015	ug/L	<MDL	

MB:WG133701-1 Matrix: BLANK WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	

SB:WG133701-2 MB:WG133701-1 Matrix: BLANK WTR Listtype:MTHG-LOW Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Mercury, Total, CVAA	0.005	0.015	ug/L	<MDL	0.05	0.0497	99		85--115

MSD:WG133701-4 MS:WG133701-3 L60526-2 Matrix: SEWER WTR Listtype:MTHG-LOW Method:EPA 245.1*SW846 7470A Project:423589-320-4 Pkey:STD
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueValue	MSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Mercury, Total, CVAA	0.005	0.015	ug/L	0.0391	0.05	0.0779	77		75--125	0.05	0.0776	77		0		0--20

Workgroup: WG133844 (CSO Basin) Run ID: R196893

MB:WG133844-1 Matrix: BLANK WTR Listtype:MTHG-LOW Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

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Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Total, CVAA	0.005	0.015	ug/L	<MDL	

MB:WG133844-1 Matrix: BLANK WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	

SB:WG133844-2 MB:WG133844-1 Matrix: BLANK WTR Listtype:MTHG-LOW Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Mercury, Total, CVAA	0.005	0.015	ug/L	<MDL	0.05	0.0486	97		85--115

MSD:WG133844-4 MS:WG133844-3 L60671-2 Matrix: SEWER WTR Listtype:MTHG-LOW Method:EPA 245.1*SW846 7470A Project:423589-320-4 Pkey:STD
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueValue	MSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Mercury, Total, CVAA	0.005	0.015	ug/L	0.0268	0.05	0.0702	87		75--125	0.05	0.0709	88		1		0--20

Workgroup: WG129626 (CSO Basin) Run ID: R191525

MB:WG129626-1 Matrix: BLANK WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	<MDL	
Chromium, Total, ICP-MS	0.2	1	ug/L	<MDL	
Nickel, Total, ICP-MS	0.1	0.5	ug/L	<MDL	
Copper, Total, ICP-MS	0.4	2	ug/L	<MDL	
Zinc, Total, ICP-MS	0.5	2.5	ug/L	<MDL	
Arsenic, Total, ICP-MS	0.1	0.5	ug/L	<MDL	
Silver, Total, ICP-MS	0.04	0.2	ug/L	<MDL	
Cadmium, Total, ICP-MS	0.05	0.25	ug/L	<MDL	
Lead, Total, ICP-MS	0.1	0.5	ug/L	<MDL	

SB:WG129626-2 MB:WG129626-1 Matrix: BLANK WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	<MDL	20	19.7	98		85--115
Chromium, Total, ICP-MS	0.2	1	ug/L	<MDL	20	19.5	98		85--115
Nickel, Total, ICP-MS	0.1	0.5	ug/L	<MDL	20	21.5	108		85--115
Copper, Total, ICP-MS	0.4	2	ug/L	<MDL	20	21.1	106		85--115

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Zinc, Total, ICP-MS	0.5	2.5 ug/L	<MDL	20	19.7	98	85--115
Arsenic, Total, ICP-MS	0.1	0.5 ug/L	<MDL	20	20.5	103	85--115
Silver, Total, ICP-MS	0.04	0.2 ug/L	<MDL	20	19.7	98	85--115
Cadmium, Total, ICP-MS	0.05	0.25 ug/L	<MDL	20	18	90	85--115
Lead, Total, ICP-MS	0.1	0.5 ug/L	<MDL	20	18.6	93	85--115

LD:WG129626-3 L58993-1 Matrix: SEWER WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	1.6	1.52	5		0--20
Chromium, Total, ICP-MS	0.2	1	ug/L	0.84	0.86			0--20
Nickel, Total, ICP-MS	0.1	0.5	ug/L	3.8	3.82	1		0--20
Copper, Total, ICP-MS	0.4	2	ug/L	14.9	14.8	1		0--20
Zinc, Total, ICP-MS	0.5	2.5	ug/L	39.1	38.8	1		0--20
Arsenic, Total, ICP-MS	0.1	0.5	ug/L	0.515	0.508	1		0--20
Silver, Total, ICP-MS	0.04	0.2	ug/L	<MDL	<MDL			0--20
Cadmium, Total, ICP-MS	0.05	0.25	ug/L	0.061	0.065			0--20
Lead, Total, ICP-MS	0.1	0.5	ug/L	3.28	3.24	1		0--20

MS:WG129626-4 L58993-1 Matrix: SEWER WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	1.6	20	21.2	98		75--125
Chromium, Total, ICP-MS	0.2	1	ug/L	0.84	20	20	96		75--125
Nickel, Total, ICP-MS	0.1	0.5	ug/L	3.8	20	24.9	106		75--125
Copper, Total, ICP-MS	0.4	2	ug/L	14.9	20	35.6	103		75--125
Zinc, Total, ICP-MS	0.5	2.5	ug/L	39.1	20	54.8	78		75--125
Arsenic, Total, ICP-MS	0.1	0.5	ug/L	0.515	20	20.6	100		75--125
Silver, Total, ICP-MS	0.04	0.2	ug/L	<MDL	20	20.3	101		75--125
Cadmium, Total, ICP-MS	0.05	0.25	ug/L	0.061	20	18.5	92		75--125
Lead, Total, ICP-MS	0.1	0.5	ug/L	3.28	20	21.9	93		75--125

Workgroup: WG129956 (11/19/13 CSO BASIN TOTALS) Run ID: R192108

MB:WG129956-1 Matrix: BLANK WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	<MDL	
Chromium, Total, ICP-MS	0.2	1	ug/L	<MDL	
Nickel, Total, ICP-MS	0.1	0.5	ug/L	<MDL	

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Copper, Total, ICP-MS	0.4	2 ug/L	<MDL
Zinc, Total, ICP-MS	0.5	2.5 ug/L	<MDL
Arsenic, Total, ICP-MS	0.1	0.5 ug/L	<MDL
Silver, Total, ICP-MS	0.04	0.2 ug/L	<MDL
Cadmium, Total, ICP-MS	0.05	0.25 ug/L	<MDL
Lead, Total, ICP-MS	0.1	0.5 ug/L	<MDL

SB:WG129956-2 MB:WG129956-1 Matrix: BLANK WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	<MDL	20	18.9	95		85--115
Chromium, Total, ICP-MS	0.2	1	ug/L	<MDL	20	19	95		85--115
Nickel, Total, ICP-MS	0.1	0.5	ug/L	<MDL	20	18.8	94		85--115
Copper, Total, ICP-MS	0.4	2	ug/L	<MDL	20	18.9	95		85--115
Zinc, Total, ICP-MS	0.5	2.5	ug/L	<MDL	20	19.8	99		85--115
Arsenic, Total, ICP-MS	0.1	0.5	ug/L	<MDL	20	18.7	94		85--115
Silver, Total, ICP-MS	0.04	0.2	ug/L	<MDL	20	18.3	91		85--115
Cadmium, Total, ICP-MS	0.05	0.25	ug/L	<MDL	20	18.8	94		85--115
Lead, Total, ICP-MS	0.1	0.5	ug/L	<MDL	20	20.2	101		85--115

LD:WG129956-3 L59070-2 Matrix: SEWER WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	1.73	1.76	2		0--20
Chromium, Total, ICP-MS	0.2	1	ug/L	1.4	1.41	1		0--20
Nickel, Total, ICP-MS	0.1	0.5	ug/L	3.07	3.02	2		0--20
Copper, Total, ICP-MS	0.4	2	ug/L	28	27.4	2		0--20
Zinc, Total, ICP-MS	0.5	2.5	ug/L	103	102	1		0--20
Arsenic, Total, ICP-MS	0.1	0.5	ug/L	1.15	1.12	2		0--20
Silver, Total, ICP-MS	0.04	0.2	ug/L	0.067	0.093			0--20
Cadmium, Total, ICP-MS	0.05	0.25	ug/L	0.097	0.11			0--20
Lead, Total, ICP-MS	0.1	0.5	ug/L	5.65	5.58	1		0--20

MS:WG129956-4 L59070-2 Matrix: SEWER WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	1.73	20	20.4	93		75--125
Chromium, Total, ICP-MS	0.2	1	ug/L	1.4	20	20.6	96		75--125
Nickel, Total, ICP-MS	0.1	0.5	ug/L	3.07	20	21.7	93		75--125
Copper, Total, ICP-MS	0.4	2	ug/L	28	20	46.3	92		75--125
Zinc, Total, ICP-MS	0.5	2.5	ug/L	103	20	119		4xRule	75--125

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Arsenic, Total, ICP-MS	0.1	0.5 ug/L	1.15	20	18.6	87	75--125
Silver, Total, ICP-MS	0.04	0.2 ug/L	0.067	20	17.5	87	75--125
Cadmium, Total, ICP-MS	0.05	0.25 ug/L	0.097	20	18.1	90	75--125
Lead, Total, ICP-MS	0.1	0.5 ug/L	5.65	20	25.1	97	75--125

Workgroup: WG129597 (CSO Basin) Run ID: R191496

MB:WG129597-1 Matrix: BLANK WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	<MDL	
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	<MDL	
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	
Copper, Dissolved, ICP-MS	0.4	2	ug/L	<MDL	
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	<MDL	
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	
Cadmium, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	

SB:WG129597-2 MB:WG129597-1 Matrix: BLANK WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	<MDL	20	20.6	103		85--115
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	<MDL	20	20.3	101		85--115
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	20	21.2	106		85--115
Copper, Dissolved, ICP-MS	0.4	2	ug/L	<MDL	20	20.1	101		85--115
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	<MDL	20	19.7	99		85--115
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	20	20.4	102		85--115
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	20	20.3	101		85--115
Cadmium, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	20	19.2	96		85--115
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	20	19.5	97		85--115

LD:WG129597-3 L58795-2 Matrix: SEWER WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	3.81	3.79	1		0--20
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	1.47	1.48	0		0--20
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	6.1	6.1	0		0--20
Copper, Dissolved, ICP-MS	0.4	2	ug/L	7.12	7.14	0		0--20

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Zinc, Dissolved, ICP-MS	0.5	2.5 ug/L	21.7	22.3	3	0--20
Arsenic, Dissolved, ICP-MS	0.1	0.5 ug/L	4.7	4.72	0	0--20
Silver, Dissolved, ICP-MS	0.04	0.2 ug/L	<MDL	<MDL		0--20
Cadmium, Dissolved, ICP-M	0.05	0.25 ug/L	0.061	0.065		0--20
Lead, Dissolved, ICP-MS	0.1	0.5 ug/L	1.23	1.26	2	0--20

MS:WG129597-4 L58795-2 Matrix: SEWER WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD (Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Vanadium, Dissolved, ICP-N	0.075	0.375	ug/L	3.81	20	24.3	103		75--125
Chromium, Dissolved, ICP-N	0.2	1	ug/L	1.47	20	21.6	101		75--125
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	6.1	20	27.3	106		75--125
Copper, Dissolved, ICP-MS	0.4	2	ug/L	7.12	20	27	99		75--125
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	21.7	20	40.8	96		75--125
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	4.7	20	25.6	105		75--125
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	20	18.7	94		75--125
Cadmium, Dissolved, ICP-M	0.05	0.25	ug/L	0.061	20	18.9	94		75--125
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	1.23	20	20.5	96		75--125

Workgroup: WG129957 (11/19/13 CSO BASIN DISS) Run ID: R192109

MB:WG129957-1 Matrix: BLANK WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project: Pkey:STD (Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Vanadium, Dissolved, ICP-N	0.075	0.375	ug/L	<MDL	
Chromium, Dissolved, ICP-N	0.2	1	ug/L	<MDL	
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	
Copper, Dissolved, ICP-MS	0.4	2	ug/L	<MDL	
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	<MDL	
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	
Cadmium, Dissolved, ICP-M	0.05	0.25	ug/L	<MDL	
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	

SB:WG129957-2 MB:WG129957-1 Matrix: BLANK WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project: Pkey:STD (Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Vanadium, Dissolved, ICP-N	0.075	0.375	ug/L	<MDL		20	18.6	93	85--115
Chromium, Dissolved, ICP-N	0.2	1	ug/L	<MDL		20	18.9	95	85--115
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL		20	19	95	85--115

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Copper, Dissolved, ICP-MS	0.4	2 ug/L	<MDL	20	19.1	95	85--115
Zinc, Dissolved, ICP-MS	0.5	2.5 ug/L	<MDL	20	19.3	97	85--115
Arsenic, Dissolved, ICP-MS	0.1	0.5 ug/L	<MDL	20	18.1	91	85--115
Silver, Dissolved, ICP-MS	0.04	0.2 ug/L	<MDL	20	18.6	93	85--115
Cadmium, Dissolved, ICP-M	0.05	0.25 ug/L	<MDL	20	18.8	94	85--115
Lead, Dissolved, ICP-MS	0.1	0.5 ug/L	<MDL	20	20	100	85--115

LD:WG129957-3 L59070-2 Matrix: SEWER WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Vanadium, Dissolved, ICP-N	0.075	0.375	ug/L	0.79	0.811		3	0--20
Chromium, Dissolved, ICP-N	0.2	1	ug/L	0.32	0.32			0--20
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	1.79	1.77		1	0--20
Copper, Dissolved, ICP-MS	0.4	2	ug/L	8.85	8.96		1	0--20
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	30.2	30.5		1	0--20
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	0.937	0.954		2	0--20
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	<MDL			0--20
Cadmium, Dissolved, ICP-M	0.05	0.25	ug/L	<MDL	<MDL			0--20
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	0.645	0.651		1	0--20

MS:WG129957-4 L59070-2 Matrix: SEWER WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Vanadium, Dissolved, ICP-N	0.075	0.375	ug/L	0.79	20	19.4	93		75--125
Chromium, Dissolved, ICP-N	0.2	1	ug/L	0.32	20	19.3	95		75--125
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	1.79	20	20.2	92		75--125
Copper, Dissolved, ICP-MS	0.4	2	ug/L	8.85	20	27.2	92		75--125
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	30.2	20	49.9	99		75--125
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	0.937	20	19.3	92		75--125
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	20	17.7	88		75--125
Cadmium, Dissolved, ICP-M	0.05	0.25	ug/L	<MDL	20	18.9	95		75--125
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	0.645	20	20.3	98		75--125

Workgroup: WG133974 (CSO Basin) Run ID: R197094

MB:WG133974-1 Matrix: BLANK WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	<MDL	
Chromium, Total, ICP-MS	0.2	1	ug/L	<MDL	

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Nickel, Total, ICP-MS	0.1	0.5 ug/L	<MDL
Copper, Total, ICP-MS	0.4	2 ug/L	<MDL
Zinc, Total, ICP-MS	0.5	2.5 ug/L	<MDL
Arsenic, Total, ICP-MS	0.1	0.5 ug/L	<MDL
Silver, Total, ICP-MS	0.04	0.2 ug/L	<MDL
Cadmium, Total, ICP-MS	0.05	0.25 ug/L	<MDL
Lead, Total, ICP-MS	0.1	0.5 ug/L	<MDL

SB:WG133974-2 MB:WG133974-1 Matrix: BLANK WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	<MDL	20	19.3	97		85--115
Chromium, Total, ICP-MS	0.2	1	ug/L	<MDL	20	19.6	98		85--115
Nickel, Total, ICP-MS	0.1	0.5	ug/L	<MDL	20	20.1	101		85--115
Copper, Total, ICP-MS	0.4	2	ug/L	<MDL	20	19.9	99		85--115
Zinc, Total, ICP-MS	0.5	2.5	ug/L	<MDL	20	20.6	103		85--115
Arsenic, Total, ICP-MS	0.1	0.5	ug/L	<MDL	20	20.1	100		85--115
Silver, Total, ICP-MS	0.04	0.2	ug/L	<MDL	20	19	95		85--115
Cadmium, Total, ICP-MS	0.05	0.25	ug/L	<MDL	20	19.6	98		85--115
Lead, Total, ICP-MS	0.1	0.5	ug/L	<MDL	20	19.3	97		85--115

LD:WG133974-3 L60671-2 Matrix: SEWER WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	1.92	1.88	2		0--20
Chromium, Total, ICP-MS	0.2	1	ug/L	1.81	1.76	3		0--20
Nickel, Total, ICP-MS	0.1	0.5	ug/L	3.6	3.56	1		0--20
Copper, Total, ICP-MS	0.4	2	ug/L	28.7	29	1		0--20
Zinc, Total, ICP-MS	0.5	2.5	ug/L	117	115	2		0--20
Arsenic, Total, ICP-MS	0.1	0.5	ug/L	1.35	1.31	3		0--20
Silver, Total, ICP-MS	0.04	0.2	ug/L	0.076	<MDL			0--20
Cadmium, Total, ICP-MS	0.05	0.25	ug/L	0.22	0.17			0--20
Lead, Total, ICP-MS	0.1	0.5	ug/L	7.35	7.17	2		0--20

MS:WG133974-4 L60671-2 Matrix: SEWER WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	1.92	20	20.5	93		75--125
Chromium, Total, ICP-MS	0.2	1	ug/L	1.81	20	20.4	93		75--125
Nickel, Total, ICP-MS	0.1	0.5	ug/L	3.6	20	23.4	99		75--125
Copper, Total, ICP-MS	0.4	2	ug/L	28.7	20	47.1	92		75--125

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Zinc, Total, ICP-MS	0.5	2.5 ug/L	117	20	130	4xRule	75--125
Arsenic, Total, ICP-MS	0.1	0.5 ug/L	1.35	20	20.4	95	75--125
Silver, Total, ICP-MS	0.04	0.2 ug/L	0.076	20	15.6	77	75--125
Cadmium, Total, ICP-MS	0.05	0.25 ug/L	0.22	20	18.7	92	75--125
Lead, Total, ICP-MS	0.1	0.5 ug/L	7.35	20	25.8	92	75--125

Workgroup: WG133975 (CSO Basin) Run ID: R197098

MB:WG133975-1 Matrix: BLANK WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	<MDL	
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	<MDL	
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	
Copper, Dissolved, ICP-MS	0.4	2	ug/L	<MDL	
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	<MDL	
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	
Cadmium, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	

SB:WG133975-2 MB:WG133975-1 Matrix: BLANK WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	<MDL	20	18.7	94		85--115
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	<MDL	20	19	95		85--115
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	20	20	100		85--115
Copper, Dissolved, ICP-MS	0.4	2	ug/L	<MDL	20	19.5	97		85--115
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	<MDL	20	20.1	100		85--115
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	20	19.8	99		85--115
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	20	18.7	93		85--115
Cadmium, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	20	19.1	95		85--115
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	20	18.7	93		85--115

LD:WG133975-3 L60671-2 Matrix: SEWER WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	0.739	0.749		1	0--20
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	0.47	0.48			0--20
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	2.12	2.12		0	0--20

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Copper, Dissolved, ICP-MS	0.4	2 ug/L	9.9	9.8	1	0--20
Zinc, Dissolved, ICP-MS	0.5	2.5 ug/L	28.7	29.2	2	0--20
Arsenic, Dissolved, ICP-MS	0.1	0.5 ug/L	1.05	1.06	0	0--20
Silver, Dissolved, ICP-MS	0.04	0.2 ug/L	<MDL	<MDL		0--20
Cadmium, Dissolved, ICP-M	0.05	0.25 ug/L	<MDL	<MDL		0--20
Lead, Dissolved, ICP-MS	0.1	0.5 ug/L	1.17	1.19	1	0--20

MS:WG133975-4 L60671-2 Matrix: SEWER WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD (Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	0.739	20	19.8	95		75--125
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	0.47	20	19.5	95		75--125
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	2.12	20	22.5	102		75--125
Copper, Dissolved, ICP-MS	0.4	2	ug/L	9.9	20	29.9	100		75--125
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	28.7	20	49.2	102		75--125
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	1.05	20	22.3	106		75--125
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	20	17.9	89		75--125
Cadmium, Dissolved, ICP-M	0.05	0.25	ug/L	<MDL	20	19.2	96		75--125
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	1.17	20	19.9	94		75--125

Workgroup: WG129113 (BL#138) Run ID: R191676

MB:WG129113-1 Matrix: BLANK WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD (Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Naphthalene	0.008	0.04	ug/L	<MDL	
2-Methylnaphthalene	0.008	0.04	ug/L	<MDL	
Dimethyl Phthalate	0.04	0.2	ug/L	<MDL	
Acenaphthylene	0.008	0.04	ug/L	<MDL	
Acenaphthene	0.008	0.04	ug/L	<MDL	
Diethyl Phthalate	0.04	0.2	ug/L	0.043 B	
Fluorene	0.016	0.08	ug/L	<MDL	
Phenanthrene	0.016	0.08	ug/L	<MDL	
Anthracene	0.016	0.08	ug/L	<MDL	
Di-N-Butyl Phthalate	0.04	0.2	ug/L	<MDL	
Fluoranthene	0.016	0.08	ug/L	<MDL	
Pyrene	0.016	0.08	ug/L	<MDL	
Benzyl Butyl Phthalate	0.08	0.4	ug/L	<MDL	
Benzo(a)anthracene	0.016	0.08	ug/L	<MDL	
Chrysene	0.016	0.08	ug/L	<MDL	

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Bis(2-Ethylhexyl)Phthalate	0.4	2 ug/L	<MDL
Di-N-Octyl Phthalate	0.04	0.2 ug/L	<MDL
Benzo(b,j,k)fluoranthene	0.016	0.08 ug/L	<MDL
Benzo(a)pyrene	0.016	0.08 ug/L	<MDL
Indeno(1,2,3-Cd)Pyrene	0.016	0.08 ug/L	<MDL
Dibenzo(a,h)anthracene	0.016	0.08 ug/L	<MDL
Benzo(g,h,i)perylene	0.016	0.08 ug/L	<MDL

SB:WG129113-2 MB:WG129113-1 Matrix: BLANK WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Naphthalene	0.008	0.04 ug/L	<MDL		2.5	0.783	31		15--93
2-Methylnaphthalene	0.008	0.04 ug/L	<MDL		2.5	0.762	30 *		40--160
Dimethyl Phthalate	0.04	0.2 ug/L	<MDL		2.5	2.42	97		40--160
Acenaphthylene	0.008	0.04 ug/L	<MDL		2.5	1.21	48		43--111
Acenaphthene	0.008	0.04 ug/L	<MDL		2.5	1.08	43		37--99
Diethyl Phthalate	0.04	0.2 ug/L		0.043	2.5	2.47	97		40--160
Fluorene	0.016	0.08 ug/L	<MDL		2.5	1.41	56		54--104
Phenanthrene	0.016	0.08 ug/L	<MDL		2.5	2.08	83		54--107
Anthracene	0.016	0.08 ug/L	<MDL		2.5	1.99	80		54--121
Di-N-Butyl Phthalate	0.04	0.2 ug/L	<MDL		2.5	2.43	97		40--160
Fluoranthene	0.016	0.08 ug/L	<MDL		2.5	2.45	98		63--115
Pyrene	0.016	0.08 ug/L	<MDL		2.5	2.68	107		54--136
Benzyl Butyl Phthalate	0.08	0.4 ug/L	<MDL		2.5	2.78	111		40--160
Benzo(a)anthracene	0.016	0.08 ug/L	<MDL		2.5	2.35	94		65--117
Chrysene	0.016	0.08 ug/L	<MDL		2.5	2.28	91		44--114
Bis(2-Ethylhexyl)Phthalate	0.4	2 ug/L	<MDL		2.5	2.57	103		40--160
Di-N-Octyl Phthalate	0.04	0.2 ug/L	<MDL		2.5	2.87	115		40--160
Benzo(b,j,k)fluoranthene	0.016	0.08 ug/L	<MDL		7.5	5.5	73		50--121
Benzo(a)pyrene	0.016	0.08 ug/L	<MDL		2.5	2.51	100		45--133
Indeno(1,2,3-Cd)Pyrene	0.016	0.08 ug/L	<MDL		2.5	2.86	115		33--152
Dibenzo(a,h)anthracene	0.016	0.08 ug/L	<MDL		2.5	3.08	123		34--140
Benzo(g,h,i)perylene	0.016	0.08 ug/L	<MDL		2.5	2.42	97		29--134

MSD:WG129113-4 MS:WG129113-3 L58795-3 Matrix: SEWER WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project:423589-320-4 Pkey:STD
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueValue	MSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Naphthalene	0.038	0.189 ug/L		0.1	2.36	1.12	43		24--85	2.36	1.06	41		5		0--40
2-Methylnaphthalene	0.038	0.189 ug/L	<MDL		2.36	1.27	54		40--160	2.36	1.26	54		1		0--40
Dimethyl Phthalate	0.19	0.943 ug/L		0.32	2.36	3.16	120		40--160	2.36	2.97	112		6		0--40
Acenaphthylene	0.038	0.189 ug/L	<MDL		2.36	1.98	84		51--103	2.36	1.94	82		2		0--40

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Acenaphthene	0.038	0.189 ug/L	<MDL		2.36	1.79	76	44--94	2.36	1.73	73	3	0--40
Diethyl Phthalate	0.19	0.943 ug/L		8.08	2.36	11	123	40--160	2.36	10.3	94	6	0--40
Fluorene	0.075	0.377 ug/L	<MDL		2.36	1.91	81	54--113	2.36	1.83	78	4	0--40
Phenanthrene	0.075	0.377 ug/L	<MDL		2.36	1.89	80	57--108	2.36	1.84	78	3	0--40
Anthracene	0.075	0.377 ug/L	<MDL		2.36	1.81	77	50--119	2.36	1.74	74	4	0--40
Di-N-Butyl Phthalate	0.19	0.943 ug/L	<MDL		2.36	1.87	79	40--160	2.36	1.69	71	10	0--40
Fluoranthene	0.075	0.377 ug/L	<MDL		2.36	1.63	69	58--115	2.36	1.6	68	2	0--40
Pyrene	0.075	0.377 ug/L	<MDL		2.36	2.49	106	51--142	2.36	2.4	102	4	0--40
Benzyl Butyl Phthalate	0.38	1.89 ug/L	<MDL		2.36	2.2	93	40--160	2.36	2.11	90	4	0--40
Benzo(a)anthracene	0.075	0.377 ug/L	<MDL		2.36	1.64	70	62--117	2.36	1.6	68	2	0--40
Chrysene	0.075	0.377 ug/L	<MDL		2.36	1.49	63	39--115	2.36	1.47	62	2	0--40
Bis(2-Ethylhexyl)Phthalate	1.9	9.43 ug/L		3.8	2.36	6.4	110	40--160	2.36	6.2	103	3	0--40
Di-N-Octyl Phthalate	0.19	0.943 ug/L	<MDL		2.36	2.59	110	40--160	2.36	2.51	107	3	0--40
Benzo(b,j,k)fluoranthene	0.075	0.377 ug/L	<MDL		7.08	3.96	56	45--120	7.08	3.89	55	2	0--40
Benzo(a)pyrene	0.075	0.377 ug/L	<MDL		2.36	1.93	82	38--134	2.36	1.9	81	2	0--40
Indeno(1,2,3-Cd)Pyrene	0.075	0.377 ug/L	<MDL		2.36	2.09	89	38--130	2.36	2.03	86	3	0--40
Dibenzo(a,h)anthracene	0.075	0.377 ug/L	<MDL		2.36	2.33	99	25--138	2.36	2.05	87	13	0--40
Benzo(g,h,i)perylene	0.075	0.377 ug/L	<MDL		2.36	1.73	73	25--122	2.36	1.66	70	4	0--40

	2-	d14-
Surrogate:	Fluorobi	Terphe
(Lab Limits)	phenyl	nyl
	33--96	63--125
L58795-1	56	87
L58795-2	59	63
L58795-3	86	93
WG129113-1	65	88
WG129113-2	43	87
WG129113-3	82	92
WG129113-4	76	91

Workgroup: WG129121 (BL#140 pahpth-sim) Run ID: R191756

MB:WG129121-1 Matrix: BLANK WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Naphthalene	0.008	0.04 ug/L	<MDL		
2-Methylnaphthalene	0.008	0.04 ug/L	<MDL		
Dimethyl Phthalate	0.04	0.2 ug/L	<MDL		
Acenaphthylene	0.008	0.04 ug/L	<MDL		
Acenaphthene	0.008	0.04 ug/L	<MDL		

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Diethyl Phthalate	0.04	0.2 ug/L	0.073 B
Fluorene	0.016	0.08 ug/L	<MDL
Phenanthrene	0.016	0.08 ug/L	<MDL
Anthracene	0.016	0.08 ug/L	<MDL
Di-N-Butyl Phthalate	0.04	0.2 ug/L	0.075 B
Fluoranthene	0.016	0.08 ug/L	<MDL
Pyrene	0.016	0.08 ug/L	<MDL
Benzyl Butyl Phthalate	0.08	0.4 ug/L	<MDL
Benzo(a)anthracene	0.016	0.08 ug/L	<MDL
Chrysene	0.016	0.08 ug/L	<MDL
Bis(2-Ethylhexyl)Phthalate	0.4	2 ug/L	<MDL
Di-N-Octyl Phthalate	0.04	0.2 ug/L	<MDL
Benzo(b,j,k)fluoranthene	0.016	0.08 ug/L	<MDL
Benzo(a)pyrene	0.016	0.08 ug/L	<MDL
Indeno(1,2,3-Cd)Pyrene	0.016	0.08 ug/L	<MDL
Dibenzo(a,h)anthracene	0.016	0.08 ug/L	<MDL
Benzo(g,h,i)perylene	0.016	0.08 ug/L	<MDL

SB:WG129121-2 MB:WG129121-1 Matrix: BLANK WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Naphthalene	0.008	0.04 ug/L	<MDL		2.5	0.775	31		15--93
2-Methylnaphthalene	0.008	0.04 ug/L	<MDL		2.5	0.7	28 *		40--160
Dimethyl Phthalate	0.04	0.2 ug/L	<MDL		2.5	3.03	121		40--160
Acenaphthylene	0.008	0.04 ug/L	<MDL		2.5	1.08	43		43--111
Acenaphthene	0.008	0.04 ug/L	<MDL		2.5	0.856	34 *		37--99
Diethyl Phthalate	0.04	0.2 ug/L	0.073		2.5	3.14	123		40--160
Fluorene	0.016	0.08 ug/L	<MDL		2.5	1.08	43 *		54--104
Phenanthrene	0.016	0.08 ug/L	<MDL		2.5	1.72	69		54--107
Anthracene	0.016	0.08 ug/L	<MDL		2.5	1.8	72		54--121
Di-N-Butyl Phthalate	0.04	0.2 ug/L	0.075		2.5	2.62	102		40--160
Fluoranthene	0.016	0.08 ug/L	<MDL		2.5	2.49	100		63--115
Pyrene	0.016	0.08 ug/L	<MDL		2.5	2.7	108		54--136
Benzyl Butyl Phthalate	0.08	0.4 ug/L	<MDL		2.5	3	120		40--160
Benzo(a)anthracene	0.016	0.08 ug/L	<MDL		2.5	2.43	97		65--117
Chrysene	0.016	0.08 ug/L	<MDL		2.5	2.36	94		44--114
Bis(2-Ethylhexyl)Phthalate	0.4	2 ug/L	<MDL		2.5	2.83	113		40--160
Di-N-Octyl Phthalate	0.04	0.2 ug/L	<MDL		2.5	3.05	122		40--160
Benzo(b,j,k)fluoranthene	0.016	0.08 ug/L	<MDL		7.5	5.74	77		50--121
Benzo(a)pyrene	0.016	0.08 ug/L	<MDL		2.5	2.62	105		45--133
Indeno(1,2,3-Cd)Pyrene	0.016	0.08 ug/L	<MDL		2.5	2.71	108		33--152

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Dibenzo(a,h)anthracene 0.016 0.08 ug/L <MDL 2.5 2.43 97 34--140
Benzo(g,h,i)perylene 0.016 0.08 ug/L <MDL 2.5 2.23 89 29--134

MSD:WG129121-4 MS:WG129121-3 L58826-1 Matrix: SEWER WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project:423589-320-4 Pkey:STD
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueValue	MSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Naphthalene	0.038	0.189	ug/L	0.13	2.36	0.921	34		24--85	2.36	0.814	29		12		0--40
2-Methylnaphthalene	0.038	0.189	ug/L	<MDL	2.36	1.01	43		40--160	2.36	0.825	35 *		20		0--40
Dimethyl Phthalate	0.19	0.943	ug/L	<MDL	2.36	3.01	128		40--160	2.36	3.39	144		12		0--40
Acenaphthylene	0.038	0.189	ug/L	<MDL	2.36	1.6	68		51--103	2.36	1.49	63		7		0--40
Acenaphthene	0.038	0.189	ug/L	<MDL	2.36	1.5	64		44--94	2.36	1.37	58		9		0--40
Diethyl Phthalate	0.19	0.943	ug/L	3.03	2.36	5.82	118		40--160	2.36	5.88	121		1		0--40
Fluorene	0.075	0.377	ug/L	<MDL	2.36	1.75	74		54--113	2.36	1.72	73		2		0--40
Phenanthrene	0.075	0.377	ug/L	<MDL	2.36	1.89	80		57--108	2.36	1.9	81		0		0--40
Anthracene	0.075	0.377	ug/L	<MDL	2.36	1.7	72		50--119	2.36	1.8	76		6		0--40
Di-N-Butyl Phthalate	0.19	0.943	ug/L	0.26	2.36	1.88	68		40--160	2.36	1.86	68		1		0--40
Fluoranthene	0.075	0.377	ug/L	<MDL	2.36	1.51	64		58--115	2.36	1.55	66		2		0--40
Pyrene	0.075	0.377	ug/L	<MDL	2.36	1.78	75		51--142	2.36	1.86	79		4		0--40
Benzyl Butyl Phthalate	0.38	1.89	ug/L	<MDL	2.36	2.02	86		40--160	2.36	2.06	87		2		0--40
Benzo(a)anthracene	0.075	0.377	ug/L	<MDL	2.36	1.34	57 *		62--117	2.36	1.39	59 *		3		0--40
Chrysene	0.075	0.377	ug/L	<MDL	2.36	1.24	52		39--115	2.36	1.27	54		3		0--40
Bis(2-Ethylhexyl)Phthalate	1.9	9.43	ug/L	6.2	2.36	2.3	-164 *		40--160	2.36	2.2	-169 *		5		0--40
Di-N-Octyl Phthalate	0.19	0.943	ug/L	<MDL	2.36	1.93	82		40--160	2.36	1.87	79		3		0--40
Benzo(b,j,k)fluoranthene	0.075	0.377	ug/L	<MDL	7.08	3.18	45		45--120	7.08	3.2	45		1		0--40
Benzo(a)pyrene	0.075	0.377	ug/L	<MDL	2.36	1.52	64		38--134	2.36	1.59	67		5		0--40
Indeno(1,2,3-Cd)Pyrene	0.075	0.377	ug/L	<MDL	2.36	1.7	72		38--130	2.36	1.68	71		1		0--40
Dibenzo(a,h)anthracene	0.075	0.377	ug/L	<MDL	2.36	1.2	51		25--138	2.36	1.2	51		0		0--40
Benzo(g,h,i)perylene	0.075	0.377	ug/L	<MDL	2.36	1.5	64		25--122	2.36	1.48	63		1		0--40

	2-	d14-
	Fluorobi	Terphe
Surrogate:	phenyl	nyl
(Lab Limits)	33--96	63--125
L58826-1	66	95
L58826-2	82	94
L58826-3	73	92
WG129121-1	72	93
WG129121-2	42	91
WG129121-3	39	91
WG129121-4	56	94

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Workgroup: WG129485 (BL#143) Run ID: R192374

MB:WG129485-1 Matrix: BLANK WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Naphthalene	0.008	0.04	ug/L	<MDL	
2-Methylnaphthalene	0.008	0.04	ug/L	<MDL	
Dimethyl Phthalate	0.04	0.2	ug/L	<MDL	
Acenaphthylene	0.008	0.04	ug/L	<MDL	
Acenaphthene	0.008	0.04	ug/L	<MDL	
Diethyl Phthalate	0.04	0.2	ug/L	0.059	B
Fluorene	0.016	0.08	ug/L	<MDL	
Phenanthrene	0.016	0.08	ug/L	<MDL	
Anthracene	0.016	0.08	ug/L	<MDL	
Di-N-Butyl Phthalate	0.04	0.2	ug/L	0.05	B
Fluoranthene	0.016	0.08	ug/L	<MDL	
Pyrene	0.016	0.08	ug/L	<MDL	
Benzyl Butyl Phthalate	0.08	0.4	ug/L	<MDL	
Benzo(a)anthracene	0.016	0.08	ug/L	<MDL	
Chrysene	0.016	0.08	ug/L	<MDL	
Bis(2-Ethylhexyl)Phthalate	0.8	4	ug/L	8.86	B
Di-N-Octyl Phthalate	0.04	0.2	ug/L	<MDL	
Benzo(b,j,k)fluoranthene	0.016	0.08	ug/L	<MDL	
Benzo(a)pyrene	0.016	0.08	ug/L	<MDL	
Indeno(1,2,3-Cd)Pyrene	0.016	0.08	ug/L	<MDL	
Dibenzo(a,h)anthracene	0.016	0.08	ug/L	<MDL	
Benzo(g,h,i)perylene	0.016	0.08	ug/L	<MDL	

SB:WG129485-2 MB:WG129485-1 Matrix: BLANK WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Naphthalene	0.008	0.04	ug/L	<MDL	2.5	1.83	73		15--93
2-Methylnaphthalene	0.008	0.04	ug/L	<MDL	2.5	1.96	78		40--160
Dimethyl Phthalate	0.04	0.2	ug/L	<MDL	2.5	2.67	107		40--160
Acenaphthylene	0.008	0.04	ug/L	<MDL	2.5	2.16	86		43--111
Acenaphthene	0.008	0.04	ug/L	<MDL	2.5	2.09	84		37--99
Diethyl Phthalate	0.04	0.2	ug/L	0.059	2.5	3.13	123		40--160
Fluorene	0.016	0.08	ug/L	<MDL	2.5	2.05	82		54--104
Phenanthrene	0.016	0.08	ug/L	<MDL	2.5	2.44	98		54--107
Anthracene	0.016	0.08	ug/L	<MDL	2.5	2.22	89		54--121
Di-N-Butyl Phthalate	0.04	0.2	ug/L	0.05	2.5	2.84	112		40--160

LIMSVIEW QC Report for Michigan Basin CSO - Data Validation for Dry Baseflow

Fluoranthene	0.016	0.08 ug/L	<MDL	2.5	2.59	104	63--115
Pyrene	0.016	0.08 ug/L	<MDL	2.5	2.96	119	54--136
Benzyl Butyl Phthalate	0.08	0.4 ug/L	<MDL	2.5	3.39	136	40--160
Benzo(a)anthracene	0.016	0.08 ug/L	<MDL	2.5	2.58	103	65--117
Chrysene	0.016	0.08 ug/L	<MDL	2.5	2.43	97	44--114
Bis(2-Ethylhexyl)Phthalate	0.8	4 ug/L	8.86	2.5	17.8	358 *	40--160
Di-N-Octyl Phthalate	0.04	0.2 ug/L	<MDL	2.5	3.23	129	40--160
Benzo(b,j,k)fluoranthene	0.016	0.08 ug/L	<MDL	7.5	5.73	76	50--121
Benzo(a)pyrene	0.016	0.08 ug/L	<MDL	2.5	2.54	102	45--133
Indeno(1,2,3-Cd)Pyrene	0.016	0.08 ug/L	<MDL	2.5	3.09	124	33--152
Dibenzo(a,h)anthracene	0.016	0.08 ug/L	<MDL	2.5	2.44	98	34--140
Benzo(g,h,i)perylene	0.016	0.08 ug/L	<MDL	2.5	2.53	101	29--134

MSD:WG129485-4 MS:WG129485-3 L58993-1 Matrix: SEWER WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project:423589-320-4 Pkey:STD
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueValue	MSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Naphthalene	0.08	0.4 ug/L		0.0456	5	3.34	66		24--85	5	3.15	62		6		0--40
2-Methylnaphthalene	0.08	0.4 ug/L		0.012	5	3.56	71		40--160	5	3.39	67		5		0--40
Dimethyl Phthalate	0.4	2 ug/L		0.058	5	5.53	109		40--160	5	5.26	104		5		0--40
Acenaphthylene	0.08	0.4 ug/L		0.1	5	4.16	81		51--103	5	3.97	77		5		0--40
Acenaphthene	0.08	0.4 ug/L		0.0462	5	4.08	81		44--94	5	3.87	76		5		0--40
Diethyl Phthalate	0.4	2 ug/L		3.14	5	8.77	112		40--160	5	8.52	107		3		0--40
Fluorene	0.16	0.8 ug/L	<MDL		5	4.3	86		54--113	5	4.08	82		5		0--40
Phenanthrene	0.16	0.8 ug/L	<MDL		5	4.78	96		57--108	5	4.61	92		4		0--40
Anthracene	0.16	0.8 ug/L	<MDL		5	4.33	87		50--119	5	4.14	83		4		0--40
Di-N-Butyl Phthalate	0.4	2 ug/L		0.12	5	4.92	96		40--160	5	4.74	93		4		0--40
Fluoranthene	0.16	0.8 ug/L		0.028	5	4.08	81		58--115	5	3.96	79		3		0--40
Pyrene	0.16	0.8 ug/L		0.028	5	4.77	95		51--142	5	4.63	92		3		0--40
Benzyl Butyl Phthalate	0.8	4 ug/L	<MDL		5	5	100		40--160	5	4.79	96		4		0--40
Benzo(a)anthracene	0.16	0.8 ug/L		0.021	5	3.66	73		62--117	5	3.51	70		4		0--40
Chrysene	0.16	0.8 ug/L	<MDL		5	3.4	68		39--115	5	3.26	65		4		0--40
Bis(2-Ethylhexyl)Phthalate	4	20 ug/L		36	5	46.4	209 *		40--160	5	5	-620 *		161 *		0--40
Di-N-Octyl Phthalate	0.4	2 ug/L	<MDL		5	4.63	93		40--160	5	4.34	87		6		0--40
Benzo(b,j,k)fluoranthene	0.16	0.8 ug/L		0.044	15	7.92	53		45--120	15	7.54	50		5		0--40
Benzo(a)pyrene	0.16	0.8 ug/L		0.016	5	3.69	73		38--134	5	3.5	70		5		0--40
Indeno(1,2,3-Cd)Pyrene	0.16	0.8 ug/L		0.018	5	4.42	88		38--130	5	4.12	82		7		0--40
Dibenzo(a,h)anthracene	0.16	0.8 ug/L	<MDL		5	3.24	65		25--138	5	3.07	61		5		0--40
Benzo(g,h,i)perylene	0.16	0.8 ug/L	<MDL		5	3.72	74		25--122	5	3.51	70		6		0--40

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Surrogate: (Lab Limits)	2- Fluorobi phenyl 33--96	d14- Terphe nyl 63--125
L58993-1	73	101
L58993-2	81	92
L58993-3	84	89
L59024-1	76	93
L59024-2	77	96
L59024-3	81	84
WG129485-1	59	97
WG129485-2	75	105
WG129485-3	71	103
WG129485-4	70	100

Workgroup: WG129695 (BL#147 PAHPHTH-sim) Run ID: R192229

MB:WG129695-1 Matrix: BLANK WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Naphthalene	0.008	0.04	ug/L	<MDL	
2-Methylnaphthalene	0.008	0.04	ug/L	<MDL	
Dimethyl Phthalate	0.04	0.2	ug/L	<MDL	
Acenaphthylene	0.008	0.04	ug/L	<MDL	
Acenaphthene	0.008	0.04	ug/L	<MDL	
Diethyl Phthalate	0.04	0.2	ug/L	0.265	B
Fluorene	0.016	0.08	ug/L	<MDL	
Phenanthrene	0.016	0.08	ug/L	<MDL	
Anthracene	0.016	0.08	ug/L	<MDL	
Di-N-Butyl Phthalate	0.04	0.2	ug/L	<MDL	
Fluoranthene	0.016	0.08	ug/L	<MDL	
Pyrene	0.016	0.08	ug/L	<MDL	
Benzyl Butyl Phthalate	0.08	0.4	ug/L	<MDL	
Benzo(a)anthracene	0.016	0.08	ug/L	<MDL	
Chrysene	0.016	0.08	ug/L	<MDL	
Bis(2-Ethylhexyl)Phthalate	0.4	2	ug/L	<MDL	
Di-N-Octyl Phthalate	0.04	0.2	ug/L	<MDL	
Benzo(b,j,k)fluoranthene	0.016	0.08	ug/L	<MDL	
Benzo(a)pyrene	0.016	0.08	ug/L	<MDL	
Indeno(1,2,3-Cd)Pyrene	0.016	0.08	ug/L	<MDL	
Dibenzo(a,h)anthracene	0.016	0.08	ug/L	<MDL	

LIMSVIEW QC Report for Michigan Basin CSO - Data Validation for Dry Baseflow

Benzo(g,h,i)perylene 0.016 0.08 ug/L <MDL

SB:WG129695-2 MB:WG129695-1 Matrix: BLANK WTR Listtype:ORPAHPHPTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Naphthalene	0.008	0.04	ug/L	<MDL	2.5	2.07	83		15--93
2-Methylnaphthalene	0.008	0.04	ug/L	<MDL	2.5	2.22	89		40--160
Dimethyl Phthalate	0.04	0.2	ug/L	<MDL	2.5	2.77	111		40--160
Acenaphthylene	0.008	0.04	ug/L	<MDL	2.5	2.37	95		43--111
Acenaphthene	0.008	0.04	ug/L	<MDL	2.5	2.3	92		37--99
Diethyl Phthalate	0.04	0.2	ug/L	0.265	2.5	3.7	138		40--160
Fluorene	0.016	0.08	ug/L	<MDL	2.5	2.24	90		54--104
Phenanthrene	0.016	0.08	ug/L	<MDL	2.5	2.53	101		54--107
Anthracene	0.016	0.08	ug/L	<MDL	2.5	2.4	96		54--121
Di-N-Butyl Phthalate	0.04	0.2	ug/L	<MDL	2.5	2.73	109		40--160
Fluoranthene	0.016	0.08	ug/L	<MDL	2.5	2.49	100		63--115
Pyrene	0.016	0.08	ug/L	<MDL	2.5	2.82	113		54--136
Benzyl Butyl Phthalate	0.08	0.4	ug/L	<MDL	2.5	3.23	129		40--160
Benzo(a)anthracene	0.016	0.08	ug/L	<MDL	2.5	2.45	98		65--117
Chrysene	0.016	0.08	ug/L	<MDL	2.5	2.34	94		44--114
Bis(2-Ethylhexyl)Phthalate	0.4	2	ug/L	<MDL	2.5	3.97	159		40--160
Di-N-Octyl Phthalate	0.04	0.2	ug/L	<MDL	2.5	3.07	123		40--160
Benzo(b,j,k)fluoranthene	0.016	0.08	ug/L	<MDL	7.5	5.56	74		50--121
Benzo(a)pyrene	0.016	0.08	ug/L	<MDL	2.5	2.68	107		45--133
Indeno(1,2,3-Cd)Pyrene	0.016	0.08	ug/L	<MDL	2.5	3.08	123		33--152
Dibenzo(a,h)anthracene	0.016	0.08	ug/L	<MDL	2.5	3.24	129		34--140
Benzo(g,h,i)perylene	0.016	0.08	ug/L	<MDL	2.5	2.51	100		29--134

MSD:WG129695-4 MS:WG129695-3 L59070-1 Matrix: SEWER WTR Listtype:ORPAHPHPTH-SIM Method:SW846 3520C*SW846 8270D SIM Project:423589-320-4 Pkey:STD
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueValue	MSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Naphthalene	0.038	0.189	ug/L	0.18	2.36	2.04	79		24--85	2.36	2.15	84		5		0--40
2-Methylnaphthalene	0.038	0.189	ug/L	<MDL	2.36	2.01	85		40--160	2.36	1.97	83		2		0--40
Dimethyl Phthalate	0.19	0.943	ug/L	<MDL	2.36	2.99	127		40--160	2.36	2.95	125		1		0--40
Acenaphthylene	0.038	0.189	ug/L	<MDL	2.36	2.12	90		51--103	2.36	2.11	89		0		0--40
Acenaphthene	0.038	0.189	ug/L	<MDL	2.36	2.02	86		44--94	2.36	2.01	85		1		0--40
Diethyl Phthalate	0.19	0.943	ug/L	2.89	2.36	6.33	146		40--160	2.36	6.57	156		4		0--40
Fluorene	0.075	0.377	ug/L	<MDL	2.36	1.91	81		54--113	2.36	1.88	80		2		0--40
Phenanthrene	0.075	0.377	ug/L	<MDL	2.36	1.64	70		57--108	2.36	1.61	68		2		0--40
Anthracene	0.075	0.377	ug/L	<MDL	2.36	1.75	74		50--119	2.36	1.76	75		1		0--40
Di-N-Butyl Phthalate	0.19	0.943	ug/L	0.29	2.36	1.67	58		40--160	2.36	1.67	58		0		0--40

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Fluoranthene	0.075	0.377 ug/L	<MDL	2.36	1.28	54 *	58--115	2.36	1.28	54 *	0	0--40
Pyrene	0.075	0.377 ug/L	<MDL	2.36	1.5	64	51--142	2.36	1.52	64	1	0--40
Benzyl Butyl Phthalate	0.075	0.377 ug/L	<MDL	2.36	1.76	74	40--160	2.36	1.72	73	2	0--40
Benzo(a)anthracene	0.015	0.076 ug/L	<MDL	2.36	1.24	53 *	62--117	2.36	1.2	51 *	3	0--40
Chrysene	0.015	0.076 ug/L	<MDL	2.36	1.15	49	39--115	2.36	1.13	48	2	0--40
Bis(2-Ethylhexyl)Phthalate	0.38	1.89 ug/L	0.89	2.36	2.48	67	40--160	2.36	2.57	71	3	0--40
Di-N-Octyl Phthalate	0.038	0.189 ug/L	<MDL	2.36	1.82	77	40--160	2.36	1.84	78	1	0--40
Benzo(b,j,k)fluoranthene	0.015	0.076 ug/L	<MDL	7.08	2.94	42 *	45--120	7.08	2.94	42 *	0	0--40
Benzo(a)pyrene	0.015	0.076 ug/L	<MDL	2.36	1.42	60	38--134	2.36	1.41	60	1	0--40
Indeno(1,2,3-Cd)Pyrene	0.015	0.076 ug/L	<MDL	2.36	1.35	57	38--130	2.36	1.48	63	10	0--40
Dibenzo(a,h)anthracene	0.015	0.076 ug/L	<MDL	2.36	1.34	57	25--138	2.36	1.16	49	14	0--40
Benzo(g,h,i)perylene	0.015	0.076 ug/L	<MDL	2.36	0.983	42	25--122	2.36	0.919	39	7	0--40

	2-	d14-
Surrogate:	Fluorobi	Terphe
(Lab Limits)	phenyl	nyl
	33--96	63--125
L59070-1	79	84
L59070-2	79	85
L59070-3	87	116
WG129695-1	69	87
WG129695-2	81	93
WG129695-3	80	88
WG129695-4	77	84

Workgroup: WG133636 (bl#208 pahpth-sim) Run ID: R196754

MB:WG133636-1 Matrix: BLANK WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Naphthalene	0.008	0.04 ug/L	<MDL		
2-Methylnaphthalene	0.008	0.04 ug/L	<MDL		
Dimethyl Phthalate	0.04	0.2 ug/L	<MDL		
Acenaphthylene	0.008	0.04 ug/L	<MDL		
Acenaphthene	0.008	0.04 ug/L	<MDL		
Diethyl Phthalate	0.04	0.2 ug/L		0.15 B	
Fluorene	0.016	0.08 ug/L	<MDL		
Phenanthrene	0.016	0.08 ug/L	<MDL		
Anthracene	0.016	0.08 ug/L	<MDL		
Di-N-Butyl Phthalate	0.04	0.2 ug/L		0.11 B	

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Fluoranthene	0.016	0.08 ug/L	<MDL
Pyrene	0.016	0.08 ug/L	<MDL
Benzyl Butyl Phthalate	0.08	0.4 ug/L	<MDL
Benzo(a)anthracene	0.016	0.08 ug/L	<MDL
Chrysene	0.016	0.08 ug/L	<MDL
Bis(2-Ethylhexyl)Phthalate	0.4	2 ug/L	<MDL
Di-N-Octyl Phthalate	0.04	0.2 ug/L	<MDL
Benzo(b,j,k)fluoranthene	0.016	0.08 ug/L	<MDL
Benzo(a)pyrene	0.016	0.08 ug/L	<MDL
Indeno(1,2,3-Cd)Pyrene	0.016	0.08 ug/L	<MDL
Dibenzo(a,h)anthracene	0.016	0.08 ug/L	<MDL
Benzo(g,h,i)perylene	0.016	0.08 ug/L	<MDL

SBD:WG133636-3 SB:WG133636-2 MB:WG133636-1 Matrix: BLANK WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD
(Spiked Blank Duplicate, Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit	TrueValue	SBD Value	% Rec.	Qual	RPD	Qual	LabLimit
Naphthalene	0.008	0.04 ug/L	<MDL		2.5	0.476	19		15--93	2.5	0.675	27		35		0--40
2-Methylnaphthalene	0.008	0.04 ug/L	<MDL		2.5	0.442	18 *		40--160	2.5	0.622	25 *		34		0--40
Dimethyl Phthalate	0.04	0.2 ug/L	<MDL		2.5	2.18	87		40--160	2.5	2.68	107		20		0--40
Acenaphthylene	0.008	0.04 ug/L	<MDL		2.5	1.13	45		43--111	2.5	1.59	64		34		0--40
Acenaphthene	0.008	0.04 ug/L	<MDL		2.5	0.771	31 *		37--99	2.5	1.1	44		35		0--40
Diethyl Phthalate	0.04	0.2 ug/L		0.15	2.5	2.08	77		40--160	2.5	2.52	95		19		0--40
Fluorene	0.016	0.08 ug/L	<MDL		2.5	1.43	57		54--104	2.5	1.91	77		29		0--40
Phenanthrene	0.016	0.08 ug/L	<MDL		2.5	1.91	76		54--107	2.5	2.22	89		15		0--40
Anthracene	0.016	0.08 ug/L	<MDL		2.5	1.71	68		54--121	2.5	1.99	80		15		0--40
Di-N-Butyl Phthalate	0.04	0.2 ug/L		0.11	2.5	2.21	84		40--160	2.5	2.47	94		11		0--40
Fluoranthene	0.016	0.08 ug/L	<MDL		2.5	2.1	84		63--115	2.5	2.38	95		13		0--40
Pyrene	0.016	0.08 ug/L	<MDL		2.5	2.03	81		54--136	2.5	2.28	91		12		0--40
Benzyl Butyl Phthalate	0.08	0.4 ug/L	<MDL		2.5	2.1	84		40--160	2.5	2.34	94		11		0--40
Benzo(a)anthracene	0.016	0.08 ug/L	<MDL		2.5	1.88	75		65--117	2.5	2.09	84		10		0--40
Chrysene	0.016	0.08 ug/L	<MDL		2.5	1.85	74		44--114	2.5	2.08	83		11		0--40
Bis(2-Ethylhexyl)Phthalate	0.4	2 ug/L	<MDL		2.5	2.81	112		40--160	2.5	2.2	88		24		0--40
Di-N-Octyl Phthalate	0.04	0.2 ug/L	<MDL		2.5	1.99	80		40--160	2.5	2.21	89		11		0--40
Benzo(b,j,k)fluoranthene	0.016	0.08 ug/L	<MDL		5	4.33	87		50--121	5	4.86	97		12		0--40
Benzo(a)pyrene	0.016	0.08 ug/L	<MDL		2.5	2.25	90		45--133	2.5	2.51	100		11		0--40
Indeno(1,2,3-Cd)Pyrene	0.016	0.08 ug/L	<MDL		2.5	1.85	74		33--152	2.5	2.43	97		27		0--40
Dibenzo(a,h)anthracene	0.016	0.08 ug/L	<MDL		2.5	1.89	76		34--140	2.5	1.6	64		16		0--40
Benzo(g,h,i)perylene	0.016	0.08 ug/L	<MDL		2.5	1.95	78		29--134	2.5	2.18	87		11		0--40

LIMSVIEW QC Report for Michigan Basin CSO - Data Validation for Dry Baseflow

Surrogate:	2- Fluorobi phenyl	d14- Terphe nyl
(Lab Limits)	33--96	63--125
L60526-1	80	79
L60526-2	70	94
WG133636-1	78	84
WG133636-2	57	78
WG133636-3	76	86

Workgroup: WG133637 (dl#395 wtph-dx) Run ID: R196958

MB:WG133637-1 Matrix: BLANK WTR Listtype:ORWTPH-DX Method:WDOE NWTPH-DX Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Diesel Range (>C12-C24)	0.2	0.2	mg/L	<MDL	
Lube Oil Range (>C24)	0.2	0.2	mg/L	<MDL	

SB:WG133637-2 MB:WG133637-1 Matrix: BLANK WTR Listtype:ORWTPH-DX Method:WDOE NWTPH-DX Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Diesel Range (>C12-C24)	0.2	0.2	mg/L	<MDL		1	0.645	64	50--150
Lube Oil Range (>C24)	0.2	0.2	mg/L	<MDL		1	0.95	95	50--150

LD:WG133637-3 L60526-1 Matrix: SEWER WTR Listtype:ORWTPH-DX Method:WDOE NWTPH-DX Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Diesel Range (>C12-C24)	0.943	0.943	mg/L	9.18	9.13		1	0--40
Lube Oil Range (>C24)	0.189	0.189	mg/L	8.29	8.69		5	0--40

Surrogate:	2- Fluorobi phenyl	Pentac osane
(Lab Limits)	50--150	50--150
L60526-1	102	118
L60526-2	76	100
WG133637-1	60	98
WG133637-2	42 *	104
WG133637-3	97	118

LIMSVIEW QC Report for Michigan Basin CSO - Data Validation for Dry Baseflow

Workgroup: WG133887 (bl#213 pahpth-sim) Run ID: R197235

MB:WG133887-1 Matrix: BLANK WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Naphthalene	0.008	0.04	ug/L	<MDL	
2-Methylnaphthalene	0.008	0.04	ug/L	<MDL	
Dimethyl Phthalate	0.04	0.2	ug/L	<MDL	
Acenaphthylene	0.008	0.04	ug/L	<MDL	
Acenaphthene	0.008	0.04	ug/L	<MDL	
Diethyl Phthalate	0.04	0.2	ug/L	0.16	B
Fluorene	0.016	0.08	ug/L	<MDL	
Phenanthrene	0.016	0.08	ug/L	<MDL	
Anthracene	0.016	0.08	ug/L	<MDL	
Di-N-Butyl Phthalate	0.04	0.2	ug/L	0.045	B
Fluoranthene	0.016	0.08	ug/L	<MDL	
Pyrene	0.016	0.08	ug/L	<MDL	
Benzyl Butyl Phthalate	0.08	0.4	ug/L	<MDL	
Benzo(a)anthracene	0.016	0.08	ug/L	<MDL	
Chrysene	0.016	0.08	ug/L	<MDL	
Bis(2-Ethylhexyl)Phthalate	1.6	8	ug/L	9.47	B
Di-N-Octyl Phthalate	0.04	0.2	ug/L	<MDL	
Benzo(b,j,k)fluoranthene	0.016	0.08	ug/L	<MDL	
Benzo(a)pyrene	0.016	0.08	ug/L	<MDL	
Indeno(1,2,3-Cd)Pyrene	0.016	0.08	ug/L	<MDL	
Dibenzo(a,h)anthracene	0.016	0.08	ug/L	<MDL	
Benzo(g,h,i)perylene	0.016	0.08	ug/L	<MDL	

SB:WG133887-2 MB:WG133887-1 Matrix: BLANK WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Naphthalene	0.008	0.04	ug/L	<MDL	2.5	1.85	74		15--93
2-Methylnaphthalene	0.008	0.04	ug/L	<MDL	2.5	1.95	78		40--160
Dimethyl Phthalate	0.04	0.2	ug/L	<MDL	2.5	2.77	111		40--160
Acenaphthylene	0.008	0.04	ug/L	<MDL	2.5	2.45	98		43--111
Acenaphthene	0.008	0.04	ug/L	<MDL	2.5	1.86	74		37--99
Diethyl Phthalate	0.04	0.2	ug/L	0.16	2.5	2.83	107		40--160
Fluorene	0.016	0.08	ug/L	<MDL	2.5	2.42	97		54--104
Phenanthrene	0.016	0.08	ug/L	<MDL	2.5	2.39	96		54--107
Anthracene	0.016	0.08	ug/L	<MDL	2.5	2.1	84		54--121
Di-N-Butyl Phthalate	0.04	0.2	ug/L	0.045	2.5	2.68	106		40--160

LIMSVIEW QC Report for Michigan Basin CSO - Data Validation for Dry Baseflow

Fluoranthene	0.016	0.08 ug/L	<MDL	2.5	2.69	108	63--115
Pyrene	0.016	0.08 ug/L	<MDL	2.5	2.43	97	54--136
Benzyl Butyl Phthalate	0.08	0.4 ug/L	<MDL	2.5	2.58	103	40--160
Benzo(a)anthracene	0.016	0.08 ug/L	<MDL	2.5	2.33	93	65--117
Chrysene	0.016	0.08 ug/L	<MDL	2.5	2.23	89	44--114
Bis(2-Ethylhexyl)Phthalate	1.6	8 ug/L	9.47	2.5	2.57	-276 *	40--160
Di-N-Octyl Phthalate	0.04	0.2 ug/L	<MDL	2.5	2.72	109	40--160
Benzo(b,j,k)fluoranthene	0.016	0.08 ug/L	<MDL	5	5.79	116	50--121
Benzo(a)pyrene	0.016	0.08 ug/L	<MDL	2.5	3.09	123	45--133
Indeno(1,2,3-Cd)Pyrene	0.016	0.08 ug/L	<MDL	2.5	2.46	98	33--152
Dibenzo(a,h)anthracene	0.016	0.08 ug/L	<MDL	2.5	2.63	105	34--140
Benzo(g,h,i)perylene	0.016	0.08 ug/L	<MDL	2.5	2.88	115	29--134

MSD:WG133887-4 MS:WG133887-3 L60671-1 Matrix: SEWER WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project:423589-320-4 Pkey:STD
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueValue	MSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Naphthalene	0.38	1.89 ug/L		166	2.38	176	410 *		24--85	2.38	143	-969 *		21		0--40
2-Methylnaphthalene	0.75	3.77 ug/L		393	2.36	423	1274 *		40--160	2.34	330	-2676 *		25		0--40
Dimethyl Phthalate	1.9	9.43 ug/L	<MDL		2.38	4.7	199 *		40--160	2.38	4	166 *		18		0--40
Acenaphthylene	0.38	1.89 ug/L		8.44	2.38	11.1	113 *		51--103	2.38	8.97	22 *		21		0--40
Acenaphthene	0.38	1.89 ug/L		11.6	2.38	17.2	237 *		44--94	2.38	15	145 *		14		0--40
Diethyl Phthalate	1.9	9.43 ug/L		2.4	2.38	5.6	135		40--160	2.38	4.8	104		15		0--40
Fluorene	0.75	3.77 ug/L		38.8	2.38	43.3	190 *		54--113	2.38	37.5	-55 *		14		0--40
Phenanthrene	0.75	3.77 ug/L		96.4	2.38	106	392 *		57--108	2.38	82.9	-567 *		24		0--40
Anthracene	0.75	3.77 ug/L		9.29	2.38	12	114		50--119	2.38	11.4	90		5		0--40
Di-N-Butyl Phthalate	1.9	9.43 ug/L		3.7	2.38	6.4	112		40--160	2.38	5.2	60		21		0--40
Fluoranthene	0.75	3.77 ug/L		8.74	2.38	11.6	121 *		58--115	2.38	9.52	33 *		20		0--40
Pyrene	0.75	3.77 ug/L		33.1	2.38	37.9	202 *		51--142	2.38	29.6	-145 *		24		0--40
Benzyl Butyl Phthalate	3.8	18.9 ug/L	<MDL		2.38	4.9	208 *		40--160	2.38	3.9	165 *		23		0--40
Benzo(a)anthracene	0.75	3.77 ug/L		7.67	2.38	10.4	116		62--117	2.38	8.28	25 *		23		0--40
Chrysene	0.75	3.77 ug/L		11.6	2.38	14.1	106		39--115	2.38	11.1	-18 *		23		0--40
Bis(2-Ethylhexyl)Phthalate	19	94.3 ug/L		55	2.38	65	413 *		40--160	2.38	47	-326 *		32		0--40
Di-N-Octyl Phthalate	1.9	9.43 ug/L	<MDL		2.38	4	169 *		40--160	2.38	3.3	140		18		0--40
Benzo(b,j,k)fluoranthene	0.75	3.77 ug/L		5	4.72	10.6	119		45--120	4.72	8.1	66		27		0--40
Benzo(a)pyrene	0.75	3.77 ug/L		7.16	2.38	10.3	132		38--134	2.38	8.49	56		19		0--40
Indeno(1,2,3-Cd)Pyrene	0.75	3.77 ug/L		1.1	2.38	2.8	75		38--130	2.38	2.4	58		15		0--40
Dibenzo(a,h)anthracene	0.75	3.77 ug/L	<MDL		2.38	1.7	73		25--138	2.38	1.4	59		21		0--40
Benzo(g,h,i)perylene	0.75	3.77 ug/L		2.6	2.38	4.31	73		25--122	2.38	3.7	48		15		0--40

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Surrogate:	2- Fluorobi phenyl	d14- Terphe nyl
(Lab Limits)	33--96	63--125
L60671-1	84	98
L60671-2	103 *	79
WG133887-1	74	82
WG133887-2	100 *	93
WG133887-3	90	106
WG133887-4	70	76

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4xRule indicates no MS/MSD recovery was calculated due to the 4x rule.



Technical Memorandum

Date: June 2, 2014

To: Richard Jack, King County Toxicology and Contaminant Assessment Group
Debra Williston, King County Toxicology and Contaminant Assessment Group

From: Carly Greyell, King County Toxicology and Contaminant Assessment Group
Scott Mickelson, King County Marine and Sediment Assessment Group

Subject: Data Validation Report
Michigan CSO Study Wet Weather Baseflow Samples – Winter/Spring 2013 and 2014

This technical memorandum summarizes the data validation review performed on 15 wet weather samples collected from within the Michigan Combined Sewer Overflow (CSO) Basin between November 25, 2013 and April 7, 2014. The sampling and analysis of these samples are specified in the project sampling and analysis plan (SAP): *Lower Duwamish Waterway Source Control, Brandon Combined Sewer Basin Study, Sampling and Analysis Plan* (King County 2011) and the SAP addendum *Lower Duwamish Waterway Source Control, Michigan Combined Sewer Basin Study, Sampling and Analysis Plan Addendum* (King County 2013). The 15 wet weather baseflow samples were submitted for analysis of total and dissolved organic carbon (TOC and DOC), total suspended solids (TSS), and total and dissolved metals. Thirteen of the samples were submitted for analysis of polycyclic aromatic hydrocarbons (PAHs) and phthalates.

1.0 INTRODUCTION

This data validation review has been based, in part, on guidance found in *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review* (EPA 2008) and *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review* (EPA 2010), as well as the project SAP (King County 2011) and SAP addendum (King County 2013). Materials reviewed included Batch Reports and Analytical Quality Control (QC) Reports downloaded from the King County Laboratory Information System (LIMS) database and are included in this memorandum as Attachment A (conventionals) and Attachment B (metals and organics). Also reviewed were data anomaly forms (DAF), which are available upon request. The QC parameters reviewed during this data validation include; holding time, method blanks, spike blanks, laboratory control samples, matrix spikes, matrix spike duplicates, laboratory duplicates, and surrogates, all of which are described below.

1.1. Holding Time

The analytical holding time is a method-specific timeframe, during which sample preparation and analysis should occur to provide valid data. All samples should be analyzed within this prescribed holding time.

1.2. Method Blank

A method blank is an aliquot of clean reference matrix that is generally processed through the entire analytical procedure. Analysis of the method blank is used to evaluate the levels of contamination that might be associated with the processing and analysis of samples. Method blanks were used during all analyses. All method blank results should be less than the method detection limit (MDL).

1.3. Spike Blanks

A spike blank is an aliquot of the clean reference matrix used for the method blank, to which a known concentration of target analyte(s) has been added. The spiked aliquot is processed through the entire analytical procedure. Analysis of the spike blank is used as an indicator of method accuracy. Spike blanks were used during organics, metals, and TOC/DOC analyses. Spike blanks are not addressed in the *National Functional Guidelines*, however, King County has empirically-derived control limits for spike blank analytes, which are shown on the attached QC reports. Spike blank results should be within these control limits.

1.4. Matrix Spike

A matrix spike is a sample aliquot fortified with a known concentration of a target analyte(s). The spiked sample is processed through the entire analytical procedure. Analysis of the matrix spike is used as an indicator of sample matrix effect on the recovery of target analyte(s). Matrix spikes were used during organics, metals, and TOC/DOC analyses. Control limits for individual organic analytes and organic carbon are not addressed in the *National Functional Guidelines*, however, King County has empirically-derived control limits for percent recoveries of these matrix spike analytes, which are shown on the attached QC reports. Matrix spike recoveries should be within these control limits. Control limits for trace metal matrix spike recoveries are addressed in the *National Functional Guidelines*. All trace metal matrix spike recoveries should be within the 75 to 125% control limits for all analytes (EPA 2010).

1.5. Matrix Spike Duplicate

A matrix spike duplicate is a second sample aliquot fortified with a known concentration of a target analyte(s). The spiked sample is processed through the entire analytical procedure. Analysis of the matrix spike duplicate is used as an additional indicator of sample matrix effect on the recovery of target analyte(s) as well as an indicator of method precision. A matrix spike duplicate was used routinely during mercury and organics analysis. The relative percent difference (RPD) between matrix spike and matrix spike duplicate results for organic analytes are not addressed in the *National Functional Guidelines*, however, King

County used an empirically-derived control limit of 40% for this project. The RPD control limit between mercury matrix spike duplicate results is 20% (EPA 2010).

1.6. Laboratory Control Sample

A laboratory control sample is a sample of known analyte concentration(s) that is prepared in the lab from a separate source of analyte(s) relative to the calibration standards. Since the laboratory control sample analysis should follow the entire analytical process, it should be stored and prepared following the same procedures as a field sample. Analysis of a laboratory control sample is used as an indicator of method accuracy and long-term analytical precision. Laboratory control samples were used during TOC/DOC and TSS analyses. King County used percent recovery control limits of 85 to 115% for TOC/DOC analysis and 80 to 120% for TSS analysis on this project. Percent recoveries for laboratory control sample results should be within these control limits.

1.7. Laboratory Duplicate

A laboratory duplicate is a second aliquot of a sample, processed concurrently and in an identical manner with the original sample. Analysis of the laboratory duplicate is used as an indicator of method precision and laboratory subsampling procedures. The laboratory duplicate can also be used to provide information regarding the homogeneity of the sample matrix. Laboratory duplicates were used during TOC/DOC, TSS and ICP-MS metals analyses. QC results are reported as an RPD between the sample and laboratory duplicate results. Control limits for conventional analyses are also not addressed under the *National Functional Guidelines*. King County used RPD control limits of 20% for TOC/DOC analysis and 25% for TSS analysis. The RPD for laboratory duplicate results should be below these control limits. Control limits for ICP-MS laboratory duplicates are addressed in the *National Function Guidelines*. The RPD between all trace metal laboratory duplicate results should be below 20% (EPA 2010). Laboratory duplicate RPD results for samples in which the concentration is less than the reporting detection limit (RDL) will not be qualified based solely on whether the RPD is greater than the QC limit. This is based on the inherent analytical variability between the MDL and RDL, which is the limit of practical quantitation.

1.8. Surrogates

A surrogate is a known concentration of non-target analyte which is added to each sample (both analytical and QC samples) prior to extraction and analysis for all trace organic analyses. Surrogate recovery is used as a sample-specific indication of method or matrix bias for target analytes. The surrogate is selected to behave in a similar manner to the target analytes.

The King County Environmental Laboratory used two surrogate compounds during analysis of trace organic compounds, 2-fluorobiphenyl and d14-terphenyl. King County has empirically-derived laboratory QC control limits for these surrogate recoveries, which are 33-96% and 63-125%, respectively. Surrogate recoveries for all analytical and QC samples should be within these control limits. These two surrogate compounds are not addressed in *National Functional Guidelines*.

2.0 CONVENTIONALS

Conventional analytes included total suspended solids and total and dissolved organic carbon. LIMS batch and analytical QC reports for conventional analyses are included as Attachment A to this memorandum.

2.1. Total Suspended Solids

Fifteen samples were submitted for TSS analysis by gravimetric determination following Standard Method SM2540-D (APHA 1998). The samples were batched into the six work groups shown in Table 2-1. Each work group included analysis of a minimum of three QC sample-types; method blanks, laboratory control samples, and laboratory duplicates.

Table 2-1
TSS Work Groups and QC Samples

Work Group	Samples	MB	LCS	LD
WG130082	L59267-2	X	X	X
WG130210	L59294-1 to -3	X	X	X
WG131328	L59756-1 to -2	X	X	X
WG131818	L59938-1 to -3	X	X	X
WG131918	L60018-1 to -3	X	X	X
WG132033	L60041-1 to -3	X	X	X

2.1.1. Holding Time

All 15 TSS samples were analyzed within the prescribed 7-day holding time.

2.1.2. Method Blank Results

TSS results in the method blanks associated with all six work groups were less than the MDL.

2.1.3. Laboratory Control Sample Results

TSS recoveries in the laboratory control samples associated with all six work groups were within the 80 to 120% QC limits.

2.1.4. Laboratory Duplicate Results

RPDs between TSS results in the project-specific laboratory duplicates associated with all six work groups were below the 25% QC limit.

2.1.5. Total Suspended Solids Data Usability

All total suspended solids results for this dataset may be used as reported, without qualification.

2.2. Total and Dissolved Organic Carbon

Fifteen samples were submitted for TOC/DOC analysis by Standard Method SM5310-B (APHA 1998), which is a high-temperature combustion/infrared detection method. The samples were batched into the four work groups shown in Table 2-2. Each work group

included analysis of a minimum of five QC sample-types; method blanks, spike blanks, laboratory control samples, matrix spikes, and laboratory duplicates.

Table 2-2
TOC/DOC Work Groups and QC Samples

Work Group	Samples	MB	SB	LCS	MS	LD
WG130292	L59267-2; L59294-1 to -3	X	X	X	X	X
WG131347	L59756-1 to -2	X	X	X	X	X
WG131816	L59938-1 to -3	X	X	X	X	X
WG132138	L60018-1 to -3; L60041-1 to -3	X	X	X	X	X

2.2.1. Holding Time

All 15 TOC/DOC samples were analyzed within the prescribed 28-day holding time.

2.2.2. Method Blank Results

TOC and DOC results in the method blanks associated with all four work groups were less than the MDL.

2.2.3. Spike Blank Results

The spike blank recoveries for TOC and DOC in each of the four work groups were all within the laboratory QC limits of 80 to 120%.

2.2.4. Laboratory Control Sample Results

TOC and DOC recoveries in the laboratory control samples associated with each of the four work groups were all within the 85 to 115% QC limits.

2.2.5. Matrix Spike Results

TOC and DOC matrix spike recoveries in each of the four work groups were all within the 75 to 125% QC limits.

2.2.6. Laboratory Duplicate Results

RPDs between TOC and DOC results in the project-specific laboratory duplicates in each of the four work groups were all less than the 20% QC limit.

2.2.7. Total and Dissolved Organic Carbon Data Usability

As a general data reporting format, sample results that are reported as "<RDL" should be qualified with a "J" flag and considered estimated with an unknown bias. All other total and dissolved organic carbon results for this dataset may be used as reported, without qualification.

3.0 TRACE METALS

Fifteen samples were submitted for analysis of total and dissolved metals, which included mercury and other trace metals. LIMS batch and analytical QC reports for metals analyses are included as Attachment B to this memorandum.

3.1. Total and Dissolved Mercury

Total and dissolved mercury analysis was performed using cold vapor atomic absorption spectroscopy (CVAA) according to EPA Method 245.1 (EPA 1994). The 15 samples were batched into the four work groups shown in Table 3-1. Each work group included analysis of a minimum of four QC sample-types; method blanks, spike blanks, matrix spikes, and matrix spike duplicates.

Table 3-1
Mercury (Total and Dissolved) Work Groups and QC Samples

Work Group	Samples	MB	SB	MS	MSD
WG130134	L59267-2	X	X	X	X
WG130225	L59294-1 to -3	X	X	X	X
WG131689	L59756-1 to -2	X	X	X	X
WG132192	L59938-1 to -3; L60018-1 to -3; L60041-1 to -3	X	X	X	X

3.1.1. Holding Time

All 15 total and dissolved mercury samples were analyzed within the prescribed 28-day holding time.

3.1.2. Method Blank Results

Both total and dissolved mercury results in the method blanks associated with each of the four work groups were all less than the MDL.

3.1.3. Spike Blank Results

Mercury spike blank recoveries in each of the four work groups were all within the laboratory QC limits of 85 to 115%.

3.1.4. Matrix Spike and Matrix Spike Duplicate Results

The mercury matrix spike and matrix spike duplicate recoveries in each of the four work groups were all within the 75 to 125% QC limits and the RPDs between matrix spike duplicate results were all less than the 20% QC limit.

3.1.5. Sample Handling Issue

All dissolved mercury samples were filtered outside of the method-specified 15-minute holding time. As a result, all dissolved mercury results should be qualified with a "J" flag and considered estimated with an unknown bias.

3.1.6. Total and Dissolved Mercury Data Usability

As a general data reporting format, sample results that are reported as "<MDL" should be assigned a "U" flag in all cases and results that are reported as "<RDL" should be

qualified with a “J” flag and considered estimated with an unknown bias. All dissolved mercury results should be qualified with a “J” flag and considered estimated with an unknown bias, due to being filtered outside the hold time. All other total and dissolved mercury results for this dataset may be used as reported, without qualification.

3.2. Total ICP-MS Metals

Total metals, including arsenic, cadmium, chromium, copper, lead, nickel, silver, vanadium, and zinc, were analyzed by inductively coupled plasma mass spectroscopy (ICP-MS) following EPA Methods 200.8 (EPA 1995). The samples were batched into the four work groups shown in Table 3-2. Each of the work groups included a minimum of four QC sample-types; method blanks, spike blanks, matrix spikes, and laboratory duplicates.

Table 3-2
Total ICP-MS Work Groups and QC Samples

Work Group	Samples	MB	SB	MS	LD
WG130213	L59267-2; L59294-1 to -3	X	X	X	X
WG131375	L59756-1 to -2	X	X	X	X
WG131821	L59938-1 to -3	X	X	X	X
WG132254	L60018-1 to -3; L60041-1 to -3	X	X	X	X

3.2.1. Holding Time

All 15 total metal samples were analyzed within the prescribed 6-month holding time.

3.2.2. Method Blank Results

Results for zinc in the method blanks associated with work groups WG131821 and WG132254 were greater than the MDL, but less than the RDL. The results for zinc in all samples associated with these work groups were greater than the RDL and more than ten times the concentrations in the method blank, resulting in no additional qualifiers. Results for each total metal in all other method blanks were less than the MDL.

3.2.3. Spike Blank Results

All total metal spike blank recoveries in each of the four work groups were within the 85 to 115% QC limits.

3.2.4. Matrix Spike Results

All total metal matrix spike recoveries in each of the four work groups were within the 75 to 125% QC limits.

3.2.5. Laboratory Duplicate Results

RPDs between total metal laboratory duplicate results in each of the four work groups were all below the 20% QC limit.

3.2.6. Total ICP-MS Metals Data Usability

As a general data reporting format, sample results that are reported as “<MDL” should be assigned a “U” flag in all cases and results that are reported as “<RDL” should be

qualified with a “J” flag and considered estimated with an unknown bias. All other total metals results for this dataset may be used as reported, without qualification.

3.3. Dissolved ICP-MS Metals

Dissolved metals, including arsenic, cadmium, chromium, copper, lead, nickel, silver, vanadium, and zinc, were analyzed by inductively coupled plasma mass spectroscopy (ICP-MS) following EPA Methods 200.8 (EPA 1995). The samples were batched into the four work groups shown in Table 3-3. Each of these work groups included a minimum of four QC sample-types; method blanks, spike blanks, matrix spikes, and laboratory duplicates.

Table 3-3
Dissolved ICP-MS Work Groups and QC Samples

Work Group	Samples	MB	SB	MS	LD
WG130335	L59267-2; L59294-1 to -3	X	X	X	X
WG131550	L59756-1 to -2	X	X	X	X
WG131854	L59938-1 to -3	X	X	X	X
WG132255	L60018-1 to -3; L60041-1 to -3	X	X	X	X

3.3.1. Holding Time

All 15 dissolved metal samples were analyzed within the prescribed 6-month holding time.

3.3.2. Method Blank Results

Results for each dissolved metal in the method blank associated with each of the four work groups were all less than the MDL.

3.3.3. Spike Blank Results

All dissolved metal spike blank recoveries in each of the four work groups were within the 85 to 115% QC limits.

3.3.4. Matrix Spike Results

All dissolved metal matrix spike recoveries in each of the four work groups were within the 75 to 125% QC limits.

3.3.5. Laboratory Duplicate Results

RPDs between dissolved metals laboratory duplicate results in each of the four work groups were all below the 20% QC limit.

3.3.6. Sampling Handling Issue

All dissolved ICPMS metals samples were filtered outside of the method-specified 15-minute holding time. As a result, all dissolved ICP metals results should be qualified with a “J” flag and considered estimated with an unknown bias.

3.3.7. Dissolved ICP-MS Metals Data Usability

As a general data reporting format, sample results that are reported as “<MDL” should be assigned a “U” flag in all cases and results that are reported as “<RDL” should be qualified with a “J” flag and considered estimated with an unknown bias. All dissolved

metal results should be qualified with a “J” flag and considered estimated with an unknown bias, due to being filtered outside the hold time. All other dissolved metals results for this dataset may be used as reported, without qualification.

4.0 TRACE ORGANICS

Thirteen water samples were submitted for analysis of PAH compounds and phthalates by gas chromatography mass spectroscopy (GC-MS) following EPA Methods 3520C/8270D – SW846 (EPA 2007). The instrument method was modified by the use of a large volume injector (LVI) and analysis using selected ion monitoring (SIM). The samples were batched into the five work groups shown, each of which included a minimum of five QC sample-types; method blanks, spike blanks, matrix spikes, matrix spike duplicates and surrogates. LIMS batch and analytical QC reports for PAH analysis are included as Attachment B to this memorandum.

Table 4-1
Trace Organics Work Groups and QC Samples

Work Group	Samples	MB	SB	MS	MSD	Surrogate
WG130201	L59294-1 to -3	X	X ^a	X ^a	X ^a	X
WG131344	L59756-1 to -2	X	X	X	X	X
WG131800	L59938-1 and -3	X	X	X	X	X
WG131924	L60018-1 to -3	X	X	X	X	X
WG132007	L60041-1 to -3	X	X	X	X	X

^a For PAHs only.

4.1. Holding Time

All 13 samples were extracted within the 7-day holding time and analyzed within the subsequent 40-day holding time.

4.2. Method Blank Results

Between one and three phthalate compounds were detected in four of the five method blanks associated with these work groups. No PAHs were detected in any method blanks. In two work groups, diethyl phthalate was detected above the RDL. All other phthalates were detected at concentrations below the RDL. Based on the recommendations in *National Function Guidelines* (EPA 2008), the following data qualification regime should be employed as a result of method blank contamination:

- When both the method blank concentration and the sample concentration are less than the RDL, the sample value should be reported as the numeric RDL value and the result should be qualified with a “U” flag and considered undetected.
- When the method blank concentration is less than the RDL and the sample concentration is greater than the RDL but less than five times the method blank concentration, the numeric sample value should be used as reported but the result should be qualified with a “U” flag and considered undetected.
- When the method blank concentration is less than the RDL and the sample concentration is greater than the RDL and greater than five times the method blank concentration, the sample result may be used as reported, without qualification.

Table 4-2 details qualifications based on method blank contamination for these work groups.

Table 4-2
Trace Organics Qualifications Due to Method Blank Contamination

Work Group	Compound Detected in MB	Conc. Found	Qualification Outcomes
WG130201	Diethyl phthalate	>RDL	No qualifications.
	Di-n-butyl phthalate	<RDL	L59294-2 result was <RDL; it was qualified with a "U" flag and the RDL value was used to represent the level of detection.
	Bis(2-ethylhexyl)phthalate	<RDL	L59294-2 and -3 results were <RDL; they were qualified with "U" flags and the RDL values were used to represent the level of detection.
WG131344	None	n/a	n/a
WG131800	Diethyl phthalate	<RDL	No qualifications.
WG131924	Diethyl phthalate	>RDL	L60018-1 to -3 results were >RDL, but <5 times the MB conc.; they were qualified with "U" flags and the sample values were used to represent the level of detection.
WG132007	Diethyl phthalate	<RDL	No qualifications.

4.3. Spike Blank Results

The spiking solution used for both the spike blank and matrix spike/matrix spike duplicate associated with work group WG130201 did not contain any of the target phthalate compounds. As a result, there is no quality control information regarding either accuracy or precision in this work group. Results for the six phthalate compounds in L59294-1, -2, and -3 should all be qualified with a "J" flag and considered estimated with an unknown bias. Results less than the MDL should be qualified with a "UJ" flag and considered estimated with an unknown bias.

The 2-methylnaphthalene recovery of 34% in the spike blank associated with work group WG130201 was below the 40% lower QC limit. All associated sample data for 2-methylnaphthalene should be qualified with a "J" flag and considered an estimate with a low bias.

The bis(2-ethylhexyl)phthalate recovery of 166% in the spike blank associated with work group WG131924 exceeds the 160% upper QC limit. All bis(2-ethylhexyl) phthalate sample data are already qualified with a "J" flag due to concentrations below RDL, but will be considered estimates with a high bias due to the spike blank result.

The di-n-octyl phthalate recovery of 314% in the spike blank associated with work group WG131924 grossly exceeds the 160% upper QC limit. All di-n-octyl phthalate concentrations in samples associated with this work group are below the MDL. A Data Anomaly Form (DAF) is available for this work group and details a lab interferent that likely contributed to the high recovery. All associated sample data for di-n-octyl phthalate should be qualified with a "UJ" with an unknown bias.

The 2-methylnaphthalene recovery of 39% in the spike blank associated with work group WG132007 was below the 40% lower QC limit. All associated sample data for 2-methylnaphthalene should be qualified with a “J” flag and considered an estimate with a low bias.

The di-n-octyl phthalate recovery of 213% in the spike blank associated with work group WG132007 grossly exceeds the 160% upper QC limit. All di-n-octyl phthalate concentrations in samples associated with this work group are below the MDL. All associated sample data for di-n-octyl phthalate should be qualified with a “UJ” with an unknown bias.

Table 4-3
Trace Organics Qualifications Due to Spike Blank Results

Work Group	Compound	SB % Recovery	Qualification Outcomes
WG130201	All phthalates	n/a	All associated results >MDL should be flagged “J” and results <MDL flagged “UJ” and all considered estimated with an unknown bias.
	2-methylnaphthalene	34%	All associated results qualified with a “J” flag and considered estimated with a low bias.
WG131924	Bis(2-ethylhexyl)phthalate	166%	All associated results already “J” flagged because <RDL. Should be considered estimated with a high bias due to the spike blank result.
	Di-n-octyl phthalate	314%	All associated results <MDL; qualified with a “UJ” flag and considered estimated with an unknown bias.
WG132007	2-methylnaphthalene	39%	All associated results qualified with a “J” flag and considered estimated with a low bias.
	Di-n-octyl phthalate	213%	All associated results <MDL; qualified with a “UJ” flag and considered estimated with an unknown bias.

4.4. Matrix Spikes/Matrix Spike Duplicates

The acenaphthylene recoveries of 116% and 109% in the matrix spike and matrix spike duplicate associated with work group WG131344 exceeded the upper QC limit of 103%, but the RPD was below the 40% QC limit. Acenaphthylene was not detected in the sample on which the matrix spike was performed, however, so associated sample data will not be qualified.

The acenaphthene recovery of 99% in the matrix spike associated with work group WG131344 exceeded the upper QC limit of 94%, but the matrix spike duplicate recovery was at the QC limit of 94% and the 6% RPD was below the 40% QC limit. The average was taken between the matrix spike and matrix spike duplicate recoveries, but this also exceeded the upper QC limit of 94%. Acenaphthene was not detected in the sample on which the matrix spike was performed, however, so associated sample data will not be qualified.

The benzo(b,j,k)fluoranthene recovery of 44% in the matrix spike associated with work group WG131344 was below the lower QC limit of 45%. The matrix spike duplicate recovery of 47%, however, was within the QC limit and the 6% RPD was below the 40% QC limit. The average was taken between the matrix spike and matrix spike duplicate recoveries, and this was within the

QC limits. As a result, associated sample data will not be qualified based on the matrix spike recovery.

The pyrene recovery of 50% in the matrix spike duplicate associated with work group WG131924 was below the lower QC limit of 51%. The matrix spike recovery of 52%, however, was within the QC limit and the 5% RPD was below the 40% QC limit. The average was taken between the matrix spike and matrix spike duplicate recoveries, and this was within the QC limits. As a result, associated sample data will not be qualified based on the matrix spike duplicate recovery.

The d-n-octyl phthalate recovery of 174% in the matrix spike duplicate associated with work group WG131924 exceeded the upper QC limit of 160%. The matrix spike recovery of 124%, however, was within the QC limit and the 34% RPD was below the 40% QC limit. The average was taken between the matrix spike and matrix spike duplicate recoveries, and this was within the QC limits. As a result, associated sample data will not be qualified based on the matrix spike duplicate recovery.

The acenaphthene recoveries of 96% in both the matrix spike and the matrix spike duplicate associated with work group WG132007 exceeded the upper QC limit of 94%. Acenaphthene was not detected in the sample on which the matrix spike was performed, however, so associated sample data will not be qualified.

The anthracene recoveries of 120% and 125% in the matrix spike and matrix spike duplicate associated with work group WG132007 exceeded the upper QC limit of 119%, but the 4% RPD was below the 40% QC limit. Anthracene was not detected in the sample on which the matrix spike was performed, however, so associated sample data will not be qualified.

The di-n-octyl phthalate recoveries of 241% and 388% in the matrix spike and matrix spike duplicate associated with work group WG132007 both grossly exceeded the upper 160% QC limit. A DAF associated with this work group reported the presence of a phthalic acid isomer that co-eluted with di-n-octyl phthalate, thus rendering results for this target compound unresolvable. The associated sample result for di-n-octyl phthalate in this work group was not detected above the MDL and will be qualified with a "UJ" flag with an unknown bias.

All other matrix spike and matrix spike duplicate recoveries were within the QC limits and all other RPDs between results were below the 40% QC limit. Table 4-4 details qualifications based on matrix spike and matrix spike duplicate results for these work groups.

Table 4-4
Trace Organics Qualifications Due to Matrix Spike and Matrix Spike Duplicate Results

Work Group	Compound	MS; MSD % Recovery	Qualification Outcomes
WG131344	Acenaphthylene	116%; 109%	L59756-1 result is <MDL.
	Acenaphthene	99%; 94%	L59756-1 result is <MDL.
	Benzo(b,j,k)fluoranthene	44%; 47%	L9756-1 result already "J" flagged, because <RDL.
WG131924	Pyrene	52%; 50%	L60018-3 result already "J" flagged, because <RDL.
	Di-n-octyl phthalate	124%; 174%	L60018-3 result is <MDL.
WG132007	Acenaphthene	96%; 96%	L60041-1 result is <MDL.
	Anthracene	120%; 125%	L60041-1 result is <MDL.
	Di-n-octyl phthalate	241%; 388%	L60041-1 result should be flagged "UJ" and considered estimated with an unknown bias.

4.5. Surrogates

Recoveries of the surrogates 2-fluorobiphenyl and d14-terphenyl in all analytical and QC samples in each of the 15 work groups were within the 33-96% and 63-125% QC limits, respectively.

4.6. Trace Organics Data Usability

As a general data reporting format, sample results that are reported as "<MDL" should be assigned a "U" flag in all cases and results that are reported as "<RDL" should be qualified with a "J" flag and considered estimated with an unknown bias. Trace organic analytical results for the 13 samples included in this dataset may be used as reported, without qualification, with the exceptions summarized in Tables 4-2, 4-3 and 4-4. LIMS Batch and QC reports are provided as Attachment B.

6.0 REFERENCES

APHA 1998. *Standard Methods for the Examination of Water and Wastewater*, 20th Edition. American Public Health Association. Washington, D.C.

EPA 1994. *Determination of Mercury in Water by Cold Vapor Atomic Absorption Spectrometry. EPA Method 245.1, Revision 3.0*. U.S. Environmental Protection Agency, Office of Research and Development. Cincinnati, Ohio.

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EPA 2007. *Test Methods for Evaluating Solid Waste. Laboratory Manual – Physical/Chemical Methods, SW-846, 3rd Edition, Update IVB*. United State Environmental Protection Agency, Office of Solid Waste and Emergency Response. Washington, D.C.

EPA 2008. *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review*. OSWER 9240.1-48, USEPA-540-R-08-01. United States Environmental Protection Agency. Washington, D.C. June 2001.

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King County. 2011. Lower Duwamish Waterway Source Control Brandon Combined Sewer Basin Study – Sampling and Analysis Plan. Prepared by Dean Wilson, Water and Land Resources Division. Seattle, Washington.

King County. 2013. Lower Duwamish Waterway Source Control Michigan Combined Sewer Basin Study – Sampling and Analysis Plan Addendum. Prepared by Richard Jack and Debra Williston, Water and Land Resources Division. Seattle, Washington.

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Should you have questions regarding any of the information contained in this data validation memorandum, please don't hesitate to contact me.

Sincerely,

Carly Greyell
King County, Toxicology and Contaminant Assessment Group
206-477-4703
carly.greyell@kingcounty.gov

ATTACHMENT A

CONVENTIONAL ANALYSES LIMS BATCH AND QC REPORTS

ATTACHMENT B

METALS AND ORGANICS ANALYSES LIMS BATCH AND QC REPORTS

LIMSView Batch Report for Michigan Basin CSO - Data Validation for Wet Baseflow

WG130292 (TOC, DOC/421422, 423589) Department: 3 - Conventionals Move Date: 2013-12-19 14:37:38

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59193-5	421422-DUGW	SWD-DUGW Duval Groundwater Quarterly	CVTOC	GRND WTR	12/9/2013	12/12/2013	12/12/2013	
L59267-2	423589-320-4	CSO Basin Study	CVDOC	SEWER WTR	11/25/2013	11/26/2013	12/12/2013	
L59267-2	423589-320-4	CSO Basin Study	CVTOC	SEWER WTR	11/25/2013	12/12/2013	12/12/2013	
L59270-1	421422-DUGW	SWD-DUGW Duval Groundwater Quarterly	CVTOC	GRND WTR	12/6/2013	12/12/2013	12/12/2013	
L59270-3	421422-DUGW	SWD-DUGW Duval Groundwater Quarterly	CVTOC	GRND WTR	12/6/2013	12/12/2013	12/12/2013	
L59270-4	421422-DUGW	SWD-DUGW Duval Groundwater Quarterly	CVTOC	GRND WTR	12/9/2013	12/12/2013	12/12/2013	
L59271-4	421422-DUGW	SWD-DUGW Duval Groundwater Quarterly	CVTOC	GRND WTR	12/6/2013	12/12/2013	12/12/2013	
L59273-3	421422-DUGW	SWD-DUGW Duval Groundwater Quarterly	CVTOC	GRND WTR	12/6/2013	12/12/2013	12/12/2013	
L59273-4	421422-DUGW	SWD-DUGW Duval Groundwater Quarterly	CVTOC	GRND WTR	12/6/2013	12/12/2013	12/12/2013	
L59273-5	421422-DUGW	SWD-DUGW Duval Groundwater Quarterly	CVTOC	GRND WTR	12/6/2013	12/12/2013	12/12/2013	
L59275-1	421422-HTGW	SWD-HTGW Houghton Groundwater Quarterly	CVTOC	GRND WTR	12/10/2013	12/12/2013	12/12/2013	
L59275-3	421422-HTGW	SWD-HTGW Houghton Groundwater Quarterly	CVTOC	GRND WTR	12/9/2013	12/12/2013	12/12/2013	
L59275-4	421422-HTGW	SWD-HTGW Houghton Groundwater Quarterly	CVTOC	GRND WTR	12/9/2013	12/12/2013	12/12/2013	
L59278-3	421422-HTGW	SWD-HTGW Houghton Groundwater Quarterly	CVTOC	GRND WTR	12/10/2013	12/12/2013	12/12/2013	
L59278-4	421422-HTGW	SWD-HTGW Houghton Groundwater Quarterly	CVTOC	GRND WTR	12/13/2013	12/13/2013	12/13/2013	
L59291-1	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTOC	LEACHATE	12/11/2013	12/12/2013	12/12/2013	
L59291-3	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTOC	LEACHATE	12/11/2013	12/12/2013	12/12/2013	
L59291-4	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTOC	LEACHATE	12/11/2013	12/12/2013	12/12/2013	
L59291-5	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTOC	LEACHATE	12/11/2013	12/12/2013	12/12/2013	
L59293-1	421422-HTGW	SWD-HTGW Houghton Groundwater Quarterly	CVTOC	GRND WTR	12/13/2013	12/13/2013	12/13/2013	
L59294-1	423589-320-4	CSO Basin Study	CVDOC	SEWER WTR	12/4/2013	12/5/2013	12/12/2013	
L59294-1	423589-320-4	CSO Basin Study	CVTOC	SEWER WTR	12/4/2013	12/12/2013	12/12/2013	
L59294-2	423589-320-4	CSO Basin Study	CVDOC	SEWER WTR	12/4/2013	12/5/2013	12/12/2013	
L59294-2	423589-320-4	CSO Basin Study	CVTOC	SEWER WTR	12/4/2013	12/12/2013	12/12/2013	
L59294-3	423589-320-4	CSO Basin Study	CVDOC	SEWER WTR	12/4/2013	12/5/2013	12/12/2013	
L59294-3	423589-320-4	CSO Basin Study	CVTOC	SEWER WTR	12/4/2013	12/12/2013	12/12/2013	
L59322-1	421422-VASW	SWD-VASW Vashon Surface Water Quarterly	CVTOC	FRESH WTR	12/11/2013	12/12/2013	12/12/2013	
L59322-3	421422-VASW	SWD-VASW Vashon Surface Water Quarterly	CVTOC	FRESH WTR	12/11/2013	12/12/2013	12/12/2013	
L59322-4	421422-VASW	SWD-VASW Vashon Surface Water Quarterly	CVTOC	FRESH WTR	12/11/2013	12/12/2013	12/12/2013	
L59322-5	421422-VASW	SWD-VASW Vashon Surface Water Quarterly	CVTOC	FRESH WTR	12/11/2013	12/12/2013	12/12/2013	
WG130292-1	MB		CVTOC	BLANK WTR		12/12/2013	12/12/2013	MB1 12/12/13
WG130292-2	SB		CVTOC	BLANK WTR		12/12/2013	12/12/2013	WG130292-1
WG130292-3	LCS		CVTOC	BLANK WTR		12/12/2013	12/12/2013	LEVEL1
WG130292-4	LD		CVTOC	GRND WTR		12/12/2013	12/12/2013	L59193-5
WG130292-5	MS		CVTOC	GRND WTR		12/12/2013	12/12/2013	L59193-5
WG130292-6	MB		CVTOC	BLANK WTR		12/12/2013	12/12/2013	MB2 12/12/13
WG130292-7	LCS		CVTOC	BLANK WTR		12/12/2013	12/12/2013	LEVEL1
WG130292-8	LD		CVTOC	FRESH WTR		12/12/2013	12/12/2013	L59322-1

LIMSView Batch Report for Michigan Basin CSO - Data Validation for Wet Baseflow

WG130292-9	MS	CVTOC	FRESH WTR	12/12/2013	12/12/2013	L59322-1
WG130292-10	LD	CVTOC	LEACHATE	12/12/2013	12/12/2013	L59291-1
WG130292-11	MS	CVTOC	LEACHATE	12/12/2013	12/12/2013	L59291-1
WG130292-12	LD	CVTOC	SEWER WTR	12/12/2013	12/12/2013	L59267-2
WG130292-13	MS	CVTOC	SEWER WTR	12/12/2013	12/12/2013	L59267-2
MB1 11/26/13						
WG130292-14	MB	CVDOC	BLANK WTR	11/26/2013	12/12/2013	14:40
WG130292-15	SB	CVDOC	BLANK WTR	11/26/2013	12/12/2013	WG130292-14
MB1 12/052/13						
WG130292-16	MB	CVDOC	BLANK WTR	12/5/2013	12/12/2013	15:35
WG130292-17	LD	CVDOC	SEWER WTR	12/5/2013	12/12/2013	L59294-1
WG130292-18	MS	CVDOC	SEWER WTR	12/5/2013	12/12/2013	L59294-1
WG130292-19	LCS	CVDOC	BLANK WTR	12/12/2013	12/12/2013	LEVEL1
WG130292-20	MB	CVTOC	BLANK WTR	12/13/2013	12/13/2013	MB1 12/13/13
WG130292-21	LCS	CVTOC	BLANK WTR	12/13/2013	12/13/2013	LEVEL1

WG131347 (TOC, DOC/423589-320-4) Department: 3 - Conventionals Move Date: 2014-03-14 10:13:57

Sample	Project	Project Description	List Type Matrix	Collect Date	Prep Date	Anal Date	Comments
L59681-1	423589-320-4	CSO Basin Study	CVDOC STORM WTR	2/11/2014	2/12/2014	2/28/2014	
L59681-1	423589-320-4	CSO Basin Study	CVTOC STORM WTR	2/11/2014	3/10/2014	3/10/2014	
L59681-2	423589-320-4	CSO Basin Study	CVDOC STORM WTR	2/11/2014	2/12/2014	2/28/2014	
L59681-2	423589-320-4	CSO Basin Study	CVTOC STORM WTR	2/11/2014	2/28/2014	2/28/2014	
L59681-3	423589-320-4	CSO Basin Study	CVDOC STORM WTR	2/11/2014	2/12/2014	2/28/2014	
L59681-3	423589-320-4	CSO Basin Study	CVTOC STORM WTR	2/11/2014	2/28/2014	2/28/2014	
L59691-1	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC FRESH WTR	2/26/2014	3/11/2014	3/11/2014	
L59691-2	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC FRESH WTR	2/26/2014	3/11/2014	3/11/2014	
L59691-3	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC FRESH WTR	2/26/2014	3/11/2014	3/11/2014	
L59691-4	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC FRESH WTR	2/26/2014	3/11/2014	3/11/2014	
L59691-5	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC FRESH WTR	2/26/2014	3/11/2014	3/11/2014	
L59691-6	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC FRESH WTR	2/26/2014	3/11/2014	3/11/2014	
L59691-7	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC FRESH WTR	2/27/2014	3/11/2014	3/11/2014	
L59691-8	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC FRESH WTR	2/27/2014	3/11/2014	3/11/2014	
L59691-9	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC FRESH WTR	2/27/2014	3/11/2014	3/11/2014	
L59691-10	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC FRESH WTR	2/27/2014	3/11/2014	3/11/2014	
L59691-11	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC FRESH WTR	2/27/2014	3/11/2014	3/11/2014	
L59691-12	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC FRESH WTR	2/27/2014	3/11/2014	3/11/2014	
L59691-14	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC FRESH WTR	2/27/2014	3/11/2014	3/11/2014	

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L59691-15	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	2/27/2014	3/11/2014	3/11/2014
L59693-1	421422-HTGW	SWD-HTGW Houghton Groundwater Quarterly	CVTOC	GRND WTR	3/11/2014	3/11/2014	3/11/2014
L59694-1	421422-HOGW	SWD-HOGW Hobart Groundwater Quarterly	CVTOC	GRND WTR	2/28/2014	3/10/2014	3/10/2014
L59738-1	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTOC	GRND WTR	3/3/2014	3/10/2014	3/10/2014
L59738-3	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTOC	GRND WTR	3/7/2014	3/10/2014	3/10/2014
L59739-1	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTOC	GRND WTR	3/7/2014	3/10/2014	3/10/2014
L59739-3	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTOC	GRND WTR	3/7/2014	3/10/2014	3/10/2014
L59739-4	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTOC	GRND WTR	3/10/2014	3/10/2014	3/10/2014
L59739-5	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTOC	GRND WTR	3/7/2014	3/10/2014	3/10/2014
L59740-1	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTOC	GRND WTR	3/10/2014	3/10/2014	3/10/2014
L59740-3	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTOC	GRND WTR	3/10/2014	3/10/2014	3/10/2014
L59741-1	421422-HTGW	SWD-HTGW Houghton Groundwater Quarterly	CVTOC	GRND WTR	3/10/2014	3/10/2014	3/10/2014
L59741-3	421422-HTGW	SWD-HTGW Houghton Groundwater Quarterly	CVTOC	GRND WTR	3/11/2014	3/11/2014	3/11/2014
L59741-4	421422-HTGW	SWD-HTGW Houghton Groundwater Quarterly	CVTOC	GRND WTR	3/10/2014	3/10/2014	3/10/2014
L59743-1	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTOC	GRND WTR	3/11/2014	3/11/2014	3/11/2014
L59743-3	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTOC	GRND WTR	3/11/2014	3/11/2014	3/11/2014
L59745-1	423589-320-4	CSO Basin Study	CVDOC	STORM WTR	2/24/2014	2/25/2014	2/28/2014
L59745-1	423589-320-4	CSO Basin Study	CVTOC	STORM WTR	2/24/2014	2/28/2014	2/28/2014
L59745-2	423589-320-4	CSO Basin Study	CVDOC	STORM WTR	2/24/2014	2/25/2014	2/28/2014
L59745-2	423589-320-4	CSO Basin Study	CVTOC	STORM WTR	2/24/2014	2/28/2014	2/28/2014
L59745-3	423589-320-4	CSO Basin Study	CVDOC	STORM WTR	2/24/2014	2/25/2014	2/28/2014
L59745-3	423589-320-4	CSO Basin Study	CVTOC	STORM WTR	2/24/2014	2/28/2014	2/28/2014
L59756-1	423589-320-4	CSO Basin Study	CVDOC	SEWER WTR	2/26/2014	2/27/2014	2/28/2014
L59756-1	423589-320-4	CSO Basin Study	CVTOC	SEWER WTR	2/26/2014	2/28/2014	2/28/2014
L59756-2	423589-320-4	CSO Basin Study	CVDOC	SEWER WTR	2/26/2014	2/27/2014	2/28/2014
L59756-2	423589-320-4	CSO Basin Study	CVTOC	SEWER WTR	2/26/2014	2/28/2014	2/28/2014
L59760-1	421422-DUSW	SWD-DUSW Duvall Surface Water Quarterly	CVTOC	FRESH WTR	3/4/2014	3/11/2014	3/11/2014
L59767-1	421422-CFSW	SWD-CFSW Cedar Falls Surface Water Quarterly	CVTOC	FRESH WTR	3/6/2014	3/11/2014	3/11/2014
L59768-1	421422-VASW	SWD-VASW Vashon Surface Water Quarterly	CVTOC	FRESH WTR	3/6/2014	3/11/2014	3/11/2014
L59833-1	423589-320-4	CSO Basin Study	CVDOC	STORM WTR	3/5/2014	3/6/2014	3/11/2014
L59833-1	423589-320-4	CSO Basin Study	CVTOC	STORM WTR	3/5/2014	3/10/2014	3/10/2014
L59833-2	423589-320-4	CSO Basin Study	CVDOC	STORM WTR	3/5/2014	3/6/2014	3/11/2014
L59833-2	423589-320-4	CSO Basin Study	CVTOC	STORM WTR	3/5/2014	3/10/2014	3/10/2014
WG131347-1	MB		CVTOC	BLANK WTR		2/28/2014	2/28/2014 MB1 02/28/14
WG131347-2	SB		CVTOC	BLANK WTR		2/28/2014	2/28/2014 WG131347-1
WG131347-3	LCS		CVTOC	BLANK WTR		2/28/2014	2/28/2014 LEVEL1
WG131347-4	LD		CVDOC	STORM WTR		2/12/2014	2/28/2014 L59681-1
WG131347-4	LD		CVTOC	STORM WTR		3/10/2014	3/10/2014 L59681-1
WG131347-5	MS		CVDOC	STORM WTR		2/12/2014	2/28/2014 L59681-1
WG131347-5	MS		CVTOC	STORM WTR		3/10/2014	3/10/2014 L59681-1
WG131347-6	LD		CVDOC	SEWER WTR		2/27/2014	2/28/2014 L59756-2

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WG131347-6	LD	CVTOC	SEWER WTR	2/28/2014	2/28/2014	L59756-2
WG131347-7	MS	CVDOC	SEWER WTR	2/27/2014	2/28/2014	L59756-2
WG131347-7	MS	CVTOC	SEWER WTR	2/28/2014	2/28/2014	L59756-2
WG131347-8	MB	CVDOC	BLANK WTR	2/12/2014	2/28/2014	MB1 02/12/14
WG131347-9	SB	CVDOC	BLANK WTR	2/12/2014	2/28/2014	WG131347-8
WG131347-10	LCS	CVDOC	BLANK WTR	2/28/2014	2/28/2014	LEVEL1
WG131347-11	MB	CVDOC	BLANK WTR	2/25/2014	2/28/2014	MB1 02/25/14
WG131347-12	MB	CVDOC	BLANK WTR	2/27/2014	2/28/2014	MB1 02/27/14
WG131347-13	MB	CVTOC	BLANK WTR	3/10/2014	3/10/2014	MB1 03/10/14
WG131347-14	SB	CVTOC	BLANK WTR	3/10/2014	3/10/2014	WG131347-13
WG131347-15	LCS	CVTOC	BLANK WTR	3/10/2014	3/10/2014	LEVEL1
WG131347-16	LD	CVTOC	GRND WTR	3/10/2014	3/10/2014	L59739-3
WG131347-17	MS	CVTOC	GRND WTR	3/10/2014	3/10/2014	L59739-3
WG131347-18	MB	CVDOC	BLANK WTR	3/6/2014	3/11/2014	MB1 03/06/14
WG131347-19	LCS	CVDOC	BLANK WTR	3/11/2014	3/11/2014	LEVEL1
WG131347-20	MB	CVTOC	BLANK WTR	3/11/2014	3/11/2014	MB2 03/10/14
WG131347-21	LCS	CVTOC	BLANK WTR	3/11/2014	3/11/2014	LEVEL1
WG131347-22	MB	CVTOC	BLANK WTR	3/11/2014	3/11/2014	MB1 03/11/14
WG131347-23	SB	CVTOC	BLANK WTR	3/11/2014	3/11/2014	WG131347-22
WG131347-24	LCS	CVTOC	BLANK WTR	3/11/2014	3/11/2014	LEVEL1
WG131347-25	LD	CVTOC	FRESH WTR	3/11/2014	3/11/2014	L59691-5
WG131347-26	MS	CVTOC	FRESH WTR	3/11/2014	3/11/2014	L59691-5

WG131816 (TOC, DOC/421422, 421250,) Department: 3 - Conventionals Move Date: 2014-04-04 15:31:41

Sample	Project	Project Description	List Type Matrix	Collect Date	Prep Date	Anal Date	Comments
L59551-1	421250ON	Ambient Offshore Water Column-North	CVDOC FRESH WTR	3/19/2014	3/20/2014	3/26/2014	
L59551-1	421250ON	Ambient Offshore Water Column-North	CVTOC FRESH WTR	3/19/2014	3/26/2014	3/26/2014	
L59551-2	421250ON	Ambient Offshore Water Column-North	CVDOC FRESH WTR	3/19/2014	3/20/2014	3/26/2014	
L59551-2	421250ON	Ambient Offshore Water Column-North	CVTOC FRESH WTR	3/19/2014	3/26/2014	3/26/2014	
L59551-3	421250ON	Ambient Offshore Water Column-North	CVDOC FRESH WTR	3/19/2014	3/20/2014	3/27/2014	
L59551-3	421250ON	Ambient Offshore Water Column-North	CVTOC FRESH WTR	3/19/2014	3/26/2014	3/26/2014	
L59552-1	421250ON	Ambient Offshore Water Column-North	CVDOC SALT WTR	3/19/2014	3/20/2014	3/27/2014	
L59552-1	421250ON	Ambient Offshore Water Column-North	CVTOC SALT WTR	3/19/2014	3/26/2014	3/26/2014	
L59552-2	421250ON	Ambient Offshore Water Column-North	CVDOC SALT WTR	3/19/2014	3/20/2014	3/27/2014	
L59552-2	421250ON	Ambient Offshore Water Column-North	CVTOC SALT WTR	3/19/2014	3/26/2014	3/26/2014	
L59552-3	421250ON	Ambient Offshore Water Column-North	CVDOC SALT WTR	3/19/2014	3/20/2014	3/27/2014	
L59552-3	421250ON	Ambient Offshore Water Column-North	CVTOC SALT WTR	3/19/2014	3/26/2014	3/26/2014	
L59812-3	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTOC GRND WTR	3/24/2014	3/26/2014	3/26/2014	
L59815-1	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTOC GRND WTR	3/26/2014	3/26/2014	3/26/2014	

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L59815-3	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTOC	GRND WTR	3/26/2014	3/26/2014	3/26/2014
L59815-4	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTOC	GRND WTR	3/26/2014	3/26/2014	3/26/2014
L59865-1	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTOC	GRND WTR	3/21/2014	3/26/2014	3/26/2014
L59865-3	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTOC	GRND WTR	3/27/2014	3/27/2014	3/27/2014
L59901-1	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTOC	GRND WTR	3/26/2014	3/26/2014	3/26/2014
L59901-3	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTOC	GRND WTR	3/26/2014	3/26/2014	3/26/2014
L59901-4	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTOC	GRND WTR	3/27/2014	3/27/2014	3/27/2014
L59901-5	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTOC	GRND WTR	3/27/2014	3/27/2014	3/27/2014
L59902-1	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTOC	GRND WTR	3/27/2014	3/27/2014	3/27/2014
L59938-1	423589-320-4	CSO Basin Study	CVDOC	SEWER WTR	3/24/2014	3/25/2014	3/27/2014
L59938-1	423589-320-4	CSO Basin Study	CVTOC	SEWER WTR	3/24/2014	3/26/2014	3/26/2014
L59938-2	423589-320-4	CSO Basin Study	CVDOC	SEWER WTR	3/24/2014	3/25/2014	3/27/2014
L59938-2	423589-320-4	CSO Basin Study	CVTOC	SEWER WTR	3/24/2014	3/26/2014	3/26/2014
L59938-3	423589-320-4	CSO Basin Study	CVDOC	SEWER WTR	3/24/2014	3/25/2014	3/27/2014
L59938-3	423589-320-4	CSO Basin Study	CVTOC	SEWER WTR	3/24/2014	3/26/2014	3/26/2014
WG131816-1	MB		CVTOC	BLANK WTR		3/26/2014	3/26/2014 MB1 03/26/14
WG131816-2	SB		CVTOC	BLANK WTR		3/26/2014	3/26/2014 WG131816-1
WG131816-3	LCS		CVTOC	BLANK WTR		3/26/2014	3/26/2014 LEVEL1
WG131816-4	LD		CVTOC	GRND WTR		3/26/2014	3/26/2014 L59865-1
WG131816-5	MS		CVTOC	GRND WTR		3/26/2014	3/26/2014 L59865-1
WG131816-6	LD		CVTOC	FRESH WTR		3/26/2014	3/26/2014 L59551-1
WG131816-7	MS		CVTOC	SALT WTR		3/26/2014	3/26/2014 L59552-3
WG131816-8	LD		CVDOC	SEWER WTR		3/25/2014	3/27/2014 L59938-3
WG131816-8	LD		CVTOC	SEWER WTR		3/26/2014	3/26/2014 L59938-3
WG131816-9	MS		CVDOC	SEWER WTR		3/25/2014	3/27/2014 L59938-3
WG131816-9	MS		CVTOC	SEWER WTR		3/26/2014	3/26/2014 L59938-3
MB1 03/20/14							
WG131816-10	MB		CVDOC	BLANK WTR		3/20/2014	3/26/2014 11:00
WG131816-11	SB		CVDOC	BLANK WTR		3/20/2014	3/26/2014 WG131816-10
WG131816-12	LCS		CVDOC	BLANK WTR		3/26/2014	3/26/2014 LEVEL1
WG131816-13	MS		CVDOC	FRESH WTR		3/20/2014	3/26/2014 L59551-1
WG131816-14	LD		CVDOC	SALT WTR		3/20/2014	3/27/2014 L59552-1
MB1 03/25/14							
WG131816-15	MB		CVDOC	BLANK WTR		3/25/2014	3/27/2014 13:45
WG131816-16	MB		CVTOC	BLANK WTR		3/27/2014	3/27/2014 MB1 03/27/14
WG131816-17	SB		CVTOC	BLANK WTR		3/27/2014	3/27/2014 WG131816-16
WG131816-18	LCS		CVTOC	BLANK WTR		3/27/2014	3/27/2014 LEVEL1

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MB1 03/25/14

WG131816-19 MB	CVDOC	BLANK WTR	3/25/2014	3/27/2014	13:45
WG131816-20 SB	CVDOC	BLANK WTR	3/25/2014	3/27/2014	WG131816-19
WG131816-21 LCS	CVDOC	BLANK WTR	3/27/2014	3/27/2014	LEVEL1

WG132138 (TOC, DOC/421422, 423530) Department: 3 - Conventionals Move Date: 2014-04-25 13:48:07

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59987-1		423530 Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVDOC	STORM WTR	3/29/2014	3/31/2014	4/15/2014	
L59987-1		423530 Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVTOC	STORM WTR	3/29/2014	4/15/2014	4/15/2014	
L59987-2		423530 Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVDOC	STORM WTR	3/29/2014	3/31/2014	4/15/2014	
L59987-2		423530 Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVTOC	STORM WTR	3/29/2014	4/15/2014	4/15/2014	
L59987-3		423530 Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVDOC	STORM WTR	3/29/2014	3/31/2014	4/15/2014	
L59987-3		423530 Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVTOC	STORM WTR	3/29/2014	4/15/2014	4/15/2014	
L59987-4		423530 Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVDOC	STORM WTR	3/29/2014	3/31/2014	4/15/2014	
L59987-4		423530 Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVTOC	STORM WTR	3/29/2014	4/15/2014	4/15/2014	
L59991-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/14/2014	4/15/2014	4/15/2014	
L59991-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/14/2014	4/15/2014	4/15/2014	
L59991-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/11/2014	4/15/2014	4/15/2014	
L59994-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/21/2014	4/22/2014	4/22/2014	
L59994-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/11/2014	4/15/2014	4/15/2014	
L59994-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/11/2014	4/15/2014	4/15/2014	
L59994-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/11/2014	4/15/2014	4/15/2014	
L59996-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/14/2014	4/15/2014	4/15/2014	
L59996-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/10/2014	4/15/2014	4/15/2014	
L60018-1	423589-320-4	CSO Basin Study	CVDOC	SEWER WTR	4/1/2014	4/2/2014	4/16/2014	
L60018-1	423589-320-4	CSO Basin Study	CVTOC	SEWER WTR	4/1/2014	4/16/2014	4/16/2014	
L60018-2	423589-320-4	CSO Basin Study	CVDOC	SEWER WTR	4/1/2014	4/2/2014	4/16/2014	
L60018-2	423589-320-4	CSO Basin Study	CVTOC	SEWER WTR	4/1/2014	4/16/2014	4/16/2014	
L60018-3	423589-320-4	CSO Basin Study	CVDOC	SEWER WTR	4/1/2014	4/2/2014	4/16/2014	
L60018-3	423589-320-4	CSO Basin Study	CVTOC	SEWER WTR	4/1/2014	4/16/2014	4/16/2014	
L60023-1	421422-VALS-M	SWD-VALS-M Vashon Leachate Monthly	CVTOC	LEACHATE	4/9/2014	4/16/2014	4/16/2014	
L60024-1	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTOC	LEACHATE	4/8/2014	4/16/2014	4/16/2014	
L60024-3	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTOC	LEACHATE	4/9/2014	4/16/2014	4/16/2014	
L60024-4	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTOC	LEACHATE	4/9/2014	4/16/2014	4/16/2014	
L60024-5	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTOC	LEACHATE	4/9/2014	4/22/2014	4/22/2014	
L60026-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/10/2014	4/15/2014	4/15/2014	
L60026-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/10/2014	4/15/2014	4/15/2014	
L60026-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/10/2014	4/15/2014	4/15/2014	

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L60026-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/11/2014	4/15/2014	4/15/2014
L60027-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/14/2014	4/15/2014	4/15/2014
L60027-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/14/2014	4/15/2014	4/15/2014
L60027-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/14/2014	4/15/2014	4/15/2014
L60027-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/18/2014	4/22/2014	4/22/2014
L60029-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/18/2014	4/22/2014	4/22/2014
L60029-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/16/2014	4/16/2014	4/16/2014
L60029-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/18/2014	4/22/2014	4/22/2014
L60041-1	423589-320-4	CSO Basin Study	CVDOC	SEWER WTR	4/7/2014	4/8/2014	4/16/2014
L60041-1	423589-320-4	CSO Basin Study	CVTOC	SEWER WTR	4/7/2014	4/16/2014	4/16/2014
L60041-2	423589-320-4	CSO Basin Study	CVDOC	SEWER WTR	4/7/2014	4/8/2014	4/16/2014
L60041-2	423589-320-4	CSO Basin Study	CVTOC	SEWER WTR	4/7/2014	4/16/2014	4/16/2014
L60041-3	423589-320-4	CSO Basin Study	CVDOC	SEWER WTR	4/7/2014	4/8/2014	4/16/2014
L60041-3	423589-320-4	CSO Basin Study	CVTOC	SEWER WTR	4/7/2014	4/16/2014	4/16/2014
L60045-1	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	4/21/2014	4/22/2014	4/22/2014
L60045-2	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	4/17/2014	4/22/2014	4/22/2014
L60045-3	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	4/17/2014	4/22/2014	4/22/2014
L60045-4	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	4/17/2014	4/22/2014	4/22/2014
L60045-5	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	4/17/2014	4/22/2014	4/22/2014
L60045-6	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	4/17/2014	4/22/2014	4/22/2014
L60045-7	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	4/17/2014	4/22/2014	4/22/2014
L60045-8	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	4/17/2014	4/22/2014	4/22/2014
L60045-9	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	4/17/2014	4/22/2014	4/22/2014
L60045-10	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	4/17/2014	4/22/2014	4/22/2014
L60045-11	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	4/17/2014	4/22/2014	4/22/2014
L60045-12	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	4/22/2014	4/22/2014	4/22/2014
L60045-13	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	4/22/2014	4/22/2014	4/22/2014
L60047-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/18/2014	4/22/2014	4/22/2014
L60047-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/18/2014	4/22/2014	4/22/2014
WG132138-1	MB		CVTOC	BLANK WTR		4/15/2014	4/15/2014 MB1 140415
WG132138-2	SB		CVTOC	BLANK WTR		4/15/2014	4/15/2014 WG132138-1
WG132138-3	LCS		CVTOC	BLANK WTR		4/15/2014	4/15/2014 LEVEL1
WG132138-4	LD		CVTOC	GRND WTR		4/15/2014	4/15/2014 L59991-2
WG132138-5	MS		CVTOC	GRND WTR		4/15/2014	4/15/2014 L59991-2
WG132138-6	LD		CVTOC	STORM WTR		4/15/2014	4/15/2014 L59987-1
WG132138-7	MS		CVTOC	STORM WTR		4/15/2014	4/15/2014 L59987-2
							MB1 140331
WG132138-8	MB		CVDOC	BLANK WTR		3/31/2014	4/15/2014 07:05
WG132138-9	SB		CVDOC	BLANK WTR		3/31/2014	4/15/2014 WG132138-8
WG132138-10	LCS		CVDOC	BLANK WTR		3/31/2014	4/15/2014 LEVEL1
WG132138-11	LD		CVDOC	STORM WTR		3/31/2014	4/15/2014 L59987-3

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WG132138-12	MS	CVDOC	STORM WTR	3/31/2014	4/15/2014	L59987-4
WG132138-13	MB	CVTOC	BLANK WTR	4/16/2014	4/16/2014	MB1 140416
WG132138-14	SB	CVTOC	BLANK WTR	4/16/2014	4/16/2014	WG132138-13
WG132138-15	LCS	CVTOC	BLANK WTR	4/16/2014	4/16/2014	LEVEL1
WG132138-16	LD	CVTOC	LEACHATE	4/16/2014	4/16/2014	L60023-1
WG132138-17	MS	CVTOC	LEACHATE	4/16/2014	4/16/2014	L60023-1
WG132138-18	LD	CVTOC	SEWER WTR	4/16/2014	4/16/2014	L60018-1
WG132138-19	MS	CVTOC	SEWER WTR	4/16/2014	4/16/2014	L60018-1
						MB1 140402
WG132138-20	MB	CVDOC	BLANK WTR	4/2/2014	4/16/2014	12:30
WG132138-21	SB	CVDOC	BLANK WTR	4/2/2014	4/16/2014	WG132138-20
WG132138-22	LCS	CVDOC	BLANK WTR	4/16/2014	4/16/2014	LEVEL1
WG132138-23	LD	CVDOC	SEWER WTR	4/2/2014	4/16/2014	L60018-2
WG132138-24	MS	CVDOC	SEWER WTR	4/2/2014	4/16/2014	L60018-2
						MB1 140408
WG132138-25	MB	CVDOC	BLANK WTR	4/8/2014	4/16/2014	15:45
WG132138-26	MB	CVTOC	BLANK WTR	4/22/2014	4/22/2014	MB1 140422
WG132138-27	SB	CVTOC	BLANK WTR	4/22/2014	4/22/2014	WG132138-26
WG132138-28	LCS	CVTOC	BLANK WTR	4/22/2014	4/22/2014	LEVEL1
WG132138-29	LD	CVTOC	GRND WTR	4/22/2014	4/22/2014	L60029-1
WG132138-30	MS	CVTOC	GRND WTR	4/22/2014	4/22/2014	L60029-1
WG132138-31	LD	CVTOC	FRESH WTR	4/22/2014	4/22/2014	L60045-5
WG132138-32	MS	CVTOC	FRESH WTR	4/22/2014	4/22/2014	L60045-5

WG130082 (tss for 421235/421874/421) Department: 3 - Conventionals Move Date: 2013-12-12 10:32:36

Sample	Project	Project Description	List Type Matrix	Collect Date	Prep Date	Anal Date	Comments
L58845-1	421874-100	City of Shoreline Monthly Water Quality Monitoring	CVTSS FRESH WTR	11/26/2013	12/2/2013	12/11/2013	
L58845-2	421874-100	City of Shoreline Monthly Water Quality Monitoring	CVTSS FRESH WTR	11/26/2013	12/2/2013	12/11/2013	
L58845-3	421874-100	City of Shoreline Monthly Water Quality Monitoring	CVTSS FRESH WTR	11/26/2013	12/2/2013	12/11/2013	
L58845-4	421874-100	City of Shoreline Monthly Water Quality Monitoring	CVTSS FRESH WTR	11/26/2013	12/2/2013	12/11/2013	
L58845-5	421874-100	City of Shoreline Monthly Water Quality Monitoring	CVTSS FRESH WTR	11/26/2013	12/2/2013	12/11/2013	
L58845-6	421874-100	City of Shoreline Monthly Water Quality Monitoring	CVTSS FRESH WTR	11/26/2013	12/2/2013	12/11/2013	
L58845-7	421874-100	City of Shoreline Monthly Water Quality Monitoring	CVTSS FRESH WTR	11/26/2013	12/2/2013	12/11/2013	
L59099-3	421422-HOGW	SWD-HOGW Hobart Groundwater Quarterly	CVTSS GRND WTR	11/26/2013	12/2/2013	12/11/2013	
L59253-1	421235	MAJOR LAKES (wtr col)	CVTSS FRESH WTR	11/25/2013	12/2/2013	12/11/2013	
L59253-2	421235	MAJOR LAKES (wtr col)	CVTSS FRESH WTR	11/25/2013	12/2/2013	12/11/2013	
L59253-3	421235	MAJOR LAKES (wtr col)	CVTSS FRESH WTR	11/25/2013	12/2/2013	12/11/2013	
L59253-4	421235	MAJOR LAKES (wtr col)	CVTSS FRESH WTR	11/25/2013	12/2/2013	12/11/2013	
L59253-5	421235	MAJOR LAKES (wtr col)	CVTSS FRESH WTR	11/25/2013	12/2/2013	12/11/2013	

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L59253-6	421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	11/25/2013	12/2/2013	12/11/2013	
L59253-8	421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	11/25/2013	12/2/2013	12/11/2013	
L59253-9	421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	11/25/2013	12/2/2013	12/11/2013	
L59253-10	421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	11/25/2013	12/2/2013	12/11/2013	
L59253-11	421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	11/25/2013	12/2/2013	12/11/2013	
L59253-12	421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	11/25/2013	12/2/2013	12/11/2013	
L59253-13	421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	11/25/2013	12/2/2013	12/11/2013	
L59253-14	421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	11/25/2013	12/2/2013	12/11/2013	
L59253-15	421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	11/25/2013	12/2/2013	12/11/2013	
L59253-16	421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	11/25/2013	12/2/2013	12/11/2013	
L59253-17	421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	11/25/2013	12/2/2013	12/11/2013	
L59253-19	421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	11/25/2013	12/2/2013	12/11/2013	
L59253-20	421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	11/25/2013	12/2/2013	12/11/2013	
L59253-21	421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	11/25/2013	12/2/2013	12/11/2013	
L59253-22	421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	11/25/2013	12/2/2013	12/11/2013	
L59253-23	421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	11/25/2013	12/2/2013	12/11/2013	
L59253-25	421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	11/25/2013	12/2/2013	12/11/2013	
L59253-26	421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	11/25/2013	12/2/2013	12/11/2013	
L59253-27	421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	11/25/2013	12/2/2013	12/11/2013	
L59253-29	421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	11/25/2013	12/2/2013	12/11/2013	
L59253-30	421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	11/25/2013	12/2/2013	12/11/2013	
L59253-31	421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	11/25/2013	12/2/2013	12/11/2013	
L59253-32	421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	11/25/2013	12/2/2013	12/11/2013	
L59253-33	421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	11/25/2013	12/2/2013	12/11/2013	
L59253-37	421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	11/25/2013	12/2/2013	12/11/2013	
L59253-38	421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	11/25/2013	12/2/2013	12/11/2013	
L59253-39	421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	11/25/2013	12/2/2013	12/11/2013	
L59253-40	421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	11/25/2013	12/2/2013	12/11/2013	
L59253-41	421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	11/25/2013	12/2/2013	12/11/2013	
L59253-42	421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	11/25/2013	12/2/2013	12/11/2013	
L59253-44	421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	11/25/2013	12/2/2013	12/11/2013	
L59253-45	421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	11/25/2013	12/2/2013	12/11/2013	
L59253-46	421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	11/25/2013	12/2/2013	12/11/2013	
L59253-47	421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	11/25/2013	12/2/2013	12/11/2013	
L59253-48	421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	11/25/2013	12/2/2013	12/11/2013	
L59253-49	421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	11/25/2013	12/2/2013	12/11/2013	
L59267-2	423589-320-4 CSO Basin Study	CVTSS	SEWER WTR	11/25/2013	12/2/2013	12/11/2013	
WG130082-1	MB	CVTSS	BLANK WTR		12/2/2013	12/11/2013	MB1 131202
WG130082-2	LCS	CVTSS	BLANK WTR		12/2/2013	12/11/2013	LEVEL1
WG130082-3	LD	CVTSS	FRESH WTR		12/2/2013	12/11/2013	L58845-2
WG130082-4	LD	CVTSS	GRND WTR		12/2/2013	12/11/2013	L59099-3

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WG130082-5	LD	CVTSS	FRESH WTR	12/2/2013	12/11/2013	L59253-2
WG130082-6	MB	CVTSS	BLANK WTR	12/2/2013	12/11/2013	MB2 131202
WG130082-7	LCS	CVTSS	BLANK WTR	12/2/2013	12/11/2013	LEVEL1
WG130082-8	LD	CVTSS	FRESH WTR	12/2/2013	12/11/2013	L59253-22
WG130082-9	MB	CVTSS	BLANK WTR	12/2/2013	12/11/2013	MB3 131202
WG130082-10	LCS	CVTSS	BLANK WTR	12/2/2013	12/11/2013	LEVEL1
WG130082-11	LD	CVTSS	FRESH WTR	12/2/2013	12/11/2013	L59253-42
WG130082-12	LD	CVTSS	SEWER WTR	12/2/2013	12/11/2013	L59267-2

WG130210 (tss for 421422/423589/421) Department: 3 - Conventionals Move Date: 2013-12-18 07:48:33

Sample	Project	Project Description	List Type Matrix	Collect Date	Prep Date	Anal Date	Comments
L58481-1	421422-CFSW	SWD-CFSW Cedar Falls Surface Water Quarterly	CVTSS FRESH WTR	12/3/2013	12/9/2013	12/16/2013	
L59270-1	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTSS GRND WTR	12/6/2013	12/9/2013	12/16/2013	
L59270-3	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTSS GRND WTR	12/6/2013	12/9/2013	12/16/2013	
L59271-1	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTSS GRND WTR	12/4/2013	12/9/2013	12/16/2013	
L59271-3	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTSS GRND WTR	12/4/2013	12/9/2013	12/16/2013	
L59271-4	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTSS GRND WTR	12/6/2013	12/9/2013	12/16/2013	
L59271-5	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTSS GRND WTR	12/4/2013	12/9/2013	12/16/2013	
L59273-1	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTSS GRND WTR	12/5/2013	12/9/2013	12/16/2013	
L59273-3	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTSS GRND WTR	12/6/2013	12/9/2013	12/16/2013	
L59273-4	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTSS GRND WTR	12/6/2013	12/9/2013	12/16/2013	
L59273-5	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTSS GRND WTR	12/6/2013	12/9/2013	12/16/2013	
L59279-1	421422-CFGW	SWD-CFGW Cedar Falls Groundwater Quarterly	CVTSS GRND WTR	12/5/2013	12/9/2013	12/16/2013	
L59279-3	421422-CFGW	SWD-CFGW Cedar Falls Groundwater Quarterly	CVTSS GRND WTR	12/5/2013	12/9/2013	12/16/2013	
L59294-1	423589-320-4	CSO Basin Study	CVTSS SEWER WTR	12/4/2013	12/9/2013	12/16/2013	
L59294-2	423589-320-4	CSO Basin Study	CVTSS SEWER WTR	12/4/2013	12/9/2013	12/16/2013	
L59294-3	423589-320-4	CSO Basin Study	CVTSS SEWER WTR	12/4/2013	12/9/2013	12/16/2013	
L59301-3	421161	IW SURCHARGE	CVTSS IW WTR	12/3/2013	12/9/2013	12/16/2013	
WG130210-1	MB		CVTSS BLANK WTR		12/9/2013	12/16/2013	MB1 131209
WG130210-2	LCS		CVTSS BLANK WTR		12/9/2013	12/16/2013	LEVEL1
WG130210-3	LD		CVTSS GRND WTR		12/9/2013	12/16/2013	L59270-1
WG130210-4	LD		CVTSS SEWER WTR		12/9/2013	12/16/2013	L59294-3
WG130210-5	LD		CVTSS IW WTR		12/9/2013	12/16/2013	L59301-3

WG131328 (SWD TSS:2/27/14) Department: 3 - Conventionals Move Date: 2014-03-10 11:39:42

Sample	Project	Project Description	List Type Matrix	Collect Date	Prep Date	Anal Date	Comments
L59617-1	421422-CFGW	SWD-CFGW Cedar Falls Groundwater Quarterly	CVTSS GRND WTR	2/26/2014	2/27/2014	2/28/2014	

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L59691-1	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTSS	FRESH WTR	2/26/2014	2/27/2014	2/28/2014	
L59691-2	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTSS	FRESH WTR	2/26/2014	2/27/2014	2/28/2014	
L59691-3	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTSS	FRESH WTR	2/26/2014	2/27/2014	2/28/2014	
L59691-4	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTSS	FRESH WTR	2/26/2014	2/27/2014	2/28/2014	
L59691-5	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTSS	FRESH WTR	2/26/2014	2/27/2014	2/28/2014	
L59691-6	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTSS	FRESH WTR	2/26/2014	2/27/2014	2/28/2014	
L59691-7	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTSS	FRESH WTR	2/27/2014	2/27/2014	2/28/2014	
L59691-8	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTSS	FRESH WTR	2/27/2014	2/27/2014	2/28/2014	
L59691-9	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTSS	FRESH WTR	2/27/2014	2/27/2014	2/28/2014	
L59691-10	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTSS	FRESH WTR	2/27/2014	2/27/2014	2/28/2014	
L59691-11	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTSS	FRESH WTR	2/27/2014	2/27/2014	2/28/2014	
L59691-12	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTSS	FRESH WTR	2/27/2014	2/27/2014	2/28/2014	
L59691-14	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTSS	FRESH WTR	2/27/2014	2/27/2014	2/28/2014	
L59691-15	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTSS	FRESH WTR	2/27/2014	2/27/2014	2/28/2014	
L59692-1	421422-CHSW-P2	SWD-CHSW P - 2 Cedar Hills Surface Water Permit 2	CVTSS	FRESH WTR	2/27/2014	2/27/2014	2/28/2014	
L59692-2	421422-CHSW-P2	SWD-CHSW P - 2 Cedar Hills Surface Water Permit 2	CVTSS	FRESH WTR	2/27/2014	2/27/2014	2/28/2014	
L59692-3	421422-CHSW-P2	SWD-CHSW P - 2 Cedar Hills Surface Water Permit 2	CVTSS	FRESH WTR	2/27/2014	2/27/2014	2/28/2014	
L59744-1	421422-CFGW	SWD-CFGW Cedar Falls Groundwater Quarterly	CVTSS	GRND WTR	2/26/2014	2/27/2014	2/28/2014	
L59744-3	421422-CFGW	SWD-CFGW Cedar Falls Groundwater Quarterly	CVTSS	GRND WTR	2/26/2014	2/27/2014	2/28/2014	
L59756-1	423589-320-4	CSO Basin Study	CVTSS	SEWER WTR	2/26/2014	2/27/2014	2/28/2014	
L59756-2	423589-320-4	CSO Basin Study	CVTSS	SEWER WTR	2/26/2014	2/27/2014	2/28/2014	
WG131328-1	MB		CVTSS	BLANK WTR		2/27/2014	2/28/2014	MB1 2/27/14
WG131328-2	LCS		CVTSS	BLANK WTR		2/27/2014	2/28/2014	LEVEL1
WG131328-3	LD		CVTSS	FRESH WTR		2/27/2014	2/28/2014	L59691-8
WG131328-4	LD		CVTSS	GRND WTR		2/27/2014	2/28/2014	L59744-3
WG131328-5	LD		CVTSS	SEWER WTR		2/27/2014	2/28/2014	L59756-2
WG131328-6	LCS		CVTSS	BLANK WTR		2/27/2014	2/28/2014	LEVEL1
WG131328-7	MB		CVTSS	BLANK WTR		2/27/2014	2/28/2014	MB2 2/27/14

WG131818 (Assorted TSS) Department: 3 - Conventionals Move Date: 2014-04-02 15:08:30

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59626-1	421874-100	City of Shoreline Monthly Water Quality Monitoring	CVTSS	FRESH WTR	3/25/2014	3/26/2014	3/26/2014	
L59626-2	421874-100	City of Shoreline Monthly Water Quality Monitoring	CVTSS	FRESH WTR	3/25/2014	3/26/2014	3/26/2014	
L59626-3	421874-100	City of Shoreline Monthly Water Quality Monitoring	CVTSS	FRESH WTR	3/25/2014	3/26/2014	3/26/2014	
L59626-4	421874-100	City of Shoreline Monthly Water Quality Monitoring	CVTSS	FRESH WTR	3/25/2014	3/26/2014	3/26/2014	
L59626-5	421874-100	City of Shoreline Monthly Water Quality Monitoring	CVTSS	FRESH WTR	3/25/2014	3/26/2014	3/26/2014	
L59626-6	421874-100	City of Shoreline Monthly Water Quality Monitoring	CVTSS	FRESH WTR	3/25/2014	3/26/2014	3/26/2014	
L59626-7	421874-100	City of Shoreline Monthly Water Quality Monitoring	CVTSS	FRESH WTR	3/25/2014	3/26/2014	3/26/2014	
L59728-1	422019	WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	3/20/2014	3/26/2014	3/26/2014	

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L59728-2	422019	WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	3/20/2014	3/26/2014	3/26/2014	
L59728-3	422019	WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	3/20/2014	3/26/2014	3/26/2014	
L59728-4	422019	WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	3/20/2014	3/26/2014	3/26/2014	
L59728-5	422019	WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	3/20/2014	3/26/2014	3/26/2014	
L59728-6	422019	WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	3/20/2014	3/26/2014	3/26/2014	
L59728-7	422019	WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	3/20/2014	3/26/2014	3/26/2014	
L59728-8	422019	WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	3/20/2014	3/26/2014	3/26/2014	
L59728-9	422019	WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	3/20/2014	3/26/2014	3/26/2014	
L59728-10	422019	WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	3/20/2014	3/26/2014	3/26/2014	
L59728-11	422019	WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	3/20/2014	3/26/2014	3/26/2014	
L59728-12	422019	WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	3/20/2014	3/26/2014	3/26/2014	
L59812-3	421422-DUGW	SWD-DUGW Duval Groundwater Quarterly	CVTSS	GRND WTR	3/24/2014	3/26/2014	3/26/2014	
L59865-1	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTSS	GRND WTR	3/21/2014	3/26/2014	3/26/2014	
L59920-37	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	3/24/2014	3/26/2014	3/26/2014	
L59920-38	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	3/24/2014	3/26/2014	3/26/2014	
L59920-39	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	3/24/2014	3/26/2014	3/26/2014	
L59920-40	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	3/24/2014	3/26/2014	3/26/2014	
L59920-41	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	3/24/2014	3/26/2014	3/26/2014	
L59920-42	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	3/24/2014	3/26/2014	3/26/2014	
L59920-44	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	3/24/2014	3/26/2014	3/26/2014	
L59920-45	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	3/24/2014	3/26/2014	3/26/2014	
L59920-46	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	3/24/2014	3/26/2014	3/26/2014	
L59920-47	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	3/24/2014	3/26/2014	3/26/2014	
L59920-48	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	3/24/2014	3/26/2014	3/26/2014	
L59920-49	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	3/24/2014	3/26/2014	3/26/2014	
L59938-1	423589-320-4	CSO Basin Study	CVTSS	SEWER WTR	3/24/2014	3/26/2014	3/26/2014	
L59938-2	423589-320-4	CSO Basin Study	CVTSS	SEWER WTR	3/24/2014	3/26/2014	3/26/2014	
L59938-3	423589-320-4	CSO Basin Study	CVTSS	SEWER WTR	3/24/2014	3/26/2014	3/26/2014	
L59964-1	421422-CHSW-P	SWD-CHSW P Cedar Hills Surface Water Permit	CVTSS	FRESH WTR	3/25/2014	3/26/2014	3/26/2014	
L59964-2	421422-CHSW-P	SWD-CHSW P Cedar Hills Surface Water Permit	CVTSS	FRESH WTR	3/25/2014	3/26/2014	3/26/2014	
L59964-3	421422-CHSW-P	SWD-CHSW P Cedar Hills Surface Water Permit	CVTSS	FRESH WTR	3/25/2014	3/26/2014	3/26/2014	
WG131818-1	MB		CVTSS	BLANK WTR		3/26/2014	3/26/2014	MB1 3/25/14
WG131818-2	LCS		CVTSS	BLANK WTR		3/26/2014	3/26/2014	LEVEL1
WG131818-3	LD		CVTSS	FRESH WTR		3/26/2014	3/26/2014	L59626-4
WG131818-4	LD		CVTSS	FRESH WTR		3/26/2014	3/26/2014	L59728-4
WG131818-5	MB		CVTSS	BLANK WTR		3/26/2014	3/26/2014	MB2 3/25/14
WG131818-6	LCS		CVTSS	BLANK WTR		3/26/2014	3/26/2014	LEVEL1
WG131818-7	LD		CVTSS	GRND WTR		3/26/2014	3/26/2014	L59865-1
WG131818-8	LD		CVTSS	FRESH WTR		3/26/2014	3/26/2014	L59920-45
WG131818-9	LD		CVTSS	FRESH WTR		3/26/2014	3/26/2014	L59964-2
WG131818-10	LD		CVTSS	SEWER WTR		3/26/2014	3/26/2014	L59938-1

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WG131918 (Assorted TSS: 4/2/14) Department: 3 - Conventionals Move Date: 2014-04-16 10:45:40

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59604-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	3/31/2014	4/2/2014	4/3/2014	
L59856-13	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTSS	FRESH WTR	3/31/2014	4/2/2014	4/3/2014	
L59856-14	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTSS	FRESH WTR	3/31/2014	4/2/2014	4/3/2014	
L59987-1	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVTSS	STORM WTR	3/29/2014	4/2/2014	4/3/2014	
L59987-1	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVVSS	STORM WTR	3/29/2014	4/2/2014	4/8/2014	
L59987-2	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVTSS	STORM WTR	3/29/2014	4/2/2014	4/3/2014	
L59987-2	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVVSS	STORM WTR	3/29/2014	4/2/2014	4/8/2014	
L59987-3	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVTSS	STORM WTR	3/29/2014	4/2/2014	4/3/2014	
L59987-3	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVVSS	STORM WTR	3/29/2014	4/2/2014	4/8/2014	
L59987-4	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVTSS	STORM WTR	3/29/2014	4/2/2014	4/3/2014	
L59987-4	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVVSS	STORM WTR	3/29/2014	4/2/2014	4/8/2014	
L60018-1	423589-320-4	CSO Basin Study	CVTSS	SEWER WTR	4/1/2014	4/2/2014	4/3/2014	
L60018-2	423589-320-4	CSO Basin Study	CVTSS	SEWER WTR	4/1/2014	4/2/2014	4/3/2014	
L60018-3	423589-320-4	CSO Basin Study	CVTSS	SEWER WTR	4/1/2014	4/2/2014	4/3/2014	
WG131918-1	MB		CVTSS	BLANK WTR		4/2/2014	4/3/2014	MB1 4/2/14
WG131918-1	MB		CVVSS	BLANK WTR		4/2/2014	4/8/2014	MB1 4/2/14
WG131918-2	LCS		CVTSS	BLANK WTR		4/2/2014	4/3/2014	LEVEL1
WG131918-3	LD		CVTSS	STORM WTR		4/2/2014	4/3/2014	L59987-2
WG131918-3	LD		CVVSS	STORM WTR		4/2/2014	4/8/2014	L59987-2
WG131918-4	LD		CVTSS	SEWER WTR		4/2/2014	4/3/2014	L60018-3

WG132033 (Assorted TSS: 4/8/14) Department: 3 - Conventionals Move Date: 2014-04-09 16:41:54

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L60014-1	421195-240	Horseshoe Lake WQ	CVTSS	FRESH WTR	4/2/2014	4/9/2014	4/9/2014	
L60014-2	421195-240	Horseshoe Lake WQ	CVTSS	FRESH WTR	4/2/2014	4/9/2014	4/9/2014	
L60014-3	421195-240	Horseshoe Lake WQ	CVTSS	FRESH WTR	4/2/2014	4/9/2014	4/9/2014	
L60041-1	423589-320-4	CSO Basin Study	CVTSS	SEWER WTR	4/7/2014	4/9/2014	4/9/2014	
L60041-2	423589-320-4	CSO Basin Study	CVTSS	SEWER WTR	4/7/2014	4/9/2014	4/9/2014	
L60041-3	423589-320-4	CSO Basin Study	CVTSS	SEWER WTR	4/7/2014	4/9/2014	4/9/2014	
WG132033-1	MB		CVTSS	BLANK WTR		4/9/2014	4/9/2014	MB1 4/8/14
WG132033-2	LCS		CVTSS	BLANK WTR		4/9/2014	4/9/2014	LEVEL1
WG132033-3	LD		CVTSS	FRESH WTR		4/9/2014	4/9/2014	L60014-1
WG132033-4	LD		CVTSS	SEWER WTR		4/9/2014	4/9/2014	L60041-1

LIMSView Batch Report for Michigan Basin CSO - Data validation for Wet Baseflow - Metals and Organics

WG130134 (RTP Int, CSO) Department: 6 - Metals Move Date: 2013-12-06 13:38:56

Sample	Project	Project Descripti	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
		RTP INPLNT 3						
		DAY INT						
L59147-3	421186B	(inf,eff,sl)	MTHG-LOW	EFFLUENT	11/18/2013	12/2/2013	12/4/2013	
L59155-1	423589-320-4	CSO Basin Study	MTHG-LOW	STORM WTR	11/6/2013	12/2/2013	12/4/2013	
L59155-1	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	STORM WTR	11/6/2013	12/2/2013	12/4/2013	
L59155-3	423589-320-4	CSO Basin Study	MTHG-LOW	STORM WTR	11/6/2013	12/2/2013	12/4/2013	
L59155-3	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	STORM WTR	11/6/2013	12/2/2013	12/4/2013	
L59241-1	423589-320-4	CSO Basin Study	MTHG-LOW	STORM WTR	11/18/2013	12/2/2013	12/4/2013	
L59241-3	423589-320-4	CSO Basin Study	MTHG-LOW	STORM WTR	11/18/2013	12/2/2013	12/4/2013	
L59241-3	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	STORM WTR	11/18/2013	12/2/2013	12/4/2013	
L59267-2	423589-320-4	CSO Basin Study	MTHG-LOW	SEWER WTR	11/25/2013	12/2/2013	12/4/2013	
L59267-2	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	SEWER WTR	11/25/2013	12/2/2013	12/4/2013	
WG130134-1 MB			MTHG-LOW	BLANK WTR		12/2/2013	12/4/2013	METHOD BLANK
WG130134-1 MB			MTHG-LOW-DISS	BLANK WTR		12/2/2013	12/4/2013	METHOD BLANK
WG130134-2 SB			MTHG-LOW	BLANK WTR		12/2/2013	12/4/2013	LLOW
WG130134-3 MS			MTHG-LOW-DISS	GRND WTR		12/2/2013	12/4/2013	LLOW
WG130134-4 MSD			MTHG-LOW-DISS	GRND WTR		12/2/2013	12/4/2013	LLOW-MSD

WG130225 (CSO) Department: 6 - Metals Move Date: 2013-12-19 14:49:23

Sample	Project	Project Descripti	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59241-1	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	STORM WTR	11/18/2013	12/10/2013	12/12/2013	
L59294-1	423589-320-4	CSO Basin Study	MTHG-LOW	SEWER WTR	12/4/2013	12/10/2013	12/12/2013	
L59294-1	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	SEWER WTR	12/4/2013	12/10/2013	12/12/2013	
L59294-2	423589-320-4	CSO Basin Study	MTHG-LOW	SEWER WTR	12/4/2013	12/10/2013	12/12/2013	
L59294-2	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	SEWER WTR	12/4/2013	12/10/2013	12/12/2013	
L59294-3	423589-320-4	CSO Basin Study	MTHG-LOW	SEWER WTR	12/4/2013	12/10/2013	12/12/2013	
L59294-3	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	SEWER WTR	12/4/2013	12/10/2013	12/12/2013	
WG130225-1 MB			MTHG-LOW	BLANK WTR		12/10/2013	12/12/2013	METHOD BLANK
WG130225-1 MB			MTHG-LOW-DISS	BLANK WTR		12/10/2013	12/12/2013	METHOD BLANK
WG130225-2 SB			MTHG-LOW-DISS	BLANK WTR		12/10/2013	12/12/2013	LLOW
WG130225-3 MS			MTHG-LOW-DISS	SEWER WTR		12/10/2013	12/12/2013	LLOW
WG130225-4 MSD			MTHG-LOW-DISS	SEWER WTR		12/10/2013	12/19/2013	LLOW-MSD

WG131689 (CSO Basin) Department: 6 - Metals Move Date: 2014-03-27 14:56:50

Sample	Project	Project Descripti	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59745-1	423589-320-4	CSO Basin Study	MTHG-LOW	STORM WTR	2/24/2014	3/19/2014	3/20/2014	
L59745-2	423589-320-4	CSO Basin Study	MTHG-LOW	STORM WTR	2/24/2014	3/19/2014	3/20/2014	
L59745-2	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	STORM WTR	2/24/2014	3/19/2014	3/20/2014	
L59745-3	423589-320-4	CSO Basin Study	MTHG-LOW	STORM WTR	2/24/2014	3/19/2014	3/20/2014	
L59745-3	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	STORM WTR	2/24/2014	3/19/2014	3/20/2014	
L59756-1	423589-320-4	CSO Basin Study	MTHG-LOW	SEWER WTR	2/26/2014	3/19/2014	3/20/2014	

LIMSView Batch Report for Michigan Basin CSO - Data validation for Wet Baseflow - Metals and Organics

L59756-1	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	SEWER WTR	2/26/2014	3/19/2014	3/20/2014	
L59756-2	423589-320-4	CSO Basin Study	MTHG-LOW	SEWER WTR	2/26/2014	3/19/2014	3/20/2014	
L59756-2	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	SEWER WTR	2/26/2014	3/19/2014	3/20/2014	
L59833-1	423589-320-4	CSO Basin Study	MTHG-LOW	STORM WTR	3/5/2014	3/19/2014	3/20/2014	
L59833-1	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	STORM WTR	3/5/2014	3/19/2014	3/20/2014	
L59833-2	423589-320-4	CSO Basin Study	MTHG-LOW	STORM WTR	3/5/2014	3/19/2014	3/20/2014	
L59833-2	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	STORM WTR	3/5/2014	3/19/2014	3/20/2014	
WG131689-1	MB		MTHG-LOW	BLANK WTR		3/19/2014	3/20/2014	METHOD BLANK
WG131689-1	MB		MTHG-LOW-DISS	BLANK WTR		3/19/2014	3/20/2014	METHOD BLANK WG131689-1 HG-
WG131689-2	SB		MTHG-LOW-DISS	BLANK WTR		3/19/2014	3/20/2014	LLOW L59745-3 HG-
WG131689-3	MS		MTHG-LOW-DISS	STORM WTR		3/19/2014	3/20/2014	LLOW WG131689-3 L59745-3 HG-
WG131689-4	MSD		MTHG-LOW-DISS	STORM WTR		3/19/2014	3/20/2014	LLOW-MSD

WG132192 (CSO Basin) Department: 6 - Metals Move Date: 2014-04-24 13:31:44

Sample	Project	Project Descripti	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59938-1	423589-320-4	CSO Basin Study	MTHG-LOW	SEWER WTR	3/24/2014	4/17/2014	4/21/2014	
L59938-1	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	SEWER WTR	3/24/2014	4/17/2014	4/21/2014	
L59938-2	423589-320-4	CSO Basin Study	MTHG-LOW	SEWER WTR	3/24/2014	4/17/2014	4/21/2014	
L59938-2	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	SEWER WTR	3/24/2014	4/17/2014	4/21/2014	
L59938-3	423589-320-4	CSO Basin Study	MTHG-LOW	SEWER WTR	3/24/2014	4/17/2014	4/21/2014	
L59938-3	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	SEWER WTR	3/24/2014	4/17/2014	4/21/2014	
L60018-1	423589-320-4	CSO Basin Study	MTHG-LOW	SEWER WTR	4/1/2014	4/17/2014	4/21/2014	
L60018-1	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	SEWER WTR	4/1/2014	4/17/2014	4/21/2014	
L60018-2	423589-320-4	CSO Basin Study	MTHG-LOW	SEWER WTR	4/1/2014	4/17/2014	4/21/2014	
L60018-2	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	SEWER WTR	4/1/2014	4/17/2014	4/21/2014	
L60018-3	423589-320-4	CSO Basin Study	MTHG-LOW	SEWER WTR	4/1/2014	4/17/2014	4/21/2014	
L60018-3	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	SEWER WTR	4/1/2014	4/17/2014	4/21/2014	
L60041-1	423589-320-4	CSO Basin Study	MTHG-LOW	SEWER WTR	4/7/2014	4/17/2014	4/21/2014	
L60041-1	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	SEWER WTR	4/7/2014	4/17/2014	4/21/2014	
L60041-2	423589-320-4	CSO Basin Study	MTHG-LOW	SEWER WTR	4/7/2014	4/17/2014	4/21/2014	
L60041-2	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	SEWER WTR	4/7/2014	4/17/2014	4/21/2014	
L60041-3	423589-320-4	CSO Basin Study	MTHG-LOW	SEWER WTR	4/7/2014	4/17/2014	4/21/2014	
L60041-3	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	SEWER WTR	4/7/2014	4/17/2014	4/21/2014	
WG132192-1	MB		MTHG-LOW	BLANK WTR		4/17/2014	4/21/2014	METHOD BLANK
WG132192-1	MB		MTHG-LOW-DISS	BLANK WTR		4/17/2014	4/21/2014	METHOD BLANK WG132192-1 HG-
WG132192-2	SB		MTHG-LOW-DISS	BLANK WTR		4/17/2014	4/21/2014	LLOW L60041-2 HG-
WG132192-3	MS		MTHG-LOW-DISS	SEWER WTR		4/17/2014	4/21/2014	LLOW WG132192-3 L60041-2 HG-
WG132192-4	MSD		MTHG-LOW-DISS	SEWER WTR		4/17/2014	4/21/2014	LLOW-MSD
WG132192-5	MB		MTHG-LOW-DISS	FILTER WTR		4/17/2014	4/21/2014	FILTER BLANK PRE L59987 1-4
WG132192-6	MB		MTHG-LOW-DISS	FILTER WTR		4/17/2014	4/21/2014	FILTER BLANK POST L59987 1-4

LIMSView Batch Report for Michigan Basin CSO - Data validation for Wet Baseflow - Metals and Organics

WG130213 (12/9/13 CSO BASIN TOTALS) Department: 6 - Metals Move Date: 2013-12-19 14:28:08

Sample	Project	Project Descripti	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59241-1	423589-320-4	CSO Basin Study	MTICPMS	STORM WTR	11/18/2013	12/9/2013	12/16/2013	
L59241-3	423589-320-4	CSO Basin Study	MTICPMS	STORM WTR	11/18/2013	12/9/2013	12/16/2013	
L59267-2	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	11/25/2013	12/9/2013	12/16/2013	
L59294-1	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	12/4/2013	12/9/2013	12/16/2013	
L59294-2	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	12/4/2013	12/9/2013	12/16/2013	
L59294-3	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	12/4/2013	12/9/2013	12/16/2013	
WG130213-1	MB		MTICPMS	BLANK WTR		12/9/2013	12/16/2013	METHOD BLANK WG130213-1
WG130213-2	SB		MTICPMS	BLANK WTR		12/9/2013	12/16/2013	MS-20 L59294-2 RPD-
WG130213-3	LD		MTICPMS	SEWER WTR		12/9/2013	12/16/2013	LIQ
WG130213-4	MS		MTICPMS	SEWER WTR		12/9/2013	12/16/2013	L59294-2 MS-20

WG131375 (3/5/14 CSO Basin Totals) Department: 6 - Metals Move Date: 2014-03-14 13:24:51

Sample	Project	Project Descripti	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59681-1	423589-320-4	CSO Basin Study	MTICPMS	STORM WTR	2/11/2014	3/5/2014	3/12/2014	
L59681-2	423589-320-4	CSO Basin Study	MTICPMS	STORM WTR	2/11/2014	3/5/2014	3/12/2014	
L59681-3	423589-320-4	CSO Basin Study	MTICPMS	STORM WTR	2/11/2014	3/5/2014	3/12/2014	
L59745-1	423589-320-4	CSO Basin Study	MTICPMS	STORM WTR	2/24/2014	3/5/2014	3/12/2014	
L59745-2	423589-320-4	CSO Basin Study	MTICPMS	STORM WTR	2/24/2014	3/5/2014	3/12/2014	
L59745-3	423589-320-4	CSO Basin Study	MTICPMS	STORM WTR	2/24/2014	3/5/2014	3/12/2014	
L59756-1	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	2/26/2014	3/5/2014	3/12/2014	
L59756-2	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	2/26/2014	3/5/2014	3/12/2014	
WG131375-1	MB		MTICPMS	BLANK WTR		3/5/2014	3/12/2014	METHOD BLANK WG131375-1
WG131375-2	SB		MTICPMS	BLANK WTR		3/5/2014	3/12/2014	MS-20 L59745-3 RPD-
WG131375-3	LD		MTICPMS	STORM WTR		3/5/2014	3/12/2014	LIQ
WG131375-4	MS		MTICPMS	STORM WTR		3/5/2014	3/12/2014	L59745-3 MS-20

WG131821 (28-MAR-14 CSO Basin) Department: 6 - Metals Move Date: 2014-04-04 14:29:49

Sample	Project	Project Descripti	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59833-1	423589-320-4	CSO Basin Study	MTICPMS	STORM WTR	3/5/2014	3/28/2014	3/31/2014	
L59833-2	423589-320-4	CSO Basin Study	MTICPMS	STORM WTR	3/5/2014	3/28/2014	3/31/2014	
L59938-1	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	3/24/2014	3/28/2014	3/31/2014	
L59938-2	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	3/24/2014	3/28/2014	3/31/2014	
L59938-3	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	3/24/2014	3/28/2014	3/31/2014	
WG131821-1	MB		MTICPMS	BLANK WTR		3/28/2014	3/31/2014	METHOD BLANK WG131821-1
WG131821-2	SB		MTICPMS	BLANK WTR		3/28/2014	3/31/2014	MS-20 L59833-1 RPD-
WG131821-3	LD		MTICPMS	SEWER WTR		3/28/2014	3/31/2014	LIQ
WG131821-4	MS		MTICPMS	SEWER WTR		3/28/2014	3/31/2014	L59833-1 MS-20

WG132254 (4/23/14 CSO totals) Department: 6 - Metals Move Date: 2014-05-05 09:51:59

LIMSView Batch Report for Michigan Basin CSO - Data validation for Wet Baseflow - Metals and Organics

Sample	Project	Project Descripti	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L60018-1	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	4/1/2014	4/23/2014	4/28/2014	
L60018-2	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	4/1/2014	4/23/2014	4/28/2014	
L60018-3	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	4/1/2014	4/23/2014	4/28/2014	
L60041-1	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	4/7/2014	4/23/2014	4/28/2014	
L60041-2	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	4/7/2014	4/23/2014	4/28/2014	
L60041-3	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	4/7/2014	4/23/2014	4/28/2014	
WG132254-1	MB		MTICPMS	BLANK WTR		4/23/2014	4/28/2014	METHOD BLANK WG132254-1 MS-20 SPIKE
WG132254-2	SB		MTICPMS	BLANK WTR		4/23/2014	4/28/2014	BLANK L60018-3 RPD- LIQ LAB
WG132254-3	LD		MTICPMS	SEWER WTR		4/23/2014	4/28/2014	DUPLICATE L60018-3 MS-20
WG132254-4	MS		MTICPMS	SEWER WTR		4/23/2014	4/28/2014	MATRIX SPIKE

WG130335 (12/16/13 cso basin diss) Department: 6 - Metals Move Date: 2013-12-19 14:28:16

Sample	Project	Project Descripti	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59241-1	423589-320-4	CSO Basin Study	MTICPMS-DISS	STORM WTR	11/18/2013	12/16/2013	12/16/2013	
L59241-3	423589-320-4	CSO Basin Study	MTICPMS-DISS	STORM WTR	11/18/2013	12/16/2013	12/16/2013	
L59267-2	423589-320-4	CSO Basin Study	MTICPMS-DISS	SEWER WTR	11/25/2013	12/16/2013	12/16/2013	
L59294-1	423589-320-4	CSO Basin Study	MTICPMS-DISS	SEWER WTR	12/4/2013	12/16/2013	12/16/2013	
L59294-2	423589-320-4	CSO Basin Study	MTICPMS-DISS	SEWER WTR	12/4/2013	12/16/2013	12/16/2013	
L59294-3	423589-320-4	CSO Basin Study	MTICPMS-DISS	SEWER WTR	12/4/2013	12/16/2013	12/16/2013	
WG130335-1	MB		MTICPMS-DISS	BLANK WTR		12/16/2013	12/16/2013	METHOD BLANK WG130335-1
WG130335-2	SB		MTICPMS-DISS	BLANK WTR		12/16/2013	12/16/2013	MS-20 L59241-3 RPD-
WG130335-3	LD		MTICPMS-DISS	STORM WTR		12/16/2013	12/16/2013	LIQ
WG130335-4	MS		MTICPMS-DISS	STORM WTR		12/16/2013	12/16/2013	L59241-3 MS-20

WG131550 (3/12/14 CSO BASIN DISS) Department: 6 - Metals Move Date: 2014-03-14 13:24:58

Sample	Project	Project Descripti	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59681-1	423589-320-4	CSO Basin Study	MTICPMS-DISS	STORM WTR	2/11/2014	3/12/2014	3/12/2014	
L59681-2	423589-320-4	CSO Basin Study	MTICPMS-DISS	STORM WTR	2/11/2014	3/12/2014	3/12/2014	
L59681-3	423589-320-4	CSO Basin Study	MTICPMS-DISS	STORM WTR	2/11/2014	3/12/2014	3/12/2014	
L59745-2	423589-320-4	CSO Basin Study	MTICPMS-DISS	STORM WTR	2/24/2014	3/12/2014	3/12/2014	
L59745-3	423589-320-4	CSO Basin Study	MTICPMS-DISS	STORM WTR	2/24/2014	3/12/2014	3/12/2014	
L59756-1	423589-320-4	CSO Basin Study	MTICPMS-DISS	SEWER WTR	2/26/2014	3/12/2014	3/12/2014	
L59756-2	423589-320-4	CSO Basin Study	MTICPMS-DISS	SEWER WTR	2/26/2014	3/12/2014	3/12/2014	
L59833-1	423589-320-4	CSO Basin Study	MTICPMS-DISS	STORM WTR	3/5/2014	3/12/2014	3/12/2014	
L59833-2	423589-320-4	CSO Basin Study	MTICPMS-DISS	STORM WTR	3/5/2014	3/12/2014	3/12/2014	
WG131550-1	MB		MTICPMS-DISS	BLANK WTR		3/12/2014	3/12/2014	METHOD BLANK WG131550-1
WG131550-2	SB		MTICPMS-DISS	BLANK WTR		3/12/2014	3/12/2014	MS-20 L59745-3 RPD-
WG131550-3	LD		MTICPMS-DISS	STORM WTR		3/12/2014	3/12/2014	LIQ

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WG131550-4 MS MTICPMS-DISS STORM WTR 3/12/2014 3/12/2014 L59745-3 MS-20

WG131854 (31-MAR-14 CSO Basin Study) Department: 6 - Metals Move Date: 2014-04-04 14:29:45

Sample	Project	Project Descripti	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59938-1	423589-320-4	CSO Basin Study	MTICPMS-DISS	SEWER WTR	3/24/2014	3/31/2014	3/31/2014	
L59938-2	423589-320-4	CSO Basin Study	MTICPMS-DISS	SEWER WTR	3/24/2014	3/31/2014	3/31/2014	
L59938-3	423589-320-4	CSO Basin Study	MTICPMS-DISS	SEWER WTR	3/24/2014	3/31/2014	3/31/2014	
WG131854-1	MB		MTICPMS-DISS	BLANK WTR		3/31/2014	3/31/2014	METHOD BLANK WG131854-1
WG131854-2	SB		MTICPMS-DISS	BLANK WTR		3/31/2014	3/31/2014	MS-20 L59938-1 RPD-
WG131854-3	LD		MTICPMS-DISS	SEWER WTR		3/31/2014	3/31/2014	LIQ
WG131854-4	MS		MTICPMS-DISS	SEWER WTR		3/31/2014	3/31/2014	L59938-1 MS-20
WG131854-5	MB		MTICPMS-DISS	SEWER WTR		3/31/2014	3/31/2014	PRE FILTER BLANK L59938-2
WG131854-6	MB		MTICPMS-DISS	SEWER WTR		3/31/2014	3/31/2014	POST FILTER BLANK L59938-2

WG132255 (4/23/14 CSO Diss) Department: 6 - Metals Move Date: 2014-05-05 09:52:09

Sample	Project	Project Descripti	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L60018-1	423589-320-4	CSO Basin Study	MTICPMS-DISS	SEWER WTR	4/1/2014	4/23/2014	4/28/2014	
L60018-2	423589-320-4	CSO Basin Study	MTICPMS-DISS	SEWER WTR	4/1/2014	4/23/2014	4/28/2014	
L60018-3	423589-320-4	CSO Basin Study	MTICPMS-DISS	SEWER WTR	4/1/2014	4/23/2014	4/28/2014	
L60041-1	423589-320-4	CSO Basin Study	MTICPMS-DISS	SEWER WTR	4/7/2014	4/23/2014	4/28/2014	
L60041-2	423589-320-4	CSO Basin Study	MTICPMS-DISS	SEWER WTR	4/7/2014	4/23/2014	4/28/2014	
L60041-3	423589-320-4	CSO Basin Study	MTICPMS-DISS	SEWER WTR	4/7/2014	4/23/2014	4/28/2014	
WG132255-1	MB		MTICPMS-DISS	BLANK WTR		4/23/2014	4/28/2014	METHOD BLANK WG132255-1 MS-20 SPIKE
WG132255-2	SB		MTICPMS-DISS	BLANK WTR		4/23/2014	4/28/2014	BLANK L60018-1 RPD- LIQ LAB
WG132255-3	LD		MTICPMS-DISS	SEWER WTR		4/23/2014	4/28/2014	DUPLICATE L60018-1 MS-20
WG132255-4	MS		MTICPMS-DISS	SEWER WTR		4/23/2014	4/28/2014	MATRIX SPIKE

WG130201 (bl#156 pahpth-sim) Department: 7 - Organics Move Date: 2014-01-06 11:49:36

Sample	Project	Project Descripti	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59294-1	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	SEWER WTR	12/4/2013	12/9/2013	12/23/2013	
L59294-2	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	SEWER WTR	12/4/2013	12/9/2013	12/23/2013	
L59294-3	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	SEWER WTR	12/4/2013	12/9/2013	12/23/2013	
WG130201-1	MB		ORPAHPHTH-SIM	BLANK WTR		12/9/2013	12/23/2013	MB131209
WG130201-2	SB		ORPAHPHTH-SIM	BLANK WTR		12/9/2013	12/23/2013	WG130201-1
WG130201-3	MS		ORPAHPHTH-SIM	SEWER WTR		12/9/2013	12/23/2013	L59294-2

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WG130201-3

WG130201-4 MSD ORPAHPHTH-SIM SEWER WTR 12/9/2013 12/23/2013 L59294-2

WG131344 (bl#175 pahphth-sim) Department: 7 - Organics Move Date: 2014-04-02 06:45:43

Sample	Project	Project Descripti	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59756-1	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	SEWER WTR	2/26/2014	3/3/2014	3/25/2014	
L59756-2	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	SEWER WTR	2/26/2014	3/3/2014	3/25/2014	
WG131344-1	MB		ORPAHPHTH-SIM	BLANK WTR		3/3/2014	3/25/2014	MB140303
WG131344-2	SB		ORPAHPHTH-SIM	BLANK WTR		3/3/2014	3/25/2014	WG131344-1
WG131344-3	MS		ORPAHPHTH-SIM	SEWER WTR		3/3/2014	3/25/2014	L59756-1
								WG131344-3
WG131344-4	MSD		ORPAHPHTH-SIM	SEWER WTR		3/3/2014	3/25/2014	L59756-1

WG131800 (bl#182 PAHPHHSIM) Department: 7 - Organics Move Date: 2014-04-22 07:50:05

Sample	Project	Project Descripti	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59938-1	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	SEWER WTR	3/24/2014	3/26/2014	4/8/2014	
L59938-3	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	SEWER WTR	3/24/2014	3/26/2014	4/8/2014	
WG131800-1	MB		ORPAHPHTH-SIM	BLANK WTR		3/26/2014	4/8/2014	MB140326
WG131800-2	SB		ORPAHPHTH-SIM	BLANK WTR		3/26/2014	4/8/2014	WG131800-1
WG131800-3	MS		ORPAHPHTH-SIM	SEWER WTR		3/26/2014	4/8/2014	L59938-1
								WG131800-3
WG131800-4	MSD		ORPAHPHTH-SIM	SEWER WTR		3/26/2014	4/8/2014	L59938-1

WG131924 (bl#185 pahphth-sim) Department: 7 - Organics Move Date: 2014-04-29 07:25:35

Sample	Project	Project Descripti	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L60018-1	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	SEWER WTR	4/1/2014	4/3/2014	4/10/2014	
L60018-2	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	SEWER WTR	4/1/2014	4/3/2014	4/11/2014	
L60018-3	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	SEWER WTR	4/1/2014	4/3/2014	4/10/2014	
WG131924-1	MB		ORPAHPHTH-SIM	BLANK WTR		4/3/2014	4/10/2014	MB140403
WG131924-2	SB		ORPAHPHTH-SIM	BLANK WTR		4/3/2014	4/10/2014	WG131924-1
WG131924-3	MS		ORPAHPHTH-SIM	SEWER WTR		4/3/2014	4/10/2014	L60018-3
								WG131924-3
WG131924-4	MSD		ORPAHPHTH-SIM	SEWER WTR		4/3/2014	4/10/2014	L60018-3

WG132007 (bl#187 pahphth-sim) Department: 7 - Organics Move Date: 2014-04-29 07:32:29

Sample	Project	Project Descripti	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L60041-1	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	SEWER WTR	4/7/2014	4/9/2014	4/11/2014	
L60041-2	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	SEWER WTR	4/7/2014	4/9/2014	4/11/2014	
L60041-3	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	SEWER WTR	4/7/2014	4/9/2014	4/11/2014	
WG132007-1	MB		ORPAHPHTH-SIM	BLANK WTR		4/9/2014	4/11/2014	MB140409
WG132007-2	SB		ORPAHPHTH-SIM	BLANK WTR		4/9/2014	4/11/2014	WG132007-1
WG132007-3	MS		ORPAHPHTH-SIM	SEWER WTR		4/9/2014	4/11/2014	L60041-1
								WG132007-3
WG132007-4	MSD		ORPAHPHTH-SIM	SEWER WTR		4/9/2014	4/11/2014	L60041-1

LIMSView QC Report for Michigan Basin CSO - Data Validation for Wet Baseflow - Conventionals

Workgroup: WG130292 (TOC, DOC/421422, 423589) Run ID: R192515

MB:WG130292-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

SB:WG130292-2 MB:WG130292-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	10.1	101		80--120

LCS:WG130292-3 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	10.1	101		85--115

LD:WG130292-4 L59193-5 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-DUGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	6.94	6.93	0		0--20

MS:WG130292-5 L59193-5 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-DUGW Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	6.94	10	16.9	100		75--125

MB:WG130292-6 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

LCS:WG130292-7 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	10.1	101		85--115

LD:WG130292-8 L59322-1 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421422-VASW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	4.51	5.03	11		0--20

MS:WG130292-9 L59322-1 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421422-VASW Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	4.51	10	14.9	104		75--125

LD:WG130292-10 L59291-1 Matrix: LEACHATE Listtype:CVTOC Method:SM5310-B Project:421422-CHLS-M Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	35	70	mg/L	405	437	7		0--20

MS:WG130292-11 L59291-1 Matrix: LEACHATE Listtype:CVTOC Method:SM5310-B Project:421422-CHLS-M Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	35	70	mg/L	405	10	1160	107		75--125

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LD:WG130292-12 L59267-2 Matrix: SEWER WTR Listtype:CVTOC Method:SM5310-B Project:423589-320-4 Pkey:STD (Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	18	35	mg/L	39.4	36.8		7	0--20

MS:WG130292-13 L59267-2 Matrix: SEWER WTR Listtype:CVTOC Method:SM5310-B Project:423589-320-4 Pkey:STD (Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	18	35	mg/L	39.4	10	375	96		75--125

MB:WG130292-14 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD (Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	

SB:WG130292-15 MB:WG130292-14 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD (Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	10	9.98	100		80--120

MB:WG130292-16 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD (Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	

LD:WG130292-17 L59294-1 Matrix: SEWER WTR Listtype:CVDOC Method:SM5310-B Project:423589-320-4 Pkey:STD (Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	5	10	mg/L	36.3	36.2		0	0--20

MS:WG130292-18 L59294-1 Matrix: SEWER WTR Listtype:CVDOC Method:SM5310-B Project:423589-320-4 Pkey:STD (Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	5	10	mg/L	36.3	10	135	98		75--125

LCS:WG130292-19 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD (Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	10	10.7	107		85--115

MB:WG130292-20 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD (Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

LCS:WG130292-21 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD (Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	9.57	96		85--115

Workgroup: WG131347 (TOC, DOC/423589-320-4) Run ID: R194137

MB:WG131347-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD (Method Blank)

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Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

SB:WG131347-2 MB:WG131347-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	10.2	102		80--120

LCS:WG131347-3 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	9.83	98		85--115

LD:WG131347-4 L59681-1 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	1.63	1.51		8	0--20

LD:WG131347-4 L59681-1 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	1	2	mg/L	7.14	6.58		8	0--20

MS:WG131347-5 L59681-1 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423589-320-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	1.63	10	10.6	89		75--125

MS:WG131347-5 L59681-1 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:423589-320-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	1	2	mg/L	7.14	10	28.5	107		75--125

LD:WG131347-6 L59756-2 Matrix: SEWER WTR Listtype:CVDOC Method:SM5310-B Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	5	10	mg/L	29.2	29.4		1	0--20

LD:WG131347-6 L59756-2 Matrix: SEWER WTR Listtype:CVTOC Method:SM5310-B Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	18	35	mg/L	39.9	42.4		6	0--20

MS:WG131347-7 L59756-2 Matrix: SEWER WTR Listtype:CVDOC Method:SM5310-B Project:423589-320-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	5	10	mg/L	29.2	10	124	95		75--125

MS:WG131347-7 L59756-2 Matrix: SEWER WTR Listtype:CVTOC Method:SM5310-B Project:423589-320-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	18	35	mg/L	39.9	10	372	95		75--125

MB:WG131347-8 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
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Dissolved Organic Carbon 0.5 1 mg/L <MDL

SB:WG131347-9 MB:WG131347-8 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	10	9.46	95		80--120

LCS:WG131347-10 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	10	9.69	97		85--115

MB:WG131347-11 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	

MB:WG131347-12 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	

MB:WG131347-13 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

SB:WG131347-14 MB:WG131347-13 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	10.3	103		80--120

LCS:WG131347-15 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	10.5	105		85--115

LD:WG131347-16 L59739-3 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-DUGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	<MDL			0--20

MS:WG131347-17 L59739-3 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-DUGW Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	11.1	111		75--125

MB:WG131347-18 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	

LCS:WG131347-19 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	10	10.6	106		85--115

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MB:WG131347-20 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

LCS:WG131347-21 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	10.6	106		85--115

MB:WG131347-22 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

SB:WG131347-23 MB:WG131347-22 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	8.96	90		80--120

LCS:WG131347-24 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	9.31	93		85--115

LD:WG131347-25 L59691-5 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHSW-M Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	2.64	2.86	8		0--20

MS:WG131347-26 L59691-5 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHSW-M Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	2.64	10	11.5	89		75--125

Workgroup: WG131816 (TOC, DOC/421422, 421250, 423589) Run ID: R194481

MB:WG131816-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

SB:WG131816-2 MB:WG131816-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	10.1	101		80--120

LCS:WG131816-3 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	10	100		85--115

LD:WG131816-4 L59865-1 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-PUGW Pkey:STD
(Lab Duplicate)

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Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	<MDL			0--20

MS:WG131816-5 L59865-1 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-PUGW Pkey:STD (Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL		10	9.82	98	75--125

LD:WG131816-6 L59551-1 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421250ON Pkey:STD (Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L		1.33	1.07	22 *	0--20

MS:WG131816-7 L59552-3 Matrix: SALT WTR Listtype:CVTOC Method:SM5310-B Project:421250ON Pkey:STD (Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L		2.34	10	12.6	102	75--125

LD:WG131816-8 L59938-3 Matrix: SEWER WTR Listtype:CVDOC Method:SM5310-B Project:423589-320-4 Pkey:STD (Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon		5	10 mg/L		21.1	21.1	0	0--20

LD:WG131816-8 L59938-3 Matrix: SEWER WTR Listtype:CVTOC Method:SM5310-B Project:423589-320-4 Pkey:STD (Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon		18	35 mg/L		30	29		0--20

MS:WG131816-9 L59938-3 Matrix: SEWER WTR Listtype:CVDOC Method:SM5310-B Project:423589-320-4 Pkey:STD (Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon		5	10 mg/L		21.1	10	124	103	75--125

MS:WG131816-9 L59938-3 Matrix: SEWER WTR Listtype:CVTOC Method:SM5310-B Project:423589-320-4 Pkey:STD (Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon		18	35 mg/L		30	10	385	101	75--125

MB:WG131816-10 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD (Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	

SB:WG131816-11 MB:WG131816-10 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD (Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	<MDL		10	10.7	107	80--120

LCS:WG131816-12 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD (Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L		10	10.9	109	85--115

MS:WG131816-13 L59551-1 Matrix: FRESH WTR Listtype:CVDOC Method:SM5310-B Project:421250ON Pkey:STD (Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
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Dissolved Organic Carbon 0.5 1 mg/L 1.19 10 11.4 102 75--125

LD:WG131816-14 L59552-1 Matrix: SALT WTR Listtype:CVDOC Method:SM5310-B Project:421250ON Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	0.5	1 mg/L		1.05	1.07	2		0--20

MB:WG131816-15 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1 mg/L		<MDL	

MB:WG131816-16 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1 mg/L		<MDL	

SB:WG131816-17 MB:WG131816-16 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1 mg/L		<MDL	10	10.8	108		80--120

LCS:WG131816-18 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1 mg/L		10	10.8	108		85--115

MB:WG131816-19 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1 mg/L		<MDL	

SB:WG131816-20 MB:WG131816-19 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1 mg/L		<MDL	10	10.5	105		80--120

LCS:WG131816-21 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1 mg/L		10	11.1	111		85--115

Workgroup: WG132138 (TOC, DOC/421422, 423530) Run ID: R195042

MB:WG132138-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1 mg/L		<MDL	

SB:WG132138-2 MB:WG132138-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1 mg/L		<MDL	10	10.1	101		80--120

LCS:WG132138-3 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD

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(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	9.78	98		85--115

LD:WG132138-4 L59991-2 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	0.57			0--20

MS:WG132138-5 L59991-2 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	10.2	102		75--125

LD:WG132138-6 L59987-1 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:423530 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	5	10	mg/L	6	7.1			0--20

MS:WG132138-7 L59987-2 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:423530 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	5	10	mg/L	40	10	165	125		75--125

MB:WG132138-8 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	

SB:WG132138-9 MB:WG132138-8 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	10	10.2	102		80--120

LCS:WG132138-10 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	10	10.1	101		85--115

LD:WG132138-11 L59987-3 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423530 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	5.29	5.61	6		0--20

MS:WG132138-12 L59987-4 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423530 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	5.29	10	15	97		75--125

MB:WG132138-13 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

SB:WG132138-14 MB:WG132138-13 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

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Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	10	100		80--120

LCS:WG132138-15 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	9.26	93		85--115

LD:WG132138-16 L60023-1 Matrix: LEACHATE Listtype:CVTOC Method:SM5310-B Project:421422-VALS-M Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	2.5	5	mg/L	13.7	13.7	0		0--20

MS:WG132138-17 L60023-1 Matrix: LEACHATE Listtype:CVTOC Method:SM5310-B Project:421422-VALS-M Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	2.5	5	mg/L	13.7	10	59.2	91		75--125

LD:WG132138-18 L60018-1 Matrix: SEWER WTR Listtype:CVTOC Method:SM5310-B Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	18	35	mg/L	42.5	36.4	16		0--20

MS:WG132138-19 L60018-1 Matrix: SEWER WTR Listtype:CVTOC Method:SM5310-B Project:423589-320-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	18	35	mg/L	42.5	10	402	103		75--125

MB:WG132138-20 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	

SB:WG132138-21 MB:WG132138-20 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	10	9.67	97		80--120

LCS:WG132138-22 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	10	9.55	95		85--115

LD:WG132138-23 L60018-2 Matrix: SEWER WTR Listtype:CVDOC Method:SM5310-B Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	5	10	mg/L	33.7	32.8	3		0--20

MS:WG132138-24 L60018-2 Matrix: SEWER WTR Listtype:CVDOC Method:SM5310-B Project:423589-320-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	5	10	mg/L	33.7	10	126	92		75--125

MB:WG132138-25 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
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Dissolved Organic Carbon 0.5 1 mg/L <MDL

MB:WG132138-26 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

SB:WG132138-27 MB:WG132138-26 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	10.1	101		80--120

LCS:WG132138-28 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	9.97	100		85--115

LD:WG132138-29 L60029-1 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	<MDL			0--20

MS:WG132138-30 L60029-1 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	9.6	96		75--125

LD:WG132138-31 L60045-5 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHSW-Q Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	1.31	1.33	2		0--20

MS:WG132138-32 L60045-5 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHSW-Q Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	1.31	10	10.6	93		75--125

Workgroup: WG130082 (tss for 421235/421874/421422/459267) Run ID: R192386

MB:WG130082-1 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Suspended Solids	0.5	1	mg/L	<MDL	

LCS:WG130082-2 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	101	101		80--120

LD:WG130082-3 L58845-2 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:421874-100 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	2	mg/L	1.2	1.8			0--25

LD:WG130082-4 L59099-3 Matrix: GRND WTR Listtype:CVTSS Method:SM2540-D Project:421422-HOGW Pkey:STD

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(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	2	mg/L	<MDL	<MDL			0--25

LD:WG130082-5 L59253-2 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:421235 Pkey:STD

(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	2	mg/L	<MDL	<MDL			0--25

MB:WG130082-6 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Suspended Solids	0.5	1	mg/L	<MDL	

LCS:WG130082-7 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD

(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	100	100		80--120

LD:WG130082-8 L59253-22 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:421235 Pkey:STD

(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	2	mg/L	<MDL	<MDL			0--25

MB:WG130082-9 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Suspended Solids	0.5	1	mg/L	<MDL	

LCS:WG130082-10 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD

(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	100	100		80--120

LD:WG130082-11 L59253-42 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:421235 Pkey:STD

(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	2	mg/L		1 <MDL			0--25

LD:WG130082-12 L59267-2 Matrix: SEWER WTR Listtype:CVTSS Method:SM2540-D Project:423589-320-4 Pkey:STD

(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	168	152	10		0--25

Workgroup: WG130210 (tss for 421422/423589/421161) Run ID: R192481

MB:WG130210-1 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Suspended Solids	0.5	1	mg/L	<MDL	

LCS:WG130210-2 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD

(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	90	90		80--120

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LD:WG130210-3 L59270-1 Matrix: GRND WTR Listtype:CVTSS Method:SM2540-D Project:421422-DUGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	2	mg/L	4	4.4	10		0--25

LD:WG130210-4 L59294-3 Matrix: SEWER WTR Listtype:CVTSS Method:SM2540-D Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	20	40	mg/L	364	440	19		0--25

LD:WG130210-5 L59301-3 Matrix: IW WTR Listtype:CVTSS Method:SM2540-D Project:421161 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	2	4	mg/L	25.6	22	15		0--25

Workgroup: WG131328 (SWD TSS:2/27/14) Run ID: R193870

MB:WG131328-1 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Suspended Solids	0.5	1	mg/L	<MDL	

LCS:WG131328-2 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	95	95		80--120

LD:WG131328-3 L59691-8 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:421422-CHSW-M Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	2	mg/L	1.2	1.8			0--25

LD:WG131328-4 L59744-3 Matrix: GRND WTR Listtype:CVTSS Method:SM2540-D Project:421422-CFGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	2	mg/L	<MDL	<MDL			0--25

LD:WG131328-5 L59756-2 Matrix: SEWER WTR Listtype:CVTSS Method:SM2540-D Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	4	8	mg/L	102	97.6	4		0--25

LCS:WG131328-6 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	99	99		80--120

MB:WG131328-7 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Suspended Solids	0.5	1	mg/L	<MDL	

Workgroup: WG131818 (Assorted TSS) Run ID: R194565

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MB:WG131818-1 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Suspended Solids	0.5	1	mg/L	<MDL	

LCS:WG131818-2 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	91	91		80--120

LD:WG131818-3 L59626-4 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:421874-100 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	2	mg/L	6.4	5.8	10		0--25

LD:WG131818-4 L59728-4 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:422019 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	2	mg/L	28.8	29.6	3		0--25

MB:WG131818-5 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Suspended Solids	0.5	1	mg/L	<MDL	

LCS:WG131818-6 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	96	96		80--120

LD:WG131818-7 L59865-1 Matrix: GRND WTR Listtype:CVTSS Method:SM2540-D Project:421422-PUGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	2	mg/L	<MDL	<MDL			0--25

LD:WG131818-8 L59920-45 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:421235 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	0.5	1	mg/L	0.8	1.3	48	*	0--25

LD:WG131818-9 L59964-2 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:421422-CHSW-P Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	2	mg/L	1.8	1.2			0--25

LD:WG131818-10 L59938-1 Matrix: SEWER WTR Listtype:CVTSS Method:SM2540-D Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	3.3	6.7	mg/L	129	155	19		0--25

Workgroup: WG131918 (Assorted TSS: 4/2/14) Run ID: R194853

MB:WG131918-1 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

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Parameter	MDL	RDL	Units	MB Value	Qual
Total Suspended Solids	0.5	1	mg/L	<MDL	

MB:WG131918-1 Matrix: BLANK WTR Listtype:CVVSS Method:EPA 160.4 Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Volatile Suspended Solids	0.5	1	mg/L	<MDL	

LCS:WG131918-2 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	93	93		80--120

LD:WG131918-3 L59987-2 Matrix: STORM WTR Listtype:CVTSS Method:SM2540-D Project:423530 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	4.5	9.1	mg/L	307	285		8	0--25

LD:WG131918-3 L59987-2 Matrix: STORM WTR Listtype:CVVSS Method:EPA 160.4 Project:423530 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Volatile Suspended Solids	4.5	9.1	mg/L	178	161	10		0--25

LD:WG131918-4 L60018-3 Matrix: SEWER WTR Listtype:CVTSS Method:SM2540-D Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	3.8	7.7	mg/L	76.9	71.5		7	0--25

Workgroup: WG132033 (Assorted TSS: 4/8/14) Run ID: R194726

MB:WG132033-1 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Suspended Solids	0.5	1	mg/L	<MDL	

LCS:WG132033-2 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	96	96		80--120

LD:WG132033-3 L60014-1 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:421195-240 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	0.5	1	mg/L	3.8	4.2		10	0--25

LD:WG132033-4 L60041-1 Matrix: SEWER WTR Listtype:CVTSS Method:SM2540-D Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	10	20	mg/L	88	98		11	0--25

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Workgroup: WG130134 (RTP Int, CSO) Run ID: R192281

MB:WG130134-1 Matrix: BLANK WTR Listtype:MTHG-LOW Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Total, CVAA	0.005	0.015	ug/L	<MDL	

MB:WG130134-1 Matrix: BLANK WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	

SB:WG130134-2 MB:WG130134-1 Matrix: BLANK WTR Listtype:MTHG-LOW Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Mercury, Total, CVAA	0.005	0.015	ug/L	<MDL	0.05	0.0506	101		85--115

MSD:WG130134-4 MS:WG130134-3 L59155-1 Matrix: GRND WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project:423589-320-4 Pkey:STD
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueValue	MSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	0.0198	0.05	0.0672	95		75--125	0.05	0.0666	93		1		0--20

Workgroup: WG130225 (CSO) Run ID: R192455

MB:WG130225-1 Matrix: BLANK WTR Listtype:MTHG-LOW Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Total, CVAA	0.005	0.015	ug/L	<MDL	

MB:WG130225-1 Matrix: BLANK WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	

SB:WG130225-2 MB:WG130225-1 Matrix: BLANK WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	0.05	0.0478	96		85--115

MSD:WG130225-4 MS:WG130225-3 L59294-3 Matrix: SEWER WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project:423589-320-4 Pkey:STD

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(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueValue	MSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	0.0059	0.05	0.0476	83		75--125	0.05	0.0541	96		13		0--20

Workgroup: WG131689 (CSO Basin) Run ID: R194389

MB:WG131689-1 Matrix: BLANK WTR Listtype:MTHG-LOW Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Total, CVAA	0.005	0.015	ug/L	<MDL	

MB:WG131689-1 Matrix: BLANK WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	

SB:WG131689-2 MB:WG131689-1 Matrix: BLANK WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	0.05	0.0507	101		85--115

MSD:WG131689-4 MS:WG131689-3 L59745-3 Matrix: STORM WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project:423589-320-4 Pkey:STD
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueValue	MSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	0.05	0.0532	106		75--125	0.05	0.0552	110		4		0--20

Workgroup: WG132192 (CSO Basin) Run ID: R194990

MB:WG132192-1 Matrix: BLANK WTR Listtype:MTHG-LOW Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Total, CVAA	0.005	0.015	ug/L	<MDL	

MB:WG132192-1 Matrix: BLANK WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	

SB:WG132192-2 MB:WG132192-1 Matrix: BLANK WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project: Pkey:STD

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(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec. Qual	LabLimit
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	0.05	0.0454	91	85--115

MSD:WG132192-4 MS:WG132192-3 L60041-2 Matrix: SEWER WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project:423589-320-4 Pkey:STD
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec. Qual	LabLimit	TrueValue	MSD Value	% Rec. Qual	RPD	Qual	LabLimit
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	0.0058	0.05	0.0443	77	75--125	0.05	0.0475	83	7		0--20

MB:WG132192-5 Matrix: FILTER WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	

MB:WG132192-6 Matrix: FILTER WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	

Workgroup: WG130213 (12/9/13 CSO BASIN TOTALS) Run ID: R192466

MB:WG130213-1 Matrix: BLANK WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	<MDL	
Chromium, Total, ICP-MS	0.2	1	ug/L	<MDL	
Nickel, Total, ICP-MS	0.1	0.5	ug/L	<MDL	
Copper, Total, ICP-MS	0.4	2	ug/L	<MDL	
Zinc, Total, ICP-MS	0.5	2.5	ug/L	<MDL	
Arsenic, Total, ICP-MS	0.1	0.5	ug/L	<MDL	
Silver, Total, ICP-MS	0.04	0.2	ug/L	<MDL	
Cadmium, Total, ICP-MS	0.05	0.25	ug/L	<MDL	
Lead, Total, ICP-MS	0.1	0.5	ug/L	<MDL	

SB:WG130213-2 MB:WG130213-1 Matrix: BLANK WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec. Qual	LabLimit
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	<MDL	20	19.1	96	85--115
Chromium, Total, ICP-MS	0.2	1	ug/L	<MDL	20	19.1	96	85--115
Nickel, Total, ICP-MS	0.1	0.5	ug/L	<MDL	20	20.9	105	85--115

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Copper, Total, ICP-MS	0.4	2 ug/L	<MDL	20	20.7	104	85--115
Zinc, Total, ICP-MS	0.5	2.5 ug/L	<MDL	20	21.3	107	85--115
Arsenic, Total, ICP-MS	0.1	0.5 ug/L	<MDL	20	20.3	102	85--115
Silver, Total, ICP-MS	0.04	0.2 ug/L	<MDL	20	20.2	101	85--115
Cadmium, Total, ICP-MS	0.05	0.25 ug/L	<MDL	20	20.5	102	85--115
Lead, Total, ICP-MS	0.1	0.5 ug/L	<MDL	20	19.2	96	85--115

LD:WG130213-3 L59294-2 Matrix: SEWER WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	1.75	1.73	1	0--20	
Chromium, Total, ICP-MS	0.2	1	ug/L	1.22	1.25	3	0--20	
Nickel, Total, ICP-MS	0.1	0.5	ug/L	3.25	3.48	7	0--20	
Copper, Total, ICP-MS	0.4	2	ug/L	21	21	0	0--20	
Zinc, Total, ICP-MS	0.5	2.5	ug/L	82.3	83.3	1	0--20	
Arsenic, Total, ICP-MS	0.1	0.5	ug/L	1.23	1.28	4	0--20	
Silver, Total, ICP-MS	0.04	0.2	ug/L	<MDL	<MDL		0--20	
Cadmium, Total, ICP-MS	0.05	0.25	ug/L	0.073	0.072		0--20	
Lead, Total, ICP-MS	0.1	0.5	ug/L	3.98	4.04	1	0--20	

MS:WG130213-4 L59294-2 Matrix: SEWER WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	1.75	20	21.4	98		75--125
Chromium, Total, ICP-MS	0.2	1	ug/L	1.22	20	20.8	98		75--125
Nickel, Total, ICP-MS	0.1	0.5	ug/L	3.25	20	25	109		75--125
Copper, Total, ICP-MS	0.4	2	ug/L	21	20	42	105		75--125
Zinc, Total, ICP-MS	0.5	2.5	ug/L	82.3	20	102	4xRule		75--125
Arsenic, Total, ICP-MS	0.1	0.5	ug/L	1.23	20	21.8	103		75--125
Silver, Total, ICP-MS	0.04	0.2	ug/L	<MDL	20	16.4	82		75--125
Cadmium, Total, ICP-MS	0.05	0.25	ug/L	0.073	20	20.4	101		75--125
Lead, Total, ICP-MS	0.1	0.5	ug/L	3.98	20	23	95		75--125

Workgroup: WG131375 (3/5/14 CSO Basin Totals) Run ID: R194123

MB:WG131375-1 Matrix: BLANK WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	<MDL	
Chromium, Total, ICP-MS	0.2	1	ug/L	<MDL	

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Nickel, Total, ICP-MS	0.1	0.5 ug/L	<MDL
Copper, Total, ICP-MS	0.4	2 ug/L	<MDL
Zinc, Total, ICP-MS	0.5	2.5 ug/L	<MDL
Arsenic, Total, ICP-MS	0.1	0.5 ug/L	<MDL
Silver, Total, ICP-MS	0.04	0.2 ug/L	<MDL
Cadmium, Total, ICP-MS	0.05	0.25 ug/L	<MDL
Lead, Total, ICP-MS	0.1	0.5 ug/L	<MDL

SB:WG131375-2 MB:WG131375-1 Matrix: BLANK WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec. Qual	LabLimit
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	<MDL	20	18.1	91	85--115
Chromium, Total, ICP-MS	0.2	1	ug/L	<MDL	20	18.3	91	85--115
Nickel, Total, ICP-MS	0.1	0.5	ug/L	<MDL	20	19.5	98	85--115
Copper, Total, ICP-MS	0.4	2	ug/L	<MDL	20	19.4	97	85--115
Zinc, Total, ICP-MS	0.5	2.5	ug/L	<MDL	20	20.2	101	85--115
Arsenic, Total, ICP-MS	0.1	0.5	ug/L	<MDL	20	19	95	85--115
Silver, Total, ICP-MS	0.04	0.2	ug/L	<MDL	20	18.8	94	85--115
Cadmium, Total, ICP-MS	0.05	0.25	ug/L	<MDL	20	19.3	96	85--115
Lead, Total, ICP-MS	0.1	0.5	ug/L	<MDL	20	18.8	94	85--115

LD:WG131375-3 L59745-3 Matrix: STORM WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	1.75	1.68		4	0--20
Chromium, Total, ICP-MS	0.2	1	ug/L	1	0.93			0--20
Nickel, Total, ICP-MS	0.1	0.5	ug/L	2.27	2.24		1	0--20
Copper, Total, ICP-MS	0.4	2	ug/L	8.95	8.73		2	0--20
Zinc, Total, ICP-MS	0.5	2.5	ug/L	31.4	30.5		3	0--20
Arsenic, Total, ICP-MS	0.1	0.5	ug/L	1.1	1.08		2	0--20
Silver, Total, ICP-MS	0.04	0.2	ug/L	<MDL	<MDL			0--20
Cadmium, Total, ICP-MS	0.05	0.25	ug/L	<MDL	<MDL			0--20
Lead, Total, ICP-MS	0.1	0.5	ug/L	2.21	2.19		1	0--20

MS:WG131375-4 L59745-3 Matrix: STORM WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec. Qual	LabLimit
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	1.75	20	19.8	90	75--125
Chromium, Total, ICP-MS	0.2	1	ug/L	1	20	19.3	91	75--125
Nickel, Total, ICP-MS	0.1	0.5	ug/L	2.27	20	22.1	99	75--125
Copper, Total, ICP-MS	0.4	2	ug/L	8.95	20	28.4	97	75--125

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Zinc, Total, ICP-MS	0.5	2.5 ug/L	31.4	20	50.5	95	75--125
Arsenic, Total, ICP-MS	0.1	0.5 ug/L	1.1	20	20.1	95	75--125
Silver, Total, ICP-MS	0.04	0.2 ug/L	<MDL	20	18.8	94	75--125
Cadmium, Total, ICP-MS	0.05	0.25 ug/L	<MDL	20	19	95	75--125
Lead, Total, ICP-MS	0.1	0.5 ug/L	2.21	20	21	94	75--125

Workgroup: WG131821 (28-MAR-14 CSO Basin) Run ID: R194611

MB:WG131821-1 Matrix: BLANK WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	<MDL	
Chromium, Total, ICP-MS	0.2	1	ug/L	<MDL	
Nickel, Total, ICP-MS	0.1	0.5	ug/L	<MDL	
Copper, Total, ICP-MS	0.4	2	ug/L	<MDL	
Zinc, Total, ICP-MS	0.5	2.5	ug/L	0.76	B
Arsenic, Total, ICP-MS	0.1	0.5	ug/L	<MDL	
Silver, Total, ICP-MS	0.04	0.2	ug/L	<MDL	
Cadmium, Total, ICP-MS	0.05	0.25	ug/L	<MDL	
Lead, Total, ICP-MS	0.1	0.5	ug/L	<MDL	

SB:WG131821-2 MB:WG131821-1 Matrix: BLANK WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	<MDL	20	21.4	107		85--115
Chromium, Total, ICP-MS	0.2	1	ug/L	<MDL	20	21.1	105		85--115
Nickel, Total, ICP-MS	0.1	0.5	ug/L	<MDL	20	21.3	107		85--115
Copper, Total, ICP-MS	0.4	2	ug/L	<MDL	20	20.1	100		85--115
Zinc, Total, ICP-MS	0.5	2.5	ug/L	0.76	20	21.9	106		85--115
Arsenic, Total, ICP-MS	0.1	0.5	ug/L	<MDL	20	20.8	104		85--115
Silver, Total, ICP-MS	0.04	0.2	ug/L	<MDL	20	20.4	102		85--115
Cadmium, Total, ICP-MS	0.05	0.25	ug/L	<MDL	20	20.4	102		85--115
Lead, Total, ICP-MS	0.1	0.5	ug/L	<MDL	20	20.2	101		85--115

LD:WG131821-3 L59833-1 Matrix: SEWER WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	4.92	5.05	3		0--20
Chromium, Total, ICP-MS	0.2	1	ug/L	4.98	5.19	4		0--20
Nickel, Total, ICP-MS	0.1	0.5	ug/L	15.1	15.2	1		0--20

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Copper, Total, ICP-MS	0.4	2 ug/L	26.3	26.9	2	0--20
Zinc, Total, ICP-MS	0.5	2.5 ug/L	101	103	2	0--20
Arsenic, Total, ICP-MS	0.1	0.5 ug/L	1.89	1.92	1	0--20
Silver, Total, ICP-MS	0.04	0.2 ug/L	0.067	0.11		0--20
Cadmium, Total, ICP-MS	0.05	0.25 ug/L	0.21	0.21		0--20
Lead, Total, ICP-MS	0.1	0.5 ug/L	33.2	33.3	0	0--20

MS:WG131821-4 L59833-1 Matrix: SEWER WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec. Qual	LabLimit
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	4.92	20	26.1	106	75--125
Chromium, Total, ICP-MS	0.2	1	ug/L	4.98	20	25.7	104	75--125
Nickel, Total, ICP-MS	0.1	0.5	ug/L	15.1	20	35.9	104	75--125
Copper, Total, ICP-MS	0.4	2	ug/L	26.3	20	46.1	99	75--125
Zinc, Total, ICP-MS	0.5	2.5	ug/L	101	20	121	4xRule	75--125
Arsenic, Total, ICP-MS	0.1	0.5	ug/L	1.89	20	21.8	99	75--125
Silver, Total, ICP-MS	0.04	0.2	ug/L	0.067	20	19.7	98	75--125
Cadmium, Total, ICP-MS	0.05	0.25	ug/L	0.21	20	19.9	98	75--125
Lead, Total, ICP-MS	0.1	0.5	ug/L	33.2	20	53.4	101	75--125

Workgroup: WG132254 (4/23/14 CSO totals) Run ID: R195074

MB:WG132254-1 Matrix: BLANK WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	<MDL	
Chromium, Total, ICP-MS	0.2	1	ug/L	<MDL	
Nickel, Total, ICP-MS	0.1	0.5	ug/L	<MDL	
Copper, Total, ICP-MS	0.4	2	ug/L	<MDL	
Zinc, Total, ICP-MS	0.5	2.5	ug/L	0.7	B
Arsenic, Total, ICP-MS	0.1	0.5	ug/L	<MDL	
Silver, Total, ICP-MS	0.04	0.2	ug/L	<MDL	
Cadmium, Total, ICP-MS	0.05	0.25	ug/L	<MDL	
Lead, Total, ICP-MS	0.1	0.5	ug/L	<MDL	

SB:WG132254-2 MB:WG132254-1 Matrix: BLANK WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec. Qual	LabLimit
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	<MDL	20	19.4	97	85--115
Chromium, Total, ICP-MS	0.2	1	ug/L	<MDL	20	19.9	100	85--115

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Nickel, Total, ICP-MS	0.1	0.5 ug/L	<MDL	20	19.9	100	85--115
Copper, Total, ICP-MS	0.4	2 ug/L	<MDL	20	19.9	99	85--115
Zinc, Total, ICP-MS	0.5	2.5 ug/L	0.7	20	21.9	106	85--115
Arsenic, Total, ICP-MS	0.1	0.5 ug/L	<MDL	20	20.2	101	85--115
Silver, Total, ICP-MS	0.04	0.2 ug/L	<MDL	20	20.3	102	85--115
Cadmium, Total, ICP-MS	0.05	0.25 ug/L	<MDL	20	20.8	104	85--115
Lead, Total, ICP-MS	0.1	0.5 ug/L	<MDL	20	20.4	102	85--115

LD:WG132254-3 L60018-3 Matrix: SEWER WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	1.64	1.65	1	0--20	
Chromium, Total, ICP-MS	0.2	1	ug/L	0.99	1.03	4	0--20	
Nickel, Total, ICP-MS	0.1	0.5	ug/L	2.61	2.63	0	0--20	
Copper, Total, ICP-MS	0.4	2	ug/L	10.5	10.4	1	0--20	
Zinc, Total, ICP-MS	0.5	2.5	ug/L	41.1	41.1	0	0--20	
Arsenic, Total, ICP-MS	0.1	0.5	ug/L	0.934	0.913	2	0--20	
Silver, Total, ICP-MS	0.04	0.2	ug/L	0.048	0.063		0--20	
Cadmium, Total, ICP-MS	0.05	0.25	ug/L	<MDL	0.053		0--20	
Lead, Total, ICP-MS	0.1	0.5	ug/L	2.33	2.37	2	0--20	

MS:WG132254-4 L60018-3 Matrix: SEWER WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	1.64	20	20.6	95		75--125
Chromium, Total, ICP-MS	0.2	1	ug/L	0.99	20	20.1	96		75--125
Nickel, Total, ICP-MS	0.1	0.5	ug/L	2.61	20	23.2	103		75--125
Copper, Total, ICP-MS	0.4	2	ug/L	10.5	20	30.3	99		75--125
Zinc, Total, ICP-MS	0.5	2.5	ug/L	41.1	20	60.4	96		75--125
Arsenic, Total, ICP-MS	0.1	0.5	ug/L	0.934	20	20.7	99		75--125
Silver, Total, ICP-MS	0.04	0.2	ug/L	0.048	20	20	100		75--125
Cadmium, Total, ICP-MS	0.05	0.25	ug/L	<MDL	20	19.9	99		75--125
Lead, Total, ICP-MS	0.1	0.5	ug/L	2.33	20	21.9	98		75--125

Workgroup: WG130335 (12/16/13 cso basin diss) Run ID: R192467

MB:WG130335-1 Matrix: BLANK WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	<MDL	

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Chromium, Dissolved, ICP-MS	0.2	1 ug/L	<MDL
Nickel, Dissolved, ICP-MS	0.1	0.5 ug/L	<MDL
Copper, Dissolved, ICP-MS	0.4	2 ug/L	<MDL
Zinc, Dissolved, ICP-MS	0.5	2.5 ug/L	<MDL
Arsenic, Dissolved, ICP-MS	0.1	0.5 ug/L	<MDL
Silver, Dissolved, ICP-MS	0.04	0.2 ug/L	<MDL
Cadmium, Dissolved, ICP-MS	0.05	0.25 ug/L	<MDL
Lead, Dissolved, ICP-MS	0.1	0.5 ug/L	<MDL

SB:WG130335-2 MB:WG130335-1 Matrix: BLANK WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec. Qual	LabLimit
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	<MDL	20	18.4	92	85--115
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	<MDL	20	18.6	93	85--115
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	20	20.3	102	85--115
Copper, Dissolved, ICP-MS	0.4	2	ug/L	<MDL	20	20.1	101	85--115
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	<MDL	20	20.5	102	85--115
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	20	19.5	98	85--115
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	20	19.7	99	85--115
Cadmium, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	20	20	100	85--115
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	20	18.6	93	85--115

LD:WG130335-3 L59241-3 Matrix: STORM WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	1.67	1.7	2	0--20	
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	0.35	0.35		0--20	
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	2	2	0	0--20	
Copper, Dissolved, ICP-MS	0.4	2	ug/L	2.08	2.09	1	0--20	
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	16.5	16.6	0	0--20	
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	1.18	1.19	1	0--20	
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	<MDL		0--20	
Cadmium, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	<MDL		0--20	
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	0.565	0.574	2	0--20	

MS:WG130335-4 L59241-3 Matrix: STORM WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec. Qual	LabLimit
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	1.67	20	21.2	98	75--125
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	0.35	20	20	98	75--125
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	2	20	23.4	107	75--125

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Copper, Dissolved, ICP-MS	0.4	2 ug/L	2.08	20	23	104	75--125
Zinc, Dissolved, ICP-MS	0.5	2.5 ug/L	16.5	20	38.1	108	75--125
Arsenic, Dissolved, ICP-MS	0.1	0.5 ug/L	1.18	20	22.1	104	75--125
Silver, Dissolved, ICP-MS	0.04	0.2 ug/L	<MDL	20	19.7	99	75--125
Cadmium, Dissolved, ICP-MS	0.05	0.25 ug/L	<MDL	20	20.7	103	75--125
Lead, Dissolved, ICP-MS	0.1	0.5 ug/L	0.565	20	19.8	96	75--125

Workgroup: WG131550 (3/12/14 CSO BASIN DISS) Run ID: R194124

MB:WG131550-1 Matrix: BLANK WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	<MDL	
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	<MDL	
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	
Copper, Dissolved, ICP-MS	0.4	2	ug/L	<MDL	
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	<MDL	
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	
Cadmium, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	

SB:WG131550-2 MB:WG131550-1 Matrix: BLANK WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	<MDL	20	18.1	90		85--115
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	<MDL	20	18.3	92		85--115
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	20	19	95		85--115
Copper, Dissolved, ICP-MS	0.4	2	ug/L	<MDL	20	19.2	96		85--115
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	<MDL	20	19.7	98		85--115
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	20	18.7	93		85--115
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	20	18.5	93		85--115
Cadmium, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	20	18.8	94		85--115
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	20	18.9	94		85--115

LD:WG131550-3 L59745-3 Matrix: STORM WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	1.08	1.03	5		0--20
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	0.34	0.33			0--20

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Nickel, Dissolved, ICP-MS	0.1	0.5 ug/L	1.62	1.59	2	0--20
Copper, Dissolved, ICP-MS	0.4	2 ug/L	4.2	4.24	1	0--20
Zinc, Dissolved, ICP-MS	0.5	2.5 ug/L	18.7	18.6	1	0--20
Arsenic, Dissolved, ICP-MS	0.1	0.5 ug/L	0.977	0.95	3	0--20
Silver, Dissolved, ICP-MS	0.04	0.2 ug/L	<MDL	<MDL		0--20
Cadmium, Dissolved, ICP-MS	0.05	0.25 ug/L	<MDL	<MDL		0--20
Lead, Dissolved, ICP-MS	0.1	0.5 ug/L	0.33	0.33		0--20

MS:WG131550-4 L59745-3 Matrix: STORM WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec. Qual	LabLimit
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	1.08	20	18.6	88	75--125
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	0.34	20	17.9	88	75--125
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	1.62	20	20.2	93	75--125
Copper, Dissolved, ICP-MS	0.4	2	ug/L	4.2	20	22.6	92	75--125
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	18.7	20	37.9	96	75--125
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	0.977	20	19.9	95	75--125
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	20	17.5	88	75--125
Cadmium, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	20	18.5	93	75--125
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	0.33	20	18.6	91	75--125

Workgroup: WG131854 (31-MAR-14 CSO Basin Study DISS) Run ID: R194609

MB:WG131854-1 Matrix: BLANK WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	<MDL	
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	<MDL	
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	
Copper, Dissolved, ICP-MS	0.4	2	ug/L	<MDL	
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	<MDL	
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	
Cadmium, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	

SB:WG131854-2 MB:WG131854-1 Matrix: BLANK WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec. Qual	LabLimit
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	<MDL	20	20.6	103	85--115

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Chromium, Dissolved, ICP-MS	0.2	1 ug/L	<MDL	20	20.4	102	85--115
Nickel, Dissolved, ICP-MS	0.1	0.5 ug/L	<MDL	20	20.6	103	85--115
Copper, Dissolved, ICP-MS	0.4	2 ug/L	<MDL	20	20.3	101	85--115
Zinc, Dissolved, ICP-MS	0.5	2.5 ug/L	<MDL	20	20.8	104	85--115
Arsenic, Dissolved, ICP-MS	0.1	0.5 ug/L	<MDL	20	20.1	100	85--115
Silver, Dissolved, ICP-MS	0.04	0.2 ug/L	<MDL	20	20.2	101	85--115
Cadmium, Dissolved, ICP-MS	0.05	0.25 ug/L	<MDL	20	20.3	101	85--115
Lead, Dissolved, ICP-MS	0.1	0.5 ug/L	<MDL	20	20.6	103	85--115

LD:WG131854-3 L59938-1 Matrix: SEWER WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	0.36	0.36			0--20
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	0.28	0.28			0--20
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	2.61	2.59	1		0--20
Copper, Dissolved, ICP-MS	0.4	2	ug/L	5.84	5.86	0		0--20
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	6.78	6.68	2		0--20
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	0.31	0.31			0--20
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	<MDL			0--20
Cadmium, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	<MDL			0--20
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	0.2	0.2			0--20

MS:WG131854-4 L59938-1 Matrix: SEWER WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	0.36	20	22.2	109		75--125
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	0.28	20	21.4	106		75--125
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	2.61	20	23.8	106		75--125
Copper, Dissolved, ICP-MS	0.4	2	ug/L	5.84	20	25.9	100		75--125
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	6.78	20	27.6	104		75--125
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	0.31	20	21.7	107		75--125
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	20	20	100		75--125
Cadmium, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	20	20.4	102		75--125
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	0.2	20	19.7	98		75--125

MB:WG131854-5 Matrix: SEWER WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	<MDL	
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	<MDL	
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	

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Copper, Dissolved, ICP-MS	0.4	2 ug/L	<MDL
Zinc, Dissolved, ICP-MS	0.5	2.5 ug/L	<MDL
Arsenic, Dissolved, ICP-MS	0.1	0.5 ug/L	<MDL
Silver, Dissolved, ICP-MS	0.04	0.2 ug/L	<MDL
Cadmium, Dissolved, ICP-MS	0.05	0.25 ug/L	<MDL
Lead, Dissolved, ICP-MS	0.1	0.5 ug/L	<MDL

MB:WG131854-6 Matrix: SEWER WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	<MDL	
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	<MDL	
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	
Copper, Dissolved, ICP-MS	0.4	2	ug/L	<MDL	
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	<MDL	
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	
Cadmium, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	

Workgroup: WG132255 (4/23/14 CSO Diss) Run ID: R195075

MB:WG132255-1 Matrix: BLANK WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	<MDL	
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	<MDL	
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	
Copper, Dissolved, ICP-MS	0.4	2	ug/L	<MDL	
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	<MDL	
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	
Cadmium, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	

SB:WG132255-2 MB:WG132255-1 Matrix: BLANK WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	<MDL	20	19.4	97		85--115
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	<MDL	20	20	100		85--115

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Nickel, Dissolved, ICP-MS	0.1	0.5 ug/L	<MDL	20	20.8	104	85--115
Copper, Dissolved, ICP-MS	0.4	2 ug/L	<MDL	20	20.5	103	85--115
Zinc, Dissolved, ICP-MS	0.5	2.5 ug/L	<MDL	20	21.8	109	85--115
Arsenic, Dissolved, ICP-MS	0.1	0.5 ug/L	<MDL	20	20.7	103	85--115
Silver, Dissolved, ICP-MS	0.04	0.2 ug/L	<MDL	20	20.7	103	85--115
Cadmium, Dissolved, ICP-MS	0.05	0.25 ug/L	<MDL	20	21.1	105	85--115
Lead, Dissolved, ICP-MS	0.1	0.5 ug/L	<MDL	20	20.7	104	85--115

LD:WG132255-3 L60018-1 Matrix: SEWER WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	0.32	0.32			0--20
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	0.22	0.22			0--20
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	2.85	2.88	1		0--20
Copper, Dissolved, ICP-MS	0.4	2	ug/L	9.27	9.47	2		0--20
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	7.3	7.63	4		0--20
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	0.32	0.33			0--20
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	<MDL			0--20
Cadmium, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	<MDL			0--20
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	0.39	0.4			0--20

MS:WG132255-4 L60018-1 Matrix: SEWER WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	0.32	20	19.6	96		75--125
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	0.22	20	19.5	96		75--125
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	2.85	20	24.8	110		75--125
Copper, Dissolved, ICP-MS	0.4	2	ug/L	9.27	20	31.2	110		75--125
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	7.3	20	30.2	114		75--125
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	0.32	20	22.7	112		75--125
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	20	20.4	102		75--125
Cadmium, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	20	22	110		75--125
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	0.39	20	20.8	102		75--125

Workgroup: WG130201 (bl#156 pahphth-sim) Run ID: R192767

MB:WG130201-1 Matrix: BLANK WTR Listtype:ORPAHPHth-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Naphthalene	0.008	0.04	ug/L	<MDL	

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2-Methylnaphthalene	0.008	0.04 ug/L	<MDL	
Dimethyl Phthalate	0.04	0.2 ug/L	<MDL	
Acenaphthylene	0.008	0.04 ug/L	<MDL	
Acenaphthene	0.008	0.04 ug/L	<MDL	
Diethyl Phthalate	0.04	0.2 ug/L		0.24 B
Fluorene	0.016	0.08 ug/L	<MDL	
Phenanthrene	0.016	0.08 ug/L	<MDL	
Anthracene	0.016	0.08 ug/L	<MDL	
Di-N-Butyl Phthalate	0.04	0.2 ug/L		0.049 B
Fluoranthene	0.016	0.08 ug/L	<MDL	
Pyrene	0.016	0.08 ug/L	<MDL	
Benzyl Butyl Phthalate	0.08	0.4 ug/L	<MDL	
Benzo(a)anthracene	0.016	0.08 ug/L	<MDL	
Chrysene	0.016	0.08 ug/L	<MDL	
Bis(2-Ethylhexyl)Phthalate	0.4	2 ug/L		0.99 B
Di-N-Octyl Phthalate	0.04	0.2 ug/L	<MDL	
Benzo(b,j,k)fluoranthene	0.016	0.08 ug/L	<MDL	
Benzo(a)pyrene	0.016	0.08 ug/L	<MDL	
Indeno(1,2,3-Cd)Pyrene	0.016	0.08 ug/L	<MDL	
Dibenzo(a,h)anthracene	0.016	0.08 ug/L	<MDL	
Benzo(g,h,i)perylene	0.016	0.08 ug/L	<MDL	

SB:WG130201-2 MB:WG130201-1 Matrix: BLANK WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec. Qual	LabLimit
Naphthalene	0.008	0.04 ug/L	<MDL		2.5	1.03	41	15--93
2-Methylnaphthalene	0.008	0.04 ug/L	<MDL		2.5	0.86	34 *	40--160
Acenaphthylene	0.008	0.04 ug/L	<MDL		2.5	1.59	64	43--111
Acenaphthene	0.008	0.04 ug/L	<MDL		2.5	1.46	58	37--99
Fluorene	0.016	0.08 ug/L	<MDL		2.5	1.75	70	54--104
Phenanthrene	0.016	0.08 ug/L	<MDL		2.5	2.45	98	54--107
Anthracene	0.016	0.08 ug/L	<MDL		2.5	2.19	88	54--121
Fluoranthene	0.016	0.08 ug/L	<MDL		2.5	2.42	97	63--115
Pyrene	0.016	0.08 ug/L	<MDL		2.5	2.75	110	54--136
Benzo(a)anthracene	0.016	0.08 ug/L	<MDL		2.5	2.2	88	65--117
Chrysene	0.016	0.08 ug/L	<MDL		2.5	2.15	86	44--114
Benzo(b,j,k)fluoranthene	0.016	0.08 ug/L	<MDL		7.5	8	107	50--121
Benzo(a)pyrene	0.016	0.08 ug/L	<MDL		2.5	2.49	100	45--133
Indeno(1,2,3-Cd)Pyrene	0.016	0.08 ug/L	<MDL		2.5	2.82	113	33--152
Dibenzo(a,h)anthracene	0.016	0.08 ug/L	<MDL		2.5	2.74	110	34--140
Benzo(g,h,i)perylene	0.016	0.08 ug/L	<MDL		2.5	2.47	99	29--134

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MSD:WG130201-4 MS:WG130201-3 L59294-2 Matrix: SEWER WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project:423589-320-4 Pkey:STD
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueValue	MSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Naphthalene	0.038	0.189	ug/L	0.14	2.36	0.938	34		24--85	2.36	0.904	33		4		0--40
2-Methylnaphthalene	0.038	0.189	ug/L	0.15	2.36	1.11	41		40--160	2.36	1.18	44		6		0--40
Acenaphthylene	0.038	0.189	ug/L	<MDL	2.36	1.6	68		51--103	2.36	1.69	72		6		0--40
Acenaphthene	0.038	0.189	ug/L	<MDL	2.36	1.52	64		44--94	2.36	1.59	68		5		0--40
Fluorene	0.075	0.377	ug/L	<MDL	2.36	1.69	72		54--113	2.36	1.78	76		5		0--40
Phenanthrene	0.075	0.377	ug/L	0.14	2.36	2.09	82		57--108	2.36	2.28	91		9		0--40
Anthracene	0.075	0.377	ug/L	<MDL	2.36	1.9	80		50--119	2.36	2.08	88		9		0--40
Fluoranthene	0.075	0.377	ug/L	<MDL	2.36	1.71	72		58--115	2.36	1.88	80		9		0--40
Pyrene	0.075	0.377	ug/L	<MDL	2.36	2.18	92		51--142	2.36	2.47	105		13		0--40
Benzo(a)anthracene	0.075	0.377	ug/L	<MDL	2.36	1.73	73		62--117	2.36	1.89	80		9		0--40
Chrysene	0.075	0.377	ug/L	<MDL	2.36	1.6	68		39--115	2.36	1.73	73		8		0--40
Benzo(b,j,k)fluoranthene	0.075	0.377	ug/L	<MDL	7.08	5.93	84		45--120	7.08	6.47	91		9		0--40
Benzo(a)pyrene	0.075	0.377	ug/L	<MDL	2.36	1.96	83		38--134	2.36	2.14	91		9		0--40
Indeno(1,2,3-Cd)Pyrene	0.075	0.377	ug/L	<MDL	2.36	1.99	84		38--130	2.36	2.16	92		9		0--40
Dibenzo(a,h)anthracene	0.075	0.377	ug/L	<MDL	2.36	1.9	81		25--138	2.36	2.06	87		8		0--40
Benzo(g,h,i)perylene	0.075	0.377	ug/L	<MDL	2.36	1.69	72		25--122	2.36	1.82	77		7		0--40

	2-	d14-
Surrogate:	Fluorobip	Terphen
(Lab Limits)	henyl	yl
	33--96	63--125
L59294-1	56	75
L59294-2	74	90
L59294-3	77	78
WG130201-1	50	90
WG130201-2	57	88
WG130201-3	53	71
WG130201-4	56	76

Workgroup: WG131344 (bl#175 pahphth-sim) Run ID: R194316

MB:WG131344-1 Matrix: BLANK WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Naphthalene	0.008	0.04	ug/L	<MDL	
2-Methylnaphthalene	0.008	0.04	ug/L	<MDL	
Dimethyl Phthalate	0.04	0.2	ug/L	<MDL	

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Acenaphthylene	0.008	0.04 ug/L	<MDL
Acenaphthene	0.008	0.04 ug/L	<MDL
Diethyl Phthalate	0.04	0.2 ug/L	<MDL
Fluorene	0.016	0.08 ug/L	<MDL
Phenanthrene	0.016	0.08 ug/L	<MDL
Anthracene	0.016	0.08 ug/L	<MDL
Di-N-Butyl Phthalate	0.04	0.2 ug/L	<MDL
Fluoranthene	0.016	0.08 ug/L	<MDL
Pyrene	0.016	0.08 ug/L	<MDL
Benzyl Butyl Phthalate	0.08	0.4 ug/L	<MDL
Benzo(a)anthracene	0.016	0.08 ug/L	<MDL
Chrysene	0.016	0.08 ug/L	<MDL
Bis(2-Ethylhexyl)Phthalate	0.4	2 ug/L	<MDL
Di-N-Octyl Phthalate	0.04	0.2 ug/L	<MDL
Benzo(b,j,k)fluoranthene	0.016	0.08 ug/L	<MDL
Benzo(a)pyrene	0.016	0.08 ug/L	<MDL
Indeno(1,2,3-Cd)Pyrene	0.016	0.08 ug/L	<MDL
Dibenzo(a,h)anthracene	0.016	0.08 ug/L	<MDL
Benzo(g,h,i)perylene	0.016	0.08 ug/L	<MDL

SB:WG131344-2 MB:WG131344-1 Matrix: BLANK WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec. Qual	LabLimit
Naphthalene	0.008	0.04 ug/L	<MDL		2.5	1.48	59	15--93
2-Methylnaphthalene	0.008	0.04 ug/L	<MDL		2.5	1.63	65	40--160
Dimethyl Phthalate	0.04	0.2 ug/L	<MDL		2.5	2.34	94	40--160
Acenaphthylene	0.008	0.04 ug/L	<MDL		2.5	1.94	78	43--111
Acenaphthene	0.008	0.04 ug/L	<MDL		2.5	1.66	66	37--99
Diethyl Phthalate	0.04	0.2 ug/L	<MDL		2.5	2.99	119	40--160
Fluorene	0.016	0.08 ug/L	<MDL		2.5	1.95	78	54--104
Phenanthrene	0.016	0.08 ug/L	<MDL		2.5	2.11	84	54--107
Anthracene	0.016	0.08 ug/L	<MDL		2.5	2.06	83	54--121
Di-N-Butyl Phthalate	0.04	0.2 ug/L	<MDL		2.5	2.56	102	40--160
Fluoranthene	0.016	0.08 ug/L	<MDL		2.5	2.53	101	63--115
Pyrene	0.016	0.08 ug/L	<MDL		2.5	2.25	90	54--136
Benzyl Butyl Phthalate	0.08	0.4 ug/L	<MDL		2.5	3.02	121	40--160
Benzo(a)anthracene	0.016	0.08 ug/L	<MDL		2.5	2.46	98	65--117
Chrysene	0.016	0.08 ug/L	<MDL		2.5	2.1	84	44--114
Bis(2-Ethylhexyl)Phthalate	0.4	2 ug/L	<MDL		2.5	3.97	159	40--160
Di-N-Octyl Phthalate	0.04	0.2 ug/L	<MDL		2.5	3.23	129	40--160
Benzo(b,j,k)fluoranthene	0.016	0.08 ug/L	<MDL		7.5	5.25	70	50--121

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Benzo(a)pyrene	0.016	0.08 ug/L	<MDL	2.5	2.75	110	45--133
Indeno(1,2,3-Cd)Pyrene	0.016	0.08 ug/L	<MDL	2.5	3.34	134	33--152
Dibenzo(a,h)anthracene	0.016	0.08 ug/L	<MDL	2.5	2.2	88	34--140
Benzo(g,h,i)perylene	0.016	0.08 ug/L	<MDL	2.5	3.1	124	29--134

MSD:WG131344-4 MS:WG131344-3 L59756-1 Matrix: SEWER WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project:423589-320-4 Pkey:STD
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueValue	MSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Naphthalene	0.038	0.19 ug/L		0.041	2.38	2.06	85		24--85	2.38	1.94	80		6		0--40
2-Methylnaphthalene	0.038	0.19 ug/L	<MDL		2.38	2.46	103		40--160	2.38	2.31	97		6		0--40
Dimethyl Phthalate	0.19	0.952 ug/L	<MDL		2.38	3.48	146		40--160	2.38	3.1	130		12		0--40
Acenaphthylene	0.038	0.19 ug/L	<MDL		2.38	2.77	116 *		51--103	2.38	2.6	109 *		7		0--40
Acenaphthene	0.038	0.19 ug/L	<MDL		2.38	2.37	99 *		44--94	2.38	2.24	94		6		0--40
Diethyl Phthalate	0.19	0.952 ug/L		2.92	2.38	6.61	155		40--160	2.38	5.75	119		14		0--40
Fluorene	0.076	0.381 ug/L	<MDL		2.38	2.49	105		54--113	2.38	2.43	102		3		0--40
Phenanthrene	0.076	0.381 ug/L	<MDL		2.38	2.07	87		57--108	2.38	2.09	88		1		0--40
Anthracene	0.076	0.381 ug/L	<MDL		2.38	2.24	94		50--119	2.38	2.22	93		1		0--40
Di-N-Butyl Phthalate	0.19	0.952 ug/L	<MDL		2.38	1.73	73		40--160	2.38	1.84	77		6		0--40
Fluoranthene	0.076	0.381 ug/L	<MDL		2.38	1.7	71		58--115	2.38	1.79	75		5		0--40
Pyrene	0.076	0.381 ug/L	<MDL		2.38	1.49	63		51--142	2.38	1.57	66		5		0--40
Benzyl Butyl Phthalate	0.38	1.9 ug/L	<MDL		2.38	2	84		40--160	2.38	2.15	90		7		0--40
Benzo(a)anthracene	0.076	0.381 ug/L	<MDL		2.38	1.56	66		62--117	2.38	1.65	69		6		0--40
Chrysene	0.076	0.381 ug/L	<MDL		2.38	1.27	53		39--115	2.38	1.36	57		6		0--40
Bis(2-Ethylhexyl)Phthalate	1.9	9.52 ug/L		0.63	2.38	3	100		40--160	2.38	4.1	144		29		0--40
Di-N-Octyl Phthalate	0.19	0.952 ug/L	<MDL		2.38	2.24	94		40--160	2.38	2.4	101		7		0--40
Benzo(b,j,k)fluoranthene	0.076	0.381 ug/L		0.019	7.14	3.14	44 *		45--120	7.14	3.34	47		6		0--40
Benzo(a)pyrene	0.076	0.381 ug/L	<MDL		2.38	1.8	76		38--134	2.38	1.91	80		6		0--40
Indeno(1,2,3-Cd)Pyrene	0.076	0.381 ug/L	<MDL		2.38	1.96	82		38--130	2.38	2.1	88		7		0--40
Dibenzo(a,h)anthracene	0.076	0.381 ug/L	<MDL		2.38	1.33	56		25--138	2.38	1.4	59		5		0--40
Benzo(g,h,i)perylene	0.076	0.381 ug/L	<MDL		2.38	1.85	78		25--122	2.38	1.92	81		4		0--40

	2-	d14-
	Fluorobip	Terphen
Surrogate:	henyl	yl
(Lab Limits)	33--96	63--125
L59756-1	74	77
L59756-2	84	78
WG131344-1	57	83
WG131344-2	62	87
WG131344-3	96	106
WG131344-4	95	97

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Workgroup: WG131800 (bl#182 PAHPHTHSIM) Run ID: R194719

MB:WG131800-1 Matrix: BLANK WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Naphthalene	0.008	0.04	ug/L	<MDL	
2-Methylnaphthalene	0.008	0.04	ug/L	<MDL	
Dimethyl Phthalate	0.04	0.2	ug/L	<MDL	
Acenaphthylene	0.008	0.04	ug/L	<MDL	
Acenaphthene	0.008	0.04	ug/L	<MDL	
Diethyl Phthalate	0.04	0.2	ug/L	0.089	B
Fluorene	0.016	0.08	ug/L	<MDL	
Phenanthrene	0.016	0.08	ug/L	<MDL	
Anthracene	0.016	0.08	ug/L	<MDL	
Di-N-Butyl Phthalate	0.04	0.2	ug/L	<MDL	
Fluoranthene	0.016	0.08	ug/L	<MDL	
Pyrene	0.016	0.08	ug/L	<MDL	
Benzyl Butyl Phthalate	0.08	0.4	ug/L	<MDL	
Benzo(a)anthracene	0.016	0.08	ug/L	<MDL	
Chrysene	0.016	0.08	ug/L	<MDL	
Bis(2-Ethylhexyl)Phthalate	0.4	2	ug/L	<MDL	
Di-N-Octyl Phthalate	0.04	0.2	ug/L	<MDL	
Benzo(b,j,k)fluoranthene	0.016	0.08	ug/L	<MDL	
Benzo(a)pyrene	0.016	0.08	ug/L	<MDL	
Indeno(1,2,3-Cd)Pyrene	0.016	0.08	ug/L	<MDL	
Dibenzo(a,h)anthracene	0.016	0.08	ug/L	<MDL	
Benzo(g,h,i)perylene	0.016	0.08	ug/L	<MDL	

SB:WG131800-2 MB:WG131800-1 Matrix: BLANK WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Naphthalene	0.008	0.04	ug/L	<MDL	2.5	1.65	66		15--93
2-Methylnaphthalene	0.008	0.04	ug/L	<MDL	2.5	1.65	66		40--160
Dimethyl Phthalate	0.04	0.2	ug/L	<MDL	2.5	2.26	90		40--160
Acenaphthylene	0.008	0.04	ug/L	<MDL	2.5	2.01	81		43--111
Acenaphthene	0.008	0.04	ug/L	<MDL	2.5	1.81	72		37--99
Diethyl Phthalate	0.04	0.2	ug/L	0.089	2.5	2.78	108		40--160
Fluorene	0.016	0.08	ug/L	<MDL	2.5	2.1	84		54--104
Phenanthrene	0.016	0.08	ug/L	<MDL	2.5	2.02	81		54--107
Anthracene	0.016	0.08	ug/L	<MDL	2.5	2.14	86		54--121

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Di-N-Butyl Phthalate	0.04	0.2 ug/L	<MDL	2.5	2.29	92	40--160
Fluoranthene	0.016	0.08 ug/L	<MDL	2.5	2.33	93	63--115
Pyrene	0.016	0.08 ug/L	<MDL	2.5	1.98	79	54--136
Benzyl Butyl Phthalate	0.08	0.4 ug/L	<MDL	2.5	2.67	107	40--160
Benzo(a)anthracene	0.016	0.08 ug/L	<MDL	2.5	2.23	89	65--117
Chrysene	0.016	0.08 ug/L	<MDL	2.5	1.88	75	44--114
Bis(2-Ethylhexyl)Phthalate	0.4	2 ug/L	<MDL	2.5	3.24	130	40--160
Di-N-Octyl Phthalate	0.04	0.2 ug/L	<MDL	2.5	2.73	109	40--160
Benzo(b,j,k)fluoranthene	0.016	0.08 ug/L	<MDL	7.5	4.56	61	50--121
Benzo(a)pyrene	0.016	0.08 ug/L	<MDL	2.5	2.6	104	45--133
Indeno(1,2,3-Cd)Pyrene	0.016	0.08 ug/L	<MDL	2.5	2.83	113	33--152
Dibenzo(a,h)anthracene	0.016	0.08 ug/L	<MDL	2.5	3.14	125	34--140
Benzo(g,h,i)perylene	0.016	0.08 ug/L	<MDL	2.5	2.48	99	29--134

MSD:WG131800-4 MS:WG131800-3 L59938-1 Matrix: SEWER WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project:423589-320-4 Pkey:STD
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueValue	MSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Naphthalene	0.0075	0.0377	ug/L	0.0534	2.36	1.69	69		24--85	2.36	1.56	64		8		0--40
2-Methylnaphthalene	0.0075	0.0377	ug/L	<MDL	2.36	1.82	77		40--160	2.36	1.93	82		6		0--40
Dimethyl Phthalate	0.038	0.189	ug/L	<MDL	2.36	2.52	107		40--160	2.36	2.42	103		4		0--40
Acenaphthylene	0.0075	0.0377	ug/L	0.0902	2.36	2.07	84		51--103	2.36	1.99	80		4		0--40
Acenaphthene	0.0075	0.0377	ug/L	<MDL	2.36	1.77	75		44--94	2.36	1.74	74		2		0--40
Diethyl Phthalate	0.038	0.189	ug/L	2.81	2.36	5.71	123		40--160	2.36	5.57	117		2		0--40
Fluorene	0.015	0.0755	ug/L	<MDL	2.36	2.13	90		54--113	2.36	2.08	88		2		0--40
Phenanthrene	0.015	0.0755	ug/L	0.022	2.36	1.91	80		57--108	2.36	1.89	79		1		0--40
Anthracene	0.015	0.0755	ug/L	<MDL	2.36	1.94	82		50--119	2.36	1.93	82		1		0--40
Di-N-Butyl Phthalate	0.038	0.189	ug/L	0.092	2.36	1.59	63		40--160	2.36	1.56	62		2		0--40
Fluoranthene	0.015	0.0755	ug/L	<MDL	2.36	1.73	73		58--115	2.36	1.73	74		0		0--40
Pyrene	0.015	0.0755	ug/L	<MDL	2.36	1.32	56		51--142	2.36	1.38	58		4		0--40
Benzyl Butyl Phthalate	0.075	0.377	ug/L	0.426	2.36	2.39	83		40--160	2.36	2.98	108		22		0--40
Benzo(a)anthracene	0.015	0.0755	ug/L	<MDL	2.36	1.67	71		62--117	2.36	1.77	75		5		0--40
Chrysene	0.015	0.0755	ug/L	<MDL	2.36	1.34	57		39--115	2.36	1.41	60		5		0--40
Bis(2-Ethylhexyl)Phthalate	0.38	1.89	ug/L	0.75	2.36	3.11	100		40--160	2.36	3.83	130		21		0--40
Di-N-Octyl Phthalate	0.038	0.189	ug/L	<MDL	2.36	2.3	97		40--160	2.36	2.55	108		10		0--40
Benzo(b,j,k)fluoranthene	0.015	0.0755	ug/L	<MDL	4.72	3.3	70		45--120	4.72	3.05	65		8		0--40
Benzo(a)pyrene	0.015	0.0755	ug/L	<MDL	2.36	1.95	83		38--134	2.36	1.99	84		2		0--40
Indeno(1,2,3-Cd)Pyrene	0.015	0.0755	ug/L	<MDL	2.36	2.01	85		38--130	2.36	1.92	81		5		0--40
Dibenzo(a,h)anthracene	0.015	0.0755	ug/L	<MDL	2.36	1.66	71		25--138	2.36	1.89	80		13		0--40
Benzo(g,h,i)perylene	0.015	0.0755	ug/L	<MDL	2.36	1.63	69		25--122	2.36	1.55	66		5		0--40

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	2-	d14-
	Fluorobip	Terphen
Surrogate:	henyl	yl
(Lab Limits)	33--96	63--125
L59938-1	82	83
L59938-3	79	84
WG131800-1	67	100
WG131800-2	80	88
WG131800-3	81	89
WG131800-4	94	104

Workgroup: WG131924 (bl#185 pahphth-sim) Run ID: R194992

MB:WG131924-1 Matrix: BLANK WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Naphthalene	0.008	0.04	ug/L	<MDL	
2-Methylnaphthalene	0.008	0.04	ug/L	<MDL	
Dimethyl Phthalate	0.04	0.2	ug/L	<MDL	
Acenaphthylene	0.008	0.04	ug/L	<MDL	
Acenaphthene	0.008	0.04	ug/L	<MDL	
Diethyl Phthalate	0.04	0.2	ug/L	0.593	B
Fluorene	0.016	0.08	ug/L	<MDL	
Phenanthrene	0.016	0.08	ug/L	<MDL	
Anthracene	0.016	0.08	ug/L	<MDL	
Di-N-Butyl Phthalate	0.04	0.2	ug/L	<MDL	
Fluoranthene	0.016	0.08	ug/L	<MDL	
Pyrene	0.016	0.08	ug/L	<MDL	
Benzyl Butyl Phthalate	0.08	0.4	ug/L	<MDL	
Benzo(a)anthracene	0.016	0.08	ug/L	<MDL	
Chrysene	0.016	0.08	ug/L	<MDL	
Bis(2-Ethylhexyl)Phthalate	0.4	2	ug/L	<MDL	
Di-N-Octyl Phthalate	0.04	0.2	ug/L	<MDL	
Benzo(b,j,k)fluoranthene	0.016	0.08	ug/L	<MDL	
Benzo(a)pyrene	0.016	0.08	ug/L	<MDL	
Indeno(1,2,3-Cd)Pyrene	0.016	0.08	ug/L	<MDL	
Dibenzo(a,h)anthracene	0.016	0.08	ug/L	<MDL	
Benzo(g,h,i)perylene	0.016	0.08	ug/L	<MDL	

SB:WG131924-2 MB:WG131924-1 Matrix: BLANK WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD
(Spike Blank, Method Blank)

LIMSView QC Report for Michigan Basin CSO - Data Validation for Wet Baseflow - Metals & Organics

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec. Qual	LabLimit
Naphthalene	0.008	0.04	ug/L	<MDL	2.5	1.33	53	15--93
2-Methylnaphthalene	0.008	0.04	ug/L	<MDL	2.5	1.4	56	40--160
Dimethyl Phthalate	0.04	0.2	ug/L	<MDL	2.5	2.62	105	40--160
Acenaphthylene	0.008	0.04	ug/L	<MDL	2.5	1.89	75	43--111
Acenaphthene	0.008	0.04	ug/L	<MDL	2.5	1.73	69	37--99
Diethyl Phthalate	0.04	0.2	ug/L	0.593	2.5	3.25	106	40--160
Fluorene	0.016	0.08	ug/L	<MDL	2.5	2.18	87	54--104
Phenanthrene	0.016	0.08	ug/L	<MDL	2.5	2.27	91	54--107
Anthracene	0.016	0.08	ug/L	<MDL	2.5	2.45	98	54--121
Di-N-Butyl Phthalate	0.04	0.2	ug/L	<MDL	2.5	2.52	101	40--160
Fluoranthene	0.016	0.08	ug/L	<MDL	2.5	2.52	101	63--115
Pyrene	0.016	0.08	ug/L	<MDL	2.5	2.23	89	54--136
Benzyl Butyl Phthalate	0.08	0.4	ug/L	<MDL	2.5	3.26	130	40--160
Benzo(a)anthracene	0.016	0.08	ug/L	<MDL	2.5	2.56	102	65--117
Chrysene	0.016	0.08	ug/L	<MDL	2.5	2.05	82	44--114
Bis(2-Ethylhexyl)Phthalate	0.4	2	ug/L	<MDL	2.5	4.16	166 *	40--160
Di-N-Octyl Phthalate	0.04	0.2	ug/L	<MDL	2.5	7.86	314 *	40--160
Benzo(b,j,k)fluoranthene	0.016	0.08	ug/L	<MDL	5	4.99	100	50--121
Benzo(a)pyrene	0.016	0.08	ug/L	<MDL	2.5	2.96	118	45--133
Indeno(1,2,3-Cd)Pyrene	0.016	0.08	ug/L	<MDL	2.5	3.11	125	33--152
Dibenzo(a,h)anthracene	0.016	0.08	ug/L	<MDL	2.5	1.85	74	34--140
Benzo(g,h,i)perylene	0.016	0.08	ug/L	<MDL	2.5	2.59	103	29--134

MSD:WG131924-4 MS:WG131924-3 L60018-3 Matrix: SEWER WTR Listtype:ORPAHPHPTH-SIM Method:SW846 3520C*SW846 8270D SIM Project:423589-320-4 Pkey:STD
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec. Qual	LabLimit	TrueValue	MSD Value	% Rec. Qual	RPD	Qual	LabLimit
Naphthalene	0.0075	0.0377	ug/L	0.0528	2.36	1.55	64	24--85	2.36	1.73	71	11		0--40
2-Methylnaphthalene	0.0075	0.0377	ug/L	0.131	2.36	1.85	73	40--160	2.36	2.15	86	15		0--40
Dimethyl Phthalate	0.038	0.189	ug/L	0.15	2.36	2.76	111	40--160	2.36	3	120	8		0--40
Acenaphthylene	0.0075	0.0377	ug/L	<MDL	2.36	1.97	83	51--103	2.36	2.15	91	9		0--40
Acenaphthene	0.0075	0.0377	ug/L	0.017	2.36	1.83	77	44--94	2.36	1.99	84	9		0--40
Diethyl Phthalate	0.038	0.189	ug/L	1.19	2.36	3.99	119	40--160	2.36	4.09	123	2		0--40
Fluorene	0.015	0.0755	ug/L	0.047	2.36	2.06	85	54--113	2.36	2.18	90	6		0--40
Phenanthrene	0.015	0.0755	ug/L	0.0842	2.36	1.91	78	57--108	2.36	2.02	82	6		0--40
Anthracene	0.015	0.0755	ug/L	<MDL	2.36	1.82	77	50--119	2.36	1.92	81	5		0--40
Di-N-Butyl Phthalate	0.038	0.189	ug/L	0.18	2.36	1.56	58	40--160	2.36	1.8	69	14		0--40
Fluoranthene	0.015	0.0755	ug/L	<MDL	2.36	1.52	65	58--115	2.36	1.59	68	4		0--40
Pyrene	0.015	0.0755	ug/L	0.019	2.36	1.26	52	51--142	2.36	1.2	50 *	5		0--40
Benzyl Butyl Phthalate	0.075	0.377	ug/L	0.17	2.36	2.14	84	40--160	2.36	2.07	81	3		0--40
Benzo(a)anthracene	0.015	0.0755	ug/L	<MDL	2.36	1.45	62	62--117	2.36	1.48	63	2		0--40

LIMSView QC Report for Michigan Basin CSO - Data Validation for Wet Baseflow - Metals & Organics

Chrysene	0.015	0.0755 ug/L	<MDL	2.36	1.16	49	39--115	2.36	1.18	50	2	0--40
Bis(2-Ethylhexyl)Phthalate	0.38	1.89 ug/L	1.9	2.36	4.08	94	40--160	2.36	4.3	104	5	0--40
Di-N-Octyl Phthalate	0.038	0.189 ug/L	<MDL	2.36	2.92	124	40--160	2.36	4.11	174 *	34	0--40
Benzo(b,j,k)fluoranthene	0.015	0.0755 ug/L	<MDL	4.72	2.86	61	45--120	4.72	2.92	62	2	0--40
Benzo(a)pyrene	0.015	0.0755 ug/L	<MDL	2.36	1.69	71	38--134	2.36	1.73	73	3	0--40
Indeno(1,2,3-Cd)Pyrene	0.015	0.0755 ug/L	<MDL	2.36	1.64	70	38--130	2.36	1.73	73	5	0--40
Dibenzo(a,h)anthracene	0.015	0.0755 ug/L	<MDL	2.36	0.959	41	25--138	2.36	0.982	42	2	0--40
Benzo(g,h,i)perylene	0.015	0.0755 ug/L	<MDL	2.36	1.36	58	25--122	2.36	1.35	57	1	0--40

	2-	d14-
	Fluorobip	Terphen
Surrogate:	henyl	yl
(Lab Limits)	33--96	63--125
L60018-1	65	64
L60018-2	88	69
L60018-3	79	70
WG131924-1	65	78
WG131924-2	58	70
WG131924-3	75	68
WG131924-4	76	71

Workgroup: WG132007 (bl#187 pahphth-sim) Run ID: R195043

MB:WG132007-1 Matrix: BLANK WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Naphthalene	0.008	0.04 ug/L	<MDL		
2-Methylnaphthalene	0.008	0.04 ug/L	<MDL		
Dimethyl Phthalate	0.04	0.2 ug/L	<MDL		
Acenaphthylene	0.008	0.04 ug/L	<MDL		
Acenaphthene	0.008	0.04 ug/L	<MDL		
Diethyl Phthalate	0.04	0.2 ug/L		0.047	B
Fluorene	0.016	0.08 ug/L	<MDL		
Phenanthrene	0.016	0.08 ug/L	<MDL		
Anthracene	0.016	0.08 ug/L	<MDL		
Di-N-Butyl Phthalate	0.04	0.2 ug/L	<MDL		
Fluoranthene	0.016	0.08 ug/L	<MDL		
Pyrene	0.016	0.08 ug/L	<MDL		
Benzyl Butyl Phthalate	0.08	0.4 ug/L	<MDL		
Benzo(a)anthracene	0.016	0.08 ug/L	<MDL		
Chrysene	0.016	0.08 ug/L	<MDL		

LIMSView QC Report for Michigan Basin CSO - Data Validation for Wet Baseflow - Metals & Organics

Bis(2-Ethylhexyl)Phthalate	0.4	2 ug/L	<MDL
Di-N-Octyl Phthalate	0.04	0.2 ug/L	<MDL
Benzo(b,j,k)fluoranthene	0.016	0.08 ug/L	<MDL
Benzo(a)pyrene	0.016	0.08 ug/L	<MDL
Indeno(1,2,3-Cd)Pyrene	0.016	0.08 ug/L	<MDL
Dibenzo(a,h)anthracene	0.016	0.08 ug/L	<MDL
Benzo(g,h,i)perylene	0.016	0.08 ug/L	<MDL

SB:WG132007-2 MB:WG132007-1 Matrix: BLANK WTR Listtype:ORPAHPHPTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec. Qual	LabLimit
Naphthalene	0.008	0.04	ug/L	<MDL	2.5	1	40	15--93
2-Methylnaphthalene	0.008	0.04	ug/L	<MDL	2.5	0.98	39 *	40--160
Dimethyl Phthalate	0.04	0.2	ug/L	<MDL	2.5	2.6	104	40--160
Acenaphthylene	0.008	0.04	ug/L	<MDL	2.5	1.61	65	43--111
Acenaphthene	0.008	0.04	ug/L	<MDL	2.5	1.44	57	37--99
Diethyl Phthalate	0.04	0.2	ug/L	0.047	2.5	3.22	127	40--160
Fluorene	0.016	0.08	ug/L	<MDL	2.5	2.07	83	54--104
Phenanthrene	0.016	0.08	ug/L	<MDL	2.5	2.26	90	54--107
Anthracene	0.016	0.08	ug/L	<MDL	2.5	2.33	93	54--121
Di-N-Butyl Phthalate	0.04	0.2	ug/L	<MDL	2.5	2.65	106	40--160
Fluoranthene	0.016	0.08	ug/L	<MDL	2.5	2.47	99	63--115
Pyrene	0.016	0.08	ug/L	<MDL	2.5	2.22	89	54--136
Benzyl Butyl Phthalate	0.08	0.4	ug/L	<MDL	2.5	3.07	123	40--160
Benzo(a)anthracene	0.016	0.08	ug/L	<MDL	2.5	2.55	102	65--117
Chrysene	0.016	0.08	ug/L	<MDL	2.5	1.98	79	44--114
Bis(2-Ethylhexyl)Phthalate	0.4	2	ug/L	<MDL	2.5	3.92	157	40--160
Di-N-Octyl Phthalate	0.04	0.2	ug/L	<MDL	2.5	5.31	213 *	40--160
Benzo(b,j,k)fluoranthene	0.016	0.08	ug/L	<MDL	5	5.01	100	50--121
Benzo(a)pyrene	0.016	0.08	ug/L	<MDL	2.5	3.01	120	45--133
Indeno(1,2,3-Cd)Pyrene	0.016	0.08	ug/L	<MDL	2.5	3	120	33--152
Dibenzo(a,h)anthracene	0.016	0.08	ug/L	<MDL	2.5	1.45	58	34--140
Benzo(g,h,i)perylene	0.016	0.08	ug/L	<MDL	2.5	2.44	98	29--134

MSD:WG132007-4 MS:WG132007-3 L60041-1 Matrix: SEWER WTR Listtype:ORPAHPHPTH-SIM Method:SW846 3520C*SW846 8270D SIM Project:423589-320-4 Pkey:STD
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec. Qual	LabLimit	TrueValue	MSD Value	% Rec. Qual	RPD	Qual	LabLimit
Naphthalene	0.0075	0.0377	ug/L	0.0715	2.36	1.99	81	24--85	2.36	2.01	82	1	0--40	
2-Methylnaphthalene	0.0075	0.0377	ug/L	0.012	2.36	2.3	97	40--160	2.36	2.39	101	4	0--40	
Dimethyl Phthalate	0.038	0.189	ug/L	<MDL	2.36	2.56	109	40--160	2.36	2.5	106	3	0--40	
Acenaphthylene	0.0075	0.0377	ug/L	<MDL	2.36	2.3	97	51--103	2.36	2.25	95	2	0--40	

LIMSView QC Report for Michigan Basin CSO - Data Validation for Wet Baseflow - Metals & Organics

Acenaphthene	0.0075	0.0377 ug/L	<MDL		2.36	2.26	96 *	44--94	2.36	2.28	96 *	1	0--40
Diethyl Phthalate	0.038	0.189 ug/L		1.9	2.36	4.46	108	40--160	2.36	4.55	112	2	0--40
Fluorene	0.015	0.0755 ug/L	<MDL		2.36	2.11	90	54--113	2.36	2.1	89	0	0--40
Phenanthrene	0.015	0.0755 ug/L	<MDL		2.36	1.73	73	57--108	2.36	1.77	75	2	0--40
Anthracene	0.015	0.0755 ug/L	<MDL		2.36	2.83	120 *	50--119	2.36	2.95	125 *	4	0--40
Di-N-Butyl Phthalate	0.038	0.189 ug/L		0.93	2.36	2.7	75	40--160	2.36	2.63	72	3	0--40
Fluoranthene	0.015	0.0755 ug/L		0.03	2.36	2.1	88	58--115	2.36	2	84	5	0--40
Pyrene	0.015	0.0755 ug/L		0.025	2.36	1.57	66	51--142	2.36	1.65	69	4	0--40
Benzyl Butyl Phthalate	0.075	0.377 ug/L		0.14	2.36	2.92	118	40--160	2.36	2.95	119	1	0--40
Benzo(a)anthracene	0.015	0.0755 ug/L	<MDL		2.36	2.13	90	62--117	2.36	2.17	92	2	0--40
Chrysene	0.015	0.0755 ug/L	<MDL		2.36	1.62	69	39--115	2.36	1.64	70	1	0--40
Bis(2-Ethylhexyl)Phthalate	0.38	1.89 ug/L		2.8	2.36	5.38	110	40--160	2.36	6.07	139	12	0--40
Di-N-Octyl Phthalate	0.038	0.189 ug/L	<MDL		2.36	5.68	241 *	40--160	2.36	9.15	388 *	47 *	0--40
Benzo(b,j,k)fluoranthene	0.015	0.0755 ug/L		0.023	4.72	4.14	87	45--120	4.72	4.15	87	0	0--40
Benzo(a)pyrene	0.015	0.0755 ug/L	<MDL		2.36	2.54	108	38--134	2.36	2.76	117	9	0--40
Indeno(1,2,3-Cd)Pyrene	0.015	0.0755 ug/L	<MDL		2.36	2.09	89	38--130	2.36	2.54	108	19	0--40
Dibenzo(a,h)anthracene	0.015	0.0755 ug/L	<MDL		2.36	1.07	45	25--138	2.36	1.02	43	5	0--40
Benzo(g,h,i)perylene	0.015	0.0755 ug/L	<MDL		2.36	1.67	71	25--122	2.36	1.79	76	7	0--40

	2-	d14-
	Fluorobip	Terphen
Surrogate:	henyl	yl
(Lab Limits)	33--96	63--125
L60041-1	89	73
L60041-2	91	81
L60041-3	74	73
WG132007-1	68	73
WG132007-2	74	68
WG132007-3	81	65
WG132007-4	78	71

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4xRule indicates no MS/MSD recovery was calculated due to the 4x rule.



Technical Memorandum

Date: February 1, 2015

To: Richard Jack, King County Toxicology and Contaminant Assessment Group
Debra Williston, King County Toxicology and Contaminant Assessment Group

From: Carly Greyell, King County Toxicology and Contaminant Assessment Group

Subject: Data Validation Report
Michigan CSO Study Storm Event Samples – November 2013 to December 2014

This technical memorandum summarizes the data validation review performed on 29 storm event samples collected from within the Michigan Combined Sewer Overflow (CSO) basin between November 6, 2013 and December 10, 2014. The sampling and analysis of these samples are specified in the project sampling and analysis plan (SAP); *Lower Duwamish Waterway Source Control, Brandon Combined Sewer Basin Study, Sampling and Analysis Plan* (King County 2011) and the SAP addendum *Lower Duwamish Waterway Source Control, Michigan Combined Sewer Basin Study, Sampling and Analysis Plan Addendum* (King County 2013). The 29 storm event samples were submitted for analysis of total and dissolved organic carbon (TOC and DOC), total suspended solids (TSS), total and dissolved metals, polycyclic aromatic hydrocarbons (PAHs) and phthalates.

1.0 INTRODUCTION

This data validation review has been based, in part, on guidance found in *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review* (EPA 2008) and *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review* (EPA 2010), as well as the project SAP (King County 2011) and SAP addendum (King County 2013). Materials reviewed included Batch Reports and Analytical Quality Control (QC) Reports downloaded from the King County Laboratory Information System (LIMS) database and are included in this memorandum as Attachment A. Also reviewed were data anomaly forms (DAF), which are available upon request. The QC parameters reviewed during this data validation include: holding time, method blanks, spike blanks, laboratory control samples, matrix spikes, matrix spike duplicates, laboratory duplicates, and surrogates, all of which are described below.

1.1. Holding Time

The analytical holding time is a method-specific timeframe, during which sample preparation and analysis should occur to provide valid data. All samples should be analyzed within this prescribed holding time.

1.2. Method Blank

A method blank is an aliquot of clean reference matrix that is generally processed through the entire analytical procedure. Analysis of the method blank is used to evaluate the levels of contamination that might be associated with the processing and analysis of samples. Method blanks were used during all analyses. All method blank results should be less than the method detection limit (MDL).

1.3. Spike Blanks

A spike blank is an aliquot of the clean reference matrix used for the method blank, to which a known concentration of target analyte(s) has been added. The spiked aliquot is processed through the entire analytical procedure. Analysis of the spike blank is used as an indicator of method accuracy. Spike blanks were used during organics, metals, and TOC/DOC analyses. Spike blanks are not addressed in the *National Functional Guidelines*; however, King County has empirically-derived control limits for spike blank analytes, which are shown on the attached QC reports. Spike blank results should be within these control limits.

1.4. Matrix Spike

A matrix spike is a sample aliquot fortified with a known concentration of a target analyte(s). The spiked sample is processed through the entire analytical procedure. Analysis of the matrix spike is used as an indicator of sample matrix effect on the recovery of target analyte(s). Matrix spikes were used during organics, metals, including mercury, and TOC/DOC analyses. Control limits for individual organic analytes and organic carbon are not addressed in the *National Functional Guidelines*; however, King County has empirically-derived control limits for percent recoveries of these matrix spike analytes, which are shown on the attached QC reports. Matrix spike recoveries should be within these control limits. Control limits for trace metal matrix spike recoveries are addressed in the *National Functional Guidelines*. All trace metal matrix spike recoveries should be within the 75 to 125% control limits for all analytes (EPA 2010).

1.5. Matrix Spike Duplicate

A matrix spike duplicate is a second sample aliquot fortified with a known concentration of a target analyte(s). The spiked sample is processed through the entire analytical procedure. Analysis of the matrix spike duplicate is used as an additional indicator of sample matrix effect on the recovery of target analyte(s) as well as an indicator of method precision. A matrix spike duplicate was used routinely during mercury and organics analysis. The relative percent difference (RPD) between matrix spike and matrix spike duplicate results for organic analytes is not addressed in the *National Functional Guidelines*; however, King

County used an SAP-specified control limit of 40% for this project. The RPD control limit between mercury matrix spike duplicate results is 20% (EPA 2010).

1.6. Laboratory Control Sample

A laboratory control sample is a sample of known analyte concentration(s) that is prepared in the lab from a separate source of analyte(s) relative to the calibration standards. Because the laboratory control sample analysis follows the entire analytical process, it is stored and prepared following the same procedures as a field sample. Analysis of a laboratory control sample is used as an indicator of method accuracy and long-term analytical precision.

Laboratory control samples were used during TOC/DOC and TSS analyses. King County used SAP-specified percent recovery control limits of 85 to 115% for TOC/DOC analysis and 80 to 120% for TSS analysis on this project. Percent recoveries for laboratory control sample results should be within these control limits.

1.7. Laboratory Duplicate

A laboratory duplicate is a second aliquot of a sample, processed concurrently and in an identical manner with the original sample. Analysis of the laboratory duplicate is used as an indicator of method precision and laboratory subsampling procedures. The laboratory duplicate can also be used to provide information regarding the homogeneity of the sample matrix. Laboratory duplicates were used during TOC/DOC, TSS and ICP-MS metals analyses. QC results are reported as an RPD between the sample and laboratory duplicate results.

Control limits for conventional analyses are also not addressed under the *National Functional Guidelines*. King County used RPD control limits of 20% for TOC/DOC analysis and 25% for TSS analysis, as specified in the SAP for this project. The RPD for laboratory duplicate results should be below these control limits. Control limits for ICP-MS laboratory duplicates are addressed in the *National Function Guidelines*. The RPD between all trace metal laboratory duplicate results should be below 20% (EPA 2010). Laboratory duplicate RPD results for samples in which the concentration is less than the reporting detection limit (RDL) will not be qualified based solely on whether the RPD is greater than the QC limit. This is based on the inherent analytical variability between the MDL and RDL, which is the limit of practical quantitation.

1.8. Surrogates

A surrogate is a known concentration of non-target analyte which is added to each sample (both analytical and QC samples) prior to extraction and analysis for all trace organic analyses. Surrogate recovery is used as a sample-specific indication of method or matrix bias for target analytes. The surrogate is selected to behave in a similar manner to the target analytes.

The King County Environmental Laboratory used two surrogate compounds during analysis of trace organic compounds, 2-fluorobiphenyl and d14-terphenyl. King County has empirically-derived laboratory QC control limits for these surrogate recoveries, which are 33-96% and 63-125%, respectively. Surrogate recoveries for all analytical and QC samples

should be within these control limits. These two surrogate compounds are not addressed in *National Functional Guidelines*.

2.0 CONVENTIONALS

Conventional analytes included total suspended solids and total and dissolved organic carbon. LIMS batch and analytical QC reports for conventional analyses are included as Attachment A to this memorandum.

2.1. Total Suspended Solids

Twenty-nine samples were submitted for TSS analysis by gravimetric determination following Standard Method SM2540-D (APHA 1998). The samples were batched into the 12 workgroups shown in Table 2-1. Each workgroup included analysis of a minimum of three QC sample-types; method blanks (MB), laboratory control samples (LCS), and laboratory duplicates (LD).

Table 2-1
TSS Workgroups and QC Samples

Workgroup	Samples	MB	LCS	LD
WG129814	L59155-1, -3	X	X	X
WG129970	L59241-1, -3	X	X	X
WG130704	L59471-1 through -3	X	X	X
WG131133	L59681-1 through -3	X	X	X
WG131298	L59745-1 through -3	X	X	X
WG131447	L59833-1, -2	X	X	X
WG132285	L60114-1 through -3	X	X	X
WG132597	L60299-1 through -3	X	X	X
WG135583	L60387-2, -3	X	X	X
WG135754	L61501-2, -3	X	X	X
WG135944	L61560-1, -3	X	X	X
WG136640	L61610-1, -3	X	X	X

2.1.1. Holding Time

All 29 TSS samples were analyzed within the prescribed 7-day holding time.

2.1.2. Method Blank Results

TSS results in the method blanks associated with all 12 workgroups were less than the MDL.

2.1.3. Laboratory Control Sample Results

TSS recoveries in the laboratory control samples associated with all 12 workgroups were within the 80 to 120% QC limits.

2.1.4. Laboratory Duplicate Results

RPDs between TSS results in the project-specific laboratory duplicates associated with all six workgroups were below the 25% QC limit.

2.2. Total and Dissolved Organic Carbon

Twenty-nine samples were submitted for TOC/DOC analysis by Standard Method SM5310-B (APHA 1998), which is a high-temperature combustion/infrared detection method. The samples were batched into the eleven workgroups shown in Table 2-2. Each workgroup included analysis of a minimum of five QC sample-types; method blanks, spike blanks (SB), laboratory control samples, matrix spikes (MS), and laboratory duplicates.

Table 2-2
TOC/DOC Workgroups and QC Samples

Workgroup	Samples	MB	SB	LCS	MS	LD
WG129830	L59155-1, -3	X	X	X	X	X
WG130020	L59241-1, -3	X	X	X	X	X
WG130703	L59471-1 through -3	X	X	X	X	X
WG131347	L59681-1 through -3; L59745-1 through -3; L59833-1, -2	X	X	X	X	X
WG132434	L60114-1 through -3	X	X	X	X	X
WG132579	L60299-1 through -3 (TOC only)	X	X	X	X	X
WG132867	L60299-1 through -3 (DOC only)	X	X	X	X	X
WG135611	L60387-2, -3	X	X	X	X	X
WG135720	L61501-2, -3	X	X	X	X	X
WG135937	L61560-1, -3	X	X	X	X	X
WG136539	L61610-1, -3	X	X	X	X	X

2.2.1. Holding Time

All 29 TOC/DOC samples were analyzed within the prescribed 28-day holding time.

2.2.2. Method Blank Results

In workgroup WG132867, a method blank had DOC results greater than the MDL, but less than the RDL at 0.82 mg/L. This method blank was associated with samples L60299-2 and -3, but both had concentrations greater than 10 times the method blank concentrations; therefore, no qualifications were necessary due to method blank results. All other method blanks for this project had results less than MDL. TOC and DOC results should not be qualified based on method blank results.

2.2.3. Spike Blank Results

The spike blank recoveries for TOC and DOC in each of the eleven workgroups were all within the laboratory QC limits of 80 to 120%.

2.2.4. Laboratory Control Sample Results

TOC and DOC recoveries in the laboratory control samples associated with each of the eleven workgroups were all within the 85 to 115% QC limits.

2.2.5. Matrix Spike Results

TOC and DOC matrix spike recoveries in each of the eleven workgroups were all within the 75 to 125% QC limits.

2.2.6. Laboratory Duplicate Results

RPDs between TOC and DOC results in the project-specific laboratory duplicates in each of the eleven workgroups were all less than the 20% QC limit.

3.0 TRACE METALS

Twenty-nine samples were submitted for analysis of total metals and 28 samples were submitted for dissolved metals analysis. These included mercury and other trace metals. LIMS batch and analytical QC reports for metals analyses are included as Attachment A to this memorandum.

3.1. Total and Dissolved Mercury

Total and dissolved mercury analysis was performed using cold vapor atomic absorption spectroscopy (CVAA) according to EPA Method 245.1 (EPA 1994). The 29 samples were batched into the ten workgroups shown in Table 3-1. Each workgroup included analysis of a minimum of four QC sample-types; method blanks, spike blanks, matrix spikes, and matrix spike duplicates (MSD).

Table 3-1
Mercury (Total and Dissolved) Workgroups and QC Samples

Workgroup	Samples	MB	SB	MS	MSD
WG130134	L59155-1,-3; L59241-3; L59241-1 (total only)	X	X	X	X
WG130225	L59241-1 (dissolved only)	X	X	X ^A	X ^A
WG130761	L59471-1 through -3	X	X	X ^A	X ^A
WG131023	L59681-2 (dissolved only)	X	X	X	X
WG131314	L59681-1, -3; L59681-2 (total only)	X	X	X	X
WG131689	L59745-2, -3; L59833-1, -2; L59745-1 (total only)	X	X	X	X
WG132594	L60114-1 through -3; L60299-1 through -3	X	X	X	X
WG135993	L60387-2, -3	X	X	X	X
WG135996	L61501-2, -3; L61560-1, -3	X	X	X	X
WG136595	L61610-1, -3	X	X	X ^A	X ^A

X^A – matrix spikes performed on sample from a different project with a matrix of either effluent or baseflow sewer samples.

3.1.1. Holding Time

All 29 total and dissolved mercury samples were analyzed within the prescribed 28-day holding time.

3.1.2. Method Blank Results

Both total and dissolved mercury results in the method blanks associated with each of the ten workgroup were all less than the MDL.

3.1.3. Spike Blank Results

Mercury spike blank recoveries in each of the ten workgroups were all within the laboratory QC limits of 85 to 115%.

3.1.4. Matrix Spike and Matrix Spike Duplicate Results

In several mercury workgroups, the sample on which the matrix spike and matrix spike duplicate were performed was of a slightly different matrix than the samples collected for this project (e.g., effluent instead of combined sewer/stormwater matrix). The matrices are sufficiently similar to provide assessment of precision from the matrix spike and matrix spike duplicate results for mercury. For all matrix spikes and matrix spike duplicates performed on samples from this project, recoveries were within the 75 to 125% QC limits. For all workgroups, RPDs between matrix spike and matrix spike duplicate results were all less than the 20% QC limit.

3.1.5. Sample Handling Issue

All dissolved mercury samples were filtered outside of the method-specified 15-minute holding time. As a result, all dissolved mercury results should be qualified with a “J” flag and considered estimated with an unknown bias.

3.2. Total ICP-MS Metals

Total metals, including arsenic, cadmium, chromium, copper, lead, nickel, silver, vanadium, and zinc, were analyzed by inductively coupled plasma mass spectroscopy (ICP-MS) following EPA Methods 200.8 (EPA 1995). The samples were batched into the eight workgroups shown in Table 3-2. Each of the workgroups included a minimum of four QC sample-types; method blanks, spike blanks, matrix spikes, and laboratory duplicates.

Table 3-2
Total ICP-MS Workgroups and QC Samples

Workgroup	Samples	MB	SB	MS	LD
WG129956	L59155-1, -3	X	X	X ^A	X ^A
WG130213	L59241-1, -3	X	X	X ^A	X ^A
WG130880	L59471-1 through -3	X	X	X	X
WG131375	L59681-1 through -3; L59745-1 through -3	X	X	X	X
WG131821	L59833-1, -2	X	X	X ^A	X ^A
WG132571	L60114-1 through -3; L60299-1 through -3	X	X	X	X
WG136067	L60387-2, -3; L61501-2, -3; L61560-1, -3	X	X	X	X
WG136874	L61610-1, -3	X	X	X ^A	X ^A

X^A – matrix spikes performed on sample from a different project with a matrix of baseflow sewer samples.

3.2.1. Holding Time

All 29 total metal samples were analyzed within the prescribed 6-month holding time.

3.2.2. Method Blank Results

Results for zinc in the method blanks associated with workgroup WG131821 was greater than the MDL, but less than the RDL. The results for zinc in all samples associated with these workgroups were greater than the RDL and more than ten times the concentrations in the method blank, resulting in no additional qualifiers. Results for each total metal in all other method blanks were less than the MDL.

3.2.3. Spike Blank Results

All total metal spike blank recoveries in each of the eight workgroups were within the 85 to 115% QC limits.

3.2.4. Matrix Spike Results

All total metal matrix spike recoveries in each of the eight workgroups were within the 75 to 125% QC limits.

3.2.5. Laboratory Duplicate Results

In each of the eight workgroups, RPDs between total metal laboratory duplicate results that were greater than the RDL were all below the 20% QC limit.

3.3. Dissolved ICP-MS Metals

Dissolved metals, including arsenic, cadmium, chromium, copper, lead, nickel, silver, vanadium, and zinc, were analyzed by inductively coupled plasma mass spectroscopy (ICP-MS) following EPA Methods 200.8 (EPA 1995). The samples were batched into the seven workgroups shown in Table 3-3. Each of these workgroups included a minimum of four QC sample-types; method blanks, spike blanks, matrix spikes, and laboratory duplicates.

Table 3-3
Dissolved ICP-MS Workgroups and QC Samples

Workgroup	Samples	MB	SB	MS	LD
WG129957	L59155-1 and -3	X	X	X	X
WG130335	L59241-1 and -3	X	X	X	X
WG130931	L59471-1 through -3	X	X	X	X
WG131550	L59681-1 through -3; L59745-2 and -3; L59833-1 and -2	X	X	X	X
WG132572	L60114-1 through -3; L60299-1 through -3	X	X	X	X
WG136055	L60387-2 and -3; L61501-2 and -3; L61560-1 and -3	X	X	X	X
WG136970	L61610-1 and -3	X	X	X	X

3.3.1. Holding Time

All 28 dissolved metal samples were analyzed within the prescribed 6-month holding time.

3.3.2. Method Blank Results

Results for each dissolved metal in the method blanks associated with samples from this project were all less than the MDL.

3.3.3. Spike Blank Results

All dissolved metal spike blank recoveries in each of the seven workgroups were within the 85 to 115% QC limits.

3.3.4. Matrix Spike Results

All dissolved metal matrix spike recoveries in each of the seven workgroups were within the 75 to 125% QC limits.

3.3.5. Laboratory Duplicate Results

In each of the seven workgroups, RPDs between dissolved metal laboratory duplicate results that were greater than the RDL were all below the 20% QC limit.

3.3.6. Sampling Handling Issue

All dissolved ICP-MS metals samples were filtered outside of the method-specified 15-minute holding time. As a result, all dissolved ICP-MS metals results should be qualified with a "J" flag and considered estimated with an unknown bias.

4.0 TRACE ORGANICS

Twenty-nine samples were submitted for analysis of 16 PAHs and six phthalate compounds by gas chromatography mass spectroscopy (GC-MS) following EPA Methods 3520C/8270D – SW846 (EPA 2007). The instrument method was modified by using selected ion monitoring (SIM). The samples were batched into the 12 workgroups shown in Table 4-1, each of which included a minimum of five QC sample-types; method blanks, spike blanks, spike blank duplicates, matrix spikes, matrix spike duplicates, lab duplicates and surrogates. While the SAP specified a matrix spike duplicate and laboratory duplicate for each workgroup, there was often insufficient sample volume to run these QC samples. Laboratory staff analyzed a spike blank duplicate instead of a matrix spike duplicate in these cases, as shown in Table 4-1. LIMS batch and analytical QC reports for all organics analysis are included as Attachment A to this memorandum.

Table 4-1
Trace Organics Workgroups and QC Samples

Workgroup	Samples	MB	SB	SBD	MS	MSD	LD	Surrogates
WG129823	L59155-1 and -3	X	X		X	X	X	X
WG129996	L59241-1 and -3	X	X		X	X		X
WG130696	L59471-1 through -3	X	X	X	X			X
WG131154	L59681-1 through -3	X	X	X	X			X
WG131288	L59745-1 through -3	X	X	X	X			X
WG131494	L59833-1 and -2	X	X		X	X		X
WG132256	L60114-1 through -3	X	X		X	X		X
WG132664	L60299-1 through -3	X	X		X	X		X

Workgroup	Samples	MB	SB	SBD	MS	MSD	LD	Surrogates
WG135659	L60387-2 and -3	X	X	X	X			X
WG135835	L61501-2 and -3	X	X		X	X		X
WG135984	L61560-1 and -3	X	X		X	X		X
WG136681	L61610-1 and -3	X	X		X	X		X

4.1. Holding Time

All 29 PAH and phthalate samples were extracted within the 7-day holding time and analyzed within the subsequent 40-day holding time.

4.2. Method Blank Results

Diethyl phthalate was detected in eight out of 12 method blanks. In all but one, the detected concentration was less than the RDL. In three of these method blanks, one other phthalate (bis(2-ethylhexyl)phthalate or di-n-butyl phthalate) was detected. No PAHs were detected in any method blanks. Based on the recommendations in *National Function Guidelines* (EPA 2008), the following data qualification regime should be employed as a result of method blank contamination:

- When the method blank concentration is greater than the MDL and the sample concentration is less than the RDL, the sample value should be reported as the numeric RDL value and the result should be qualified with a “U” flag and considered undetected.
- When the method blank concentration is less than the RDL and the sample concentration is greater than the RDL but less than five times the method blank concentration, the numeric sample value should be used as reported but the result should be qualified with a “U” flag and considered undetected.
- When the method blank concentration is less than the RDL and the sample concentration is greater than the RDL and greater than five times the method blank concentration, the sample result may be used as reported, without qualification.
- When the method blank concentration is greater than the RDL and the sample concentration is less than five times the method blank concentration, the sample result may be used as reported but the result should be qualified with a “U” flag. The data validator may choose to reject the data in this case.
- When the method blank concentration is greater than the RDL and the sample concentration is greater than five times the method blank concentration, the sample result may be used as reported without qualification.

Following this qualification regime, 11 phthalate results should be qualified based on method blank results. Final data qualification is presented in Table 1 at the end of this memorandum.

4.3. Spike Blank Results

The 2-methylnaphthalene recovery of 27% for the spike blank associated with workgroup WG129823 was below the 40% lower QC limit. The fluorene recovery in this workgroup was 52%, below the 54% lower QC limit. All associated sample data in this workgroup for 2-methylnaphthalene and fluorene should be qualified with a “J” flag and considered estimates with a low bias.

In workgroup WG131288, recoveries for several compounds were below the lower QC limit in either the spike blank or spike blank duplicate. Recoveries for 2-methylnaphthalene were 21% and 20% in the spike blank and spike blank duplicate, respectively, below the 40% lower QC limit. Acenaphthylene recoveries were 37% and 44%, and were close or below the lower QC limit of 43%. Acenaphthene recoveries were 31% and 37%, and were at or below the lower QC limit of 37%. The RPD between the spike blank and spike blank duplicate results for these compounds were all within the 40% QC limits. For all associated samples, detected results for 2-methylnaphthalene, acenaphthylene and acenaphthene should be qualified with a “J” flag and considered estimates with a low bias and nondetect results should be qualified with a “UJ” flag and considered estimated nondetects with a low bias. The spike blank recovery for fluorene in this workgroup was 50%, below the 54% lower QC limit, but the spike blank duplicate recovery was 62%. The RPD between the spike blank and spike blank duplicate results was within the 40% QC limits at 21%. Fluorene results associated with this workgroup may be used as reported without qualification based on the spike blank results.

In workgroup WG132664, the spike blank recovery for 2-methylnaphthalene was 31%, below the 40% lower QC limit. For all associated samples, detected results for 2-methylnaphthalene should be qualified with a “J” flag and considered estimates with a low bias and nondetects results should be qualified with a “UJ” flag and considered estimated nondetects with a low bias.

In workgroup WG136681, the spike blank recovery for bis(2-ethylhexyl)phthalate was -71%, well below the lower QC limit of 40%. The negative recovery indicates an extremely low bias, but bis(2-ethylhexyl)phthalate results for other QC samples in this workgroup must be taken into account. The method blank result for bis(2-ethylhexyl)phthalate in this workgroup was greater than the RDL and the matrix spike and matrix spike duplicate results indicate a potential high bias. Due to the inconsistent nature of the bis(2-ethylhexyl)phthalate QC results, the associated sample data were rejected.

All other spike blank and spike blank duplicate recoveries were within the QC limits and all other RPDs between results were below the 40% QC limit.

4.4. Matrix Spikes/Matrix Spike Duplicates

In workgroup WG129823, there were seven compounds with matrix spike recoveries well below the lower QC limit (all less than 10%) and matrix spike duplicate recoveries greater than the upper QC limit; often by twice the QC limits or more. This suggests severe matrix interference and results for these compounds [fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(b,j,k)fluoranthene and benzo(a)pyrene] in the sample on which the matrix spike was performed should be rejected. Additionally, matrix spike duplicate recoveries for phenanthrene, indeno(1,2,3-Cd)pyrene and benzo(g,h,i)perylene exceeded the upper QC limits. While the matrix spike recoveries were within the QC limits, RPDs between the matrix spike and matrix spike duplicate recoveries were 73%, 81% and 65%, respectively, exceeding the 40% QC limit. The associated sample results for these compounds will be qualified with a “J” flag and considered estimates with an unknown bias. Since spike blank recoveries for all of these

compounds were within QC limits, these flags will only be applied to the sample on which the matrix spike was performed.

The recoveries for 2-methylnaphthalene and naphthalene in the matrix spike associated with workgroup WG130696 could not be properly assessed from a QC standpoint due to the low spike-to-sample concentration ratio, which exceeded the four times rule. While this rule is only covered in the *National Function Guidelines* (EPA 2010) for metals, the same logic applies to organics. Although this means matrix influence on accuracy cannot be determined, the spike blank results showed acceptable accuracy for 2-methylnaphthalene and naphthalene in this workgroup; therefore, associated sample data will not be qualified. In this same workgroup, matrix spike recoveries for phenanthrene and bis(2-ethylhexyl)phthalate were below the lower QC limit. Associated sample data should be qualified with “J” flags and considered estimates with low bias. Since spike blank and spike blank duplicate recoveries for all of these compounds were within QC limits, these flags will only be applied to the sample on which the matrix spike was performed.

In workgroup WG131154, matrix spike recoveries of 176% and 187% for benzyl butyl phthalate and di-n-octyl phthalate, respectively, exceeded the upper QC limit of 160%. Associated sample data should be qualified with “J” flags and considered estimates with high bias. Since spike blank recoveries for these compounds were within QC limits, these flags will only be applied to the sample on which the matrix spike was performed.

In workgroup WG131494, matrix spike duplicate recoveries for naphthalene, acenaphthene and phenanthrene exceeded the upper QC limits. The RPDs between matrix spike and matrix spike duplicate results were within the 40% QC limit, and matrix spike recoveries were within one to two percent of the upper QC limits. As a result, associated sample data should be qualified with “J” flags and considered estimates with high bias. Matrix spike and matrix spike duplicate recoveries for fluorene and bis(2-ethylhexyl)phthalate exceeded the upper QC limit, and the RPDs were within the 40% QC limit. Associated sample data should be qualified with a “J” flag and considered estimated with a high bias. Since spike blank recoveries for all of these compounds were within QC limits, these flags will only be applied to the sample on which the matrix spike was performed. Matrix spike and matrix spike duplicate recoveries for 2-methylnaphthalene could not be properly assessed from a QC standpoint due to the low spike-to-sample concentration ratio. Although this means matrix influence on accuracy cannot be determined, the spike blank results showed acceptable accuracy for 2-methylnaphthalene in this workgroup; therefore, associated sample data will not be qualified.

In workgroup WG132256, matrix spike and matrix spike duplicate recoveries for fluoranthene, pyrene and benzo(a)anthracene were below the lower QC limits. The RPDs between matrix spike and matrix spike duplicate results were all within the 40% QC limit. The associated sample results should be qualified with a “J” flag and considered estimated with a low bias. Since spike blank recoveries for all of these compounds were within QC limits, these flags will only be applied to the sample on which the matrix spike was performed. The matrix spike duplicate recovery for phenanthrene was just below the lower QC limit of 57%, at 55%, but the matrix

spike recovery and RPD between the results were within the QC limits; therefore, associated sample data will not be qualified based on the matrix spike results.

In workgroup WG132664, matrix spike duplicate recovery for 2-methylnaphthalene was below the 40% lower QC limit. The matrix spike recovery and RPD between the results were both within the QC limits, but the spike blank recovery for 2-methylnaphthalene was also below the lower QC limit. Associated sample results were already qualified with a “J” flag and considered estimated with a low bias, due to spike blank results.

In workgroup WG135659, the matrix spike recovery for benzo(a)anthracene was below the lower QC limit of 62%, at 44%. The associated sample data should be qualified with a “J” flag and considered estimated with a low bias. The bis(2-ethylhexyl)phthalate matrix spike recovery of 1,668% grossly exceeded the upper QC limit of 160%. The bis(2-ethylhexyl)phthalate result associated with this matrix spike should be qualified with an “R” flag and rejected. Since spike blank recoveries for these compounds were within QC limits, these flags will only be applied to the sample on which the matrix spike was performed. In this same matrix spike, recoveries for 2-methylnaphthalene and naphthalene could not be properly assessed from a QC standpoint due to the low spike-to-sample concentration ratio. Although this means matrix influence on accuracy cannot be determined, the spike blank results showed acceptable accuracy for 2-methylnaphthalene and naphthalene in this workgroup; therefore, associated sample data will not be qualified.

In workgroup WG136681, the matrix spike recovery for bis(2-ethylhexyl)phthalate exceeded the upper QC limit of 160%, at 285%. The matrix spike duplicate recovery was within QC limits, but the RPD between the results exceeded the 40% QC limit, at 92%. Since this compound was detected in the method blank at a concentration greater than the RDL, and the spike blank recovery was well below the lower QC limit, all bis(2-ethylhexyl)phthalate results in this workgroup should be rejected and not included in further analysis.

All other matrix spike and matrix spike duplicate recoveries were within the QC limits and all other RPDs between results were below the 40% QC limit.

4.5. Surrogates

Recoveries of the surrogate 2-fluorobiphenyl exceeded the upper QC limit for two of 29 environmental samples (L59681-2 and L60299-3) and one of 49 QC samples (MSD of workgroup WG131494), with a maximum of 105%. This surrogate is associated with 2-methylnaphthalene, acenaphthene, acenaphthylene, fluorene, naphthalene, diethyl phthalate and dimethyl phthalate. Detected results of these compounds in the two environmental samples should be qualified with a “J” flag and considered estimated with a high bias, unless the result is already qualified with a “J” and an unknown or low bias, in which case it will result in unknown bias.

Recoveries of the surrogate d14-terphenyl were below the lower QC limit in one of 29 environmental samples (L60114-2), at 57%. This surrogate is associated with benzo(a)anthracene, bis(2-ethylhexyl)phthalate, benzyl butyl phthalate, chrysene, pyrene,

fluoranthene and di-n-butyl phthalate. All results of these compounds in this environmental sample were detected and should be qualified with a “J” flag and considered estimated with a low bias.

Recoveries in all other analytical and QC samples in each of the 12 workgroups were within the 33-96% and 63-125% QC limits, respectively.

5.0 DATA USABILITY

As a general data reporting format, sample results that are reported as “<MDL” should be assigned a “U” flag in all cases and results that are reported as “<RDL” should be qualified with a “J” flag and considered estimated with an unknown bias. All other analytical results for all samples included in this dataset may be used as reported, without qualification, with the exceptions summarized in the previous sections and Table 1 at the end of this memorandum. LIMS Batch and QC reports are provided as Attachment A.

6.0 REFERENCES

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Basin Study – Sampling and Analysis Plan Addendum. Prepared by Richard Jack and Debra Williston, Water and Land Resources Division. Seattle, Washington.

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Should you have questions regarding any of the information contained in this data validation memorandum, please don't hesitate to contact me.

Sincerely,

Carly Greyell
King County, Toxicology and Contaminant Assessment Group
206-477-4703
carly.greyell@kingcounty.gov

ATTACHMENT A

LIMS BATCH AND QC REPORTS

Table 1. Michigan CSO Storm Event Samples - Data Validation Flags and Bias Notation

WORKNUM	LOCATOR	COLLECTDATE	Sample ID	Sample Type	PARMNAME	NUMVALUE	Units	Lab Qual	MDL	RDL	DV Value	DV Qual	Bias
WG130134	MH064-126	11/6/2013	L59155-1	Storm	Mercury, Dissolved, CVAA	0.0198	ug/L	H	0.005	0.015	0.0198 J		unknown
WG130134	MH071-099	11/6/2013	L59155-3	Storm	Mercury, Dissolved, CVAA		ug/L	<MDL,H	0.005	0.015	0.005 U		
WG130134	MH071-099	11/18/2013	L59241-3	Storm	Mercury, Dissolved, CVAA		ug/L	<MDL,H	0.005	0.015	0.005 U		
WG130225	MH064-126	11/18/2013	L59241-1	Storm	Mercury, Dissolved, CVAA		ug/L	<MDL,H	0.005	0.015	0.005 U		
WG130761	MH064-126	1/8/2014	L59471-1	Storm	Mercury, Dissolved, CVAA		ug/L	<MDL,H	0.005	0.015	0.005 U		
WG130761	MH071-099	1/8/2014	L59471-2	Storm	Mercury, Dissolved, CVAA		ug/L	<MDL,H	0.005	0.015	0.005 U		
WG130761	MH065-357	1/8/2014	L59471-3	Storm	Mercury, Dissolved, CVAA		ug/L	<MDL,H	0.005	0.015	0.005 U		
WG131023	MH071-099	2/11/2014	L59681-2	Storm	Mercury, Dissolved, CVAA	0.0052	ug/L	<RDL,H	0.005	0.015	0.0052 J		unknown
WG131314	MH064-126	2/11/2014	L59681-1	Storm	Mercury, Dissolved, CVAA		ug/L	<MDL,H	0.005	0.015	0.005 U		
WG131314	MH065-357	2/11/2014	L59681-3	Storm	Mercury, Dissolved, CVAA	0.0054	ug/L	<RDL,H	0.005	0.015	0.0054 J		unknown
WG131689	MH071-099	2/24/2014	L59745-2	Storm	Mercury, Dissolved, CVAA	0.0053	ug/L	<RDL,H	0.005	0.015	0.0053 J		unknown
WG131689	MH065-357	2/24/2014	L59745-3	Storm	Mercury, Dissolved, CVAA		ug/L	<MDL,H	0.005	0.015	0.005 U		
WG131689	MH071-099	3/5/2014	L59833-1	Storm	Mercury, Dissolved, CVAA		ug/L	<MDL,H	0.005	0.015	0.005 U		
WG131689	MH065-357	3/5/2014	L59833-2	Storm	Mercury, Dissolved, CVAA	0.0054	ug/L	<RDL,H	0.005	0.015	0.0054 J		unknown
WG132594	MH064-126	4/16/2014	L60114-1	Storm	Mercury, Dissolved, CVAA		ug/L	<MDL,H	0.005	0.015	0.005 U		
WG132594	MH071-099	4/16/2014	L60114-2	Storm	Mercury, Dissolved, CVAA		ug/L	<MDL,H	0.005	0.015	0.005 U		
WG132594	MH065-357	4/16/2014	L60114-3	Storm	Mercury, Dissolved, CVAA		ug/L	<MDL,H	0.005	0.015	0.005 U		
WG132594	MH064-126	5/8/2014	L60299-1	Storm	Mercury, Dissolved, CVAA		ug/L	<MDL,H	0.005	0.015	0.005 U		
WG132594	MH071-099	5/8/2014	L60299-2	Storm	Mercury, Dissolved, CVAA		ug/L	<MDL,H	0.005	0.015	0.005 U		
WG132594	MH065-357	5/8/2014	L60299-3	Storm	Mercury, Dissolved, CVAA		ug/L	<MDL,H	0.005	0.015	0.005 U		
WG135593	MH071-099	10/13/2014	L60387-2	Storm	Mercury, Dissolved, CVAA		ug/L	<MDL,H	0.005	0.015	0.005 U		
WG135593	MH065-357	10/13/2014	L60387-3	Storm	Mercury, Dissolved, CVAA		ug/L	<MDL,H	0.005	0.015	0.005 U		
WG135996	MH071-099	10/22/2014	L61501-2	Storm	Mercury, Dissolved, CVAA		ug/L	<MDL,H	0.005	0.015	0.005 U		
WG135996	MH065-357	10/22/2014	L61501-3	Storm	Mercury, Dissolved, CVAA		ug/L	<MDL,H	0.005	0.015	0.005 U		
WG135996	MH064-126	10/30/2014	L61560-1	Storm	Mercury, Dissolved, CVAA		ug/L	<MDL,H	0.005	0.015	0.005 U		
WG135996	MH065-357	10/30/2014	L61560-3	Storm	Mercury, Dissolved, CVAA		ug/L	<MDL,H	0.005	0.015	0.005 U		
WG136595	MH064-126	12/10/2014	L61610-1	Storm	Mercury, Dissolved, CVAA		ug/L	<MDL,H	0.005	0.015	0.005 U		
WG136595	MH065-357	12/10/2014	L61610-3	Storm	Mercury, Dissolved, CVAA		ug/L	<MDL,H	0.005	0.015	0.005 U		
WG129957	MH064-126	11/6/2013	L59155-1	Storm	Arsenic, Dissolved, ICP-MS	0.33	ug/L	<RDL,H	0.1	0.5	0.33 J		unknown
WG129957	MH071-099	11/6/2013	L59155-3	Storm	Arsenic, Dissolved, ICP-MS	1.13	ug/L	H	0.1	0.5	1.13 J		unknown
WG129957	MH064-126	11/6/2013	L59155-1	Storm	Cadmium, Dissolved, ICP-MS		ug/L	<MDL,H	0.05	0.25	0.05 U		
WG129957	MH071-099	11/6/2013	L59155-3	Storm	Cadmium, Dissolved, ICP-MS		ug/L	<MDL,H	0.05	0.25	0.05 U		
WG129957	MH064-126	11/6/2013	L59155-1	Storm	Chromium, Dissolved, ICP-MS	0.31	ug/L	<RDL,H	0.2	1	0.31 J		unknown
WG129957	MH071-099	11/6/2013	L59155-3	Storm	Chromium, Dissolved, ICP-MS	0.38	ug/L	<RDL,H	0.2	1	0.38 J		unknown
WG129957	MH064-126	11/6/2013	L59155-1	Storm	Copper, Dissolved, ICP-MS	5.27	ug/L	H	0.4	2	5.27 J		unknown
WG129957	MH071-099	11/6/2013	L59155-3	Storm	Copper, Dissolved, ICP-MS	2	ug/L	<RDL,H	0.4	2	2 J		unknown
WG129957	MH064-126	11/6/2013	L59155-1	Storm	Lead, Dissolved, ICP-MS	1.39	ug/L	H	0.1	0.5	1.39 J		unknown
WG129957	MH071-099	11/6/2013	L59155-3	Storm	Lead, Dissolved, ICP-MS	0.41	ug/L	<RDL,H	0.1	0.5	0.41 J		unknown
WG129957	MH064-126	11/6/2013	L59155-1	Storm	Nickel, Dissolved, ICP-MS	3.6	ug/L	H	0.1	0.5	3.6 J		unknown

Table 1. Michigan CSO Storm Event Samples - Data Validation Flags and Bias Notation

WORKNUM	LOCATOR	COLLECTDATE	Sample ID	Sample Type	PARMNAME	NUMVALUE	Units	Lab Qual	MDL	RDL	DV Value	DV Qual	Bias
WG129957	MH071-099	11/6/2013	L59155-3	Storm	Nickel, Dissolved, ICP-MS	1.48	ug/L	H	0.1	0.5	1.48 J		unknown
WG129957	MH064-126	11/6/2013	L59155-1	Storm	Silver, Dissolved, ICP-MS		ug/L	<MDL,H	0.04	0.2	0.04 U		
WG129957	MH071-099	11/6/2013	L59155-3	Storm	Silver, Dissolved, ICP-MS		ug/L	<MDL,H	0.04	0.2	0.04 U		
WG129957	MH064-126	11/6/2013	L59155-1	Storm	Vanadium, Dissolved, ICP-MS	0.56	ug/L	H	0.075	0.375	0.56 J		unknown
WG129957	MH071-099	11/6/2013	L59155-3	Storm	Vanadium, Dissolved, ICP-MS	1.3	ug/L	H	0.075	0.375	1.3 J		unknown
WG129957	MH064-126	11/6/2013	L59155-1	Storm	Zinc, Dissolved, ICP-MS	33.3	ug/L	H	0.5	2.5	33.3 J		unknown
WG129957	MH071-099	11/6/2013	L59155-3	Storm	Zinc, Dissolved, ICP-MS	18.5	ug/L	H	0.5	2.5	18.5 J		unknown
WG130335	MH064-126	11/18/2013	L59241-1	Storm	Arsenic, Dissolved, ICP-MS	0.38	ug/L	<RDL,H	0.1	0.5	0.38 J		unknown
WG130335	MH071-099	11/18/2013	L59241-3	Storm	Arsenic, Dissolved, ICP-MS	1.18	ug/L	H	0.1	0.5	1.18 J		unknown
WG130335	MH064-126	11/18/2013	L59241-1	Storm	Cadmium, Dissolved, ICP-MS		ug/L	<MDL,H	0.05	0.25	0.05 U		
WG130335	MH071-099	11/18/2013	L59241-3	Storm	Cadmium, Dissolved, ICP-MS		ug/L	<MDL,H	0.05	0.25	0.05 U		
WG130335	MH064-126	11/18/2013	L59241-1	Storm	Chromium, Dissolved, ICP-MS	0.57	ug/L	<RDL,H	0.2	1	0.57 J		unknown
WG130335	MH071-099	11/18/2013	L59241-3	Storm	Chromium, Dissolved, ICP-MS	0.35	ug/L	<RDL,H	0.2	1	0.35 J		unknown
WG130335	MH064-126	11/18/2013	L59241-1	Storm	Copper, Dissolved, ICP-MS	4.86	ug/L	H	0.4	2	4.86 J		unknown
WG130335	MH071-099	11/18/2013	L59241-3	Storm	Copper, Dissolved, ICP-MS	2.08	ug/L	H	0.4	2	2.08 J		unknown
WG130335	MH064-126	11/18/2013	L59241-1	Storm	Lead, Dissolved, ICP-MS	0.603	ug/L	H	0.1	0.5	0.603 J		unknown
WG130335	MH071-099	11/18/2013	L59241-3	Storm	Lead, Dissolved, ICP-MS	0.565	ug/L	H	0.1	0.5	0.565 J		unknown
WG130335	MH064-126	11/18/2013	L59241-1	Storm	Nickel, Dissolved, ICP-MS	1.36	ug/L	H	0.1	0.5	1.36 J		unknown
WG130335	MH071-099	11/18/2013	L59241-3	Storm	Nickel, Dissolved, ICP-MS	2	ug/L	H	0.1	0.5	2 J		unknown
WG130335	MH064-126	11/18/2013	L59241-1	Storm	Silver, Dissolved, ICP-MS		ug/L	<MDL,H	0.04	0.2	0.04 U		
WG130335	MH071-099	11/18/2013	L59241-3	Storm	Silver, Dissolved, ICP-MS		ug/L	<MDL,H	0.04	0.2	0.04 U		
WG130335	MH064-126	11/18/2013	L59241-1	Storm	Vanadium, Dissolved, ICP-MS	0.506	ug/L	H	0.075	0.375	0.506 J		unknown
WG130335	MH071-099	11/18/2013	L59241-3	Storm	Vanadium, Dissolved, ICP-MS	1.67	ug/L	H	0.075	0.375	1.67 J		unknown
WG130335	MH064-126	11/18/2013	L59241-1	Storm	Zinc, Dissolved, ICP-MS	22.3	ug/L	H	0.5	2.5	22.3 J		unknown
WG130335	MH071-099	11/18/2013	L59241-3	Storm	Zinc, Dissolved, ICP-MS	16.5	ug/L	H	0.5	2.5	16.5 J		unknown
WG130931	MH064-126	1/8/2014	L59471-1	Storm	Arsenic, Dissolved, ICP-MS	0.32	ug/L	<RDL,H	0.1	0.5	0.32 J		unknown
WG130931	MH071-099	1/8/2014	L59471-2	Storm	Arsenic, Dissolved, ICP-MS	1.27	ug/L	H	0.1	0.5	1.27 J		unknown
WG130931	MH065-357	1/8/2014	L59471-3	Storm	Arsenic, Dissolved, ICP-MS	1.27	ug/L	H	0.1	0.5	1.27 J		unknown
WG130931	MH064-126	1/8/2014	L59471-1	Storm	Cadmium, Dissolved, ICP-MS		ug/L	<MDL,H	0.05	0.25	0.05 U		
WG130931	MH071-099	1/8/2014	L59471-2	Storm	Cadmium, Dissolved, ICP-MS		ug/L	<MDL,H	0.05	0.25	0.05 U		
WG130931	MH065-357	1/8/2014	L59471-3	Storm	Cadmium, Dissolved, ICP-MS		ug/L	<MDL,H	0.05	0.25	0.05 U		
WG130931	MH064-126	1/8/2014	L59471-1	Storm	Chromium, Dissolved, ICP-MS	0.62	ug/L	<RDL,H	0.2	1	0.62 J		unknown
WG130931	MH071-099	1/8/2014	L59471-2	Storm	Chromium, Dissolved, ICP-MS	0.71	ug/L	<RDL,H	0.2	1	0.71 J		unknown
WG130931	MH065-357	1/8/2014	L59471-3	Storm	Chromium, Dissolved, ICP-MS	0.34	ug/L	<RDL,H	0.2	1	0.34 J		unknown
WG130931	MH064-126	1/8/2014	L59471-1	Storm	Copper, Dissolved, ICP-MS	5.17	ug/L	H	0.4	2	5.17 J		unknown
WG130931	MH071-099	1/8/2014	L59471-2	Storm	Copper, Dissolved, ICP-MS	15.8	ug/L	H	0.4	2	15.8 J		unknown
WG130931	MH065-357	1/8/2014	L59471-3	Storm	Copper, Dissolved, ICP-MS	8.35	ug/L	H	0.4	2	8.35 J		unknown
WG130931	MH064-126	1/8/2014	L59471-1	Storm	Lead, Dissolved, ICP-MS	0.532	ug/L	H	0.1	0.5	0.532 J		unknown
WG130931	MH071-099	1/8/2014	L59471-2	Storm	Lead, Dissolved, ICP-MS	0.32	ug/L	<RDL,H	0.1	0.5	0.32 J		unknown

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WORKNUM	LOCATOR	COLLECTDATE	Sample ID	Sample Type	PARMNAME	NUMVALUE	Units	Lab Qual	MDL	RDL	DV Value	DV Qual	Bias
WG130931	MH065-357	1/8/2014	L59471-3	Storm	Lead, Dissolved, ICP-MS	0.38	ug/L	<RDL,H	0.1	0.5	0.38 J		unknown
WG130931	MH064-126	1/8/2014	L59471-1	Storm	Nickel, Dissolved, ICP-MS	2.78	ug/L	H	0.1	0.5	2.78 J		unknown
WG130931	MH071-099	1/8/2014	L59471-2	Storm	Nickel, Dissolved, ICP-MS	2.67	ug/L	H	0.1	0.5	2.67 J		unknown
WG130931	MH065-357	1/8/2014	L59471-3	Storm	Nickel, Dissolved, ICP-MS	2.57	ug/L	H	0.1	0.5	2.57 J		unknown
WG130931	MH064-126	1/8/2014	L59471-1	Storm	Silver, Dissolved, ICP-MS		ug/L	<MDL,H	0.04	0.2	0.04 U		
WG130931	MH071-099	1/8/2014	L59471-2	Storm	Silver, Dissolved, ICP-MS		ug/L	<MDL,H	0.04	0.2	0.04 U		
WG130931	MH065-357	1/8/2014	L59471-3	Storm	Silver, Dissolved, ICP-MS		ug/L	<MDL,H	0.04	0.2	0.04 U		
WG130931	MH064-126	1/8/2014	L59471-1	Storm	Vanadium, Dissolved, ICP-MS	0.44	ug/L	H	0.075	0.375	0.44 J		unknown
WG130931	MH071-099	1/8/2014	L59471-2	Storm	Vanadium, Dissolved, ICP-MS	2.46	ug/L	H	0.075	0.375	2.46 J		unknown
WG130931	MH065-357	1/8/2014	L59471-3	Storm	Vanadium, Dissolved, ICP-MS	0.88	ug/L	H	0.075	0.375	0.88 J		unknown
WG130931	MH064-126	1/8/2014	L59471-1	Storm	Zinc, Dissolved, ICP-MS	19.4	ug/L	H	0.5	2.5	19.4 J		unknown
WG130931	MH071-099	1/8/2014	L59471-2	Storm	Zinc, Dissolved, ICP-MS	20.4	ug/L	H	0.5	2.5	20.4 J		unknown
WG130931	MH065-357	1/8/2014	L59471-3	Storm	Zinc, Dissolved, ICP-MS	13.4	ug/L	H	0.5	2.5	13.4 J		unknown
WG131550	MH064-126	2/11/2014	L59681-1	Storm	Arsenic, Dissolved, ICP-MS	0.2	ug/L	<RDL,H	0.1	0.5	0.2 J		unknown
WG131550	MH071-099	2/11/2014	L59681-2	Storm	Arsenic, Dissolved, ICP-MS	1.08	ug/L	H	0.1	0.5	1.08 J		unknown
WG131550	MH065-357	2/11/2014	L59681-3	Storm	Arsenic, Dissolved, ICP-MS	0.909	ug/L	H	0.1	0.5	0.909 J		unknown
WG131550	MH071-099	2/24/2014	L59745-2	Storm	Arsenic, Dissolved, ICP-MS	0.817	ug/L	H	0.1	0.5	0.817 J		unknown
WG131550	MH065-357	2/24/2014	L59745-3	Storm	Arsenic, Dissolved, ICP-MS	0.977	ug/L	H	0.1	0.5	0.977 J		unknown
WG131550	MH071-099	3/5/2014	L59833-1	Storm	Arsenic, Dissolved, ICP-MS	0.984	ug/L	H	0.1	0.5	0.984 J		unknown
WG131550	MH065-357	3/5/2014	L59833-2	Storm	Arsenic, Dissolved, ICP-MS	1.17	ug/L	H	0.1	0.5	1.17 J		unknown
WG131550	MH064-126	2/11/2014	L59681-1	Storm	Cadmium, Dissolved, ICP-MS		ug/L	<MDL,H	0.05	0.25	0.05 U		
WG131550	MH071-099	2/11/2014	L59681-2	Storm	Cadmium, Dissolved, ICP-MS		ug/L	<MDL,H	0.05	0.25	0.05 U		
WG131550	MH065-357	2/11/2014	L59681-3	Storm	Cadmium, Dissolved, ICP-MS		ug/L	<MDL,H	0.05	0.25	0.05 U		
WG131550	MH071-099	2/24/2014	L59745-2	Storm	Cadmium, Dissolved, ICP-MS		ug/L	<MDL,H	0.05	0.25	0.05 U		
WG131550	MH065-357	2/24/2014	L59745-3	Storm	Cadmium, Dissolved, ICP-MS		ug/L	<MDL,H	0.05	0.25	0.05 U		
WG131550	MH071-099	3/5/2014	L59833-1	Storm	Cadmium, Dissolved, ICP-MS		ug/L	<MDL,H	0.05	0.25	0.05 U		
WG131550	MH065-357	3/5/2014	L59833-2	Storm	Cadmium, Dissolved, ICP-MS		ug/L	<MDL,H	0.05	0.25	0.05 U		
WG131550	MH064-126	2/11/2014	L59681-1	Storm	Chromium, Dissolved, ICP-MS	0.21	ug/L	<RDL,H	0.2	1	0.21 J		unknown
WG131550	MH071-099	2/11/2014	L59681-2	Storm	Chromium, Dissolved, ICP-MS	0.57	ug/L	<RDL,H	0.2	1	0.57 J		unknown
WG131550	MH065-357	2/11/2014	L59681-3	Storm	Chromium, Dissolved, ICP-MS	0.26	ug/L	<RDL,H	0.2	1	0.26 J		unknown
WG131550	MH071-099	2/24/2014	L59745-2	Storm	Chromium, Dissolved, ICP-MS	0.36	ug/L	<RDL,H	0.2	1	0.36 J		unknown
WG131550	MH065-357	2/24/2014	L59745-3	Storm	Chromium, Dissolved, ICP-MS	0.34	ug/L	<RDL,H	0.2	1	0.34 J		unknown
WG131550	MH071-099	3/5/2014	L59833-1	Storm	Chromium, Dissolved, ICP-MS	0.44	ug/L	<RDL,H	0.2	1	0.44 J		unknown
WG131550	MH065-357	3/5/2014	L59833-2	Storm	Chromium, Dissolved, ICP-MS	0.34	ug/L	<RDL,H	0.2	1	0.34 J		unknown
WG131550	MH064-126	2/11/2014	L59681-1	Storm	Copper, Dissolved, ICP-MS	2	ug/L	<RDL,H	0.4	2	2 J		unknown
WG131550	MH071-099	2/11/2014	L59681-2	Storm	Copper, Dissolved, ICP-MS	3.2	ug/L	H	0.4	2	3.2 J		unknown
WG131550	MH065-357	2/11/2014	L59681-3	Storm	Copper, Dissolved, ICP-MS	3.79	ug/L	H	0.4	2	3.79 J		unknown
WG131550	MH071-099	2/24/2014	L59745-2	Storm	Copper, Dissolved, ICP-MS	4.31	ug/L	H	0.4	2	4.31 J		unknown
WG131550	MH065-357	2/24/2014	L59745-3	Storm	Copper, Dissolved, ICP-MS	4.2	ug/L	H	0.4	2	4.2 J		unknown

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WORKNUM	LOCATOR	COLLECTDATE	Sample ID	Sample Type	PARMNAME	NUMVALUE	Units	Lab Qual	MDL	RDL	DV Value	DV Qual	Bias
WG131550	MH071-099	3/5/2014	L59833-1	Storm	Copper, Dissolved, ICP-MS	3.15	ug/L	H	0.4	2	3.15 J		unknown
WG131550	MH065-357	3/5/2014	L59833-2	Storm	Copper, Dissolved, ICP-MS	5.41	ug/L	H	0.4	2	5.41 J		unknown
WG131550	MH064-126	2/11/2014	L59681-1	Storm	Lead, Dissolved, ICP-MS	0.22	ug/L	<RDL,H	0.1	0.5	0.22 J		unknown
WG131550	MH071-099	2/11/2014	L59681-2	Storm	Lead, Dissolved, ICP-MS	0.701	ug/L	H	0.1	0.5	0.701 J		unknown
WG131550	MH065-357	2/11/2014	L59681-3	Storm	Lead, Dissolved, ICP-MS	0.41	ug/L	<RDL,H	0.1	0.5	0.41 J		unknown
WG131550	MH071-099	2/24/2014	L59745-2	Storm	Lead, Dissolved, ICP-MS	0.35	ug/L	<RDL,H	0.1	0.5	0.35 J		unknown
WG131550	MH065-357	2/24/2014	L59745-3	Storm	Lead, Dissolved, ICP-MS	0.33	ug/L	<RDL,H	0.1	0.5	0.33 J		unknown
WG131550	MH071-099	3/5/2014	L59833-1	Storm	Lead, Dissolved, ICP-MS	0.871	ug/L	H	0.1	0.5	0.871 J		unknown
WG131550	MH065-357	3/5/2014	L59833-2	Storm	Lead, Dissolved, ICP-MS	0.41	ug/L	<RDL,H	0.1	0.5	0.41 J		unknown
WG131550	MH064-126	2/11/2014	L59681-1	Storm	Nickel, Dissolved, ICP-MS	0.3	ug/L	<RDL,H	0.1	0.5	0.3 J		unknown
WG131550	MH071-099	2/11/2014	L59681-2	Storm	Nickel, Dissolved, ICP-MS	32.4	ug/L	H	0.1	0.5	32.4 J		unknown
WG131550	MH065-357	2/11/2014	L59681-3	Storm	Nickel, Dissolved, ICP-MS	0.779	ug/L	H	0.1	0.5	0.779 J		unknown
WG131550	MH071-099	2/24/2014	L59745-2	Storm	Nickel, Dissolved, ICP-MS	1.81	ug/L	H	0.1	0.5	1.81 J		unknown
WG131550	MH065-357	2/24/2014	L59745-3	Storm	Nickel, Dissolved, ICP-MS	1.62	ug/L	H	0.1	0.5	1.62 J		unknown
WG131550	MH071-099	3/5/2014	L59833-1	Storm	Nickel, Dissolved, ICP-MS	3.86	ug/L	H	0.1	0.5	3.86 J		unknown
WG131550	MH065-357	3/5/2014	L59833-2	Storm	Nickel, Dissolved, ICP-MS	1.37	ug/L	H	0.1	0.5	1.37 J		unknown
WG131550	MH064-126	2/11/2014	L59681-1	Storm	Silver, Dissolved, ICP-MS		ug/L	<MDL,H	0.04	0.2	0.04 U		
WG131550	MH071-099	2/11/2014	L59681-2	Storm	Silver, Dissolved, ICP-MS		ug/L	<MDL,H	0.04	0.2	0.04 U		
WG131550	MH065-357	2/11/2014	L59681-3	Storm	Silver, Dissolved, ICP-MS		ug/L	<MDL,H	0.04	0.2	0.04 U		
WG131550	MH071-099	2/24/2014	L59745-2	Storm	Silver, Dissolved, ICP-MS		ug/L	<MDL,H	0.04	0.2	0.04 U		
WG131550	MH065-357	2/24/2014	L59745-3	Storm	Silver, Dissolved, ICP-MS		ug/L	<MDL,H	0.04	0.2	0.04 U		
WG131550	MH071-099	3/5/2014	L59833-1	Storm	Silver, Dissolved, ICP-MS		ug/L	<MDL,H	0.04	0.2	0.04 U		
WG131550	MH065-357	3/5/2014	L59833-2	Storm	Silver, Dissolved, ICP-MS		ug/L	<MDL,H	0.04	0.2	0.04 U		
WG131550	MH064-126	2/11/2014	L59681-1	Storm	Vanadium, Dissolved, ICP-MS	0.26	ug/L	<RDL,H	0.075	0.375	0.26 J		unknown
WG131550	MH071-099	2/11/2014	L59681-2	Storm	Vanadium, Dissolved, ICP-MS	1.37	ug/L	H	0.075	0.375	1.37 J		unknown
WG131550	MH065-357	2/11/2014	L59681-3	Storm	Vanadium, Dissolved, ICP-MS	0.658	ug/L	H	0.075	0.375	0.658 J		unknown
WG131550	MH071-099	2/24/2014	L59745-2	Storm	Vanadium, Dissolved, ICP-MS	1.06	ug/L	H	0.075	0.375	1.06 J		unknown
WG131550	MH065-357	2/24/2014	L59745-3	Storm	Vanadium, Dissolved, ICP-MS	1.08	ug/L	H	0.075	0.375	1.08 J		unknown
WG131550	MH071-099	3/5/2014	L59833-1	Storm	Vanadium, Dissolved, ICP-MS	1.25	ug/L	H	0.075	0.375	1.25 J		unknown
WG131550	MH065-357	3/5/2014	L59833-2	Storm	Vanadium, Dissolved, ICP-MS	1.02	ug/L	H	0.075	0.375	1.02 J		unknown
WG131550	MH064-126	2/11/2014	L59681-1	Storm	Zinc, Dissolved, ICP-MS	18.6	ug/L	H	0.5	2.5	18.6 J		unknown
WG131550	MH071-099	2/11/2014	L59681-2	Storm	Zinc, Dissolved, ICP-MS	61.5	ug/L	H	0.5	2.5	61.5 J		unknown
WG131550	MH065-357	2/11/2014	L59681-3	Storm	Zinc, Dissolved, ICP-MS	13.3	ug/L	H	0.5	2.5	13.3 J		unknown
WG131550	MH071-099	2/24/2014	L59745-2	Storm	Zinc, Dissolved, ICP-MS	16.6	ug/L	H	0.5	2.5	16.6 J		unknown
WG131550	MH065-357	2/24/2014	L59745-3	Storm	Zinc, Dissolved, ICP-MS	18.7	ug/L	H	0.5	2.5	18.7 J		unknown
WG131550	MH071-099	3/5/2014	L59833-1	Storm	Zinc, Dissolved, ICP-MS	29.2	ug/L	H	0.5	2.5	29.2 J		unknown
WG131550	MH065-357	3/5/2014	L59833-2	Storm	Zinc, Dissolved, ICP-MS	18.1	ug/L	H	0.5	2.5	18.1 J		unknown
WG132572	MH064-126	4/16/2014	L60114-1	Storm	Arsenic, Dissolved, ICP-MS	0.39	ug/L	<RDL,H	0.1	0.5	0.39 J		unknown
WG132572	MH071-099	4/16/2014	L60114-2	Storm	Arsenic, Dissolved, ICP-MS	1.25	ug/L	H	0.1	0.5	1.25 J		unknown

Table 1. Michigan CSO Storm Event Samples - Data Validation Flags and Bias Notation

WORKNUM	LOCATOR	COLLECTDATE	Sample ID	Sample Type	PARMNAME	NUMVALUE	Units	Lab Qual	MDL	RDL	DV Value	DV Qual	Bias
WG132572	MH065-357	4/16/2014	L60114-3	Storm	Arsenic, Dissolved, ICP-MS	1.48	ug/L	H	0.1	0.5	1.48 J		unknown
WG132572	MH064-126	5/8/2014	L60299-1	Storm	Arsenic, Dissolved, ICP-MS	0.48	ug/L	<RDL,H	0.1	0.5	0.48 J		unknown
WG132572	MH071-099	5/8/2014	L60299-2	Storm	Arsenic, Dissolved, ICP-MS	1.07	ug/L	H	0.1	0.5	1.07 J		unknown
WG132572	MH065-357	5/8/2014	L60299-3	Storm	Arsenic, Dissolved, ICP-MS	1.39	ug/L	H	0.1	0.5	1.39 J		unknown
WG132572	MH064-126	4/16/2014	L60114-1	Storm	Cadmium, Dissolved, ICP-MS		ug/L	<MDL,H	0.05	0.25	0.05 U		
WG132572	MH071-099	4/16/2014	L60114-2	Storm	Cadmium, Dissolved, ICP-MS		ug/L	<MDL,H	0.05	0.25	0.05 U		
WG132572	MH065-357	4/16/2014	L60114-3	Storm	Cadmium, Dissolved, ICP-MS		ug/L	<MDL,H	0.05	0.25	0.05 U		
WG132572	MH064-126	5/8/2014	L60299-1	Storm	Cadmium, Dissolved, ICP-MS		ug/L	<MDL,H	0.05	0.25	0.05 U		
WG132572	MH071-099	5/8/2014	L60299-2	Storm	Cadmium, Dissolved, ICP-MS		ug/L	<MDL,H	0.05	0.25	0.05 U		
WG132572	MH065-357	5/8/2014	L60299-3	Storm	Cadmium, Dissolved, ICP-MS		ug/L	<MDL,H	0.05	0.25	0.05 U		
WG132572	MH064-126	4/16/2014	L60114-1	Storm	Chromium, Dissolved, ICP-MS	0.31	ug/L	<RDL,H	0.2	1	0.31 J		unknown
WG132572	MH071-099	4/16/2014	L60114-2	Storm	Chromium, Dissolved, ICP-MS	0.31	ug/L	<RDL,H	0.2	1	0.31 J		unknown
WG132572	MH065-357	4/16/2014	L60114-3	Storm	Chromium, Dissolved, ICP-MS	0.31	ug/L	<RDL,H	0.2	1	0.31 J		unknown
WG132572	MH064-126	5/8/2014	L60299-1	Storm	Chromium, Dissolved, ICP-MS	0.52	ug/L	<RDL,H	0.2	1	0.52 J		unknown
WG132572	MH071-099	5/8/2014	L60299-2	Storm	Chromium, Dissolved, ICP-MS	0.29	ug/L	<RDL,H	0.2	1	0.29 J		unknown
WG132572	MH065-357	5/8/2014	L60299-3	Storm	Chromium, Dissolved, ICP-MS	0.3	ug/L	<RDL,H	0.2	1	0.3 J		unknown
WG132572	MH064-126	4/16/2014	L60114-1	Storm	Copper, Dissolved, ICP-MS	8.71	ug/L	H	0.4	2	8.71 J		unknown
WG132572	MH071-099	4/16/2014	L60114-2	Storm	Copper, Dissolved, ICP-MS	3.28	ug/L	H	0.4	2	3.28 J		unknown
WG132572	MH065-357	4/16/2014	L60114-3	Storm	Copper, Dissolved, ICP-MS	454	ug/L	H	0.4	2	454 J		unknown
WG132572	MH064-126	5/8/2014	L60299-1	Storm	Copper, Dissolved, ICP-MS	9.72	ug/L	H	0.4	2	9.72 J		unknown
WG132572	MH071-099	5/8/2014	L60299-2	Storm	Copper, Dissolved, ICP-MS	4.3	ug/L	H	0.4	2	4.3 J		unknown
WG132572	MH065-357	5/8/2014	L60299-3	Storm	Copper, Dissolved, ICP-MS	6.92	ug/L	H	0.4	2	6.92 J		unknown
WG132572	MH064-126	4/16/2014	L60114-1	Storm	Lead, Dissolved, ICP-MS	0.871	ug/L	H	0.1	0.5	0.871 J		unknown
WG132572	MH071-099	4/16/2014	L60114-2	Storm	Lead, Dissolved, ICP-MS	1.59	ug/L	H	0.1	0.5	1.59 J		unknown
WG132572	MH065-357	4/16/2014	L60114-3	Storm	Lead, Dissolved, ICP-MS	0.761	ug/L	H	0.1	0.5	0.761 J		unknown
WG132572	MH064-126	5/8/2014	L60299-1	Storm	Lead, Dissolved, ICP-MS	0.37	ug/L	<RDL,H	0.1	0.5	0.37 J		unknown
WG132572	MH071-099	5/8/2014	L60299-2	Storm	Lead, Dissolved, ICP-MS	0.93	ug/L	H	0.1	0.5	0.93 J		unknown
WG132572	MH065-357	5/8/2014	L60299-3	Storm	Lead, Dissolved, ICP-MS	0.551	ug/L	H	0.1	0.5	0.551 J		unknown
WG132572	MH064-126	4/16/2014	L60114-1	Storm	Nickel, Dissolved, ICP-MS	1.27	ug/L	H	0.1	0.5	1.27 J		unknown
WG132572	MH071-099	4/16/2014	L60114-2	Storm	Nickel, Dissolved, ICP-MS	3.32	ug/L	H	0.1	0.5	3.32 J		unknown
WG132572	MH065-357	4/16/2014	L60114-3	Storm	Nickel, Dissolved, ICP-MS	1.65	ug/L	H	0.1	0.5	1.65 J		unknown
WG132572	MH064-126	5/8/2014	L60299-1	Storm	Nickel, Dissolved, ICP-MS	1.07	ug/L	H	0.1	0.5	1.07 J		unknown
WG132572	MH071-099	5/8/2014	L60299-2	Storm	Nickel, Dissolved, ICP-MS	2.03	ug/L	H	0.1	0.5	2.03 J		unknown
WG132572	MH065-357	5/8/2014	L60299-3	Storm	Nickel, Dissolved, ICP-MS	1.41	ug/L	H	0.1	0.5	1.41 J		unknown
WG132572	MH064-126	4/16/2014	L60114-1	Storm	Silver, Dissolved, ICP-MS		ug/L	<MDL,H	0.04	0.2	0.04 U		
WG132572	MH071-099	4/16/2014	L60114-2	Storm	Silver, Dissolved, ICP-MS		ug/L	<MDL,H	0.04	0.2	0.04 U		
WG132572	MH065-357	4/16/2014	L60114-3	Storm	Silver, Dissolved, ICP-MS		ug/L	<MDL,H	0.04	0.2	0.04 U		
WG132572	MH064-126	5/8/2014	L60299-1	Storm	Silver, Dissolved, ICP-MS		ug/L	<MDL,H	0.04	0.2	0.04 U		
WG132572	MH071-099	5/8/2014	L60299-2	Storm	Silver, Dissolved, ICP-MS		ug/L	<MDL,H	0.04	0.2	0.04 U		

Table 1. Michigan CSO Storm Event Samples - Data Validation Flags and Bias Notation

WORKNUM	LOCATOR	COLLECTDATE	Sample ID	Sample Type	PARMNAME	NUMVALUE	Units	Lab Qual	MDL	RDL	DV Value	DV Qual	Bias
WG132572	MH065-357	5/8/2014	L60299-3	Storm	Silver, Dissolved, ICP-MS		ug/L	<MDL,H	0.04	0.2	0.04	U	
WG132572	MH064-126	4/16/2014	L60114-1	Storm	Vanadium, Dissolved, ICP-MS	0.419	ug/L	H	0.075	0.375	0.419	J	unknown
WG132572	MH071-099	4/16/2014	L60114-2	Storm	Vanadium, Dissolved, ICP-MS	1.12	ug/L	H	0.075	0.375	1.12	J	unknown
WG132572	MH065-357	4/16/2014	L60114-3	Storm	Vanadium, Dissolved, ICP-MS	1.14	ug/L	H	0.075	0.375	1.14	J	unknown
WG132572	MH064-126	5/8/2014	L60299-1	Storm	Vanadium, Dissolved, ICP-MS	0.611	ug/L	H	0.075	0.375	0.611	J	unknown
WG132572	MH071-099	5/8/2014	L60299-2	Storm	Vanadium, Dissolved, ICP-MS	1.34	ug/L	H	0.075	0.375	1.34	J	unknown
WG132572	MH065-357	5/8/2014	L60299-3	Storm	Vanadium, Dissolved, ICP-MS	1.11	ug/L	H	0.075	0.375	1.11	J	unknown
WG132572	MH064-126	4/16/2014	L60114-1	Storm	Zinc, Dissolved, ICP-MS	28.4	ug/L	H	0.5	2.5	28.4	J	unknown
WG132572	MH071-099	4/16/2014	L60114-2	Storm	Zinc, Dissolved, ICP-MS	11.7	ug/L	H	0.5	2.5	11.7	J	unknown
WG132572	MH065-357	4/16/2014	L60114-3	Storm	Zinc, Dissolved, ICP-MS	21	ug/L	H	0.5	2.5	21	J	unknown
WG132572	MH064-126	5/8/2014	L60299-1	Storm	Zinc, Dissolved, ICP-MS	37.1	ug/L	H	0.5	2.5	37.1	J	unknown
WG132572	MH071-099	5/8/2014	L60299-2	Storm	Zinc, Dissolved, ICP-MS	13.5	ug/L	H	0.5	2.5	13.5	J	unknown
WG132572	MH065-357	5/8/2014	L60299-3	Storm	Zinc, Dissolved, ICP-MS	17.4	ug/L	H	0.5	2.5	17.4	J	unknown
WG136055	MH071-099	10/13/2014	L60387-2	Storm	Arsenic, Dissolved, ICP-MS	1.39	ug/L	H	0.1	0.5	1.39	J	unknown
WG136055	MH065-357	10/13/2014	L60387-3	Storm	Arsenic, Dissolved, ICP-MS	1.35	ug/L	H	0.1	0.5	1.35	J	unknown
WG136055	MH071-099	10/22/2014	L61501-2	Storm	Arsenic, Dissolved, ICP-MS	1.22	ug/L	H	0.1	0.5	1.22	J	unknown
WG136055	MH065-357	10/22/2014	L61501-3	Storm	Arsenic, Dissolved, ICP-MS	2.18	ug/L	H	0.1	0.5	2.18	J	unknown
WG136055	MH064-126	10/30/2014	L61560-1	Storm	Arsenic, Dissolved, ICP-MS	0.45	ug/L	<RDL,H	0.1	0.5	0.45	J	unknown
WG136055	MH065-357	10/30/2014	L61560-3	Storm	Arsenic, Dissolved, ICP-MS	1.32	ug/L	H	0.1	0.5	1.32	J	unknown
WG136055	MH071-099	10/13/2014	L60387-2	Storm	Cadmium, Dissolved, ICP-MS		ug/L	<MDL,H	0.05	0.25	0.05	U	
WG136055	MH065-357	10/13/2014	L60387-3	Storm	Cadmium, Dissolved, ICP-MS		ug/L	<MDL,H	0.05	0.25	0.05	U	
WG136055	MH071-099	10/22/2014	L61501-2	Storm	Cadmium, Dissolved, ICP-MS		ug/L	<MDL,H	0.05	0.25	0.05	U	
WG136055	MH065-357	10/22/2014	L61501-3	Storm	Cadmium, Dissolved, ICP-MS		ug/L	<MDL,H	0.05	0.25	0.05	U	
WG136055	MH064-126	10/30/2014	L61560-1	Storm	Cadmium, Dissolved, ICP-MS		ug/L	<MDL,H	0.05	0.25	0.05	U	
WG136055	MH065-357	10/30/2014	L61560-3	Storm	Cadmium, Dissolved, ICP-MS		ug/L	<MDL,H	0.05	0.25	0.05	U	
WG136055	MH071-099	10/13/2014	L60387-2	Storm	Chromium, Dissolved, ICP-MS	0.22	ug/L	<RDL,H	0.2	1	0.22	J	unknown
WG136055	MH065-357	10/13/2014	L60387-3	Storm	Chromium, Dissolved, ICP-MS		ug/L	<MDL,H	0.2	1	0.2	U	
WG136055	MH071-099	10/22/2014	L61501-2	Storm	Chromium, Dissolved, ICP-MS	0.21	ug/L	<RDL,H	0.2	1	0.21	J	unknown
WG136055	MH065-357	10/22/2014	L61501-3	Storm	Chromium, Dissolved, ICP-MS		ug/L	<MDL,H	0.2	1	0.2	U	
WG136055	MH064-126	10/30/2014	L61560-1	Storm	Chromium, Dissolved, ICP-MS	0.32	ug/L	<RDL,H	0.2	1	0.32	J	unknown
WG136055	MH065-357	10/30/2014	L61560-3	Storm	Chromium, Dissolved, ICP-MS	0.39	ug/L	<RDL,H	0.2	1	0.39	J	unknown
WG136055	MH071-099	10/13/2014	L60387-2	Storm	Copper, Dissolved, ICP-MS	3.96	ug/L	H	0.4	2	3.96	J	unknown
WG136055	MH065-357	10/13/2014	L60387-3	Storm	Copper, Dissolved, ICP-MS	6.97	ug/L	H	0.4	2	6.97	J	unknown
WG136055	MH071-099	10/22/2014	L61501-2	Storm	Copper, Dissolved, ICP-MS	4.99	ug/L	H	0.4	2	4.99	J	unknown
WG136055	MH065-357	10/22/2014	L61501-3	Storm	Copper, Dissolved, ICP-MS	5.7	ug/L	H	0.4	2	5.7	J	unknown
WG136055	MH064-126	10/30/2014	L61560-1	Storm	Copper, Dissolved, ICP-MS	4.32	ug/L	H	0.4	2	4.32	J	unknown
WG136055	MH065-357	10/30/2014	L61560-3	Storm	Copper, Dissolved, ICP-MS	6.77	ug/L	H	0.4	2	6.77	J	unknown
WG136055	MH071-099	10/13/2014	L60387-2	Storm	Lead, Dissolved, ICP-MS	0.719	ug/L	H	0.1	0.5	0.719	J	unknown
WG136055	MH065-357	10/13/2014	L60387-3	Storm	Lead, Dissolved, ICP-MS	0.676	ug/L	H	0.1	0.5	0.676	J	unknown

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WORKNUM	LOCATOR	COLLECTDATE	Sample ID	Sample Type	PARMNAME	NUMVALUE	Units	Lab Qual	MDL	RDL	DV Value	DV Qual	Bias
WG136055	MH071-099	10/22/2014	L61501-2	Storm	Lead, Dissolved, ICP-MS	1.34	ug/L	H	0.1	0.5	1.34 J		unknown
WG136055	MH065-357	10/22/2014	L61501-3	Storm	Lead, Dissolved, ICP-MS	1.19	ug/L	H	0.1	0.5	1.19 J		unknown
WG136055	MH064-126	10/30/2014	L61560-1	Storm	Lead, Dissolved, ICP-MS	0.531	ug/L	H	0.1	0.5	0.531 J		unknown
WG136055	MH065-357	10/30/2014	L61560-3	Storm	Lead, Dissolved, ICP-MS	0.625	ug/L	H	0.1	0.5	0.625 J		unknown
WG136055	MH071-099	10/13/2014	L60387-2	Storm	Nickel, Dissolved, ICP-MS	2.3	ug/L	H	0.1	0.5	2.3 J		unknown
WG136055	MH065-357	10/13/2014	L60387-3	Storm	Nickel, Dissolved, ICP-MS	0.924	ug/L	H	0.1	0.5	0.924 J		unknown
WG136055	MH071-099	10/22/2014	L61501-2	Storm	Nickel, Dissolved, ICP-MS	6.11	ug/L	H	0.1	0.5	6.11 J		unknown
WG136055	MH065-357	10/22/2014	L61501-3	Storm	Nickel, Dissolved, ICP-MS	1.1	ug/L	H	0.1	0.5	1.1 J		unknown
WG136055	MH064-126	10/30/2014	L61560-1	Storm	Nickel, Dissolved, ICP-MS	0.673	ug/L	H	0.1	0.5	0.673 J		unknown
WG136055	MH065-357	10/30/2014	L61560-3	Storm	Nickel, Dissolved, ICP-MS	1.31	ug/L	H	0.1	0.5	1.31 J		unknown
WG136055	MH071-099	10/13/2014	L60387-2	Storm	Silver, Dissolved, ICP-MS		ug/L	<MDL,H	0.04	0.2	0.04 U		
WG136055	MH065-357	10/13/2014	L60387-3	Storm	Silver, Dissolved, ICP-MS		ug/L	<MDL,H	0.04	0.2	0.04 U		
WG136055	MH071-099	10/22/2014	L61501-2	Storm	Silver, Dissolved, ICP-MS		ug/L	<MDL,H	0.04	0.2	0.04 U		
WG136055	MH065-357	10/22/2014	L61501-3	Storm	Silver, Dissolved, ICP-MS		ug/L	<MDL,H	0.04	0.2	0.04 U		
WG136055	MH064-126	10/30/2014	L61560-1	Storm	Silver, Dissolved, ICP-MS		ug/L	<MDL,H	0.04	0.2	0.04 U		
WG136055	MH065-357	10/30/2014	L61560-3	Storm	Silver, Dissolved, ICP-MS		ug/L	<MDL,H	0.04	0.2	0.04 U		
WG136055	MH071-099	10/13/2014	L60387-2	Storm	Vanadium, Dissolved, ICP-MS	1.41	ug/L	H	0.075	0.375	1.41 J		unknown
WG136055	MH065-357	10/13/2014	L60387-3	Storm	Vanadium, Dissolved, ICP-MS	1.04	ug/L	H	0.075	0.375	1.04 J		unknown
WG136055	MH071-099	10/22/2014	L61501-2	Storm	Vanadium, Dissolved, ICP-MS	1.77	ug/L	H	0.075	0.375	1.77 J		unknown
WG136055	MH065-357	10/22/2014	L61501-3	Storm	Vanadium, Dissolved, ICP-MS	1.9	ug/L	H	0.075	0.375	1.9 J		unknown
WG136055	MH064-126	10/30/2014	L61560-1	Storm	Vanadium, Dissolved, ICP-MS	0.492	ug/L	H	0.075	0.375	0.492 J		unknown
WG136055	MH065-357	10/30/2014	L61560-3	Storm	Vanadium, Dissolved, ICP-MS	1.04	ug/L	H	0.075	0.375	1.04 J		unknown
WG136055	MH071-099	10/13/2014	L60387-2	Storm	Zinc, Dissolved, ICP-MS	8.97	ug/L	H	0.5	2.5	8.97 J		unknown
WG136055	MH065-357	10/13/2014	L60387-3	Storm	Zinc, Dissolved, ICP-MS	12.1	ug/L	H	0.5	2.5	12.1 J		unknown
WG136055	MH071-099	10/22/2014	L61501-2	Storm	Zinc, Dissolved, ICP-MS	9.48	ug/L	H	0.5	2.5	9.48 J		unknown
WG136055	MH065-357	10/22/2014	L61501-3	Storm	Zinc, Dissolved, ICP-MS	7.49	ug/L	H	0.5	2.5	7.49 J		unknown
WG136055	MH064-126	10/30/2014	L61560-1	Storm	Zinc, Dissolved, ICP-MS	24.7	ug/L	H	0.5	2.5	24.7 J		unknown
WG136055	MH065-357	10/30/2014	L61560-3	Storm	Zinc, Dissolved, ICP-MS	14.4	ug/L	H	0.5	2.5	14.4 J		unknown
WG136970	MH064-126	12/10/2014	L61610-1	Storm	Arsenic, Dissolved, ICP-MS	0.36	ug/L	<RDL,H	0.1	0.5	0.36 J		unknown
WG136970	MH065-357	12/10/2014	L61610-3	Storm	Arsenic, Dissolved, ICP-MS	1.02	ug/L	H	0.1	0.5	1.02 J		unknown
WG136970	MH064-126	12/10/2014	L61610-1	Storm	Cadmium, Dissolved, ICP-MS	0.063	ug/L	<RDL,H	0.05	0.25	0.063 J		unknown
WG136970	MH065-357	12/10/2014	L61610-3	Storm	Cadmium, Dissolved, ICP-MS		ug/L	<MDL,H	0.05	0.25	0.05 U		
WG136970	MH064-126	12/10/2014	L61610-1	Storm	Chromium, Dissolved, ICP-MS	0.23	ug/L	<RDL,H	0.2	1	0.23 J		unknown
WG136970	MH065-357	12/10/2014	L61610-3	Storm	Chromium, Dissolved, ICP-MS	0.28	ug/L	<RDL,H	0.2	1	0.28 J		unknown
WG136970	MH064-126	12/10/2014	L61610-1	Storm	Copper, Dissolved, ICP-MS	3.93	ug/L	H	0.4	2	3.93 J		unknown
WG136970	MH065-357	12/10/2014	L61610-3	Storm	Copper, Dissolved, ICP-MS	3.72	ug/L	H	0.4	2	3.72 J		unknown
WG136970	MH064-126	12/10/2014	L61610-1	Storm	Lead, Dissolved, ICP-MS	0.516	ug/L	H	0.1	0.5	0.516 J		unknown
WG136970	MH065-357	12/10/2014	L61610-3	Storm	Lead, Dissolved, ICP-MS	0.33	ug/L	<RDL,H	0.1	0.5	0.33 J		unknown
WG136970	MH064-126	12/10/2014	L61610-1	Storm	Nickel, Dissolved, ICP-MS	0.518	ug/L	H	0.1	0.5	0.518 J		unknown

Table 1. Michigan CSO Storm Event Samples - Data Validation Flags and Bias Notation

WORKNUM	LOCATOR	COLLECTDATE	Sample ID	Sample Type	PARMNAME	NUMVALUE	Units	Lab Qual	MDL	RDL	DV Value	DV Qual	Bias
WG136970	MH065-357	12/10/2014	L61610-3	Storm	Nickel, Dissolved, ICP-MS	1.39	ug/L	H	0.1	0.5	1.39 J		unknown
WG136970	MH064-126	12/10/2014	L61610-1	Storm	Silver, Dissolved, ICP-MS		ug/L	<MDL,H	0.04	0.2	0.04 U		
WG136970	MH065-357	12/10/2014	L61610-3	Storm	Silver, Dissolved, ICP-MS		ug/L	<MDL,H	0.04	0.2	0.04 U		
WG136970	MH064-126	12/10/2014	L61610-1	Storm	Vanadium, Dissolved, ICP-MS	0.33	ug/L	<RDL,H	0.075	0.375	0.33 J		unknown
WG136970	MH065-357	12/10/2014	L61610-3	Storm	Vanadium, Dissolved, ICP-MS	1.13	ug/L	H	0.075	0.375	1.13 J		unknown
WG136970	MH064-126	12/10/2014	L61610-1	Storm	Zinc, Dissolved, ICP-MS	17.9	ug/L	H	0.5	2.5	17.9 J		unknown
WG136970	MH065-357	12/10/2014	L61610-3	Storm	Zinc, Dissolved, ICP-MS	11	ug/L	H	0.5	2.5	11 J		unknown
WG129823	MH064-126	11/6/2013	L59155-1	Storm	2-Methylnaphthalene	0.099	ug/L		0.0079	0.0396	0.099 J		low
WG129823	MH071-099	11/6/2013	L59155-3	Storm	2-Methylnaphthalene	82.4	ug/L		0.19	0.943	82.4 J		low
WG129823	MH064-126	11/6/2013	L59155-1	Storm	Benzo(a)anthracene	1.76	ug/L	J	0.016	0.0792	1.76 R		
WG129823	MH064-126	11/6/2013	L59155-1	Storm	Benzo(a)pyrene	2.3	ug/L	J	0.016	0.0792	2.3 R		
WG129823	MH064-126	11/6/2013	L59155-1	Storm	Benzo(b,j,k)fluoranthene	5.22	ug/L	J	0.016	0.0792	5.22 R		
WG129823	MH064-126	11/6/2013	L59155-1	Storm	Benzo(g,h,i)perylene	0.85	ug/L	J	0.016	0.0792	0.85 J		unknown
WG129823	MH064-126	11/6/2013	L59155-1	Storm	Chrysene	1.96	ug/L	J	0.016	0.0792	1.96 R		
WG129823	MH064-126	11/6/2013	L59155-1	Storm	Fluoranthene	3.55	ug/L	J	0.016	0.0792	3.55 R		
WG129823	MH064-126	11/6/2013	L59155-1	Storm	Fluorene	0.044	ug/L	<RDL	0.016	0.0792	0.044 J		low
WG129823	MH071-099	11/6/2013	L59155-3	Storm	Fluorene	5.29	ug/L		0.075	0.377	5.29 J		low
WG129823	MH064-126	11/6/2013	L59155-1	Storm	Indeno(1,2,3-Cd)Pyrene	1.27	ug/L	J	0.016	0.0792	1.27 J		unknown
WG129823	MH064-126	11/6/2013	L59155-1	Storm	Phenanthrene	0.946	ug/L	J	0.016	0.0792	0.946 J		unknown
WG129823	MH064-126	11/6/2013	L59155-1	Storm	Pyrene	3.33	ug/L	J	0.016	0.0792	3.33 R		
WG130696	MH071-099	1/8/2014	L59471-2	Storm	Bis(2-Ethylhexyl)Phthalate	8.1	ug/L	<RDL,J	1.9	9.43	8.1 J		low
WG130696	MH071-099	1/8/2014	L59471-2	Storm	Phenanthrene	16	ug/L	J	0.075	0.377	16 J		low
WG131154	MH071-099	2/11/2014	L59681-2	Storm	2-Methylnaphthalene	48.8	ug/L		0.075	0.377	48.8 J		high
WG131154	MH071-099	2/11/2014	L59681-2	Storm	Acenaphthene	1.18	ug/L		0.0075	0.0377	1.18 J		high
WG131154	MH071-099	2/11/2014	L59681-2	Storm	Acenaphthylene	1.05	ug/L		0.0075	0.0377	1.05 J		high
WG131154	MH064-126	2/11/2014	L59681-1	Storm	Benzyl Butyl Phthalate	0.14	ug/L	<RDL,JL	0.075	0.377	0.14 J		high
WG131154	MH064-126	2/11/2014	L59681-1	Storm	Diethyl Phthalate	0.249	ug/L	B	0.038	0.189	0.249 U		
WG131154	MH071-099	2/11/2014	L59681-2	Storm	Diethyl Phthalate	0.591	ug/L	B3	0.038	0.189	0.591 J		high
WG131154	MH065-357	2/11/2014	L59681-3	Storm	Diethyl Phthalate	0.462	ug/L	B	0.038	0.189	0.462 U		
WG131154	MH071-099	2/11/2014	L59681-2	Storm	Dimethyl Phthalate	1.4	ug/L		0.038	0.189	1.4 J		high
WG131154	MH064-126	2/11/2014	L59681-1	Storm	Di-N-Butyl Phthalate	0.12	ug/L	<RDL,JL	0.038	0.189	0.12 J		high
WG131154	MH071-099	2/11/2014	L59681-2	Storm	Fluorene	2.86	ug/L		0.015	0.0755	2.86 J		high
WG131154	MH071-099	2/11/2014	L59681-2	Storm	Naphthalene	23.2	ug/L		0.075	0.377	23.2 J		high
WG131288	MH064-126	2/24/2014	L59745-1	Storm	2-Methylnaphthalene	0.01	ug/L	<RDL	0.0076	0.0381	0.01 J		low
WG131288	MH071-099	2/24/2014	L59745-2	Storm	2-Methylnaphthalene	0.214	ug/L		0.0075	0.0377	0.214 J		low
WG131288	MH065-357	2/24/2014	L59745-3	Storm	2-Methylnaphthalene	0.152	ug/L		0.0075	0.0377	0.152 J		low
WG131288	MH064-126	2/24/2014	L59745-1	Storm	Acenaphthene		ug/L	<MDL	0.0076	0.0381	0.0076 UJ		low
WG131288	MH071-099	2/24/2014	L59745-2	Storm	Acenaphthene		ug/L	<MDL	0.0075	0.0377	0.0075 UJ		low
WG131288	MH065-357	2/24/2014	L59745-3	Storm	Acenaphthene		ug/L	<MDL	0.0075	0.0377	0.0075 UJ		low

Table 1. Michigan CSO Storm Event Samples - Data Validation Flags and Bias Notation

WORKNUM	LOCATOR	COLLECTDATE	Sample ID	Sample Type	PARMNAME	NUMVALUE	Units	Lab Qual	MDL	RDL	DV Value	DV Qual	Bias
WG131288	MH064-126	2/24/2014	L59745-1	Storm	Acenaphthylene		ug/L	<MDL	0.0076	0.0381	0.0076	UJ	low
WG131288	MH071-099	2/24/2014	L59745-2	Storm	Acenaphthylene	0.014	ug/L	<RDL	0.0075	0.0377	0.014	J	low
WG131288	MH065-357	2/24/2014	L59745-3	Storm	Acenaphthylene		ug/L	<MDL	0.0075	0.0377	0.0075	UJ	low
WG131494	MH071-099	3/5/2014	L59833-1	Storm	Acenaphthene	0.563	ug/L		0.0075	0.0377	0.563	J	high
WG131494	MH071-099	3/5/2014	L59833-1	Storm	Bis(2-Ethylhexyl)Phthalate	2.98	ug/L	JL	0.38	1.89	2.98	J	high
WG131494	MH065-357	3/5/2014	L59833-2	Storm	Diethyl Phthalate	0.344	ug/L	B	0.038	0.189	0.344	U	
WG131494	MH071-099	3/5/2014	L59833-1	Storm	Fluorene	2.26	ug/L	JL	0.015	0.0755	2.26	J	high
WG131494	MH071-099	3/5/2014	L59833-1	Storm	Naphthalene	4.44	ug/L		0.0075	0.0377	4.44	J	high
WG131494	MH071-099	3/5/2014	L59833-1	Storm	Phenanthrene	3.62	ug/L		0.015	0.0755	3.62	J	high
WG132256	MH064-126	4/16/2014	L60114-1	Storm	Benzo(a)anthracene	0.058	ug/L	<RDL,JG	0.015	0.0755	0.058	J	low
WG132256	MH071-099	4/16/2014	L60114-2	Storm	Benzo(a)anthracene	0.187	ug/L		0.015	0.0755	0.187	J	low
WG132256	MH071-099	4/16/2014	L60114-2	Storm	Benzyl Butyl Phthalate	0.771	ug/L		0.075	0.377	0.771	J	low
WG132256	MH071-099	4/16/2014	L60114-2	Storm	Bis(2-Ethylhexyl)Phthalate	2.48	ug/L		0.38	1.89	2.48	J	low
WG132256	MH071-099	4/16/2014	L60114-2	Storm	Chrysene	0.182	ug/L		0.015	0.0755	0.182	J	low
WG132256	MH071-099	4/16/2014	L60114-2	Storm	Di-N-Butyl Phthalate	1.67	ug/L		0.038	0.189	1.67	J	low
WG132256	MH064-126	4/16/2014	L60114-1	Storm	Fluoranthene	0.21	ug/L		0.015	0.0755	0.21	J	low
WG132256	MH071-099	4/16/2014	L60114-2	Storm	Fluoranthene	0.269	ug/L		0.015	0.0755	0.269	J	low
WG132256	MH064-126	4/16/2014	L60114-1	Storm	Pyrene	0.122	ug/L		0.015	0.0755	0.122	J	low
WG132256	MH071-099	4/16/2014	L60114-2	Storm	Pyrene	0.759	ug/L		0.015	0.0755	0.759	J	low
WG132664	MH064-126	5/8/2014	L60299-1	Storm	2-Methylnaphthalene		ug/L	<MDL,JG	0.0075	0.0377	0.0075	UJ	low
WG132664	MH071-099	5/8/2014	L60299-2	Storm	2-Methylnaphthalene	1.14	ug/L	JG	0.0075	0.0377	1.14	J	low
WG132664	MH065-357	5/8/2014	L60299-3	Storm	2-Methylnaphthalene	0.197	ug/L	JG	0.0075	0.0377	0.197	J	unknown
WG132664	MH065-357	5/8/2014	L60299-3	Storm	Acenaphthene	0.011	ug/L	<RDL	0.0075	0.0377	0.011	J	high
WG132664	MH065-357	5/8/2014	L60299-3	Storm	Diethyl Phthalate	3.37	ug/L		0.038	0.189	3.37	J	high
WG132664	MH065-357	5/8/2014	L60299-3	Storm	Dimethyl Phthalate	1.31	ug/L		0.038	0.189	1.31	J	high
WG132664	MH065-357	5/8/2014	L60299-3	Storm	Fluorene	0.071	ug/L	<RDL	0.015	0.0755	0.071	J	high
WG132664	MH065-357	5/8/2014	L60299-3	Storm	Naphthalene	0.108	ug/L		0.0075	0.0377	0.108	J	high
WG135659	MH071-099	10/13/2014	L60387-2	Storm	Benzo(a)anthracene	0.208	ug/L	JG	0.015	0.0755	0.208	J	low
WG135659	MH071-099	10/13/2014	L60387-2	Storm	Bis(2-Ethylhexyl)Phthalate	5.72	ug/L	JL	0.38	1.89	5.72	R	
WG135659	MH071-099	10/13/2014	L60387-2	Storm	Di-N-Butyl Phthalate	0.407	ug/L	B	0.038	0.189	0.407	U	
WG135659	MH065-357	10/13/2014	L60387-3	Storm	Di-N-Butyl Phthalate	0.253	ug/L	B	0.038	0.189	0.253	U	
WG135984	MH064-126	10/30/2014	L61560-1	Storm	Diethyl Phthalate	0.853	ug/L	B	0.038	0.189	0.853	U	
WG135984	MH065-357	10/30/2014	L61560-3	Storm	Diethyl Phthalate	1.5	ug/L	B	0.038	0.189	1.5	U	
WG136681	MH064-126	12/10/2014	L61610-1	Storm	Bis(2-Ethylhexyl)Phthalate	0.4	ug/L	<RDL,B,J	0.38	1.89	0.4	R	
WG136681	MH065-357	12/10/2014	L61610-3	Storm	Bis(2-Ethylhexyl)Phthalate	0.8	ug/L	<RDL,B,J	0.38	1.89	0.8	R	
WG136681	MH064-126	12/10/2014	L61610-1	Storm	Diethyl Phthalate	0.319	ug/L	B	0.038	0.189	0.319	U	
WG136681	MH065-357	12/10/2014	L61610-3	Storm	Diethyl Phthalate	0.323	ug/L	B	0.038	0.189	0.323	U	

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Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59104-2	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	11/8/2013	11/8/2013	11/8/2013	
L59105-1	421422-ENGW	SWD-ENGW Enumclaw Groundwater Quarterly	CVTOC	GRND WTR	11/8/2013	11/8/2013	11/8/2013	
L59105-3	421422-ENGW	SWD-ENGW Enumclaw Groundwater Quarterly	CVTOC	GRND WTR	11/8/2013	11/8/2013	11/8/2013	
L59148-1	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	STORM WTR	11/7/2013	11/8/2013	11/8/2013	SAMP
L59148-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	STORM WTR	11/7/2013	11/8/2013	11/8/2013	SAMP
L59148-2	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	STORM WTR	11/7/2013	11/8/2013	11/8/2013	SAMP
L59148-2	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	STORM WTR	11/7/2013	11/8/2013	11/8/2013	SAMP
L59148-3	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	STORM WTR	11/7/2013	11/8/2013	11/8/2013	FREP
L59148-3	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	STORM WTR	11/7/2013	11/8/2013	11/8/2013	FREP
L59149-1	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	STORM WTR	11/6/2013	11/8/2013	11/8/2013	Samp
L59149-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	STORM WTR	11/6/2013	11/8/2013	11/8/2013	Samp
L59155-1	423589-320-4	CSO Basin Study	CVDOC	STORM WTR	11/6/2013	11/8/2013	11/8/2013	
L59155-1	423589-320-4	CSO Basin Study	CVTOC	STORM WTR	11/6/2013	11/8/2013	11/8/2013	
L59155-3	423589-320-4	CSO Basin Study	CVDOC	STORM WTR	11/6/2013	11/8/2013	11/8/2013	
L59155-3	423589-320-4	CSO Basin Study	CVTOC	STORM WTR	11/6/2013	11/8/2013	11/8/2013	
WG129830-1	MB		CVTOC	BLANK WTR		11/8/2013	11/8/2013	MB1 131108
WG129830-2	LCS		CVTOC	BLANK WTR		11/8/2013	11/8/2013	LEVEL1
WG129830-3	SB		CVTOC	BLANK WTR		11/8/2013	11/8/2013	WG129830-1
WG129830-4	LD		CVTOC	STORM WTR		11/8/2013	11/8/2013	L59148-3
WG129830-5	MS		CVTOC	STORM WTR		11/8/2013	11/8/2013	L59148-3
WG129830-6	MB		CVDOC	BLANK WTR		11/8/2013	11/8/2013	MB1 131108
WG129830-7	LCS		CVDOC	BLANK WTR		11/8/2013	11/8/2013	LEVEL1
WG129830-8	SB		CVDOC	BLANK WTR		11/8/2013	11/8/2013	WG129830-6
WG129830-9	LD		CVDOC	STORM WTR		11/8/2013	11/8/2013	L59148-2
WG129830-10	MS		CVDOC	STORM WTR		11/8/2013	11/8/2013	L59148-2
WG129830-11	MB		CVDOC	BLANK WTR		11/8/2013	11/8/2013	MB2 131108
WG129830-12	MB		CVDOC	BLANK WTR		11/8/2013	11/8/2013	MB3 131108
WG129830-13	LD		CVTOC	GRND WTR		11/8/2013	11/8/2013	L59105-1
WG129830-14	MS		CVTOC	GRND WTR		11/8/2013	11/8/2013	L59105-1

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Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59132-1	421422-CFGW	SWD-CFGW Cedar Falls Groundwater Quarterly	CVTOC	GRND WTR	11/19/2013	11/20/2013	11/20/2013	
L59132-3	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	11/20/2013	11/20/2013	11/20/2013	
L59134-1	421422-HOGW	SWD-HOGW Hobart Groundwater Quarterly	CVTOC	GRND WTR	11/19/2013	11/20/2013	11/20/2013	

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L59138-3	421422-HOGW	SWD-HOGW Hobart Groundwater Quarterly	CVTOC	GRND WTR	11/19/2013	11/20/2013	11/20/2013
L59141-1	421250ON	Ambient Offshore Water Column-North	CVDOC	FRESH WTR	11/18/2013	11/19/2013	11/21/2013
L59141-1	421250ON	Ambient Offshore Water Column-North	CVTOC	FRESH WTR	11/18/2013	11/21/2013	11/21/2013
L59141-2	421250ON	Ambient Offshore Water Column-North	CVDOC	FRESH WTR	11/18/2013	11/19/2013	11/21/2013
L59141-2	421250ON	Ambient Offshore Water Column-North	CVTOC	FRESH WTR	11/18/2013	11/21/2013	11/21/2013
L59141-3	421250ON	Ambient Offshore Water Column-North	CVDOC	FRESH WTR	11/18/2013	11/19/2013	11/21/2013
L59141-3	421250ON	Ambient Offshore Water Column-North	CVTOC	FRESH WTR	11/18/2013	11/21/2013	11/21/2013
L59142-1	421250ON	Ambient Offshore Water Column-North	CVDOC	SALT WTR	11/18/2013	11/19/2013	11/21/2013
L59142-1	421250ON	Ambient Offshore Water Column-North	CVTOC	SALT WTR	11/18/2013	11/21/2013	11/21/2013
L59142-2	421250ON	Ambient Offshore Water Column-North	CVDOC	SALT WTR	11/18/2013	11/19/2013	11/21/2013
L59142-2	421250ON	Ambient Offshore Water Column-North	CVTOC	SALT WTR	11/18/2013	11/21/2013	11/21/2013
L59142-3	421250ON	Ambient Offshore Water Column-North	CVDOC	SALT WTR	11/18/2013	11/19/2013	11/21/2013
L59142-3	421250ON	Ambient Offshore Water Column-North	CVTOC	SALT WTR	11/18/2013	11/21/2013	11/21/2013
L59184-1	421422-HOGW	SWD-HOGW Hobart Groundwater Quarterly	CVTOC	GRND WTR	11/20/2013	11/20/2013	11/20/2013
L59184-3	421422-HOGW	SWD-HOGW Hobart Groundwater Quarterly	CVTOC	GRND WTR	11/21/2013	11/21/2013	11/21/2013
L59187-1	421422-HOGW	SWD-HOGW Hobart Groundwater Quarterly	CVTOC	GRND WTR	11/21/2013	11/21/2013	11/21/2013
L59193-4	421422-HOGW	SWD-HOGW Hobart Groundwater Quarterly	CVTOC	GRND WTR	11/21/2013	11/21/2013	11/21/2013
L59239-1	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	STORM WTR	11/18/2013	11/20/2013	11/21/2013 SAMP
L59239-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	STORM WTR	11/18/2013	11/21/2013	11/21/2013 SAMP
L59240-1	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	STORM WTR	11/19/2013	11/20/2013	11/21/2013 SAMP
L59240-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	STORM WTR	11/19/2013	11/21/2013	11/21/2013 SAMP
L59240-2	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	STORM WTR	11/19/2013	11/20/2013	11/21/2013 SAMP
L59240-2	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	STORM WTR	11/19/2013	11/21/2013	11/21/2013 SAMP
L59241-1	423589-320-4	CSO Basin Study	CVDOC	STORM WTR	11/18/2013	11/20/2013	11/21/2013
L59241-1	423589-320-4	CSO Basin Study	CVTOC	STORM WTR	11/18/2013	11/21/2013	11/21/2013
L59241-3	423589-320-4	CSO Basin Study	CVDOC	STORM WTR	11/18/2013	11/20/2013	11/21/2013
L59241-3	423589-320-4	CSO Basin Study	CVTOC	STORM WTR	11/18/2013	11/21/2013	11/21/2013
L59250-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	11/20/2013	11/20/2013	11/20/2013
WG130020-1	MB		CVTOC	BLANK WTR		11/20/2013	11/20/2013 MB1 131120
WG130020-2	LCS		CVTOC	BLANK WTR		11/20/2013	11/20/2013 LEVEL1
WG130020-3	SB		CVTOC	BLANK WTR		11/20/2013	11/20/2013 WG130020-1
WG130020-4	LD		CVTOC	GRND WTR		11/20/2013	11/20/2013 L59132-3
WG130020-5	MS		CVTOC	GRND WTR		11/20/2013	11/20/2013 L59132-3
WG130020-6	MB		CVTOC	BLANK WTR		11/21/2013	11/21/2013 MB1 131121
WG130020-7	LCS		CVTOC	BLANK WTR		11/21/2013	11/21/2013 LEVEL1
WG130020-8	SB		CVTOC	BLANK WTR		11/21/2013	11/21/2013 WG130020-6
WG130020-9	MB		CVDOC	BLANK WTR		11/20/2013	11/21/2013 MB1 131120
WG130020-10	LCS		CVDOC	BLANK WTR		11/21/2013	11/21/2013 LEVEL1
WG130020-11	SB		CVDOC	BLANK WTR		11/20/2013	11/21/2013 WG130020-9
WG130020-12	LD		CVDOC	STORM WTR		11/20/2013	11/21/2013 L59240-1

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WG130020-13 MS	CVDOC	STORM WTR	11/20/2013	11/21/2013	L59240-1
WG130020-14 LD	CVTOC	FRESH WTR	11/21/2013	11/21/2013	L59141-1
WG130020-15 MS	CVTOC	SALT WTR	11/21/2013	11/21/2013	L59142-3
WG130020-16 MB	CVDOC	BLANK WTR	11/19/2013	11/21/2013	MB1 131119
WG130020-17 LD	CVDOC	FRESH WTR	11/19/2013	11/21/2013	L59141-2
WG130020-18 MS	CVDOC	SALT WTR	11/19/2013	11/21/2013	L59142-2
WG130020-19 MB	CVTOC	BLANK WTR	11/21/2013	11/21/2013	MB2 131121
WG130020-20 LCS	CVTOC	BLANK WTR	11/21/2013	11/21/2013	LEVEL1
WG130020-21 LD	CVTOC	GRND WTR	11/21/2013	11/21/2013	L59187-1
WG130020-22 MS	CVTOC	GRND WTR	11/21/2013	11/21/2013	L59187-1
WG130020-23 LD	CVTOC	STORM WTR	11/21/2013	11/21/2013	L59241-3
WG130020-24 MS	CVTOC	STORM WTR	11/21/2013	11/21/2013	L59241-3

WG130703 (TOC, DOC/421422, 423589) Department: 3 - Conventionals Move Date: 2014-01-22 09:35:59

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59293-3	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	1/13/2014	1/14/2014	1/14/2014	
L59420-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	1/6/2014	1/14/2014	1/14/2014	
L59420-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	1/7/2014	1/14/2014	1/14/2014	
L59420-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	1/6/2014	1/14/2014	1/14/2014	
L59420-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	1/7/2014	1/14/2014	1/14/2014	
L59422-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	1/7/2014	1/14/2014	1/14/2014	
L59422-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	1/10/2014	1/14/2014	1/14/2014	
L59422-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	1/7/2014	1/14/2014	1/14/2014	
L59422-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	1/10/2014	1/14/2014	1/14/2014	
L59424-1	421422-VALS-M	SWD-VALS-M Vashon Leachate Monthly	CVTOC	LEACHATE	1/8/2014	1/16/2014	1/16/2014	
L59424-3	421422-VALS-M	SWD-VALS-M Vashon Leachate Monthly	CVTOC	LEACHATE	1/8/2014	1/16/2014	1/16/2014	
L59425-1	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTOC	LEACHATE	1/8/2014	1/16/2014	1/16/2014	
L59425-3	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTOC	LEACHATE	1/8/2014	1/16/2014	1/16/2014	
L59425-4	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTOC	LEACHATE	1/8/2014	1/16/2014	1/16/2014	
L59425-5	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTOC	LEACHATE	1/8/2014	1/16/2014	1/16/2014	
L59435-1	421422-CHGW-NF	SWD-CHGW-NP Cedar Hills Groundwater Non-Pota	CVTOC	GRND WTR	1/9/2014	1/14/2014	1/14/2014	
L59437-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	1/10/2014	1/14/2014	1/14/2014	
L59437-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	1/9/2014	1/14/2014	1/14/2014	
L59437-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	1/10/2014	1/14/2014	1/14/2014	
L59437-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	1/10/2014	1/14/2014	1/14/2014	
L59439-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	1/13/2014	1/14/2014	1/14/2014	
L59439-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	1/13/2014	1/14/2014	1/14/2014	
L59439-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	1/13/2014	1/14/2014	1/14/2014	

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L59439-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	1/13/2014	1/14/2014	1/14/2014
L59440-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	1/6/2014	1/14/2014	1/14/2014
L59470-1	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	STORM WTR	1/8/2014	1/10/2014	1/15/2014 SAMP
L59470-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	STORM WTR	1/8/2014	1/14/2014	1/14/2014 SAMP
L59470-2	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	STORM WTR	1/8/2014	1/10/2014	1/15/2014 FREP@L59470-1
L59470-2	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	STORM WTR	1/8/2014	1/14/2014	1/14/2014 FREP@L59470-1
L59471-1	423589-320-4	CSO Basin Study	CVDOC	STORM WTR	1/8/2014	1/10/2014	1/15/2014
L59471-1	423589-320-4	CSO Basin Study	CVTOC	STORM WTR	1/8/2014	1/15/2014	1/15/2014
L59471-2	423589-320-4	CSO Basin Study	CVDOC	STORM WTR	1/8/2014	1/10/2014	1/15/2014
L59471-2	423589-320-4	CSO Basin Study	CVTOC	STORM WTR	1/8/2014	1/15/2014	1/15/2014
L59471-3	423589-320-4	CSO Basin Study	CVDOC	STORM WTR	1/8/2014	1/10/2014	1/15/2014
L59471-3	423589-320-4	CSO Basin Study	CVTOC	STORM WTR	1/8/2014	1/15/2014	1/15/2014
L59480-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	1/15/2014	1/15/2014	1/15/2014
L59480-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	1/14/2014	1/14/2014	1/14/2014
L59480-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	1/14/2014	1/14/2014	1/14/2014
L59481-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	1/14/2014	1/14/2014	1/14/2014
L59481-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	1/15/2014	1/15/2014	1/15/2014
L59481-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	1/15/2014	1/15/2014	1/15/2014
L59481-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	1/15/2014	1/15/2014	1/15/2014
L59483-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	1/16/2014	1/16/2014	1/16/2014
L59483-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	1/16/2014	1/16/2014	1/16/2014
L59485-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	1/16/2014	1/16/2014	1/16/2014
L59485-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	1/16/2014	1/16/2014	1/16/2014
WG130703-1	MB		CVTOC	BLANK WTR		1/14/2014	1/14/2014 MB1 140114
WG130703-2	LCS		CVTOC	BLANK WTR		1/14/2014	1/14/2014 LEVEL1
WG130703-3	SB		CVTOC	BLANK WTR		1/14/2014	1/14/2014 WG130703-1
WG130703-4	LD		CVTOC	GRND WTR		1/14/2014	1/14/2014 L59422-6
WG130703-5	MS		CVTOC	GRND WTR		1/14/2014	1/14/2014 L59422-6
WG130703-6	MB		CVTOC	BLANK WTR		1/14/2014	1/14/2014 MB2 140114
WG130703-7	LCS		CVTOC	BLANK WTR		1/14/2014	1/14/2014 LEVEL1
WG130703-8	LD		CVTOC	GRND WTR		1/14/2014	1/14/2014 L59481-1
WG130703-9	MS		CVTOC	GRND WTR		1/14/2014	1/14/2014 L59481-1
WG130703-10	LD		CVTOC	STORM WTR		1/14/2014	1/14/2014 L59470-2
WG130703-11	MS		CVTOC	STORM WTR		1/14/2014	1/14/2014 L59470-2
WG130703-12	MB		CVTOC	BLANK WTR		1/15/2014	1/15/2014 MB1 140115
WG130703-13	LCS		CVTOC	BLANK WTR		1/15/2014	1/15/2014 LEVEL1
WG130703-14	MB		CVDOC	BLANK WTR		1/10/2014	1/15/2014 MB1 140110
WG130703-15	SB		CVDOC	BLANK WTR		1/10/2014	1/15/2014 WG130703-14
WG130703-16	LCS		CVDOC	BLANK WTR		1/15/2014	1/15/2014 LEVEL1
WG130703-17	LD		CVDOC	STORM WTR		1/10/2014	1/15/2014 L59471-1

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WG130703-18 MS	CVDOC	STORM WTR	1/10/2014	1/15/2014	L59471-1
WG130703-19 MB	CVTOC	BLANK WTR	1/16/2014	1/16/2014	MB1 140116
WG130703-20 LCS	CVTOC	BLANK WTR	1/16/2014	1/16/2014	LEVEL1
WG130703-21 SB	CVTOC	BLANK WTR	1/16/2014	1/16/2014	WG130703-19
WG130703-22 LD	CVTOC	LEACHATE	1/16/2014	1/16/2014	L59425-3
WG130703-23 MS	CVTOC	LEACHATE	1/16/2014	1/16/2014	L59425-3

WG131347 (TOC, DOC/423589-320-4) Department: 3 - Conventionals Move Date: 2014-03-14 10:13:57

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59681-1	423589-320-4	CSO Basin Study	CVDOC	STORM WTR	2/11/2014	2/12/2014	2/28/2014	
L59681-1	423589-320-4	CSO Basin Study	CVTOC	STORM WTR	2/11/2014	3/10/2014	3/10/2014	
L59681-2	423589-320-4	CSO Basin Study	CVDOC	STORM WTR	2/11/2014	2/12/2014	2/28/2014	
L59681-2	423589-320-4	CSO Basin Study	CVTOC	STORM WTR	2/11/2014	2/28/2014	2/28/2014	
L59681-3	423589-320-4	CSO Basin Study	CVDOC	STORM WTR	2/11/2014	2/12/2014	2/28/2014	
L59681-3	423589-320-4	CSO Basin Study	CVTOC	STORM WTR	2/11/2014	2/28/2014	2/28/2014	
L59691-1	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	2/26/2014	3/11/2014	3/11/2014	
L59691-2	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	2/26/2014	3/11/2014	3/11/2014	
L59691-3	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	2/26/2014	3/11/2014	3/11/2014	
L59691-4	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	2/26/2014	3/11/2014	3/11/2014	
L59691-5	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	2/26/2014	3/11/2014	3/11/2014	
L59691-6	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	2/26/2014	3/11/2014	3/11/2014	
L59691-7	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	2/27/2014	3/11/2014	3/11/2014	
L59691-8	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	2/27/2014	3/11/2014	3/11/2014	
L59691-9	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	2/27/2014	3/11/2014	3/11/2014	
L59691-10	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	2/27/2014	3/11/2014	3/11/2014	
L59691-11	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	2/27/2014	3/11/2014	3/11/2014	
L59691-12	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	2/27/2014	3/11/2014	3/11/2014	
L59691-14	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	2/27/2014	3/11/2014	3/11/2014	
L59691-15	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	2/27/2014	3/11/2014	3/11/2014	
L59693-1	421422-HTGW	SWD-HTGW Houghton Groundwater Quarterly	CVTOC	GRND WTR	3/11/2014	3/11/2014	3/11/2014	
L59694-1	421422-HOGW	SWD-HOGW Hobart Groundwater Quarterly	CVTOC	GRND WTR	2/28/2014	3/10/2014	3/10/2014	
L59738-1	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTOC	GRND WTR	3/3/2014	3/10/2014	3/10/2014	
L59738-3	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTOC	GRND WTR	3/7/2014	3/10/2014	3/10/2014	
L59739-1	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTOC	GRND WTR	3/7/2014	3/10/2014	3/10/2014	
L59739-3	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTOC	GRND WTR	3/7/2014	3/10/2014	3/10/2014	
L59739-4	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTOC	GRND WTR	3/10/2014	3/10/2014	3/10/2014	
L59739-5	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTOC	GRND WTR	3/7/2014	3/10/2014	3/10/2014	
L59740-1	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTOC	GRND WTR	3/10/2014	3/10/2014	3/10/2014	

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L59740-3	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTOC	GRND WTR	3/10/2014	3/10/2014	3/10/2014
L59741-1	421422-HTGW	SWD-HTGW Houghton Groundwater Quarterly	CVTOC	GRND WTR	3/10/2014	3/10/2014	3/10/2014
L59741-3	421422-HTGW	SWD-HTGW Houghton Groundwater Quarterly	CVTOC	GRND WTR	3/11/2014	3/11/2014	3/11/2014
L59741-4	421422-HTGW	SWD-HTGW Houghton Groundwater Quarterly	CVTOC	GRND WTR	3/10/2014	3/10/2014	3/10/2014
L59743-1	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTOC	GRND WTR	3/11/2014	3/11/2014	3/11/2014
L59743-3	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTOC	GRND WTR	3/11/2014	3/11/2014	3/11/2014
L59745-1	423589-320-4	CSO Basin Study	CVDOC	STORM WTR	2/24/2014	2/25/2014	2/28/2014
L59745-1	423589-320-4	CSO Basin Study	CVTOC	STORM WTR	2/24/2014	2/28/2014	2/28/2014
L59745-2	423589-320-4	CSO Basin Study	CVDOC	STORM WTR	2/24/2014	2/25/2014	2/28/2014
L59745-2	423589-320-4	CSO Basin Study	CVTOC	STORM WTR	2/24/2014	2/28/2014	2/28/2014
L59745-3	423589-320-4	CSO Basin Study	CVDOC	STORM WTR	2/24/2014	2/25/2014	2/28/2014
L59745-3	423589-320-4	CSO Basin Study	CVTOC	STORM WTR	2/24/2014	2/28/2014	2/28/2014
L59756-1	423589-320-4	CSO Basin Study	CVDOC	SEWER WTR	2/26/2014	2/27/2014	2/28/2014
L59756-1	423589-320-4	CSO Basin Study	CVTOC	SEWER WTR	2/26/2014	2/28/2014	2/28/2014
L59756-2	423589-320-4	CSO Basin Study	CVDOC	SEWER WTR	2/26/2014	2/27/2014	2/28/2014
L59756-2	423589-320-4	CSO Basin Study	CVTOC	SEWER WTR	2/26/2014	2/28/2014	2/28/2014
L59760-1	421422-DUSW	SWD-DUSW Duvall Surface Water Quarterly	CVTOC	FRESH WTR	3/4/2014	3/11/2014	3/11/2014
L59767-1	421422-CFSW	SWD-CFSW Cedar Falls Surface Water Quarterly	CVTOC	FRESH WTR	3/6/2014	3/11/2014	3/11/2014
L59768-1	421422-VASW	SWD-VASW Vashon Surface Water Quarterly	CVTOC	FRESH WTR	3/6/2014	3/11/2014	3/11/2014
L59833-1	423589-320-4	CSO Basin Study	CVDOC	STORM WTR	3/5/2014	3/6/2014	3/11/2014
L59833-1	423589-320-4	CSO Basin Study	CVTOC	STORM WTR	3/5/2014	3/10/2014	3/10/2014
L59833-2	423589-320-4	CSO Basin Study	CVDOC	STORM WTR	3/5/2014	3/6/2014	3/11/2014
L59833-2	423589-320-4	CSO Basin Study	CVTOC	STORM WTR	3/5/2014	3/10/2014	3/10/2014
WG131347-1	MB		CVTOC	BLANK WTR		2/28/2014	2/28/2014 MB1 02/28/14
WG131347-2	SB		CVTOC	BLANK WTR		2/28/2014	2/28/2014 WG131347-1
WG131347-3	LCS		CVTOC	BLANK WTR		2/28/2014	2/28/2014 LEVEL1
WG131347-4	LD		CVDOC	STORM WTR		2/12/2014	2/28/2014 L59681-1
WG131347-4	LD		CVTOC	STORM WTR		3/10/2014	3/10/2014 L59681-1
WG131347-5	MS		CVDOC	STORM WTR		2/12/2014	2/28/2014 L59681-1
WG131347-5	MS		CVTOC	STORM WTR		3/10/2014	3/10/2014 L59681-1
WG131347-6	LD		CVDOC	SEWER WTR		2/27/2014	2/28/2014 L59756-2
WG131347-6	LD		CVTOC	SEWER WTR		2/28/2014	2/28/2014 L59756-2
WG131347-7	MS		CVDOC	SEWER WTR		2/27/2014	2/28/2014 L59756-2
WG131347-7	MS		CVTOC	SEWER WTR		2/28/2014	2/28/2014 L59756-2
WG131347-8	MB		CVDOC	BLANK WTR		2/12/2014	2/28/2014 MB1 02/12/14
WG131347-9	SB		CVDOC	BLANK WTR		2/12/2014	2/28/2014 WG131347-8
WG131347-10	LCS		CVDOC	BLANK WTR		2/28/2014	2/28/2014 LEVEL1
WG131347-11	MB		CVDOC	BLANK WTR		2/25/2014	2/28/2014 MB1 02/25/14
WG131347-12	MB		CVDOC	BLANK WTR		2/27/2014	2/28/2014 MB1 02/27/14
WG131347-13	MB		CVTOC	BLANK WTR		3/10/2014	3/10/2014 MB1 03/10/14

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WG131347-14 SB	CVTOC	BLANK WTR	3/10/2014	3/10/2014	WG131347-13
WG131347-15 LCS	CVTOC	BLANK WTR	3/10/2014	3/10/2014	LEVEL1
WG131347-16 LD	CVTOC	GRND WTR	3/10/2014	3/10/2014	L59739-3
WG131347-17 MS	CVTOC	GRND WTR	3/10/2014	3/10/2014	L59739-3
WG131347-18 MB	CVDOC	BLANK WTR	3/6/2014	3/11/2014	MB1 03/06/14
WG131347-19 LCS	CVDOC	BLANK WTR	3/11/2014	3/11/2014	LEVEL1
WG131347-20 MB	CVTOC	BLANK WTR	3/11/2014	3/11/2014	MB2 03/10/14
WG131347-21 LCS	CVTOC	BLANK WTR	3/11/2014	3/11/2014	LEVEL1
WG131347-22 MB	CVTOC	BLANK WTR	3/11/2014	3/11/2014	MB1 03/11/14
WG131347-23 SB	CVTOC	BLANK WTR	3/11/2014	3/11/2014	WG131347-22
WG131347-24 LCS	CVTOC	BLANK WTR	3/11/2014	3/11/2014	LEVEL1
WG131347-25 LD	CVTOC	FRESH WTR	3/11/2014	3/11/2014	L59691-5
WG131347-26 MS	CVTOC	FRESH WTR	3/11/2014	3/11/2014	L59691-5

WG132434 (TOC/421422) Department: 3 - Conventionals Move Date: 2014-05-09 19:10:57

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59604-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/30/2014	4/30/2014	4/30/2014	
L59976-1	421250ON	Ambient Offshore Water Column-North	CVDOC	FRESH WTR	4/22/2014	4/23/2014	4/24/2014	
L59976-1	421250ON	Ambient Offshore Water Column-North	CVTOC	FRESH WTR	4/22/2014	5/5/2014	5/5/2014	
L59976-2	421250ON	Ambient Offshore Water Column-North	CVDOC	FRESH WTR	4/22/2014	4/23/2014	4/24/2014	
L59976-2	421250ON	Ambient Offshore Water Column-North	CVTOC	FRESH WTR	4/22/2014	5/5/2014	5/5/2014	
L59976-3	421250ON	Ambient Offshore Water Column-North	CVDOC	FRESH WTR	4/22/2014	4/23/2014	4/24/2014	
L59976-3	421250ON	Ambient Offshore Water Column-North	CVTOC	FRESH WTR	4/22/2014	5/5/2014	5/5/2014	
L59977-1	421250ON	Ambient Offshore Water Column-North	CVDOC	SALT WTR	4/22/2014	4/23/2014	4/24/2014	
L59977-1	421250ON	Ambient Offshore Water Column-North	CVTOC	SALT WTR	4/22/2014	5/5/2014	5/5/2014	
L59977-2	421250ON	Ambient Offshore Water Column-North	CVDOC	SALT WTR	4/22/2014	4/23/2014	4/24/2014	
L59977-2	421250ON	Ambient Offshore Water Column-North	CVTOC	SALT WTR	4/22/2014	5/5/2014	5/5/2014	
L59977-3	421250ON	Ambient Offshore Water Column-North	CVDOC	SALT WTR	4/22/2014	4/23/2014	4/24/2014	
L59977-3	421250ON	Ambient Offshore Water Column-North	CVTOC	SALT WTR	4/22/2014	5/5/2014	5/5/2014	
L60048-2	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	5/2/2014	5/2/2014	5/2/2014	
L60048-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/29/2014	4/30/2014	4/30/2014	
L60048-6	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	5/2/2014	5/2/2014	5/2/2014	
L60048-7	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/30/2014	4/30/2014	4/30/2014	
L60049-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/23/2014	4/30/2014	4/30/2014	
L60049-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/24/2014	4/30/2014	4/30/2014	
L60049-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/24/2014	4/30/2014	4/30/2014	
L60049-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/24/2014	4/30/2014	4/30/2014	
L60082-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/23/2014	4/30/2014	4/30/2014	

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L60082-2	421422-CHGW 421422-CHSW-	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/23/2014	4/30/2014	4/30/2014
L60084-3	A5-TD	SWD-CHSW - A5 TD Cedar Hills Surface Area 5 Top	CVTOC	FRESH WTR	4/28/2014	4/30/2014	4/30/2014
L60085-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/25/2014	4/30/2014	4/30/2014
L60085-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/25/2014	4/30/2014	4/30/2014
L60085-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/25/2014	4/30/2014	4/30/2014
L60085-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/29/2014	4/30/2014	4/30/2014
L60114-1	423589-320-4	CSO Basin Study	CVDOC	STORM WTR	4/16/2014	4/18/2014	5/5/2014
L60114-1	423589-320-4	CSO Basin Study	CVTOC	STORM WTR	4/16/2014	4/24/2014	4/24/2014
L60114-2	423589-320-4	CSO Basin Study	CVDOC	STORM WTR	4/16/2014	4/18/2014	4/24/2014
L60114-2	423589-320-4	CSO Basin Study	CVTOC	STORM WTR	4/16/2014	4/24/2014	4/24/2014
L60114-3	423589-320-4	CSO Basin Study	CVDOC	STORM WTR	4/16/2014	4/18/2014	4/24/2014
L60114-3	423589-320-4	CSO Basin Study	CVTOC	STORM WTR	4/16/2014	4/24/2014	4/24/2014
L60116-1	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVDOC	STORM WTR	4/17/2014	4/18/2014	5/5/2014
L60116-1	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVTOC	STORM WTR	4/17/2014	4/24/2014	4/24/2014
L60116-2	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVDOC	STORM WTR	4/17/2014	4/18/2014	4/24/2014
L60116-2	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVTOC	STORM WTR	4/17/2014	5/2/2014	5/2/2014
L60116-3	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVDOC	STORM WTR	4/17/2014	4/18/2014	4/24/2014
L60116-3	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVTOC	STORM WTR	4/17/2014	4/25/2014	4/25/2014
L60116-4	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVDOC	STORM WTR	4/17/2014	4/18/2014	4/24/2014
L60116-4	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVTOC	STORM WTR	4/17/2014	4/25/2014	4/25/2014
L60207-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/30/2014	4/30/2014	4/30/2014
WG132434-1	MB		CVDOC	BLANK WTR		4/18/2014	4/24/2014 MB1 140418 10:45
WG132434-2	SB		CVDOC	BLANK WTR		4/18/2014	4/24/2014 WG132434-1
WG132434-3	LCS		CVDOC	BLANK WTR		4/18/2014	4/24/2014 LEVEL1
WG132434-4	MB		CVDOC	BLANK WTR		4/18/2014	4/24/2014 MB2 140418 11:35
WG132434-5	LD		CVDOC	STORM WTR		4/18/2014	4/24/2014 L60116-1
WG132434-6	MS		CVDOC	STORM WTR		4/18/2014	4/24/2014 L60116-1
WG132434-7	MB		CVDOC	BLANK WTR		4/23/2014	4/24/2014 MB1 140423 16:15
WG132434-8	MS		CVDOC	FRESH WTR		4/23/2014	4/24/2014 L59976-3
WG132434-9	LD		CVDOC	SALT WTR		4/23/2014	4/24/2014 L59977-1
WG132434-10	MB		CVTOC	BLANK WTR		4/24/2014	4/24/2014 MB1 140424

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WG132434-11 SB	CVTOC	BLANK WTR	4/24/2014	4/24/2014	WG132434-10
WG132434-12 LCS	CVTOC	BLANK WTR	4/24/2014	4/24/2014	LEVEL1
WG132434-13 LD	CVTOC	STORM WTR	4/24/2014	4/24/2014	L60114-2
WG132434-14 MS	CVTOC	STORM WTR	4/24/2014	4/24/2014	L60114-2
WG132434-15 MB	CVTOC	BLANK WTR	4/30/2014	4/30/2014	MB1 140430
WG132434-16 SB	CVTOC	BLANK WTR	4/30/2014	4/30/2014	WG132434-15
WG132434-17 LCS	CVTOC	BLANK WTR	4/30/2014	4/30/2014	LEVEL1
WG132434-18 LD	CVTOC	FRESH WTR	4/30/2014	4/30/2014	L60084-3
WG132434-19 MS	CVTOC	FRESH WTR	4/30/2014	4/30/2014	L60084-3
WG132434-20 LD	CVTOC	GRND WTR	4/30/2014	4/30/2014	L60049-2
WG132434-21 MS	CVTOC	GRND WTR	4/30/2014	4/30/2014	L60049-2
WG132434-22 MB	CVTOC	BLANK WTR	5/2/2014	5/2/2014	MB1 140502
WG132434-23 SB	CVTOC	BLANK WTR	5/2/2014	5/2/2014	WG132434-22
WG132434-24 LCS	CVTOC	BLANK WTR	5/2/2014	5/2/2014	LEVEL1
WG132434-25 LD	CVTOC	STORM WTR	5/2/2014	5/2/2014	L60116-2
WG132434-26 MS	CVTOC	STORM WTR	5/2/2014	5/2/2014	L60116-2
WG132434-27 MB	CVTOC	BLANK WTR	5/5/2014	5/5/2014	MB1 140505
WG132434-28 SB	CVTOC	BLANK WTR	5/5/2014	5/5/2014	WG132434-27
WG132434-29 LCS	CVTOC	BLANK WTR	5/5/2014	5/5/2014	LEVEL1
WG132434-30 MS	CVTOC	FRESH WTR	5/5/2014	5/5/2014	L59976-2
WG132434-31 LD	CVTOC	SALT WTR	5/5/2014	5/5/2014	L59977-2
WG132434-32 MB	CVDOC	BLANK WTR	4/18/2014	5/5/2014	MB1 140418 10:45
WG132434-33 SB	CVDOC	BLANK WTR	4/18/2014	5/5/2014	WG132434-32
WG132434-34 LCS	CVDOC	BLANK WTR	4/18/2014	5/5/2014	LEVEL1
WG132434-35 LD	CVDOC	STORM WTR	4/18/2014	5/5/2014	L60114-1
WG132434-36 MS	CVDOC	STORM WTR	4/18/2014	5/5/2014	L60114-1
WG132434-37 MB	CVDOC	BLANK WTR	4/18/2014	5/5/2014	MB2 140418 11:35

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WG132867 (TOC, DOC/421422, 423530) Department: 3 - Conventionals Move Date: 2014-06-04 10:26:23

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L60226-2	421422-ENGW	SWD-ENGW Enumclaw Groundwater Quarterly	CVTOC	GRND WTR	5/19/2014	5/21/2014	5/21/2014	
L60227-1	421422-ENGW	SWD-ENGW Enumclaw Groundwater Quarterly	CVTOC	GRND WTR	5/19/2014	5/21/2014	5/21/2014	
L60240-1	423530	Brandon-Michigan CSO TP (Georgetown Wet Weath	CVDOC	STORM WTR	5/3/2014	5/4/2014	5/21/2014	
L60240-1	423530	Brandon-Michigan CSO TP (Georgetown Wet Weath	CVTOC	STORM WTR	5/3/2014	5/22/2014	5/22/2014	
L60240-2	423530	Brandon-Michigan CSO TP (Georgetown Wet Weath	CVDOC	STORM WTR	5/3/2014	5/4/2014	5/21/2014	
L60240-2	423530	Brandon-Michigan CSO TP (Georgetown Wet Weath	CVTOC	STORM WTR	5/3/2014	5/22/2014	5/22/2014	
L60240-3	423530	Brandon-Michigan CSO TP (Georgetown Wet Weath	CVDOC	STORM WTR	5/3/2014	5/4/2014	5/21/2014	
L60240-3	423530	Brandon-Michigan CSO TP (Georgetown Wet Weath	CVTOC	STORM WTR	5/3/2014	5/22/2014	5/22/2014	
L60240-4	423530	Brandon-Michigan CSO TP (Georgetown Wet Weath	CVDOC	STORM WTR	5/3/2014	5/4/2014	5/21/2014	
L60240-4	423530	Brandon-Michigan CSO TP (Georgetown Wet Weath	CVTOC	STORM WTR	5/3/2014	5/22/2014	5/22/2014	
L60240-5	423530	Brandon-Michigan CSO TP (Georgetown Wet Weath	CVDOC	STORM WTR	5/3/2014	5/4/2014	5/21/2014	
L60240-5	423530	Brandon-Michigan CSO TP (Georgetown Wet Weath	CVTOC	STORM WTR	5/3/2014	5/22/2014	5/22/2014	
L60240-6	423530	Brandon-Michigan CSO TP (Georgetown Wet Weath	CVDOC	STORM WTR	5/3/2014	5/4/2014	5/12/2014	
L60240-6	423530	Brandon-Michigan CSO TP (Georgetown Wet Weath	CVTOC	STORM WTR	5/3/2014	5/22/2014	5/22/2014	
L60240-7	423530	Brandon-Michigan CSO TP (Georgetown Wet Weath	CVDOC	STORM WTR	5/3/2014	5/4/2014	5/12/2014	
L60240-7	423530	Brandon-Michigan CSO TP (Georgetown Wet Weath	CVTOC	STORM WTR	5/3/2014	5/22/2014	5/22/2014	
L60240-8	423530	Brandon-Michigan CSO TP (Georgetown Wet Weath	CVDOC	STORM WTR	5/3/2014	5/4/2014	5/12/2014	
L60240-8	423530	Brandon-Michigan CSO TP (Georgetown Wet Weath	CVTOC	STORM WTR	5/3/2014	5/22/2014	5/22/2014	
L60240-9	423530	Brandon-Michigan CSO TP (Georgetown Wet Weath	CVDOC	STORM WTR	5/3/2014	5/4/2014	5/21/2014	
L60240-9	423530	Brandon-Michigan CSO TP (Georgetown Wet Weath	CVTOC	STORM WTR	5/3/2014	5/22/2014	5/22/2014	
L60240-10	423530	Brandon-Michigan CSO TP (Georgetown Wet Weath	CVDOC	STORM WTR	5/3/2014	5/4/2014	5/21/2014	
L60240-10	423530	Brandon-Michigan CSO TP (Georgetown Wet Weath	CVTOC	STORM WTR	5/3/2014	5/22/2014	5/22/2014	
L60240-11	423530	Brandon-Michigan CSO TP (Georgetown Wet Weath	CVDOC	STORM WTR	5/3/2014	5/4/2014	5/21/2014	
L60240-11	423530	Brandon-Michigan CSO TP (Georgetown Wet Weath	CVTOC	STORM WTR	5/3/2014	5/22/2014	5/22/2014	
L60240-12	423530	Brandon-Michigan CSO TP (Georgetown Wet Weath	CVDOC	STORM WTR	5/3/2014	5/4/2014	5/21/2014	
L60240-12	423530	Brandon-Michigan CSO TP (Georgetown Wet Weath	CVTOC	STORM WTR	5/3/2014	5/22/2014	5/22/2014	
L60240-13	423530	Brandon-Michigan CSO TP (Georgetown Wet Weath	CVDOC	STORM WTR	5/3/2014	5/4/2014	5/21/2014	
L60240-13	423530	Brandon-Michigan CSO TP (Georgetown Wet Weath	CVTOC	STORM WTR	5/3/2014	5/22/2014	5/22/2014	
L60240-14	423530	Brandon-Michigan CSO TP (Georgetown Wet Weath	CVDOC	STORM WTR	5/3/2014	5/4/2014	5/21/2014	
L60240-14	423530	Brandon-Michigan CSO TP (Georgetown Wet Weath	CVTOC	STORM WTR	5/3/2014	5/22/2014	5/22/2014	
L60240-15	423530	Brandon-Michigan CSO TP (Georgetown Wet Weath	CVDOC	STORM WTR	5/3/2014	5/4/2014	5/21/2014	
L60240-15	423530	Brandon-Michigan CSO TP (Georgetown Wet Weath	CVTOC	STORM WTR	5/3/2014	5/22/2014	5/22/2014	
L60240-16	423530	Brandon-Michigan CSO TP (Georgetown Wet Weath	CVDOC	STORM WTR	5/3/2014	5/4/2014	5/21/2014	
L60240-16	423530	Brandon-Michigan CSO TP (Georgetown Wet Weath	CVTOC	STORM WTR	5/3/2014	5/22/2014	5/22/2014	
L60240-17	423530	Brandon-Michigan CSO TP (Georgetown Wet Weath	CVDOC	STORM WTR	5/3/2014	5/4/2014	5/22/2014	
L60240-17	423530	Brandon-Michigan CSO TP (Georgetown Wet Weath	CVTOC	STORM WTR	5/3/2014	5/22/2014	5/22/2014	
L60275-1	421422-ENGW	SWD-ENGW Enumclaw Groundwater Quarterly	CVTOC	GRND WTR	5/21/2014	5/21/2014	5/21/2014	

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L60276-4	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	5/21/2014	5/21/2014	5/21/2014	
L60279-1	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	5/19/2014	5/21/2014	5/21/2014	
L60279-4	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	5/19/2014	5/21/2014	5/21/2014	
L60299-1	423589-320-4	CSO Basin Study	CVDOC	STORM WTR	5/8/2014	5/9/2014	5/12/2014	
L60299-2	423589-320-4	CSO Basin Study	CVDOC	STORM WTR	5/8/2014	5/9/2014	5/12/2014	
L60299-3	423589-320-4	CSO Basin Study	CVDOC	STORM WTR	5/8/2014	5/9/2014	5/12/2014	
L60306-1	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	5/20/2014	5/21/2014	5/21/2014	
L60306-2	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	5/20/2014	5/21/2014	5/21/2014	
L60306-4	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	5/20/2014	5/21/2014	5/21/2014	
L60306-5	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	5/20/2014	5/21/2014	5/21/2014	
L60306-6	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	5/20/2014	5/21/2014	5/21/2014	
L60306-7	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	5/20/2014	5/21/2014	5/21/2014	
L60306-8	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	5/20/2014	5/21/2014	5/21/2014	
L60306-9	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	5/20/2014	5/21/2014	5/21/2014	
L60309-1	421422-HOGW	SWD-HOGW Hobart Groundwater Quarterly	CVTOC	GRND WTR	5/22/2014	5/22/2014	5/22/2014	
L60344-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	5/21/2014	5/21/2014	5/21/2014	
WG132867-1	MB		CVDOC	BLANK WTR		5/9/2014	5/12/2014	MB1 140509 15:30
WG132867-2	SB		CVDOC	BLANK WTR		5/9/2014	5/12/2014	WG132867-1
WG132867-3	LCS		CVDOC	BLANK WTR		5/12/2014	5/12/2014	LEVEL1
WG132867-4	MB		CVDOC	BLANK WTR		5/9/2014	5/12/2014	MB2 140509 15:45
WG132867-5	LD		CVDOC	STORM WTR		5/9/2014	5/12/2014	L60299-3
WG132867-6	MS		CVDOC	STORM WTR		5/9/2014	5/12/2014	L60299-3
WG132867-7	MB		CVDOC	BLANK WTR		5/4/2014	5/12/2014	MB1 140504 18:40
WG132867-8	MB		CVTOC	BLANK WTR		5/21/2014	5/21/2014	MB1 150521
WG132867-9	SB		CVTOC	BLANK WTR		5/21/2014	5/21/2014	WG132867-8
WG132867-10	LCS		CVTOC	BLANK WTR		5/21/2014	5/21/2014	LEVEL1
WG132867-11	LD		CVTOC	GRND WTR		5/21/2014	5/21/2014	L60275-1
WG132867-12	MS		CVTOC	GRND WTR		5/21/2014	5/21/2014	L60275-1
WG132867-13	LD		CVTOC	FRESH WTR		5/21/2014	5/21/2014	L60306-2
WG132867-14	MS		CVTOC	FRESH WTR		5/21/2014	5/21/2014	L60306-2
WG132867-15	MB		CVDOC	BLANK WTR		5/21/2014	5/21/2014	MB1 140521 14:30
WG132867-16	SB		CVDOC	BLANK WTR		5/21/2014	5/21/2014	WG132867-15
WG132867-17	LCS		CVDOC	BLANK WTR		5/21/2014	5/21/2014	LEVEL1
WG132867-18	LD		CVDOC	STORM WTR		5/4/2014	5/21/2014	L60240-11
WG132867-19	MS		CVDOC	STORM WTR		5/4/2014	5/21/2014	L60240-12
WG132867-20	MB		CVTOC	BLANK WTR		5/22/2014	5/22/2014	MB1 140522
WG132867-21	SB		CVTOC	BLANK WTR		5/22/2014	5/22/2014	WG132867-20
WG132867-22	LCS		CVTOC	BLANK WTR		5/22/2014	5/22/2014	LEVEL1
WG132867-23	LD		CVTOC	STORM WTR		5/22/2014	5/22/2014	L60240-11
WG132867-24	MS		CVTOC	STORM WTR		5/22/2014	5/22/2014	L60240-11

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WG135611 (TOC, DOC/421422, 423589) Department: 3 - Conventionals Move Date: 2014-10-28 11:11:58

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L60387-2	423589-320-4	CSO Basin Study	CVDOC	STORM WTR	10/13/2014	10/14/2014	10/16/2014	
L60387-2	423589-320-4	CSO Basin Study	CVTOC	STORM WTR	10/13/2014	10/16/2014	10/16/2014	
L60387-3	423589-320-4	CSO Basin Study	CVDOC	STORM WTR	10/13/2014	10/14/2014	10/16/2014	
L60387-3	423589-320-4	CSO Basin Study	CVTOC	STORM WTR	10/13/2014	10/16/2014	10/16/2014	
L61328-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/13/2014	10/16/2014	10/16/2014	
		SWD-CHGW-NP Cedar Hills Groundwater Non-						
L61350-1	421422-CHGW-NP	Potable	CVTOC	GRND WTR	10/16/2014	10/16/2014	10/16/2014	
L61354-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/17/2014	10/17/2014	10/17/2014	
L61354-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/13/2014	10/16/2014	10/16/2014	
L61354-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/14/2014	10/16/2014	10/16/2014	
L61354-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/14/2014	10/16/2014	10/16/2014	
L61356-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/16/2014	10/16/2014	10/16/2014	
L61356-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/16/2014	10/16/2014	10/16/2014	
L61356-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/14/2014	10/16/2014	10/16/2014	
L61356-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/16/2014	10/16/2014	10/16/2014	
L61370-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/17/2014	10/17/2014	10/17/2014	
L61370-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/17/2014	10/17/2014	10/17/2014	
L61370-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/17/2014	10/17/2014	10/17/2014	
L61372-1	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTOC	LEACHATE	10/14/2014	10/16/2014	10/16/2014	
L61372-3	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTOC	LEACHATE	10/15/2014	10/16/2014	10/16/2014	
L61372-4	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTOC	LEACHATE	10/15/2014	10/16/2014	10/16/2014	
L61372-5	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTOC	LEACHATE	10/15/2014	10/16/2014	10/16/2014	
WG135611-1	MB		CVTOC	BLANK WTR		10/16/2014	10/16/2014	MB1 10/16/14
WG135611-2	SB		CVTOC	BLANK WTR		10/16/2014	10/16/2014	WG135611-1
WG135611-3	LCS		CVTOC	BLANK WTR		10/16/2014	10/16/2014	LEVEL1
WG135611-4	LD		CVTOC	GRND WTR		10/16/2014	10/16/2014	L61354-2
WG135611-5	MS		CVTOC	GRND WTR		10/16/2014	10/16/2014	L61354-2
WG135611-6	LD		CVTOC	LEACHATE		10/16/2014	10/16/2014	L61372-4
WG135611-7	MS		CVTOC	LEACHATE		10/16/2014	10/16/2014	L61372-4
WG135611-8	LD		CVTOC	STORM WTR		10/16/2014	10/16/2014	L60387-3
WG135611-9	MS		CVTOC	STORM WTR		10/16/2014	10/16/2014	L60387-3
WG135611-10	MB		CVDOC	BLANK WTR		10/14/2014	10/16/2014	MB1 10/14/14 13:30
WG135611-11	SB		CVDOC	BLANK WTR		10/14/2014	10/16/2014	WG135611-10
WG135611-12	LCS		CVDOC	BLANK WTR		10/16/2014	10/16/2014	LEVEL1
WG135611-13	LD		CVDOC	STORM WTR		10/14/2014	10/16/2014	L60387-2

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WG135611-14 MS	CVDOC	STORM WTR	10/14/2014	10/16/2014	L60387-2
WG135611-15 MB	CVTOC	BLANK WTR	10/17/2014	10/17/2014	MB1 10/17/14
WG135611-16 LCS	CVTOC	BLANK WTR	10/17/2014	10/17/2014	LEVEL1

WG135720 (TOC, DOC/421422, 421250) Department: 3 - Conventionals Move Date: 2014-11-05 17:55:09

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L61147-1	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	10/20/2014	10/21/2014	10/21/2014	
L61147-3	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	10/20/2014	10/21/2014	10/21/2014	
L61147-4	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	10/20/2014	10/21/2014	10/21/2014	
L61147-5	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	10/20/2014	10/21/2014	10/21/2014	
L61147-6	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	10/20/2014	10/21/2014	10/21/2014	
L61147-7	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	10/20/2014	10/21/2014	10/21/2014	
L61147-8	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	10/21/2014	10/21/2014	10/21/2014	
L61147-9	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	10/21/2014	10/21/2014	10/21/2014	
L61147-10	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	10/20/2014	10/21/2014	10/21/2014	
L61375-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/21/2014	10/21/2014	10/21/2014	
L61375-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/21/2014	10/21/2014	10/21/2014	
L61375-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/24/2014	10/24/2014	10/24/2014	
L61375-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/24/2014	10/24/2014	10/24/2014	
L61421-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/22/2014	10/24/2014	10/24/2014	
L61421-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/22/2014	10/24/2014	10/24/2014	
L61421-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/23/2014	10/24/2014	10/24/2014	
L61439-1	421250ON	Ambient Offshore Water Column-North	CVDOC	FRESH WTR	10/20/2014	10/21/2014	10/24/2014	
L61439-1	421250ON	Ambient Offshore Water Column-North	CVTOC	FRESH WTR	10/20/2014	10/22/2014	10/22/2014	
L61439-2	421250ON	Ambient Offshore Water Column-North	CVDOC	FRESH WTR	10/20/2014	10/21/2014	10/24/2014	
L61439-2	421250ON	Ambient Offshore Water Column-North	CVTOC	FRESH WTR	10/20/2014	10/22/2014	10/22/2014	
L61439-3	421250ON	Ambient Offshore Water Column-North	CVDOC	FRESH WTR	10/20/2014	10/21/2014	10/24/2014	
L61439-3	421250ON	Ambient Offshore Water Column-North	CVTOC	FRESH WTR	10/20/2014	10/22/2014	10/22/2014	
L61446-1	421250ON	Ambient Offshore Water Column-North	CVDOC	SALT WTR	10/20/2014	10/21/2014	10/24/2014	
L61446-1	421250ON	Ambient Offshore Water Column-North	CVTOC	SALT WTR	10/20/2014	10/22/2014	10/22/2014	
L61446-2	421250ON	Ambient Offshore Water Column-North	CVDOC	SALT WTR	10/20/2014	10/21/2014	10/24/2014	
L61446-2	421250ON	Ambient Offshore Water Column-North	CVTOC	SALT WTR	10/20/2014	10/22/2014	10/22/2014	
L61446-3	421250ON	Ambient Offshore Water Column-North	CVDOC	SALT WTR	10/20/2014	10/21/2014	10/24/2014	
L61446-3	421250ON	Ambient Offshore Water Column-North	CVTOC	SALT WTR	10/20/2014	10/22/2014	10/22/2014	
L61501-2	423589-320-4	CSO Basin Study	CVDOC	STORM WTR	10/22/2014	10/23/2014	10/24/2014	
L61501-2	423589-320-4	CSO Basin Study	CVTOC	STORM WTR	10/22/2014	10/24/2014	10/24/2014	
L61501-3	423589-320-4	CSO Basin Study	CVDOC	STORM WTR	10/22/2014	10/23/2014	10/24/2014	
L61501-3	423589-320-4	CSO Basin Study	CVTOC	STORM WTR	10/22/2014	10/24/2014	10/24/2014	

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WG135720-1	MB	CVTOC	BLANK WTR	10/21/2014	10/21/2014	MB1 10/21/14
WG135720-2	SB	CVTOC	BLANK WTR	10/21/2014	10/21/2014	WG135720-1
WG135720-3	LCS	CVTOC	BLANK WTR	10/21/2014	10/21/2014	LEVEL1
WG135720-4	LD	CVTOC	GRND WTR	10/21/2014	10/21/2014	L61375-2
WG135720-5	MS	CVTOC	GRND WTR	10/21/2014	10/21/2014	L61375-2
WG135720-6	LD	CVTOC	FRESH WTR	10/21/2014	10/21/2014	L61147-6
WG135720-7	MS	CVTOC	FRESH WTR	10/21/2014	10/21/2014	L61147-6
WG135720-8	LD	CVTOC	FRESH WTR	10/22/2014	10/22/2014	L61439-3
WG135720-9	MS	CVTOC	SALT WTR	10/22/2014	10/22/2014	L61446-3
WG135720-10	MB	CVTOC	BLANK WTR	10/24/2014	10/24/2014	MB1 10/24/14
WG135720-11	SB	CVTOC	BLANK WTR	10/24/2014	10/24/2014	WG135720-10
WG135720-12	LCS	CVTOC	BLANK WTR	10/24/2014	10/24/2014	LEVEL1
WG135720-13	LD	CVTOC	STORM WTR	10/24/2014	10/24/2014	L61501-2
WG135720-14	MS	CVTOC	STORM WTR	10/24/2014	10/24/2014	L61501-2
WG135720-15	MB	CVDOC	BLANK WTR	10/23/2014	10/24/2014	MB1 10/23/14 13:15
WG135720-16	SB	CVDOC	BLANK WTR	10/23/2014	10/24/2014	WG135720-15
WG135720-17	LCS	CVDOC	BLANK WTR	10/24/2014	10/24/2014	LEVEL1
WG135720-18	LD	CVDOC	STORM WTR	10/23/2014	10/24/2014	L61501-3
WG135720-19	MS	CVDOC	STORM WTR	10/23/2014	10/24/2014	L61501-3
WG135720-20	MB	CVDOC	BLANK WTR	10/21/2014	10/24/2014	MB1 10/21/14 10:50
WG135720-21	MS	CVDOC	FRESH WTR	10/21/2014	10/24/2014	L61439-1
WG135720-22	LD	CVDOC	SALT WTR	10/21/2014	10/24/2014	L61446-1

WG135937 (TOC, DOC/421422, 423589,) Department: 3 - Conventionals Move Date: 2014-11-10 10:54:53

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L61370-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/28/2014	11/4/2014	11/4/2014	
L61420-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/27/2014	11/4/2014	11/4/2014	
L61420-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/27/2014	11/4/2014	11/4/2014	
L61420-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/28/2014	11/4/2014	11/4/2014	
L61420-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/28/2014	11/4/2014	11/4/2014	
L61421-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/28/2014	11/4/2014	11/4/2014	
L61422-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/30/2014	11/4/2014	11/4/2014	
L61422-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/30/2014	11/4/2014	11/4/2014	
L61422-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/31/2014	11/4/2014	11/4/2014	
L61502-4	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	11/3/2014	11/4/2014	11/4/2014	
L61502-5	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	11/3/2014	11/4/2014	11/4/2014	
L61535-1	421422-CFGW	SWD-CFGW Cedar Falls Groundwater Quarterly	CVTOC	GRND WTR	11/3/2014	11/4/2014	11/4/2014	
L61535-3	421422-CFGW	SWD-CFGW Cedar Falls Groundwater Quarterly	CVTOC	GRND WTR	11/3/2014	11/4/2014	11/4/2014	

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L61535-5	421422-CFGW	SWD-CFGW Cedar Falls Groundwater Quarterly	CVTOC	GRND WTR	11/3/2014	11/4/2014	11/4/2014	
L61535-6	421422-CFGW	SWD-CFGW Cedar Falls Groundwater Quarterly	CVTOC	GRND WTR	11/3/2014	11/4/2014	11/4/2014	
L61560-1	423589-320-4	CSO Basin Study	CVDOC	STORM WTR	10/30/2014	10/31/2014	11/4/2014	
L61560-1	423589-320-4	CSO Basin Study	CVTOC	STORM WTR	10/30/2014	11/4/2014	11/4/2014	
L61560-3	423589-320-4	CSO Basin Study	CVDOC	STORM WTR	10/30/2014	10/31/2014	11/4/2014	
L61560-3	423589-320-4	CSO Basin Study	CVTOC	STORM WTR	10/30/2014	11/4/2014	11/4/2014	
L61597-1	423530	Brandon-Michigan CSO TP (Georgetown Wet Weath	CVDOC	STORM WTR	10/31/2014	10/31/2014	11/4/2014	
L61597-2	423530	Brandon-Michigan CSO TP (Georgetown Wet Weath	CVDOC	STORM WTR	10/31/2014	10/31/2014	11/4/2014	
L61597-3	423530	Brandon-Michigan CSO TP (Georgetown Wet Weath	CVDOC	STORM WTR	10/31/2014	10/31/2014	11/4/2014	
L61597-4	423530	Brandon-Michigan CSO TP (Georgetown Wet Weath	CVDOC	STORM WTR	10/31/2014	10/31/2014	11/4/2014	
WG135937-1	MB		CVTOC	BLANK WTR		11/4/2014	11/4/2014	MB1 11/04/14
WG135937-2	SB		CVTOC	BLANK WTR		11/4/2014	11/4/2014	WG135937-1
WG135937-3	LCS		CVTOC	BLANK WTR		11/4/2014	11/4/2014	LEVEL1
WG135937-4	LD		CVTOC	GRND WTR		11/4/2014	11/4/2014	L61502-4
WG135937-5	MS		CVTOC	GRND WTR		11/4/2014	11/4/2014	L61502-4
WG135937-6	LD		CVDOC	STORM WTR		10/31/2014	11/4/2014	L61560-3
WG135937-6	LD		CVTOC	STORM WTR		11/4/2014	11/4/2014	L61560-3
WG135937-7	MS		CVDOC	STORM WTR		10/31/2014	11/4/2014	L61560-3
WG135937-7	MS		CVTOC	STORM WTR		11/4/2014	11/4/2014	L61560-3
WG135937-8	MB		CVDOC	BLANK WTR		10/31/2014	11/4/2014	MB1 10/31/14 14:10
WG135937-9	SB		CVDOC	BLANK WTR		10/31/2014	11/4/2014	WG135937-8
WG135937-10	LCS		CVDOC	BLANK WTR		11/4/2014	11/4/2014	LEVEL1
WG135937-11	MB		CVDOC	BLANK WTR		10/31/2014	11/4/2014	MB2 10/31/14 17:45
WG135937-12	LD		CVDOC	STORM WTR		10/31/2014	11/4/2014	L61597-1
WG135937-13	MS		CVDOC	STORM WTR		10/31/2014	11/4/2014	L61597-2

WG136539 (TOC/421422) Department: 3 - Conventionals Move Date: 2014-12-17 17:48:02

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L61502-9	421422-DUGW	SWD-DUGW Duval Groundwater Quarterly	CVTOC	GRND WTR	12/11/2014	12/11/2014	12/11/2014	
L61502-13	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	12/5/2014	12/10/2014	12/10/2014	
L61502-14	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	12/5/2014	12/10/2014	12/10/2014	
L61610-1	423589-320-4	CSO Basin Study	CVDOC	STORM WTR	12/10/2014	12/11/2014	12/11/2014	
L61610-1	423589-320-4	CSO Basin Study	CVTOC	STORM WTR	12/10/2014	12/11/2014	12/11/2014	
L61610-3	423589-320-4	CSO Basin Study	CVDOC	STORM WTR	12/10/2014	12/11/2014	12/11/2014	
L61610-3	423589-320-4	CSO Basin Study	CVTOC	STORM WTR	12/10/2014	12/11/2014	12/11/2014	
L61717-1	421422-DUGW	SWD-DUGW Duval Groundwater Quarterly	CVTOC	GRND WTR	12/10/2014	12/10/2014	12/10/2014	
L61717-3	421422-DUGW	SWD-DUGW Duval Groundwater Quarterly	CVTOC	GRND WTR	12/10/2014	12/10/2014	12/10/2014	
L61717-5	421422-DUGW	SWD-DUGW Duval Groundwater Quarterly	CVTOC	GRND WTR	12/11/2014	12/11/2014	12/11/2014	

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L61726-5	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTOC	GRND WTR	12/8/2014	12/10/2014	12/10/2014	
L61726-6	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTOC	GRND WTR	12/8/2014	12/10/2014	12/10/2014	
L61727-1	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTOC	GRND WTR	12/9/2014	12/10/2014	12/10/2014	
L61741-1	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTOC	LEACHATE	12/10/2014	12/10/2014	12/10/2014	
L61741-3	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTOC	LEACHATE	12/10/2014	12/10/2014	12/10/2014	
L61741-4	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTOC	LEACHATE	12/10/2014	12/10/2014	12/10/2014	
L61741-5	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTOC	LEACHATE	12/9/2014	12/10/2014	12/10/2014	
L61741-7	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTOC	LEACHATE	12/10/2014	12/10/2014	12/10/2014	
L61744-6	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTOC	GRND WTR	12/11/2014	12/11/2014	12/11/2014	
L61813-1	421240-210	Wet Weather Survey(Strmwtr)	CVDOC	STORM WTR	12/10/2014	12/11/2014	12/11/2014	
L61813-1	421240-210	Wet Weather Survey(Strmwtr)	CVTOC	STORM WTR	12/10/2014	12/11/2014	12/11/2014	
L61813-2	421240-210	Wet Weather Survey(Strmwtr)	CVDOC	STORM WTR	12/10/2014	12/11/2014	12/11/2014	
L61813-2	421240-210	Wet Weather Survey(Strmwtr)	CVTOC	STORM WTR	12/10/2014	12/11/2014	12/11/2014	
L61813-3	421240-210	Wet Weather Survey(Strmwtr)	CVDOC	STORM WTR	12/10/2014	12/11/2014	12/11/2014	
L61813-3	421240-210	Wet Weather Survey(Strmwtr)	CVTOC	STORM WTR	12/10/2014	12/11/2014	12/11/2014	
L61813-4	421240-210	Wet Weather Survey(Strmwtr)	CVDOC	STORM WTR	12/10/2014	12/11/2014	12/11/2014	
L61813-4	421240-210	Wet Weather Survey(Strmwtr)	CVTOC	STORM WTR	12/10/2014	12/11/2014	12/11/2014	
L61813-5	421240-210	Wet Weather Survey(Strmwtr)	CVDOC	STORM WTR	12/10/2014	12/11/2014	12/11/2014	
L61813-5	421240-210	Wet Weather Survey(Strmwtr)	CVTOC	STORM WTR	12/10/2014	12/11/2014	12/11/2014	
L61813-6	421240-210	Wet Weather Survey(Strmwtr)	CVDOC	STORM WTR	12/10/2014	12/11/2014	12/11/2014	
L61813-6	421240-210	Wet Weather Survey(Strmwtr)	CVTOC	STORM WTR	12/10/2014	12/11/2014	12/11/2014	
L61813-7	421240-210	Wet Weather Survey(Strmwtr)	CVDOC	STORM WTR	12/10/2014	12/11/2014	12/11/2014	
L61813-7	421240-210	Wet Weather Survey(Strmwtr)	CVTOC	STORM WTR	12/10/2014	12/11/2014	12/11/2014	
WG136539-1	MB		CVTOC	BLANK WTR		12/10/2014	12/10/2014	MB1 12/10/14
WG136539-2	SB		CVTOC	BLANK WTR		12/10/2014	12/10/2014	WG136539-1
WG136539-3	LCS		CVTOC	BLANK WTR		12/10/2014	12/10/2014	LEVEL1
WG136539-4	LD		CVTOC	GRND WTR		12/10/2014	12/10/2014	L61717-1
WG136539-5	MS		CVTOC	GRND WTR		12/10/2014	12/10/2014	L61717-1
WG136539-6	LD		CVTOC	LEACHATE		12/10/2014	12/10/2014	L61741-1
WG136539-7	MS		CVTOC	LEACHATE		12/10/2014	12/10/2014	L61741-1
WG136539-8	MB		CVTOC	BLANK WTR		12/11/2014	12/11/2014	MB1 12/11/14
WG136539-9	SB		CVTOC	BLANK WTR		12/11/2014	12/11/2014	WG136539-8
WG136539-10	LCS		CVTOC	BLANK WTR		12/11/2014	12/11/2014	LEVEL1
WG136539-11	LD		CVTOC	STORM WTR		12/11/2014	12/11/2014	L61813-1
WG136539-12	MS		CVTOC	STORM WTR		12/11/2014	12/11/2014	L61813-1
WG136539-13	LD		CVTOC	STORM WTR		12/11/2014	12/11/2014	L61610-1
WG136539-14	MS		CVTOC	STORM WTR		12/11/2014	12/11/2014	L61610-1
WG136539-15	MB		CVDOC	BLANK WTR		12/11/2014	12/11/2014	MB1 12/11/14 09:00
WG136539-16	SB		CVDOC	BLANK WTR		12/11/2014	12/11/2014	WG136539-15
WG136539-17	LCS		CVDOC	BLANK WTR		12/11/2014	12/11/2014	LEVEL1

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WG136539-18 LD	CVDOC STORM WTR	12/11/2014	12/11/2014	L61813-2
WG136539-19 MS	CVDOC STORM WTR	12/11/2014	12/11/2014	L61813-2
WG136539-20 MB	CVDOC BLANK WTR	12/11/2014	12/11/2014	MB2 12/11/14 14:00
WG136539-21 LD	CVDOC STORM WTR	12/11/2014	12/11/2014	L61610-3
WG136539-22 MS	CVDOC STORM WTR	12/11/2014	12/11/2014	L61610-3

WG132579 (TOC/421422, 423589-320-4) Department: 3 - Conventionals Move Date: 2014-05-21 13:21:16

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L60048-1	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	5/8/2014	5/9/2014	5/9/2014	
L60226-1	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	5/8/2014	5/9/2014	5/9/2014	
L60227-2	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	5/6/2014	5/9/2014	5/9/2014	
L60228-1	421422-ENGW	SWD-ENGW Enumclaw Groundwater Quarterly	CVTOC	GRND WTR	5/7/2014	5/9/2014	5/9/2014	
L60231-1	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	5/7/2014	5/9/2014	5/9/2014	
L60231-2	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	5/7/2014	5/9/2014	5/9/2014	
L60243-1	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	5/8/2014	5/9/2014	5/9/2014	
L60245-1	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	5/8/2014	5/9/2014	5/9/2014	
L60245-2	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	5/8/2014	5/9/2014	5/9/2014	
L60247-1	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	5/9/2014	5/9/2014	5/9/2014	
L60247-2	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	5/9/2014	5/9/2014	5/9/2014	
L60299-1	423589-320-4	CSO Basin Study	CVTOC	STORM WTR	5/8/2014	5/9/2014	5/9/2014	
L60299-2	423589-320-4	CSO Basin Study	CVTOC	STORM WTR	5/8/2014	5/9/2014	5/9/2014	
L60299-3	423589-320-4	CSO Basin Study	CVTOC	STORM WTR	5/8/2014	5/9/2014	5/9/2014	
WG132579-1	MB		CVTOC	BLANK WTR		5/9/2014	5/9/2014	MB1 140509
WG132579-2	SB		CVTOC	BLANK WTR		5/9/2014	5/9/2014	WG132579-1
WG132579-3	LCS		CVTOC	BLANK WTR		5/9/2014	5/9/2014	LEVEL1
WG132579-4	LD		CVTOC	GRND WTR		5/9/2014	5/9/2014	L60227-2
WG132579-5	MS		CVTOC	GRND WTR		5/9/2014	5/9/2014	L60227-2
WG132579-6	LD		CVTOC	STORM WTR		5/9/2014	5/9/2014	L60299-3
WG132579-7	MS		CVTOC	STORM WTR		5/9/2014	5/9/2014	L60299-3

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WG129814 (TSS/421195, 423589) Department: 3 - Conventionals Move Date: 2013-11-26 14:34:26

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L58915-1	421195-450	China Creek Stormwater Monitoring	CVTSS	STORM WTR	11/7/2013	11/12/2013	11/13/2013	
L58915-2	421195-450	China Creek Stormwater Monitoring	CVTSS	STORM WTR	11/7/2013	11/12/2013	11/13/2013	
L58915-3	421195-450	China Creek Stormwater Monitoring	CVTSS	STORM WTR	11/7/2013	11/12/2013	11/13/2013	
L58915-4	421195-450	China Creek Stormwater Monitoring	CVTSS	STORM WTR	11/7/2013	11/12/2013	11/13/2013	
L58915-5	421195-450	China Creek Stormwater Monitoring	CVTSS	STORM WTR	11/7/2013	11/12/2013	11/13/2013	
L58915-6	421195-450	China Creek Stormwater Monitoring	CVTSS	STORM WTR	11/7/2013	11/12/2013	11/13/2013	
L58915-7	421195-450	China Creek Stormwater Monitoring	CVTSS	STORM WTR	11/7/2013	11/12/2013	11/13/2013	
L58915-8	421195-450	China Creek Stormwater Monitoring	CVTSS	STORM WTR	11/7/2013	11/12/2013	11/13/2013	
L59046-1	421195-180	Mercer Island Stormwater Monitoring	CVTSS	STORM WTR	11/7/2013	11/12/2013	11/13/2013	
L59046-2	421195-180	Mercer Island Stormwater Monitoring	CVTSS	STORM WTR	11/7/2013	11/12/2013	11/13/2013	
L59046-3	421195-180	Mercer Island Stormwater Monitoring	CVTSS	STORM WTR	11/7/2013	11/12/2013	11/13/2013	
L59046-4	421195-180	Mercer Island Stormwater Monitoring	CVTSS	STORM WTR	11/7/2013	11/12/2013	11/13/2013	
L59046-5	421195-180	Mercer Island Stormwater Monitoring	CVTSS	STORM WTR	11/7/2013	11/12/2013	11/13/2013	
L59046-6	421195-180	Mercer Island Stormwater Monitoring	CVTSS	STORM WTR	11/7/2013	11/12/2013	11/13/2013	
L59046-7	421195-180	Mercer Island Stormwater Monitoring	CVTSS	STORM WTR	11/7/2013	11/12/2013	11/13/2013	
L59046-8	421195-180	Mercer Island Stormwater Monitoring	CVTSS	STORM WTR	11/7/2013	11/12/2013	11/13/2013	
L59046-9	421195-180	Mercer Island Stormwater Monitoring	CVTSS	STORM WTR	11/7/2013	11/12/2013	11/13/2013	
L59046-10	421195-180	Mercer Island Stormwater Monitoring	CVTSS	STORM WTR	11/7/2013	11/12/2013	11/13/2013	
L59046-11	421195-180	Mercer Island Stormwater Monitoring	CVTSS	STORM WTR	11/7/2013	11/12/2013	11/13/2013	
L59046-12	421195-180	Mercer Island Stormwater Monitoring	CVTSS	STORM WTR	11/7/2013	11/12/2013	11/13/2013	
L59046-13	421195-180	Mercer Island Stormwater Monitoring	CVTSS	STORM WTR	11/7/2013	11/12/2013	11/13/2013	
L59149-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTSS	STORM WTR	11/6/2013	11/12/2013	11/13/2013	Samp
L59155-1	423589-320-4	CSO Basin Study	CVTSS	STORM WTR	11/6/2013	11/12/2013	11/13/2013	
L59155-3	423589-320-4	CSO Basin Study	CVTSS	STORM WTR	11/6/2013	11/12/2013	11/13/2013	
L59167-1	423589-335-4	LDW Green River, Suspended Solids	CVTSS	FILTER WTR	11/7/2013	11/12/2013	11/13/2013	
L59168-1	423589-335-4	LDW Green River, Suspended Solids	CVTSS	FILTER WTR	11/7/2013	11/12/2013	11/13/2013	
L59169-1	423589-335-4	LDW Green River, Suspended Solids	CVTSS	FILTER WTR	11/8/2013	11/12/2013	11/13/2013	
L59170-1	423589-335-4	LDW Green River, Suspended Solids	CVTSS	FILTER WTR	11/8/2013	11/12/2013	11/13/2013	
WG129814-1	MB		CVTSS	BLANK WTR		11/12/2013	11/13/2013	MB1 11/12/13
WG129814-2	LCS		CVTSS	BLANK WTR		11/12/2013	11/13/2013	LEVEL1
WG129814-3	LD		CVTSS	STORM WTR		11/12/2013	11/13/2013	L58915-2
WG129814-4	LD		CVTSS	STORM WTR		11/12/2013	11/13/2013	L59046-1
WG129814-5	MB		CVTSS	BLANK WTR		11/12/2013	11/13/2013	MB2 11/12/13
WG129814-6	LCS		CVTSS	BLANK WTR		11/12/2013	11/13/2013	LEVEL1
WG129814-7	LD		CVTSS	STORM WTR		11/12/2013	11/13/2013	L59149-1

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WG129970 (tss for 422019/421195/423) Department: 3 - Conventionals Move Date: 2013-12-04 07:38:50

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59045-1		422019 WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	11/18/2013	11/20/2013	11/22/2013	
L59045-2		422019 WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	11/18/2013	11/20/2013	11/22/2013	
L59045-3		422019 WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	11/18/2013	11/20/2013	11/22/2013	
L59045-4		422019 WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	11/18/2013	11/20/2013	11/22/2013	
L59045-5		422019 WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	11/18/2013	11/20/2013	11/22/2013	
L59045-6		422019 WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	11/18/2013	11/20/2013	11/22/2013	
L59045-7		422019 WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	11/18/2013	11/20/2013	11/22/2013	
L59045-8		422019 WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	11/18/2013	11/20/2013	11/22/2013	
L59045-9		422019 WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	11/18/2013	11/20/2013	11/22/2013	
L59045-10		422019 WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	11/18/2013	11/20/2013	11/22/2013	
L59045-11		422019 WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	11/18/2013	11/20/2013	11/22/2013	
L59045-12		422019 WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	11/18/2013	11/20/2013	11/22/2013	
L59212-1	421195-180	Mercer Island Stormwater Monitoring	CVTSS	STORM WTR	11/18/2013	11/20/2013	11/22/2013	
L59212-2	421195-180	Mercer Island Stormwater Monitoring	CVTSS	STORM WTR	11/18/2013	11/20/2013	11/22/2013	
L59212-3	421195-180	Mercer Island Stormwater Monitoring	CVTSS	STORM WTR	11/18/2013	11/20/2013	11/22/2013	
L59212-4	421195-180	Mercer Island Stormwater Monitoring	CVTSS	STORM WTR	11/18/2013	11/20/2013	11/22/2013	
L59212-5	421195-180	Mercer Island Stormwater Monitoring	CVTSS	STORM WTR	11/18/2013	11/20/2013	11/22/2013	
L59212-6	421195-180	Mercer Island Stormwater Monitoring	CVTSS	STORM WTR	11/18/2013	11/20/2013	11/22/2013	
L59239-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTSS	STORM WTR	11/18/2013	11/20/2013	11/22/2013	SAMP
L59240-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTSS	STORM WTR	11/19/2013	11/20/2013	11/22/2013	SAMP
L59240-2	423589-330-4	Green Rvr PCB/PAH Loading	CVTSS	STORM WTR	11/19/2013	11/20/2013	11/22/2013	SAMP
L59241-1	423589-320-4	CSO Basin Study	CVTSS	STORM WTR	11/18/2013	11/20/2013	11/22/2013	
L59241-3	423589-320-4	CSO Basin Study	CVTSS	STORM WTR	11/18/2013	11/20/2013	11/22/2013	
WG129970-1	MB		CVTSS	BLANK WTR		11/20/2013	11/22/2013	MB1 131120
WG129970-2	LCS		CVTSS	BLANK WTR		11/20/2013	11/22/2013	LEVEL1
WG129970-3	LD		CVTSS	FRESH WTR		11/20/2013	11/22/2013	L59045-2
WG129970-4	LD		CVTSS	STORM WTR		11/20/2013	11/22/2013	L59212-4
WG129970-5	LD		CVTSS	STORM WTR		11/20/2013	11/22/2013	L59241-1
WG129970-6	MB		CVTSS	BLANK WTR		11/20/2013	11/22/2013	MB2 131120
WG129970-7	LCS		CVTSS	BLANK WTR		11/20/2013	11/22/2013	LEVEL1

WG130704 (tss for 423589 amd 423530) Department: 3 - Conventionals Move Date: 2014-02-07 18:08:38

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59471-1	423589-320-4	CSO Basin Study	CVTSS	STORM WTR	1/8/2014	1/15/2014	1/17/2014	
L59471-2	423589-320-4	CSO Basin Study	CVTSS	STORM WTR	1/8/2014	1/15/2014	1/17/2014	

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L59471-3	423589-320-4	CSO Basin Study	CVTSS	STORM WTR	1/8/2014	1/15/2014	1/17/2014
WG130704-1	MB		CVTSS	BLANK WTR		1/15/2014	1/17/2014 MB1 140115
WG130704-2	LCS		CVTSS	BLANK WTR		1/15/2014	1/17/2014 LEVEL1
WG130704-3	LD		CVTSS	STORM WTR		1/15/2014	1/17/2014 L59471-1

WG131133 (Assorted TSS: 2/13/14) Department: 3 - Conventionals Move Date: 2014-02-19 10:12:01

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59621-1		421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	2/10/2014	2/13/2014	2/14/2014	
L59621-2		421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	2/10/2014	2/13/2014	2/14/2014	
L59621-3		421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	2/10/2014	2/13/2014	2/14/2014	
L59621-4		421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	2/10/2014	2/13/2014	2/14/2014	
L59621-6		421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	2/10/2014	2/13/2014	2/14/2014	
L59621-7		421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	2/10/2014	2/13/2014	2/14/2014	
L59621-8		421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	2/10/2014	2/13/2014	2/14/2014	
L59621-9		421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	2/10/2014	2/13/2014	2/14/2014	
L59621-11		421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	2/10/2014	2/13/2014	2/14/2014	
L59621-12		421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	2/10/2014	2/13/2014	2/14/2014	
L59621-13		421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	2/10/2014	2/13/2014	2/14/2014	
L59621-15		421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	2/10/2014	2/13/2014	2/14/2014	
L59621-16		421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	2/10/2014	2/13/2014	2/14/2014	
L59621-19		421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	2/11/2014	2/13/2014	2/14/2014	
L59621-20		421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	2/11/2014	2/13/2014	2/14/2014	
L59621-22		421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	2/11/2014	2/13/2014	2/14/2014	
L59621-23		421235 MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	2/11/2014	2/13/2014	2/14/2014	
L59647-2		421161 IW SURCHARGE	CVTSS	IW WTR	2/10/2014	2/13/2014	2/14/2014	
L59669-1	423589-335-4	LDW Green River, Suspended Solids	CVTSS	STORM WTR	2/12/2014	2/13/2014	2/14/2014	
L59669-2	423589-335-4	LDW Green River, Suspended Solids	CVTSS	FILTER WTR	2/12/2014	2/13/2014	2/14/2014	
L59669-3	423589-335-4	LDW Green River, Suspended Solids	CVTSS	FILTER WTR	2/12/2014	2/13/2014	2/14/2014	
L59670-1	423589-335-4	LDW Green River, Suspended Solids	CVTSS	STORM WTR	2/12/2014	2/13/2014	2/14/2014	
L59670-2	423589-335-4	LDW Green River, Suspended Solids	CVTSS	FILTER WTR	2/12/2014	2/13/2014	2/14/2014	
L59670-3	423589-335-4	LDW Green River, Suspended Solids	CVTSS	FILTER WTR	2/12/2014	2/13/2014	2/14/2014	
L59681-1	423589-320-4	CSO Basin Study	CVTSS	STORM WTR	2/11/2014	2/13/2014	2/14/2014	
L59681-2	423589-320-4	CSO Basin Study	CVTSS	STORM WTR	2/11/2014	2/13/2014	2/14/2014	
L59681-3	423589-320-4	CSO Basin Study	CVTSS	STORM WTR	2/11/2014	2/13/2014	2/14/2014	
WG131133-1	MB		CVTSS	BLANK WTR		2/13/2014	2/14/2014	MB1 2/13/14
WG131133-2	LCS		CVTSS	BLANK WTR		2/13/2014	2/14/2014	LEVEL1
WG131133-3	LD		CVTSS	FRESH WTR		2/13/2014	2/14/2014	L59621-6
WG131133-4	LD		CVTSS	FILTER WTR		2/13/2014	2/14/2014	L59670-3

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WG131133-5 MB	CVTSS	BLANK WTR	2/13/2014	2/14/2014	MB2 2/13/14
WG131133-6 LCS	CVTSS	BLANK WTR	2/13/2014	2/14/2014	LEVEL1
WG131133-7 LD	CVTSS	STORM WTR	2/13/2014	2/14/2014	L59681-3
WG131133-8 LD	CVTSS	IW WTR	2/13/2014	2/14/2014	L59647-2

WG131298 (Assorted TSS Batch A: 2/2) Department: 3 - Conventionals Move Date: 2014-03-14 10:25:22

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59442-1	421874-100	City of Shoreline Monthly Water Quality Monitoring	CVTSS	FRESH WTR	2/25/2014	2/25/2014	2/26/2014	
L59442-2	421874-100	City of Shoreline Monthly Water Quality Monitoring	CVTSS	FRESH WTR	2/25/2014	2/25/2014	2/26/2014	
L59442-3	421874-100	City of Shoreline Monthly Water Quality Monitoring	CVTSS	FRESH WTR	2/25/2014	2/25/2014	2/26/2014	
L59442-4	421874-100	City of Shoreline Monthly Water Quality Monitoring	CVTSS	FRESH WTR	2/25/2014	2/25/2014	2/26/2014	
L59442-5	421874-100	City of Shoreline Monthly Water Quality Monitoring	CVTSS	FRESH WTR	2/25/2014	2/25/2014	2/26/2014	
L59442-6	421874-100	City of Shoreline Monthly Water Quality Monitoring	CVTSS	FRESH WTR	2/25/2014	2/25/2014	2/26/2014	
L59442-7	421874-100	City of Shoreline Monthly Water Quality Monitoring	CVTSS	FRESH WTR	2/25/2014	2/25/2014	2/26/2014	
L59677-3	421250BS	Ambient Intertidal Beaches-South	CVTSS	SALT WTR	2/18/2014	2/25/2014	2/26/2014	
L59677-4	421250BS	Ambient Intertidal Beaches-South	CVTSS	SALT WTR	2/18/2014	2/25/2014	2/26/2014	
L59677-5	421250BS	Ambient Intertidal Beaches-South	CVTSS	SALT WTR	2/18/2014	2/25/2014	2/26/2014	
L59677-6	421250BS	Ambient Intertidal Beaches-South	CVTSS	SALT WTR	2/18/2014	2/25/2014	2/26/2014	
L59677-8	421250BS	Ambient Intertidal Beaches-South	CVTSS	SALT WTR	2/18/2014	2/25/2014	2/26/2014	
L59745-1	423589-320-4	CSO Basin Study	CVTSS	STORM WTR	2/24/2014	2/25/2014	2/26/2014	
L59745-2	423589-320-4	CSO Basin Study	CVTSS	STORM WTR	2/24/2014	2/25/2014	2/26/2014	
L59745-3	423589-320-4	CSO Basin Study	CVTSS	STORM WTR	2/24/2014	2/25/2014	2/26/2014	
WG131298-1 MB			CVTSS	BLANK WTR		2/25/2014	2/26/2014	MB1 2/25/14
WG131298-2 LCS			CVTSS	BLANK WTR		2/25/2014	2/26/2014	LEVEL1
WG131298-3 LD			CVTSS	FRESH WTR		2/25/2014	2/26/2014	L59442-5
WG131298-4 LD			CVTSS	STORM WTR		2/25/2014	2/26/2014	L59745-1
WG131298-5 LD			CVTSS	SALT WTR		2/25/2014	2/26/2014	L59677-8

WG131447 (Assorted TSS: 3/7/14) Department: 3 - Conventionals Move Date: 2014-03-18 11:11:17

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59465-1	421185-100	Elliot West CSO Plant	CVTSS	STORM WTR	3/5/2014	3/7/2014	3/10/2014	
L59738-3	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTSS	GRND WTR	3/7/2014	3/7/2014	3/10/2014	
L59739-1	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTSS	GRND WTR	3/7/2014	3/7/2014	3/10/2014	
L59739-3	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTSS	GRND WTR	3/7/2014	3/7/2014	3/10/2014	
L59739-5	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTSS	GRND WTR	3/7/2014	3/7/2014	3/10/2014	
L59768-1	421422-VASW	SWD-VASW Vashon Surface Water Quarterly	CVTSS	FRESH WTR	3/6/2014	3/7/2014	3/10/2014	

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L59833-1	423589-320-4	CSO Basin Study	CVTSS	STORM WTR	3/5/2014	3/7/2014	3/10/2014	
L59833-2	423589-320-4	CSO Basin Study	CVTSS	STORM WTR	3/5/2014	3/7/2014	3/10/2014	
WG131447-1	MB		CVTSS	BLANK WTR		3/7/2014	3/10/2014	MB1 3/7/14
WG131447-2	LCS		CVTSS	BLANK WTR		3/7/2014	3/10/2014	LEVEL1
WG131447-3	LD		CVTSS	STORM WTR		3/7/2014	3/10/2014	L59465-1
WG131447-4	LD		CVTSS	GRND WTR		3/7/2014	3/10/2014	L59739-5
WG131447-5	LD		CVTSS	FRESH WTR		3/7/2014	3/10/2014	L59768-1
WG131447-6	LD		CVTSS	STORM WTR		3/7/2014	3/10/2014	L59833-1

WG132285 (April 2014 WP) Department: 3 - Conventionals Move Date: 2014-05-20 08:15:47

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L60107-13	421190	Accreditation	CVTSS	BLANK WTR	4/16/2014	4/23/2014	4/24/2014	
L60114-1	423589-320-4	CSO Basin Study	CVTSS	STORM WTR	4/16/2014	4/23/2014	4/24/2014	
L60114-2	423589-320-4	CSO Basin Study	CVTSS	STORM WTR	4/16/2014	4/23/2014	4/24/2014	
L60114-3	423589-320-4	CSO Basin Study	CVTSS	STORM WTR	4/16/2014	4/23/2014	4/24/2014	
WG132285-1	MB		CVTSS	BLANK WTR		4/23/2014	4/24/2014	MB4
WG132285-2	LCS		CVTSS	BLANK WTR		4/23/2014	4/24/2014	LEVEL1
WG132285-3	LD		CVTSS	STORM WTR		4/23/2014	4/24/2014	L60114-1

WG132597 (Assorted TSS: 5/9/14) Department: 3 - Conventionals Move Date: 2014-05-20 14:21:09

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59978-1	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/7/2014	5/9/2014	5/10/2014	
L59978-2	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/7/2014	5/9/2014	5/10/2014	
L59978-3	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/7/2014	5/9/2014	5/10/2014	
L59978-4	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/7/2014	5/9/2014	5/10/2014	
L59978-5	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/7/2014	5/9/2014	5/10/2014	
L59978-6	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/7/2014	5/9/2014	5/10/2014	
L59978-7	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/7/2014	5/9/2014	5/10/2014	
L59978-8	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/7/2014	5/9/2014	5/10/2014	
L59978-9	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/7/2014	5/9/2014	5/10/2014	
L59978-10	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/7/2014	5/9/2014	5/10/2014	
L59978-11	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/7/2014	5/9/2014	5/10/2014	
L59978-12	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/7/2014	5/9/2014	5/10/2014	FREP@L59978-13
L59978-13	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/7/2014	5/9/2014	5/10/2014	
L59978-14	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/7/2014	5/9/2014	5/10/2014	
L59978-15	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/7/2014	5/9/2014	5/10/2014	

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L59978-16	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/7/2014	5/9/2014	5/10/2014	
L59978-17	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/7/2014	5/9/2014	5/10/2014	
L59978-18	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/7/2014	5/9/2014	5/10/2014	
L59978-19	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/7/2014	5/9/2014	5/10/2014	
L59978-20	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/7/2014	5/9/2014	5/10/2014	
L59978-21	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/7/2014	5/9/2014	5/10/2014	
L59978-22	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/7/2014	5/9/2014	5/10/2014	
L59978-23	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/7/2014	5/9/2014	5/10/2014	
L59978-24	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/7/2014	5/9/2014	5/10/2014	
L59978-25	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/7/2014	5/9/2014	5/10/2014	
L59978-26	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/7/2014	5/9/2014	5/10/2014	
L59978-27	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/7/2014	5/9/2014	5/10/2014	
L59978-28	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/7/2014	5/9/2014	5/10/2014	
L59978-29	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/7/2014	5/9/2014	5/10/2014	
L59978-30	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/7/2014	5/9/2014	5/10/2014	
L59978-31	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/7/2014	5/9/2014	5/10/2014	
L59978-32	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/7/2014	5/9/2014	5/10/2014	
L59978-33	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/7/2014	5/9/2014	5/10/2014	
L60048-1	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTSS	GRND WTR	5/8/2014	5/9/2014	5/10/2014	
L60226-1	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTSS	GRND WTR	5/8/2014	5/9/2014	5/10/2014	
L60243-1	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTSS	GRND WTR	5/8/2014	5/9/2014	5/10/2014	
L60244-2	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTSS	GRND WTR	5/9/2014	5/9/2014	5/10/2014	
L60245-1	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTSS	GRND WTR	5/8/2014	5/9/2014	5/10/2014	
L60245-2	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTSS	GRND WTR	5/8/2014	5/9/2014	5/10/2014	
L60247-1	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTSS	GRND WTR	5/9/2014	5/9/2014	5/10/2014	
L60247-2	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTSS	GRND WTR	5/9/2014	5/9/2014	5/10/2014	
L60254-1	421195-240	Horseshoe Lake WQ	CVTSS	FRESH WTR	5/7/2014	5/9/2014	5/10/2014	
L60254-2	421195-240	Horseshoe Lake WQ	CVTSS	FRESH WTR	5/7/2014	5/9/2014	5/10/2014	
L60254-3	421195-240	Horseshoe Lake WQ	CVTSS	FRESH WTR	5/7/2014	5/9/2014	5/10/2014	
L60254-4	421195-240	Horseshoe Lake WQ	CVTSS	FRESH WTR	5/7/2014	5/9/2014	5/10/2014	
L60299-1	423589-320-4	CSO Basin Study	CVTSS	STORM WTR	5/8/2014	5/9/2014	5/10/2014	
L60299-2	423589-320-4	CSO Basin Study	CVTSS	STORM WTR	5/8/2014	5/9/2014	5/10/2014	
L60299-3	423589-320-4	CSO Basin Study	CVTSS	STORM WTR	5/8/2014	5/9/2014	5/10/2014	
WG132597-1	MB		CVTSS	BLANK WTR		5/9/2014	5/10/2014	MB1 5/9/14
WG132597-2	LCS		CVTSS	BLANK WTR		5/9/2014	5/10/2014	LEVEL1
WG132597-3	LD		CVTSS	SALT WTR		5/9/2014	5/10/2014	L59978-16
WG132597-4	MB		CVTSS	BLANK WTR		5/9/2014	5/10/2014	MB2 5/9/14
WG132597-5	LCS		CVTSS	BLANK WTR		5/9/2014	5/10/2014	LEVEL1
WG132597-6	MB		CVTSS	BLANK WTR		5/9/2014	5/10/2014	MB3 5/9/14
WG132597-7	LCS		CVTSS	BLANK WTR		5/9/2014	5/10/2014	LEVEL1

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WG132597-8 LD	CVTSS	FRESH WTR	5/9/2014	5/10/2014	L60254-3
WG132597-9 LD	CVTSS	GRND WTR	5/9/2014	5/10/2014	L60245-2
WG132597-10 LD	CVTSS	STORM WTR	5/9/2014	5/10/2014	L60299-2

WG135583 (TSS+VSS) Department: 3 - Conventionals Move Date: 2014-10-21 11:57:33

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L60387-2	423589-320-4	CSO Basin Study	CVTSS	STORM WTR	10/13/2014	10/16/2014	10/17/2014	
L60387-3	423589-320-4	CSO Basin Study	CVTSS	STORM WTR	10/13/2014	10/16/2014	10/17/2014	
L61326-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/10/2014	10/16/2014	10/17/2014	
L61328-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/10/2014	10/16/2014	10/17/2014	
L61328-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/10/2014	10/16/2014	10/17/2014	
L61328-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/13/2014	10/16/2014	10/17/2014	
L61350-1	421422-CHGW-NP	SWD-CHGW-NP Cedar Hills Groundwater Non-Potable	CVTSS	GRND WTR	10/16/2014	10/16/2014	10/17/2014	
L61354-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/13/2014	10/16/2014	10/17/2014	
L61354-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/14/2014	10/16/2014	10/17/2014	
L61354-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/14/2014	10/16/2014	10/17/2014	
L61356-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/16/2014	10/16/2014	10/17/2014	
L61356-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/16/2014	10/16/2014	10/17/2014	
L61356-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/14/2014	10/16/2014	10/17/2014	
L61356-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/16/2014	10/16/2014	10/17/2014	
L61372-1	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTSS	LEACHATE	10/14/2014	10/16/2014	10/17/2014	
L61372-1	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVVSS	LEACHATE	10/14/2014	10/16/2014	10/17/2014	
L61372-3	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTSS	LEACHATE	10/15/2014	10/16/2014	10/17/2014	
L61372-3	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVVSS	LEACHATE	10/15/2014	10/16/2014	10/17/2014	
L61372-4	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTSS	LEACHATE	10/15/2014	10/16/2014	10/17/2014	
L61372-4	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVVSS	LEACHATE	10/15/2014	10/16/2014	10/17/2014	
L61372-5	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTSS	LEACHATE	10/15/2014	10/16/2014	10/17/2014	
L61372-5	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVVSS	LEACHATE	10/15/2014	10/16/2014	10/17/2014	
L61401-1	421195-230	White Center Storms-IDDE	CVTSS	STORM WTR	10/14/2014	10/16/2014	10/17/2014	
L61401-2	421195-230	White Center Storms-IDDE	CVTSS	STORM WTR	10/14/2014	10/16/2014	10/17/2014	
L61401-3	421195-230	White Center Storms-IDDE	CVTSS	STORM WTR	10/14/2014	10/16/2014	10/17/2014	
L61401-4	421195-230	White Center Storms-IDDE	CVTSS	STORM WTR	10/14/2014	10/16/2014	10/17/2014	
L61401-5	421195-230	White Center Storms-IDDE	CVTSS	STORM WTR	10/14/2014	10/16/2014	10/17/2014	
L61401-6	421195-230	White Center Storms-IDDE	CVTSS	STORM WTR	10/14/2014	10/16/2014	10/17/2014	
L61401-7	421195-230	White Center Storms-IDDE	CVTSS	STORM WTR	10/14/2014	10/16/2014	10/17/2014	
L61401-8	421195-230	White Center Storms-IDDE	CVTSS	STORM WTR	10/14/2014	10/16/2014	10/17/2014	
L61401-9	421195-230	White Center Storms-IDDE	CVTSS	STORM WTR	10/14/2014	10/16/2014	10/17/2014	
L61401-10	421195-230	White Center Storms-IDDE	CVTSS	STORM WTR	10/14/2014	10/16/2014	10/17/2014	

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L61401-11	421195-230	White Center Storms-IDDE	CVTSS	STORM WTR	10/14/2014	10/16/2014	10/17/2014	
L61401-14	421195-230	White Center Storms-IDDE	CVTSS	STORM WTR	10/14/2014	10/16/2014	10/17/2014	
WG135583-1	MB		CVTSS	BLANK WTR		10/16/2014	10/17/2014	
WG135583-1	MB		CVVSS	BLANK WTR		10/16/2014	10/17/2014	
WG135583-2	LCS		CVTSS	BLANK WTR		10/16/2014	10/17/2014	LEVEL1
WG135583-3	LD		CVTSS	STORM WTR		10/16/2014	10/17/2014	L61401-1
WG135583-4	LD		CVTSS	GRND WTR		10/16/2014	10/17/2014	
WG135583-5	LD		CVTSS	LEACHATE		10/16/2014	10/17/2014	
WG135583-5	LD		CVVSS	LEACHATE		10/16/2014	10/17/2014	
WG135583-6	MB		CVTSS	BLANK WTR		10/16/2014	10/17/2014	
WG135583-7	LCS		CVTSS	BLANK WTR		10/16/2014	10/17/2014	LEVEL1

WG135754 (TSS-various) Department: 3 - Conventionals Move Date: 2014-10-30 15:49:54

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59574-1	421195-450	China Creek Stormwater Monitoring	CVTSS	STORM WTR	10/22/2014	10/24/2014	10/29/2014	
L59574-2	421195-450	China Creek Stormwater Monitoring	CVTSS	STORM WTR	10/22/2014	10/24/2014	10/29/2014	
L59574-3	421195-450	China Creek Stormwater Monitoring	CVTSS	STORM WTR	10/22/2014	10/24/2014	10/29/2014	
L59574-4	421195-450	China Creek Stormwater Monitoring	CVTSS	STORM WTR	10/22/2014	10/24/2014	10/29/2014	
L59574-5	421195-450	China Creek Stormwater Monitoring	CVTSS	STORM WTR	10/22/2014	10/24/2014	10/29/2014	
L59574-6	421195-450	China Creek Stormwater Monitoring	CVTSS	STORM WTR	10/22/2014	10/24/2014	10/29/2014	
L59574-7	421195-450	China Creek Stormwater Monitoring	CVTSS	STORM WTR	10/22/2014	10/24/2014	10/29/2014	
L59574-8	421195-450	China Creek Stormwater Monitoring	CVTSS	STORM WTR	10/22/2014	10/24/2014	10/29/2014	
L61421-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/22/2014	10/24/2014	10/29/2014	
L61421-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/22/2014	10/24/2014	10/29/2014	
L61421-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/23/2014	10/24/2014	10/29/2014	
L61439-1	421250ON	Ambient Offshore Water Column-North	CVTSS	FRESH WTR	10/20/2014	10/24/2014	10/29/2014	
L61439-2	421250ON	Ambient Offshore Water Column-North	CVTSS	FRESH WTR	10/20/2014	10/24/2014	10/29/2014	
L61439-3	421250ON	Ambient Offshore Water Column-North	CVTSS	FRESH WTR	10/20/2014	10/24/2014	10/29/2014	
L61501-2	423589-320-4	CSO Basin Study	CVTSS	STORM WTR	10/22/2014	10/24/2014	10/29/2014	
L61501-3	423589-320-4	CSO Basin Study	CVTSS	STORM WTR	10/22/2014	10/24/2014	10/29/2014	
WG135754-1	MB		CVTSS	BLANK WTR		10/24/2014	10/29/2014	
WG135754-2	LCS		CVTSS	BLANK WTR		10/24/2014	10/29/2014	LEVEL1
WG135754-3	LD		CVTSS	STORM WTR		10/24/2014	10/29/2014	L59574-3
WG135754-4	LD		CVTSS	GRND WTR		10/24/2014	10/29/2014	L61421-1
WG135754-5	LD		CVTSS	FRESH WTR		10/24/2014	10/29/2014	L61439-2

WG135944 (TSS/VSS) Department: 3 - Conventionals Move Date: 2014-11-10 11:56:13

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Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59933-1	421185-100	Elliot West CSO Plant	CVTSS	STORM WTR	10/31/2014	11/5/2014	11/5/2014	
L61422-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/30/2014	11/5/2014	11/5/2014	
L61422-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/30/2014	11/5/2014	11/5/2014	
L61422-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/31/2014	11/5/2014	11/5/2014	
L61502-4	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTSS	GRND WTR	11/3/2014	11/5/2014	11/5/2014	
L61502-5	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTSS	GRND WTR	11/3/2014	11/5/2014	11/5/2014	
L61502-10	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTSS	GRND WTR	11/4/2014	11/5/2014	11/5/2014	
L61535-1	421422-CFGW	SWD-CFGW Cedar Falls Groundwater Quarterly	CVTSS	GRND WTR	11/3/2014	11/5/2014	11/5/2014	
L61535-3	421422-CFGW	SWD-CFGW Cedar Falls Groundwater Quarterly	CVTSS	GRND WTR	11/3/2014	11/5/2014	11/5/2014	
L61535-5	421422-CFGW	SWD-CFGW Cedar Falls Groundwater Quarterly	CVTSS	GRND WTR	11/3/2014	11/5/2014	11/5/2014	
L61535-6	421422-CFGW	SWD-CFGW Cedar Falls Groundwater Quarterly	CVTSS	GRND WTR	11/3/2014	11/5/2014	11/5/2014	
L61560-1	423589-320-4	CSO Basin Study	CVTSS	STORM WTR	10/30/2014	11/5/2014	11/5/2014	
L61560-3	423589-320-4	CSO Basin Study	CVTSS	STORM WTR	10/30/2014	11/5/2014	11/5/2014	
L61567-1	421422-CFGW	SWD-CFGW Cedar Falls Groundwater Quarterly	CVTSS	GRND WTR	11/4/2014	11/5/2014	11/5/2014	
L61567-3	421422-CFGW	SWD-CFGW Cedar Falls Groundwater Quarterly	CVTSS	GRND WTR	11/4/2014	11/5/2014	11/5/2014	
L61567-4	421422-CFGW	SWD-CFGW Cedar Falls Groundwater Quarterly	CVTSS	GRND WTR	11/4/2014	11/5/2014	11/5/2014	
L61597-1	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather)	CVTSS	STORM WTR	10/31/2014	11/5/2014	11/5/2014	
L61597-1	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather)	CVVSS	STORM WTR	10/31/2014	11/5/2014	11/6/2014	
L61597-2	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather)	CVTSS	STORM WTR	10/31/2014	11/5/2014	11/5/2014	
L61597-2	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather)	CVVSS	STORM WTR	10/31/2014	11/5/2014	11/6/2014	
L61597-3	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather)	CVTSS	STORM WTR	10/31/2014	11/5/2014	11/5/2014	
L61597-3	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather)	CVVSS	STORM WTR	10/31/2014	11/5/2014	11/6/2014	
L61597-4	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather)	CVTSS	STORM WTR	10/31/2014	11/5/2014	11/5/2014	
L61597-4	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather)	CVVSS	STORM WTR	10/31/2014	11/5/2014	11/6/2014	
WG135944-1	MB		CVTSS	BLANK WTR		11/5/2014	11/5/2014	
WG135944-1	MB		CVVSS	BLANK WTR		11/5/2014	11/6/2014	
WG135944-2	LCS		CVTSS	BLANK WTR		11/5/2014	11/5/2014	LEVEL1
WG135944-3	LD		CVTSS	STORM WTR		11/5/2014	11/5/2014	L61597-3
WG135944-3	LD		CVVSS	STORM WTR		11/5/2014	11/6/2014	L61597-3
WG135944-4	LD		CVTSS	GRND WTR		11/5/2014	11/5/2014	

WG136640 (TSS/VSS) Department: 3 - Conventionals Move Date: 2014-12-24 11:25:28

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L61610-1	423589-320-4	CSO Basin Study	CVTSS	STORM WTR	12/10/2014	12/16/2014	12/17/2014	
L61610-3	423589-320-4	CSO Basin Study	CVTSS	STORM WTR	12/10/2014	12/16/2014	12/17/2014	
L61741-1	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTSS	LEACHATE	12/10/2014	12/16/2014	12/17/2014	

LIMSView Batch Report for Michigan Basin CSO - Data Validation for Storm Events - TSS

L61741-1	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVVSS	LEACHATE	12/10/2014	12/16/2014	12/17/2014
L61741-3	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTSS	LEACHATE	12/10/2014	12/16/2014	12/17/2014
L61741-3	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVVSS	LEACHATE	12/10/2014	12/16/2014	12/17/2014
L61741-4	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTSS	LEACHATE	12/10/2014	12/16/2014	12/17/2014
L61741-4	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVVSS	LEACHATE	12/10/2014	12/16/2014	12/17/2014
L61741-5	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTSS	LEACHATE	12/9/2014	12/16/2014	12/17/2014
L61741-5	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVVSS	LEACHATE	12/9/2014	12/16/2014	12/17/2014
L61741-7	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTSS	LEACHATE	12/10/2014	12/16/2014	12/17/2014
L61741-7	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVVSS	LEACHATE	12/10/2014	12/16/2014	12/17/2014
L61823-1	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather)	CVTSS	STORM WTR	12/10/2014	12/16/2014	12/17/2014
L61823-1	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather)	CVVSS	STORM WTR	12/10/2014	12/16/2014	12/17/2014
L61823-2	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather)	CVTSS	STORM WTR	12/10/2014	12/16/2014	12/17/2014
L61823-2	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather)	CVVSS	STORM WTR	12/10/2014	12/16/2014	12/17/2014
L61823-3	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather)	CVTSS	STORM WTR	12/10/2014	12/16/2014	12/17/2014
L61823-3	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather)	CVVSS	STORM WTR	12/10/2014	12/16/2014	12/17/2014
L61823-4	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather)	CVTSS	STORM WTR	12/10/2014	12/16/2014	12/17/2014
L61823-4	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather)	CVVSS	STORM WTR	12/10/2014	12/16/2014	12/17/2014
WG136640-1 MB			CVTSS	BLANK WTR		12/16/2014	12/17/2014
WG136640-1 MB			CVVSS	BLANK WTR		12/16/2014	12/17/2014
WG136640-2 LCS			CVTSS	BLANK WTR		12/16/2014	12/17/2014 LEVEL1
WG136640-3 LD			CVTSS	STORM WTR		12/16/2014	12/17/2014 L61741-5
WG136640-3 LD			CVVSS	STORM WTR		12/16/2014	12/17/2014 L61741-5
WG136640-4 LD			CVTSS	LEACHATE		12/16/2014	12/17/2014 L61823-3
WG136640-4 LD			CVVSS	LEACHATE		12/16/2014	12/17/2014 L61823-3

LIMSView Batch Report for Michigan Basin CSO - Data Validation for Storm Events - Metals & Organics

WG130134 (RTP Int, CSO) Department: 6 - Metals Move Date: 2013-12-06 13:38:56

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59147-3	421186B	RTP INPLNT 3 DAY INT (inf,eff,sl)	MTHG-LOW	EFFLUENT	11/18/2013	12/2/2013	12/4/2013	
L59155-1	423589-320-4	CSO Basin Study	MTHG-LOW	STORM WTR	11/6/2013	12/2/2013	12/4/2013	
L59155-1	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	STORM WTR	11/6/2013	12/2/2013	12/4/2013	
L59155-3	423589-320-4	CSO Basin Study	MTHG-LOW	STORM WTR	11/6/2013	12/2/2013	12/4/2013	
L59155-3	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	STORM WTR	11/6/2013	12/2/2013	12/4/2013	
L59241-1	423589-320-4	CSO Basin Study	MTHG-LOW	STORM WTR	11/18/2013	12/2/2013	12/4/2013	
L59241-3	423589-320-4	CSO Basin Study	MTHG-LOW	STORM WTR	11/18/2013	12/2/2013	12/4/2013	
L59241-3	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	STORM WTR	11/18/2013	12/2/2013	12/4/2013	
L59267-2	423589-320-4	CSO Basin Study	MTHG-LOW	SEWER WTR	11/25/2013	12/2/2013	12/4/2013	
L59267-2	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	SEWER WTR	11/25/2013	12/2/2013	12/4/2013	
WG130134-1	MB		MTHG-LOW	BLANK WTR		12/2/2013	12/4/2013	METHOD BLANK
WG130134-1	MB		MTHG-LOW-DISS	BLANK WTR		12/2/2013	12/4/2013	METHOD BLANK
WG130134-2	SB		MTHG-LOW	BLANK WTR		12/2/2013	12/4/2013	WG130134-1 HG-LLOW
WG130134-3	MS		MTHG-LOW-DISS	GRND WTR		12/2/2013	12/4/2013	L59155-1 HG-LLOW
WG130134-4	MSD		MTHG-LOW-DISS	GRND WTR		12/2/2013	12/4/2013	L59155-1 HG-LLOW-MSD

WG130761 (OCS, CSO) Department: 6 - Metals Move Date: 2014-01-23 15:02:56

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59400-1	421184-110	OCS-City of Enumclaw	MTHG-LOW	EFFLUENT	1/5/2014	1/21/2014	1/22/2014	
L59400-3	421184-110	OCS-City of Enumclaw	MTHG-LOW	INFLUENT	1/5/2014	1/21/2014	1/22/2014	
L59471-1	423589-320-4	CSO Basin Study	MTHG-LOW	STORM WTR	1/8/2014	1/21/2014	1/22/2014	
L59471-1	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	STORM WTR	1/8/2014	1/21/2014	1/22/2014	
L59471-2	423589-320-4	CSO Basin Study	MTHG-LOW	STORM WTR	1/8/2014	1/21/2014	1/22/2014	
L59471-2	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	STORM WTR	1/8/2014	1/21/2014	1/22/2014	
L59471-3	423589-320-4	CSO Basin Study	MTHG-LOW	STORM WTR	1/8/2014	1/21/2014	1/22/2014	
L59471-3	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	STORM WTR	1/8/2014	1/21/2014	1/22/2014	
L59491-1	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW-DISS	STORM WTR	1/11/2014	1/21/2014	1/22/2014	
L59491-2	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW-DISS	STORM WTR	1/11/2014	1/21/2014	1/22/2014	
L59491-3	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW-DISS	STORM WTR	1/11/2014	1/21/2014	1/22/2014	
L59491-4	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW-DISS	STORM WTR	1/11/2014	1/21/2014	1/22/2014	
L59491-5	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW-DISS	STORM WTR	1/11/2014	1/21/2014	1/22/2014	
L59491-6	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW-DISS	STORM WTR	1/11/2014	1/21/2014	1/22/2014	
L59491-7	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW-DISS	STORM WTR	1/11/2014	1/21/2014	1/22/2014	
L59491-8	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW-DISS	STORM WTR	1/11/2014	1/21/2014	1/22/2014	
L59491-9	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW-DISS	STORM WTR	1/11/2014	1/21/2014	1/22/2014	

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L59491-10	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW-DISS	STORM WTR	1/11/2014	1/21/2014	1/22/2014	
L59491-11	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW-DISS	STORM WTR	1/11/2014	1/21/2014	1/22/2014	
WG130761-1	MB		MTHG-LOW	BLANK WTR		1/21/2014	1/22/2014	METHOD BLANK
WG130761-1	MB		MTHG-LOW-DISS	BLANK WTR		1/21/2014	1/22/2014	METHOD BLANK
WG130761-2	SB		MTHG-LOW	BLANK WTR		1/21/2014	1/22/2014	WG130761-1 HG-LLOW
WG130761-3	MS		MTHG-LOW	EFFLUENT		1/21/2014	1/22/2014	L59400-1 HG-LLOW
WG130761-4	MSD		MTHG-LOW	EFFLUENT		1/21/2014	1/22/2014	L59400-1 HG-LLOW-MSD
WG130761-5	MB		MTHG-LOW-DISS	FILTER WTR		1/21/2014	1/22/2014	FILTER BLANK PRE
WG131023-7	MB		MTHG-LOW-DISS	BLANK WTR	2/18/2014	2/19/2014	2/19/2014	FILTER BLANK 1/13/14 MID
WG131023-8	MB		MTHG-LOW-DISS	BLANK WTR	2/18/2014	2/19/2014	2/19/2014	FILTER BLANK 1/13/14 POST

WG131314 (Brandon, CSO's) Department: 6 - Metals Move Date: 2014-03-14 13:37:29

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59667-1	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW	STORM WTR	2/10/2014	2/27/2014	2/28/2014	
L59667-1	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW-DISS	STORM WTR	2/10/2014	2/27/2014	2/28/2014	
L59667-2	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW	STORM WTR	2/10/2014	2/27/2014	2/28/2014	
L59667-2	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW-DISS	STORM WTR	2/10/2014	2/27/2014	2/28/2014	
L59667-3	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW	STORM WTR	2/10/2014	2/27/2014	2/28/2014	
L59667-3	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW-DISS	STORM WTR	2/10/2014	2/27/2014	2/28/2014	
L59667-4	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW	STORM WTR	2/10/2014	2/27/2014	2/28/2014	
L59667-4	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW-DISS	STORM WTR	2/10/2014	2/27/2014	2/28/2014	
L59681-1	423589-320-4	CSO Basin Study	MTHG-LOW	STORM WTR	2/11/2014	2/27/2014	2/28/2014	
L59681-1	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	STORM WTR	2/11/2014	2/27/2014	2/28/2014	
L59681-2	423589-320-4	CSO Basin Study	MTHG-LOW	STORM WTR	2/11/2014	2/27/2014	2/28/2014	
L59681-3	423589-320-4	CSO Basin Study	MTHG-LOW	STORM WTR	2/11/2014	2/27/2014	2/28/2014	
L59681-3	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	STORM WTR	2/11/2014	2/27/2014	2/28/2014	
L59683-1	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW	STORM WTR	2/11/2014	2/27/2014	2/28/2014	
L59683-2	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW	STORM WTR	2/11/2014	2/27/2014	2/28/2014	
L59683-3	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW	STORM WTR	2/11/2014	2/27/2014	2/28/2014	
L59683-4	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW	STORM WTR	2/11/2014	2/27/2014	2/28/2014	
L59683-5	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW	STORM WTR	2/11/2014	2/27/2014	2/28/2014	
L59683-6	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW	STORM WTR	2/12/2014	2/27/2014	2/28/2014	
L59683-7	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW	STORM WTR	2/12/2014	2/27/2014	2/28/2014	
WG131314-1	MB		MTHG-LOW	BLANK WTR		2/27/2014	2/28/2014	METHOD BLANK
WG131314-1	MB		MTHG-LOW-DISS	BLANK WTR		2/27/2014	2/28/2014	METHOD BLANK
WG131314-2	SB		MTHG-LOW-DISS	BLANK WTR		2/27/2014	2/28/2014	WG131314-1 HG-LLOW
WG131314-3	MS		MTHG-LOW-DISS	STORM WTR		2/27/2014	2/28/2014	L59681-3 HG-LLOW
WG131314-4	MSD		MTHG-LOW-DISS	STORM WTR		2/27/2014	2/28/2014	L59681-3 HG-LLOW-MSD

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WG131314-5 MB	MTHG-LOW-DISS BLANK WTR	2/27/2014	2/28/2014	FILTER BLANK PRE L59667 1-4
WG131314-6 MB	MTHG-LOW-DISS BLANK WTR	2/27/2014	2/28/2014	FILTER BLANK POST L59667 1-4

WG131689 (CSO Basin) Department: 6 - Metals Move Date: 2014-03-27 14:56:50

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59745-1	423589-320-4	CSO Basin Study	MTHG-LOW	STORM WTR	2/24/2014	3/19/2014	3/20/2014	
L59745-2	423589-320-4	CSO Basin Study	MTHG-LOW	STORM WTR	2/24/2014	3/19/2014	3/20/2014	
L59745-2	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	STORM WTR	2/24/2014	3/19/2014	3/20/2014	
L59745-3	423589-320-4	CSO Basin Study	MTHG-LOW	STORM WTR	2/24/2014	3/19/2014	3/20/2014	
L59745-3	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	STORM WTR	2/24/2014	3/19/2014	3/20/2014	
L59756-1	423589-320-4	CSO Basin Study	MTHG-LOW	SEWER WTR	2/26/2014	3/19/2014	3/20/2014	
L59756-1	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	SEWER WTR	2/26/2014	3/19/2014	3/20/2014	
L59756-2	423589-320-4	CSO Basin Study	MTHG-LOW	SEWER WTR	2/26/2014	3/19/2014	3/20/2014	
L59756-2	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	SEWER WTR	2/26/2014	3/19/2014	3/20/2014	
L59833-1	423589-320-4	CSO Basin Study	MTHG-LOW	STORM WTR	3/5/2014	3/19/2014	3/20/2014	
L59833-1	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	STORM WTR	3/5/2014	3/19/2014	3/20/2014	
L59833-2	423589-320-4	CSO Basin Study	MTHG-LOW	STORM WTR	3/5/2014	3/19/2014	3/20/2014	
L59833-2	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	STORM WTR	3/5/2014	3/19/2014	3/20/2014	
WG131689-1 MB			MTHG-LOW	BLANK WTR		3/19/2014	3/20/2014	METHOD BLANK
WG131689-1 MB			MTHG-LOW-DISS	BLANK WTR		3/19/2014	3/20/2014	METHOD BLANK
WG131689-2 SB			MTHG-LOW-DISS	BLANK WTR		3/19/2014	3/20/2014	WG131689-1 HG-LLOW
WG131689-3 MS			MTHG-LOW-DISS	STORM WTR		3/19/2014	3/20/2014	L59745-3 HG-LLOW
WG131689-4 MSD			MTHG-LOW-DISS	STORM WTR		3/19/2014	3/20/2014	L59745-3 HG-LLOW-MSD

WG132594 (CSO Basin, Brandon-Michig) Department: 6 - Metals Move Date: 2014-05-16 16:24:09

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L60114-1	423589-320-4	CSO Basin Study	MTHG-LOW	STORM WTR	4/16/2014	5/12/2014	5/13/2014	
L60114-1	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	STORM WTR	4/16/2014	5/12/2014	5/13/2014	
L60114-2	423589-320-4	CSO Basin Study	MTHG-LOW	STORM WTR	4/16/2014	5/12/2014	5/13/2014	
L60114-2	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	STORM WTR	4/16/2014	5/12/2014	5/13/2014	
L60114-3	423589-320-4	CSO Basin Study	MTHG-LOW	STORM WTR	4/16/2014	5/12/2014	5/13/2014	
L60114-3	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	STORM WTR	4/16/2014	5/12/2014	5/13/2014	
L60116-1	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW	STORM WTR	4/17/2014	5/12/2014	5/13/2014	
L60116-1	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW-DISS	STORM WTR	4/17/2014	5/12/2014	5/13/2014	
L60116-2	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW	STORM WTR	4/17/2014	5/12/2014	5/13/2014	
L60116-2	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW-DISS	STORM WTR	4/17/2014	5/12/2014	5/13/2014	

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L60116-3	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW	STORM WTR	4/17/2014	5/12/2014	5/13/2014	
L60116-3	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW-DISS	STORM WTR	4/17/2014	5/12/2014	5/13/2014	
L60116-4	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW	STORM WTR	4/17/2014	5/12/2014	5/13/2014	
L60116-4	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW-DISS	STORM WTR	4/17/2014	5/12/2014	5/13/2014	
L60299-1	423589-320-4	CSO Basin Study	MTHG-LOW	STORM WTR	5/8/2014	5/12/2014	5/13/2014	
L60299-1	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	STORM WTR	5/8/2014	5/12/2014	5/13/2014	
L60299-2	423589-320-4	CSO Basin Study	MTHG-LOW	STORM WTR	5/8/2014	5/12/2014	5/13/2014	
L60299-2	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	STORM WTR	5/8/2014	5/12/2014	5/13/2014	
L60299-3	423589-320-4	CSO Basin Study	MTHG-LOW	STORM WTR	5/8/2014	5/12/2014	5/13/2014	
L60299-3	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	STORM WTR	5/8/2014	5/12/2014	5/13/2014	
WG132594-1	MB		MTHG-LOW	BLANK WTR		5/12/2014	5/13/2014	MB140512
WG132594-1	MB		MTHG-LOW-DISS	BLANK WTR		5/12/2014	5/13/2014	MB140512
WG132594-2	SB		MTHG-LOW	BLANK WTR		5/12/2014	5/13/2014	WG132594-1 HG-LLOW
WG132594-3	MS		MTHG-LOW-DISS	STORM WTR		5/12/2014	5/13/2014	L60299-2 HG-LLOW
WG132594-4	MSD		MTHG-LOW-DISS	STORM WTR		5/12/2014	5/13/2014	L60299-2 HG-LLOW-MSD
WG132594-5	MB		MTHG-LOW-DISS	BLANK WTR		5/12/2014	5/13/2014	PRE FILTER BLANK L60116-(1-4)
WG132594-6	MB		MTHG-LOW-DISS	BLANK WTR		5/12/2014	5/13/2014	POST FILTER BLANK L60116-(1-4)

WG135593 (16-OCT-14 CSOLL) Department: 6 - Metals Move Date: 2014-10-28 13:59:49

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L60387-2	423589-320-4	CSO Basin Study	MTHG-LOW	STORM WTR	10/13/2014	10/16/2014	10/20/2014	
L60387-2	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	STORM WTR	10/13/2014	10/16/2014	10/20/2014	
L60387-3	423589-320-4	CSO Basin Study	MTHG-LOW	STORM WTR	10/13/2014	10/16/2014	10/20/2014	
L60387-3	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	STORM WTR	10/13/2014	10/16/2014	10/20/2014	
WG135593-1	MB		MTHG-LOW	BLANK WTR		10/16/2014	10/20/2014	MB
WG135593-1	MB		MTHG-LOW-DISS	BLANK WTR		10/16/2014	10/20/2014	MB
WG135593-2	SB		MTHG-LOW-DISS	BLANK WTR		10/16/2014	10/20/2014	WG135593-1 HG-LLOW
WG135593-3	MS		MTHG-LOW-DISS	STORM WTR		10/16/2014	10/20/2014	L60387-2 HG-LLOW
WG135593-4	MSD		MTHG-LOW-DISS	STORM WTR		10/16/2014	10/20/2014	L60387-2 HG-LLOW-MSD

WG135996 (06-NOV-14 CSO/BRANDON) Department: 6 - Metals Move Date: 2014-11-21 13:26:46

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L61501-2	423589-320-4	CSO Basin Study	MTHG-LOW	STORM WTR	10/22/2014	11/6/2014	11/7/2014	
L61501-2	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	STORM WTR	10/22/2014	11/6/2014	11/7/2014	
L61501-3	423589-320-4	CSO Basin Study	MTHG-LOW	STORM WTR	10/22/2014	11/6/2014	11/7/2014	
L61501-3	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	STORM WTR	10/22/2014	11/6/2014	11/7/2014	

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L61560-1	423589-320-4	CSO Basin Study	MTHG-LOW	STORM WTR	10/30/2014	11/6/2014	11/7/2014	
L61560-1	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	STORM WTR	10/30/2014	11/6/2014	11/7/2014	
L61560-3	423589-320-4	CSO Basin Study	MTHG-LOW	STORM WTR	10/30/2014	11/6/2014	11/7/2014	
L61560-3	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	STORM WTR	10/30/2014	11/6/2014	11/7/2014	
L61597-1	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW	STORM WTR	10/31/2014	11/6/2014	11/7/2014	
L61597-1	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW-DISS	STORM WTR	10/31/2014	11/6/2014	11/7/2014	
L61597-2	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW	STORM WTR	10/31/2014	11/6/2014	11/7/2014	
L61597-2	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW-DISS	STORM WTR	10/31/2014	11/6/2014	11/7/2014	
L61597-3	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW	STORM WTR	10/31/2014	11/6/2014	11/7/2014	
L61597-3	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW-DISS	STORM WTR	10/31/2014	11/6/2014	11/7/2014	
L61597-4	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW	STORM WTR	10/31/2014	11/6/2014	11/7/2014	
L61597-4	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW-DISS	STORM WTR	10/31/2014	11/6/2014	11/7/2014	
WG135996-1	MB		MTHG-LOW	BLANK WTR		11/6/2014	11/7/2014	MB
WG135996-1	MB		MTHG-LOW-DISS	BLANK WTR		11/6/2014	11/7/2014	MB
WG135996-2	SB		MTHG-LOW-DISS	BLANK WTR		11/6/2014	11/7/2014	WG135996-1 HG-LLOW
WG135996-3	MS		MTHG-LOW-DISS	STORM WTR		11/6/2014	11/7/2014	L61501-3 HG-LLOW
WG135996-4	MSD		MTHG-LOW-DISS	STORM WTR		11/6/2014	11/7/2014	L61501-3 HG-LLOW-MSD
WG135996-5	MB		MTHG-LOW-DISS	STORM WTR		11/6/2014	11/7/2014	PRE-FILTER BLANK L61597-2 & -4
WG135996-6	MB		MTHG-LOW-DISS	STORM WTR		11/6/2014	11/7/2014	POST-FILTER BLANK L61597-2 & -4

WG136595 (12-DEC-14 CSO/RTP/BRANDON) Department: 6 - Metals Move Date: 2014-12-23 14:29:44

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L61610-1	423589-320-4	CSO Basin Study	MTHG-LOW	STORM WTR	12/10/2014	12/12/2014	12/18/2014	
L61610-1	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	STORM WTR	12/10/2014	12/12/2014	12/18/2014	
L61610-3	423589-320-4	CSO Basin Study	MTHG-LOW	STORM WTR	12/10/2014	12/12/2014	12/18/2014	
L61610-3	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	STORM WTR	12/10/2014	12/12/2014	12/18/2014	
L61612-1	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW	STORM WTR	11/23/2014	12/12/2014	12/18/2014	
L61612-1	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW-DISS	STORM WTR	11/23/2014	12/12/2014	12/18/2014	
L61612-2	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW	STORM WTR	11/23/2014	12/12/2014	12/18/2014	
L61612-2	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW-DISS	STORM WTR	11/23/2014	12/12/2014	12/18/2014	
L61612-3	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW	STORM WTR	11/23/2014	12/12/2014	12/18/2014	
L61612-3	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW-DISS	STORM WTR	11/23/2014	12/12/2014	12/18/2014	
L61612-4	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW	STORM WTR	11/23/2014	12/12/2014	12/18/2014	
L61612-4	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW-DISS	STORM WTR	11/23/2014	12/12/2014	12/18/2014	
L61614-3	421186B	RTP INPLNT 3 DAY INT (inf,eff,sl)	MTHG-LOW	EFFLUENT	11/19/2014	12/12/2014	12/18/2014	
L61823-1	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW	STORM WTR	12/10/2014	12/12/2014	12/18/2014	
L61823-1	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW-DISS	STORM WTR	12/10/2014	12/12/2014	12/18/2014	
L61823-2	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW	STORM WTR	12/10/2014	12/12/2014	12/18/2014	

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L61823-2	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW-DISS	STORM WTR	12/10/2014	12/12/2014	12/18/2014	
L61823-3	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW	STORM WTR	12/10/2014	12/12/2014	12/18/2014	
L61823-3	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW-DISS	STORM WTR	12/10/2014	12/12/2014	12/18/2014	
WG136595-1	MB		MTHG-LOW	BLANK WTR		12/12/2014	12/18/2014	MB
WG136595-1	MB		MTHG-LOW-DISS	BLANK WTR		12/12/2014	12/18/2014	MB
WG136595-2	SB		MTHG-LOW	BLANK WTR		12/12/2014	12/18/2014	WG136595-1 HG-LLOW
WG136595-3	MS		MTHG-LOW	EFFLUENT		12/12/2014	12/18/2014	L61614-3 HG-LLOW
WG136595-4	MSD		MTHG-LOW	EFFLUENT		12/12/2014	12/18/2014	L61614-3 HG-LLOW-MSD

WG130225 (CSO) Department: 6 - Metals Move Date: 2013-12-19 14:49:23

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59241-1	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	STORM WTR	11/18/2013	12/10/2013	12/12/2013	
L59294-1	423589-320-4	CSO Basin Study	MTHG-LOW	SEWER WTR	12/4/2013	12/10/2013	12/12/2013	
L59294-1	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	SEWER WTR	12/4/2013	12/10/2013	12/12/2013	
L59294-2	423589-320-4	CSO Basin Study	MTHG-LOW	SEWER WTR	12/4/2013	12/10/2013	12/12/2013	
L59294-2	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	SEWER WTR	12/4/2013	12/10/2013	12/12/2013	
L59294-3	423589-320-4	CSO Basin Study	MTHG-LOW	SEWER WTR	12/4/2013	12/10/2013	12/12/2013	
L59294-3	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	SEWER WTR	12/4/2013	12/10/2013	12/12/2013	
WG130225-1	MB		MTHG-LOW	BLANK WTR		12/10/2013	12/12/2013	METHOD BLANK
WG130225-1	MB		MTHG-LOW-DISS	BLANK WTR		12/10/2013	12/12/2013	METHOD BLANK
WG130225-2	SB		MTHG-LOW-DISS	BLANK WTR		12/10/2013	12/12/2013	WG130225-1 HG-LLOW
WG130225-3	MS		MTHG-LOW-DISS	SEWER WTR		12/10/2013	12/12/2013	L59294-3 HG-LLOW
WG130225-4	MSD		MTHG-LOW-DISS	SEWER WTR		12/10/2013	12/19/2013	L59294-3 HG-LLOW-MSD

WG131023 () Department: 6 - Metals Move Date: 2014-02-28 15:12:34

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59562-4	421186B	RTP INPLNT 3 DAY INT (inf,eff,sl)	MTHG-LOW	EFFLUENT	1/29/2014	2/18/2014	2/19/2014	
L59588-1	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW	STORM WTR	1/29/2014	2/18/2014	2/19/2014	
L59588-2	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW	STORM WTR	1/29/2014	2/18/2014	2/19/2014	
L59588-3	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW	STORM WTR	1/29/2014	2/18/2014	2/19/2014	
L59588-4	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW	STORM WTR	1/29/2014	2/18/2014	2/19/2014	
L59588-5	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW	STORM WTR	1/29/2014	2/18/2014	2/19/2014	
L59588-6	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW	STORM WTR	1/29/2014	2/18/2014	2/19/2014	
L59588-7	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW	STORM WTR	1/29/2014	2/18/2014	2/19/2014	
L59588-8	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW	STORM WTR	1/29/2014	2/18/2014	2/19/2014	
L59588-8	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW-DISS	STORM WTR	1/29/2014	2/18/2014	2/19/2014	

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L59588-9	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW	STORM WTR	1/29/2014	2/18/2014	2/19/2014	
L59588-9	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW-DISS	STORM WTR	1/29/2014	2/18/2014	2/19/2014	
L59588-10	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW	STORM WTR	1/29/2014	2/18/2014	2/19/2014	
L59588-10	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW-DISS	STORM WTR	1/29/2014	2/18/2014	2/19/2014	
L59588-11	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW	STORM WTR	1/29/2014	2/18/2014	2/19/2014	
L59588-11	423530	Brandon-Michigan CSO TP (Georgetown	MTHG-LOW-DISS	STORM WTR	1/29/2014	2/18/2014	2/19/2014	
L59681-2	423589-320-4	CSO Basin Study	MTHG-LOW-DISS	STORM WTR	2/11/2014	2/18/2014	2/19/2014	
WG131023-1	MB		MTHG-LOW	BLANK WTR		2/18/2014	2/19/2014	METHOD BLANK
WG131023-2	SB		MTHG-LOW	BLANK WTR		2/18/2014	2/19/2014	WG131023-1 HG-LLOW
WG131023-3	MS		MTHG-LOW	EFFLUENT		2/18/2014	2/19/2014	L59562-4 HG-LLOW
WG131023-4	MSD		MTHG-LOW	EFFLUENT		2/18/2014	2/19/2014	L59562-4 HG-LLOW-MSD
WG131023-5	MS		MTHG-LOW-DISS	STORM WTR		2/18/2014	2/19/2014	L59681-2 HG-LLOW
WG131023-6	MSD		MTHG-LOW-DISS	STORM WTR		2/18/2014	2/19/2014	L59681-2 HG-LLOW-MSD
WG131023-7	MB		MTHG-LOW-DISS	BLANK WTR		2/18/2014	2/19/2014	FILTER BLANK 1/13/14 MID
WG131023-8	MB		MTHG-LOW-DISS	BLANK WTR		2/18/2014	2/19/2014	FILTER BLANK 1/13/14 POST
WG131023-9	MB		MTHG-LOW-DISS	BLANK WTR		2/18/2014	2/19/2014	FILTER BLANK 1/29/14 PRE
WG131023-10	MB		MTHG-LOW-DISS	BLANK WTR		2/18/2014	2/19/2014	FILTER BLANK 1/29/14 POST

WG129956 (11/19/13 CSO BASIN TOTALS) Department: 6 - Metals Move Date: 2013-11-26 13:52:31

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59070-1	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	10/29/2013	11/19/2013	11/20/2013	
L59070-2	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	10/29/2013	11/19/2013	11/20/2013	
L59070-3	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	10/29/2013	11/19/2013	11/20/2013	
L59155-1	423589-320-4	CSO Basin Study	MTICPMS	STORM WTR	11/6/2013	11/19/2013	11/20/2013	
L59155-3	423589-320-4	CSO Basin Study	MTICPMS	STORM WTR	11/6/2013	11/19/2013	11/20/2013	
WG129956-1	MB		MTICPMS	BLANK WTR		11/19/2013	11/20/2013	METHOD BLANK
WG129956-2	SB		MTICPMS	BLANK WTR		11/19/2013	11/20/2013	WG129956-1 MS-20
WG129956-3	LD		MTICPMS	SEWER WTR		11/19/2013	11/20/2013	L59070-2 RPD-LIQ
WG129956-4	MS		MTICPMS	SEWER WTR		11/19/2013	11/20/2013	L59070-2 MS-20

WG130213 (12/9/13 CSO BASIN TOTALS) Department: 6 - Metals Move Date: 2013-12-19 14:28:08

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59241-1	423589-320-4	CSO Basin Study	MTICPMS	STORM WTR	11/18/2013	12/9/2013	12/16/2013	
L59241-3	423589-320-4	CSO Basin Study	MTICPMS	STORM WTR	11/18/2013	12/9/2013	12/16/2013	
L59267-2	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	11/25/2013	12/9/2013	12/16/2013	
L59294-1	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	12/4/2013	12/9/2013	12/16/2013	

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L59294-2	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	12/4/2013	12/9/2013	12/16/2013	
L59294-3	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	12/4/2013	12/9/2013	12/16/2013	
WG130213-1	MB		MTICPMS	BLANK WTR		12/9/2013	12/16/2013	METHOD BLANK
WG130213-2	SB		MTICPMS	BLANK WTR		12/9/2013	12/16/2013	WG130213-1 MS-20
WG130213-3	LD		MTICPMS	SEWER WTR		12/9/2013	12/16/2013	L59294-2 RPD-LIQ
WG130213-4	MS		MTICPMS	SEWER WTR		12/9/2013	12/16/2013	L59294-2 MS-20

WG130880 (1/30/14 CSO BASIN TOTALS) Department: 6 - Metals Move Date: 2014-02-07 16:24:50

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59471-1	423589-320-4	CSO Basin Study	MTICPMS	STORM WTR	1/8/2014	1/30/2014	2/5/2014	
L59471-2	423589-320-4	CSO Basin Study	MTICPMS	STORM WTR	1/8/2014	1/30/2014	2/5/2014	
L59471-3	423589-320-4	CSO Basin Study	MTICPMS	STORM WTR	1/8/2014	1/30/2014	2/5/2014	
WG130880-1	MB		MTICPMS	BLANK WTR		1/30/2014	2/5/2014	METHOD BLANK
WG130880-2	SB		MTICPMS	BLANK WTR		1/30/2014	2/5/2014	WG130880-1 MS-20
WG130880-3	LD		MTICPMS	STORM WTR		1/30/2014	2/5/2014	L59471-2 RPD-LIQ
WG130880-4	MS		MTICPMS	STORM WTR		1/30/2014	2/5/2014	L59471-2 MS-20

WG131375 (3/5/14 CSO Basin Totals) Department: 6 - Metals Move Date: 2014-03-14 13:24:51

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59681-1	423589-320-4	CSO Basin Study	MTICPMS	STORM WTR	2/11/2014	3/5/2014	3/12/2014	
L59681-2	423589-320-4	CSO Basin Study	MTICPMS	STORM WTR	2/11/2014	3/5/2014	3/12/2014	
L59681-3	423589-320-4	CSO Basin Study	MTICPMS	STORM WTR	2/11/2014	3/5/2014	3/12/2014	
L59745-1	423589-320-4	CSO Basin Study	MTICPMS	STORM WTR	2/24/2014	3/5/2014	3/12/2014	
L59745-2	423589-320-4	CSO Basin Study	MTICPMS	STORM WTR	2/24/2014	3/5/2014	3/12/2014	
L59745-3	423589-320-4	CSO Basin Study	MTICPMS	STORM WTR	2/24/2014	3/5/2014	3/12/2014	
L59756-1	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	2/26/2014	3/5/2014	3/12/2014	
L59756-2	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	2/26/2014	3/5/2014	3/12/2014	
WG131375-1	MB		MTICPMS	BLANK WTR		3/5/2014	3/12/2014	METHOD BLANK
WG131375-2	SB		MTICPMS	BLANK WTR		3/5/2014	3/12/2014	WG131375-1 MS-20
WG131375-3	LD		MTICPMS	STORM WTR		3/5/2014	3/12/2014	L59745-3 RPD-LIQ
WG131375-4	MS		MTICPMS	STORM WTR		3/5/2014	3/12/2014	L59745-3 MS-20

WG131821 (28-MAR-14 CSO Basin) Department: 6 - Metals Move Date: 2014-04-04 14:29:49

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
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LIMSView Batch Report for Michigan Basin CSO - Data Validation for Storm Events - Metals & Organics

L59833-1	423589-320-4	CSO Basin Study	MTICPMS	STORM WTR	3/5/2014	3/28/2014	3/31/2014	
L59833-2	423589-320-4	CSO Basin Study	MTICPMS	STORM WTR	3/5/2014	3/28/2014	3/31/2014	
L59938-1	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	3/24/2014	3/28/2014	3/31/2014	
L59938-2	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	3/24/2014	3/28/2014	3/31/2014	
L59938-3	423589-320-4	CSO Basin Study	MTICPMS	SEWER WTR	3/24/2014	3/28/2014	3/31/2014	
WG131821-1	MB		MTICPMS	BLANK WTR		3/28/2014	3/31/2014	METHOD BLANK
WG131821-2	SB		MTICPMS	BLANK WTR		3/28/2014	3/31/2014	WG131821-1 MS-20
WG131821-3	LD		MTICPMS	SEWER WTR		3/28/2014	3/31/2014	L59833-1 RPD-LIQ
WG131821-4	MS		MTICPMS	SEWER WTR		3/28/2014	3/31/2014	L59833-1 MS-20

WG132571 (5/12/14 CSO Totals) Department: 6 - Metals Move Date: 2014-05-15 13:00:55

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L60114-1	423589-320-4	CSO Basin Study	MTICPMS	STORM WTR	4/16/2014	5/12/2014	5/14/2014	
L60114-2	423589-320-4	CSO Basin Study	MTICPMS	STORM WTR	4/16/2014	5/12/2014	5/14/2014	
L60114-3	423589-320-4	CSO Basin Study	MTICPMS	STORM WTR	4/16/2014	5/12/2014	5/14/2014	
L60299-1	423589-320-4	CSO Basin Study	MTICPMS	STORM WTR	5/8/2014	5/12/2014	5/14/2014	
L60299-2	423589-320-4	CSO Basin Study	MTICPMS	STORM WTR	5/8/2014	5/12/2014	5/14/2014	
L60299-3	423589-320-4	CSO Basin Study	MTICPMS	STORM WTR	5/8/2014	5/12/2014	5/14/2014	
WG132571-1	MB		MTICPMS	BLANK WTR		5/12/2014	5/14/2014	METHOD BLANK
WG132571-2	SB		MTICPMS	BLANK WTR		5/12/2014	5/14/2014	WG132571-1 MS-20
WG132571-3	LD		MTICPMS	STORM WTR		5/12/2014	5/14/2014	L60299-1 RPD-LIQ
WG132571-4	MS		MTICPMS	STORM WTR		5/12/2014	5/14/2014	L60299-1 MS-20

WG136067 (CSO Basin Totals) Department: 6 - Metals Move Date: 2014-11-13 14:24:52

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L60387-2	423589-320-4	CSO Basin Study	MTICPMS	STORM WTR	10/13/2014	11/12/2014	11/12/2014	
L60387-3	423589-320-4	CSO Basin Study	MTICPMS	STORM WTR	10/13/2014	11/12/2014	11/12/2014	
L61501-2	423589-320-4	CSO Basin Study	MTICPMS	STORM WTR	10/22/2014	11/12/2014	11/12/2014	
L61501-3	423589-320-4	CSO Basin Study	MTICPMS	STORM WTR	10/22/2014	11/12/2014	11/12/2014	
L61560-1	423589-320-4	CSO Basin Study	MTICPMS	STORM WTR	10/30/2014	11/12/2014	11/12/2014	
L61560-3	423589-320-4	CSO Basin Study	MTICPMS	STORM WTR	10/30/2014	11/12/2014	11/12/2014	
WG136067-1	MB		MTICPMS	BLANK WTR		11/12/2014	11/12/2014	METHOD BLANK
WG136067-2	SB		MTICPMS	BLANK WTR		11/12/2014	11/12/2014	WG136067-1 MS-20
WG136067-3	LD		MTICPMS	STORM WTR		11/12/2014	11/12/2014	L61560-3 RPD-LIQ
WG136067-4	MS		MTICPMS	STORM WTR		11/12/2014	11/12/2014	L61560-3 MS-20

LIMSView Batch Report for Michigan Basin CSO - Data Validation for Storm Events - Metals & Organics

WG136874 (Brandon Mich) Department: 6 - Metals Move Date: 2015-01-06 10:10:03

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L61610-1	423589-320-4	CSO Basin Study	MTICPMS	STORM WTR	12/10/2014	12/31/2014	12/31/2014	
L61610-3	423589-320-4	CSO Basin Study	MTICPMS	STORM WTR	12/10/2014	12/31/2014	12/31/2014	
L61736-1	423530	Brandon-Michigan CSO TP (Georgetown	MTICPMS	OTHR WTR	11/26/2014	12/31/2014	12/31/2014	
L61736-2	423530	Brandon-Michigan CSO TP (Georgetown	MTICPMS	OTHR WTR	11/26/2014	12/31/2014	12/31/2014	
L61736-3	423530	Brandon-Michigan CSO TP (Georgetown	MTICPMS	OTHR WTR	11/26/2014	12/31/2014	12/31/2014	
L61736-4	423530	Brandon-Michigan CSO TP (Georgetown	MTICPMS	OTHR WTR	11/26/2014	12/31/2014	12/31/2014	
L61736-5	423530	Brandon-Michigan CSO TP (Georgetown	MTICPMS	OTHR WTR	11/26/2014	12/31/2014	12/31/2014	
L61736-6	423530	Brandon-Michigan CSO TP (Georgetown	MTICPMS	OTHR WTR	11/26/2014	12/31/2014	12/31/2014	
L61736-7	423530	Brandon-Michigan CSO TP (Georgetown	MTICPMS	OTHR WTR	11/26/2014	12/31/2014	12/31/2014	
L61823-1	423530	Brandon-Michigan CSO TP (Georgetown	MTICPMS	STORM WTR	12/10/2014	12/31/2014	12/31/2014	
L61823-2	423530	Brandon-Michigan CSO TP (Georgetown	MTICPMS	STORM WTR	12/10/2014	12/31/2014	12/31/2014	
L61823-3	423530	Brandon-Michigan CSO TP (Georgetown	MTICPMS	STORM WTR	12/10/2014	12/31/2014	12/31/2014	
L61848-1	423530	Brandon-Michigan CSO TP (Georgetown	MTICPMS	STORM WTR	12/18/2014	12/31/2014	12/31/2014	
L61848-2	423530	Brandon-Michigan CSO TP (Georgetown	MTICPMS	STORM WTR	12/18/2014	12/31/2014	12/31/2014	
L61848-3	423530	Brandon-Michigan CSO TP (Georgetown	MTICPMS	STORM WTR	12/18/2014	12/31/2014	12/31/2014	
L61848-4	423530	Brandon-Michigan CSO TP (Georgetown	MTICPMS	STORM WTR	12/18/2014	12/31/2014	12/31/2014	
WG136874-1 MB			MTICPMS	BLANK WTR		12/31/2014	12/31/2014	METHOD BLANK
WG136874-2 SB			MTICPMS	BLANK WTR		12/31/2014	12/31/2014	WG136874-1 MS-20
WG136874-3 LD			MTICPMS	OTHR WTR		12/31/2014	12/31/2014	L61736-1 RPD-LIQ
WG136874-4 MS			MTICPMS	OTHR WTR		12/31/2014	12/31/2014	L61736-1 MS-20

WG129957 (11/19/13 CSO BASIN DISS) Department: 6 - Metals Move Date: 2013-11-26 13:52:38

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59070-1	423589-320-4	CSO Basin Study	MTICPMS-DISS	SEWER WTR	10/29/2013	11/19/2013	11/20/2013	
L59070-2	423589-320-4	CSO Basin Study	MTICPMS-DISS	SEWER WTR	10/29/2013	11/19/2013	11/20/2013	
L59070-3	423589-320-4	CSO Basin Study	MTICPMS-DISS	SEWER WTR	10/29/2013	11/19/2013	11/20/2013	
L59155-1	423589-320-4	CSO Basin Study	MTICPMS-DISS	STORM WTR	11/6/2013	11/19/2013	11/20/2013	
L59155-3	423589-320-4	CSO Basin Study	MTICPMS-DISS	STORM WTR	11/6/2013	11/19/2013	11/20/2013	
WG129957-1 MB			MTICPMS-DISS	BLANK WTR		11/19/2013	11/20/2013	METHOD BLANK
WG129957-2 SB			MTICPMS-DISS	BLANK WTR		11/19/2013	11/20/2013	WG129957-1 MS-20
WG129957-3 LD			MTICPMS-DISS	SEWER WTR		11/19/2013	11/20/2013	L59070-2 RPD-LIQ
WG129957-4 MS			MTICPMS-DISS	SEWER WTR		11/19/2013	11/20/2013	L59070-2 MS-20

LIMSView Batch Report for Michigan Basin CSO - Data Validation for Storm Events - Metals & Organics

WG130335 (12/16/13 cso basin diss) Department: 6 - Metals Move Date: 2013-12-19 14:28:16

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59241-1	423589-320-4	CSO Basin Study	MTICPMS-DISS	STORM WTR	11/18/2013	12/16/2013	12/16/2013	
L59241-3	423589-320-4	CSO Basin Study	MTICPMS-DISS	STORM WTR	11/18/2013	12/16/2013	12/16/2013	
L59267-2	423589-320-4	CSO Basin Study	MTICPMS-DISS	SEWER WTR	11/25/2013	12/16/2013	12/16/2013	
L59294-1	423589-320-4	CSO Basin Study	MTICPMS-DISS	SEWER WTR	12/4/2013	12/16/2013	12/16/2013	
L59294-2	423589-320-4	CSO Basin Study	MTICPMS-DISS	SEWER WTR	12/4/2013	12/16/2013	12/16/2013	
L59294-3	423589-320-4	CSO Basin Study	MTICPMS-DISS	SEWER WTR	12/4/2013	12/16/2013	12/16/2013	
WG130335-1	MB		MTICPMS-DISS	BLANK WTR		12/16/2013	12/16/2013	METHOD BLANK
WG130335-2	SB		MTICPMS-DISS	BLANK WTR		12/16/2013	12/16/2013	WG130335-1 MS-20
WG130335-3	LD		MTICPMS-DISS	STORM WTR		12/16/2013	12/16/2013	L59241-3 RPD-LIQ
WG130335-4	MS		MTICPMS-DISS	STORM WTR		12/16/2013	12/16/2013	L59241-3 MS-20

WG130931 (03-FEB-14 Green R, Brando) Department: 6 - Metals Move Date: 2014-02-07 16:25:06

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59470-1	423589-330-4	Green Rvr PCB/PAH Loading	MTICPMS-DISS	STORM WTR	1/8/2014	2/4/2014	2/4/2014	SAMP
L59470-2	423589-330-4	Green Rvr PCB/PAH Loading	MTICPMS-DISS	STORM WTR	1/8/2014	2/4/2014	2/4/2014	FREP@L59470-1
L59471-1	423589-320-4	CSO Basin Study	MTICPMS-DISS	STORM WTR	1/8/2014	2/4/2014	2/4/2014	
L59471-2	423589-320-4	CSO Basin Study	MTICPMS-DISS	STORM WTR	1/8/2014	2/4/2014	2/4/2014	
L59471-3	423589-320-4	CSO Basin Study	MTICPMS-DISS	STORM WTR	1/8/2014	2/4/2014	2/4/2014	
L59491-1	423530	Brandon-Michigan CSO TP (Georgetown	MTICPMS-DISS	STORM WTR	1/11/2014	2/4/2014	2/4/2014	
L59491-2	423530	Brandon-Michigan CSO TP (Georgetown	MTICPMS-DISS	STORM WTR	1/11/2014	2/4/2014	2/4/2014	
L59491-3	423530	Brandon-Michigan CSO TP (Georgetown	MTICPMS-DISS	STORM WTR	1/11/2014	2/4/2014	2/4/2014	
L59491-4	423530	Brandon-Michigan CSO TP (Georgetown	MTICPMS-DISS	STORM WTR	1/11/2014	2/4/2014	2/4/2014	
L59491-5	423530	Brandon-Michigan CSO TP (Georgetown	MTICPMS-DISS	STORM WTR	1/11/2014	2/4/2014	2/4/2014	
L59491-6	423530	Brandon-Michigan CSO TP (Georgetown	MTICPMS-DISS	STORM WTR	1/11/2014	2/4/2014	2/4/2014	
L59491-7	423530	Brandon-Michigan CSO TP (Georgetown	MTICPMS-DISS	STORM WTR	1/11/2014	2/4/2014	2/4/2014	
L59491-8	423530	Brandon-Michigan CSO TP (Georgetown	MTICPMS-DISS	STORM WTR	1/11/2014	2/4/2014	2/4/2014	
L59491-9	423530	Brandon-Michigan CSO TP (Georgetown	MTICPMS-DISS	STORM WTR	1/11/2014	2/4/2014	2/4/2014	
L59491-10	423530	Brandon-Michigan CSO TP (Georgetown	MTICPMS-DISS	STORM WTR	1/11/2014	2/4/2014	2/4/2014	
L59491-11	423530	Brandon-Michigan CSO TP (Georgetown	MTICPMS-DISS	STORM WTR	1/11/2014	2/4/2014	2/4/2014	
L59595-1	423589-330-4	Green Rvr PCB/PAH Loading	MTICPMS-DISS	STORM WTR	1/29/2014	2/4/2014	2/4/2014	SAMP
WG130931-1	MB		MTICPMS-DISS	BLANK WTR		2/4/2014	2/4/2014	METHOD BLANK
WG130931-2	SB		MTICPMS-DISS	BLANK WTR		2/4/2014	2/4/2014	WG130931-1 MS-20
WG130931-3	LD		MTICPMS-DISS	STORM WTR		2/4/2014	2/4/2014	L59491-10 RPD-LIQ
WG130931-4	MS		MTICPMS-DISS	STORM WTR		2/4/2014	2/4/2014	L59491-10 MS-20
WG130931-5	MB		MTICPMS-DISS	BLANK WTR		2/4/2014	2/4/2014	PRE FILTER BLANK L59491-(1-11)

LIMSView Batch Report for Michigan Basin CSO - Data Validation for Storm Events - Metals & Organics

WG130931-6 MB	MTICPMS-DISS	BLANK WTR	2/4/2014	2/4/2014	MID FILTER BLANK L59491-(1-11)
WG130931-7 MB	MTICPMS-DISS	BLANK WTR	2/4/2014	2/4/2014	POST FILTER BLANK L59491-(1-11)

WG131550 (3/12/14 CSO BASIN DISS) Department: 6 - Metals Move Date: 2014-03-14 13:24:58

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59681-1	423589-320-4	CSO Basin Study	MTICPMS-DISS	STORM WTR	2/11/2014	3/12/2014	3/12/2014	
L59681-2	423589-320-4	CSO Basin Study	MTICPMS-DISS	STORM WTR	2/11/2014	3/12/2014	3/12/2014	
L59681-3	423589-320-4	CSO Basin Study	MTICPMS-DISS	STORM WTR	2/11/2014	3/12/2014	3/12/2014	
L59745-2	423589-320-4	CSO Basin Study	MTICPMS-DISS	STORM WTR	2/24/2014	3/12/2014	3/12/2014	
L59745-3	423589-320-4	CSO Basin Study	MTICPMS-DISS	STORM WTR	2/24/2014	3/12/2014	3/12/2014	
L59756-1	423589-320-4	CSO Basin Study	MTICPMS-DISS	SEWER WTR	2/26/2014	3/12/2014	3/12/2014	
L59756-2	423589-320-4	CSO Basin Study	MTICPMS-DISS	SEWER WTR	2/26/2014	3/12/2014	3/12/2014	
L59833-1	423589-320-4	CSO Basin Study	MTICPMS-DISS	STORM WTR	3/5/2014	3/12/2014	3/12/2014	
L59833-2	423589-320-4	CSO Basin Study	MTICPMS-DISS	STORM WTR	3/5/2014	3/12/2014	3/12/2014	
WG131550-1 MB			MTICPMS-DISS	BLANK WTR		3/12/2014	3/12/2014	METHOD BLANK
WG131550-2 SB			MTICPMS-DISS	BLANK WTR		3/12/2014	3/12/2014	WG131550-1 MS-20
WG131550-3 LD			MTICPMS-DISS	STORM WTR		3/12/2014	3/12/2014	L59745-3 RPD-LIQ
WG131550-4 MS			MTICPMS-DISS	STORM WTR		3/12/2014	3/12/2014	L59745-3 MS-20

WG132572 (5/12/14 CSO Diss) Department: 6 - Metals Move Date: 2014-05-15 13:01:03

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L60114-1	423589-320-4	CSO Basin Study	MTICPMS-DISS	STORM WTR	4/16/2014	5/12/2014	5/14/2014	
L60114-2	423589-320-4	CSO Basin Study	MTICPMS-DISS	STORM WTR	4/16/2014	5/12/2014	5/14/2014	
L60114-3	423589-320-4	CSO Basin Study	MTICPMS-DISS	STORM WTR	4/16/2014	5/12/2014	5/14/2014	
L60299-1	423589-320-4	CSO Basin Study	MTICPMS-DISS	STORM WTR	5/8/2014	5/12/2014	5/14/2014	
L60299-2	423589-320-4	CSO Basin Study	MTICPMS-DISS	STORM WTR	5/8/2014	5/12/2014	5/14/2014	
L60299-3	423589-320-4	CSO Basin Study	MTICPMS-DISS	STORM WTR	5/8/2014	5/12/2014	5/14/2014	
WG132572-1 MB			MTICPMS-DISS	BLANK WTR		5/12/2014	5/14/2014	METHOD BLANK
WG132572-2 SB			MTICPMS-DISS	BLANK WTR		5/12/2014	5/14/2014	WG132572-1 MS-20
WG132572-3 LD			MTICPMS-DISS	STORM WTR		5/12/2014	5/14/2014	L60299-1 RPD-LIQ
WG132572-4 MS			MTICPMS-DISS	STORM WTR		5/12/2014	5/14/2014	L60299-1 MS-20

WG136055 (CSO Basin) Department: 6 - Metals Move Date: 2014-11-13 14:24:34

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
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L60387-2	423589-320-4	CSO Basin Study	MTICPMS-DISS	STORM WTR	10/13/2014	11/12/2014	11/12/2014	
L60387-3	423589-320-4	CSO Basin Study	MTICPMS-DISS	STORM WTR	10/13/2014	11/12/2014	11/12/2014	
L61501-2	423589-320-4	CSO Basin Study	MTICPMS-DISS	STORM WTR	10/22/2014	11/12/2014	11/12/2014	
L61501-3	423589-320-4	CSO Basin Study	MTICPMS-DISS	STORM WTR	10/22/2014	11/12/2014	11/12/2014	
L61560-1	423589-320-4	CSO Basin Study	MTICPMS-DISS	STORM WTR	10/30/2014	11/12/2014	11/12/2014	
L61560-3	423589-320-4	CSO Basin Study	MTICPMS-DISS	STORM WTR	10/30/2014	11/12/2014	11/12/2014	
WG136055-1	MB		MTICPMS-DISS	BLANK WTR		11/12/2014	11/12/2014	METHOD BLANK
WG136055-2	SB		MTICPMS-DISS	BLANK WTR		11/12/2014	11/12/2014	WG136055-1 MS-20
WG136055-3	LD		MTICPMS-DISS	STORM WTR		11/12/2014	11/12/2014	L61560-1 RPD-LIQ
WG136055-4	MS		MTICPMS-DISS	STORM WTR		11/12/2014	11/12/2014	L61560-1 MS-20

WG136970 (Brandom/ CSO) Department: 6 - Metals Move Date: 2015-01-09 11:32:48

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L61610-1	423589-320-4	CSO Basin Study	MTICPMS-DISS	STORM WTR	12/10/2014	1/8/2015	1/8/2015	
L61610-3	423589-320-4	CSO Basin Study	MTICPMS-DISS	STORM WTR	12/10/2014	1/8/2015	1/8/2015	
L61823-1	423530	Brandon-Michigan CSO TP (Georgetown	MTICPMS-DISS	STORM WTR	12/10/2014	1/8/2015	1/8/2015	
L61823-2	423530	Brandon-Michigan CSO TP (Georgetown	MTICPMS-DISS	STORM WTR	12/10/2014	1/8/2015	1/8/2015	
L61823-3	423530	Brandon-Michigan CSO TP (Georgetown	MTICPMS-DISS	STORM WTR	12/10/2014	1/8/2015	1/8/2015	
L61848-1	423530	Brandon-Michigan CSO TP (Georgetown	MTICPMS-DISS	STORM WTR	12/18/2014	1/8/2015	1/8/2015	
L61848-2	423530	Brandon-Michigan CSO TP (Georgetown	MTICPMS-DISS	STORM WTR	12/18/2014	1/8/2015	1/8/2015	
L61848-3	423530	Brandon-Michigan CSO TP (Georgetown	MTICPMS-DISS	STORM WTR	12/18/2014	1/8/2015	1/8/2015	
L61848-4	423530	Brandon-Michigan CSO TP (Georgetown	MTICPMS-DISS	STORM WTR	12/18/2014	1/8/2015	1/8/2015	
WG136970-1	MB		MTICPMS-DISS	BLANK WTR		1/8/2015	1/8/2015	METHOD BLANK
WG136970-2	SB		MTICPMS-DISS	BLANK WTR		1/8/2015	1/8/2015	WG136970-1 MS-20 SPIKE BLANK
WG136970-3	LD		MTICPMS-DISS	STORM WTR		1/8/2015	1/8/2015	L61610-3 RPD-LIQ LAB DUPLICATE
WG136970-4	MS		MTICPMS-DISS	STORM WTR		1/8/2015	1/8/2015	L61610-3 MS-20 MATRIX SPIKE
WG136970-5	LD		MTICPMS-DISS	STORM WTR		1/8/2015	1/8/2015	L61823-1 RPD-LIQ LAB DUPLICATE
WG136970-6	MS		MTICPMS-DISS	STORM WTR		1/8/2015	1/8/2015	L61823-1 MS-20 MATRIX SPIKE

WG129823 (bl#151 pahphth-sim) Department: 7 - Organics Move Date: 2013-12-20 13:10:55

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59155-1	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	STORM WTR	11/6/2013	11/13/2013	11/26/2013	
L59155-3	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	STORM WTR	11/6/2013	11/13/2013	11/26/2013	
WG129823-1	MB		ORPAHPHTH-SIM	BLANK WTR		11/13/2013	11/26/2013	MB131113
WG129823-2	SB		ORPAHPHTH-SIM	BLANK WTR		11/13/2013	11/26/2013	WG129823-1
WG129823-3	MS		ORPAHPHTH-SIM	STORM WTR		11/13/2013	11/26/2013	L59155-1

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WG129823-4 MSD	ORPAHPHTH-SIM STORM WTR	11/13/2013	11/26/2013	WG129823-3	L59155-1
WG129823-5 LD	ORPAHPHTH-SIM STORM WTR	11/13/2013	12/2/2013	L59155-1	

WG129996 (BL#153 phth-sim) Department: 7 - Organics Move Date: 2013-12-19 06:26:23

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59241-1	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	STORM WTR	11/18/2013	11/21/2013	12/2/2013	
L59241-3	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	STORM WTR	11/18/2013	11/21/2013	12/2/2013	
WG129996-1 MB			ORPAHPHTH-SIM	BLANK WTR		11/21/2013	12/2/2013	MB131121
WG129996-2 SB			ORPAHPHTH-SIM	BLANK WTR		11/21/2013	12/2/2013	WG129996-1
WG129996-3 MS			ORPAHPHTH-SIM	STORM WTR		11/21/2013	12/2/2013	L59241-1
WG129996-4 MSD			ORPAHPHTH-SIM	STORM WTR		11/21/2013	12/2/2013	WG129996-3 L59241-1

WG130696 (BL#163 pahphth-SIM) Department: 7 - Organics Move Date: 2014-01-28 08:42:07

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59471-1	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	STORM WTR	1/8/2014	1/15/2014	1/21/2014	
L59471-2	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	STORM WTR	1/8/2014	1/15/2014	1/21/2014	
L59471-3	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	STORM WTR	1/8/2014	1/15/2014	1/21/2014	
WG130696-1 MB			ORPAHPHTH-SIM	BLANK WTR		1/15/2014	1/21/2014	MB140115
WG130696-2 SB			ORPAHPHTH-SIM	BLANK WTR		1/15/2014	1/21/2014	WG130696-1
WG130696-3 SBD			ORPAHPHTH-SIM	BLANK WTR		1/15/2014	1/21/2014	WG130696-2 WG130696-1
WG130696-4 MS			ORPAHPHTH-SIM	STORM WTR		1/15/2014	1/21/2014	L59471-2

WG131154 (bl#168 pahphth-sim) Department: 7 - Organics Move Date: 2014-03-10 13:44:07

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59681-1	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	STORM WTR	2/11/2014	2/18/2014	2/21/2014	
L59681-2	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	STORM WTR	2/11/2014	2/18/2014	2/21/2014	
L59681-3	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	STORM WTR	2/11/2014	2/18/2014	2/21/2014	
WG131154-1 MB			ORPAHPHTH-SIM	BLANK WTR		2/18/2014	2/21/2014	MB140218
WG131154-2 SB			ORPAHPHTH-SIM	BLANK WTR		2/18/2014	2/21/2014	WG131154-1
WG131154-3 SBD			ORPAHPHTH-SIM	BLANK WTR		2/18/2014	2/21/2014	WG131154-2 WG131154-1
WG131154-4 MS			ORPAHPHTH-SIM	STORM WTR		2/18/2014	2/21/2014	L59681-1

WG131288 (BL#172 pahphth-sim) Department: 7 - Organics Move Date: 2014-04-02 06:44:48

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Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59745-1	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	STORM WTR	2/24/2014	2/26/2014	3/25/2014	
L59745-2	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	STORM WTR	2/24/2014	2/26/2014	3/25/2014	
L59745-3	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	STORM WTR	2/24/2014	2/26/2014	3/25/2014	
WG131288-1	MB		ORPAHPHTH-SIM	BLANK WTR		2/26/2014	3/25/2014	MB140226
WG131288-2	SB		ORPAHPHTH-SIM	BLANK WTR		2/26/2014	3/25/2014	WG131288-1
WG131288-3	SBD		ORPAHPHTH-SIM	BLANK WTR		2/26/2014	3/25/2014	WG131288-2 WG131288-1
WG131288-4	MS		ORPAHPHTH-SIM	STORM WTR		2/26/2014	3/25/2014	L59745-3

WG131494 (bl#178 pahphth-sim) Department: 7 - Organics Move Date: 2014-04-02 06:03:32

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L59833-1	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	STORM WTR	3/5/2014	3/11/2014	3/28/2014	
L59833-2	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	STORM WTR	3/5/2014	3/11/2014	3/28/2014	
WG131494-1	MB		ORPAHPHTH-SIM	BLANK WTR		3/11/2014	3/28/2014	MB140311
WG131494-2	SB		ORPAHPHTH-SIM	BLANK WTR		3/11/2014	3/28/2014	WG131494-1
WG131494-3	MS		ORPAHPHTH-SIM	STORM WTR		3/11/2014	3/28/2014	L59833-1
WG131494-4	MSD		ORPAHPHTH-SIM	STORM WTR		3/11/2014	3/28/2014	WG131494-3 L59833-1

WG132256 (BL#192 pahphth-sim) Department: 7 - Organics Move Date: 2014-05-20 08:26:42

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L60114-1	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	STORM WTR	4/16/2014	4/23/2014	4/28/2014	
L60114-2	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	STORM WTR	4/16/2014	4/23/2014	4/28/2014	
L60114-3	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	STORM WTR	4/16/2014	4/23/2014	4/28/2014	
WG132256-1	MB		ORPAHPHTH-SIM	BLANK WTR		4/23/2014	4/28/2014	MB140423
WG132256-2	SB		ORPAHPHTH-SIM	BLANK WTR		4/23/2014	4/28/2014	WG132256-1
WG132256-3	MS		ORPAHPHTH-SIM	STORM WTR		4/23/2014	4/28/2014	L60114-1
WG132256-4	MSD		ORPAHPHTH-SIM	STORM WTR		4/23/2014	4/28/2014	WG132256-3 L60114-1

WG132664 (bl#199 pahphth-sim) Department: 7 - Organics Move Date: 2014-06-10 13:49:38

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L60299-1	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	STORM WTR	5/8/2014	5/14/2014	6/3/2014	
L60299-2	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	STORM WTR	5/8/2014	5/14/2014	6/3/2014	
L60299-3	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	STORM WTR	5/8/2014	5/14/2014	6/3/2014	

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WG132664-1 MB	ORPAHPHTH-SIM BLANK WTR	5/14/2014	6/3/2014	MB140514
WG132664-2 SB	ORPAHPHTH-SIM BLANK WTR	5/14/2014	6/3/2014	WG132664-1
WG132664-3 MS	ORPAHPHTH-SIM STORM WTR	5/14/2014	6/3/2014	L60299-1
WG132664-4 MSD	ORPAHPHTH-SIM STORM WTR	5/14/2014	6/3/2014	WG132664-3 L60299-1

WG135659 (bl#247 pahphth-sim) Department: 7 - Organics Move Date: 2014-11-12 11:03:04

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L60387-2	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	STORM WTR	10/13/2014	10/20/2014	10/29/2014	
L60387-3	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	STORM WTR	10/13/2014	10/20/2014	10/29/2014	
WG135659-1 MB			ORPAHPHTH-SIM	BLANK WTR		10/20/2014	10/29/2014	MB141020
WG135659-2 SB			ORPAHPHTH-SIM	BLANK WTR		10/20/2014	10/29/2014	WG135659-1
WG135659-3 SBD			ORPAHPHTH-SIM	BLANK WTR		10/20/2014	10/29/2014	WG135659-2 WG135659-1
WG135659-4 MS			ORPAHPHTH-SIM	STORM WTR		10/20/2014	10/29/2014	L60387-2

WG135835 (PAHPHTH-SIM bl#249) Department: 7 - Organics Move Date: 2014-11-06 07:32:41

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L61501-2	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	STORM WTR	10/22/2014	10/29/2014	11/3/2014	
L61501-3	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	STORM WTR	10/22/2014	10/29/2014	11/3/2014	
WG135835-1 MB			ORPAHPHTH-SIM	BLANK WTR		10/29/2014	11/3/2014	MB141029
WG135835-2 SB			ORPAHPHTH-SIM	BLANK WTR		10/29/2014	11/3/2014	WG135835-1
WG135835-3 MS			ORPAHPHTH-SIM	STORM WTR		10/29/2014	11/3/2014	L61501-3
WG135835-4 MSD			ORPAHPHTH-SIM	STORM WTR		10/29/2014	11/3/2014	WG135835-3 L61501-3

WG135984 (pahphth-SIM bl#251) Department: 7 - Organics Move Date: 2014-11-17 10:43:05

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L61560-1	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	STORM WTR	10/30/2014	11/6/2014	11/13/2014	
L61560-3	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	STORM WTR	10/30/2014	11/6/2014	11/13/2014	
L61597-1	423530	Brandon-Michigan CSO TP (Georgetown)	ORPAHPHTH-SIM	STORM WTR	10/31/2014	11/6/2014	11/13/2014	
L61597-3	423530	Brandon-Michigan CSO TP (Georgetown)	ORPAHPHTH-SIM	STORM WTR	10/31/2014	11/6/2014	11/14/2014	
WG135984-1 MB			ORPAHPHTH-SIM	BLANK WTR		11/6/2014	11/13/2014	MB141116
WG135984-2 SB			ORPAHPHTH-SIM	BLANK WTR		11/6/2014	11/13/2014	WG135984-1
WG135984-3 MS			ORPAHPHTH-SIM	STORM WTR		11/6/2014	11/13/2014	L61560-1
WG135984-4 MSD			ORPAHPHTH-SIM	STORM WTR		11/6/2014	11/13/2014	WG135984-3 L61560-1

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WG136681 (pahpth-SIM bl#261) Department: 7 - Organics Move Date: 2015-01-07 06:39:44

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	Comments
L61610-1	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	STORM WTR	12/10/2014	12/17/2014	12/23/2014	
L61610-3	423589-320-4	CSO Basin Study	ORPAHPHTH-SIM	STORM WTR	12/10/2014	12/17/2014	12/23/2014	
L61823-1	423530	Brandon-Michigan CSO TP (Georgetown	ORPAHPHTH-SIM	STORM WTR	12/10/2014	12/17/2014	12/23/2014	
L61823-3	423530	Brandon-Michigan CSO TP (Georgetown	ORPAHPHTH-SIM	STORM WTR	12/10/2014	12/17/2014	12/23/2014	
WG136681-1	MB		ORPAHPHTH-SIM	BLANK WTR		12/17/2014	12/23/2014	MB141217
WG136681-2	SB		ORPAHPHTH-SIM	BLANK WTR		12/17/2014	12/23/2014	WG136681-1
WG136681-3	MS		ORPAHPHTH-SIM	STORM WTR		12/17/2014	12/23/2014	L61610-3
WG136681-4	MSD		ORPAHPHTH-SIM	STORM WTR		12/17/2014	12/23/2014	WG136681-3 L61610-3

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Workgroup: WG129830 (toc) Run ID: R191994

MB:WG129830-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

LCS:WG129830-2 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	9.62	96		85--115

SB:WG129830-3 MB:WG129830-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	9.45	95		80--120

LD:WG129830-4 L59148-3 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	1.08	1.08	0		0--20

MS:WG129830-5 L59148-3 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	1.08	10	10.7	96		75--125

MB:WG129830-6 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	

LCS:WG129830-7 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	10	9.6	96		85--115

SB:WG129830-8 MB:WG129830-6 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	10	9.82	98		80--120

LD:WG129830-9 L59148-2 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	1.43	1.24	14		0--20

MS:WG129830-10 L59148-2 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	1.43	10	10.9	95		75--125

MB:WG129830-11 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
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Dissolved Organic Carbon 0.5 1 mg/L <MDL

MB:WG129830-12 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	

LD:WG129830-13 L59105-1 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-ENGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	<MDL			0--20

MS:WG129830-14 L59105-1 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-ENGW Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL		10	9.99	100	75--125

Workgroup: WG130020 (toc/doc) Run ID: R192078

MB:WG130020-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

LCS:WG130020-2 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	9.93	99		85--115

SB:WG130020-3 MB:WG130020-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	9.81	98		80--120

LD:WG130020-4 L59132-3 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	<MDL			0--20

MS:WG130020-5 L59132-3 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	9.63	96		75--125

MB:WG130020-6 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

LCS:WG130020-7 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	9.11	91		85--115

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SB:WG130020-8 MB:WG130020-6 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	9.41	94		80--120

MB:WG130020-9 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	

LCS:WG130020-10 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	10	9.41	94		85--115

SB:WG130020-11 MB:WG130020-9 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	10	9.79	98		80--120

LD:WG130020-12 L59240-1 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	2.16	2.1	3		0--20

MS:WG130020-13 L59240-1 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	2.16	10	11.5	93		75--125

LD:WG130020-14 L59141-1 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:4212500N Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	2.04	2.41	16		0--20

MS:WG130020-15 L59142-3 Matrix: SALT WTR Listtype:CVTOC Method:SM5310-B Project:4212500N Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	1.98	10	12.7	108		75--125

MB:WG130020-16 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	

LD:WG130020-17 L59141-2 Matrix: FRESH WTR Listtype:CVDOC Method:SM5310-B Project:4212500N Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	1.86	1.95	5		0--20

MS:WG130020-18 L59142-2 Matrix: SALT WTR Listtype:CVDOC Method:SM5310-B Project:4212500N Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	1.33	10	11.6	102		75--125

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MB:WG130020-19 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

LCS:WG130020-20 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	9.23	92		85--115

LD:WG130020-21 L59187-1 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-HOGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	0.52			0--20

MS:WG130020-22 L59187-1 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-HOGW Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	9.04	90		75--125

LD:WG130020-23 L59241-3 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	13	25	mg/L	82.4	69.4	17		0--20

MS:WG130020-24 L59241-3 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:423589-320-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	13	25	mg/L	82.4	10	292	84		75--125

Workgroup: WG130703 (TOC, DOC/421422, 423589) Run ID: R193206

MB:WG130703-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

LCS:WG130703-2 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	10	100		85--115

SB:WG130703-3 MB:WG130703-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	9.9	99		80--120

LD:WG130703-4 L59422-6 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	<MDL			0--20

MS:WG130703-5 L59422-6 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Matrix Spike)

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Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL		10	10.3	103	75--125

MB:WG130703-6 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

LCS:WG130703-7 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	10.5	105		85--115

LD:WG130703-8 L59481-1 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	0.73	0.71			0--20

MS:WG130703-9 L59481-1 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	0.73	10	11.2	105		75--125

LD:WG130703-10 L59470-2 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	1.05	0.97		8	0--20

MS:WG130703-11 L59470-2 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	1.05	10	11.5	104		75--125

MB:WG130703-12 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

LCS:WG130703-13 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	11	110		85--115

MB:WG130703-14 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	

SB:WG130703-15 MB:WG130703-14 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	10	10.4	104		80--120

LCS:WG130703-16 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

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Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	10	10.9	109		85--115

LD:WG130703-17 L59471-1 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423589-320-4 Pkey:STD (Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	3.99	4.15	4		0--20

MS:WG130703-18 L59471-1 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423589-320-4 Pkey:STD (Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	3.99	10	14.8	108		75--125

MB:WG130703-19 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD (Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

LCS:WG130703-20 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD (Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	10.8	108		85--115

SB:WG130703-21 MB:WG130703-19 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD (Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	10.9	109		80--120

LD:WG130703-22 L59425-3 Matrix: LEACHATE Listtype:CVTOC Method:SM5310-B Project:421422-CHLS-M Pkey:STD (Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	5	10	mg/L	30.7	36.8	18		0--20

MS:WG130703-23 L59425-3 Matrix: LEACHATE Listtype:CVTOC Method:SM5310-B Project:421422-CHLS-M Pkey:STD (Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	5	10	mg/L	30.7	10	133	102		75--125

Workgroup: WG131347 (TOC, DOC/423589-320-4) Run ID: R194137

MB:WG131347-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD (Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

SB:WG131347-2 MB:WG131347-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD (Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	10.2	102		80--120

LCS:WG131347-3 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD (Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	9.83	98		85--115

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LD:WG131347-4 L59681-1 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423589-320-4 Pkey:STD (Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	1.63	1.51		8	0--20

LD:WG131347-4 L59681-1 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:423589-320-4 Pkey:STD (Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	1	2	mg/L	7.14	6.58		8	0--20

MS:WG131347-5 L59681-1 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423589-320-4 Pkey:STD (Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	1.63	10	10.6	89		75--125

MS:WG131347-5 L59681-1 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:423589-320-4 Pkey:STD (Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	1	2	mg/L	7.14	10	28.5	107		75--125

LD:WG131347-6 L59756-2 Matrix: SEWER WTR Listtype:CVDOC Method:SM5310-B Project:423589-320-4 Pkey:STD (Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	5	10	mg/L	29.2	29.4		1	0--20

LD:WG131347-6 L59756-2 Matrix: SEWER WTR Listtype:CVTOC Method:SM5310-B Project:423589-320-4 Pkey:STD (Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	18	35	mg/L	39.9	42.4		6	0--20

MS:WG131347-7 L59756-2 Matrix: SEWER WTR Listtype:CVDOC Method:SM5310-B Project:423589-320-4 Pkey:STD (Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	5	10	mg/L	29.2	10	124	95		75--125

MS:WG131347-7 L59756-2 Matrix: SEWER WTR Listtype:CVTOC Method:SM5310-B Project:423589-320-4 Pkey:STD (Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	18	35	mg/L	39.9	10	372	95		75--125

MB:WG131347-8 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD (Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	

SB:WG131347-9 MB:WG131347-8 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD (Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	10	9.46	95		80--120

LCS:WG131347-10 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD (Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	10	9.69	97		85--115

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MB:WG131347-11 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	

MB:WG131347-12 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	

MB:WG131347-13 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

SB:WG131347-14 MB:WG131347-13 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	10.3	103		80--120

LCS:WG131347-15 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	10.5	105		85--115

LD:WG131347-16 L59739-3 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-DUGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	<MDL			0--20

MS:WG131347-17 L59739-3 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-DUGW Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	11.1	111		75--125

MB:WG131347-18 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	

LCS:WG131347-19 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	10	10.6	106		85--115

MB:WG131347-20 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

LCS:WG131347-21 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	10.6	106		85--115

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MB:WG131347-22 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

SB:WG131347-23 MB:WG131347-22 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	8.96	90		80--120

LCS:WG131347-24 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	9.31	93		85--115

LD:WG131347-25 L59691-5 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHSW-M Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	2.64	2.86	8		0--20

MS:WG131347-26 L59691-5 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHSW-M Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	2.64	10	11.5	89		75--125

Workgroup: WG132434 (TOC/421422) Run ID: R195250

MB:WG132434-1 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	

SB:WG132434-2 MB:WG132434-1 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	10	9.58	96		80--120

LCS:WG132434-3 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	10	9.48	95		85--115

MB:WG132434-4 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	

LD:WG132434-5 L60116-1 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423530 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	50	100	mg/L	92	93			0--20

MS:WG132434-6 L60116-1 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423530 Pkey:STD

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(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	50	100	mg/L	92	10	1010	92		75--125

MB:WG132434-7 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	

MS:WG132434-8 L59976-3 Matrix: FRESH WTR Listtype:CVDOC Method:SM5310-B Project:421250ON Pkey:STD

(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	1.77	10	12.5	107		75--125

LD:WG132434-9 L59977-1 Matrix: SALT WTR Listtype:CVDOC Method:SM5310-B Project:421250ON Pkey:STD

(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	1.18	1.08	9		0--20

MB:WG132434-10 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

SB:WG132434-11 MB:WG132434-10 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD

(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	10.6	106		80--120

LCS:WG132434-12 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD

(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	10.8	108		85--115

LD:WG132434-13 L60114-2 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:423589-320-4 Pkey:STD

(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	10	20	mg/L	47.3	42.7	10		0--20

MS:WG132434-14 L60114-2 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:423589-320-4 Pkey:STD

(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	10	20	mg/L	47.3	10	274	114		75--125

MB:WG132434-15 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

SB:WG132434-16 MB:WG132434-15 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD

(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	9.49	95		80--120

LCS:WG132434-17 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD

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(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	10	100		85--115

LD:WG132434-18 L60084-3 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHSW-A5-TD Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	1	2	mg/L	9.85	8.94	10		0--20

MS:WG132434-19 L60084-3 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHSW-A5-TD Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	1	2	mg/L	9.85	10	28.2	92		75--125

LD:WG132434-20 L60049-2 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	1.65	1.92	15		0--20

MS:WG132434-21 L60049-2 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	1.65	10	11.1	94		75--125

MB:WG132434-22 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

SB:WG132434-23 MB:WG132434-22 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	9.61	96		80--120

LCS:WG132434-24 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	10	100		85--115

LD:WG132434-25 L60116-2 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:423530 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	25	50	mg/L	37	49			0--20

MS:WG132434-26 L60116-2 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:423530 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	25	50	mg/L	37	10	521	97		75--125

MB:WG132434-27 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

SB:WG132434-28 MB:WG132434-27 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD

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(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	9.68	97		80--120

LCS:WG132434-29 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD

(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	9.51	95		85--115

MS:WG132434-30 L59976-2 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421250ON Pkey:STD

(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	1.82	10	12	102		75--125

LD:WG132434-31 L59977-2 Matrix: SALT WTR Listtype:CVTOC Method:SM5310-B Project:421250ON Pkey:STD

(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	1.37	1.35	1		0--20

MB:WG132434-32 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	

SB:WG132434-33 MB:WG132434-32 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD

(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	10	10.6	106		80--120

LCS:WG132434-34 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD

(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	10	10.7	107		85--115

LD:WG132434-35 L60114-1 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423589-320-4 Pkey:STD

(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	5	10	mg/L	21.4	22.1	3		0--20

MS:WG132434-36 L60114-1 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423589-320-4 Pkey:STD

(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	5	10	mg/L	21.4	10	127	106		75--125

MB:WG132434-37 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	

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Workgroup: WG132867 (TOC, DOC/421422, 423530) Run ID: R195870

MB:WG132867-1 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	

SB:WG132867-2 MB:WG132867-1 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	10	10.1	101		80--120

LCS:WG132867-3 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	10	10.4	104		85--115

MB:WG132867-4 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1	mg/L	0.82	B

LD:WG132867-5 L60299-3 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	8.81	8.83	0		0--20

MS:WG132867-6 L60299-3 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423589-320-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	8.81	10	18.1	93		75--125

MB:WG132867-7 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	

MB:WG132867-8 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

SB:WG132867-9 MB:WG132867-8 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	9.99	100		80--120

LCS:WG132867-10 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	10.2	102		85--115

LD:WG132867-11 L60275-1 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-ENGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
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Total Organic Carbon 0.5 1 mg/L 0.65 0.62 0--20

MS:WG132867-12 L60275-1 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-ENGW Pkey:STD (Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1 mg/L		0.65	10	10.2	96		75--125

LD:WG132867-13 L60306-2 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHSW-M Pkey:STD (Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1 mg/L		4.52	4.52	0		0--20

MS:WG132867-14 L60306-2 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHSW-M Pkey:STD (Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1 mg/L		4.52	10	14.7	102		75--125

MB:WG132867-15 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD (Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1 mg/L		<MDL	

SB:WG132867-16 MB:WG132867-15 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD (Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1 mg/L		<MDL	10	10.8	108		80--120

LCS:WG132867-17 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD (Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1 mg/L		10	11	110		85--115

LD:WG132867-18 L60240-11 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423530 Pkey:STD (Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	0.5	1 mg/L		5.66	5.71	1		0--20

MS:WG132867-19 L60240-12 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423530 Pkey:STD (Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1 mg/L		5.46	10	15.7	103		75--125

MB:WG132867-20 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD (Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1 mg/L		<MDL	

SB:WG132867-21 MB:WG132867-20 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD (Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1 mg/L		<MDL	10	10.4	104		80--120

LCS:WG132867-22 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD (Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
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Total Organic Carbon 0.5 1 mg/L 10 10.1 101 85--115

LD:WG132867-23 L60240-11 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:423530 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	5	10	mg/L	9.1	9.6			0--20

MS:WG132867-24 L60240-11 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:423530 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	5	10	mg/L	9.1	10	111	102		75--125

Workgroup: WG135611 (TOC, DOC/421422, 423589) Run ID: R198970

MB:WG135611-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

SB:WG135611-2 MB:WG135611-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	10.3	103		80--120

LCS:WG135611-3 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	10.4	104		85--115

LD:WG135611-4 L61354-2 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	<MDL			0--20

MS:WG135611-5 L61354-2 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	10.5	105		75--125

LD:WG135611-6 L61372-4 Matrix: LEACHATE Listtype:CVTOC Method:SM5310-B Project:421422-CHLS-M Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	5	10	mg/L	13.6	12.9		5	0--20

MS:WG135611-7 L61372-4 Matrix: LEACHATE Listtype:CVTOC Method:SM5310-B Project:421422-CHLS-M Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	5	10	mg/L	13.6	10	114	101		75--125

LD:WG135611-8 L60387-3 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	10	20	mg/L	14	13			0--20

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MS:WG135611-9 L60387-3 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:423589-320-4 Pkey:STD (Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	10	20	mg/L	14	10	214	100		75--125

MB:WG135611-10 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD (Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	

SB:WG135611-11 MB:WG135611-10 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD (Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	10	10.3	103		80--120

LCS:WG135611-12 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD (Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	10	10.5	105		85--115

LD:WG135611-13 L60387-2 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423589-320-4 Pkey:STD (Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	2.5	5	mg/L	8	8.1	1		0--20

MS:WG135611-14 L60387-2 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423589-320-4 Pkey:STD (Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	2.5	5	mg/L	8	10	63.1	110		75--125

MB:WG135611-15 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD (Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

LCS:WG135611-16 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD (Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	10.1	101		85--115

Workgroup: WG135720 (TOC, DOC/421422, 421250) Run ID: R199134

MB:WG135720-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD (Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

SB:WG135720-2 MB:WG135720-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD (Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	10.1	101		80--120

LCS:WG135720-3 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD (Lab Control Sample)

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Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	9.9	99		85--115

LD:WG135720-4 L61375-2 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD (Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	0.53	0.59			0--20

MS:WG135720-5 L61375-2 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD (Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	0.53	10	10.4	99		75--125

LD:WG135720-6 L61147-6 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHSW-Q Pkey:STD (Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	5.55	5.37		3	0--20

MS:WG135720-7 L61147-6 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHSW-Q Pkey:STD (Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	5.55	10	15.5	99		75--125

LD:WG135720-8 L61439-3 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421250ON Pkey:STD (Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	1.59	1.74		9	0--20

MS:WG135720-9 L61446-3 Matrix: SALT WTR Listtype:CVTOC Method:SM5310-B Project:421250ON Pkey:STD (Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	1.19	10	11.8	107		75--125

MB:WG135720-10 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD (Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

SB:WG135720-11 MB:WG135720-10 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD (Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	9.65	97		80--120

LCS:WG135720-12 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD (Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	9.72	97		85--115

LD:WG135720-13 L61501-2 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:423589-320-4 Pkey:STD (Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	10	20	mg/L	22.1	22.9		4	0--20

MS:WG135720-14 L61501-2 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:423589-320-4 Pkey:STD (Matrix Spike)

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Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	10	20	mg/L	22.1	10	216	97		75--125

MB:WG135720-15 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	

SB:WG135720-16 MB:WG135720-15 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	10	10.2	102		80--120

LCS:WG135720-17 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	10	9.84	98		85--115

LD:WG135720-18 L61501-3 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	2.5	5	mg/L	5.13	5.55	8		0--20

MS:WG135720-19 L61501-3 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423589-320-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	2.5	5	mg/L	5.13	10	54.3	98		75--125

MB:WG135720-20 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	

MS:WG135720-21 L61439-1 Matrix: FRESH WTR Listtype:CVDOC Method:SM5310-B Project:421250ON Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	0.97	10	10.2	93		75--125

LD:WG135720-22 L61446-1 Matrix: SALT WTR Listtype:CVDOC Method:SM5310-B Project:421250ON Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	0.87	0.98			0--20

Workgroup: WG135937 (TOC, DOC/421422, 423589, 422530) Run ID: R199318

MB:WG135937-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

SB:WG135937-2 MB:WG135937-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	10.3	103		80--120

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LCS:WG135937-3 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	9.92	99		85--115

LD:WG135937-4 L61502-4 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-VAGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	1.37	1.47	7		0--20

MS:WG135937-5 L61502-4 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-VAGW Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	1.37	10	11.6	102		75--125

LD:WG135937-6 L61560-3 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	1	2	mg/L	5.86	6.06	3		0--20

LD:WG135937-6 L61560-3 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	2.5	5	mg/L	12.3	11.5	6		0--20

MS:WG135937-7 L61560-3 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423589-320-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	1	2	mg/L	5.86	10	26.7	104		75--125

MS:WG135937-7 L61560-3 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:423589-320-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	2.5	5	mg/L	12.3	10	60.9	97		75--125

MB:WG135937-8 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	

SB:WG135937-9 MB:WG135937-8 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	10	10.1	101		80--120

LCS:WG135937-10 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	10	10.1	101		85--115

MB:WG135937-11 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	

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LD:WG135937-12 L61597-1 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423530 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	7.32	7.67		5	0--20

MS:WG135937-13 L61597-2 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423530 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	2.87	10	12.7	99		75--125

Workgroup: WG136539 (TOC/421422) Run ID: R200098

MB:WG136539-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

SB:WG136539-2 MB:WG136539-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	9.57	96		80--120

LCS:WG136539-3 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	9.54	95		85--115

LD:WG136539-4 L61717-1 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-DUGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	<MDL			0--20

MS:WG136539-5 L61717-1 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-DUGW Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	9.66	97		75--125

LD:WG136539-6 L61741-1 Matrix: LEACHATE Listtype:CVTOC Method:SM5310-B Project:421422-CHLS-M Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	100	200	mg/L	452	446		1	0--20

MS:WG136539-7 L61741-1 Matrix: LEACHATE Listtype:CVTOC Method:SM5310-B Project:421422-CHLS-M Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	100	200	mg/L	452	10	2280	91		75--125

MB:WG136539-8 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

SB:WG136539-9 MB:WG136539-8 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD

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(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL		10	10.1	101	80--120

LCS:WG136539-10 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD

(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	9.97	100		85--115

LD:WG136539-11 L61813-1 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:421240-210 Pkey:STD

(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	5.52	5.95		7	0--20

MS:WG136539-12 L61813-1 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:421240-210 Pkey:STD

(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	5.52	10	15.6	100		75--125

LD:WG136539-13 L61610-1 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:423589-320-4 Pkey:STD

(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	1	2	mg/L	15.6	14.4		8	0--20

MS:WG136539-14 L61610-1 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:423589-320-4 Pkey:STD

(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	1	2	mg/L	15.6	10	37.1	108		75--125

MB:WG136539-15 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	

SB:WG136539-16 MB:WG136539-15 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD

(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	<MDL		10	9.57	96	80--120

LCS:WG136539-17 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD

(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	10	9.7	97		85--115

LD:WG136539-18 L61813-2 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:421240-210 Pkey:STD

(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	1.05	1.01		4	0--20

MS:WG136539-19 L61813-2 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:421240-210 Pkey:STD

(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	1.05	10	10.2	92		75--125

MB:WG136539-20 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD

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(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	

LD:WG136539-21 L61610-3 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	5.3	5.48	3		0--20

MS:WG136539-22 L61610-3 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423589-320-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	5.3	10	14.4	91		75--125

Workgroup: WG132579 (TOC/421422, 423589-320-4) Run ID: R195306

MB:WG132579-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	0.5	1	mg/L	<MDL	

SB:WG132579-2 MB:WG132579-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	10.4	104		80--120

LCS:WG132579-3 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	10.3	103		85--115

LD:WG132579-4 L60227-2 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-VAGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	<MDL			0--20

MS:WG132579-5 L60227-2 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-VAGW Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	10.3	103		75--125

LD:WG132579-6 L60299-3 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	10	20	mg/L	17	14			0--20

MS:WG132579-7 L60299-3 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:423589-320-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	10	20	mg/L	17	10	212	98		75--125

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Workgroup: WG129814 (TSS/421195, 423589) Run ID: R191955

MB:WG129814-1 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Suspended Solids	0.5	1	mg/L	<MDL	

LCS:WG129814-2 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	99	99		80--120

LD:WG129814-3 L58915-2 Matrix: STORM WTR Listtype:CVTSS Method:SM2540-D Project:421195-450 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	2	4	mg/L	38	34.4	10		0--25

LD:WG129814-4 L59046-1 Matrix: STORM WTR Listtype:CVTSS Method:SM2540-D Project:421195-180 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	2	mg/L	4.6	5.2	12		0--25

MB:WG129814-5 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Suspended Solids	0.5	1	mg/L	<MDL	

LCS:WG129814-6 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	99	99		80--120

LD:WG129814-7 L59149-1 Matrix: STORM WTR Listtype:CVTSS Method:SM2540-D Project:423589-330-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	2	mg/L	5.6	5	11		0--25

Workgroup: WG129970 (tss for 422019/421195/423589) Run ID: R192079

MB:WG129970-1 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Suspended Solids	0.5	1	mg/L	<MDL	

LCS:WG129970-2 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	91	91		80--120

LD:WG129970-3 L59045-2 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:422019 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	2	mg/L	12.4	10	21		0--25

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LD:WG129970-4 L59212-4 Matrix: STORM WTR Listtype:CVTSS Method:SM2540-D Project:421195-180 Pkey:STD (Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	2	mg/L	5	5.2	4		0--25

LD:WG129970-5 L59241-1 Matrix: STORM WTR Listtype:CVTSS Method:SM2540-D Project:423589-320-4 Pkey:STD (Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	195	204	5		0--25

MB:WG129970-6 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD (Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Suspended Solids	0.5	1	mg/L	<MDL	

LCS:WG129970-7 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD (Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	91	91		80--120

Workgroup: WG130704 (tss for 423589 amd 423530) Run ID: R193544

MB:WG130704-1 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD (Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Suspended Solids	0.5	1	mg/L	<MDL	

LCS:WG130704-2 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD (Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	91	91		80--120

LD:WG130704-3 L59471-1 Matrix: STORM WTR Listtype:CVTSS Method:SM2540-D Project:423589-320-4 Pkey:STD (Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	2	mg/L	171	171	0		0--25

Workgroup: WG131133 (Assorted TSS: 2/13/14) Run ID: R193638

MB:WG131133-1 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD (Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Suspended Solids	0.5	1	mg/L	<MDL	

LCS:WG131133-2 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD (Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	93	93		80--120

LD:WG131133-3 L59621-6 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:421235 Pkey:STD (Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	2	mg/L	<MDL		1		0--25

LIMSView QC Report for Michigan Basin CSO - Data Validation for Storm Events - TSS

LD:WG131133-4 L59670-3 Matrix: FILTER WTR Listtype:CVTSS Method:SM2540-D Project:423589-335-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1.1	2.2	mg/L	21.8	21.1	3		0--25

MB:WG131133-5 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Suspended Solids	0.5	1	mg/L	<MDL	

LCS:WG131133-6 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	94	94		80--120

LD:WG131133-7 L59681-3 Matrix: STORM WTR Listtype:CVTSS Method:SM2540-D Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	2.5	5	mg/L	70	75.5	8		0--25

LD:WG131133-8 L59647-2 Matrix: IW WTR Listtype:CVTSS Method:SM2540-D Project:421161 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	2.5	5	mg/L	28.5	30	5		0--25

Workgroup: WG131298 (Assorted TSS Batch A: 2/25/14) Run ID: R193867

MB:WG131298-1 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Suspended Solids	0.5	1	mg/L	<MDL	

LCS:WG131298-2 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	93	93		80--120

LD:WG131298-3 L59442-5 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:421874-100 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	2	mg/L	<MDL	<MDL			0--25

LD:WG131298-4 L59745-1 Matrix: STORM WTR Listtype:CVTSS Method:SM2540-D Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	2	4	mg/L	66.4	60.4	9		0--25

LD:WG131298-5 L59677-8 Matrix: SALT WTR Listtype:CVTSS Method:SM2540-D Project:421250BS Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1.3	25	mg/L	65.3	66	1		0--25

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Workgroup: WG131447 (Assorted TSS: 3/7/14) Run ID: R194029

MB:WG131447-1 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Suspended Solids	0.5	1	mg/L	<MDL	

LCS:WG131447-2 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	96	96		80--120

LD:WG131447-3 L59465-1 Matrix: STORM WTR Listtype:CVTSS Method:SM2540-D Project:421185-100 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	2.5	5	mg/L	55.5	56.5	2		0--25

LD:WG131447-4 L59739-5 Matrix: GRND WTR Listtype:CVTSS Method:SM2540-D Project:421422-DUGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	2	mg/L	5.4	5.36	1		0--25

LD:WG131447-5 L59768-1 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:421422-VASW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1.3	2.5	mg/L	90.5	115	24		0--25

LD:WG131447-6 L59833-1 Matrix: STORM WTR Listtype:CVTSS Method:SM2540-D Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	2.9	5.9	mg/L	130	116	11		0--25

Workgroup: WG132285 (April 2014 WP) Run ID: R195031

MB:WG132285-1 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Suspended Solids	0.5	1	mg/L	<MDL	

LCS:WG132285-2 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	98	98		80--120

LD:WG132285-3 L60114-1 Matrix: STORM WTR Listtype:CVTSS Method:SM2540-D Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	77	74	4		0--25

Workgroup: WG132597 (Assorted TSS: 5/9/14) Run ID: R195494

MB:WG132597-1 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

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Parameter	MDL	RDL	Units	MB Value	Qual
Total Suspended Solids	0.5	1	mg/L	<MDL	

LCS:WG132597-2 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	94.2	94		80--120

LD:WG132597-3 L59978-16 Matrix: SALT WTR Listtype:CVTSS Method:SM2540-D Project:421250ON Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	20	mg/L	1.8	<MDL			0--25

MB:WG132597-4 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Suspended Solids	0.5	1	mg/L	<MDL	

LCS:WG132597-5 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	101	101		80--120

MB:WG132597-6 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Suspended Solids	0.5	1	mg/L	<MDL	

LCS:WG132597-7 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	99.2	99		80--120

LD:WG132597-8 L60254-3 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:421195-240 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	0.5	1	mg/L	2.43	2.16	12		0--25

LD:WG132597-9 L60245-2 Matrix: GRND WTR Listtype:CVTSS Method:SM2540-D Project:421422-VAGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	2	mg/L	9.08	9.92	9		0--25

LD:WG132597-10 L60299-2 Matrix: STORM WTR Listtype:CVTSS Method:SM2540-D Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	247	227	9		0--25

Workgroup: WG135583 (TSS+VSS) Run ID: R198963

MB:WG135583-1 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Suspended Solids	0.5	1	mg/L	<MDL	

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MB:WG135583-1 Matrix: BLANK WTR Listtype:CVVSS Method:EPA 160.4 Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Volatile Suspended Solids	0.5	1	mg/L	<MDL	

LCS:WG135583-2 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	95	95		80--120

LD:WG135583-3 L61401-1 Matrix: STORM WTR Listtype:CVTSS Method:SM2540-D Project:421195-230 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	2	4	mg/L	12	12.4	3		0--25

LD:WG135583-4 L61356-5 Matrix: GRND WTR Listtype:CVTSS Method:SM2540-D Project:421422-CHGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	0.7	1.4	mg/L	53.3	55.7	4		0--25

LD:WG135583-5 L61372-1 Matrix: LEACHATE Listtype:CVTSS Method:SM2540-D Project:421422-CHLS-M Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	33	67	mg/L	307	300	2		0--25

LD:WG135583-5 L61372-1 Matrix: LEACHATE Listtype:CVVSS Method:EPA 160.4 Project:421422-CHLS-M Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Volatile Suspended Solids	33	67	mg/L	253	243	4		0--25

MB:WG135583-6 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Suspended Solids	0.5	1	mg/L	<MDL	

LCS:WG135583-7 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	94	94		80--120

Workgroup: WG135754 (TSS-various) Run ID: R199163

MB:WG135754-1 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Suspended Solids	0.5	1	mg/L	<MDL	

LCS:WG135754-2 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5.1	10	mg/L	100	98	98		80--120

LD:WG135754-3 L59574-3 Matrix: STORM WTR Listtype:CVTSS Method:SM2540-D Project:421195-450 Pkey:STD

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(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	3.7	7.4	mg/L	121	124	3		0--25

LD:WG135754-4 L61421-1 Matrix: GRND WTR Listtype:CVTSS Method:SM2540-D Project:421422-CHGW Pkey:STD

(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	3.2	6.5	mg/L	86.4	92.3	7		0--25

LD:WG135754-5 L61439-2 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:421250ON Pkey:STD

(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	2	mg/L	2.4	2.4	0		0--25

Workgroup: WG135944 (TSS/VSS) Run ID: R199399

MB:WG135944-1 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Suspended Solids	0.5	1	mg/L	<MDL	

MB:WG135944-1 Matrix: BLANK WTR Listtype:CVVSS Method:EPA 160.4 Project: Pkey:STD

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Volatile Suspended Solids	0.5	1	mg/L	<MDL	

LCS:WG135944-2 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD

(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	6.9	14	mg/L	100	92.4	92		80--120

LD:WG135944-3 L61597-3 Matrix: STORM WTR Listtype:CVTSS Method:SM2540-D Project:423530 Pkey:STD

(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	5.3	11	mg/L	303	314	4		0--25

LD:WG135944-3 L61597-3 Matrix: STORM WTR Listtype:CVVSS Method:EPA 160.4 Project:423530 Pkey:STD

(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Volatile Suspended Solids	5.3	11	mg/L	134	142	6		0--25

LD:WG135944-4 L61535-5 Matrix: GRND WTR Listtype:CVTSS Method:SM2540-D Project:421422-CFGW Pkey:STD

(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1.4	2.9	mg/L	429	390	10		0--25

Workgroup: WG136640 (TSS/VSS) Run ID: R200160

MB:WG136640-1 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Suspended Solids	0.5	1	mg/L	<MDL	

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MB:WG136640-1 Matrix: BLANK WTR Listtype:CVVSS Method:EPA 160.4 Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Volatile Suspended Solids	0.5	1	mg/L	<MDL	

LCS:WG136640-2 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	94.3	94		80--120

LD:WG136640-3 L61741-5 Matrix: STORM WTR Listtype:CVTSS Method:SM2540-D Project:421422-CHLS-M Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	25	50	mg/L	243	264	8		0--25

LD:WG136640-3 L61741-5 Matrix: STORM WTR Listtype:CVVSS Method:EPA 160.4 Project:421422-CHLS-M Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Volatile Suspended Solids	25	50	mg/L	161	192	18		0--25

LD:WG136640-4 L61823-3 Matrix: LEACHATE Listtype:CVTSS Method:SM2540-D Project:423530 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	8.3	17	mg/L	320	305	5		0--25

LD:WG136640-4 L61823-3 Matrix: LEACHATE Listtype:CVVSS Method:EPA 160.4 Project:423530 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Volatile Suspended Solids	8.3	17	mg/L	186	203	9		0--25

LIMSView QC Report for Michigan Basin CSO - Data Validation for Storm Events - Metals & Organics

Workgroup: WG130134 (RTP Int, CSO) Run ID: R192281

MB:WG130134-1 Matrix: BLANK WTR Listtype:MTHG-LOW Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Total, CVAA	0.005	0.015	ug/L	<MDL	

MB:WG130134-1 Matrix: BLANK WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	

SB:WG130134-2 MB:WG130134-1 Matrix: BLANK WTR Listtype:MTHG-LOW Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Mercury, Total, CVAA	0.005	0.015	ug/L	<MDL	0.05	0.0506	101		85--115

MSD:WG130134-4 MS:WG130134-3 L59155-1 Matrix: GRND WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project:423589-320-4 Pkey:STD
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueVal	MSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	0.0198	0.05	0.0672	95		75--125	0.05	0.0666	93		1		0--20

Workgroup: WG130761 (OCS, CSO) Run ID: R193252

MB:WG130761-1 Matrix: BLANK WTR Listtype:MTHG-LOW Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Total, CVAA	0.005	0.015	ug/L	<MDL	

MB:WG130761-1 Matrix: BLANK WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	

SB:WG130761-2 MB:WG130761-1 Matrix: BLANK WTR Listtype:MTHG-LOW Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Mercury, Total, CVAA	0.005	0.015	ug/L	<MDL	0.05	0.0481	96		85--115

LIMSView QC Report for Michigan Basin CSO - Data Validation for Storm Events - Metals & Organics

MSD:WG130761-4 MS:WG130761-3 L59400-1 Matrix: EFFLUENT Listtype:MTHG-LOW Method:EPA 245.1*SW846 7470A Project:421184-110 Pkey:STD
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueVal	MSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Mercury, Total, CVAA	0.005	0.015	ug/L	<MDL	0.05	0.0512	102		75--125	0.05	0.0511	102		0		0--20

MB:WG130761-5 Matrix: FILTER WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	

MB:WG131023-7 Matrix: BLANK WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	

MB:WG131023-8 Matrix: BLANK WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	

Workgroup: WG131314 (Brandon, CSO's) Run ID: R193904

MB:WG131314-1 Matrix: BLANK WTR Listtype:MTHG-LOW Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Total, CVAA	0.005	0.015	ug/L	<MDL	

MB:WG131314-1 Matrix: BLANK WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	

SB:WG131314-2 MB:WG131314-1 Matrix: BLANK WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	0.05	0.0471	94		85--115

MSD:WG131314-4 MS:WG131314-3 L59681-3 Matrix: STORM WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project:423589-320-4 Pkey:STD
(Matrix Spike Duplicate, Matrix Spike)

LIMSView QC Report for Michigan Basin CSO - Data Validation for Storm Events - Metals & Organics

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueVal	MSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	0.0054	0.05	0.0492	88		75--125	0.05	0.0495	88		1		0--20

MB:WG131314-5 Matrix: BLANK WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	

MB:WG131314-6 Matrix: BLANK WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	

Workgroup: WG131689 (CSO Basin) Run ID: R194389

MB:WG131689-1 Matrix: BLANK WTR Listtype:MTHG-LOW Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Total, CVAA	0.005	0.015	ug/L	<MDL	

MB:WG131689-1 Matrix: BLANK WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	

SB:WG131689-2 MB:WG131689-1 Matrix: BLANK WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	0.05	0.0507	101		85--115

MSD:WG131689-4 MS:WG131689-3 L59745-3 Matrix: STORM WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project:423589-320-4 Pkey:STD
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueVal	MSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	0.05	0.0532	106		75--125	0.05	0.0552	110		4		0--20

Workgroup: WG132594 (CSO Basin, Brandon-Michigan) Run ID: R195447

MB:WG132594-1 Matrix: BLANK WTR Listtype:MTHG-LOW Method:EPA 245.1*SW846 7470A Project: Pkey:STD

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(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Total, CVAA	0.005	0.015	ug/L	<MDL	

MB:WG132594-1 Matrix: BLANK WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project: Pkey:STD

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	

SB:WG132594-2 MB:WG132594-1 Matrix: BLANK WTR Listtype:MTHG-LOW Method:EPA 245.1*SW846 7470A Project: Pkey:STD

(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Mercury, Total, CVAA	0.005	0.015	ug/L	<MDL	0.05	0.0534	107		85--115

MSD:WG132594-4 MS:WG132594-3 L60299-2 Matrix: STORM WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project:423589-320-4 Pkey:STD

(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueVal	MSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	0.05	0.0516	103		75--125	0.05	0.0511	102		1		0--20

MB:WG132594-5 Matrix: BLANK WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project: Pkey:STD

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	

MB:WG132594-6 Matrix: BLANK WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project: Pkey:STD

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	

Workgroup: WG135593 (16-OCT-14 CSOLL) Run ID: R198984

MB:WG135593-1 Matrix: BLANK WTR Listtype:MTHG-LOW Method:EPA 245.1*SW846 7470A Project: Pkey:STD

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Total, CVAA	0.005	0.015	ug/L	<MDL	

MB:WG135593-1 Matrix: BLANK WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project: Pkey:STD

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
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Mercury, Dissolved, CVAA 0.005 0.015 ug/L <MDL

SB:WG135593-2 MB:WG135593-1 Matrix: BLANK WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	0.05	0.0497	99		85--115

MSD:WG135593-4 MS:WG135593-3 L60387-2 Matrix: STORM WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project:423589-320-4 Pkey:STD
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueVal	MSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	0.05	0.0543	109		75--125	0.05	0.0525	105		3		0--20

Workgroup: WG135996 (06-NOV-14 CSO/BRANDON) Run ID: R199489

MB:WG135996-1 Matrix: BLANK WTR Listtype:MTHG-LOW Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Total, CVAA	0.005	0.015	ug/L	<MDL	

MB:WG135996-1 Matrix: BLANK WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	

SB:WG135996-2 MB:WG135996-1 Matrix: BLANK WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	0.05	0.0481	96		85--115

MSD:WG135996-4 MS:WG135996-3 L61501-3 Matrix: STORM WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project:423589-320-4 Pkey:STD
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueVal	MSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	0.05	0.0505	101		75--125	0.05	0.0501	100		1		0--20

MB:WG135996-5 Matrix: STORM WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	

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MB:WG135996-6 Matrix: STORM WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	

Workgroup: WG136595 (12-DEC-14 CSO/RTP/BRANDON) Run ID: R200289

MB:WG136595-1 Matrix: BLANK WTR Listtype:MTHG-LOW Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Total, CVAA	0.005	0.015	ug/L	<MDL	

MB:WG136595-1 Matrix: BLANK WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	

SB:WG136595-2 MB:WG136595-1 Matrix: BLANK WTR Listtype:MTHG-LOW Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Mercury, Total, CVAA	0.005	0.015	ug/L	<MDL	0.05	0.0463	93		85--115

MSD:WG136595-4 MS:WG136595-3 L61614-3 Matrix: EFFLUENT Listtype:MTHG-LOW Method:EPA 245.1*SW846 7470A Project:421186B Pkey:STD
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueVal	MSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Mercury, Total, CVAA	0.005	0.015	ug/L	0.0231	0.05	0.0902	134	*	75--125	0.05	0.0744	103		19		0--20

Workgroup: WG130225 (CSO) Run ID: R192455

MB:WG130225-1 Matrix: BLANK WTR Listtype:MTHG-LOW Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Total, CVAA	0.005	0.015	ug/L	<MDL	

MB:WG130225-1 Matrix: BLANK WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	

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SB:WG130225-2 MB:WG130225-1 Matrix: BLANK WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	0.05	0.0478	96		85--115

MSD:WG130225-4 MS:WG130225-3 L59294-3 Matrix: SEWER WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project:423589-320-4 Pkey:STD
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueVal	MSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	0.0059	0.05	0.0476	83		75--125	0.05	0.0541	96		13		0--20

Workgroup: WG131023 () Run ID: R193865

MB:WG131023-1 Matrix: BLANK WTR Listtype:MTHG-LOW Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Total, CVAA	0.005	0.015	ug/L	<MDL	

SB:WG131023-2 MB:WG131023-1 Matrix: BLANK WTR Listtype:MTHG-LOW Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Mercury, Total, CVAA	0.005	0.015	ug/L	<MDL	0.05	0.0515	103		85--115

MSD:WG131023-4 MS:WG131023-3 L59562-4 Matrix: EFFLUENT Listtype:MTHG-LOW Method:EPA 245.1*SW846 7470A Project:421186B Pkey:STD
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueVal	MSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Mercury, Total, CVAA	0.025	0.075	ug/L	0.0429	0.25	0.312	107		75--125	0.05	0.0999	114		103 *		0--20

MSD:WG131023-6 MS:WG131023-5 L59681-2 Matrix: STORM WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project:423589-320-4 Pkey:STD
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueVal	MSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	0.0052	0.05	0.0565	103		75--125	0.05	0.0591	108		5		0--20

MB:WG131023-7 Matrix: BLANK WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	

MB:WG131023-8 Matrix: BLANK WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project: Pkey:STD

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(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	

MB:WG131023-9 Matrix: BLANK WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project: Pkey:STD

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	

MB:WG131023-10 Matrix: BLANK WTR Listtype:MTHG-LOW-DISS Method:EPA 245.1*SW846 7470A Project: Pkey:STD

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Dissolved, CVAA	0.005	0.015	ug/L	<MDL	

Workgroup: WG129956 (11/19/13 CSO BASIN TOTALS) Run ID: R192108

MB:WG129956-1 Matrix: BLANK WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project: Pkey:STD

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	<MDL	
Chromium, Total, ICP-MS	0.2	1	ug/L	<MDL	
Nickel, Total, ICP-MS	0.1	0.5	ug/L	<MDL	
Copper, Total, ICP-MS	0.4	2	ug/L	<MDL	
Zinc, Total, ICP-MS	0.5	2.5	ug/L	<MDL	
Arsenic, Total, ICP-MS	0.1	0.5	ug/L	<MDL	
Silver, Total, ICP-MS	0.04	0.2	ug/L	<MDL	
Cadmium, Total, ICP-MS	0.05	0.25	ug/L	<MDL	
Lead, Total, ICP-MS	0.1	0.5	ug/L	<MDL	

SB:WG129956-2 MB:WG129956-1 Matrix: BLANK WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project: Pkey:STD

(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	<MDL	20	18.9	95		85--115
Chromium, Total, ICP-MS	0.2	1	ug/L	<MDL	20	19	95		85--115
Nickel, Total, ICP-MS	0.1	0.5	ug/L	<MDL	20	18.8	94		85--115
Copper, Total, ICP-MS	0.4	2	ug/L	<MDL	20	18.9	95		85--115
Zinc, Total, ICP-MS	0.5	2.5	ug/L	<MDL	20	19.8	99		85--115
Arsenic, Total, ICP-MS	0.1	0.5	ug/L	<MDL	20	18.7	94		85--115
Silver, Total, ICP-MS	0.04	0.2	ug/L	<MDL	20	18.3	91		85--115

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Cadmium, Total, ICP-MS	0.05	0.25 ug/L	<MDL	20	18.8	94	85--115
Lead, Total, ICP-MS	0.1	0.5 ug/L	<MDL	20	20.2	101	85--115

LD:WG129956-3 L59070-2 Matrix: SEWER WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	1.73	1.76	2		0--20
Chromium, Total, ICP-MS	0.2	1	ug/L	1.4	1.41	1		0--20
Nickel, Total, ICP-MS	0.1	0.5	ug/L	3.07	3.02	2		0--20
Copper, Total, ICP-MS	0.4	2	ug/L	28	27.4	2		0--20
Zinc, Total, ICP-MS	0.5	2.5	ug/L	103	102	1		0--20
Arsenic, Total, ICP-MS	0.1	0.5	ug/L	1.15	1.12	2		0--20
Silver, Total, ICP-MS	0.04	0.2	ug/L	0.067	0.093			0--20
Cadmium, Total, ICP-MS	0.05	0.25	ug/L	0.097	0.11			0--20
Lead, Total, ICP-MS	0.1	0.5	ug/L	5.65	5.58	1		0--20

MS:WG129956-4 L59070-2 Matrix: SEWER WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	1.73	20	20.4	93		75--125
Chromium, Total, ICP-MS	0.2	1	ug/L	1.4	20	20.6	96		75--125
Nickel, Total, ICP-MS	0.1	0.5	ug/L	3.07	20	21.7	93		75--125
Copper, Total, ICP-MS	0.4	2	ug/L	28	20	46.3	92		75--125
Zinc, Total, ICP-MS	0.5	2.5	ug/L	103	20	119		4xRule	75--125
Arsenic, Total, ICP-MS	0.1	0.5	ug/L	1.15	20	18.6	87		75--125
Silver, Total, ICP-MS	0.04	0.2	ug/L	0.067	20	17.5	87		75--125
Cadmium, Total, ICP-MS	0.05	0.25	ug/L	0.097	20	18.1	90		75--125
Lead, Total, ICP-MS	0.1	0.5	ug/L	5.65	20	25.1	97		75--125

Workgroup: WG130213 (12/9/13 CSO BASIN TOTALS) Run ID: R192466

MB:WG130213-1 Matrix: BLANK WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	<MDL	
Chromium, Total, ICP-MS	0.2	1	ug/L	<MDL	
Nickel, Total, ICP-MS	0.1	0.5	ug/L	<MDL	
Copper, Total, ICP-MS	0.4	2	ug/L	<MDL	
Zinc, Total, ICP-MS	0.5	2.5	ug/L	<MDL	

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Arsenic, Total, ICP-MS	0.1	0.5 ug/L	<MDL
Silver, Total, ICP-MS	0.04	0.2 ug/L	<MDL
Cadmium, Total, ICP-MS	0.05	0.25 ug/L	<MDL
Lead, Total, ICP-MS	0.1	0.5 ug/L	<MDL

SB:WG130213-2 MB:WG130213-1 Matrix: BLANK WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	<MDL	20	19.1	96		85--115
Chromium, Total, ICP-MS	0.2	1	ug/L	<MDL	20	19.1	96		85--115
Nickel, Total, ICP-MS	0.1	0.5	ug/L	<MDL	20	20.9	105		85--115
Copper, Total, ICP-MS	0.4	2	ug/L	<MDL	20	20.7	104		85--115
Zinc, Total, ICP-MS	0.5	2.5	ug/L	<MDL	20	21.3	107		85--115
Arsenic, Total, ICP-MS	0.1	0.5	ug/L	<MDL	20	20.3	102		85--115
Silver, Total, ICP-MS	0.04	0.2	ug/L	<MDL	20	20.2	101		85--115
Cadmium, Total, ICP-MS	0.05	0.25	ug/L	<MDL	20	20.5	102		85--115
Lead, Total, ICP-MS	0.1	0.5	ug/L	<MDL	20	19.2	96		85--115

LD:WG130213-3 L59294-2 Matrix: SEWER WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	1.75	1.73	1		0--20
Chromium, Total, ICP-MS	0.2	1	ug/L	1.22	1.25	3		0--20
Nickel, Total, ICP-MS	0.1	0.5	ug/L	3.25	3.48	7		0--20
Copper, Total, ICP-MS	0.4	2	ug/L	21	21	0		0--20
Zinc, Total, ICP-MS	0.5	2.5	ug/L	82.3	83.3	1		0--20
Arsenic, Total, ICP-MS	0.1	0.5	ug/L	1.23	1.28	4		0--20
Silver, Total, ICP-MS	0.04	0.2	ug/L	<MDL	<MDL			0--20
Cadmium, Total, ICP-MS	0.05	0.25	ug/L	0.073	0.072			0--20
Lead, Total, ICP-MS	0.1	0.5	ug/L	3.98	4.04	1		0--20

MS:WG130213-4 L59294-2 Matrix: SEWER WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	1.75	20	21.4	98		75--125
Chromium, Total, ICP-MS	0.2	1	ug/L	1.22	20	20.8	98		75--125
Nickel, Total, ICP-MS	0.1	0.5	ug/L	3.25	20	25	109		75--125
Copper, Total, ICP-MS	0.4	2	ug/L	21	20	42	105		75--125
Zinc, Total, ICP-MS	0.5	2.5	ug/L	82.3	20	102		4xRule	75--125
Arsenic, Total, ICP-MS	0.1	0.5	ug/L	1.23	20	21.8	103		75--125

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Silver, Total, ICP-MS	0.04	0.2 ug/L	<MDL	20	16.4	82	75--125
Cadmium, Total, ICP-MS	0.05	0.25 ug/L	0.073	20	20.4	101	75--125
Lead, Total, ICP-MS	0.1	0.5 ug/L	3.98	20	23	95	75--125

Workgroup: WG130880 (1/30/14 CSO BASIN TOTALS) Run ID: R193516

MB:WG130880-1 Matrix: BLANK WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	<MDL	
Chromium, Total, ICP-MS	0.2	1	ug/L	<MDL	
Nickel, Total, ICP-MS	0.1	0.5	ug/L	<MDL	
Copper, Total, ICP-MS	0.4	2	ug/L	<MDL	
Zinc, Total, ICP-MS	0.5	2.5	ug/L	<MDL	
Arsenic, Total, ICP-MS	0.1	0.5	ug/L	<MDL	
Silver, Total, ICP-MS	0.04	0.2	ug/L	<MDL	
Cadmium, Total, ICP-MS	0.05	0.25	ug/L	<MDL	
Lead, Total, ICP-MS	0.1	0.5	ug/L	<MDL	

SB:WG130880-2 MB:WG130880-1 Matrix: BLANK WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	<MDL	20	19.1	96		85--115
Chromium, Total, ICP-MS	0.2	1	ug/L	<MDL	20	19	95		85--115
Nickel, Total, ICP-MS	0.1	0.5	ug/L	<MDL	20	19.4	97		85--115
Copper, Total, ICP-MS	0.4	2	ug/L	<MDL	20	20	100		85--115
Zinc, Total, ICP-MS	0.5	2.5	ug/L	<MDL	20	20.5	102		85--115
Arsenic, Total, ICP-MS	0.1	0.5	ug/L	<MDL	20	19	95		85--115
Silver, Total, ICP-MS	0.04	0.2	ug/L	<MDL	20	18.8	94		85--115
Cadmium, Total, ICP-MS	0.05	0.25	ug/L	<MDL	20	20.1	101		85--115
Lead, Total, ICP-MS	0.1	0.5	ug/L	<MDL	20	20.3	102		85--115

LD:WG130880-3 L59471-2 Matrix: STORM WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	26.2	26.5	1		0--20
Chromium, Total, ICP-MS	0.2	1	ug/L	17.2	17.2	0		0--20
Nickel, Total, ICP-MS	0.1	0.5	ug/L	20.2	20.4	1		0--20
Copper, Total, ICP-MS	0.4	2	ug/L	180	179	0		0--20

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Zinc, Total, ICP-MS	0.5	2.5 ug/L	431	432	0	0--20
Arsenic, Total, ICP-MS	0.1	0.5 ug/L	5.8	5.73	1	0--20
Silver, Total, ICP-MS	0.04	0.2 ug/L	0.377	0.352	7	0--20
Cadmium, Total, ICP-MS	0.05	0.25 ug/L	0.716	0.723	1	0--20
Lead, Total, ICP-MS	0.1	0.5 ug/L	52.9	52.9	0	0--20

MS:WG130880-4 L59471-2 Matrix: STORM WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	26.2	20	45.7	98		75--125
Chromium, Total, ICP-MS	0.2	1	ug/L	17.2	20	35.3	91		75--125
Nickel, Total, ICP-MS	0.1	0.5	ug/L	20.2	20	38.5	92		75--125
Copper, Total, ICP-MS	0.4	2	ug/L	180	20	199		4xRule	75--125
Zinc, Total, ICP-MS	0.5	2.5	ug/L	431	20	451		4xRule	75--125
Arsenic, Total, ICP-MS	0.1	0.5	ug/L	5.8	20	22.3	82		75--125
Silver, Total, ICP-MS	0.04	0.2	ug/L	0.377	20	16.2	79		75--125
Cadmium, Total, ICP-MS	0.05	0.25	ug/L	0.716	20	19.5	94		75--125
Lead, Total, ICP-MS	0.1	0.5	ug/L	52.9	20	73.2	101		75--125

Workgroup: WG131375 (3/5/14 CSO Basin Totals) Run ID: R194123

MB:WG131375-1 Matrix: BLANK WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	<MDL	
Chromium, Total, ICP-MS	0.2	1	ug/L	<MDL	
Nickel, Total, ICP-MS	0.1	0.5	ug/L	<MDL	
Copper, Total, ICP-MS	0.4	2	ug/L	<MDL	
Zinc, Total, ICP-MS	0.5	2.5	ug/L	<MDL	
Arsenic, Total, ICP-MS	0.1	0.5	ug/L	<MDL	
Silver, Total, ICP-MS	0.04	0.2	ug/L	<MDL	
Cadmium, Total, ICP-MS	0.05	0.25	ug/L	<MDL	
Lead, Total, ICP-MS	0.1	0.5	ug/L	<MDL	

SB:WG131375-2 MB:WG131375-1 Matrix: BLANK WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	<MDL	20	18.1	91		85--115
Chromium, Total, ICP-MS	0.2	1	ug/L	<MDL	20	18.3	91		85--115

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Nickel, Total, ICP-MS	0.1	0.5 ug/L	<MDL	20	19.5	98	85--115
Copper, Total, ICP-MS	0.4	2 ug/L	<MDL	20	19.4	97	85--115
Zinc, Total, ICP-MS	0.5	2.5 ug/L	<MDL	20	20.2	101	85--115
Arsenic, Total, ICP-MS	0.1	0.5 ug/L	<MDL	20	19	95	85--115
Silver, Total, ICP-MS	0.04	0.2 ug/L	<MDL	20	18.8	94	85--115
Cadmium, Total, ICP-MS	0.05	0.25 ug/L	<MDL	20	19.3	96	85--115
Lead, Total, ICP-MS	0.1	0.5 ug/L	<MDL	20	18.8	94	85--115

LD:WG131375-3 L59745-3 Matrix: STORM WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	1.75	1.68	4	0--20	
Chromium, Total, ICP-MS	0.2	1	ug/L	1	0.93		0--20	
Nickel, Total, ICP-MS	0.1	0.5	ug/L	2.27	2.24	1	0--20	
Copper, Total, ICP-MS	0.4	2	ug/L	8.95	8.73	2	0--20	
Zinc, Total, ICP-MS	0.5	2.5	ug/L	31.4	30.5	3	0--20	
Arsenic, Total, ICP-MS	0.1	0.5	ug/L	1.1	1.08	2	0--20	
Silver, Total, ICP-MS	0.04	0.2	ug/L	<MDL	<MDL		0--20	
Cadmium, Total, ICP-MS	0.05	0.25	ug/L	<MDL	<MDL		0--20	
Lead, Total, ICP-MS	0.1	0.5	ug/L	2.21	2.19	1	0--20	

MS:WG131375-4 L59745-3 Matrix: STORM WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	1.75	20	19.8	90	75--125	
Chromium, Total, ICP-MS	0.2	1	ug/L	1	20	19.3	91	75--125	
Nickel, Total, ICP-MS	0.1	0.5	ug/L	2.27	20	22.1	99	75--125	
Copper, Total, ICP-MS	0.4	2	ug/L	8.95	20	28.4	97	75--125	
Zinc, Total, ICP-MS	0.5	2.5	ug/L	31.4	20	50.5	95	75--125	
Arsenic, Total, ICP-MS	0.1	0.5	ug/L	1.1	20	20.1	95	75--125	
Silver, Total, ICP-MS	0.04	0.2	ug/L	<MDL	20	18.8	94	75--125	
Cadmium, Total, ICP-MS	0.05	0.25	ug/L	<MDL	20	19	95	75--125	
Lead, Total, ICP-MS	0.1	0.5	ug/L	2.21	20	21	94	75--125	

Workgroup: WG131821 (28-MAR-14 CSO Basin) Run ID: R194611

MB:WG131821-1 Matrix: BLANK WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
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Vanadium, Total, ICP-MS	0.075	0.375 ug/L	<MDL
Chromium, Total, ICP-MS	0.2	1 ug/L	<MDL
Nickel, Total, ICP-MS	0.1	0.5 ug/L	<MDL
Copper, Total, ICP-MS	0.4	2 ug/L	<MDL
Zinc, Total, ICP-MS	0.5	2.5 ug/L	0.76 B
Arsenic, Total, ICP-MS	0.1	0.5 ug/L	<MDL
Silver, Total, ICP-MS	0.04	0.2 ug/L	<MDL
Cadmium, Total, ICP-MS	0.05	0.25 ug/L	<MDL
Lead, Total, ICP-MS	0.1	0.5 ug/L	<MDL

SB:WG131821-2 MB:WG131821-1 Matrix: BLANK WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Vanadium, Total, ICP-MS	0.075	0.375 ug/L	<MDL		20	21.4	107		85--115
Chromium, Total, ICP-MS	0.2	1 ug/L	<MDL		20	21.1	105		85--115
Nickel, Total, ICP-MS	0.1	0.5 ug/L	<MDL		20	21.3	107		85--115
Copper, Total, ICP-MS	0.4	2 ug/L	<MDL		20	20.1	100		85--115
Zinc, Total, ICP-MS	0.5	2.5 ug/L	0.76		20	21.9	106		85--115
Arsenic, Total, ICP-MS	0.1	0.5 ug/L	<MDL		20	20.8	104		85--115
Silver, Total, ICP-MS	0.04	0.2 ug/L	<MDL		20	20.4	102		85--115
Cadmium, Total, ICP-MS	0.05	0.25 ug/L	<MDL		20	20.4	102		85--115
Lead, Total, ICP-MS	0.1	0.5 ug/L	<MDL		20	20.2	101		85--115

LD:WG131821-3 L59833-1 Matrix: SEWER WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Vanadium, Total, ICP-MS	0.075	0.375 ug/L		4.92	5.05	3		0--20
Chromium, Total, ICP-MS	0.2	1 ug/L		4.98	5.19	4		0--20
Nickel, Total, ICP-MS	0.1	0.5 ug/L		15.1	15.2	1		0--20
Copper, Total, ICP-MS	0.4	2 ug/L		26.3	26.9	2		0--20
Zinc, Total, ICP-MS	0.5	2.5 ug/L		101	103	2		0--20
Arsenic, Total, ICP-MS	0.1	0.5 ug/L		1.89	1.92	1		0--20
Silver, Total, ICP-MS	0.04	0.2 ug/L		0.067	0.11			0--20
Cadmium, Total, ICP-MS	0.05	0.25 ug/L		0.21	0.21			0--20
Lead, Total, ICP-MS	0.1	0.5 ug/L		33.2	33.3	0		0--20

MS:WG131821-4 L59833-1 Matrix: SEWER WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Vanadium, Total, ICP-MS	0.075	0.375 ug/L		4.92	20	26.1	106		75--125

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Chromium, Total, ICP-MS	0.2	1 ug/L	4.98	20	25.7	104	75--125
Nickel, Total, ICP-MS	0.1	0.5 ug/L	15.1	20	35.9	104	75--125
Copper, Total, ICP-MS	0.4	2 ug/L	26.3	20	46.1	99	75--125
Zinc, Total, ICP-MS	0.5	2.5 ug/L	101	20	121	4xRule	75--125
Arsenic, Total, ICP-MS	0.1	0.5 ug/L	1.89	20	21.8	99	75--125
Silver, Total, ICP-MS	0.04	0.2 ug/L	0.067	20	19.7	98	75--125
Cadmium, Total, ICP-MS	0.05	0.25 ug/L	0.21	20	19.9	98	75--125
Lead, Total, ICP-MS	0.1	0.5 ug/L	33.2	20	53.4	101	75--125

Workgroup: WG132571 (5/12/14 CSO Totals) Run ID: R195393

MB:WG132571-1 Matrix: BLANK WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	<MDL	
Chromium, Total, ICP-MS	0.2	1	ug/L	<MDL	
Nickel, Total, ICP-MS	0.1	0.5	ug/L	<MDL	
Copper, Total, ICP-MS	0.4	2	ug/L	<MDL	
Zinc, Total, ICP-MS	0.5	2.5	ug/L	<MDL	
Arsenic, Total, ICP-MS	0.1	0.5	ug/L	<MDL	
Silver, Total, ICP-MS	0.04	0.2	ug/L	<MDL	
Cadmium, Total, ICP-MS	0.05	0.25	ug/L	<MDL	
Lead, Total, ICP-MS	0.1	0.5	ug/L	<MDL	

SB:WG132571-2 MB:WG132571-1 Matrix: BLANK WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	<MDL	20	18.4	92		85--115
Chromium, Total, ICP-MS	0.2	1	ug/L	<MDL	20	18.7	94		85--115
Nickel, Total, ICP-MS	0.1	0.5	ug/L	<MDL	20	20.6	103		85--115
Copper, Total, ICP-MS	0.4	2	ug/L	<MDL	20	19	95		85--115
Zinc, Total, ICP-MS	0.5	2.5	ug/L	<MDL	20	20.5	103		85--115
Arsenic, Total, ICP-MS	0.1	0.5	ug/L	<MDL	20	20.2	101		85--115
Silver, Total, ICP-MS	0.04	0.2	ug/L	<MDL	20	19.8	99		85--115
Cadmium, Total, ICP-MS	0.05	0.25	ug/L	<MDL	20	19.7	99		85--115
Lead, Total, ICP-MS	0.1	0.5	ug/L	<MDL	20	19.3	96		85--115

LD:WG132571-3 L60299-1 Matrix: STORM WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Lab Duplicate)

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Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	2.45	2.37	3		0--20
Chromium, Total, ICP-MS	0.2	1	ug/L	2.23	2.15	4		0--20
Nickel, Total, ICP-MS	0.1	0.5	ug/L	2.66	2.63	1		0--20
Copper, Total, ICP-MS	0.4	2	ug/L	25.4	24.8	2		0--20
Zinc, Total, ICP-MS	0.5	2.5	ug/L	77.5	75.7	2		0--20
Arsenic, Total, ICP-MS	0.1	0.5	ug/L	0.837	0.816	3		0--20
Silver, Total, ICP-MS	0.04	0.2	ug/L	0.07	0.072			0--20
Cadmium, Total, ICP-MS	0.05	0.25	ug/L	0.16	0.16			0--20
Lead, Total, ICP-MS	0.1	0.5	ug/L	6.1	5.97	2		0--20

MS:WG132571-4 L60299-1 Matrix: STORM WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	2.45	20	21.1	93		75--125
Chromium, Total, ICP-MS	0.2	1	ug/L	2.23	20	21.1	94		75--125
Nickel, Total, ICP-MS	0.1	0.5	ug/L	2.66	20	24.3	108		75--125
Copper, Total, ICP-MS	0.4	2	ug/L	25.4	20	45.1	98		75--125
Zinc, Total, ICP-MS	0.5	2.5	ug/L	77.5	20	97.7	101		75--125
Arsenic, Total, ICP-MS	0.1	0.5	ug/L	0.837	20	20.7	99		75--125
Silver, Total, ICP-MS	0.04	0.2	ug/L	0.07	20	20.5	102		75--125
Cadmium, Total, ICP-MS	0.05	0.25	ug/L	0.16	20	19.8	98		75--125
Lead, Total, ICP-MS	0.1	0.5	ug/L	6.1	20	26.1	100		75--125

Workgroup: WG136067 (CSO Basin Totals) Run ID: R199470

MB:WG136067-1 Matrix: BLANK WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	<MDL	
Chromium, Total, ICP-MS	0.2	1	ug/L	<MDL	
Nickel, Total, ICP-MS	0.1	0.5	ug/L	<MDL	
Copper, Total, ICP-MS	0.4	2	ug/L	<MDL	
Zinc, Total, ICP-MS	0.5	2.5	ug/L	<MDL	
Arsenic, Total, ICP-MS	0.1	0.5	ug/L	<MDL	
Silver, Total, ICP-MS	0.04	0.2	ug/L	<MDL	
Cadmium, Total, ICP-MS	0.05	0.25	ug/L	<MDL	
Lead, Total, ICP-MS	0.1	0.5	ug/L	<MDL	

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SB:WG136067-2 MB:WG136067-1 Matrix: BLANK WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	<MDL	20	19.6	98		85--115
Chromium, Total, ICP-MS	0.2	1	ug/L	<MDL	20	20	100		85--115
Nickel, Total, ICP-MS	0.1	0.5	ug/L	<MDL	20	20.6	103		85--115
Copper, Total, ICP-MS	0.4	2	ug/L	<MDL	20	20.9	105		85--115
Zinc, Total, ICP-MS	0.5	2.5	ug/L	<MDL	20	20.3	101		85--115
Arsenic, Total, ICP-MS	0.1	0.5	ug/L	<MDL	20	19.9	99		85--115
Silver, Total, ICP-MS	0.04	0.2	ug/L	<MDL	20	20.6	103		85--115
Cadmium, Total, ICP-MS	0.05	0.25	ug/L	<MDL	20	20	100		85--115
Lead, Total, ICP-MS	0.1	0.5	ug/L	<MDL	20	20.1	100		85--115

LD:WG136067-3 L61560-3 Matrix: STORM WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	3.41	3.46	1		0--20
Chromium, Total, ICP-MS	0.2	1	ug/L	2.59	2.64	2		0--20
Nickel, Total, ICP-MS	0.1	0.5	ug/L	3.4	3.63	6		0--20
Copper, Total, ICP-MS	0.4	2	ug/L	19.9	20.8	4		0--20
Zinc, Total, ICP-MS	0.5	2.5	ug/L	40.3	41.6	3		0--20
Arsenic, Total, ICP-MS	0.1	0.5	ug/L	1.94	1.96	1		0--20
Silver, Total, ICP-MS	0.04	0.2	ug/L	<MDL	<MDL			0--20
Cadmium, Total, ICP-MS	0.05	0.25	ug/L	<MDL	<MDL			0--20
Lead, Total, ICP-MS	0.1	0.5	ug/L	10.8	10.6	1		0--20

MS:WG136067-4 L61560-3 Matrix: STORM WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	3.41	20	23.5	100		75--125
Chromium, Total, ICP-MS	0.2	1	ug/L	2.59	20	22.7	101		75--125
Nickel, Total, ICP-MS	0.1	0.5	ug/L	3.4	20	25.1	108		75--125
Copper, Total, ICP-MS	0.4	2	ug/L	19.9	20	41.7	109		75--125
Zinc, Total, ICP-MS	0.5	2.5	ug/L	40.3	20	59.8	97		75--125
Arsenic, Total, ICP-MS	0.1	0.5	ug/L	1.94	20	22.1	101		75--125
Silver, Total, ICP-MS	0.04	0.2	ug/L	<MDL	20	20.9	105		75--125
Cadmium, Total, ICP-MS	0.05	0.25	ug/L	<MDL	20	19.9	100		75--125
Lead, Total, ICP-MS	0.1	0.5	ug/L	10.8	20	31.5	104		75--125

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Workgroup: WG136874 (Brandon Mich) Run ID: R200488

MB:WG136874-1 Matrix: BLANK WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Beryllium, Total, ICP-MS	0.1	0.5	ug/L	<MDL	
Sodium, Total, ICP-MS	100	100	ug/L	<MDL	
Magnesium, Total, ICP-MS	50	50	ug/L	<MDL	
Aluminum, Total, ICP-MS	2	10	ug/L	<MDL	
Potassium, Total, ICP-MS	100	500	ug/L	<MDL	
Calcium, Total, ICP-MS	50	50	ug/L	<MDL	
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	<MDL	
Chromium, Total, ICP-MS	0.2	1	ug/L	<MDL	
Iron, Total, ICP-MS	10	50	ug/L	<MDL	
Manganese, Total, ICP-MS	0.1	0.5	ug/L	<MDL	
Cobalt, Total, ICP-MS	0.05	0.25	ug/L	<MDL	
Nickel, Total, ICP-MS	0.1	0.5	ug/L	<MDL	
Copper, Total, ICP-MS	0.4	2	ug/L	<MDL	
Zinc, Total, ICP-MS	0.5	2.5	ug/L	<MDL	
Arsenic, Total, ICP-MS	0.1	0.5	ug/L	<MDL	
Selenium, Total, ICP-MS	0.5	1	ug/L	<MDL	
Silver, Total, ICP-MS	0.04	0.2	ug/L	<MDL	
Cadmium, Total, ICP-MS	0.05	0.25	ug/L	<MDL	
Tin, Total, ICP-MS	0.3	1.5	ug/L	<MDL	
Antimony, Total, ICP-MS	0.3	1	ug/L	<MDL	
Barium, Total, ICP-MS	0.05	0.25	ug/L	<MDL	
Thallium, Total, ICP-MS	0.04	0.2	ug/L	<MDL	
Lead, Total, ICP-MS	0.1	0.5	ug/L	<MDL	

SB:WG136874-2 MB:WG136874-1 Matrix: BLANK WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Beryllium, Total, ICP-MS	0.1	0.5	ug/L	<MDL	20	20.3	101		85--115
Sodium, Total, ICP-MS	100	100	ug/L	<MDL	5000	5040	101		85--115
Magnesium, Total, ICP-MS	50	50	ug/L	<MDL	5000	4590	92		85--115
Aluminum, Total, ICP-MS	2	10	ug/L	<MDL	20	21.3	107		85--115
Potassium, Total, ICP-MS	100	500	ug/L	<MDL	5000	4860	97		85--115
Calcium, Total, ICP-MS	50	50	ug/L	<MDL	5000	4500	90		85--115
Vanadium, Total, ICP-MS	0.075	0.375	ug/L	<MDL	20	17.9	89		85--115
Chromium, Total, ICP-MS	0.2	1	ug/L	<MDL	20	18.5	92		85--115

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Iron, Total, ICP-MS	10	50 ug/L	<MDL	5000	5270	105	85--115
Manganese, Total, ICP-MS	0.1	0.5 ug/L	<MDL	20	20.4	102	85--115
Cobalt, Total, ICP-MS	0.05	0.25 ug/L	<MDL	20	20.1	101	85--115
Nickel, Total, ICP-MS	0.1	0.5 ug/L	<MDL	20	19.3	97	85--115
Copper, Total, ICP-MS	0.4	2 ug/L	<MDL	20	18.8	94	85--115
Zinc, Total, ICP-MS	0.5	2.5 ug/L	<MDL	20	19.3	96	85--115
Arsenic, Total, ICP-MS	0.1	0.5 ug/L	<MDL	20	18.6	93	85--115
Selenium, Total, ICP-MS	0.5	1 ug/L	<MDL	20	19.5	98	85--115
Silver, Total, ICP-MS	0.04	0.2 ug/L	<MDL	20	20.7	103	85--115
Cadmium, Total, ICP-MS	0.05	0.25 ug/L	<MDL	20	18.3	92	85--115
Tin, Total, ICP-MS	0.3	1.5 ug/L	<MDL	20	19.6	98	85--115
Antimony, Total, ICP-MS	0.3	1 ug/L	<MDL	20	19.2	96	85--115
Barium, Total, ICP-MS	0.05	0.25 ug/L	<MDL	20	18.7	93	85--115
Thallium, Total, ICP-MS	0.04	0.2 ug/L	<MDL	20	20.7	103	85--115
Lead, Total, ICP-MS	0.1	0.5 ug/L	<MDL	20	20.2	101	85--115

LD:WG136874-3 L61736-1 Matrix: OTHR WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project:423530 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Beryllium, Total, ICP-MS	0.1	0.5 ug/L	<MDL	<MDL				0--20
Sodium, Total, ICP-MS	100	100 ug/L	<MDL	<MDL				0--20
Magnesium, Total, ICP-MS	50	50 ug/L	<MDL	<MDL				0--20
Aluminum, Total, ICP-MS	2	10 ug/L	<MDL	<MDL				0--20
Potassium, Total, ICP-MS	100	500 ug/L	<MDL	<MDL				0--20
Calcium, Total, ICP-MS	50	50 ug/L	<MDL	<MDL				0--20
Vanadium, Total, ICP-MS	0.075	0.375 ug/L	<MDL	<MDL				0--20
Chromium, Total, ICP-MS	0.2	1 ug/L	<MDL	<MDL				0--20
Iron, Total, ICP-MS	10	50 ug/L	<MDL	<MDL				0--20
Manganese, Total, ICP-MS	0.1	0.5 ug/L	<MDL	<MDL				0--20
Cobalt, Total, ICP-MS	0.05	0.25 ug/L	<MDL	<MDL				0--20
Nickel, Total, ICP-MS	0.1	0.5 ug/L	<MDL	<MDL				0--20
Copper, Total, ICP-MS	0.4	2 ug/L		1.4	1.5			0--20
Zinc, Total, ICP-MS	0.5	2.5 ug/L		1	1.1			0--20
Arsenic, Total, ICP-MS	0.1	0.5 ug/L	<MDL	<MDL				0--20
Selenium, Total, ICP-MS	0.5	1 ug/L	<MDL	<MDL				0--20
Silver, Total, ICP-MS	0.04	0.2 ug/L	<MDL	<MDL				0--20
Cadmium, Total, ICP-MS	0.05	0.25 ug/L	<MDL	<MDL				0--20
Tin, Total, ICP-MS	0.3	1.5 ug/L	<MDL	<MDL				0--20
Antimony, Total, ICP-MS	0.3	1 ug/L	<MDL	<MDL				0--20
Barium, Total, ICP-MS	0.05	0.25 ug/L	<MDL	<MDL				0--20

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Thallium, Total, ICP-MS	0.04	0.2 ug/L	<MDL	<MDL	0--20
Lead, Total, ICP-MS	0.1	0.5 ug/L	<MDL	<MDL	0--20

MS:WG136874-4 L61736-1 Matrix: OTHR WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project:423530 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Beryllium, Total, ICP-MS	0.1	0.5 ug/L	<MDL		20	21.1	106		75--125
Sodium, Total, ICP-MS	100	100 ug/L	<MDL		5000	5130	103		75--125
Magnesium, Total, ICP-MS	50	50 ug/L	<MDL		5000	4570	91		75--125
Aluminum, Total, ICP-MS	2	10 ug/L	<MDL		20	21.3	106		75--125
Potassium, Total, ICP-MS	100	500 ug/L	<MDL		5000	4950	99		75--125
Calcium, Total, ICP-MS	50	50 ug/L	<MDL		5000	4510	90		75--125
Vanadium, Total, ICP-MS	0.075	0.375 ug/L	<MDL		20	18.7	94		75--125
Chromium, Total, ICP-MS	0.2	1 ug/L	<MDL		20	19.3	97		75--125
Iron, Total, ICP-MS	10	50 ug/L	<MDL		5000	5400	108		75--125
Manganese, Total, ICP-MS	0.1	0.5 ug/L	<MDL		20	21.4	107		75--125
Cobalt, Total, ICP-MS	0.05	0.25 ug/L	<MDL		20	20.5	103		75--125
Nickel, Total, ICP-MS	0.1	0.5 ug/L	<MDL		20	20.2	101		75--125
Copper, Total, ICP-MS	0.4	2 ug/L		1.4	20	21.7	101		75--125
Zinc, Total, ICP-MS	0.5	2.5 ug/L		1	20	20.2	96		75--125
Arsenic, Total, ICP-MS	0.1	0.5 ug/L	<MDL		20	19.2	96		75--125
Selenium, Total, ICP-MS	0.5	1 ug/L	<MDL		20	19.2	96		75--125
Silver, Total, ICP-MS	0.04	0.2 ug/L	<MDL		20	21.7	109		75--125
Cadmium, Total, ICP-MS	0.05	0.25 ug/L	<MDL		20	18.9	94		75--125
Tin, Total, ICP-MS	0.3	1.5 ug/L	<MDL		20	20.1	101		75--125
Antimony, Total, ICP-MS	0.3	1 ug/L	<MDL		20	19.7	98		75--125
Barium, Total, ICP-MS	0.05	0.25 ug/L	<MDL		20	19.3	97		75--125
Thallium, Total, ICP-MS	0.04	0.2 ug/L	<MDL		20	21.7	108		75--125
Lead, Total, ICP-MS	0.1	0.5 ug/L	<MDL		20	21	105		75--125

Workgroup: WG129957 (11/19/13 CSO BASIN DISS) Run ID: R192109

MB:WG129957-1 Matrix: BLANK WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Vanadium, Dissolved, ICP-MS	0.075	0.375 ug/L	<MDL		
Chromium, Dissolved, ICP-MS	0.2	1 ug/L	<MDL		
Nickel, Dissolved, ICP-MS	0.1	0.5 ug/L	<MDL		
Copper, Dissolved, ICP-MS	0.4	2 ug/L	<MDL		

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Zinc, Dissolved, ICP-MS	0.5	2.5 ug/L	<MDL
Arsenic, Dissolved, ICP-MS	0.1	0.5 ug/L	<MDL
Silver, Dissolved, ICP-MS	0.04	0.2 ug/L	<MDL
Cadmium, Dissolved, ICP-MS	0.05	0.25 ug/L	<MDL
Lead, Dissolved, ICP-MS	0.1	0.5 ug/L	<MDL

SB:WG129957-2 MB:WG129957-1 Matrix: BLANK WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	<MDL	20	18.6	93		85--115
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	<MDL	20	18.9	95		85--115
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	20	19	95		85--115
Copper, Dissolved, ICP-MS	0.4	2	ug/L	<MDL	20	19.1	95		85--115
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	<MDL	20	19.3	97		85--115
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	20	18.1	91		85--115
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	20	18.6	93		85--115
Cadmium, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	20	18.8	94		85--115
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	20	20	100		85--115

LD:WG129957-3 L59070-2 Matrix: SEWER WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	0.79	0.811	3		0--20
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	0.32	0.32			0--20
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	1.79	1.77	1		0--20
Copper, Dissolved, ICP-MS	0.4	2	ug/L	8.85	8.96	1		0--20
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	30.2	30.5	1		0--20
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	0.937	0.954	2		0--20
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	<MDL			0--20
Cadmium, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	<MDL			0--20
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	0.645	0.651	1		0--20

MS:WG129957-4 L59070-2 Matrix: SEWER WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	0.79	20	19.4	93		75--125
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	0.32	20	19.3	95		75--125
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	1.79	20	20.2	92		75--125
Copper, Dissolved, ICP-MS	0.4	2	ug/L	8.85	20	27.2	92		75--125
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	30.2	20	49.9	99		75--125

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Arsenic, Dissolved, ICP-MS	0.1	0.5 ug/L	0.937	20	19.3	92	75--125
Silver, Dissolved, ICP-MS	0.04	0.2 ug/L	<MDL	20	17.7	88	75--125
Cadmium, Dissolved, ICP-MS	0.05	0.25 ug/L	<MDL	20	18.9	95	75--125
Lead, Dissolved, ICP-MS	0.1	0.5 ug/L	0.645	20	20.3	98	75--125

Workgroup: WG130335 (12/16/13 cso basin diss) Run ID: R192467

MB:WG130335-1 Matrix: BLANK WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	<MDL	
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	<MDL	
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	
Copper, Dissolved, ICP-MS	0.4	2	ug/L	<MDL	
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	<MDL	
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	
Cadmium, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	

SB:WG130335-2 MB:WG130335-1 Matrix: BLANK WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	<MDL	20	18.4	92		85--115
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	<MDL	20	18.6	93		85--115
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	20	20.3	102		85--115
Copper, Dissolved, ICP-MS	0.4	2	ug/L	<MDL	20	20.1	101		85--115
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	<MDL	20	20.5	102		85--115
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	20	19.5	98		85--115
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	20	19.7	99		85--115
Cadmium, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	20	20	100		85--115
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	20	18.6	93		85--115

LD:WG130335-3 L59241-3 Matrix: STORM WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	1.67	1.7	2		0--20
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	0.35	0.35			0--20
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	2	2	0		0--20

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Copper, Dissolved, ICP-MS	0.4	2 ug/L	2.08	2.09	1	0--20
Zinc, Dissolved, ICP-MS	0.5	2.5 ug/L	16.5	16.6	0	0--20
Arsenic, Dissolved, ICP-MS	0.1	0.5 ug/L	1.18	1.19	1	0--20
Silver, Dissolved, ICP-MS	0.04	0.2 ug/L	<MDL	<MDL		0--20
Cadmium, Dissolved, ICP-MS	0.05	0.25 ug/L	<MDL	<MDL		0--20
Lead, Dissolved, ICP-MS	0.1	0.5 ug/L	0.565	0.574	2	0--20

MS:WG130335-4 L59241-3 Matrix: STORM WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	1.67	20	21.2	98		75--125
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	0.35	20	20	98		75--125
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	2	20	23.4	107		75--125
Copper, Dissolved, ICP-MS	0.4	2	ug/L	2.08	20	23	104		75--125
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	16.5	20	38.1	108		75--125
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	1.18	20	22.1	104		75--125
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	20	19.7	99		75--125
Cadmium, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	20	20.7	103		75--125
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	0.565	20	19.8	96		75--125

Workgroup: WG130931 (03-FEB-14 Green R, Brandon, etc) Run ID: R193504

MB:WG130931-1 Matrix: BLANK WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Magnesium, Dissolved, ICP-MS	50	50	ug/L	<MDL	
Calcium, Dissolved, ICP-MS	50	50	ug/L	<MDL	
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	<MDL	
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	<MDL	
Manganese, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	
Copper, Dissolved, ICP-MS	0.4	2	ug/L	<MDL	
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	<MDL	
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	
Selenium, Dissolved, ICP-MS	0.5	1	ug/L	<MDL	
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	
Cadmium, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	

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SB:WG130931-2 MB:WG130931-1 Matrix: BLANK WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Magnesium, Dissolved, ICP-MS	50	50	ug/L	<MDL	5000	4510	90		85--115
Calcium, Dissolved, ICP-MS	50	50	ug/L	<MDL	5000	4680	94		85--115
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	<MDL	20	18.7	93		85--115
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	<MDL	20	19.1	96		85--115
Manganese, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	20	18.4	92		85--115
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	20	20.3	101		85--115
Copper, Dissolved, ICP-MS	0.4	2	ug/L	<MDL	20	20.1	101		85--115
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	<MDL	20	21.2	106		85--115
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	20	19.7	99		85--115
Selenium, Dissolved, ICP-MS	0.5	1	ug/L	<MDL	20	20.8	104		85--115
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	20	18.9	95		85--115
Cadmium, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	20	19.8	99		85--115
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	20	18.8	94		85--115

LD:WG130931-3 L59491-10 Matrix: STORM WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project:423530 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Magnesium, Dissolved, ICP-MS	50	50	ug/L	952	954	0		0--20
Calcium, Dissolved, ICP-MS	50	50	ug/L	6010	6020	0		0--20
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	0.728	0.727	0		0--20
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	0.51	0.5			0--20
Manganese, Dissolved, ICP-MS	0.1	0.5	ug/L	20.1	20.1	0		0--20
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	0.731	0.749	2		0--20
Copper, Dissolved, ICP-MS	0.4	2	ug/L	2.44	2.5	2		0--20
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	30.1	30.2	0		0--20
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	0.53	0.542	2		0--20
Selenium, Dissolved, ICP-MS	0.5	1	ug/L	<MDL	<MDL			0--20
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	<MDL			0--20
Cadmium, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	<MDL			0--20
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	0.42	0.41			0--20

MS:WG130931-4 L59491-10 Matrix: STORM WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project:423530 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Magnesium, Dissolved, ICP-MS	50	50	ug/L	952	5000	5700	95		75--125
Calcium, Dissolved, ICP-MS	50	50	ug/L	6010	5000	10700	94		75--125
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	0.728	20	19.2	92		75--125

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Chromium, Dissolved, ICP-MS	0.2	1 ug/L	0.51	20	19.5	95	75--125
Manganese, Dissolved, ICP-MS	0.1	0.5 ug/L	20.1	20	38.6	93	75--125
Nickel, Dissolved, ICP-MS	0.1	0.5 ug/L	0.731	20	20.9	101	75--125
Copper, Dissolved, ICP-MS	0.4	2 ug/L	2.44	20	22.5	100	75--125
Zinc, Dissolved, ICP-MS	0.5	2.5 ug/L	30.1	20	50.6	103	75--125
Arsenic, Dissolved, ICP-MS	0.1	0.5 ug/L	0.53	20	20.6	100	75--125
Selenium, Dissolved, ICP-MS	0.5	1 ug/L	<MDL	20	20.9	104	75--125
Silver, Dissolved, ICP-MS	0.04	0.2 ug/L	<MDL	20	18.3	92	75--125
Cadmium, Dissolved, ICP-MS	0.05	0.25 ug/L	<MDL	20	19.8	99	75--125
Lead, Dissolved, ICP-MS	0.1	0.5 ug/L	0.42	20	18.8	92	75--125

MB:WG130931-5 Matrix: BLANK WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Magnesium, Dissolved, ICP-MS	50	50 ug/L	<MDL		
Calcium, Dissolved, ICP-MS	50	50 ug/L	<MDL		
Vanadium, Dissolved, ICP-MS	0.075	0.375 ug/L	<MDL		
Chromium, Dissolved, ICP-MS	0.2	1 ug/L	<MDL		
Manganese, Dissolved, ICP-MS	0.1	0.5 ug/L	<MDL		
Nickel, Dissolved, ICP-MS	0.1	0.5 ug/L	<MDL		
Copper, Dissolved, ICP-MS	0.4	2 ug/L	<MDL		
Zinc, Dissolved, ICP-MS	0.5	2.5 ug/L	<MDL		
Arsenic, Dissolved, ICP-MS	0.1	0.5 ug/L	<MDL		
Selenium, Dissolved, ICP-MS	0.5	1 ug/L	<MDL		
Silver, Dissolved, ICP-MS	0.04	0.2 ug/L	<MDL		
Cadmium, Dissolved, ICP-MS	0.05	0.25 ug/L	<MDL		
Lead, Dissolved, ICP-MS	0.1	0.5 ug/L	0.549 B		

MB:WG130931-6 Matrix: BLANK WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Magnesium, Dissolved, ICP-MS	50	50 ug/L	<MDL		
Calcium, Dissolved, ICP-MS	50	50 ug/L	<MDL		
Vanadium, Dissolved, ICP-MS	0.075	0.375 ug/L	<MDL		
Chromium, Dissolved, ICP-MS	0.2	1 ug/L	<MDL		
Manganese, Dissolved, ICP-MS	0.1	0.5 ug/L	<MDL		
Nickel, Dissolved, ICP-MS	0.1	0.5 ug/L	<MDL		
Copper, Dissolved, ICP-MS	0.4	2 ug/L	<MDL		
Zinc, Dissolved, ICP-MS	0.5	2.5 ug/L	<MDL		
Arsenic, Dissolved, ICP-MS	0.1	0.5 ug/L	<MDL		

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Selenium, Dissolved, ICP-MS	0.5	1 ug/L	<MDL
Silver, Dissolved, ICP-MS	0.04	0.2 ug/L	<MDL
Cadmium, Dissolved, ICP-MS	0.05	0.25 ug/L	<MDL
Lead, Dissolved, ICP-MS	0.1	0.5 ug/L	<MDL

MB:WG130931-7 Matrix: BLANK WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Magnesium, Dissolved, ICP-MS	50	50 ug/L	<MDL		
Calcium, Dissolved, ICP-MS	50	50 ug/L	<MDL		
Vanadium, Dissolved, ICP-MS	0.075	0.375 ug/L	<MDL		
Chromium, Dissolved, ICP-MS	0.2	1 ug/L	<MDL		
Manganese, Dissolved, ICP-MS	0.1	0.5 ug/L	<MDL		
Nickel, Dissolved, ICP-MS	0.1	0.5 ug/L	<MDL		
Copper, Dissolved, ICP-MS	0.4	2 ug/L	<MDL		
Zinc, Dissolved, ICP-MS	0.5	2.5 ug/L	<MDL		
Arsenic, Dissolved, ICP-MS	0.1	0.5 ug/L	<MDL		
Selenium, Dissolved, ICP-MS	0.5	1 ug/L	<MDL		
Silver, Dissolved, ICP-MS	0.04	0.2 ug/L	<MDL		
Cadmium, Dissolved, ICP-MS	0.05	0.25 ug/L	<MDL		
Lead, Dissolved, ICP-MS	0.1	0.5 ug/L	<MDL		

Workgroup: WG131550 (3/12/14 CSO BASIN DISS) Run ID: R194124

MB:WG131550-1 Matrix: BLANK WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Vanadium, Dissolved, ICP-MS	0.075	0.375 ug/L	<MDL		
Chromium, Dissolved, ICP-MS	0.2	1 ug/L	<MDL		
Nickel, Dissolved, ICP-MS	0.1	0.5 ug/L	<MDL		
Copper, Dissolved, ICP-MS	0.4	2 ug/L	<MDL		
Zinc, Dissolved, ICP-MS	0.5	2.5 ug/L	<MDL		
Arsenic, Dissolved, ICP-MS	0.1	0.5 ug/L	<MDL		
Silver, Dissolved, ICP-MS	0.04	0.2 ug/L	<MDL		
Cadmium, Dissolved, ICP-MS	0.05	0.25 ug/L	<MDL		
Lead, Dissolved, ICP-MS	0.1	0.5 ug/L	<MDL		

SB:WG131550-2 MB:WG131550-1 Matrix: BLANK WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Spike Blank, Method Blank)

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Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	<MDL	20	18.1	90		85--115
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	<MDL	20	18.3	92		85--115
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	20	19	95		85--115
Copper, Dissolved, ICP-MS	0.4	2	ug/L	<MDL	20	19.2	96		85--115
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	<MDL	20	19.7	98		85--115
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	20	18.7	93		85--115
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	20	18.5	93		85--115
Cadmium, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	20	18.8	94		85--115
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	20	18.9	94		85--115

LD:WG131550-3 L59745-3 Matrix: STORM WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD (Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	1.08	1.03	5		0--20
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	0.34	0.33			0--20
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	1.62	1.59	2		0--20
Copper, Dissolved, ICP-MS	0.4	2	ug/L	4.2	4.24	1		0--20
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	18.7	18.6	1		0--20
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	0.977	0.95	3		0--20
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	<MDL			0--20
Cadmium, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	<MDL			0--20
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	0.33	0.33			0--20

MS:WG131550-4 L59745-3 Matrix: STORM WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD (Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	1.08	20	18.6	88		75--125
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	0.34	20	17.9	88		75--125
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	1.62	20	20.2	93		75--125
Copper, Dissolved, ICP-MS	0.4	2	ug/L	4.2	20	22.6	92		75--125
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	18.7	20	37.9	96		75--125
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	0.977	20	19.9	95		75--125
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	20	17.5	88		75--125
Cadmium, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	20	18.5	93		75--125
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	0.33	20	18.6	91		75--125

Workgroup: WG132572 (5/12/14 CSO Diss) Run ID: R195394

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MB:WG132572-1 Matrix: BLANK WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	<MDL	
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	<MDL	
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	
Copper, Dissolved, ICP-MS	0.4	2	ug/L	<MDL	
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	<MDL	
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	
Cadmium, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	

SB:WG132572-2 MB:WG132572-1 Matrix: BLANK WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	<MDL	20	18.5	93		85--115
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	<MDL	20	18.8	94		85--115
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	20	21	105		85--115
Copper, Dissolved, ICP-MS	0.4	2	ug/L	<MDL	20	19.3	97		85--115
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	<MDL	20	20.7	104		85--115
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	20	20.5	102		85--115
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	20	20.3	102		85--115
Cadmium, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	20	20	100		85--115
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	20	19.6	98		85--115

LD:WG132572-3 L60299-1 Matrix: STORM WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	0.611	0.605	1		0--20
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	0.52	0.52			0--20
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	1.07	1.04	2		0--20
Copper, Dissolved, ICP-MS	0.4	2	ug/L	9.72	9.84	1		0--20
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	37.1	37.3	1		0--20
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	0.48	0.49			0--20
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	<MDL			0--20
Cadmium, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	<MDL			0--20
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	0.37	0.36			0--20

MS:WG132572-4 L60299-1 Matrix: STORM WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD

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(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	0.611	20	19.7	95		75--125
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	0.52	20	19.9	97		75--125
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	1.07	20	22.7	108		75--125
Copper, Dissolved, ICP-MS	0.4	2	ug/L	9.72	20	29.7	100		75--125
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	37.1	20	58.7	108		75--125
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	0.48	20	22	107		75--125
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	20	20.5	102		75--125
Cadmium, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	20	20.5	103		75--125
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	0.37	20	20.4	100		75--125

Workgroup: WG136055 (CSO Basin) Run ID: R199468

MB:WG136055-1 Matrix: BLANK WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	<MDL	
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	<MDL	
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	
Copper, Dissolved, ICP-MS	0.4	2	ug/L	<MDL	
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	<MDL	
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	
Cadmium, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	

SB:WG136055-2 MB:WG136055-1 Matrix: BLANK WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	<MDL	20	19	95		85--115
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	<MDL	20	19.2	96		85--115
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	20	20	100		85--115
Copper, Dissolved, ICP-MS	0.4	2	ug/L	<MDL	20	20.5	102		85--115
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	<MDL	20	19.4	97		85--115
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	20	19.3	96		85--115
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	20	19.8	99		85--115
Cadmium, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	20	19.1	95		85--115
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	20	18.6	93		85--115

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LD:WG136055-3 L61560-1 Matrix: STORM WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD (Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	0.492	0.491		0	0--20
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	0.32	0.31			0--20
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	0.673	0.681		1	0--20
Copper, Dissolved, ICP-MS	0.4	2	ug/L	4.32	4.25		2	0--20
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	24.7	25.6		3	0--20
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	0.45	0.43			0--20
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	<MDL			0--20
Cadmium, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	<MDL			0--20
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	0.531	0.537		1	0--20

MS:WG136055-4 L61560-1 Matrix: STORM WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD (Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	0.492	20	20.2	99		75--125
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	0.32	20	20	98		75--125
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	0.673	20	21.7	105		75--125
Copper, Dissolved, ICP-MS	0.4	2	ug/L	4.32	20	25.7	107		75--125
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	24.7	20	46.2	107		75--125
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	0.45	20	20.9	102		75--125
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	20	20.7	104		75--125
Cadmium, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	20	20.3	102		75--125
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	0.531	20	20.7	101		75--125

Workgroup: WG136970 (Brandom/ CSO) Run ID: R200565

MB:WG136970-1 Matrix: BLANK WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project: Pkey:STD (Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Magnesium, Dissolved, ICP-MS	50	50	ug/L	<MDL	
Calcium, Dissolved, ICP-MS	50	50	ug/L	<MDL	
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	<MDL	
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	<MDL	
Iron, Dissolved, ICP-MS	10	50	ug/L	<MDL	
Manganese, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	

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Copper, Dissolved, ICP-MS	0.4	2 ug/L	<MDL
Zinc, Dissolved, ICP-MS	0.5	2.5 ug/L	<MDL
Arsenic, Dissolved, ICP-MS	0.1	0.5 ug/L	<MDL
Selenium, Dissolved, ICP-MS	0.5	1 ug/L	<MDL
Silver, Dissolved, ICP-MS	0.04	0.2 ug/L	<MDL
Cadmium, Dissolved, ICP-MS	0.05	0.25 ug/L	<MDL
Lead, Dissolved, ICP-MS	0.1	0.5 ug/L	<MDL

SB:WG136970-2 MB:WG136970-1 Matrix: BLANK WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Magnesium, Dissolved, ICP-MS	50	50 ug/L	<MDL	5000	5200	104			85--115
Calcium, Dissolved, ICP-MS	50	50 ug/L	<MDL	5000	4750	95			85--115
Vanadium, Dissolved, ICP-MS	0.075	0.375 ug/L	<MDL	20	18.7	93			85--115
Chromium, Dissolved, ICP-MS	0.2	1 ug/L	<MDL	20	19	95			85--115
Iron, Dissolved, ICP-MS	10	50 ug/L	<MDL	5000	4830	97			85--115
Manganese, Dissolved, ICP-MS	0.1	0.5 ug/L	<MDL	20	19.8	99			85--115
Nickel, Dissolved, ICP-MS	0.1	0.5 ug/L	<MDL	20	20	100			85--115
Copper, Dissolved, ICP-MS	0.4	2 ug/L	<MDL	20	19.7	98			85--115
Zinc, Dissolved, ICP-MS	0.5	2.5 ug/L	<MDL	20	19.6	98			85--115
Arsenic, Dissolved, ICP-MS	0.1	0.5 ug/L	<MDL	20	19.3	96			85--115
Selenium, Dissolved, ICP-MS	0.5	1 ug/L	<MDL	20	19.6	98			85--115
Silver, Dissolved, ICP-MS	0.04	0.2 ug/L	<MDL	20	20.9	105			85--115
Cadmium, Dissolved, ICP-MS	0.05	0.25 ug/L	<MDL	20	19.6	98			85--115
Lead, Dissolved, ICP-MS	0.1	0.5 ug/L	<MDL	20	19.4	97			85--115

LD:WG136970-3 L61610-3 Matrix: STORM WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Vanadium, Dissolved, ICP-MS	0.075	0.375 ug/L		1.13	1.17	4		0--20
Chromium, Dissolved, ICP-MS	0.2	1 ug/L		0.28	0.29			0--20
Nickel, Dissolved, ICP-MS	0.1	0.5 ug/L		1.39	1.45	4		0--20
Copper, Dissolved, ICP-MS	0.4	2 ug/L		3.72	3.79	2		0--20
Zinc, Dissolved, ICP-MS	0.5	2.5 ug/L		11	10.9	1		0--20
Arsenic, Dissolved, ICP-MS	0.1	0.5 ug/L		1.02	1.01	1		0--20
Silver, Dissolved, ICP-MS	0.04	0.2 ug/L	<MDL	<MDL				0--20
Cadmium, Dissolved, ICP-MS	0.05	0.25 ug/L	<MDL	<MDL				0--20
Lead, Dissolved, ICP-MS	0.1	0.5 ug/L		0.33	0.33			0--20

MS:WG136970-4 L61610-3 Matrix: STORM WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project:423589-320-4 Pkey:STD

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(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	1.13	20	19.6	92		75--125
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	0.28	20	19.1	94		75--125
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	1.39	20	21.3	100		75--125
Copper, Dissolved, ICP-MS	0.4	2	ug/L	3.72	20	23.7	100		75--125
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	11	20	28.8	89		75--125
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	1.02	20	20.6	98		75--125
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	20	20.6	103		75--125
Cadmium, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	20	19.5	98		75--125
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	0.33	20	19.8	98		75--125

LD:WG136970-5 L61823-1 Matrix: STORM WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project:423530 Pkey:STD

(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Magnesium, Dissolved, ICP-MS	50	50	ug/L	10900	10800	0		0--20
Calcium, Dissolved, ICP-MS	50	50	ug/L	17000	16900	0		0--20
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	0.45	0.46			0--20
Iron, Dissolved, ICP-MS	10	50	ug/L	173	174	1		0--20
Manganese, Dissolved, ICP-MS	0.1	0.5	ug/L	45.6	45.2	1		0--20
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	2.33	2.44	5		0--20
Copper, Dissolved, ICP-MS	0.4	2	ug/L	3.51	3.52	0		0--20
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	30.4	30.2	1		0--20
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	1.26	1.25	1		0--20
Selenium, Dissolved, ICP-MS	0.5	1	ug/L	<MDL	0.67			0--20
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	<MDL			0--20
Cadmium, Dissolved, ICP-MS	0.05	0.25	ug/L	0.058	0.058			0--20
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	0.55	0.545	1		0--20

MS:WG136970-6 L61823-1 Matrix: STORM WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project:423530 Pkey:STD

(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Magnesium, Dissolved, ICP-MS	50	50	ug/L	10900	5000	15200	86		75--125
Calcium, Dissolved, ICP-MS	50	50	ug/L	17000	5000	21400	88		75--125
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	0.45	20	19.4	95		75--125
Iron, Dissolved, ICP-MS	10	50	ug/L	173	5000	4980	96		75--125
Manganese, Dissolved, ICP-MS	0.1	0.5	ug/L	45.6	20	64.1	92		75--125
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	2.33	20	22.2	100		75--125
Copper, Dissolved, ICP-MS	0.4	2	ug/L	3.51	20	23.3	99		75--125
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	30.4	20	48.3	89		75--125

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Arsenic, Dissolved, ICP-MS	0.1	0.5 ug/L	1.26	20	21	99	75--125
Selenium, Dissolved, ICP-MS	0.5	1 ug/L	<MDL	20	21.4	107	75--125
Silver, Dissolved, ICP-MS	0.04	0.2 ug/L	<MDL	20	17.8	89	75--125
Cadmium, Dissolved, ICP-MS	0.05	0.25 ug/L	0.058	20	19.7	98	75--125
Lead, Dissolved, ICP-MS	0.1	0.5 ug/L	0.55	20	20.1	98	75--125

Workgroup: WG129823 (bl#151 pahpth-sim) Run ID: R192403

MB:WG129823-1 Matrix: BLANK WTR Listtype:ORPAHPHPTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Naphthalene	0.008	0.04 ug/L	<MDL		
2-Methylnaphthalene	0.008	0.04 ug/L	<MDL		
Dimethyl Phthalate	0.04	0.2 ug/L	<MDL		
Acenaphthylene	0.008	0.04 ug/L	<MDL		
Acenaphthene	0.008	0.04 ug/L	<MDL		
Diethyl Phthalate	0.04	0.2 ug/L	0.053 B		
Fluorene	0.016	0.08 ug/L	<MDL		
Phenanthrene	0.016	0.08 ug/L	<MDL		
Anthracene	0.016	0.08 ug/L	<MDL		
Di-N-Butyl Phthalate	0.04	0.2 ug/L	<MDL		
Fluoranthene	0.016	0.08 ug/L	<MDL		
Pyrene	0.016	0.08 ug/L	<MDL		
Benzyl Butyl Phthalate	0.08	0.4 ug/L	<MDL		
Benzo(a)anthracene	0.016	0.08 ug/L	<MDL		
Chrysene	0.016	0.08 ug/L	<MDL		
Bis(2-Ethylhexyl)Phthalate	0.4	2 ug/L	<MDL		
Di-N-Octyl Phthalate	0.04	0.2 ug/L	<MDL		
Benzo(b,j,k)fluoranthene	0.016	0.08 ug/L	<MDL		
Benzo(a)pyrene	0.016	0.08 ug/L	<MDL		
Indeno(1,2,3-Cd)Pyrene	0.016	0.08 ug/L	<MDL		
Dibenzo(a,h)anthracene	0.016	0.08 ug/L	<MDL		
Benzo(g,h,i)perylene	0.016	0.08 ug/L	<MDL		

SB:WG129823-2 MB:WG129823-1 Matrix: BLANK WTR Listtype:ORPAHPHPTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Naphthalene	0.008	0.04 ug/L	<MDL		2.5	0.735	29		15--93
2-Methylnaphthalene	0.008	0.04 ug/L	<MDL		2.5	0.685	27 *		40--160

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Dimethyl Phthalate	0.04	0.2 ug/L	<MDL	2.5	2.39	96	40--160
Acenaphthylene	0.008	0.04 ug/L	<MDL	2.5	1.09	44	43--111
Acenaphthene	0.008	0.04 ug/L	<MDL	2.5	0.966	39	37--99
Diethyl Phthalate	0.04	0.2 ug/L	0.053	2.5	2.72	107	40--160
Fluorene	0.016	0.08 ug/L	<MDL	2.5	1.3	52 *	54--104
Phenanthrene	0.016	0.08 ug/L	<MDL	2.5	1.86	74	54--107
Anthracene	0.016	0.08 ug/L	<MDL	2.5	1.78	71	54--121
Di-N-Butyl Phthalate	0.04	0.2 ug/L	<MDL	2.5	2.28	91	40--160
Fluoranthene	0.016	0.08 ug/L	<MDL	2.5	2.12	85	63--115
Pyrene	0.016	0.08 ug/L	<MDL	2.5	2.41	96	54--136
Benzyl Butyl Phthalate	0.08	0.4 ug/L	<MDL	2.5	2.69	107	40--160
Benzo(a)anthracene	0.016	0.08 ug/L	<MDL	2.5	2.1	84	65--117
Chrysene	0.016	0.08 ug/L	<MDL	2.5	2.03	81	44--114
Bis(2-Ethylhexyl)Phthalate	0.4	2 ug/L	<MDL	2.5	2.58	103	40--160
Di-N-Octyl Phthalate	0.04	0.2 ug/L	<MDL	2.5	2.73	109	40--160
Benzo(b,j,k)fluoranthene	0.016	0.08 ug/L	<MDL	7.5	5.03	67	50--121
Benzo(a)pyrene	0.016	0.08 ug/L	<MDL	2.5	2.39	95	45--133
Indeno(1,2,3-Cd)Pyrene	0.016	0.08 ug/L	<MDL	2.5	2.87	115	33--152
Dibenzo(a,h)anthracene	0.016	0.08 ug/L	<MDL	2.5	3.39	135	34--140
Benzo(g,h,i)perylene	0.016	0.08 ug/L	<MDL	2.5	2.49	100	29--134

MSD:WG129823-4 MS:WG129823-3 L59155-1 Matrix: STORM WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project:423589-320-4 Pkey:STD (Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueVal	MSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Naphthalene	0.0075	0.0377	ug/L	0.105	2.36	0.88	33		24--85	2.36	1.09	42		21		0--40
2-Methylnaphthalene	0.0075	0.0377	ug/L	0.099	2.36	1.11	43		40--160	2.36	1.28	50		14		0--40
Dimethyl Phthalate	0.038	0.189	ug/L	0.053	2.36	2.64	110		40--160	2.36	2.74	114		3		0--40
Acenaphthylene	0.0075	0.0377	ug/L	0.014	2.36	1.73	73		51--103	2.36	1.81	76		4		0--40
Acenaphthene	0.0075	0.0377	ug/L	0.02	2.36	1.71	72		44--94	2.36	1.81	76		6		0--40
Diethyl Phthalate	0.038	0.189	ug/L	0.326	2.36	3.24	123		40--160	2.36	3.32	127		3		0--40
Fluorene	0.015	0.0755	ug/L	0.044	2.36	1.93	80		54--113	2.36	2.07	86		7		0--40
Phenanthrene	0.015	0.0755	ug/L	0.946	2.36	2.29	57		57--108	2.36	4.9	168 *		73 *		0--40
Anthracene	0.015	0.0755	ug/L	0.204	2.36	1.78	67		50--119	2.36	2.32	90		26		0--40
Di-N-Butyl Phthalate	0.038	0.189	ug/L	0.17	2.36	2.25	88		40--160	2.36	2.15	84		5		0--40
Fluoranthene	0.015	0.0755	ug/L	3.55	2.36	2.38	-50 *		58--115	2.36	10.8	308 *		128 *		0--40
Pyrene	0.015	0.0755	ug/L	3.33	2.36	2.58	-32 *		51--142	2.36	10.2	291 *		119 *		0--40
Benzyl Butyl Phthalate	0.075	0.377	ug/L	0.32	2.36	2.63	98		40--160	2.36	2.5	92		5		0--40
Benzo(a)anthracene	0.015	0.0755	ug/L	1.76	2.36	2	10 *		62--117	2.36	5.88	174 *		98 *		0--40
Chrysene	0.015	0.0755	ug/L	1.96	2.36	1.97	1 *		39--115	2.36	5.84	165 *		99 *		0--40
Bis(2-Ethylhexyl)Phthalate	0.38	1.89	ug/L	1.99	2.36	3.41	60		40--160	2.36	3.18	50		7		0--40

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Di-N-Octyl Phthalate	0.038	0.189 ug/L	0.17	2.36	2.62	104	40--160	2.36	2.58	102	1	0--40
Benzo(b,j,k)fluoranthene	0.015	0.0755 ug/L	5.22	7.08	4.89	-5 *	45--120	7.08	14.1	125 *	97 *	0--40
Benzo(a)pyrene	0.015	0.0755 ug/L	2.3	2.36	2.22	-3 *	38--134	2.36	6.61	183 *	99 *	0--40
Indeno(1,2,3-Cd)Pyrene	0.015	0.0755 ug/L	1.27	2.36	2.42	49	38--130	2.36	5.74	190 *	81 *	0--40
Dibenzo(a,h)anthracene	0.015	0.0755 ug/L	0.287	2.36	2.11	77	25--138	2.36	2.7	102	24	0--40
Benzo(g,h,i)perylene	0.015	0.0755 ug/L	0.85	2.36	1.93	46	25--122	2.36	3.77	124 *	65 *	0--40

LD:WG129823-5 L59155-1 Matrix: STORM WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project:423589-320-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Naphthalene	0.0079	0.0396	ug/L	0.105	0.13	21		0--40
2-Methylnaphthalene	0.0079	0.0396	ug/L	0.099	0.122	21		0--40
Dimethyl Phthalate	0.04	0.198	ug/L	0.053	0.063			0--40
Acenaphthylene	0.0079	0.0396	ug/L	0.014	0.017			0--40
Acenaphthene	0.0079	0.0396	ug/L	0.02	0.025			0--40
Diethyl Phthalate	0.04	0.198	ug/L	0.326	0.402	21		0--40
Fluorene	0.016	0.0792	ug/L	0.044	0.054			0--40
Phenanthrene	0.016	0.0792	ug/L	0.946	1.15	20		0--40
Anthracene	0.016	0.0792	ug/L	0.204	0.241	17		0--40
Di-N-Butyl Phthalate	0.04	0.198	ug/L	0.17	0.21			0--40
Fluoranthene	0.016	0.0792	ug/L	3.55	4.45	22		0--40
Pyrene	0.016	0.0792	ug/L	3.33	4.18	22		0--40
Benzyl Butyl Phthalate	0.079	0.396	ug/L	0.32	0.4			0--40
Benzo(a)anthracene	0.016	0.0792	ug/L	1.76	2.14	19		0--40
Chrysene	0.016	0.0792	ug/L	1.96	2.39	20		0--40
Bis(2-Ethylhexyl)Phthalate	0.4	1.98	ug/L	1.99	2.4	19		0--40
Di-N-Octyl Phthalate	0.04	0.198	ug/L	0.17	<MDL			0--40
Benzo(b,j,k)fluoranthene	0.016	0.0792	ug/L	5.22	6.38	20		0--40
Benzo(a)pyrene	0.016	0.0792	ug/L	2.3	2.81	20		0--40
Indeno(1,2,3-Cd)Pyrene	0.016	0.0792	ug/L	1.27	1.55	20		0--40
Dibenzo(a,h)anthracene	0.016	0.0792	ug/L	0.287	0.345	19		0--40
Benzo(g,h,i)perylene	0.016	0.0792	ug/L	0.85	1.04	20		0--40

Surrogate:	2-	d14-
(Lab Limits)	Fluorobi	Terpheny
	phenyl	l
	33--96	63--125
L59155-1	76	91
L59155-3	72	74
WG129823-1	57	86

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WG129823-2	35	88
WG129823-3	62	88
WG129823-4	65	89
WG129823-5	94	118

Workgroup: WG129996 (BL#153 phth-sim) Run ID: R192436

MB:WG129996-1 Matrix: BLANK WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Naphthalene	0.005	0.025	ug/L	<MDL	
2-Methylnaphthalene	0.005	0.025	ug/L	<MDL	
Dimethyl Phthalate	0.025	0.125	ug/L	<MDL	
Acenaphthylene	0.005	0.025	ug/L	<MDL	
Acenaphthene	0.005	0.025	ug/L	<MDL	
Diethyl Phthalate	0.025	0.125	ug/L	<MDL	
Fluorene	0.01	0.05	ug/L	<MDL	
Phenanthrene	0.01	0.05	ug/L	<MDL	
Anthracene	0.01	0.05	ug/L	<MDL	
Di-N-Butyl Phthalate	0.025	0.125	ug/L	<MDL	
Fluoranthene	0.01	0.05	ug/L	<MDL	
Pyrene	0.01	0.05	ug/L	<MDL	
Benzyl Butyl Phthalate	0.05	0.25	ug/L	<MDL	
Benzo(a)anthracene	0.01	0.05	ug/L	<MDL	
Chrysene	0.01	0.05	ug/L	<MDL	
Bis(2-Ethylhexyl)Phthalate	0.25	1.25	ug/L	<MDL	
Di-N-Octyl Phthalate	0.025	0.125	ug/L	<MDL	
Benzo(b,j,k)fluoranthene	0.01	0.05	ug/L	<MDL	
Benzo(a)pyrene	0.01	0.05	ug/L	<MDL	
Indeno(1,2,3-Cd)Pyrene	0.01	0.05	ug/L	<MDL	
Dibenzo(a,h)anthracene	0.01	0.05	ug/L	<MDL	
Benzo(g,h,i)perylene	0.01	0.05	ug/L	<MDL	

SB:WG129996-2 MB:WG129996-1 Matrix: BLANK WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Naphthalene	0.005	0.025	ug/L	<MDL	2.5	1.39	56		15--93
2-Methylnaphthalene	0.005	0.025	ug/L	<MDL	2.5	1.36	54		40--160
Dimethyl Phthalate	0.025	0.125	ug/L	<MDL	2.5	2.78	111		40--160
Acenaphthylene	0.005	0.025	ug/L	<MDL	2.5	1.85	74		43--111

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Acenaphthene	0.005	0.025 ug/L	<MDL	2.5	1.68	67	37--99
Diethyl Phthalate	0.025	0.125 ug/L	<MDL	2.5	2.86	115	40--160
Fluorene	0.01	0.05 ug/L	<MDL	2.5	1.84	74	54--104
Phenanthrene	0.01	0.05 ug/L	<MDL	2.5	2.2	88	54--107
Anthracene	0.01	0.05 ug/L	<MDL	2.5	2.08	83	54--121
Di-N-Butyl Phthalate	0.025	0.125 ug/L	<MDL	2.5	2.33	93	40--160
Fluoranthene	0.01	0.05 ug/L	<MDL	2.5	2.2	88	63--115
Pyrene	0.01	0.05 ug/L	<MDL	2.5	2.52	101	54--136
Benzyl Butyl Phthalate	0.05	0.25 ug/L	<MDL	2.5	2.81	112	40--160
Benzo(a)anthracene	0.01	0.05 ug/L	<MDL	2.5	2.13	85	65--117
Chrysene	0.01	0.05 ug/L	<MDL	2.5	2.01	80	44--114
Bis(2-Ethylhexyl)Phthalate	0.25	1.25 ug/L	<MDL	2.5	2.66	106	40--160
Di-N-Octyl Phthalate	0.025	0.125 ug/L	<MDL	2.5	2.82	113	40--160
Benzo(b,j,k)fluoranthene	0.01	0.05 ug/L	<MDL	7.5	5.17	69	50--121
Benzo(a)pyrene	0.01	0.05 ug/L	<MDL	2.5	2.46	98	45--133
Indeno(1,2,3-Cd)Pyrene	0.01	0.05 ug/L	<MDL	2.5	2.69	108	33--152
Dibenzo(a,h)anthracene	0.01	0.05 ug/L	<MDL	2.5	1.27	51	34--140
Benzo(g,h,i)perylene	0.01	0.05 ug/L	<MDL	2.5	2.6	104	29--134

MSD:WG129996-4 MS:WG129996-3 L59241-1 Matrix: STORM WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project:423589-320-4 Pkey:STD (Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueVal	MSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Naphthalene	0.0047	0.0236	ug/L	0.018	2.36	1.16	48	24--85	2.36	1.19	50	3	0--40			
2-Methylnaphthalene	0.0047	0.0236	ug/L	0.0076	2.36	1.31	55	40--160	2.36	1.38	58	5	0--40			
Dimethyl Phthalate	0.024	0.118	ug/L	0.052	2.36	2.78	116	40--160	2.36	2.86	119	3	0--40			
Acenaphthylene	0.0047	0.0236	ug/L	<MDL	2.36	1.85	79	51--103	2.36	1.95	83	5	0--40			
Acenaphthene	0.0047	0.0236	ug/L	<MDL	2.36	1.79	76	44--94	2.36	1.86	79	3	0--40			
Diethyl Phthalate	0.024	0.118	ug/L	0.372	2.36	3.16	118	40--160	2.36	3.2	120	1	0--40			
Fluorene	0.0094	0.0472	ug/L	<MDL	2.36	2.05	87	54--113	2.36	2.08	88	1	0--40			
Phenanthrene	0.0094	0.0472	ug/L	0.0717	2.36	2.22	91	57--108	2.36	2.22	91	0	0--40			
Anthracene	0.0094	0.0472	ug/L	0.0099	2.36	1.98	84	50--119	2.36	2	84	1	0--40			
Di-N-Butyl Phthalate	0.024	0.118	ug/L	0.084	2.36	2.21	90	40--160	2.36	2.19	89	1	0--40			
Fluoranthene	0.0094	0.0472	ug/L	0.133	2.36	2.1	83	58--115	2.36	2.08	83	1	0--40			
Pyrene	0.0094	0.0472	ug/L	0.128	2.36	2.32	93	51--142	2.36	2.27	91	2	0--40			
Benzyl Butyl Phthalate	0.047	0.236	ug/L	0.22	2.36	2.74	107	40--160	2.36	2.76	107	1	0--40			
Benzo(a)anthracene	0.0094	0.0472	ug/L	0.038	2.36	1.89	79	62--117	2.36	1.92	80	1	0--40			
Chrysene	0.0094	0.0472	ug/L	0.0713	2.36	1.78	72	39--115	2.36	1.78	73	0	0--40			
Bis(2-Ethylhexyl)Phthalate	0.24	1.18	ug/L	0.77	2.36	2.88	89	40--160	2.36	2.89	90	0	0--40			
Di-N-Octyl Phthalate	0.024	0.118	ug/L	0.094	2.36	2.83	116	40--160	2.36	2.91	119	3	0--40			
Benzo(b,j,k)fluoranthene	0.0094	0.0472	ug/L	0.161	7.08	4.79	65	45--120	7.08	4.88	67	2	0--40			

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Benzo(a)pyrene	0.0094	0.0472 ug/L	0.0543	2.36	2.23	92	38--134	2.36	2.27	94	2	0--40
Indeno(1,2,3-Cd)Pyrene	0.0094	0.0472 ug/L	0.042	2.36	1.76	73	38--130	2.36	1.77	73	1	0--40
Dibenzo(a,h)anthracene	0.0094	0.0472 ug/L	<MDL	2.36	0.792	34	25--138	2.36	0.676	29	16	0--40
Benzo(g,h,i)perylene	0.0094	0.0472 ug/L	0.03	2.36	1.46	61	25--122	2.36	1.33	55	9	0--40

Surrogate:	2-	d14-
(Lab Limits)	Fluorobi	Terpheny
	phenyl	l
	33--96	63--125
L59241-1	35	81
L59241-3	71	76
WG129996-1	68	89
WG129996-2	64	87
WG129996-3	61	84
WG129996-4	65	85

Workgroup: WG130696 (BL#163 pahphth-SIM) Run ID: R193240

MB:WG130696-1 Matrix: BLANK WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD (Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Naphthalene	0.008	0.04 ug/L	<MDL		
2-Methylnaphthalene	0.008	0.04 ug/L	<MDL		
Dimethyl Phthalate	0.04	0.2 ug/L	<MDL		
Acenaphthylene	0.008	0.04 ug/L	<MDL		
Acenaphthene	0.008	0.04 ug/L	<MDL		
Diethyl Phthalate	0.04	0.2 ug/L	<MDL		
Fluorene	0.016	0.08 ug/L	<MDL		
Phenanthrene	0.016	0.08 ug/L	<MDL		
Anthracene	0.016	0.08 ug/L	<MDL		
Di-N-Butyl Phthalate	0.04	0.2 ug/L	<MDL		
Fluoranthene	0.016	0.08 ug/L	<MDL		
Pyrene	0.016	0.08 ug/L	<MDL		
Benzyl Butyl Phthalate	0.08	0.4 ug/L	<MDL		
Benzo(a)anthracene	0.016	0.08 ug/L	<MDL		
Chrysene	0.016	0.08 ug/L	<MDL		
Bis(2-Ethylhexyl)Phthalate	0.4	2 ug/L	<MDL		
Di-N-Octyl Phthalate	0.04	0.2 ug/L	<MDL		
Benzo(b,j,k)fluoranthene	0.016	0.08 ug/L	<MDL		
Benzo(a)pyrene	0.016	0.08 ug/L	<MDL		

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Indeno(1,2,3-Cd)Pyrene 0.016 0.08 ug/L <MDL
Dibenzo(a,h)anthracene 0.016 0.08 ug/L <MDL
Benzo(g,h,i)perylene 0.016 0.08 ug/L <MDL

SBD:WG130696-3 SB:WG130696-2 MB:WG130696-1 Matrix: BLANK WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD
(Spiked Blank Duplicate, Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit	TrueVal	SBD Value	% Rec.	Qual	RPD	Qual	LabLimit
Naphthalene	0.008	0.04	ug/L	<MDL	5	3.01	60		15--93	5	3.21	64		6		0--40
2-Methylnaphthalene	0.008	0.04	ug/L	<MDL	5	3.47	69		40--160	5	3.71	74		7		0--40
Dimethyl Phthalate	0.04	0.2	ug/L	<MDL	2.5	2.37	95		40--160	2.5	2.47	99		4		0--40
Acenaphthylene	0.008	0.04	ug/L	<MDL	5	3.62	72		43--111	5	3.79	76		5		0--40
Acenaphthene	0.008	0.04	ug/L	<MDL	5	3.49	70		37--99	5	3.67	73		5		0--40
Diethyl Phthalate	0.04	0.2	ug/L	<MDL	2.5	2.48	99		40--160	2.5	2.38	95		4		0--40
Fluorene	0.016	0.08	ug/L	<MDL	5	4.2	84		54--104	5	4.45	89		6		0--40
Phenanthrene	0.016	0.08	ug/L	<MDL	5	4.26	85		54--107	5	4.39	88		3		0--40
Anthracene	0.016	0.08	ug/L	<MDL	5	4.31	86		54--121	5	4.44	89		3		0--40
Di-N-Butyl Phthalate	0.04	0.2	ug/L	<MDL	2.5	2.32	93		40--160	2.5	2.32	93		0		0--40
Fluoranthene	0.016	0.08	ug/L	<MDL	5	4.63	93		63--115	5	4.66	93		1		0--40
Pyrene	0.016	0.08	ug/L	<MDL	5	4.93	99		54--136	5	4.96	99		1		0--40
Benzyl Butyl Phthalate	0.08	0.4	ug/L	<MDL	2.5	2.52	101		40--160	2.5	2.51	101		0		0--40
Benzo(a)anthracene	0.016	0.08	ug/L	<MDL	5	4.34	87		65--117	5	4.38	88		1		0--40
Chrysene	0.016	0.08	ug/L	<MDL	5	4.52	90		44--114	5	4.48	90		1		0--40
Bis(2-Ethylhexyl)Phthalate	0.4	2	ug/L	<MDL	2.5	2.35	94		40--160	2.5	3.2	128		31		0--40
Di-N-Octyl Phthalate	0.04	0.2	ug/L	<MDL	2.5	2.61	104		40--160	2.5	2.61	104		0		0--40
Benzo(b,j,k)fluoranthene	0.016	0.08	ug/L	<MDL	15	11.9	80		50--121	15	11.9	79		0		0--40
Benzo(a)pyrene	0.016	0.08	ug/L	<MDL	5	4.57	91		45--133	5	4.66	93		2		0--40
Indeno(1,2,3-Cd)Pyrene	0.016	0.08	ug/L	<MDL	5	4.85	97		33--152	5	4.92	98		1		0--40
Dibenzo(a,h)anthracene	0.016	0.08	ug/L	<MDL	5	5.67	113		34--140	5	5.89	118		4		0--40
Benzo(g,h,i)perylene	0.016	0.08	ug/L	<MDL	5	4.66	93		29--134	5	4.71	94		1		0--40

MS:WG130696-4 L59471-2 Matrix: STORM WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project:423589-320-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Naphthalene	0.38	1.89	ug/L	50.3	4.72	56.7	137	*	24--85
2-Methylnaphthalene	0.38	1.89	ug/L	143	4.72	154	236	*	40--160
Dimethyl Phthalate	0.19	0.943	ug/L	1.03	2.36	3.72	114		40--160
Acenaphthylene	0.038	0.189	ug/L	3.68	4.72	7.41	79		51--103
Acenaphthene	0.038	0.189	ug/L	3.63	4.72	7.31	78		44--94
Diethyl Phthalate	0.19	0.943	ug/L	0.77	2.36	3.06	97		40--160
Fluorene	0.075	0.377	ug/L	8.02	4.72	11.8	81		54--113

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Phenanthrene	0.075	0.377 ug/L	16	4.72	17.7	37 *	57--108
Anthracene	0.075	0.377 ug/L	1.78	4.72	5.8	85	50--119
Di-N-Butyl Phthalate	0.19	0.943 ug/L	0.74	2.36	2.5	75	40--160
Fluoranthene	0.075	0.377 ug/L	1.37	4.72	4.78	72	58--115
Pyrene	0.075	0.377 ug/L	4.53	4.72	7.75	68	51--142
Benzyl Butyl Phthalate	0.38	1.89 ug/L	0.57	2.36	2.16	67	40--160
Benzo(a)anthracene	0.075	0.377 ug/L	<MDL	4.72	4.26	90	62--117
Chrysene	0.075	0.377 ug/L	<MDL	4.72	4.47	95	39--115
Bis(2-Ethylhexyl)Phthalate	1.9	9.43 ug/L	8.1	2.36	8.6	18 *	40--160
Di-N-Octyl Phthalate	0.19	0.943 ug/L	<MDL	2.36	2.36	100	40--160
Benzo(b,j,k)fluoranthene	0.075	0.377 ug/L	0.672	14.2	11.1	73	45--120
Benzo(a)pyrene	0.075	0.377 ug/L	<MDL	4.72	4.51	96	38--134
Indeno(1,2,3-Cd)Pyrene	0.075	0.377 ug/L	0.25	4.72	3.6	71	38--130
Dibenzo(a,h)anthracene	0.075	0.377 ug/L	<MDL	4.72	3.98	84	25--138
Benzo(g,h,i)perylene	0.075	0.377 ug/L	0.36	4.72	3.33	63	25--122

	2-	d14-
	Fluorobi	Terpheny
Surrogate:	phenyl	I
(Lab Limits)	33--96	63--125
L59471-1	67	84
L59471-2	78	91
L59471-3	57	83
WG130696-1	41	89
WG130696-2	60	93
WG130696-3	63	92
WG130696-4	80	88

Workgroup: WG131154 (bl#168 pahphth-sim) Run ID: R193986

MB:WG131154-1 Matrix: BLANK WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Naphthalene	0.008	0.04 ug/L	<MDL		
2-Methylnaphthalene	0.008	0.04 ug/L	<MDL		
Dimethyl Phthalate	0.04	0.2 ug/L	<MDL		
Acenaphthylene	0.008	0.04 ug/L	<MDL		
Acenaphthene	0.008	0.04 ug/L	<MDL		
Diethyl Phthalate	0.04	0.2 ug/L		0.1 B	
Fluorene	0.016	0.08 ug/L	<MDL		

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Phenanthrene	0.016	0.08 ug/L	<MDL
Anthracene	0.016	0.08 ug/L	<MDL
Di-N-Butyl Phthalate	0.04	0.2 ug/L	<MDL
Fluoranthene	0.016	0.08 ug/L	<MDL
Pyrene	0.016	0.08 ug/L	<MDL
Benzyl Butyl Phthalate	0.08	0.4 ug/L	<MDL
Benzo(a)anthracene	0.016	0.08 ug/L	<MDL
Chrysene	0.016	0.08 ug/L	<MDL
Bis(2-Ethylhexyl)Phthalate	0.4	2 ug/L	0.41 B
Di-N-Octyl Phthalate	0.04	0.2 ug/L	<MDL
Benzo(b,j,k)fluoranthene	0.016	0.08 ug/L	<MDL
Benzo(a)pyrene	0.016	0.08 ug/L	<MDL
Indeno(1,2,3-Cd)Pyrene	0.016	0.08 ug/L	<MDL
Dibenzo(a,h)anthracene	0.016	0.08 ug/L	<MDL
Benzo(g,h,i)perylene	0.016	0.08 ug/L	<MDL

SBD:WG131154-3 SB:WG131154-2 MB:WG131154-1 Matrix: BLANK WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD
(Spiked Blank Duplicate, Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit	TrueVal	SBD Value	% Rec.	Qual	RPD	Qual	LabLimit
Naphthalene	0.008	0.04 ug/L	<MDL		2.5	1.37	55		15--93	2.5	1.5	60		9		0--40
2-Methylnaphthalene	0.008	0.04 ug/L	<MDL		2.5	1.71	68		40--160	2.5	1.81	73		6		0--40
Dimethyl Phthalate	0.04	0.2 ug/L	<MDL		2.5	2.34	94		40--160	2.5	2.36	94		1		0--40
Acenaphthylene	0.008	0.04 ug/L	<MDL		2.5	1.93	77		43--111	2.5	2.02	81		5		0--40
Acenaphthene	0.008	0.04 ug/L	<MDL		2.5	1.79	71		37--99	2.5	1.84	74		3		0--40
Diethyl Phthalate	0.04	0.2 ug/L		0.1	2.5	2.97	115		40--160	2.5	2.97	115		0		0--40
Fluorene	0.016	0.08 ug/L	<MDL		2.5	2.15	86		54--104	2.5	2.18	87		2		0--40
Phenanthrene	0.016	0.08 ug/L	<MDL		2.5	2.14	86		54--107	2.5	2.17	87		1		0--40
Anthracene	0.016	0.08 ug/L	<MDL		2.5	2.14	86		54--121	2.5	2.15	86		1		0--40
Di-N-Butyl Phthalate	0.04	0.2 ug/L	<MDL		2.5	1.43	57		40--160	2.5	1.96	78		31		0--40
Fluoranthene	0.016	0.08 ug/L	<MDL		2.5	2.4	96		63--115	2.5	2.46	98		2		0--40
Pyrene	0.016	0.08 ug/L	<MDL		2.5	2.39	95		54--136	2.5	2.53	101		6		0--40
Benzyl Butyl Phthalate	0.08	0.4 ug/L	<MDL		2.5	3.27	131		40--160	2.5	3.55	142		8		0--40
Benzo(a)anthracene	0.016	0.08 ug/L	<MDL		2.5	2.31	92		65--117	2.5	2.38	95		3		0--40
Chrysene	0.016	0.08 ug/L	<MDL		2.5	1.98	79		44--114	2.5	2.05	82		3		0--40
Bis(2-Ethylhexyl)Phthalate	0.4	2 ug/L		0.41	2.5	3.62	129		40--160	2.5	4.22	153		15		0--40
Di-N-Octyl Phthalate	0.04	0.2 ug/L	<MDL		2.5	3.24	130		40--160	2.5	3.5	140		8		0--40
Benzo(b,j,k)fluoranthene	0.016	0.08 ug/L	<MDL		7.5	5.08	68		50--121	7.5	5.23	70		3		0--40
Benzo(a)pyrene	0.016	0.08 ug/L	<MDL		2.5	2.72	109		45--133	2.5	2.79	112		3		0--40
Indeno(1,2,3-Cd)Pyrene	0.016	0.08 ug/L	<MDL		2.5	2.62	105		33--152	2.5	2.72	109		4		0--40
Dibenzo(a,h)anthracene	0.016	0.08 ug/L	<MDL		2.5	2.13	85		34--140	2.5	2.29	92		7		0--40

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Benzo(g,h,i)perylene 0.016 0.08 ug/L <MDL 2.5 2.67 107 29--134 2.5 2.78 111 4 0--40

MS:WG131154-4 L59681-1 Matrix: STORM WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project:423589-320-4 Pkey:STD (Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Naphthalene	0.0075	0.0377	ug/L	0.034	2.36	1.23	51		24--85
2-Methylnaphthalene	0.0075	0.0377	ug/L	<MDL	2.36	1.52	64		40--160
Dimethyl Phthalate	0.038	0.189	ug/L	<MDL	2.36	2.2	93		40--160
Acenaphthylene	0.0075	0.0377	ug/L	<MDL	2.36	1.64	69		51--103
Acenaphthene	0.0075	0.0377	ug/L	<MDL	2.36	1.6	68		44--94
Diethyl Phthalate	0.038	0.189	ug/L	0.249	2.36	3.2	125		40--160
Fluorene	0.015	0.0755	ug/L	<MDL	2.36	2.19	93		54--113
Phenanthrene	0.015	0.0755	ug/L	0.0847	2.36	2.4	98		57--108
Anthracene	0.015	0.0755	ug/L	<MDL	2.36	2.23	95		50--119
Di-N-Butyl Phthalate	0.038	0.189	ug/L	0.12	2.36	1.76	70		40--160
Fluoranthene	0.015	0.0755	ug/L	0.187	2.36	2.78	110		58--115
Pyrene	0.015	0.0755	ug/L	0.163	2.36	2.94	118		51--142
Benzyl Butyl Phthalate	0.075	0.377	ug/L	0.14	2.36	4.29	176 *		40--160
Benzo(a)anthracene	0.015	0.0755	ug/L	0.056	2.36	2.61	108		62--117
Chrysene	0.015	0.0755	ug/L	0.102	2.36	2.19	89		39--115
Bis(2-Ethylhexyl)Phthalate	0.38	1.89	ug/L	4.22	2.36	6.48	96		40--160
Di-N-Octyl Phthalate	0.038	0.189	ug/L	0.083	2.36	4.49	187 *		40--160
Benzo(b,j,k)fluoranthene	0.015	0.0755	ug/L	0.198	7.08	5.57	76		45--120
Benzo(a)pyrene	0.015	0.0755	ug/L	0.0822	2.36	2.97	122		38--134
Indeno(1,2,3-Cd)Pyrene	0.015	0.0755	ug/L	0.0848	2.36	2.83	116		38--130
Dibenzo(a,h)anthracene	0.015	0.0755	ug/L	0.017	2.36	2.1	88		25--138
Benzo(g,h,i)perylene	0.015	0.0755	ug/L	0.0864	2.36	2.74	112		25--122

Surrogate:	2-Fluorobiphenyl	d14-Terphenyl
(Lab Limits)	33--96	63--125
L59681-1	60	106
L59681-2	105 *	90
L59681-3	42	98
WG131154-1	67	94
WG131154-2	61	94
WG131154-3	61	95
WG131154-4	58	107

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Workgroup: WG131288 (BL#172 pahphth-sim) Run ID: R194449

MB:WG131288-1 Matrix: BLANK WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Naphthalene	0.008	0.04	ug/L	<MDL	
2-Methylnaphthalene	0.008	0.04	ug/L	<MDL	
Dimethyl Phthalate	0.04	0.2	ug/L	<MDL	
Acenaphthylene	0.008	0.04	ug/L	<MDL	
Acenaphthene	0.008	0.04	ug/L	<MDL	
Diethyl Phthalate	0.04	0.2	ug/L	<MDL	
Fluorene	0.016	0.08	ug/L	<MDL	
Phenanthrene	0.016	0.08	ug/L	<MDL	
Anthracene	0.016	0.08	ug/L	<MDL	
Di-N-Butyl Phthalate	0.04	0.2	ug/L	<MDL	
Fluoranthene	0.016	0.08	ug/L	<MDL	
Pyrene	0.016	0.08	ug/L	<MDL	
Benzyl Butyl Phthalate	0.08	0.4	ug/L	<MDL	
Benzo(a)anthracene	0.016	0.08	ug/L	<MDL	
Chrysene	0.016	0.08	ug/L	<MDL	
Bis(2-Ethylhexyl)Phthalate	0.4	2	ug/L	<MDL	
Di-N-Octyl Phthalate	0.04	0.2	ug/L	<MDL	
Benzo(b,j,k)fluoranthene	0.016	0.08	ug/L	<MDL	
Benzo(a)pyrene	0.016	0.08	ug/L	<MDL	
Indeno(1,2,3-Cd)Pyrene	0.016	0.08	ug/L	<MDL	
Dibenzo(a,h)anthracene	0.016	0.08	ug/L	<MDL	
Benzo(g,h,i)perylene	0.016	0.08	ug/L	<MDL	

SBD:WG131288-3 SB:WG131288-2 MB:WG131288-1 Matrix: BLANK WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD
(Spiked Blank Duplicate, Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit	TrueVal	SBD Value	% Rec.	Qual	RPD	Qual	LabLimit
Naphthalene	0.008	0.04	ug/L	<MDL	2.5	0.55	22		15--93	2.5	0.518	21		6		0--40
2-Methylnaphthalene	0.008	0.04	ug/L	<MDL	2.5	0.536	21 *		40--160	2.5	0.503	20 *		6		0--40
Dimethyl Phthalate	0.04	0.2	ug/L	<MDL	2.5	1.94	77		40--160	2.5	2.35	94		19		0--40
Acenaphthylene	0.008	0.04	ug/L	<MDL	2.5	0.937	37 *		43--111	2.5	1.11	44		17		0--40
Acenaphthene	0.008	0.04	ug/L	<MDL	2.5	0.784	31 *		37--99	2.5	0.927	37		17		0--40
Diethyl Phthalate	0.04	0.2	ug/L	<MDL	2.5	2.5	100		40--160	2.5	3.06	122		20		0--40
Fluorene	0.016	0.08	ug/L	<MDL	2.5	1.26	50 *		54--104	2.5	1.56	62		21		0--40
Phenanthrene	0.016	0.08	ug/L	<MDL	2.5	1.77	71		54--107	2.5	2.06	82		15		0--40
Anthracene	0.016	0.08	ug/L	<MDL	2.5	1.76	70		54--121	2.5	2.05	82		15		0--40

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Di-N-Butyl Phthalate	0.04	0.2 ug/L	<MDL	2.5	2.26	90	40--160	2.5	2.38	95	6	0--40
Fluoranthene	0.016	0.08 ug/L	<MDL	2.5	2.29	92	63--115	2.5	2.39	95	4	0--40
Pyrene	0.016	0.08 ug/L	<MDL	2.5	1.96	78	54--136	2.5	2.12	85	8	0--40
Benzyl Butyl Phthalate	0.08	0.4 ug/L	<MDL	2.5	2.72	109	40--160	2.5	2.83	113	4	0--40
Benzo(a)anthracene	0.016	0.08 ug/L	<MDL	2.5	2.21	88	65--117	2.5	2.34	94	6	0--40
Chrysene	0.016	0.08 ug/L	<MDL	2.5	1.81	72	44--114	2.5	1.96	78	8	0--40
Bis(2-Ethylhexyl)Phthalate	0.4	2 ug/L	<MDL	2.5	3.25	130	40--160	2.5	3.31	132	2	0--40
Di-N-Octyl Phthalate	0.04	0.2 ug/L	<MDL	2.5	2.85	114	40--160	2.5	2.94	117	3	0--40
Benzo(b,j,k)fluoranthene	0.016	0.08 ug/L	<MDL	7.5	4.58	61	50--121	7.5	4.85	65	6	0--40
Benzo(a)pyrene	0.016	0.08 ug/L	<MDL	2.5	2.44	98	45--133	2.5	2.63	105	8	0--40
Indeno(1,2,3-Cd)Pyrene	0.016	0.08 ug/L	<MDL	2.5	2.86	114	33--152	2.5	3.1	124	8	0--40
Dibenzo(a,h)anthracene	0.016	0.08 ug/L	<MDL	2.5	1.84	74	34--140	2.5	1.9	76	3	0--40
Benzo(g,h,i)perylene	0.016	0.08 ug/L	<MDL	2.5	2.64	106	29--134	2.5	2.93	117	10	0--40

MS:WG131288-4 L59745-3 Matrix: STORM WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project:423589-320-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Naphthalene	0.0075	0.0377	ug/L	0.0607	2.38	1.1	44		24--85
2-Methylnaphthalene	0.0075	0.0377	ug/L	0.152	2.38	1.59	60		40--160
Dimethyl Phthalate	0.038	0.189	ug/L	<MDL	2.38	2.43	102		40--160
Acenaphthylene	0.0075	0.0377	ug/L	<MDL	2.38	1.85	78		51--103
Acenaphthene	0.0075	0.0377	ug/L	<MDL	2.38	1.76	74		44--94
Diethyl Phthalate	0.038	0.189	ug/L	0.613	2.38	3.54	123		40--160
Fluorene	0.015	0.0755	ug/L	0.051	2.38	2.23	92		54--113
Phenanthrene	0.015	0.0755	ug/L	0.0978	2.38	2.19	88		57--108
Anthracene	0.015	0.0755	ug/L	<MDL	2.38	2.04	86		50--119
Di-N-Butyl Phthalate	0.038	0.189	ug/L	0.19	2.38	2.14	82		40--160
Fluoranthene	0.015	0.0755	ug/L	<MDL	2.38	2.05	86		58--115
Pyrene	0.015	0.0755	ug/L	<MDL	2.38	1.81	76		51--142
Benzyl Butyl Phthalate	0.075	0.377	ug/L	0.11	2.38	2.68	108		40--160
Benzo(a)anthracene	0.015	0.0755	ug/L	<MDL	2.38	2.01	85		62--117
Chrysene	0.015	0.0755	ug/L	<MDL	2.38	1.66	70		39--115
Bis(2-Ethylhexyl)Phthalate	0.38	1.89	ug/L	0.72	2.38	3.86	132		40--160
Di-N-Octyl Phthalate	0.038	0.189	ug/L	<MDL	2.38	3.01	126		40--160
Benzo(b,j,k)fluoranthene	0.015	0.0755	ug/L	<MDL	7.14	4.18	59		45--120
Benzo(a)pyrene	0.015	0.0755	ug/L	<MDL	2.38	2.32	97		38--134
Indeno(1,2,3-Cd)Pyrene	0.015	0.0755	ug/L	<MDL	2.38	2.65	111		38--130
Dibenzo(a,h)anthracene	0.015	0.0755	ug/L	<MDL	2.38	1.65	69		25--138
Benzo(g,h,i)perylene	0.015	0.0755	ug/L	<MDL	2.38	2.48	104		25--122

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Surrogate: (Lab Limits)	2- Fluorobi phenyl 33--96	d14- Terpheny l 63--125
L59745-1	61	77
L59745-2	59	80
L59745-3	76	100
WG131288-1	63	83
WG131288-2	49	81
WG131288-3	52	83
WG131288-4	71	84

Workgroup: WG131494 (bl#178 pahphth-sim) Run ID: R194520

MB:WG131494-1 Matrix: BLANK WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Naphthalene	0.008	0.04	ug/L	<MDL	
2-Methylnaphthalene	0.008	0.04	ug/L	<MDL	
Dimethyl Phthalate	0.04	0.2	ug/L	<MDL	
Acenaphthylene	0.008	0.04	ug/L	<MDL	
Acenaphthene	0.008	0.04	ug/L	<MDL	
Diethyl Phthalate	0.04	0.2	ug/L	0.072	B
Fluorene	0.016	0.08	ug/L	<MDL	
Phenanthrene	0.016	0.08	ug/L	<MDL	
Anthracene	0.016	0.08	ug/L	<MDL	
Di-N-Butyl Phthalate	0.04	0.2	ug/L	<MDL	
Fluoranthene	0.016	0.08	ug/L	<MDL	
Pyrene	0.016	0.08	ug/L	<MDL	
Benzyl Butyl Phthalate	0.08	0.4	ug/L	<MDL	
Benzo(a)anthracene	0.016	0.08	ug/L	<MDL	
Chrysene	0.016	0.08	ug/L	<MDL	
Bis(2-Ethylhexyl)Phthalate	0.4	2	ug/L	<MDL	
Di-N-Octyl Phthalate	0.04	0.2	ug/L	<MDL	
Benzo(b,j,k)fluoranthene	0.016	0.08	ug/L	<MDL	
Benzo(a)pyrene	0.016	0.08	ug/L	<MDL	
Indeno(1,2,3-Cd)Pyrene	0.016	0.08	ug/L	<MDL	
Dibenzo(a,h)anthracene	0.016	0.08	ug/L	<MDL	
Benzo(g,h,i)perylene	0.016	0.08	ug/L	<MDL	

LIMSView QC Report for Michigan Basin CSO - Data Validation for Storm Events - Metals & Organics

SB:WG131494-2 MB:WG131494-1 Matrix: BLANK WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Naphthalene	0.008	0.04	ug/L	<MDL	2.5	1.24	50		15--93
2-Methylnaphthalene	0.008	0.04	ug/L	<MDL	2.5	1.35	54		40--160
Dimethyl Phthalate	0.04	0.2	ug/L	<MDL	2.5	2.23	89		40--160
Acenaphthylene	0.008	0.04	ug/L	<MDL	2.5	1.84	73		43--111
Acenaphthene	0.008	0.04	ug/L	<MDL	2.5	1.62	65		37--99
Diethyl Phthalate	0.04	0.2	ug/L	0.072	2.5	2.9	113		40--160
Fluorene	0.016	0.08	ug/L	<MDL	2.5	2	80		54--104
Phenanthrene	0.016	0.08	ug/L	<MDL	2.5	2.04	82		54--107
Anthracene	0.016	0.08	ug/L	<MDL	2.5	2.02	81		54--121
Di-N-Butyl Phthalate	0.04	0.2	ug/L	<MDL	2.5	2.27	91		40--160
Fluoranthene	0.016	0.08	ug/L	<MDL	2.5	2.13	85		63--115
Pyrene	0.016	0.08	ug/L	<MDL	2.5	1.95	78		54--136
Benzyl Butyl Phthalate	0.08	0.4	ug/L	<MDL	2.5	2.85	114		40--160
Benzo(a)anthracene	0.016	0.08	ug/L	<MDL	2.5	2.04	82		65--117
Chrysene	0.016	0.08	ug/L	<MDL	2.5	1.86	75		44--114
Bis(2-Ethylhexyl)Phthalate	0.4	2	ug/L	<MDL	2.5	3.56	142		40--160
Di-N-Octyl Phthalate	0.04	0.2	ug/L	<MDL	2.5	3.03	121		40--160
Benzo(b,j,k)fluoranthene	0.016	0.08	ug/L	<MDL	7.5	4.49	60		50--121
Benzo(a)pyrene	0.016	0.08	ug/L	<MDL	2.5	2.27	91		45--133
Indeno(1,2,3-Cd)Pyrene	0.016	0.08	ug/L	<MDL	2.5	2.83	113		33--152
Dibenzo(a,h)anthracene	0.016	0.08	ug/L	<MDL	2.5	2.49	100		34--140
Benzo(g,h,i)perylene	0.016	0.08	ug/L	<MDL	2.5	2.84	114		29--134

MSD:WG131494-4 MS:WG131494-3 L59833-1 Matrix: STORM WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project:423589-320-4 Pkey:STD
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueValue	MSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Naphthalene	0.0075	0.0377	ug/L	4.44	2.36	6.43	84		24--85	2.36	6.95	106 *		8		0--40
2-Methylnaphthalene	0.038	0.189	ug/L	22.6	2.36	22.2	-18 *		40--160	2.36	18.1	-191 *		20		0--40
Dimethyl Phthalate	0.038	0.189	ug/L	0.207	2.36	2.67	104		40--160	2.36	2.6	101		3		0--40
Acenaphthylene	0.0075	0.0377	ug/L	0.715	2.36	3.01	97		51--103	2.36	3.11	102		3		0--40
Acenaphthene	0.0075	0.0377	ug/L	0.563	2.36	2.75	93		44--94	2.36	3	103 *		9		0--40
Diethyl Phthalate	0.038	0.189	ug/L	0.605	2.36	3.44	120		40--160	2.36	3.59	127		4		0--40
Fluorene	0.015	0.0755	ug/L	2.26	2.36	5.15	123 *		54--113	2.36	7.13	207 *		32		0--40
Phenanthrene	0.015	0.0755	ug/L	3.62	2.36	6.12	106		57--108	2.36	7.26	154 *		17		0--40
Anthracene	0.015	0.0755	ug/L	0.378	2.36	2.47	89		50--119	2.36	2.73	100		10		0--40
Di-N-Butyl Phthalate	0.038	0.189	ug/L	0.314	2.36	2.62	98		40--160	2.36	2.66	100		2		0--40
Fluoranthene	0.015	0.0755	ug/L	0.586	2.36	2.73	91		58--115	2.36	2.79	94		2		0--40

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Pyrene	0.015	0.0755 ug/L	1.96	2.36	3.63	71	51--142	2.36	4.17	93	14	0--40
Benzyl Butyl Phthalate	0.075	0.377 ug/L	0.809	2.36	4.07	138	40--160	2.36	4.09	139	0	0--40
Benzo(a)anthracene	0.015	0.0755 ug/L	0.348	2.36	2.6	95	62--117	2.36	2.67	98	2	0--40
Chrysene	0.015	0.0755 ug/L	0.362	2.36	2.25	80	39--115	2.36	2.29	82	2	0--40
Bis(2-Ethylhexyl)Phthalate	0.38	1.89 ug/L	2.98	2.36	6.94	168 *	40--160	2.36	7.39	187 *	6	0--40
Di-N-Octyl Phthalate	0.038	0.189 ug/L	0.14	2.36	3.65	149	40--160	2.36	3.49	142	5	0--40
Benzo(b,j,k)fluoranthene	0.015	0.0755 ug/L	0.48	7.08	4.9	63	45--120	7.08	5.01	64	2	0--40
Benzo(a)pyrene	0.015	0.0755 ug/L	1.08	2.36	3.7	111	38--134	2.36	3.99	123	7	0--40
Indeno(1,2,3-Cd)Pyrene	0.015	0.0755 ug/L	0.416	2.36	3.04	111	38--130	2.36	3.03	111	0	0--40
Dibenzo(a,h)anthracene	0.015	0.0755 ug/L	0.028	2.36	2.28	96	25--138	2.36	2.13	89	7	0--40
Benzo(g,h,i)perylene	0.015	0.0755 ug/L	1.04	2.36	3.42	101	25--122	2.36	3.52	105	3	0--40

	2-	d14-
	Fluorobi	Terpheny
Surrogate:	phenyl	l
(Lab Limits)	33--96	63--125
L59833-1	73	71
L59833-2	56	78
WG131494-1	69	82
WG131494-2	68	80
WG131494-3	93	82
WG131494-4	100 *	80

Workgroup: WG132256 (BL#192 pahpth-sim) Run ID: R195534

MB:WG132256-1 Matrix: BLANK WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Naphthalene	0.008	0.04 ug/L	<MDL		
2-Methylnaphthalene	0.008	0.04 ug/L	<MDL		
Dimethyl Phthalate	0.04	0.2 ug/L	<MDL		
Acenaphthylene	0.008	0.04 ug/L	<MDL		
Acenaphthene	0.008	0.04 ug/L	<MDL		
Diethyl Phthalate	0.04	0.2 ug/L	<MDL		
Fluorene	0.016	0.08 ug/L	<MDL		
Phenanthrene	0.016	0.08 ug/L	<MDL		
Anthracene	0.016	0.08 ug/L	<MDL		
Di-N-Butyl Phthalate	0.04	0.2 ug/L	<MDL		
Fluoranthene	0.016	0.08 ug/L	<MDL		
Pyrene	0.016	0.08 ug/L	<MDL		

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Benzyl Butyl Phthalate	0.08	0.4 ug/L	<MDL
Benzo(a)anthracene	0.016	0.08 ug/L	<MDL
Chrysene	0.016	0.08 ug/L	<MDL
Bis(2-Ethylhexyl)Phthalate	0.4	2 ug/L	<MDL
Di-N-Octyl Phthalate	0.04	0.2 ug/L	<MDL
Benzo(b,j,k)fluoranthene	0.016	0.08 ug/L	<MDL
Benzo(a)pyrene	0.016	0.08 ug/L	<MDL
Indeno(1,2,3-Cd)Pyrene	0.016	0.08 ug/L	<MDL
Dibenzo(a,h)anthracene	0.016	0.08 ug/L	<MDL
Benzo(g,h,i)perylene	0.016	0.08 ug/L	<MDL

SB:WG132256-2 MB:WG132256-1 Matrix: BLANK WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Naphthalene	0.008	0.04 ug/L	<MDL	2.5	1.1	44		15--93	
2-Methylnaphthalene	0.008	0.04 ug/L	<MDL	2.5	1.35	54		40--160	
Dimethyl Phthalate	0.04	0.2 ug/L	<MDL	2.5	1.9	76		40--160	
Acenaphthylene	0.008	0.04 ug/L	<MDL	2.5	1.4	56		43--111	
Acenaphthene	0.008	0.04 ug/L	<MDL	2.5	1.57	63		37--99	
Diethyl Phthalate	0.04	0.2 ug/L	<MDL	2.5	2.4	96		40--160	
Fluorene	0.016	0.08 ug/L	<MDL	2.5	1.71	68		54--104	
Phenanthrene	0.016	0.08 ug/L	<MDL	2.5	2.13	85		54--107	
Anthracene	0.016	0.08 ug/L	<MDL	2.5	2.24	90		54--121	
Di-N-Butyl Phthalate	0.04	0.2 ug/L	<MDL	2.5	2.63	105		40--160	
Fluoranthene	0.016	0.08 ug/L	<MDL	2.5	2.79	111		63--115	
Pyrene	0.016	0.08 ug/L	<MDL	2.5	2.19	88		54--136	
Benzyl Butyl Phthalate	0.08	0.4 ug/L	<MDL	2.5	2.82	113		40--160	
Benzo(a)anthracene	0.016	0.08 ug/L	<MDL	2.5	2.51	100		65--117	
Chrysene	0.016	0.08 ug/L	<MDL	2.5	2.18	87		44--114	
Bis(2-Ethylhexyl)Phthalate	0.4	2 ug/L	<MDL	2.5	3.15	126		40--160	
Di-N-Octyl Phthalate	0.04	0.2 ug/L	<MDL	2.5	3.13	125		40--160	
Benzo(b,j,k)fluoranthene	0.016	0.08 ug/L	<MDL	5	5.47	109		50--121	
Benzo(a)pyrene	0.016	0.08 ug/L	<MDL	2.5	3.09	124		45--133	
Indeno(1,2,3-Cd)Pyrene	0.016	0.08 ug/L	<MDL	2.5	2.88	115		33--152	
Dibenzo(a,h)anthracene	0.016	0.08 ug/L	<MDL	2.5	1.3	52		34--140	
Benzo(g,h,i)perylene	0.016	0.08 ug/L	<MDL	2.5	2.79	111		29--134	

MSD:WG132256-4 MS:WG132256-3 L60114-1 Matrix: STORM WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project:423589-320-4 Pkey:STD
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueValue	MSD Value	% Rec.	Qual	RPD	Qual	LabLimit
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Naphthalene	0.0075	0.0377 ug/L	0.0397	2.36	1.36	56	24--85	2.36	1.42	59	5	0--40
2-Methylnaphthalene	0.0075	0.0377 ug/L	<MDL	2.36	2.02	86	40--160	2.36	2.18	92	7	0--40
Dimethyl Phthalate	0.038	0.189 ug/L	0.072	2.36	2.59	107	40--160	2.36	2.36	97	9	0--40
Acenaphthylene	0.0075	0.0377 ug/L	<MDL	2.36	1.79	76	51--103	2.36	1.71	73	4	0--40
Acenaphthene	0.0075	0.0377 ug/L	<MDL	2.36	2.04	86	44--94	2.36	2	85	2	0--40
Diethyl Phthalate	0.038	0.189 ug/L	0.189	2.36	3.04	121	40--160	2.36	2.24	87	30	0--40
Fluorene	0.015	0.0755 ug/L	<MDL	2.36	2.02	86	54--113	2.36	1.93	82	5	0--40
Phenanthrene	0.015	0.0755 ug/L	0.056	2.36	1.51	62	57--108	2.36	1.35	55 *	11	0--40
Anthracene	0.015	0.0755 ug/L	<MDL	2.36	2.16	92	50--119	2.36	2.33	99	7	0--40
Di-N-Butyl Phthalate	0.038	0.189 ug/L	<MDL	2.36	1.58	67	40--160	2.36	1.59	67	1	0--40
Fluoranthene	0.015	0.0755 ug/L	0.21	2.36	1.52	56 *	58--115	2.36	1.58	58	3	0--40
Pyrene	0.015	0.0755 ug/L	0.122	2.36	1.2	46 *	51--142	2.36	1.36	52	12	0--40
Benzyl Butyl Phthalate	0.075	0.377 ug/L	0.1	2.36	1.74	69	40--160	2.36	1.85	74	6	0--40
Benzo(a)anthracene	0.015	0.0755 ug/L	0.058	2.36	1.31	53 *	62--117	2.36	1.41	57 *	8	0--40
Chrysene	0.015	0.0755 ug/L	0.0769	2.36	1.02	40	39--115	2.36	1.1	43	7	0--40
Bis(2-Ethylhexyl)Phthalate	0.38	1.89 ug/L	0.69	2.36	2.6	81	40--160	2.36	2.85	92	9	0--40
Di-N-Octyl Phthalate	0.038	0.189 ug/L	<MDL	2.36	2.01	85	40--160	2.36	2.08	88	3	0--40
Benzo(b,j,k)fluoranthene	0.015	0.0755 ug/L	0.139	4.72	2.74	55	45--120	4.72	2.88	58	5	0--40
Benzo(a)pyrene	0.015	0.0755 ug/L	0.069	2.36	1.53	62	38--134	2.36	1.61	65	5	0--40
Indeno(1,2,3-Cd)Pyrene	0.015	0.0755 ug/L	0.054	2.36	1.35	55	38--130	2.36	1.4	57	3	0--40
Dibenzo(a,h)anthracene	0.015	0.0755 ug/L	<MDL	2.36	0.628	27	25--138	2.36	0.679	29	8	0--40
Benzo(g,h,i)perylene	0.015	0.0755 ug/L	0.044	2.36	1.23	50	25--122	2.36	1.25	51	2	0--40

Surrogate:	2-	d14-
(Lab Limits)	Fluorobi	Terpheny
	phenyl	l
	33--96	63--125
L60114-1	67	67
L60114-2	57	57 *
L60114-3	51	68
WG132256-1	48	74
WG132256-2	50	73
WG132256-3	73	63
WG132256-4	68	65

Workgroup: WG132664 (bl#199 pahphth-sim) Run ID: R195953

MB:WG132664-1 Matrix: BLANK WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
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Naphthalene	0.008	0.04 ug/L	<MDL
2-Methylnaphthalene	0.008	0.04 ug/L	<MDL
Dimethyl Phthalate	0.04	0.2 ug/L	<MDL
Acenaphthylene	0.008	0.04 ug/L	<MDL
Acenaphthene	0.008	0.04 ug/L	<MDL
Diethyl Phthalate	0.04	0.2 ug/L	0.06 B
Fluorene	0.016	0.08 ug/L	<MDL
Phenanthrene	0.016	0.08 ug/L	<MDL
Anthracene	0.016	0.08 ug/L	<MDL
Di-N-Butyl Phthalate	0.04	0.2 ug/L	<MDL
Fluoranthene	0.016	0.08 ug/L	<MDL
Pyrene	0.016	0.08 ug/L	<MDL
Benzyl Butyl Phthalate	0.08	0.4 ug/L	<MDL
Benzo(a)anthracene	0.016	0.08 ug/L	<MDL
Chrysene	0.016	0.08 ug/L	<MDL
Bis(2-Ethylhexyl)Phthalate	0.4	2 ug/L	<MDL
Di-N-Octyl Phthalate	0.04	0.2 ug/L	<MDL
Benzo(b,j,k)fluoranthene	0.016	0.08 ug/L	<MDL
Benzo(a)pyrene	0.016	0.08 ug/L	<MDL
Indeno(1,2,3-Cd)Pyrene	0.016	0.08 ug/L	<MDL
Dibenzo(a,h)anthracene	0.016	0.08 ug/L	<MDL
Benzo(g,h,i)perylene	0.016	0.08 ug/L	<MDL

SB:WG132664-2 MB:WG132664-1 Matrix: BLANK WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Naphthalene	0.008	0.04 ug/L	<MDL		2.5	0.792	32		15--93
2-Methylnaphthalene	0.008	0.04 ug/L	<MDL		2.5	0.776	31 *		40--160
Dimethyl Phthalate	0.04	0.2 ug/L	<MDL		2.5	2.81	112		40--160
Acenaphthylene	0.008	0.04 ug/L	<MDL		2.5	1.69	68		43--111
Acenaphthene	0.008	0.04 ug/L	<MDL		2.5	1.22	49		37--99
Diethyl Phthalate	0.04	0.2 ug/L	0.06		2.5	2.95	116		40--160
Fluorene	0.016	0.08 ug/L	<MDL		2.5	2.02	81		54--104
Phenanthrene	0.016	0.08 ug/L	<MDL		2.5	2.35	94		54--107
Anthracene	0.016	0.08 ug/L	<MDL		2.5	2.08	83		54--121
Di-N-Butyl Phthalate	0.04	0.2 ug/L	<MDL		2.5	2.67	107		40--160
Fluoranthene	0.016	0.08 ug/L	<MDL		2.5	2.65	106		63--115
Pyrene	0.016	0.08 ug/L	<MDL		2.5	2.39	96		54--136
Benzyl Butyl Phthalate	0.08	0.4 ug/L	<MDL		2.5	2.56	102		40--160
Benzo(a)anthracene	0.016	0.08 ug/L	<MDL		2.5	2.49	99		65--117

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Chrysene	0.016	0.08 ug/L	<MDL	2.5	2.27	91	44--114
Bis(2-Ethylhexyl)Phthalate	0.4	2 ug/L	<MDL	2.5	2.4	96	40--160
Di-N-Octyl Phthalate	0.04	0.2 ug/L	<MDL	2.5	2.65	106	40--160
Benzo(b,j,k)fluoranthene	0.016	0.08 ug/L	<MDL	5	5.4	108	50--121
Benzo(a)pyrene	0.016	0.08 ug/L	<MDL	2.5	2.95	118	45--133
Indeno(1,2,3-Cd)Pyrene	0.016	0.08 ug/L	<MDL	2.5	2.46	98	33--152
Dibenzo(a,h)anthracene	0.016	0.08 ug/L	<MDL	2.5	2.99	120	34--140
Benzo(g,h,i)perylene	0.016	0.08 ug/L	<MDL	2.5	2.91	116	29--134

MSD:WG132664-4 MS:WG132664-3 L60299-1 Matrix: STORM WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project:423589-320-4 Pkey:STD (Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueVal	MSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Naphthalene	0.0075	0.0377	ug/L	0.0389	2.36	0.913	37		24--85	2.36	0.785	32		15		0--40
2-Methylnaphthalene	0.0075	0.0377	ug/L	<MDL	2.36	1.02	43		40--160	2.36	0.852	36 *		18		0--40
Dimethyl Phthalate	0.038	0.189	ug/L	0.13	2.36	3.17	129		40--160	2.36	3.19	130		1		0--40
Acenaphthylene	0.0075	0.0377	ug/L	<MDL	2.36	2.1	89		51--103	2.36	1.96	83		7		0--40
Acenaphthene	0.0075	0.0377	ug/L	0.0079	2.36	1.58	67		44--94	2.36	1.46	62		8		0--40
Diethyl Phthalate	0.038	0.189	ug/L	0.537	2.36	3.58	129		40--160	2.36	3.63	131		1		0--40
Fluorene	0.015	0.0755	ug/L	<MDL	2.36	2.45	104		54--113	2.36	2.36	100		4		0--40
Phenanthrene	0.015	0.0755	ug/L	0.074	2.36	2.39	98		57--108	2.36	2.38	98		0		0--40
Anthracene	0.015	0.0755	ug/L	<MDL	2.36	1.92	82		50--119	2.36	1.93	82		0		0--40
Di-N-Butyl Phthalate	0.038	0.189	ug/L	0.24	2.36	2.67	103		40--160	2.36	2.65	102		1		0--40
Fluoranthene	0.015	0.0755	ug/L	0.172	2.36	2.39	94		58--115	2.36	2.36	93		1		0--40
Pyrene	0.015	0.0755	ug/L	0.116	2.36	2.3	93		51--142	2.36	2.32	93		1		0--40
Benzyl Butyl Phthalate	0.075	0.377	ug/L	0.2	2.36	2.42	94		40--160	2.36	2.43	94		0		0--40
Benzo(a)anthracene	0.015	0.0755	ug/L	0.036	2.36	2.16	90		62--117	2.36	2.18	91		1		0--40
Chrysene	0.015	0.0755	ug/L	0.043	2.36	1.88	78		39--115	2.36	1.89	78		1		0--40
Bis(2-Ethylhexyl)Phthalate	0.38	1.89	ug/L	0.53	2.36	2.77	95		40--160	2.36	2.85	98		3		0--40
Di-N-Octyl Phthalate	0.038	0.189	ug/L	0.054	2.36	2.51	104		40--160	2.36	2.53	105		1		0--40
Benzo(b,j,k)fluoranthene	0.015	0.0755	ug/L	0.0773	4.72	4.74	99		45--120	4.72	4.83	101		2		0--40
Benzo(a)pyrene	0.015	0.0755	ug/L	0.03	2.36	2.42	101		38--134	2.36	2.46	103		2		0--40
Indeno(1,2,3-Cd)Pyrene	0.015	0.0755	ug/L	0.029	2.36	1.93	81		38--130	2.36	1.36	56		35		0--40
Dibenzo(a,h)anthracene	0.015	0.0755	ug/L	<MDL	2.36	2.09	89		25--138	2.36	1.55	66		30		0--40
Benzo(g,h,i)perylene	0.015	0.0755	ug/L	0.027	2.36	2.11	89		25--122	2.36	1.52	63		33		0--40

Surrogate:
(Lab Limits)
L60299-1

2-
Fluorobi
phenyl

d14-
Terpheny
l

33--96
64

63--125
125

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L60299-2	95	93
L60299-3	101 *	94
WG132664-1	75	103
WG132664-2	81	93
WG132664-3	85	93
WG132664-4	61	94

Workgroup: WG135659 (bl#247 pahpth-sim) Run ID: R199320

MB:WG135659-1 Matrix: BLANK WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Naphthalene	0.008	0.04	ug/L	<MDL	
2-Methylnaphthalene	0.008	0.04	ug/L	<MDL	
Dimethyl Phthalate	0.04	0.2	ug/L	<MDL	
Acenaphthylene	0.008	0.04	ug/L	<MDL	
Acenaphthene	0.008	0.04	ug/L	<MDL	
Diethyl Phthalate	0.04	0.2	ug/L	0.12	B
Fluorene	0.016	0.08	ug/L	<MDL	
Phenanthrene	0.016	0.08	ug/L	<MDL	
Anthracene	0.016	0.08	ug/L	<MDL	
Di-N-Butyl Phthalate	0.04	0.2	ug/L	0.088	B
Fluoranthene	0.016	0.08	ug/L	<MDL	
Pyrene	0.016	0.08	ug/L	<MDL	
Benzyl Butyl Phthalate	0.08	0.4	ug/L	<MDL	
Benzo(a)anthracene	0.016	0.08	ug/L	<MDL	
Chrysene	0.016	0.08	ug/L	<MDL	
Bis(2-Ethylhexyl)Phthalate	0.4	2	ug/L	<MDL	
Di-N-Octyl Phthalate	0.04	0.2	ug/L	<MDL	
Benzo(b,j,k)fluoranthene	0.016	0.08	ug/L	<MDL	
Benzo(a)pyrene	0.016	0.08	ug/L	<MDL	
Indeno(1,2,3-Cd)Pyrene	0.016	0.08	ug/L	<MDL	
Dibenzo(a,h)anthracene	0.016	0.08	ug/L	<MDL	
Benzo(g,h,i)perylene	0.016	0.08	ug/L	<MDL	

SBD:WG135659-3 SB:WG135659-2 MB:WG135659-1 Matrix: BLANK WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD
(Spiked Blank Duplicate, Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit	TrueVal	SBD Value	% Rec.	Qual	RPD	Qual	LabLimit
Naphthalene	0.008	0.04	ug/L	<MDL	2.5	1.13	45	15--93	2.5	1.12	45	0	0--40			
2-Methylnaphthalene	0.008	0.04	ug/L	<MDL	2.5	1.15	46	40--160	2.5	1.17	47	1	0--40			

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Dimethyl Phthalate	0.04	0.2 ug/L	<MDL	2.5	1.75	70	40--160	2.5	1.86	75	6	0--40
Acenaphthylene	0.008	0.04 ug/L	<MDL	2.5	1.35	54	43--111	2.5	1.4	56	4	0--40
Acenaphthene	0.008	0.04 ug/L	<MDL	2.5	1.25	50	37--99	2.5	1.3	52	4	0--40
Diethyl Phthalate	0.04	0.2 ug/L	0.12	2.5	2.54	97	40--160	2.5	2.66	101	4	0--40
Fluorene	0.016	0.08 ug/L	<MDL	2.5	1.41	56	54--104	2.5	1.44	58	2	0--40
Phenanthrene	0.016	0.08 ug/L	<MDL	2.5	1.63	65	54--107	2.5	1.72	69	5	0--40
Anthracene	0.016	0.08 ug/L	<MDL	2.5	1.58	63	54--121	2.5	1.67	67	6	0--40
Di-N-Butyl Phthalate	0.04	0.2 ug/L	0.088	2.5	2.48	96	40--160	2.5	2.64	102	6	0--40
Fluoranthene	0.016	0.08 ug/L	<MDL	2.5	2.21	88	63--115	2.5	2.34	94	6	0--40
Pyrene	0.016	0.08 ug/L	<MDL	2.5	2.16	86	54--136	2.5	2.31	92	7	0--40
Benzyl Butyl Phthalate	0.08	0.4 ug/L	<MDL	2.5	2.42	97	40--160	2.5	2.65	106	9	0--40
Benzo(a)anthracene	0.016	0.08 ug/L	<MDL	2.5	2.28	91	65--117	2.5	2.42	97	6	0--40
Chrysene	0.016	0.08 ug/L	<MDL	2.5	2.27	91	44--114	2.5	2.41	96	6	0--40
Bis(2-Ethylhexyl)Phthalate	0.4	2 ug/L	<MDL	2.5	2.64	106	40--160	2.5	2.57	103	3	0--40
Di-N-Octyl Phthalate	0.04	0.2 ug/L	<MDL	2.5	2.48	99	40--160	2.5	2.63	105	6	0--40
Benzo(b,j,k)fluoranthene	0.016	0.08 ug/L	<MDL	7.5	4.86	65	50--121	7.5	5.14	69	6	0--40
Benzo(a)pyrene	0.016	0.08 ug/L	<MDL	2.5	2.25	90	45--133	2.5	2.38	95	6	0--40
Indeno(1,2,3-Cd)Pyrene	0.016	0.08 ug/L	<MDL	2.5	2.4	96	33--152	2.5	2.56	102	7	0--40
Dibenzo(a,h)anthracene	0.016	0.08 ug/L	<MDL	2.5	1.51	60	34--140	2.5	1.6	64	6	0--40
Benzo(g,h,i)perylene	0.016	0.08 ug/L	<MDL	2.5	2.39	96	29--134	2.5	2.55	102	6	0--40

MS:WG135659-4 L60387-2 Matrix: STORM WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project:423589-320-4 Pkey:STD (Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Naphthalene	0.075	0.377 ug/L		9.72	2.36	11	52		24--85
2-Methylnaphthalene	0.075	0.377 ug/L		25.8	2.36	27	49		40--160
Dimethyl Phthalate	0.038	0.189 ug/L	<MDL		2.36	2.12	90		40--160
Acenaphthylene	0.0075	0.0377 ug/L		0.244	2.36	1.64	59		51--103
Acenaphthene	0.0075	0.0377 ug/L		0.62	2.36	1.98	57		44--94
Diethyl Phthalate	0.038	0.189 ug/L		0.944	2.36	3.55	111		40--160
Fluorene	0.015	0.0755 ug/L		1.3	2.36	2.94	69		54--113
Phenanthrene	0.015	0.0755 ug/L		3.02	2.36	4.74	73		57--108
Anthracene	0.015	0.0755 ug/L	<MDL		2.36	1.39	59		50--119
Di-N-Butyl Phthalate	0.038	0.189 ug/L		0.407	2.36	4.12	158		40--160
Fluoranthene	0.015	0.0755 ug/L		0.222	2.36	1.61	59		58--115
Pyrene	0.015	0.0755 ug/L		0.944	2.36	2.57	69		51--142
Benzyl Butyl Phthalate	0.075	0.377 ug/L		0.34	2.36	1.9	66		40--160
Benzo(a)anthracene	0.015	0.0755 ug/L		0.208	2.36	1.25	44 *		62--117
Chrysene	0.015	0.0755 ug/L		0.275	2.36	1.88	68		39--115
Bis(2-Ethylhexyl)Phthalate	0.38	1.89 ug/L		5.72	2.36	45.1	1668 *		40--160

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Di-N-Octyl Phthalate	0.038	0.189 ug/L	0.276	2.36	2.77	106	40--160
Benzo(b,j,k)fluoranthene	0.015	0.0755 ug/L	0.247	7.08	3.42	45	45--120
Benzo(a)pyrene	0.015	0.0755 ug/L	0.204	2.36	1.48	54	38--134
Indeno(1,2,3-Cd)Pyrene	0.015	0.0755 ug/L	0.072	2.36	1.14	45	38--130
Dibenzo(a,h)anthracene	0.015	0.0755 ug/L	<MDL	2.36	0.7	30	25--138
Benzo(g,h,i)perylene	0.015	0.0755 ug/L	0.0915	2.36	0.722	27	25--122

Surrogate:	2-	d14-
(Lab Limits)	Fluorobi	Terpheny
	phenyl	l
	33--96	63--125
L60387-2	78	93
L60387-3	53	93
WG135659-1	69	100
WG135659-2	58	97
WG135659-3	63	102
WG135659-4	75	94

Workgroup: WG135835 (PAHPHTH-SIM bl#249) Run ID: R199310

MB:WG135835-1 Matrix: BLANK WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Naphthalene	0.008	0.04 ug/L	<MDL		
2-Methylnaphthalene	0.008	0.04 ug/L	<MDL		
Dimethyl Phthalate	0.04	0.2 ug/L	<MDL		
Acenaphthylene	0.008	0.04 ug/L	<MDL		
Acenaphthene	0.008	0.04 ug/L	<MDL		
Diethyl Phthalate	0.04	0.2 ug/L		0.18 B	
Fluorene	0.016	0.08 ug/L	<MDL		
Phenanthrene	0.016	0.08 ug/L	<MDL		
Anthracene	0.016	0.08 ug/L	<MDL		
Di-N-Butyl Phthalate	0.04	0.2 ug/L	<MDL		
Fluoranthene	0.016	0.08 ug/L	<MDL		
Pyrene	0.016	0.08 ug/L	<MDL		
Benzyl Butyl Phthalate	0.08	0.4 ug/L	<MDL		
Benzo(a)anthracene	0.016	0.08 ug/L	<MDL		
Chrysene	0.016	0.08 ug/L	<MDL		
Bis(2-Ethylhexyl)Phthalate	0.4	2 ug/L	<MDL		
Di-N-Octyl Phthalate	0.04	0.2 ug/L	<MDL		

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Benzo(b,j,k)fluoranthene	0.016	0.08 ug/L	<MDL
Benzo(a)pyrene	0.016	0.08 ug/L	<MDL
Indeno(1,2,3-Cd)Pyrene	0.016	0.08 ug/L	<MDL
Dibenzo(a,h)anthracene	0.016	0.08 ug/L	<MDL
Benzo(g,h,i)perylene	0.016	0.08 ug/L	<MDL

SB:WG135835-2 MB:WG135835-1 Matrix: BLANK WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Naphthalene	0.008	0.04 ug/L	<MDL		2.5	1.49	60		15--93
2-Methylnaphthalene	0.008	0.04 ug/L	<MDL		2.5	1.75	70		40--160
Dimethyl Phthalate	0.04	0.2 ug/L	<MDL		2.5	1.94	77		40--160
Acenaphthylene	0.008	0.04 ug/L	<MDL		2.5	1.81	72		43--111
Acenaphthene	0.008	0.04 ug/L	<MDL		2.5	1.7	68		37--99
Diethyl Phthalate	0.04	0.2 ug/L	0.18		2.5	2.86	107		40--160
Fluorene	0.016	0.08 ug/L	<MDL		2.5	1.77	71		54--104
Phenanthrene	0.016	0.08 ug/L	<MDL		2.5	1.76	70		54--107
Anthracene	0.016	0.08 ug/L	<MDL		2.5	1.7	68		54--121
Di-N-Butyl Phthalate	0.04	0.2 ug/L	<MDL		2.5	2.25	90		40--160
Fluoranthene	0.016	0.08 ug/L	<MDL		2.5	2.1	84		63--115
Pyrene	0.016	0.08 ug/L	<MDL		2.5	2	80		54--136
Benzyl Butyl Phthalate	0.08	0.4 ug/L	<MDL		2.5	2.18	87		40--160
Benzo(a)anthracene	0.016	0.08 ug/L	<MDL		2.5	2.11	85		65--117
Chrysene	0.016	0.08 ug/L	<MDL		2.5	2.1	84		44--114
Bis(2-Ethylhexyl)Phthalate	0.4	2 ug/L	<MDL		2.5	2.18	87		40--160
Di-N-Octyl Phthalate	0.04	0.2 ug/L	<MDL		2.5	2.25	90		40--160
Benzo(b,j,k)fluoranthene	0.016	0.08 ug/L	<MDL		7.5	4.53	60		50--121
Benzo(a)pyrene	0.016	0.08 ug/L	<MDL		2.5	2.09	84		45--133
Indeno(1,2,3-Cd)Pyrene	0.016	0.08 ug/L	<MDL		2.5	1.86	75		33--152
Dibenzo(a,h)anthracene	0.016	0.08 ug/L	<MDL		2.5	1.88	75		34--140
Benzo(g,h,i)perylene	0.016	0.08 ug/L	<MDL		2.5	1.75	70		29--134

MSD:WG135835-4 MS:WG135835-3 L61501-3 Matrix: STORM WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project:423589-320-4 Pkey:STD
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueVal	MSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Naphthalene	0.0075	0.0377 ug/L		0.034	2.36	1.51	63		24--85	2.36	1.6	67		6		0--40
2-Methylnaphthalene	0.0075	0.0377 ug/L		0.0383	2.36	1.66	69		40--160	2.36	1.79	74		7		0--40
Dimethyl Phthalate	0.038	0.189 ug/L		0.041	2.36	1.83	76		40--160	2.36	2.05	85		11		0--40
Acenaphthylene	0.0075	0.0377 ug/L	<MDL		2.36	1.62	69		51--103	2.36	1.77	75		8		0--40
Acenaphthene	0.0075	0.0377 ug/L		0.015	2.36	1.57	66		44--94	2.36	1.73	73		9		0--40

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Diethyl Phthalate	0.038	0.189 ug/L	1.27	2.36	3.09	77	40--160	2.36	4.59	141	39	0--40
Fluorene	0.015	0.0755 ug/L	0.037	2.36	1.65	68	54--113	2.36	1.82	76	10	0--40
Phenanthrene	0.015	0.0755 ug/L	0.121	2.36	1.68	66	57--108	2.36	1.82	72	8	0--40
Anthracene	0.015	0.0755 ug/L	<MDL	2.36	1.47	62	50--119	2.36	1.6	68	8	0--40
Di-N-Butyl Phthalate	0.038	0.189 ug/L	0.11	2.36	2	80	40--160	2.36	2.19	88	9	0--40
Fluoranthene	0.015	0.0755 ug/L	0.192	2.36	1.81	69	58--115	2.36	1.97	75	8	0--40
Pyrene	0.015	0.0755 ug/L	0.167	2.36	1.78	68	51--142	2.36	1.94	75	9	0--40
Benzyl Butyl Phthalate	0.075	0.377 ug/L	0.093	2.36	1.95	79	40--160	2.36	2.16	88	10	0--40
Benzo(a)anthracene	0.015	0.0755 ug/L	0.048	2.36	1.67	69	62--117	2.36	1.84	76	10	0--40
Chrysene	0.015	0.0755 ug/L	0.111	2.36	1.69	67	39--115	2.36	1.86	74	9	0--40
Bis(2-Ethylhexyl)Phthalate	0.38	1.89 ug/L	1.3	2.36	3.47	94	40--160	2.36	2.75	63	23	0--40
Di-N-Octyl Phthalate	0.038	0.189 ug/L	<MDL	2.36	2.08	88	40--160	2.36	2.34	99	12	0--40
Benzo(b,j,k)fluoranthene	0.015	0.0755 ug/L	0.188	7.08	3.65	49	45--120	7.08	4.04	54	10	0--40
Benzo(a)pyrene	0.015	0.0755 ug/L	0.064	2.36	1.66	67	38--134	2.36	1.84	75	10	0--40
Indeno(1,2,3-Cd)Pyrene	0.015	0.0755 ug/L	0.055	2.36	1.43	58	38--130	2.36	1.49	61	4	0--40
Dibenzo(a,h)anthracene	0.015	0.0755 ug/L	<MDL	2.36	1.28	54	25--138	2.36	1.38	58	7	0--40
Benzo(g,h,i)perylene	0.015	0.0755 ug/L	0.047	2.36	1.32	54	25--122	2.36	1.33	54	1	0--40

Surrogate:	2-	d14-
(Lab Limits)	Fluorobi	Terpheny
	phenyl	I
	33--96	63--125
L61501-2	63	73
L61501-3	75	87
WG135835-1	65	89
WG135835-2	78	89
WG135835-3	76	90
WG135835-4	75	87

Workgroup: WG135984 (pahphth-SIM bl#251) Run ID: R199506

MB:WG135984-1 Matrix: BLANK WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD (Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Naphthalene	0.008	0.04 ug/L	<MDL		
2-Methylnaphthalene	0.008	0.04 ug/L	<MDL		
Dimethyl Phthalate	0.04	0.2 ug/L	<MDL		
Acenaphthylene	0.008	0.04 ug/L	<MDL		
Acenaphthene	0.008	0.04 ug/L	<MDL		
Diethyl Phthalate	0.04	0.2 ug/L	1.11 B		

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Fluorene	0.016	0.08 ug/L	<MDL
Phenanthrene	0.016	0.08 ug/L	<MDL
Anthracene	0.016	0.08 ug/L	<MDL
Di-N-Butyl Phthalate	0.04	0.2 ug/L	<MDL
Fluoranthene	0.016	0.08 ug/L	<MDL
Pyrene	0.016	0.08 ug/L	<MDL
Benzyl Butyl Phthalate	0.08	0.4 ug/L	<MDL
Benzo(a)anthracene	0.016	0.08 ug/L	<MDL
Chrysene	0.016	0.08 ug/L	<MDL
Bis(2-Ethylhexyl)Phthalate	0.4	2 ug/L	<MDL
Di-N-Octyl Phthalate	0.04	0.2 ug/L	<MDL
Benzo(b,j,k)fluoranthene	0.016	0.08 ug/L	<MDL
Benzo(a)pyrene	0.016	0.08 ug/L	<MDL
Indeno(1,2,3-Cd)Pyrene	0.016	0.08 ug/L	<MDL
Dibenzo(a,h)anthracene	0.016	0.08 ug/L	<MDL
Benzo(g,h,i)perylene	0.016	0.08 ug/L	<MDL

SB:WG135984-2 MB:WG135984-1 Matrix: BLANK WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Naphthalene	0.008	0.04 ug/L	<MDL		2.5	1.14	46		15--93
2-Methylnaphthalene	0.008	0.04 ug/L	<MDL		2.5	1.39	56		40--160
Dimethyl Phthalate	0.04	0.2 ug/L	<MDL		2.5	1.99	79		40--160
Acenaphthylene	0.008	0.04 ug/L	<MDL		2.5	1.6	64		43--111
Acenaphthene	0.008	0.04 ug/L	<MDL		2.5	1.49	60		37--99
Diethyl Phthalate	0.04	0.2 ug/L		1.11	2.5	3.1	80		40--160
Fluorene	0.016	0.08 ug/L	<MDL		2.5	1.72	69		54--104
Phenanthrene	0.016	0.08 ug/L	<MDL		2.5	1.84	74		54--107
Anthracene	0.016	0.08 ug/L	<MDL		2.5	1.8	72		54--121
Di-N-Butyl Phthalate	0.04	0.2 ug/L	<MDL		2.5	2.43	97		40--160
Fluoranthene	0.016	0.08 ug/L	<MDL		2.5	2.26	90		63--115
Pyrene	0.016	0.08 ug/L	<MDL		2.5	2.09	83		54--136
Benzyl Butyl Phthalate	0.08	0.4 ug/L	<MDL		2.5	2.33	93		40--160
Benzo(a)anthracene	0.016	0.08 ug/L	<MDL		2.5	2.18	87		65--117
Chrysene	0.016	0.08 ug/L	<MDL		2.5	2.21	88		44--114
Bis(2-Ethylhexyl)Phthalate	0.4	2 ug/L	<MDL		2.5	3.01	120		40--160
Di-N-Octyl Phthalate	0.04	0.2 ug/L	<MDL		2.5	2.34	93		40--160
Benzo(b,j,k)fluoranthene	0.016	0.08 ug/L	<MDL		7.5	4.66	62		50--121
Benzo(a)pyrene	0.016	0.08 ug/L	<MDL		2.5	2.22	89		45--133
Indeno(1,2,3-Cd)Pyrene	0.016	0.08 ug/L	<MDL		2.5	2.37	95		33--152

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Dibenzo(a,h)anthracene	0.016	0.08 ug/L	<MDL	2.5	2.34	94	34--140
Benzo(g,h,i)perylene	0.016	0.08 ug/L	<MDL	2.5	2.43	97	29--134

MSD:WG135984-4 MS:WG135984-3 L61560-1 Matrix: STORM WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project:423589-320-4 Pkey:STD (Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueValue	MSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Naphthalene	0.0075	0.0377	ug/L	0.0534	2.36	1.43	58		24--85	2.36	1.48	61		3		0--40
2-Methylnaphthalene	0.0075	0.0377	ug/L	0.0089	2.36	1.71	72		40--160	2.36	1.73	73		1		0--40
Dimethyl Phthalate	0.038	0.189	ug/L	0.065	2.36	2.13	87		40--160	2.36	2.17	89		2		0--40
Acenaphthylene	0.0075	0.0377	ug/L	<MDL	2.36	1.78	76		51--103	2.36	1.8	76		1		0--40
Acenaphthene	0.0075	0.0377	ug/L	<MDL	2.36	1.73	74		44--94	2.36	1.73	73		0		0--40
Diethyl Phthalate	0.038	0.189	ug/L	0.853	2.36	3.42	109		40--160	2.36	3.35	106		2		0--40
Fluorene	0.015	0.0755	ug/L	<MDL	2.36	1.93	82		54--113	2.36	1.93	82		0		0--40
Phenanthrene	0.015	0.0755	ug/L	0.07	2.36	2.06	84		57--108	2.36	1.97	80		4		0--40
Anthracene	0.015	0.0755	ug/L	<MDL	2.36	1.75	74		50--119	2.36	1.73	73		1		0--40
Di-N-Butyl Phthalate	0.038	0.189	ug/L	0.192	2.36	2.54	100		40--160	2.36	2.5	98		2		0--40
Fluoranthene	0.015	0.0755	ug/L	0.201	2.36	2.58	101		58--115	2.36	2.34	91		10		0--40
Pyrene	0.015	0.0755	ug/L	0.162	2.36	2.41	95		51--142	2.36	2.23	88		8		0--40
Benzyl Butyl Phthalate	0.075	0.377	ug/L	0.08	2.36	2.58	106		40--160	2.36	2.44	100		6		0--40
Benzo(a)anthracene	0.015	0.0755	ug/L	0.079	2.36	2.22	91		62--117	2.36	2.14	87		4		0--40
Chrysene	0.015	0.0755	ug/L	0.11	2.36	2.26	91		39--115	2.36	2.15	87		5		0--40
Bis(2-Ethylhexyl)Phthalate	0.38	1.89	ug/L	0.97	2.36	3.82	121		40--160	2.36	2.81	78		30		0--40
Di-N-Octyl Phthalate	0.038	0.189	ug/L	<MDL	2.36	2.6	110		40--160	2.36	2.58	109		1		0--40
Benzo(b,j,k)fluoranthene	0.015	0.0755	ug/L	0.21	7.08	4.92	67		45--120	7.08	4.69	63		5		0--40
Benzo(a)pyrene	0.015	0.0755	ug/L	0.0868	2.36	2.23	91		38--134	2.36	2.13	87		4		0--40
Indeno(1,2,3-Cd)Pyrene	0.015	0.0755	ug/L	0.0823	2.36	2.16	88		38--130	2.36	2.13	87		1		0--40
Dibenzo(a,h)anthracene	0.015	0.0755	ug/L	0.017	2.36	1.98	83		25--138	2.36	2.01	84		2		0--40
Benzo(g,h,i)perylene	0.015	0.0755	ug/L	0.0789	2.36	2.13	87		25--122	2.36	2.09	85		2		0--40

Surrogate:	2-	d14-
(Lab Limits)	Fluorobi	Terpheny
	phenyl	l
L61560-1	33--96	63--125
L61560-3	65	88
L61597-1	66	86
L61597-3	74	86
WG135984-1	93	96
WG135984-2	50	97
WG135984-3	60	93
	77	96

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WG135984-4

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Workgroup: WG136681 (pahphth-SIM bl#261) Run ID: R200404

MB:WG136681-1 Matrix: BLANK WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Naphthalene	0.008	0.04	ug/L	<MDL	
2-Methylnaphthalene	0.008	0.04	ug/L	<MDL	
Dimethyl Phthalate	0.04	0.2	ug/L	<MDL	
Acenaphthylene	0.008	0.04	ug/L	<MDL	
Acenaphthene	0.008	0.04	ug/L	<MDL	
Diethyl Phthalate	0.04	0.2	ug/L	0.088	B
Fluorene	0.016	0.08	ug/L	<MDL	
Phenanthrene	0.016	0.08	ug/L	<MDL	
Anthracene	0.016	0.08	ug/L	<MDL	
Di-N-Butyl Phthalate	0.04	0.2	ug/L	<MDL	
Fluoranthene	0.016	0.08	ug/L	<MDL	
Pyrene	0.016	0.08	ug/L	<MDL	
Benzyl Butyl Phthalate	0.08	0.4	ug/L	<MDL	
Benzo(a)anthracene	0.016	0.08	ug/L	<MDL	
Chrysene	0.016	0.08	ug/L	<MDL	
Bis(2-Ethylhexyl)Phthalate	0.4	2	ug/L	4.08	B
Di-N-Octyl Phthalate	0.04	0.2	ug/L	<MDL	
Benzo(b,j,k)fluoranthene	0.016	0.08	ug/L	<MDL	
Benzo(a)pyrene	0.016	0.08	ug/L	<MDL	
Indeno(1,2,3-Cd)Pyrene	0.016	0.08	ug/L	<MDL	
Dibenzo(a,h)anthracene	0.016	0.08	ug/L	<MDL	
Benzo(g,h,i)perylene	0.016	0.08	ug/L	<MDL	

SB:WG136681-2 MB:WG136681-1 Matrix: BLANK WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Naphthalene	0.008	0.04	ug/L	<MDL	2.5	1.7	68		15--93
2-Methylnaphthalene	0.008	0.04	ug/L	<MDL	2.5	1.97	79		40--160
Dimethyl Phthalate	0.04	0.2	ug/L	<MDL	2.5	2.3	92		40--160
Acenaphthylene	0.008	0.04	ug/L	<MDL	2.5	2.05	82		43--111
Acenaphthene	0.008	0.04	ug/L	<MDL	2.5	1.98	79		37--99
Diethyl Phthalate	0.04	0.2	ug/L	0.088	2.5	2.81	109		40--160
Fluorene	0.016	0.08	ug/L	<MDL	2.5	2	80		54--104

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Phenanthrene	0.016	0.08 ug/L	<MDL	2.5	2.13	85	54--107
Anthracene	0.016	0.08 ug/L	<MDL	2.5	2.04	81	54--121
Di-N-Butyl Phthalate	0.04	0.2 ug/L	<MDL	2.5	2.54	101	40--160
Fluoranthene	0.016	0.08 ug/L	<MDL	2.5	2.54	102	63--115
Pyrene	0.016	0.08 ug/L	<MDL	2.5	2.27	91	54--136
Benzyl Butyl Phthalate	0.08	0.4 ug/L	<MDL	2.5	2.31	93	40--160
Benzo(a)anthracene	0.016	0.08 ug/L	<MDL	2.5	2.42	97	65--117
Chrysene	0.016	0.08 ug/L	<MDL	2.5	2.39	95	44--114
Bis(2-Ethylhexyl)Phthalate	0.4	2 ug/L	4.08	2.5	2.3	-71 *	40--160
Di-N-Octyl Phthalate	0.04	0.2 ug/L	<MDL	2.5	2.4	96	40--160
Benzo(b,j,k)fluoranthene	0.016	0.08 ug/L	<MDL	7.5	5.22	70	50--121
Benzo(a)pyrene	0.016	0.08 ug/L	<MDL	2.5	2.45	98	45--133
Indeno(1,2,3-Cd)Pyrene	0.016	0.08 ug/L	<MDL	2.5	2.16	86	33--152
Dibenzo(a,h)anthracene	0.016	0.08 ug/L	<MDL	2.5	1.42	57	34--140
Benzo(g,h,i)perylene	0.016	0.08 ug/L	<MDL	2.5	1.99	80	29--134

MSD:WG136681-4 MS:WG136681-3 L61610-3 Matrix: STORM WTR Listtype:ORPAHPHTH-SIM Method:SW846 3520C*SW846 8270D SIM Project:423589-320-4 Pkey:STD (Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueVal	MSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Naphthalene	0.0075	0.0377	ug/L	0.026	2.36	1.74	73	24--85	2.36	1.39	58	23	0--40			
2-Methylnaphthalene	0.0075	0.0377	ug/L	0.0514	2.36	2.05	85	40--160	2.36	1.62	66	23	0--40			
Dimethyl Phthalate	0.038	0.189	ug/L	<MDL	2.36	2.27	96	40--160	2.36	1.97	83	14	0--40			
Acenaphthylene	0.0075	0.0377	ug/L	<MDL	2.36	1.98	84	51--103	2.36	1.64	70	18	0--40			
Acenaphthene	0.0075	0.0377	ug/L	<MDL	2.36	1.93	82	44--94	2.36	1.64	70	16	0--40			
Diethyl Phthalate	0.038	0.189	ug/L	0.323	2.36	3.08	117	40--160	2.36	2.84	107	8	0--40			
Fluorene	0.015	0.0755	ug/L	0.031	2.36	2.03	85	54--113	2.36	1.79	74	13	0--40			
Phenanthrene	0.015	0.0755	ug/L	0.047	2.36	2.11	87	57--108	2.36	1.98	82	6	0--40			
Anthracene	0.015	0.0755	ug/L	<MDL	2.36	1.94	82	50--119	2.36	1.82	77	6	0--40			
Di-N-Butyl Phthalate	0.038	0.189	ug/L	0.13	2.36	2.51	101	40--160	2.36	2.48	99	1	0--40			
Fluoranthene	0.015	0.0755	ug/L	<MDL	2.36	2.34	99	58--115	2.36	2.29	97	2	0--40			
Pyrene	0.015	0.0755	ug/L	0.02	2.36	2.19	92	51--142	2.36	2.12	89	3	0--40			
Benzyl Butyl Phthalate	0.075	0.377	ug/L	<MDL	2.36	2.19	93	40--160	2.36	2.16	92	1	0--40			
Benzo(a)anthracene	0.015	0.0755	ug/L	<MDL	2.36	2.13	90	62--117	2.36	2.1	89	2	0--40			
Chrysene	0.015	0.0755	ug/L	<MDL	2.36	2.09	89	39--115	2.36	2.07	88	1	0--40			
Bis(2-Ethylhexyl)Phthalate	1.5	7.55	ug/L	0.8	2.36	7.5	285 *	40--160	2.36	2.78	84	92 *	0--40			
Di-N-Octyl Phthalate	0.038	0.189	ug/L	<MDL	2.36	2.16	92	40--160	2.36	2.2	93	2	0--40			
Benzo(b,j,k)fluoranthene	0.015	0.0755	ug/L	<MDL	7.08	4.46	63	45--120	7.08	4.47	63	0	0--40			
Benzo(a)pyrene	0.015	0.0755	ug/L	<MDL	2.36	2.1	89	38--134	2.36	2.08	88	1	0--40			
Indeno(1,2,3-Cd)Pyrene	0.015	0.0755	ug/L	<MDL	2.36	1.99	84	38--130	2.36	1.92	81	3	0--40			
Dibenzo(a,h)anthracene	0.015	0.0755	ug/L	<MDL	2.36	1.35	57	25--138	2.36	1.3	55	3	0--40			

LIMSView QC Report for Michigan Basin CSO - Data Validation for Storm Events - Metals & Organics

Benzo(g,h,i)perylene	0.015	0.0755 ug/L	<MDL	2.36	1.87	79	25--122	2.36	1.79	76	4	0--40
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Surrogate:	2-	d14-
(Lab Limits)	Fluorobi	Terpheny
	phenyl	I
	33--96	63--125
L61610-1	77	98
L61610-3	77	110
L61823-1	87	101
L61823-3	100 *	83
WG136681-1	82	114
WG136681-2	92	106
WG136681-3	96	113
WG136681-4	75	107

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4xRule indicates no MS/MSD recovery was calculated due to the 4x rule.

Appendix D-2:
Validation of Data Generated by AXYS
Analytical Laboratory



DATA VALIDATION REPORT
Lower Duwamish Waterway Source Control
Michigan Combined Sewer Basin Study

Prepared for:

King County Environmental Laboratory
322 West Ewing Street
Seattle, Washington 98119

Prepared by:

EcoChem, Inc.
1011 Western Avenue, Suite 1011
Seattle, Washington 98104

EcoChem Project: C25901-1

May 22, 2014

Approved for Release:

A handwritten signature in black ink that reads "ChDM. Frans". The signature is written in a cursive, flowing style.

Christina Mott Frans
Project Manager
EcoChem, Inc.

PROJECT NARRATIVE

Basis for the Data Validation

This report presents the results of Summary Validation (EPA Stage 2B) performed on effluent samples and quality control sample data for the Lower Duwamish Waterway Michigan Basin Study sampling. A complete list of samples is provided in the **Sample Index**.

Samples were analyzed by Axys Analytical Services Ltd., Sidney, British Columbia, Canada. The analytical methods and EcoChem project chemists are listed below.

Analysis	Method	Primary Review	Secondary Review
PCB Congeners	EPA 1668A	M. Brindle	C. Frans
Dioxin & Furan Compounds	EPA 1613B		

The data were reviewed using guidance and quality control criteria documented in the analytical methods; *Lower Duwamish Waterway Source Control Brandon Combined Sewer Basin Study Sampling and Analysis Plan* (King County Dept. of Natural Resources and Parks, August 2011), *Lower Duwamish Waterway Source Control Michigan Combined Sewer Basin Study, Addendum to Brandon Basin Sampling and Analysis Plan* (King County Dept. of Natural Resources and Parks, August 2013), *USEPA National Functional Guidelines for Chlorinated Dibenzo-p-Dioxins (CDDs) and Chlorinated Dibenzofurans (CDFs) Data Review* (USEPA, September 2011); USEPA Region 10 SOP for the Validation of Method 1668 Toxic, Dioxin-like, PCB Data (USEPA December 1995), and EPA Region 10 SOP for Validation of Polychlorinated Dibenzodioxin (PCDD) and Polychlorinated Dibenzofuran (PCDF) Data (USEPA January 1996).

EcoChem's goal in assigning data assessment qualifiers is to assist in proper data interpretation. If values are estimated (J or UJ), data may be used for site evaluation and risk assessment purposes but reasons for data qualification should be taken into consideration when interpreting sample concentrations. If values are assigned an R, the data are to be rejected and should not be used for any site evaluation purposes. If values have no data qualifier assigned, then the data meet the data quality objectives as stated in the documents and methods referenced previously.

Data qualifier definitions, reason codes, and validation criteria are included as **APPENDIX A**. A Qualified Data Summary Table is included in **APPENDIX B**. Data Validation Worksheets will be kept on file at EcoChem, Inc. A qualified laboratory electronic data deliverable (EDD) is also submitted with this report.

Sample Index
Lower Duwamish Waterway - Michigan Basin Study

SDG	Sample ID	Laboratory ID	Dioxins	PCB Congeners
DPWG46967	L58795-1	L20983-1		✓
DPWG47013	L58826-1	L20983-2		✓
DPWG47013	L58993-1	L20983-3		✓
DPWG47013	L58993-2	L20983-4		✓
DPWG47013	L58993-3	L20983-5	✓	✓
DPWG47013	L59024-1	L20983-6		✓
DPWG47013	L59024-2	L20983-7		✓
DPWG47013	L59024-3	L20983-8	✓	✓
DPWG47013	L59070-1	L20983-9		✓
DPWG47013	L59070-2	L20983-10		✓
DPWG47013	L59070-3	L20983-11	✓	✓
DPWG47013	L59155-1	L20983-12		✓
DPWG46967	L59155-3	L20983-13	✓	✓
DPWG46967	L59241-1	L20983-14		✓
DPWG46967	L59241-3	L20983-15	✓	✓
DPWG46967	L59267-2	L20983-16		✓
DPWG46967	L59294-1	L20983-17		✓
DPWG46967	L59294-2	L20983-18		✓
DPWG46967	L59294-3	L20983-19	✓	✓
DPWG46967	L59471-1	L20983-20		✓
DPWG46967	L59471-2	L20983-21	✓	✓
DPWG46967	L59471-3	L20983-22		✓

DATA VALIDATION REPORT

LDW Michigan Basin Study

Dioxin/Furan Compounds by EPA 1613B

This report documents the review of analytical data from the analyses of effluent final (sewer water) samples and the associated laboratory and field quality control (QC) samples. Samples were analyzed by Axys Analytical Services Ltd., Sidney, British Columbia, Canada. Refer to the **Sample Index** for a list of samples reviewed.

SDG	Number of Samples	Validation Level
DPWG47063	7 Effluent	Stage 2B

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD VERIFICATION

A verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy laboratory data packages. All sample results were verified along with ten percent of the QC results. No errors were found.

III. TECHNICAL DATA VALIDATION

The quality control (QC) requirements that were reviewed are listed in the following table.

1	Sample Receipt, Preservation, and Holding Times		Ongoing Precision and Recovery (OPR)
	System Performance and Resolution Checks	1	Laboratory Duplicates
	Initial Calibration (ICAL)	1	Field Duplicates
	Calibration Verification (CVER)		Target Analyte List
1	Laboratory Blanks		Reporting Limits
1	Field Blanks	2	Compound Identification
	Labeled Compound Recovery		Compound Quantitation
1	Matrix Spike/Matrix Spike Duplicates (MS/MSD)	N/A	Calculation Verification

¹ Quality control results are discussed below, but no data were qualified.

² Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.

Sample Receipt, Preservation, and Holding Times

One of five sample coolers was received at the laboratory with a temperature greater than the 4°C upper control limit at 13.4°C. The temperature outlier did not impact the reported results. No results were qualified.

Laboratory Blanks

Laboratory (method) blanks were analyzed at the appropriate frequency. Various target analytes were detected in the method blank. To assess the impact of each blank contaminant on the reported sample results, an action level was established at five times the concentration detected in the blank. If the concentration in the associated field samples were less than the action level, the results were qualified as not detected (U-7) at the reported concentration. No action was taken if the sample results were greater than the action level or for non-detected results.

The congener 1,2,3,4,6,7,8-HpCDD was detected in the method blank. All field sample concentrations of this congener were greater than the action level; no qualifiers were required.

Field Blanks

No samples identified as field blanks were submitted.

Matrix Spike/Matrix Spike Duplicate

Matrix spike/matrix spike duplicate (MS/MSD) analyses were not performed. Accuracy was assessed using labeled compound recoveries and ongoing precision and recovery (OPR) samples. Precision was assessed using the laboratory duplicate results. All laboratory precision and accuracy criteria were met.

Laboratory Duplicates

The following acceptance criteria were used to evaluate precision: the relative percent difference (RPD) or relative percent standard deviation (%RSD) control limit is 50% for results greater than the reporting limit (RL). The absolute difference between the sample and replicate must be less than the RL for results less than 5x the RL.

One set of laboratory duplicates, Samples L59024-3 & L59024-3DUP, were extracted and analyzed with this data set. Laboratory precision was acceptable.

Field Duplicates

No samples identified as field duplicates were submitted.

Compound Identification

For several samples, the laboratory reported EMPC or "estimated maximum possible concentrations" values for one or more of the target analytes. An EMPC value is reported when a peak was detected but did not meet identification criteria, as required by the method; therefore the result cannot be considered as positive identification for the analyte. To indicate that the reported result for an individual analyte is in effect an elevated detection limit, the EMPC values were qualified as not detected (U-25) at the reported values.

All positive results for 2,3,7,8-TCDF were confirmed on a DB-225 column as required by the method. The 2,3,7,8-TCDF results from the DB-5 column were qualified do-not-report (DNR-11) in favor of the results from the DB-225 column.

IV. OVERALL ASSESSMENT

As determined by this evaluation, the laboratory performed an acceptable modification of the specified analytical method. Accuracy was acceptable, as demonstrated by the labeled compound and OPR recovery values. Precision was also acceptable as indicated by the laboratory duplicate RPD values.

Data were qualified as not detected to indicate that EMPC values represent elevated detection limits.

Data were flagged as do-not-report (DNR) to indicate which result (from multiple reported analyses) should not be used. Data that have been flagged DNR should not be used for any purpose.

All other data, as qualified, are acceptable for use.

DATA VALIDATION REPORT

LDW Michigan Basin Study

PCB Congeners by EPA Method 1668A

This report documents the review of analytical data from the analyses of effluent final (sewer water) samples and the associated laboratory and field quality control (QC) samples. Samples were analyzed by Axys Analytical Services Ltd., Sidney, British Columbia, Canada. Refer to the **Sample Index** for a list of samples reviewed.

SDG	Number of Samples	Validation Level
DPWG46967	11 Effluent	Stage 2B
DPWG47013	11 Effluent	Stage 2B

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD TO HARDCOPY VERIFICATION

A verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy laboratory data package. All sample results and 10% of the QC results were verified. No errors were found.

III. TECHNICAL DATA VALIDATION

The QC requirements that were reviewed are listed below.

1	Sample Receipt, Preservation, and Holding Times		Ongoing Precision and Recovery (OPR)
	Initial Calibration (ICAL)	1	Laboratory Replicates
	Calibration Verification (CVER)		Target Analyte List
2	Laboratory Blanks		Reporting Limits
1	Field Blanks	2	Compound Identification
2	Labeled Compound Recovery	1	Compound Quantitation
1	Matrix Spike/Matrix Spike Duplicates (MS/MSD)	N/A	Calculation Verification

¹ Quality control results are discussed below, but no data were qualified.

² Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.

Sample Receipt, Preservation, and Holding Times

One of five sample coolers was received at the laboratory with a temperature greater than the 4°C upper control limit at 13.4°C. The temperature outlier did not impact the reported results. No results were qualified.

Laboratory Blanks

Laboratory (method) blanks were analyzed at the appropriate frequency. Various target analytes were detected in the method blank. To assess the impact of each blank contaminant on the reported sample results, an action level was established at five times the concentration detected in the blank. If the concentration in the associated field samples were less than the action level, the results were qualified as not detected (U-7) at the reported concentration. No action was taken if the sample results were greater than the action level or for non-detected results.

SDG DPWG46967: The result for congener PCB2 was qualified as not-detected in Sample L59241-1 based on method blank contamination.

SDG DPWG47013: The results for congener PCB11 were qualified as not-detected in the following samples based on method blank contamination.

SDG	Sample ID
DPWG47013	L58826-1
	L58826-1 DUP
	L59070-1
	L58993-1
	L58993-2
	L59024-1

Field Blanks

No samples identified as field blanks were submitted.

Labeled Compound Recovery

SDG DPWG47013: The percent recovery (%R) values for labeled compounds were within the control limits with the following exceptions.

Sample ID	Labeled Congener	Percent Recovery
L58993-1	PCB4L	22.8
L59024-2	PCB1L	13.3
	PCB4L	17.1
	PCB15L	24.7
	PCB19L	23.6
	PCB20/28L	29.6
	PCB54L	21.4
	PCB104L	24.0
	PCB105L	24.2
	PCB155L	23.8
	PCB205L	24.9

Sample ID	Labeled Congener	Percent Recovery
WG46441-102 (OPR)	PCB4L	24.6
	PCB19L	28.7
	PCB54L	23.5
	PCB104L	28.6

The %R outliers indicated a potential low bias. The associated native congeners and coelutions of native congeners were estimated (UJ/J-13L) in these samples except for the OPR sample—no qualifiers are applied to QC samples.

Matrix Spikes/Matrix Spike Duplicates

No matrix spike/matrix spike duplicates (MS/MSD) were analyzed. Accuracy was assessed using labeled compound recoveries and ongoing precision and recovery samples. Precision was assessed using the laboratory duplicate results.

Laboratory Duplicates

The following acceptance criteria were used to evaluate precision: the relative percent difference (RPD) or relative percent standard deviation (%RSD) control limit is 50% for results greater than the reporting limit (RL). The absolute difference between the sample and replicate must be less than the RL for results less than 5x the RL.

SDG DPWG46967: One set of laboratory duplicates, L58795-1 & L58795-1 DUP, was submitted. Laboratory precision was acceptable.

SDG DPWG47013: One set of laboratory duplicates, L58826-1 & L58826DUP, was submitted. Laboratory precision was acceptable.

Field Duplicates

No samples identified as field duplicates were submitted.

Compound Identification

For several samples, the laboratory reported estimated maximum possible concentration (EMPC) values for one or more of the target analytes. As required by the method, an EMPC value is reported when a peak was detected but did not meet quantitation criteria, therefore the result cannot be considered as positive identification for the analyte. The EMPC values were qualified as not detected (U-25) to indicate that the result is not-detected at an elevated reporting limit.

Compound Quantitation

Anomalies were present in the areas of relative retention time shifts and lock-mass interferences. The laboratory actions to resolve these issues were dilution and re-analysis of the samples; re-analysis and requantification using alternative labeled congeners, and additional clean-up steps with re-analysis.

SDG DPWG46967: Several results in all samples except L58795-1 and L59471-3 were flagged “G” by the laboratory to indicate that lock-mass interferences were present at the retention times associated with PCB1, PCB19, PCB155, PCB194, PCB197/200 and/or PCB208. The interferences only affected congeners that were small contributions to the overall total; therefore, the data were not affected and no qualifiers were applied.

The results for PCB2 in Samples L59155-3, L59241-3, L59294-3, and L59471-2 were flagged “T” by the laboratory to indicate that lock-mass disturbances in the retention time associated with $^{13}\text{C}_{12}$ -PCB1 were present. The results for PCB2 were requantitated in these samples using $^{13}\text{C}_{12}$ -PCB3. The results for all tri-congeners and penta-congeners except PCB19, PCB37, PCB104, PCB105, PCB114, PCB118, PCB123, and PCB126 in Sample L59294-2 were “T” flagged by the laboratory to indicate that lock-mass disturbances in the retention times associated with $^{13}\text{C}_{12}$ -PCB19 and $^{13}\text{C}_{12}$ -PCB105 were present. These results were requantitated using $^{13}\text{C}_{12}$ -PCB37 for the tri-PCBs and the average responses of $^{13}\text{C}_{12}$ -PCB104, $^{13}\text{C}_{12}$ -PCB104, $^{13}\text{C}_{12}$ -PCB114, $^{13}\text{C}_{12}$ -PCB118, $^{13}\text{C}_{12}$ -PCB123, and $^{13}\text{C}_{12}$ -PCB126 for penta-PCBs. The results for PCB207 and all hexa-congeners except PCB155, PCB156/157, PCB167, and PCB169 were flagged “T” by the laboratory for the same reason. The results for this sample were requantitated using $^{13}\text{C}_{12}$ -PCB206 for PCB207 and the average responses of $^{13}\text{C}_{12}$ -PCB156/157, $^{13}\text{C}_{12}$ -PCB167, and $^{13}\text{C}_{12}$ -PCB169 for the hexa-PCBs. All compound requantitations were acceptable; no further action was necessary.

The relative retention times were slightly outside of the nominal RRT acceptance windows for PCB55, PCB60, PCB92, PCB90/101/113, PCB123, PCB 131, PCB132, PCB133, PCB134/143, PCB136, PCB139/140, PCB135/151/154, PCB147/149, and/or PCB148 in Samples L59241-1, L59267-2, L59294-1, and L59294-2. Based on a detailed inspection of the sample and calibration chromatogram patterns the laboratory determined that these congeners were present in the samples. No further action was necessary.

SDG DPWG47013: Several results in Samples L58826-1, L59024-3, L59070-2, L59070-3, and the method blank were flagged “G” by the laboratory to indicate that lock-mass interferences were present at the retention times for PCB1, PCB19, PCB105, PCB146, PCB187, PCB197/200, and/or PCB208. The interferences only affected congeners that were small contributions to the overall total; therefore, the data were not affected and no qualifiers were applied.

Several results in Samples L58993-2, L59024-3, and L59070-3 were flagged “T” by the laboratory to indicate that lock-mass disturbances in the retention times associated with $^{13}\text{C}_{12}$ -PCB1 and/or $^{13}\text{C}_{12}$ -PCB19 were present. Results were requantitated using $^{13}\text{C}_{12}$ -PCB3 for PCB2 and $^{13}\text{C}_{12}$ -PCB37 for tri-congeners except PCB19 and PCB37. Several results in Samples L58993-3 and L59024-2 were flagged “T” by the laboratory to indicate that lock-mass disturbances in the retention time associated with $^{13}\text{C}_{12}$ -PCB105. The concentrations of all penta-congeners except PCB104, PCB105, PCB114, PCB118, PCB123, and PCB126 were requantitated using the average responses of $^{13}\text{C}_{12}$ -PCB104, $^{13}\text{C}_{12}$ -PCB114, $^{13}\text{C}_{12}$ -PCB118, $^{13}\text{C}_{12}$ -PCB123, and $^{13}\text{C}_{12}$ -PCB126 for these samples. All compound requantitations were acceptable; no further action was necessary.

The relative retention times were slightly outside of the nominal RRT acceptance windows for PCB12/13, PCB55, PCB60, PCB92, PCB123, PCB131, PCB134/143, PCB136, PCB144, PCB145, PCB148, PCB150, and/or PCB203 in Samples L58993-2, L58993-3, L59024-1, and

L59155-1. Based on a detailed inspection of the sample and calibration chromatogram patterns the laboratory determined that these congeners were present in the samples. No further action was necessary.

The extracts for Samples L58993-2, L59024-1, and L58993-2 were diluted and re-analyzed to reduce the effects of matrix interference.

Additional clean-up steps and dilutions were performed for Samples L58993-3, L59024-2, L59024-3, L59070-1, L59070-2, L59070-3, and L59070-3 to lessen the matrix interference.

IV. OVERALL ASSESSMENT

As was determined by this evaluation, the laboratory followed the specified analytical method. Accuracy was acceptable, as demonstrated by the labeled compound and OPR recoveries, with the exceptions previously noted. Precision was acceptable as demonstrated by the laboratory duplicate RPD values.

Data were qualified as not detected due to laboratory blank contamination. Data were also qualified as not detected to indicate that EMPC values represent elevated detection limits. Data were estimated due to labeled compound recovery outliers.

All data, as qualified, are acceptable for use.



EcoChem, INC.
Environmental Data Quality

APPENDIX A

DATA QUALIFIER DEFINITIONS, REASON CODES, AND CRITERIA TABLES

DATA VALIDATION QUALIFIER CODES

Based on National Functional Guidelines

The following definitions provide brief explanations of the qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
NJ	The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated numerical value represents the approximate concentration.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

The following is an EcoChem qualifier that may also be assigned during the data review process:

DNR	Do not report; a more appropriate result is reported from another analysis or dilution.
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DATA QUALIFIER REASON CODES

Group	Code	Reason for Qualification
Sample Handling	1	Improper Sample Handling or Sample Preservation (i.e., headspace, cooler temperature, pH, summa canister pressure); Exceeded Holding Times
Instrument Performance	24	Instrument Performance (i.e., tune, resolution, retention time window, endrin breakdown, lock-mass)
	5A	Initial Calibration (RF, %RSD, r^2)
	5B	Calibration Verification (ICV, CCV, CCAL; RF, %D, %R) Use bias flags (H,L) ¹ where appropriate
Blank Contamination	6	Field Blank Contamination (Equipment Rinsate, Trip Blank, etc.)
	7	Lab Blank Contamination (i.e., method blank, instrument blank, etc.) Use low bias flag (L) ¹ for negative instrument blanks
Precision and Accuracy	8	Matrix Spike (MS &/or MSD) Recoveries Use bias flags (H,L) ¹ where appropriate
	9	Precision (all replicates: LCS/LCSD, MS/MSD, Lab Replicate, Field Replicate)
	10	Laboratory Control Sample Recoveries (a.k.a. Blank Spikes) Use bias flags (H,L) ¹ where appropriate
	12	Reference Material Use bias flags (H,L) ¹ where appropriate
	13	Surrogate Spike Recoveries (a.k.a. labeled compounds, recovery standards) Use bias flags (H,L) ¹ where appropriate
Interferences	16	ICP/ICP-MS Serial Dilution Percent Difference
	17	ICP/ICP-MS Interference Check Standard Recovery Use bias flags (H,L) ¹ where appropriate
	19	Internal Standard Performance (i.e., area, retention time, recovery)
	22	Elevated Detection Limit due to Interference (i.e., chemical and/or matrix)
	23	Bias from Matrix Interference (i.e. diphenyl ether, PCB/pesticides)
Identification and Quantitation	2	Chromatographic pattern in sample does not match pattern of calibration standard
	3	2 nd column confirmation (RPD or %D)
	4	Tentatively Identified Compound (TIC) (associated with NJ only)
	20	Calibration Range or Linear Range Exceeded
	25	Compound Identification (i.e., ion ratio, retention time, relative abundance, etc.)
Miscellaneous	11	A more appropriate result is reported (multiple reported analyses i.e., dilutions, re-extractions, etc. Associated with "R" and "DNR" only)
	14	Other (See DV report for details)
	26	Method QC information not provided

¹ H = high bias indicated

L = low bias indicated

EcoChem Validation Guidelines for Dioxin/Furan Analysis by HRMS
(Based on EPA Reg. 10 SOP, Rev. 2, 1996 & EPA SW-846, Methods 1613b and 8290)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Cooler/Storage Temperature	Waters/Solids < 4°C Tissues < -10°C	EcoChem PJ, see TM-05	1
Holding Time	Extraction - Water: 30 days from collection <i>Note:</i> Under CWA, SDWA, and RCRA the HT for H ₂ O is 7 days* Extraction - Soil: 30 days from collection Analysis: 40 days from extraction	J(+)/UJ(-) if ext > 30 days J(+)/UJ(-) if analysis > 40 Days EcoChem PJ, see TM-05	1
Mass Resolution	>=10,000 resolving power at m/z 304.9824 Exact mass of m/z 380.9760 w/in 5 ppm of theoretical value (380.97410 to 380.97790) . Analyzed prior to ICAL and at the start and end of each 12 hr. shift	R(+/-) if not met	14
Window Defining Mix and Column Performance Mix	Window defining mixture/Isomer specificity std run before ICAL and CCAL Valley < 25% (valley = (x/y)*100%) x = ht. of TCDD y = baseline to bottom of valley For all isomers eluting near 2378-TCDD/TCDF isomers (TCDD only for 8290)	J(+) if valley > 25%	5A (ICAL) 5B (CCAL)
Initial Calibration	Minimum of five standards %RSD < 20% for native compounds %RSD <30% for labeled compounds (%RSD <35% for labeled compounds under 1613b)	J(+) natives if %RSD > 20%	5A
	Abs. RT of ¹³ C ₁₂ -1234-TCDD >25 min on DB5 >15 min on DB-225	EcoChem PJ, see TM-05	
	Ion Abundance ratios within QC limits (Table 8 of method 8290) (Table 9 of method 1613B)	EcoChem PJ, see TM-05	
	S/N ratio > 10 for all native and labeled compounds in CS1 std.	If <10, elevate Det. Limit or R(-)	

EcoChem Validation Guidelines for Dioxin/Furan Analysis by HRMS
(Based on EPA Reg. 10 SOP, Rev. 2, 1996 & EPA SW-846, Methods 1613b and 8290)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Continuing Calibration	Analyzed at the start and end of each 12 hour shift. %D +/-20% for native compounds %D +/-30% for labeled compounds (Must meet limits in Table 6, Method 1613B) (If %Ds in the closing CCAL are w/in 25%/35% the avg RF from the two CCAL may be used to calculate samples per Method 8290, Section 8.3.2.4)	Do not qualify labeled compounds. Narrate in report for labeled compound %D outliers. For native compound %D outliers: 8290: J(+)/UJ(-) if %D = 20% - 75% J(+)/R(-) if %D > 75% 1613: J(+)/UJ(-) if %D is outside Table 6 limits J(+)/R(-) if %D is +/- 75% of Table 6 limit	5B
	Abs. RT of ¹³ C ₁₂ -1234-TCDD and ¹³ C ₁₂ -123789-HxCDD +/- 15 sec of ICAL.	EcoChem PJ, see ICAL section of TM-05	
	RRT of all other compounds must meet Table 2 of 1613B.	EcoChem PJ, see TM-05	
	Ion Abundance ratios within QC limits (Table 8 of method 8290) (Table 9 of method 1613B)	EcoChem PJ, see TM-05	
	S/N ratio > 10	If <10, elevate Det. Limit or R(-)	
Method Blank	One per matrix per batch No positive results	If sample result <5X action level, qualify U at reported value.	7
Field Blanks (Not Required)	No positive results	If sample result <5X action level, qualify U at reported value.	6
LCS / OPR	Concentrations must meet limits in Table 6, Method 1613B or lab limits.	J(+) if %R > UCL J(+)/UJ(-) if %R < LCL J(+)/R(-) using PJ if %R <<LCL (< 10%)	10
MS/MSD (recovery)	May not analyze MS/MSD %R should meet lab limits.	Qualify parent only unless other QC indicates systematic problems: J(+) if both %R > UCL J(+)/UJ(-) if both %R < LCL J(+)/R(-) if both %R < 10% PJ if only one %R outlier	8
MS/MSD (RPD)	May not analyze MS/MSD RPD < 20%	J(+) in parent sample if RPD > CL	9

DATA VALIDATION CRITERIA

Table No.: HRMS-DXN

Revision No.: 3

Last Rev. Date: 8/23/07

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EcoChem Validation Guidelines for Dioxin/Furan Analysis by HRMS (Based on EPA Reg. 10 SOP, Rev. 2, 1996 & EPA SW-846, Methods 1613b and 8290)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Lab Duplicate	RPD <25% if present.	J(+)/UJ(-) if outside limits	9
Labeled Compounds / Internal Standards	<i>Method 8290</i> : %R = 40% - 135% in all samples	J(+)/UJ(-) if %R = 10% to LCL J(+) if %R > UCL J(+)/R(-) if %R < 10%	13
	<i>Method 1613B</i> : %R must meet limits specified in Table 7, Method 1613		
Quantitation/ Identification	Ions for analyte, IS, and rec. std. must max w/in 2 sec. S/N >2.5 IA ratios meet limits in Table 9 of 1613B or Table 8 of 8290 RRTs w/in limits in Table 2 of 1613B	If RT criteria not met, use PJ (see TM-05) If S/N criteria not met, J(+). If unlabelled ion abundance not met, change to EMPC If labelled ion abundance not met, J(+).	21
EMPC (estimated maximum possible concentration)	If quantitation identification criteria are not met, laboratory should report an EMPC value.	If laboratory correctly reported an EMPC value, qualify with U to indicate that the value is a detection limit.	14
Interferences	PCDF interferences from PCDFE	If both detected, change PCDF result to EMPC	14
Second Column Confirmation	All 2378-TCDF hits must be confirmed on a DB-225 (or equiv) column. All QC specs in this table must be met for the confirmation analysis.	Report lower of the two values. If not performed use PJ (see TM-05).	3
Field Duplicates	Use QAPP limits. If no QAPP: Solids: RPD <50% OR absolute diff. < 2X RL (for results < 5X RL) Aqueous: RPD <35% OR absolute diff. < 1X RL (for results < 5X RL)	Narrate and qualify if required by project (EcoChem PJ)	9
Two analyses for one sample	Report only one result per analyte	"DNR" results that should not be used	11

EcoChem Validation Guidelines for PCB Congener Analysis by HRMS
(Based on EPA Reg. 10 SOP, Rev. 1, 12/1995 & EPA SW-846, Method 1668)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Cooler/Storage Temperature	Waters/Solids <4°C Tissues <-10°C	EcoChem PJ, see TM-05	1
Holding Time	Samples: Up to one year if stored in the dark & temp as above. Extracts: Up to 1 year if stored at <-10°C and in the dark	J(+)/UJ(-) if HT > 1 year EcoChem PJ, see TM-05	1
Mass Resolution	>=10,000 resolving power at m/z 330.9792 <5 ppm deviation from each m/z listed in Table 7 of method. Analyzed prior to ICAL and at the beginning and end of each 12 hr. shift	R(+/-) if not met	14
Column Resolution 209 Congener Solution	Mix of all 209 PCBs run prior to each ICAL and each 12 hour shift RT of PCB209 must be > 55 min PCB 156 & 157 must coelute w/in 2 sec PCB34 & 23 and PCB187 & 182 must be resolved where $(x/y)*100\% < 40\%$ x = ht. of valley and y = ht of shortest peak	J(+) if valley >40%	5A (ICAL) 5B (CCAL)
Initial Calibration	Minimum of five standards %RSD < 20% for native compounds %RSD < 35% for labeled compounds	J(+) natives if %RSD > 20%	5A
	Ion Abundance ratios within QC limits (Method 1668, Table 8) in CS1 std.	EcoChem PJ, see TM-05	
	S/N ratio > 10 for all native and labeled compounds in CS1 std.	If <10, elevate Det. Limit or R(-)	
Continuing Calibration	Every 12 hours: Concentrations must meet criteria specified in Method 1668, Table 6	J(+) / (UJ(-) natives if %D = 30% - 50% J(+) / R(-) natives if %D > 75%	5B
	Absolute RT of all Labelled Compounds and Window Defining Congeners must be +/- 15 sec of RT in ICAL RRT of all compounds must meet Table 2 of method.	EcoChem PJ, see ICAL section of TM-05	
	S/N ratio > 10	If <10, elevate Det. Limit or R(-)	
	Ion Abundance ratios must meet criteria specified in Method 1668, Table 8	EcoChem PJ, see TM-05	
Method Blank	One per matrix per batch No positive results	If sample result <5X action level, qualify U at reported value.	7

EcoChem Validation Guidelines for PCB Congener Analysis by HRMS
(Based on EPA Reg. 10 SOP, Rev. 1, 12/1995 & EPA SW-846, Method 1668)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Rinse/Field Blank (if required)	One per matrix per batch No positive results	If sample result <5X action level, qualify U at reported value.	6
LCS / OPR	One per matrix per batch %R Values w/in limits specified in Method 1668, Table 6	J(+) if %R > UCL J(+)/UJ(-) if %R < LCL J(+)/R(-) using PJ if %R <<LCL (< 10%)	10
MS/MSD (if required)	Accuracy: %R values within laboratory limits	Qualify parent sample only unless other QC indicates systematic problems: J(+) if both %R > UCL J(+)/UJ(-) if both %R < LCL J(+)/R(-) if both %R < 10% PJ if only one %R outlier	8
	Precision: RPD < 20%	J(+) in parent sample if RPD > 20%	9
Duplicate (if required)	RPD <25%	J(+)/UJ(-) if outside limits	9
Labeled Compounds / Internal Standards	%R must meet limits specified in Method 1668, Table 6.	J(+)/UJ(-) if %R = 10% to LCL J(+) if %R > UCL J(+)/R(-) if %R < 10%	13
Quantitation/ Identification	Ions for analyte, IS, and rec. std. must max w/in 2 sec. S/N >2.5 Ion abundance (IA ratios) must meet limits stated in Table 8 of Method 1668 Relative retention times (RRT) must be w/in limits stated in Table 2 of Method 1668	If RT criteria not met, use PJ (see TM-05) J(+) if S/N criteria not met if unlabelled ion abundance not met, change to EMPC J(+) if labelled ion abundance not met.	21
Interferences	Lock masses must not deviate +/- 20%	Change result to EMPC	14
Field Duplicates	Use QAPP limits. If no QAPP: Solids: RPD <50% OR absolute diff. < 2X RL (for results < 5X RL) Aqueous: RPD <35% OR absolute diff. < 1X RL (for results < 5X RL)	Narrate and qualify if required by project (EcoChem PJ)	9
Two analyses for one sample	Report only one result per analyte	"DNR" results that should not be used to avoid reporting two results for one sample	11



EcoChem, INC.
Environmental Data Quality

APPENDIX B

QUALIFIED DATA SUMMARY TABLE

Qualified Data Summary Table
Lower Duwamish Waterway - Michigan Basin Study

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
WG46635	L58993-3	L20983-5	MLA-017 Rev 20	1,2,3,4,7,8-HXCDF	1.26	pg/L	K J	U	25
WG46635	L58993-3	L20983-5	MLA-017 Rev 20	1,2,3,6,7,8-HXCDF	1.24	pg/L	K J	U	25
WG46635	L58993-3	L20983-5	MLA-017 Rev 20	1,2,3,7,8,9-HXCDD	2.29	pg/L	K J	U	25
WG46635	L58993-3	L20983-5	MLA-017 Rev 20	1,2,3,7,8-PECDD	0.61	pg/L	K J	U	25
WG46635	L58993-3	L20983-5	MLA-017 Rev 20	2,3,7,8-TCDD	0.642	pg/L	K J	U	25
WG46635	L58993-3	L20983-5	MLA-017 Rev 20	2,3,7,8-TCDF	1.48	pg/L	J	DNR	11
WG46635	L59024-3	L20983-8 (A)	MLA-017 Rev 20	1,2,3,4,6,7,8-HPCDF	19.3	pg/L	K B	U	25
WG46635	L59024-3	L20983-8 (A)	MLA-017 Rev 20	1,2,3,4,7,8,9-HPCDF	2.35	pg/L	K B J	U	25
WG46635	L59024-3	L20983-8 (A)	MLA-017 Rev 20	1,2,3,4,7,8-HXCDD	1.82	pg/L	K B J	U	25
WG46635	L59024-3	L20983-8 (A)	MLA-017 Rev 20	1,2,3,6,7,8-HXCDF	1.04	pg/L	K J	U	25
WG46635	L59024-3	L20983-8 (A)	MLA-017 Rev 20	2,3,4,6,7,8-HXCDF	0.888	pg/L	K J	U	25
WG46635	L59024-3	L20983-8 (A)	MLA-017 Rev 20	2,3,7,8-TCDD	1.08	pg/L	K J	U	25
WG46635	L59024-3	L20983-8 (A)	MLA-017 Rev 20	2,3,7,8-TCDF	2.52	pg/L		DNR	11
WG46635	L59024-3 (Duplicate)	WG46635-103 (DUP L20983-8)	MLA-017 Rev 20	1,2,3,4,7,8-HXCDD	1.14	pg/L	K B J	U	25
WG46635	L59024-3 (Duplicate)	WG46635-103 (DUP L20983-8)	MLA-017 Rev 20	1,2,3,4,7,8-HXCDF	2.27	pg/L	K J	U	25
WG46635	L59024-3 (Duplicate)	WG46635-103 (DUP L20983-8)	MLA-017 Rev 20	1,2,3,7,8,9-HXCDD	3.6	pg/L	K J	U	25
WG46635	L59024-3 (Duplicate)	WG46635-103 (DUP L20983-8)	MLA-017 Rev 20	2,3,4,6,7,8-HXCDF	0.933	pg/L	K J	U	25
WG46635	L59024-3 (Duplicate)	WG46635-103 (DUP L20983-8)	MLA-017 Rev 20	2,3,7,8-TCDF	2.78	pg/L		DNR	11
WG46635	L59070-3	L20983-11	MLA-017 Rev 20	1,2,3,4,7,8-HXCDF	3.6	pg/L	K J	U	25
WG46635	L59070-3	L20983-11	MLA-017 Rev 20	1,2,3,6,7,8-HXCDF	2.15	pg/L	K J	U	25
WG46635	L59070-3	L20983-11	MLA-017 Rev 20	2,3,4,6,7,8-HXCDF	1.45	pg/L	K J	U	25
WG46635	L59070-3	L20983-11	MLA-017 Rev 20	2,3,7,8-TCDD	0.699	pg/L	K J	U	25
WG46635	L59070-3	L20983-11	MLA-017 Rev 20	2,3,7,8-TCDF	3.82	pg/L		DNR	11
WG46635	L59155-3	L20983-13	MLA-017 Rev 20	1,2,3,6,7,8-HXCDD	10.3	pg/L	K	U	25
WG46635	L59155-3	L20983-13	MLA-017 Rev 20	1,2,3,7,8-PECDF	0.987	pg/L	K J	U	25
WG46635	L59155-3	L20983-13	MLA-017 Rev 20	2,3,4,6,7,8-HXCDF	2.38	pg/L	K J	U	25
WG46635	L59155-3	L20983-13	MLA-017 Rev 20	2,3,4,7,8-PECDF	1.85	pg/L	K J	U	25
WG46635	L59155-3	L20983-13	MLA-017 Rev 20	2,3,7,8-TCDD	0.662	pg/L	K J	U	25
WG46635	L59155-3	L20983-13	MLA-017 Rev 20	2,3,7,8-TCDF	4.56	pg/L		DNR	11
WG46635	L59241-3	L20983-15	MLA-017 Rev 20	1,2,3,4,7,8-HXCDF	2.02	pg/L	K J	U	25
WG46635	L59241-3	L20983-15	MLA-017 Rev 20	1,2,3,6,7,8-HXCDF	1.37	pg/L	K J	U	25
WG46635	L59241-3	L20983-15	MLA-017 Rev 20	1,2,3,7,8-PECDF	0.729	pg/L	K J	U	25
WG46635	L59241-3	L20983-15	MLA-017 Rev 20	2,3,4,7,8-PECDF	0.709	pg/L	K J	U	25
WG46635	L59241-3	L20983-15	MLA-017 Rev 20	2,3,7,8-TCDD	0.807	pg/L	K J	U	25
WG46635	L59241-3	L20983-15	MLA-017 Rev 20	2,3,7,8-TCDF	1.43	pg/L	J	DNR	11

Qualified Data Summary Table
Lower Duwamish Waterway - Michigan Basin Study

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
WG46635	L59294-3	L20983-19	MLA-017 Rev 20	1,2,3,4,7,8-HXCDD	1.5	pg/L	K B J	U	25
WG46635	L59294-3	L20983-19	MLA-017 Rev 20	1,2,3,6,7,8-HXCDD	2.56	pg/L	K J	U	25
WG46635	L59294-3	L20983-19	MLA-017 Rev 20	1,2,3,7,8-PECDD	0.997	pg/L	K J	U	25
WG46635	L59294-3	L20983-19	MLA-017 Rev 20	2,3,7,8-TCDD	0.722	pg/L	K J	U	25
WG46635	L59294-3	L20983-19	MLA-017 Rev 20	2,3,7,8-TCDF	9.47	pg/L		DNR	11
WG46635	L59471-2	L20983-21	MLA-017 Rev 20	2,3,7,8-TCDD	0.877	pg/L	K J	U	25
WG46635	L59471-2	L20983-21	MLA-017 Rev 20	2,3,7,8-TCDF	3.57	pg/L		DNR	11
WG46444	L58795-1	L20983-1 (A)	MLA-010 Rev 11	2',3,4,4',5-PeCB	45	pg/L	K	U	25
WG46444	L58795-1	L20983-1 (A)	MLA-010 Rev 11	2',3,4,5,5'-PeCB	4.34	pg/L	K	U	25
WG46444	L58795-1 (Duplicate)	WG46444-104 (DUP L20983-1)	MLA-010 Rev 11	2,3,3',5,5'-PeCB	1.57	pg/L	K J	U	25
WG46444	L58795-1 (Duplicate)	WG46444-104 (DUP L20983-1)	MLA-010 Rev 11	2',3,4,4',5-PeCB	57.9	pg/L	K	U	25
WG46441	L58826-1	L20983-2 (A)	MLA-010 Rev 11	2',3,4,4',5-PeCB	123	pg/L	K	U	25
WG46441	L58826-1	L20983-2 (A)	MLA-010 Rev 11	3,3'-DiCB	288	pg/L	B	U	7
WG46441	L58826-1 (Duplicate)	WG46441-103 (DUP L20983-2)	MLA-010 Rev 11	2,2',3,5,6,6'-HxCB	5.07	pg/L	K	U	25
WG46441	L58826-1 (Duplicate)	WG46441-103 (DUP L20983-2)	MLA-010 Rev 11	2',3,4,4',5-PeCB	107	pg/L	K	U	25
WG46441	L58826-1 (Duplicate)	WG46441-103 (DUP L20983-2)	MLA-010 Rev 11	3,3'-DiCB	220	pg/L	B	U	7
WG46441	L58993-1	L20983-3	MLA-010 Rev 11	2,2'-DiCB	7050	pg/L		J	13L
WG46441	L58993-1	L20983-3	MLA-010 Rev 11	2,3,3',4,4',5,5'-HpCB	9.6	pg/L	K	U	25
WG46441	L58993-1	L20983-3	MLA-010 Rev 11	2',3,4,4',5-PeCB	49.3	pg/L	K	U	25
WG46441	L58993-1	L20983-3	MLA-010 Rev 11	2,3'-DiCB	2210	pg/L		J	13L
WG46441	L58993-1	L20983-3	MLA-010 Rev 11	2,3-DiCB	133	pg/L		J	13L
WG46441	L58993-1	L20983-3	MLA-010 Rev 11	2,4'-DiCB	7620	pg/L	B	J	13L
WG46441	L58993-1	L20983-3	MLA-010 Rev 11	2,4-DiCB	239	pg/L	B	J	13L
WG46441	L58993-1	L20983-3	MLA-010 Rev 11	2,5-DiCB	429	pg/L		J	13L
WG46441	L58993-1	L20983-3	MLA-010 Rev 11	2,6-DiCB	309	pg/L		J	13L
WG46441	L58993-1	L20983-3	MLA-010 Rev 11	3,3'-DiCB	162	pg/L	B	UJ	7,13L
WG46441	L58993-1	L20983-3	MLA-010 Rev 11	3,4-DiCB	742	pg/L	C	J	13L
WG46441	L58993-1	L20983-3	MLA-010 Rev 11	3,5-DiCB		pg/L	U	UJ	13L
WG46441	L58993-2	L20983-4	MLA-010 Rev 11	2,2',3,4',5,6,6'-HpCB	1.25	pg/L	K J	U	25
WG46441	L58993-2	L20983-4	MLA-010 Rev 11	2,2',3,4',5,6'-HxCB	4.85	pg/L	K	U	25
WG46441	L58993-2	L20983-4	MLA-010 Rev 11	2,2',4,5',6-PeCB	8.35	pg/L	K	U	25
WG46441	L58993-2	L20983-4	MLA-010 Rev 11	2,2',4,6,6'-PeCB	1.44	pg/L	K J	U	25
WG46441	L58993-2	L20983-4	MLA-010 Rev 11	2',3,4,4',5-PeCB	39.2	pg/L	K	U	25
WG46441	L58993-2	L20983-4	MLA-010 Rev 11	2,3',4,5',6-PeCB	2.75	pg/L	K J	U	25
WG46441	L58993-2	L20983-4	MLA-010 Rev 11	3,3'-DiCB	298	pg/L	B	U	7

Qualified Data Summary Table
Lower Duwamish Waterway - Michigan Basin Study

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
WG46441	L58993-2	L20983-4	MLA-010 Rev 11	3,4,4',5-TeCB	2.75	pg/L	K J	U	25
WG46441	L58993-3	L20983-5 L	MLA-010 Rev 11	2,2',3,4,4',6,6'-HpCB	54.5	pg/L	K	U	25
WG46441	L58993-3	L20983-5 L	MLA-010 Rev 11	2,2',3,4',5,6'-HxCB	17.4	pg/L	K	U	25
WG46441	L58993-3	L20983-5 L	MLA-010 Rev 11	2,2',3,4,6'-PeCB	9.95	pg/L	K T	U	25
WG46441	L58993-3	L20983-5 L	MLA-010 Rev 11	2',3,4,4',5-PeCB	24.6	pg/L	K	U	25
WG46441	L58993-3	L20983-5 L	MLA-010 Rev 11	2,3',4,5,5'-PeCB	13.5	pg/L	K T	U	25
WG46441	L58993-3	L20983-5 LW	MLA-010 Rev 11	2,2',3,4',5,5'-HxCB	1290	pg/L	K B D	U	25
WG46441	L58993-3	L20983-5 LW	MLA-010 Rev 11	2,3,4,4'-TeCB	87.3	pg/L	K B D	U	25
WG46441	L58993-3	L20983-5 LW	MLA-010 Rev 11	3,3',4-TriCB	48.5	pg/L	K B D J	U	25
WG46441	L58993-3	L20983-5 LW	MLA-010 Rev 11	4-MoCB	124	pg/L	K B D	U	25
WG46441	L59024-1	L20983-6	MLA-010 Rev 11	2,2',3,3',4,4',5,6,6'-No	6.57	pg/L	K	U	25
WG46441	L59024-1	L20983-6	MLA-010 Rev 11	2,2',3,4',5,6'-HxCB	2.18	pg/L	K J	U	25
WG46441	L59024-1	L20983-6	MLA-010 Rev 11	2,2',3,4,6,6'-HxCB	0.832	pg/L	K J	U	25
WG46441	L59024-1	L20983-6	MLA-010 Rev 11	2,2',4,6,6'-PeCB	0.822	pg/L	K J	U	25
WG46441	L59024-1	L20983-6	MLA-010 Rev 11	2,3,3',4,4',5,5',6-OcCB	4.56	pg/L	K	U	25
WG46441	L59024-1	L20983-6	MLA-010 Rev 11	2,3,3',4,4',5,5'-HpCB	9.99	pg/L	K	U	25
WG46441	L59024-1	L20983-6	MLA-010 Rev 11	2',3,4,4',5-PeCB	45.4	pg/L	K	U	25
WG46441	L59024-1	L20983-6	MLA-010 Rev 11	2,3',4,5,5'-PeCB	4.29	pg/L	K	U	25
WG46441	L59024-1	L20983-6	MLA-010 Rev 11	3,3',4,4',5-PeCB	8.91	pg/L	K	U	25
WG46441	L59024-1	L20983-6 W	MLA-010 Rev 11	3,3'-DiCB	174	pg/L	B D	U	7
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,3',4,4',5,5'-OcCB	63.4	pg/L		J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,3',4,4',5,6'-OcCB	46	pg/L	K	U	25
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,3',4,4',5,6-OcCB	26.4	pg/L		J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,3',4,5',6,6'-OcCB	19.1	pg/L		J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,3',4,5',6-HpCB	7.68	pg/L	K	U	25
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,3',4,5'-HxCB	92.2	pg/L		J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,3',4,5-HxCB	1460	pg/L	C B	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,3',4,6'-HxCB	469	pg/L	B	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,3',4,6-HxCB	21.8	pg/L		J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,3',4-PeCB	179	pg/L	T	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,3',5,5',6,6'-OcCB	33.7	pg/L		J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,3',5,5'-HxCB	15.4	pg/L		J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,3',5,6'-HxCB	363	pg/L	C B	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,3',5,6-HxCB	73.8	pg/L	C	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,3',5-PeCB	978	pg/L	C B T	J	13L

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SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,3',6,6'-HxCB	132	pg/L	B	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,3',6-PeCB	375	pg/L	B T	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,3'-TeCB	137	pg/L	C B	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,4,4',5,5',6-OcCB	79.4	pg/L		J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,4,4',5,6,6'-OcCB		pg/L	U	UJ	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,4,4',5,6-HpCB	3.2	pg/L	K J	U	25
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,4,4',5-HxCB	103	pg/L		J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,4,4',6-HxCB	34.7	pg/L	C	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,4,4'-PeCB	276	pg/L	C B T	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,4,5,5'-HxCB	234	pg/L	B	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,4',5,6'-HxCB		pg/L	U	UJ	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,4',5,6-HxCB	966	pg/L	C B	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,4,5',6-HxCB	60.6	pg/L		J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,4,5,6-HxCB		pg/L	U	UJ	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,4',5-PeCB	1730	pg/L	C B T	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,4',6,6'-HxCB	2.74	pg/L	J	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,4,6,6'-HxCB		pg/L	U	UJ	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,4,6'-PeCB	8.91	pg/L	K T	U	25
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,4,6-PeCB	183	pg/L	C B T	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,4'-TeCB	57.4	pg/L	B	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,5,5'-PeCB	271	pg/L	B T	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,5,6,6'-HxCB		pg/L	U	UJ	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,5,6'-PeCB		pg/L	U T	UJ	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,5,6-PeCB	1210	pg/L	C B T	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,5'-TeCB	1700	pg/L	C B	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,5-TeCB	7.9	pg/L		J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,6,6'-PeCB	5.16	pg/L	T	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,6'-TeCB	9.34	pg/L		J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3,6-TeCB	343	pg/L	C B	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',3-TriCB	47.3	pg/L	B	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',4,4',5,5'-HxCB	1140	pg/L	C B	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',4,4',6,6'-HxCB	18.6	pg/L		J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',4,5',6-PeCB	7.61	pg/L	K T	U	25
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',4,5'-TeCB	244	pg/L	C B	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',4,5-TeCB	40.7	pg/L	B	J	13L

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SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',4,6,6'-PeCB		pg/L	U	UJ	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',4,6'-TeCB	28.8	pg/L	C	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',4'-TriCB	58	pg/L	B	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',5,5'-TeCB	890	pg/L	B	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',5'-TriCB	97	pg/L	C B	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',6,6'-TeCB		pg/L	U	UJ	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2',6'-TriCB	11	pg/L		J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,2'-DiCB	21.2	pg/L		J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,3,3',4,4',5,5',6-OcCB	3.05	pg/L	J	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,3,3',4,4',5',6-HpCB	7.94	pg/L	K	U	25
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,3,3',4,4',6-HxCB	156	pg/L		J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,3,3',4,5,5'-HxCB	6.38	pg/L	K	U	25
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,3,3',4',5',6-HxCB	85.4	pg/L		J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,3,3',4,5',6-HxCB		pg/L	U	UJ	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2',3,3',4,5-PeCB	16.9	pg/L	T	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,3,3',4,5-PeCB		pg/L	U T	UJ	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,3,3',4',6-PeCB	2020	pg/L	C B T	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,3,3',4'-TeCB	149	pg/L	B	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,3,3',4'-TeCB	2.71	pg/L	J	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,3,3',5,5',6-HxCB		pg/L	U	UJ	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,3,3',5,5'-PeCB		pg/L	U T	UJ	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,3,3',5,6-PeCB		pg/L	U T	UJ	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,3,3',5'-TeCB		pg/L	U	UJ	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,3,3',5'-TeCB		pg/L	U	UJ	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,3,3',6'-TeCB	17.2	pg/L	C	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,3,3'-TriCB	215	pg/L	C B	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2',3,4,4',5-PeCB	25.8	pg/L	K	U	25
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,3',4,4',5-PeCB	1600	pg/L	B	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,3,4,4',5-PeCB	34.6	pg/L		J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,3',4,4'-TeCB	323	pg/L	B	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,3,4,4'-TeCB	76	pg/L	B	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,3',4,5,5'-PeCB		pg/L	U T	UJ	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,3',4,5',6-PeCB		pg/L	U T	UJ	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,3',4,5'-TeCB	250	pg/L		J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,3',4,5'-TeCB	5.36	pg/L		J	13L

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WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,3,4,5-TeCB	12.5	pg/L	K	U	25
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,3,4,5-TeCB	1180	pg/L	C B	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,3,4',6-TeCB	155	pg/L	B	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,3',4-TriCB	15.2	pg/L	B	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,3,4'-TriCB	77.7	pg/L	B	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,3,4-TriCB	135	pg/L	C B	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,3',5,5'-TeCB		pg/L	U	UJ	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,3',5',6-TeCB		pg/L	U	UJ	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2',3,5-TriCB		pg/L	U	UJ	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,3',5-TriCB	31.1	pg/L	C B	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,3,5-TriCB		pg/L	U	UJ	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,3',6-TriCB	7.42	pg/L		J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,3,6-TriCB	2.33	pg/L	K J	U	25
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,3'-DiCB	22.3	pg/L		J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,3-DiCB		pg/L	U	UJ	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,4',5-TriCB	180	pg/L	B	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,4',6-TriCB	34.1	pg/L	B	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,4'-DiCB	76	pg/L	B	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,4-DiCB	7.79	pg/L	B	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,5-DiCB	6.81	pg/L		J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2,6-DiCB		pg/L	U	UJ	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	2-MoCB	18.4	pg/L	B	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	3,3',4,5,5'-PeCB		pg/L	U T	UJ	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	3,3',4,5-TeCB		pg/L	U	UJ	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	3,3',4-TriCB	21.2	pg/L	B	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	3,3',5,5'-TeCB		pg/L	U	UJ	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	3,3',5-TriCB	6.52	pg/L		J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	3,3'-DiCB	485	pg/L	B	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	3,4',5-TriCB	1.42	pg/L	J	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	3,4,5-TriCB		pg/L	U	UJ	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	3,4-DiCB	16.3	pg/L	C	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	3,5-DiCB		pg/L	U	UJ	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	3-MoCB	13.5	pg/L	B	J	13L
WG46441	L59024-2	L20983-7 L	MLA-010 Rev 11	4,4'-DiCB	46.7	pg/L	B	J	13L
WG46441	L59024-2	L20983-7 LW	MLA-010 Rev 11	2,2',3,3',4,4',6,6'-OcC	34.6	pg/L	C D J	J	13L

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WG46441	L59024-2	L20983-7 LW	MLA-010 Rev 11	2,2',3,3',4,4'-HxCB	180	pg/L	C B D	J	13L
WG46441	L59024-2	L20983-7 LW	MLA-010 Rev 11	2,2',3,3',4,5,5',6-OcCB	131	pg/L	C B D	J	13L
WG46441	L59024-2	L20983-7 LW	MLA-010 Rev 11	2,2',3,4',5,5'-HxCB	194	pg/L	B D	J	13L
WG46441	L59024-2	L20983-7 LW	MLA-010 Rev 11	2,3,3',4,4'-PeCB	576	pg/L	B D	J	13L
WG46441	L59024-3	L20983-8 LW	MLA-010 Rev 11	2,2',3,3',4,4',5,5',6,6'-D	69.7	pg/L	K B D J	U	25
WG46441	L59024-3	L20983-8 LW	MLA-010 Rev 11	3-MoCB	150	pg/L	K B D	U	25
WG46441	L59070-1	L20983-9 L	MLA-010 Rev 11	2,2',3,3',4,5',6-HpCB	6.06	pg/L	K	U	25
WG46441	L59070-1	L20983-9 L	MLA-010 Rev 11	2,2',3,4,4',6,6'-HpCB	2.62	pg/L	K J	U	25
WG46441	L59070-1	L20983-9 L	MLA-010 Rev 11	2,3,3',4,4',5',6-HpCB	11.4	pg/L	K	U	25
WG46441	L59070-1	L20983-9 L	MLA-010 Rev 11	2',3,4,4',5-PeCB	63.5	pg/L	K	U	25
WG46441	L59070-1	L20983-9 L	MLA-010 Rev 11	2,3',4,5,5'-PeCB	5.98	pg/L	K	U	25
WG46441	L59070-1	L20983-9 L	MLA-010 Rev 11	2,3-DiCB	178	pg/L	K	U	25
WG46441	L59070-1	L20983-9 L	MLA-010 Rev 11	3,3'-DiCB	217	pg/L	B	U	7
WG46441	L59070-2	L20983-10 L	MLA-010 Rev 11	2,2',3,4',6,6'-HxCB	3.55	pg/L	K J	U	25
WG46441	L59070-2	L20983-10 L	MLA-010 Rev 11	2,2',3,6,6'-PeCB	3.46	pg/L	K J	U	25
WG46441	L59070-2	L20983-10 L	MLA-010 Rev 11	2,2',6,6'-TeCB	3.08	pg/L	K J	U	25
WG46441	L59070-2	L20983-10 L	MLA-010 Rev 11	2',3,3',4,5-PeCB	8.73	pg/L	K	U	25
WG46441	L59070-2	L20983-10 L	MLA-010 Rev 11	2',3,4,4',5-PeCB	29.4	pg/L	K	U	25
WG46441	L59070-2	L20983-10 LW	MLA-010 Rev 11	3,4,4'-TriCB	56	pg/L	K B D	U	25
WG46441	L59070-3	L20983-11 LW	MLA-010 Rev 11	2,2',3-TriCB	719	pg/L	K B D T	U	25
WG46441	L59070-3	L20983-11 LW	MLA-010 Rev 11	2',3,4,4',5-PeCB	33.5	pg/L	K D J	U	25
WG46441	L59070-3	L20983-11 LW	MLA-010 Rev 11	2,3,6-TriCB	24.5	pg/L	K D J T	U	25
WG46441	L59070-3	L20983-11 LW	MLA-010 Rev 11	3-MoCB	128	pg/L	K B D T	U	25
WG46441	L59155-1	L20983-12 L	MLA-010 Rev 11	2,2',3,4,4',6,6'-HpCB	6.87	pg/L	K	U	25
WG46441	L59155-1	L20983-12 L	MLA-010 Rev 11	2',3,4,4',5-PeCB	1110	pg/L	K	U	25
WG46441	L59155-1	L20983-12 L	MLA-010 Rev 11	3,3',4,4',5-PeCB	223	pg/L	K	U	25
WG46444	L59155-3	L20983-13 LW2	MLA-010 Rev 11	2,2',3,3',4,6-HxCB	80.8	pg/L	K D J	U	25
WG46444	L59155-3	L20983-13 LW2	MLA-010 Rev 11	2,2',3,4',6,6'-HxCB	21.2	pg/L	K D J	U	25
WG46444	L59155-3	L20983-13 LW2	MLA-010 Rev 11	2',3,4,4',5-PeCB	33.9	pg/L	K D J	U	25
WG46444	L59155-3	L20983-13 LW2	MLA-010 Rev 11	2,3',4,5,5'-PeCB	24.5	pg/L	K D J	U	25
WG46444	L59155-3	L20983-13 LW2	MLA-010 Rev 11	3,3',4,4',5-PeCB	37.1	pg/L	K D J	U	25
WG46444	L59155-3	L20983-13 LW2	MLA-010 Rev 11	3-MoCB	72.5	pg/L	K B D J T	U	25
WG46444	L59241-1	L20983-14 i	MLA-010 Rev 11	2,2',3,4,4',6,6'-HpCB	1.06	pg/L	K J	U	25
WG46444	L59241-1	L20983-14 i	MLA-010 Rev 11	2,2',3,4',5,6'-HxCB	1.48	pg/L	K J T	U	25
WG46444	L59241-1	L20983-14 i	MLA-010 Rev 11	2,2',3,4,6,6'-HxCB	0.569	pg/L	K J T	U	25

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WG46444	L59241-1	L20983-14 i	MLA-010 Rev 11	2,2',4,4',6,6'-HxCB	1.37	pg/L	K J G	U	25
WG46444	L59241-1	L20983-14 i	MLA-010 Rev 11	2,2',4,6,6'-PeCB	1.8	pg/L	K J	U	25
WG46444	L59241-1	L20983-14 i	MLA-010 Rev 11	2',3,4,4',5-PeCB	45.9	pg/L	K	U	25
WG46444	L59241-1	L20983-14 i	MLA-010 Rev 11	3,3',4,4',5-PeCB	15.6	pg/L	K	U	25
WG46444	L59241-1	L20983-14 i	MLA-010 Rev 11	3-MoCB	2.56	pg/L	B J	U	7
WG46444	L59241-3	L20983-15 LW	MLA-010 Rev 11	2,2',3,3',4,4',5,5',6,6'-HxCB	139	pg/L	K B D	U	25
WG46444	L59241-3	L20983-15 LW	MLA-010 Rev 11	2,2',3,4,4',5,6-HpCB	24.6	pg/L	K D J	U	25
WG46444	L59241-3	L20983-15 LW	MLA-010 Rev 11	2,2',3,4,4',6,6'-HpCB	15.9	pg/L	K D J	U	25
WG46444	L59241-3	L20983-15 LW	MLA-010 Rev 11	2,2',3,4',6,6'-HxCB	59.2	pg/L	K D J	U	25
WG46444	L59241-3	L20983-15 LW	MLA-010 Rev 11	2,2',3,4,6'-PeCB	22.4	pg/L	K D J	U	25
WG46444	L59241-3	L20983-15 LW	MLA-010 Rev 11	2',3,4,4',5-PeCB	35	pg/L	K D J	U	25
WG46444	L59241-3	L20983-15 LW	MLA-010 Rev 11	2,3,4,4',5-PeCB	35.8	pg/L	K D J	U	25
WG46444	L59241-3	L20983-15 LW	MLA-010 Rev 11	2,3',4,5,5'-PeCB	61.4	pg/L	K D J	U	25
WG46444	L59267-2	L20983-16	MLA-010 Rev 11	2,2',3,4,4',5,6-HpCB	4.27	pg/L	K	U	25
WG46444	L59267-2	L20983-16	MLA-010 Rev 11	2,2',3,5,6,6'-HxCB	1.24	pg/L	K J	U	25
WG46444	L59267-2	L20983-16	MLA-010 Rev 11	2,2',4,6,6'-PeCB	1.61	pg/L	K J	U	25
WG46444	L59267-2	L20983-16	MLA-010 Rev 11	2,2',6,6'-TeCB	0.539	pg/L	K J	U	25
WG46444	L59267-2	L20983-16	MLA-010 Rev 11	2',3,4,4',5-PeCB	30.1	pg/L	K	U	25
WG46444	L59267-2	L20983-16 Wi	MLA-010 Rev 11	2,2',3,6,6'-PeCB	4.74	pg/L	K D J	U	25
WG46444	L59294-1	L20983-17	MLA-010 Rev 11	2,2',3,4,4',5,6-HpCB	1.53	pg/L	K J	U	25
WG46444	L59294-1	L20983-17	MLA-010 Rev 11	2,2',3,4',5,6'-HxCB	1.22	pg/L	K J	U	25
WG46444	L59294-1	L20983-17	MLA-010 Rev 11	2,2',4,4',6,6'-HxCB	0.556	pg/L	K J	U	25
WG46444	L59294-1	L20983-17	MLA-010 Rev 11	2,2',4,6,6'-PeCB	0.9	pg/L	K J	U	25
WG46444	L59294-1	L20983-17	MLA-010 Rev 11	2,3,3',4,4',5',6-HpCB	5.97	pg/L	K	U	25
WG46444	L59294-1	L20983-17	MLA-010 Rev 11	2,3,3',4,5-PeCB	3.36	pg/L	K J	U	25
WG46444	L59294-1	L20983-17	MLA-010 Rev 11	2',3,4,4',5-PeCB	54.1	pg/L	K	U	25
WG46444	L59294-1	L20983-17	MLA-010 Rev 11	3,3',5,5'-TeCB	19.5	pg/L	K	U	25
WG46444	L59294-2	L20983-18 i2	MLA-010 Rev 11	2,2',3,3',4,5',6-HpCB	7.88	pg/L	K	U	25
WG46444	L59294-2	L20983-18 i2	MLA-010 Rev 11	2,2',3,4,4',5,6-HpCB	2.78	pg/L	K J	U	25
WG46444	L59294-2	L20983-18 i2	MLA-010 Rev 11	2,2',3,4',5,6,6'-HpCB	0.521	pg/L	K J	U	25
WG46444	L59294-2	L20983-18 i2	MLA-010 Rev 11	2,2',3,4',5,6'-HxCB	3.49	pg/L	K J	U	25
WG46444	L59294-2	L20983-18 i2	MLA-010 Rev 11	2,2',3,5,6,6'-HxCB	0.89	pg/L	K J	U	25
WG46444	L59294-2	L20983-18 i2	MLA-010 Rev 11	2,2',3,6'-TeCB	9.65	pg/L	K	U	25
WG46444	L59294-2	L20983-18 i2	MLA-010 Rev 11	2,2',4,6,6'-PeCB	1.72	pg/L	K J	U	25
WG46444	L59294-2	L20983-18 i2	MLA-010 Rev 11	2,3,3',4,4',5,5'-HpCB	3.93	pg/L	K J	U	25

Qualified Data Summary Table
Lower Duwamish Waterway - Michigan Basin Study

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
WG46444	L59294-2	L20983-18 i2	MLA-010 Rev 11	2',3,4,4',5-PeCB	19.9	pg/L	K	U	25
WG46444	L59294-2	L20983-18 i2	MLA-010 Rev 11	2,3',4,5,5'-PeCB	0.79	pg/L	K J T	U	25
WG46444	L59294-3	L20983-19 LW2	MLA-010 Rev 11	2,2',3,4',5,6,6'-HpCB	24.5	pg/L	K D J	U	25
WG46444	L59294-3	L20983-19 LW2	MLA-010 Rev 11	2,2',3,4,6'-PeCB	25.5	pg/L	K D J	U	25
WG46444	L59294-3	L20983-19 LW2	MLA-010 Rev 11	2,2',4,6,6'-PeCB	12.2	pg/L	K D J	U	25
WG46444	L59294-3	L20983-19 LW2	MLA-010 Rev 11	2',3,4,4',5-PeCB	61.7	pg/L	K D J	U	25
WG46444	L59294-3	L20983-19 LW2	MLA-010 Rev 11	2,3,6-TriCB	22.8	pg/L	K D J	U	25
WG46444	L59471-1	L20983-20	MLA-010 Rev 11	2',3,4,4',5-PeCB	167	pg/L	K	U	25
WG46444	L59471-1	L20983-20	MLA-010 Rev 11	3,3',4,4',5-PeCB	52.6	pg/L	K	U	25
WG46444	L59471-2	L20983-21 LW	MLA-010 Rev 11	2,2',3,4,4',5,6-HpCB	58.5	pg/L	K D J	U	25
WG46444	L59471-2	L20983-21 LW	MLA-010 Rev 11	2,2',3,4,4',6,6'-HpCB	25.2	pg/L	K D J	U	25
WG46444	L59471-2	L20983-21 LW	MLA-010 Rev 11	2,2',3,4',6,6'-HxCB	129	pg/L	K D	U	25
WG46444	L59471-2	L20983-21 LW	MLA-010 Rev 11	2,2',3,5,6,6'-HxCB	34.5	pg/L	K D J	U	25
WG46444	L59471-2	L20983-21 LW	MLA-010 Rev 11	2,2',4,6,6'-PeCB	11	pg/L	K D J	U	25
WG46444	L59471-2	L20983-21 LW	MLA-010 Rev 11	2,2',4-TriCB	302	pg/L	K B D	U	25
WG46444	L59471-2	L20983-21 LW	MLA-010 Rev 11	2,3,3',5,5'-PeCB	30.1	pg/L	K D J	U	25
WG46444	L59471-2	L20983-21 LW	MLA-010 Rev 11	2',3,4,4',5-PeCB	41	pg/L	K D J	U	25
WG46444	L59471-2	L20983-21 LW	MLA-010 Rev 11	2,3,4,4',5-PeCB	47.4	pg/L	K D J	U	25
WG46444	L59471-2	L20983-21 LW	MLA-010 Rev 11	2,3',5,5'-TeCB	13.9	pg/L	K D J	U	25
WG46444	L59471-2	L20983-21 LW	MLA-010 Rev 11	2,3,6-TriCB	13.4	pg/L	K D J	U	25
WG46444	L59471-2	L20983-21 LW	MLA-010 Rev 11	3,3',4,5'-TeCB	35.8	pg/L	K D J	U	25
WG46444	L59471-3	L20983-22	MLA-010 Rev 11	2,2',3,4,4',6,6'-HpCB	5.87	pg/L	K	U	25
WG46444	L59471-3	L20983-22	MLA-010 Rev 11	2,2',3,4',5,6,6'-HpCB	4.18	pg/L	K	U	25
WG46444	L59471-3	L20983-22	MLA-010 Rev 11	2,2',4,4',6,6'-HxCB	1.97	pg/L	K J	U	25
WG46444	L59471-3	L20983-22	MLA-010 Rev 11	2',3,4,4',5-PeCB	44.5	pg/L	K	U	25
WG46444	L59471-3	L20983-22	MLA-010 Rev 11	3,3',4,4',5-PeCB	21.7	pg/L	K	U	25
WG46444	L59471-3	L20983-22	MLA-010 Rev 11	3,4,4',5-TeCB	1.77	pg/L	K J	U	25



DATA VALIDATION REPORT
Lower Duwamish Waterway Source Control
Michigan Combined Sewer Basin Study

Prepared for:

King County Environmental Laboratory
322 West Ewing Street
Seattle, Washington 98119

Prepared by:

EcoChem, Inc.
1011 Western Avenue, Suite 1011
Seattle, Washington 98104

EcoChem Project: C25901-2

August 18, 2014

Approved for Release:

A handwritten signature in black ink that reads "ChDM. Frans". The signature is written in a cursive, flowing style.

Christina Mott Frans
Project Manager
EcoChem, Inc.

PROJECT NARRATIVE

Basis for the Data Validation

This report presents the results of Summary Validation (EPA Stage 2B) performed on effluent samples and quality control sample data for the Lower Duwamish Waterway Michigan Basin Study sampling. A complete list of samples is provided in the **Sample Index**.

Samples were analyzed by Axys Analytical Services Ltd., Sidney, British Columbia, Canada. The analytical methods and EcoChem project chemists are listed below.

Analysis	Method	Primary Review	Secondary Review
PCB Congeners	EPA 1668A	M. Swanson	C. Frans
Dioxin & Furan Compounds	EPA 1613B		

The data were reviewed using guidance and quality control criteria documented in the analytical methods; *Lower Duwamish Waterway Source Control Brandon Combined Sewer Basin Study Sampling and Analysis Plan* (King County Dept. of Natural Resources and Parks, August 2011), *Lower Duwamish Waterway Source Control Michigan Combined Sewer Basin Study, Addendum to Brandon Basin Sampling and Analysis Plan* (King County Dept. of Natural Resources and Parks, August 2013), *USEPA National Functional Guidelines for Chlorinated Dibenzo-p-Dioxins (CDDs) and Chlorinated Dibenzofurans (CDFs) Data Review* (USEPA, September 2011); USEPA Region 10 SOP for the Validation of Method 1668 Toxic, Dioxin-like, PCB Data (USEPA December 1995), and EPA Region 10 SOP for Validation of Polychlorinated Dibenzodioxin (PCDD) and Polychlorinated Dibenzofuran (PCDF) Data (USEPA January 1996).

EcoChem's goal in assigning data assessment qualifiers is to assist in proper data interpretation. If values are estimated (J or UJ), data may be used for site evaluation and risk assessment purposes but reasons for data qualification should be taken into consideration when interpreting sample concentrations. If values are assigned an R, the data are to be rejected and should not be used for any site evaluation purposes. If values have no data qualifier assigned, then the data meet the data quality objectives as stated in the documents and methods referenced previously.

Data qualifier definitions, reason codes, and validation criteria are included as **APPENDIX A**. A Qualified Data Summary Table is included in **APPENDIX B**. Data Validation Worksheets will be kept on file at EcoChem, Inc. A qualified laboratory electronic data deliverable (EDD) is also submitted with this report.

Sample Index
Lower Duwamish Waterway - Michigan Basin Study

SDG	Sample ID	Laboratory ID	Dioxins	PCB Congeners
DPWG47525	L59756-2	L21407-6	✓	
DPWG47525	L60018-2	L21407-12	✓	
DPWG47728	L59681-1	L21407-1		✓
DPWG47728	L59681-2	L21407-2		✓
DPWG47728	L59681-3	L21407-3		✓
DPWG47728	L59745-3	L21407-4		✓
DPWG47728	L59756-1	L21407-5		✓
DPWG47728	L59756-2	L21407-6		✓
DPWG47728	L59833-1	L21407-7		✓
DPWG47728	L59833-2	L21407-8		✓
DPWG47728	L59938-1	L21407-9		✓
DPWG47728	L59938-3	L21407-10		✓
DPWG47728	L60018-2	L21407-12		✓
DPWG47728	L60018-1	L21407-11		✓
DPWG47728	L60018-3	L21407-13		✓
DPWG47728	L60041-1	L21407-14		✓
DPWG47728	L60041-2	L21407-15		✓
DPWG47728	L60041-3	L21407-16		✓
DPWG47728	L60114-1	L21407-17		✓
DPWG47728	L60114-3	L21407-18		✓

DATA VALIDATION REPORT

LDW Michigan Basin Study

Dioxin/Furan Compounds by EPA 1613B

This report documents the review of analytical data from the analyses of effluent final (sewer water) samples and the associated laboratory and field quality control (QC) samples. Samples were analyzed by Axys Analytical Services Ltd., Sidney, British Columbia, Canada. Refer to the **Sample Index** for a list of samples reviewed.

SDG	Number of Samples	Validation Level
WG47351	2 Effluent	Stage 2B

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD VERIFICATION

A verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy laboratory data packages. All sample results were verified along with ten percent of the QC results. No errors were found.

III. TECHNICAL DATA VALIDATION

The quality control (QC) requirements that were reviewed are listed in the following table.

√	Sample Receipt, Preservation, and Holding Times	√	Ongoing Precision and Recovery (OPR)
√	System Performance and Resolution Checks	1	Laboratory Duplicates
√	Initial Calibration (ICAL)	1	Field Duplicates
√	Calibration Verification (CVER)	√	Target Analyte List
2	Laboratory Blanks	√	Reporting Limits
1	Field Blanks	2	Compound Identification
√	Labeled Compound Recovery	√	Compound Quantitation
1	Matrix Spike/Matrix Spike Duplicates (MS/MSD)	N/A	Calculation Verification

✓ *Method quality objectives (MQO) and QC criteria have been met. No outliers are noted or discussed.*

¹ *Quality control results are discussed below, but no data were qualified.*

² *Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.*

Laboratory Blanks

Laboratory (method) blanks were analyzed at the appropriate frequency. In order to assess the impact of blank contamination on the reported sample results, action levels are established at five times the blank concentrations. If the concentrations in the associated field samples are less than the action levels, the results are qualified as not detected (U-7). No action was taken if the sample results were greater than the action level or for non-detected results.

The laboratory assigned K-flags to dioxin values when a peak was detected but did not meet identification criteria. These values cannot be considered as positive identifications, but are "estimated maximum possible concentrations". When these occurred in the method blank the results were considered as false positives. No action levels were established for these analytes.

The congener 1,2,3,4,6,7,8-HpCDF was detected in the method blank. The result for this congener in Sample L60018-2 was qualified as not detected (U-7).

Field Blanks

No samples identified as field blanks were submitted.

Matrix Spike/Matrix Spike Duplicate

Matrix spike/matrix spike duplicate (MS/MSD) analyses were not performed. The ongoing precision and recovery (OPR) and labeled compound recoveries were used to evaluate laboratory accuracy. Laboratory precision from batch to batch was acceptable as indicated by the acceptable OPR standard results. Precision within the analytical batches could not be evaluated.

Laboratory Duplicates

No samples identified as laboratory duplicates were submitted.

Field Duplicates

No samples identified as field duplicates were submitted.

Compound Identification

For several samples, the laboratory reported K-flagged or "estimated maximum possible concentrations" values for one or more of the target analytes. An EMPC value is reported when a peak was detected but did not meet identification criteria, as required by the method; therefore the result cannot be considered as positive identification for the analyte. To indicate that the reported result for an individual analyte is in effect an elevated detection limit, the EMPC values were qualified as not detected (U-25) at the reported values.

All positive results for 2,3,7,8-TCDF were confirmed on a DB-225 column as required by the method. The 2,3,7,8-TCDF results from the DB-5 column were qualified do-not-report (DNR-11) in favor of the results from the DB-225 column.

IV. OVERALL ASSESSMENT

As was determined by this evaluation, the laboratory followed the specified analytical method. Accuracy was acceptable as demonstrated by the labeled compound and OPR standard recoveries. Precision within the analytical batches could not be evaluated.

Data were qualified as not detected to indicate that EMPC values represent elevated detection limits. One data point was qualified as not detected due to method blank contamination.

Data were flagged as do-not-report (DNR) to indicate which result (from multiple reported analyses) should not be used. Data that have been flagged DNR should not be used for any purpose.

All other data, as qualified, are acceptable for use.

DATA VALIDATION REPORT

LDW Michigan Basin Study

PCB Congeners by EPA Method 1668C

This report documents the review of analytical data from the analyses of effluent final (sewer water) samples and the associated laboratory and field quality control (QC) samples. Samples were analyzed by Axys Analytical Services Ltd., Sidney, British Columbia, Canada. Refer to the **Sample Index** for a list of samples reviewed.

SDG	Number of Samples	Validation Level
WG47350	18 Effluent	Stage 2B

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD TO HARDCOPY VERIFICATION

A verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy laboratory data package. All sample results and 10% of the QC results were verified. No errors were found.

III. TECHNICAL DATA VALIDATION

The QC requirements that were reviewed are listed below.

√	Sample Receipt, Preservation, and Holding Times	1	Laboratory Duplicates
√	Initial Calibration (ICAL)	1	Field Duplicates
√	Calibration Verification (CVER)	√	Target Analyte List
2	Laboratory Blanks	√	Reporting Limits
1	Field Blanks	2	Compound Identification
2	Labeled Compound Recovery	1	Compound Quantitation
1	Matrix Spike/Matrix Spike Duplicates (MS/MSD)	N/A	Calculation Verification
√	Ongoing Precision and Recovery (OPR)		

¹ Quality control results are discussed below, but no data were qualified.

² Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.

Laboratory Blanks

Laboratory (method) blanks were analyzed at the appropriate frequency. In order to assess the impact of blank contamination on the reported sample results, action levels are established at five times the blank concentrations. If the concentrations in the associated field samples are less than the action levels, the results are qualified as not detected (U-7). No action was taken if the sample results were greater than the action level or for non-detected results.

The laboratory assigned K-flags to dioxin values when a peak was detected but did not meet identification criteria. These values cannot be considered as positive identifications, but are “estimated maximum possible concentrations”. When these occurred in the method blank the results were considered as false positives. No action levels were established for these analytes.

One or more results for the following PCB congeners were qualified as not detected (U-7) based on method blank contamination.

PCB 1	PCB 11	PCB 18	PCB 31
PCB 7	PCB 15	PCB 20	PCB 32
PCB 8	PCB 17	PCB 22	

All field sample results for the following PCB congeners were greater than the action levels, no data were qualified based on these outliers.

PCB 37	PCB 44	PCB 66	PCB 90
PCB 40	PCB 45	PCB 86	PCB 118

Field Blanks

No samples identified as field blanks were submitted.

Labeled Compound Recovery

The percent recovery (%R) values for labeled compounds were within the control limits with the following exceptions.

Sample ID	Labeled Congener	Percent Recovery
L60018-3	PCB189L	22.8
	PCB205L	22.0
	PCB206L	22.9
	PCB208L	21.4

The %R outliers indicated a potential low bias. The associated native congeners and coelutions of native congeners were estimated (J/UJ-13L).

Matrix Spikes/Matrix Spike Duplicates

No matrix spike/matrix spike duplicates (MS/MSD) were analyzed. Accuracy was assessed using labeled compound recoveries and ongoing precision and recovery samples. Precision was assessed using the laboratory duplicate results.

Laboratory Duplicates

The following acceptance criteria were used to evaluate precision: the relative percent difference (RPD) or percent relative standard deviation (%RSD) control limit is 50% for results greater than the reporting limit (RL). The absolute difference between the sample and replicate must be less than the RL for results less than 5x the RL.

One set of laboratory duplicates, L59681-1 & L59681-1 DUP, was submitted. The laboratory noted that the sample material for these samples were submitted in separate one liter bottles and that the entire volumes were analyzed. The difference in PCB congener concentrations for the two samples bottles exceeded that expected from laboratory analytical variability alone, indicating differences between the contents of the two bottles. Particulates were observed in both sample bottles, which was analyzed as part of the samples. The RPD values ranged from 100% to 196%. Based on the non-homogeneity of these samples all results were estimated (J/UJ-9) in the parent sample.

Field Duplicates

No samples identified as field duplicates were submitted.

Compound Identification

For several samples, the laboratory reported estimated maximum possible concentration (EMPC) values for one or more of the target analytes. As required by the method, an EMPC value is reported when a peak was detected but did not meet quantitation criteria, therefore the result cannot be considered as positive identification for the analyte. The EMPC values were qualified as not detected (U-25) to indicate that the result is not-detected at an elevated reporting limit.

Compound Quantitation

The laboratory assigned a "G" flag to results where there was a disturbance of the mass ion (lock-mass) used to monitor instrument performance. The lock-mass disturbances interfere with the quantitation and/or resolution of the congeners. These samples were diluted and re-analyzed, the laboratory reported only the most appropriate result for each congener. The following results were estimated (J/UJ-24) based on lock-mass disturbances.

Sample ID	Qualified Congeners
L59681-2 L60018-2	PCB 1
L59681-3 L59756-2	PCB 10

IV. OVERALL ASSESSMENT

As was determined by this evaluation, the laboratory followed the specified analytical method. Accuracy was acceptable, as demonstrated by the labeled compound and OPR recoveries, with the exceptions previously noted. Due to sediment present in the field sample, acceptability of analytical precision could not be determined for the laboratory duplicate samples.

Data were estimated due to labeled compound recovery outliers and laboratory duplicate precision outliers. Data were qualified as not detected due to laboratory blank contamination. Data were also qualified as not detected to indicate that EMPC values represent elevated detection limits.

All data, as qualified, are acceptable for use.



EcoChem, INC.
Environmental Data Quality

APPENDIX A

DATA QUALIFIER DEFINITIONS, REASON CODES, AND CRITERIA TABLES

DATA VALIDATION QUALIFIER CODES

Based on National Functional Guidelines

The following definitions provide brief explanations of the qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
NJ	The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated numerical value represents the approximate concentration.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

The following is an EcoChem qualifier that may also be assigned during the data review process:

DNR	Do not report; a more appropriate result is reported from another analysis or dilution.
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DATA QUALIFIER REASON CODES

Group	Code	Reason for Qualification
Sample Handling	1	Improper Sample Handling or Sample Preservation (i.e., headspace, cooler temperature, pH, summa canister pressure); Exceeded Holding Times
Instrument Performance	24	Instrument Performance (i.e., tune, resolution, retention time window, endrin breakdown, lock-mass)
	5A	Initial Calibration (RF, %RSD, r^2)
	5B	Calibration Verification (ICV, CCV, CCAL; RF, %D, %R) Use bias flags (H,L) ¹ where appropriate
Blank Contamination	6	Field Blank Contamination (Equipment Rinsate, Trip Blank, etc.)
	7	Lab Blank Contamination (i.e., method blank, instrument blank, etc.) Use low bias flag (L) ¹ for negative instrument blanks
Precision and Accuracy	8	Matrix Spike (MS &/or MSD) Recoveries Use bias flags (H,L) ¹ where appropriate
	9	Precision (all replicates: LCS/LCSD, MS/MSD, Lab Replicate, Field Replicate)
	10	Laboratory Control Sample Recoveries (a.k.a. Blank Spikes) Use bias flags (H,L) ¹ where appropriate
	12	Reference Material Use bias flags (H,L) ¹ where appropriate
	13	Surrogate Spike Recoveries (a.k.a. labeled compounds, recovery standards) Use bias flags (H,L) ¹ where appropriate
Interferences	16	ICP/ICP-MS Serial Dilution Percent Difference
	17	ICP/ICP-MS Interference Check Standard Recovery Use bias flags (H,L) ¹ where appropriate
	19	Internal Standard Performance (i.e., area, retention time, recovery)
	22	Elevated Detection Limit due to Interference (i.e., chemical and/or matrix)
	23	Bias from Matrix Interference (i.e. diphenyl ether, PCB/pesticides)
Identification and Quantitation	2	Chromatographic pattern in sample does not match pattern of calibration standard
	3	2 nd column confirmation (RPD or %D)
	4	Tentatively Identified Compound (TIC) (associated with NJ only)
	20	Calibration Range or Linear Range Exceeded
	25	Compound Identification (i.e., ion ratio, retention time, relative abundance, etc.)
Miscellaneous	11	A more appropriate result is reported (multiple reported analyses i.e., dilutions, re-extractions, etc. Associated with "R" and "DNR" only)
	14	Other (See DV report for details)
	26	Method QC information not provided

¹ H = high bias indicated

L = low bias indicated

EcoChem Validation Guidelines for Dioxin/Furan Analysis by HRMS
(Based on EPA Reg. 10 SOP, Rev. 2, 1996 & EPA SW-846, Methods 1613b and 8290)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Cooler/Storage Temperature	Waters/Solids < 4°C Tissues < -10°C	EcoChem PJ, see TM-05	1
Holding Time	Extraction - Water: 30 days from collection <i>Note:</i> Under CWA, SDWA, and RCRA the HT for H ₂ O is 7 days* Extraction - Soil: 30 days from collection Analysis: 40 days from extraction	J(+)/UJ(-) if ext > 30 days J(+)/UJ(-) if analysis > 40 Days EcoChem PJ, see TM-05	1
Mass Resolution	>=10,000 resolving power at m/z 304.9824 Exact mass of m/z 380.9760 w/in 5 ppm of theoretical value (380.97410 to 380.97790) . Analyzed prior to ICAL and at the start and end of each 12 hr. shift	R(+/-) if not met	14
Window Defining Mix and Column Performance Mix	Window defining mixture/Isomer specificity std run before ICAL and CCAL Valley < 25% (valley = (x/y)*100%) x = ht. of TCDD y = baseline to bottom of valley For all isomers eluting near 2378-TCDD/TCDF isomers (TCDD only for 8290)	J(+) if valley > 25%	5A (ICAL) 5B (CCAL)
Initial Calibration	Minimum of five standards %RSD < 20% for native compounds %RSD <30% for labeled compounds (%RSD <35% for labeled compounds under 1613b)	J(+) natives if %RSD > 20%	5A
	Abs. RT of ¹³ C ₁₂ -1234-TCDD >25 min on DB5 >15 min on DB-225	EcoChem PJ, see TM-05	
	Ion Abundance ratios within QC limits (Table 8 of method 8290) (Table 9 of method 1613B)	EcoChem PJ, see TM-05	
	S/N ratio > 10 for all native and labeled compounds in CS1 std.	If <10, elevate Det. Limit or R(-)	

EcoChem Validation Guidelines for Dioxin/Furan Analysis by HRMS
(Based on EPA Reg. 10 SOP, Rev. 2, 1996 & EPA SW-846, Methods 1613b and 8290)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Continuing Calibration	Analyzed at the start and end of each 12 hour shift. %D +/-20% for native compounds %D +/-30% for labeled compounds (Must meet limits in Table 6, Method 1613B) (If %Ds in the closing CCAL are w/in 25%/35% the avg RF from the two CCAL may be used to calculate samples per Method 8290, Section 8.3.2.4)	Do not qualify labeled compounds. Narrate in report for labeled compound %D outliers. For native compound %D outliers: 8290: J(+)/UJ(-) if %D = 20% - 75% J(+)/R(-) if %D > 75% 1613: J(+)/UJ(-) if %D is outside Table 6 limits J(+)/R(-) if %D is +/- 75% of Table 6 limit	5B
	Abs. RT of ¹³ C ₁₂ -1234-TCDD and ¹³ C ₁₂ -123789-HxCDD +/- 15 sec of ICAL.	EcoChem PJ, see ICAL section of TM-05	
	RRT of all other compounds must meet Table 2 of 1613B.	EcoChem PJ, see TM-05	
	Ion Abundance ratios within QC limits (Table 8 of method 8290) (Table 9 of method 1613B)	EcoChem PJ, see TM-05	
	S/N ratio > 10	If <10, elevate Det. Limit or R(-)	
Method Blank	One per matrix per batch No positive results	If sample result <5X action level, qualify U at reported value.	7
Field Blanks (Not Required)	No positive results	If sample result <5X action level, qualify U at reported value.	6
LCS / OPR	Concentrations must meet limits in Table 6, Method 1613B or lab limits.	J(+) if %R > UCL J(+)/UJ(-) if %R < LCL J(+)/R(-) using PJ if %R <<LCL (< 10%)	10
MS/MSD (recovery)	May not analyze MS/MSD %R should meet lab limits.	Qualify parent only unless other QC indicates systematic problems: J(+) if both %R > UCL J(+)/UJ(-) if both %R < LCL J(+)/R(-) if both %R < 10% PJ if only one %R outlier	8
MS/MSD (RPD)	May not analyze MS/MSD RPD < 20%	J(+) in parent sample if RPD > CL	9

DATA VALIDATION CRITERIA

Table No.: HRMS-DXN

Revision No.: 3

Last Rev. Date: 8/23/07

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EcoChem Validation Guidelines for Dioxin/Furan Analysis by HRMS (Based on EPA Reg. 10 SOP, Rev. 2, 1996 & EPA SW-846, Methods 1613b and 8290)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Lab Duplicate	RPD <25% if present.	J(+)/UJ(-) if outside limits	9
Labeled Compounds / Internal Standards	<i>Method 8290</i> : %R = 40% - 135% in all samples	J(+)/UJ(-) if %R = 10% to LCL J(+) if %R > UCL J(+)/R(-) if %R < 10%	13
	<i>Method 1613B</i> : %R must meet limits specified in Table 7, Method 1613		
Quantitation/ Identification	Ions for analyte, IS, and rec. std. must max w/in 2 sec. S/N >2.5 IA ratios meet limits in Table 9 of 1613B or Table 8 of 8290 RRTs w/in limits in Table 2 of 1613B	If RT criteria not met, use PJ (see TM-05) If S/N criteria not met, J(+). If unlabelled ion abundance not met, change to EMPC If labelled ion abundance not met, J(+).	21
EMPC (estimated maximum possible concentration)	If quantitation identification criteria are not met, laboratory should report an EMPC value.	If laboratory correctly reported an EMPC value, qualify with U to indicate that the value is a detection limit.	14
Interferences	PCDF interferences from PCDFE	If both detected, change PCDF result to EMPC	14
Second Column Confirmation	All 2378-TCDF hits must be confirmed on a DB-225 (or equiv) column. All QC specs in this table must be met for the confirmation analysis.	Report lower of the two values. If not performed use PJ (see TM-05).	3
Field Duplicates	Use QAPP limits. If no QAPP: Solids: RPD <50% OR absolute diff. < 2X RL (for results < 5X RL) Aqueous: RPD <35% OR absolute diff. < 1X RL (for results < 5X RL)	Narrate and qualify if required by project (EcoChem PJ)	9
Two analyses for one sample	Report only one result per analyte	"DNR" results that should not be used	11

EcoChem Validation Guidelines for PCB Congener Analysis by HRMS
(Based on EPA Reg. 10 SOP, Rev. 1, 12/1995 & EPA SW-846, Method 1668)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Cooler/Storage Temperature	Waters/Solids <4°C Tissues <-10°C	EcoChem PJ, see TM-05	1
Holding Time	Samples: Up to one year if stored in the dark & temp as above. Extracts: Up to 1 year if stored at <-10°C and in the dark	J(+)/UJ(-) if HT > 1 year EcoChem PJ, see TM-05	1
Mass Resolution	>=10,000 resolving power at m/z 330.9792 <5 ppm deviation from each m/z listed in Table 7 of method. Analyzed prior to ICAL and at the beginning and end of each 12 hr. shift	R(+/-) if not met	14
Column Resolution 209 Congener Solution	Mix of all 209 PCBs run prior to each ICAL and each 12 hour shift RT of PCB209 must be > 55 min PCB 156 & 157 must coelute w/in 2 sec PCB34 & 23 and PCB187 & 182 must be resolved where $(x/y)*100\% < 40\%$ x = ht. of valley and y = ht of shortest peak	J(+) if valley >40%	5A (ICAL) 5B (CCAL)
Initial Calibration	Minimum of five standards %RSD < 20% for native compounds %RSD < 35% for labeled compounds	J(+) natives if %RSD > 20%	5A
	Ion Abundance ratios within QC limits (Method 1668, Table 8) in CS1 std.	EcoChem PJ, see TM-05	
	S/N ratio > 10 for all native and labeled compounds in CS1 std.	If <10, elevate Det. Limit or R(-)	
Continuing Calibration	Every 12 hours: Concentrations must meet criteria specified in Method 1668, Table 6	J(+) / (UJ(-) natives if %D = 30% - 50% J(+) / R(-) natives if %D > 75%	5B
	Absolute RT of all Labelled Compounds and Window Defining Congeners must be +/- 15 sec of RT in ICAL RRT of all compounds must meet Table 2 of method.	EcoChem PJ, see ICAL section of TM-05	
	S/N ratio > 10	If <10, elevate Det. Limit or R(-)	
	Ion Abundance ratios must meet criteria specified in Method 1668, Table 8	EcoChem PJ, see TM-05	
Method Blank	One per matrix per batch No positive results	If sample result <5X action level, qualify U at reported value.	7

EcoChem Validation Guidelines for PCB Congener Analysis by HRMS
(Based on EPA Reg. 10 SOP, Rev. 1, 12/1995 & EPA SW-846, Method 1668)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Rinse/Field Blank (if required)	One per matrix per batch No positive results	If sample result <5X action level, qualify U at reported value.	6
LCS / OPR	One per matrix per batch %R Values w/in limits specified in Method 1668, Table 6	J(+) if %R > UCL J(+)/UJ(-) if %R < LCL J(+)/R(-) using PJ if %R <<LCL (< 10%)	10
MS/MSD (if required)	Accuracy: %R values within laboratory limits	Qualify parent sample only unless other QC indicates systematic problems: J(+) if both %R > UCL J(+)/UJ(-) if both %R < LCL J(+)/R(-) if both %R < 10% PJ if only one %R outlier	8
	Precision: RPD < 20%	J(+) in parent sample if RPD > 20%	9
Duplicate (if required)	RPD <25%	J(+)/UJ(-) if outside limits	9
Labeled Compounds / Internal Standards	%R must meet limits specified in Method 1668, Table 6.	J(+)/UJ(-) if %R = 10% to LCL J(+) if %R > UCL J(+)/R(-) if %R < 10%	13
Quantitation/ Identification	Ions for analyte, IS, and rec. std. must max w/in 2 sec. S/N >2.5 Ion abundance (IA ratios) must meet limits stated in Table 8 of Method 1668 Relative retention times (RRT) must be w/in limits stated in Table 2 of Method 1668	If RT criteria not met, use PJ (see TM-05) J(+) if S/N criteria not met if unlabelled ion abundance not met, change to EMPC J(+) if labelled ion abundance not met.	21
Interferences	Lock masses must not deviate +/- 20%	Change result to EMPC	14
Field Duplicates	Use QAPP limits. If no QAPP: Solids: RPD <50% OR absolute diff. < 2X RL (for results < 5X RL) Aqueous: RPD <35% OR absolute diff. < 1X RL (for results < 5X RL)	Narrate and qualify if required by project (EcoChem PJ)	9
Two analyses for one sample	Report only one result per analyte	"DNR" results that should not be used to avoid reporting two results for one sample	11



EcoChem, INC.
Environmental Data Quality

APPENDIX B

QUALIFIED DATA SUMMARY TABLE

Qualified Data Summary Table
Lower Duwamish Waterway - Michigan Basin Study

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
WG47351	L59756-2	L21407-6	EPA 1613B	2,3,7,8-TCDD	0.701	pg/L	K B J	U	25
WG47351	L59756-2	L21407-6	EPA 1613B	2,3,7,8-TCDF	0.621	pg/L	K J	DNR	11
WG47351	L59756-2	L21407-6	EPA 1613B	1,2,3,4,6,7,8-HPCDF	2.92	pg/L	K B J	U	25
WG47351	L60018-2	L21407-12	EPA 1613B	1,2,3,4,6,7,8-HPCDF (TEQ ND=0)	0.0291	pg/L		U	7
WG47351	L60018-2	L21407-12	EPA 1613B	1,2,3,7,8,9-HXCDD	0.567	pg/L	K B J	U	25
WG47351	L60018-2	L21407-12	EPA 1613B	2,3,7,8-TCDF	3.11	pg/L	K	DNR	11
WG47351	L60018-2	L21407-12	EPA 1613B	1,2,3,4,6,7,8-HPCDF	2.91	pg/L	B J	U	7
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',4,5',6-PeCB	201	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',4,6,6'-PeCB	4.53	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3,3',4,4'-PeCB	9290	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3,3',4,5-PeCB		pg/L	U	UJ	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3,3',4',5-PeCB	811	pg/L	C	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3,3',4,6-PeCB	1580	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3,3',4',6-PeCB	23900	pg/L	C B	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3,3',5,5'-PeCB	7.78	pg/L	K	UJ	9,25
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3,3',5,6-PeCB		pg/L	U	UJ	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3,4,4',5-PeCB	709	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3',4,4',5-PeCB	16900	pg/L	B	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',4,6-TeCB	6740	pg/L	C	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',5,5'-TeCB	50500	pg/L	B	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',6,6'-TeCB	86	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3,3',4-TeCB	972	pg/L	K	UJ	9,25
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3,3',4'-TeCB	27300	pg/L	B	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3,3',5-TeCB	393	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3,3',5'-TeCB	148	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3,3',6-TeCB	5420	pg/L	C	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3,4,4'-TeCB	15200	pg/L		J	9

Qualified Data Summary Table
Lower Duwamish Waterway - Michigan Basin Study

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3,4,5-TeCB	86300	pg/L	C B	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3,4',5-TeCB	2670	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3,4',6-TeCB	26600	pg/L	B	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3',4,4'-TeCB	55200	pg/L	B	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3',4,5-TeCB	1970	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3',4,5'-TeCB	231	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3',5,5'-TeCB	374	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3',5',6-TeCB		pg/L	U	UJ	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	3,3',4,4'-TeCB	5250	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	3,3',4,5-TeCB		pg/L	U	UJ	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	3,3',4,5'-TeCB	351	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	3,3',5,5'-TeCB		pg/L	U	UJ	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	3,4,4',5-TeCB	263	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,3',4-PeCB	3980	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,3',5-PeCB	15200	pg/L	C	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,3',6-PeCB	6940	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,4,4'-PeCB	5860	pg/L	C	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,4,5-PeCB	17000	pg/L	C B	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,4,6-PeCB	4930	pg/L	C	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,4,6'-PeCB	821	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,4',5-PeCB	19900	pg/L	C B	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,5,5'-PeCB	3720	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,5,6-PeCB	17500	pg/L	C	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,5,6'-PeCB	210	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,6,6'-PeCB	271	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,3',4,4',5,5'-OxCB	1810	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,3',4,4',5,6-OxCB	709	pg/L		J	9

Qualified Data Summary Table
Lower Duwamish Waterway - Michigan Basin Study

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,3',4,4',5,6'-O ₂ CB	1020	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,3',4,4',6,6'-O ₂ CB	418	pg/L	C	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,3',4,5,5',6-O ₂ CB	2490	pg/L	C	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,3',4,5',6,6'-O ₂ CB	296	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,3',5,5',6,6'-O ₂ CB	547	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,4,4',5,5',6-O ₂ CB	1550	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,4,4',5,6,6'-O ₂ CB		pg/L	U	UJ	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3,3',4,4',5,5',6-O ₂ CB	92.6	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,3',4,4',5,5',6-NoCB	891	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,3',4,4',5,6,6'-NoCB	127	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,3',4,5,5',6,6'-NoCB	247	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,3',4,4',5,5',6,6'-DeCB	153	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	Total Monochloro Biphenyls	404	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	Total Dichloro Biphenyls	24800	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	Total Trichloro Biphenyls	203000	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	Total Tetrachloro Biphenyls	446000	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	Total Pentachloro Biphenyls	151000	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	Total Hexachloro Biphenyls	56100	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	Total Heptachloro Biphenyls	30300	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	Total Octachloro Biphenyls	8930	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	Total Nonachloro Biphenyls	1270	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	Decachloro Biphenyl	153	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	TOTAL PCBs	922000	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2-MoCB	256	pg/L	B	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	3-MoCB	35.7	pg/L	B	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	4-MoCB	112	pg/L	B	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2'-DiCB	3750	pg/L	B	J	9

Qualified Data Summary Table
Lower Duwamish Waterway - Michigan Basin Study

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3-DiCB	131	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3'-DiCB	2310	pg/L	B	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,4-DiCB	270	pg/L	B	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,4'-DiCB	7520	pg/L	B	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,5-DiCB	461	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,6-DiCB	189	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	3,3'-DiCB	655	pg/L	B	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	3,4-DiCB	1180	pg/L	C	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	3,5-DiCB		pg/L	U	UJ	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	4,4'-DiCB	8360	pg/L	B	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3-TriCB	5960	pg/L	B	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',4-TriCB	7870	pg/L	B	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',5-TriCB	13800	pg/L	C B	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',6-TriCB	2680	pg/L	B	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3,3'-TriCB	64500	pg/L	C B	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3,4-TriCB	7590	pg/L	C B	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3,4'-TriCB	16500	pg/L	B	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3,5-TriCB		pg/L	U	UJ	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3,6-TriCB	294	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3',4-TriCB	5140	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3',5-TriCB	9480	pg/L	C	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3',6-TriCB	2420	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,4',5-TriCB	36900	pg/L	B	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,4',6-TriCB	12900	pg/L	B	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2',3,5-TriCB	185	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	3,3',4-TriCB	616	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	3,3',5-TriCB		pg/L	U	UJ	9

Qualified Data Summary Table
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SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	3,4,4'-TriCB	15400	pg/L	B	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	3,4,5'-TriCB	53.2	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	3,4',5'-TriCB	305	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,3'-TeCB	31300	pg/L	C B	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,4'-TeCB	16300	pg/L	B	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,5'-TeCB	1820	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,5'-TeCB	56600	pg/L	C B	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,6'-TeCB	7290	pg/L	C B	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,6'-TeCB	2490	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',4,5'-TeCB	7620	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',4,5'-TeCB	38000	pg/L	C B	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3',4,5,5'-PeCB	33.1	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3',4,5',6'-PeCB		pg/L	U	UJ	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2',3,3',4,5'-PeCB	418	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2',3,4,4',5'-PeCB	491	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	3,3',4,4',5'-PeCB	110	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	3,3',4,5,5'-PeCB		pg/L	U	UJ	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,3',4,4'-HxCB	1740	pg/L	C	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,3',4,5'-HxCB	12500	pg/L	C B	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,3',4,5'-HxCB	682	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,3',4,6'-HxCB	154	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,3',4,6'-HxCB	4260	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,3',5,5'-HxCB	158	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,3',5,6'-HxCB	632	pg/L	C	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,3',5,6'-HxCB	4430	pg/L	C	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,3',6,6'-HxCB	1530	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,4,4',5'-HxCB	468	pg/L		J	9

Qualified Data Summary Table
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SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,4,4',6-HxCB	200	pg/L	C	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,4,5,5'-HxCB	2490	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,4,5,6-HxCB		pg/L	U	UJ	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,4,5',6-HxCB	570	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,4,6,6'-HxCB	7.88	pg/L	K	UJ	9,25
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,4',5,5'-HxCB	1610	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,4',5,6-HxCB	10300	pg/L	C	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,4',5,6'-HxCB	14.5	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,4',6,6'-HxCB	16	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,5,6,6'-HxCB	14.6	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',4,4',5,5'-HxCB	10500	pg/L	C B	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',4,4',6,6'-HxCB		pg/L	U	UJ	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3,3',4,4',5-HxCB	1220	pg/L	C	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3,3',4,4',6-HxCB	1140	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3,3',4,5,5'-HxCB	146	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3,3',4,5',6-HxCB		pg/L	U	UJ	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3,3',4',5,5'-HxCB	32.4	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3,3',4',5',6-HxCB	856	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3,3',5,5',6-HxCB		pg/L	U	UJ	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3',4,4',5,5'-HxCB	430	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	3,3',4,4',5,5'-HxCB		pg/L	U	UJ	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,3',4,4',5-HpCB	3030	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,3',4,4',6-HpCB	1030	pg/L	C	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,3',4,5,5'-HpCB	586	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,3',4,5,6'-HpCB	3620	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,3',4,5',6-HpCB	124	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,3',4,6,6'-HpCB	465	pg/L		J	9

Qualified Data Summary Table
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SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,3',4',5,6-HpCB	2120	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,3',5,5',6-HpCB	784	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,3',5,6,6'-HpCB	1720	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,4,4',5,5'-HpCB	7320	pg/L	C B	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,4,4',5,6-HpCB	25.9	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,4,4',5,6'-HpCB		pg/L	U	UJ	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,4,4',5',6-HpCB	2750	pg/L	C	J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,4,4',6,6'-HpCB	4.28	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,4,5,6,6'-HpCB		pg/L	U	UJ	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,4',5,5',6-HpCB	5880	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,2',3,4',5,6,6'-HpCB	5.25	pg/L	K	UJ	9,25
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3,3',4,4',5,5'-HpCB	126	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3,3',4,4',5,6-HpCB	638	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3,3',4,4',5',6-HpCB	125	pg/L		J	9
WG47350	L59681-1	L21407-1 (A)	EPA 1668A	2,3,3',4,5,5',6-HpCB		pg/L	U	UJ	9
WG47350	L59681-2	L21407-2	EPA 1668A	2,2',3,4,4',5,6-HpCB	4.37	pg/L	K	U	25
WG47350	L59681-2	L21407-2	EPA 1668A	2,2',3,4,4',6,6'-HpCB	6.44	pg/L	K	U	25
WG47350	L59681-2	L21407-2	EPA 1668A	2,2',3,4',5,6,6'-HpCB	2.24	pg/L	K J	U	25
WG47350	L59681-2	L21407-2 W2	EPA 1668A	2-MoCB	349	pg/L	B D G	J	24
WG47350	L59681-2	L21407-2 W2	EPA 1668A	4-MoCB	101	pg/L	K B D	U	25
WG47350	L59681-2	L21407-2 W2	EPA 1668A	2,4-DiCB	63.4	pg/L	K B D J	U	25
WG47350	L59681-2	L21407-2 W2	EPA 1668A	3,3'-DiCB	119	pg/L	K B D	U	25
WG47350	L59681-2	L21407-2 W2	EPA 1668A	3,4-DiCB	41.7	pg/L	C K D J	U	25
WG47350	L59681-2	L21407-2 W	EPA 1668A	2,3,6-TriCB	11.7	pg/L	K D J	U	25
WG47350	L59681-2	L21407-2 W	EPA 1668A	2,2',4,5-TeCB	82.9	pg/L	K D	U	25
WG47350	L59681-2	L21407-2	EPA 1668A	2,2',3,4,6'-PeCB	4.96	pg/L	K	U	25
WG47350	L59681-2	L21407-2	EPA 1668A	2,3,3',5,5'-PeCB	2.1	pg/L	K J	U	25

Qualified Data Summary Table
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SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
WG47350	L59681-2	L21407-2	EPA 1668A	3,3',4,4',5-PeCB	10.1	pg/L	K	U	25
WG47350	L59681-3	L21407-3 i	EPA 1668A	2,2',3,4,6'-PeCB	2.84	pg/L	K J	U	25
WG47350	L59681-3	L21407-3 i	EPA 1668A	2,2',3,6,6'-PeCB	1.29	pg/L	K J	U	25
WG47350	L59681-3	L21407-3 i	EPA 1668A	2,3',4,5,5'-PeCB	2.61	pg/L	K J	U	25
WG47350	L59681-3	L21407-3 i	EPA 1668A	2-MoCB	2.63	pg/L	B J	U	7
WG47350	L59681-3	L21407-3 i	EPA 1668A	4-MoCB	2.72	pg/L	K B J	U	25
WG47350	L59681-3	L21407-3 i	EPA 1668A	2,3'-DiCB	1.07	pg/L	K B J	U	25
WG47350	L59681-3	L21407-3 i	EPA 1668A	2,4'-DiCB	4.05	pg/L	B J	U	7
WG47350	L59681-3	L21407-3 i	EPA 1668A	2,6-DiCB		pg/L	U G	UJ	24
WG47350	L59681-3	L21407-3 i	EPA 1668A	3,3'-DiCB	44.6	pg/L	B	U	7
WG47350	L59681-3	L21407-3 i	EPA 1668A	3,4-DiCB	1.53	pg/L	C K J	U	25
WG47350	L59681-3	L21407-3 i	EPA 1668A	2,2',6-TriCB	2.81	pg/L	K B J	U	25
WG47350	L59681-3	L21407-3 i	EPA 1668A	3,3',5-TriCB	0.838	pg/L	K J	U	25
WG47350	L59681-3	L21407-3 i	EPA 1668A	2,2',3,5-TeCB	1.87	pg/L	K J	U	25
WG47350	L59681-3	L21407-3 i	EPA 1668A	2,2',3,6'-TeCB	3.67	pg/L	K J	U	25
WG47350	L59681-3	L21407-3 i	EPA 1668A	2,2',4,6-TeCB	7.06	pg/L	C K	U	25
WG47350	L59681-3	L21407-3 i	EPA 1668A	2,3,3',4-TeCB	1.21	pg/L	K J	U	25
WG47350	L59681-3	L21407-3 i	EPA 1668A	2,3,4',5-TeCB	1.73	pg/L	K J	U	25
WG47350	L59681-3	L21407-3 i	EPA 1668A	2,2',3,4',6,6'-HxCB	2.3	pg/L	K J	U	25
WG47350	L59681-3	L21407-3 i	EPA 1668A	2,3',4,5-TeCB	1.42	pg/L	K J	U	25
WG47350	L59681-3	L21407-3 i	EPA 1668A	2,3',5,5'-TeCB	0.562	pg/L	K J	U	25
WG47350	L59681-3	L21407-3 i	EPA 1668A	2,2',3,4,4',5,6-HpCB	5.32	pg/L	K	U	25
WG47350	L59681-3	L21407-3 i	EPA 1668A	2,2',3,4,4',6,6'-HpCB	2.58	pg/L	K J	U	25
WG47350	L59745-3	L21407-4	EPA 1668A	2-MoCB	3.91	pg/L	B J	U	7
WG47350	L59745-3	L21407-4	EPA 1668A	2,4'-DiCB	8.6	pg/L	B	U	7
WG47350	L59745-3	L21407-4	EPA 1668A	3,4-DiCB	1.86	pg/L	C K J	U	25
WG47350	L59756-1	L21407-5 i	EPA 1668A	3,3',4,4',5-PeCB	4.9	pg/L	K	U	25

Qualified Data Summary Table
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SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
WG47350	L59756-1	L21407-5 i	EPA 1668A	2,2',3,3',4,6-HxCB	6.81	pg/L	K	U	25
WG47350	L59756-1	L21407-5 i	EPA 1668A	2,2',3,4,4',5-HxCB	21.7	pg/L	K	U	25
WG47350	L59745-3	L21407-4	EPA 1668A	4,4'-DiCB	5.73	pg/L	B	U	7
WG47350	L59745-3	L21407-4	EPA 1668A	2,2',4-TriCB	6.16	pg/L	B	U	7
WG47350	L59745-3	L21407-4	EPA 1668A	2,2',5-TriCB	11.5	pg/L	C B	U	7
WG47350	L59745-3	L21407-4	EPA 1668A	2,2',6-TriCB	1.67	pg/L	K B J	U	25
WG47350	L59745-3	L21407-4	EPA 1668A	2,3',6-TriCB	0.822	pg/L	K J	U	25
WG47350	L59745-3	L21407-4	EPA 1668A	2,4',6-TriCB	4.8	pg/L	B	U	7
WG47350	L59745-3	L21407-4	EPA 1668A	2,2',3,6'-TeCB	1.4	pg/L	K J	U	25
WG47350	L59745-3	L21407-4	EPA 1668A	2,2',4,6-TeCB	2.91	pg/L	C K J	U	25
WG47350	L59745-3	L21407-4	EPA 1668A	2,3,4',6-TeCB	13.8	pg/L	K B	U	25
WG47350	L59745-3	L21407-4	EPA 1668A	3,3',4,5'-TeCB	1.16	pg/L	K J	U	25
WG47350	L59745-3	L21407-4	EPA 1668A	2',3,4,4',5-PeCB	3.05	pg/L	K J	U	25
WG47350	L59745-3	L21407-4	EPA 1668A	2,2',4,4',6,6'-HxCB	3.23	pg/L	K J	U	25
WG47350	L59745-3	L21407-4	EPA 1668A	2,2',3,3',4,5',6-HpCB	2.74	pg/L	K J	U	25
WG47350	L59745-3	L21407-4	EPA 1668A	2,2',3,3',4,6,6'-HpCB	15.1	pg/L	K	U	25
WG47350	L59745-3	L21407-4	EPA 1668A	2,2',3,4,4',6,6'-HpCB	4.88	pg/L	K	U	25
WG47350	L59745-3	L21407-4	EPA 1668A	2,3,3',4,4',5,5'-HpCB	3.99	pg/L	K J	U	25
WG47350	L59745-3	L21407-4	EPA 1668A	2,2',3,3',4,5',6,6'-OoCB	8.28	pg/L	K	U	25
WG47350	L59745-3	L21407-4	EPA 1668A	2,3,3',4,4',5,5',6-OoCB	3.49	pg/L	K J	U	25
WG47350	L59745-3	L21407-4	EPA 1668A	2,2',3,3',4,5,5',6,6'-NoCB	16.5	pg/L	K	U	25
WG47350	L59756-1	L21407-5 i	EPA 1668A	2',3,5-TriCB	36.3	pg/L	K	U	25
WG47350	L59756-1	L21407-5 i	EPA 1668A	3,4,4',5-TeCB	12.7	pg/L	K	U	25
WG47350	L59756-1	L21407-5 i	EPA 1668A	2,3',4,5,5'-PeCB	3.02	pg/L	K J	U	25
WG47350	L59756-1	L21407-5 i	EPA 1668A	2,2',3,3',4,5',6-HpCB	3.25	pg/L	K J	U	25
WG47350	L59756-1	L21407-5 i	EPA 1668A	2,3,3',4,4',5,5'-HpCB	5.44	pg/L	K	U	25
WG47350	L59756-1	L21407-5 i	EPA 1668A	2,2',3,3',4,4',5,6,6'-NoCB	4.79	pg/L	K	U	25

Qualified Data Summary Table
Lower Duwamish Waterway - Michigan Basin Study

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
WG47350	L59756-2	L21407-6 W	EPA 1668A	2,3-DiCB	52.8	pg/L	K D	U	25
WG47350	L59756-2	L21407-6 W	EPA 1668A	2,6-DiCB	35.2	pg/L	D J G	J	24
WG47350	L59756-2	L21407-6 i	EPA 1668A	3,3',5'-TriCB	1.41	pg/L	K J	U	25
WG47350	L59756-2	L21407-6 i	EPA 1668A	2,3',5,5'-TeCB	2.75	pg/L	K J	U	25
WG47350	L59756-2	L21407-6 i	EPA 1668A	3,4,4',5'-TeCB	2.17	pg/L	K J	U	25
WG47350	L59756-2	L21407-6 i	EPA 1668A	2,2',3,6,6'-PeCB	9.16	pg/L	K	U	25
WG47350	L59756-2	L21407-6 i	EPA 1668A	2,2',4,6,6'-PeCB	1.21	pg/L	K J	U	25
WG47350	L59756-2	L21407-6 i	EPA 1668A	2,3,4,4',5'-PeCB	31.2	pg/L	K	U	25
WG47350	L59756-2	L21407-6 i	EPA 1668A	2,3',4,5,5'-PeCB	3.94	pg/L	K J	U	25
WG47350	L59756-2	L21407-6 i	EPA 1668A	2',3,3',4,5'-PeCB	15	pg/L	K	U	25
WG47350	L59756-2	L21407-6 i	EPA 1668A	2,2',3,4',6,6'-HxCB	2.19	pg/L	K J	U	25
WG47350	L59756-2	L21407-6 i	EPA 1668A	2,3,3',4,4',5',6'-HpCB	31.3	pg/L	K	U	25
WG47350	L59833-1	L21407-7 i	EPA 1668A	2,3,3',5,5'-PeCB	3.01	pg/L	K J	U	25
WG47350	L59833-1	L21407-7 i	EPA 1668A	3,3',4,4',5'-PeCB	5.32	pg/L	K	U	25
WG47350	L59833-1	L21407-7 i	EPA 1668A	3,3',4,5,5'-PeCB	0.896	pg/L	K J	U	25
WG47350	L59833-1	L21407-7 i	EPA 1668A	2,2',3,5,6,6'-HxCB	1.2	pg/L	K J	U	25
WG47350	L59833-1	L21407-7 i	EPA 1668A	2,2',4,4',6,6'-HxCB	1.63	pg/L	K J	U	25
WG47350	L59833-1	L21407-7 i	EPA 1668A	2,2',3,4,4',5,6'-HpCB	3.71	pg/L	K J	U	25
WG47350	L59833-1	L21407-7 i	EPA 1668A	2,2',3,4,4',5,6'-HpCB	8.68	pg/L	K	U	25
WG47350	L59833-2	L21407-8 i	EPA 1668A	2,4'-DiCB	2.51	pg/L	B J	U	7
WG47350	L59833-2	L21407-8 i	EPA 1668A	3,3'-DiCB	18.6	pg/L	B	U	7
WG47350	L59833-2	L21407-8 i	EPA 1668A	4,4'-DiCB	5.45	pg/L	B	U	7
WG47350	L59833-2	L21407-8 i	EPA 1668A	2,2',3'-TriCB	3.91	pg/L	K B J	U	25
WG47350	L59833-2	L21407-8 i	EPA 1668A	2,2',4'-TriCB	5.34	pg/L	B	U	7
WG47350	L59833-2	L21407-8 i	EPA 1668A	2,2',5'-TriCB	8.33	pg/L	C B	U	7
WG47350	L59833-2	L21407-8 i	EPA 1668A	2,2',6'-TriCB	1.53	pg/L	K B J	U	25
WG47350	L59833-2	L21407-8 i	EPA 1668A	2,3,3'-TriCB	18.7	pg/L	C B	U	7

Qualified Data Summary Table
Lower Duwamish Waterway - Michigan Basin Study

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
WG47350	L59833-2	L21407-8 i	EPA 1668A	2,3,4'-TriCB	3.23	pg/L	B J	U	7
WG47350	L59833-2	L21407-8 i	EPA 1668A	2,3',4'-TriCB	1.18	pg/L	K J	U	25
WG47350	L59833-2	L21407-8 i	EPA 1668A	2,4',5'-TriCB	10.1	pg/L	B	U	7
WG47350	L59833-2	L21407-8 i	EPA 1668A	2,4',6'-TriCB	3.89	pg/L	B J	U	7
WG47350	L59833-2	L21407-8 i	EPA 1668A	2,2',3,3'-TeCB	13.9	pg/L	C K B	U	25
WG47350	L59833-2	L21407-8 i	EPA 1668A	2,3,3',6'-TeCB	3.36	pg/L	C K J	U	25
WG47350	L59833-2	L21407-8 i	EPA 1668A	2-MoCB	2.87	pg/L	B J	U	7
WG47350	L59833-2	L21407-8 i	EPA 1668A	4-MoCB	3.19	pg/L	K B J	U	25
WG47350	L59833-2	L21407-8 i	EPA 1668A	2,3,3',4,6-PeCB	20.3	pg/L	K	U	25
WG47350	L59833-2	L21407-8 i	EPA 1668A	2,3,4,4',5-PeCB	4.28	pg/L	K	U	25
WG47350	L59833-2	L21407-8 i	EPA 1668A	2',3,3',4,5-PeCB	4.4	pg/L	K	U	25
WG47350	L59833-2	L21407-8 i	EPA 1668A	2',3,4,4',5-PeCB	4.74	pg/L	K	U	25
WG47350	L59833-2	L21407-8 i	EPA 1668A	3,3',4,4',5-PeCB	6.86	pg/L	K	U	25
WG47350	L59833-2	L21407-8 i	EPA 1668A	2,2',3,3',4,6-HxCB	5.88	pg/L	K	U	25
WG47350	L59833-2	L21407-8 i	EPA 1668A	2,2',3,3',5,5'-HxCB	10.5	pg/L	K	U	25
WG47350	L59833-2	L21407-8 i	EPA 1668A	2,2',3,4,4',6-HxCB	9.11	pg/L	C K	U	25
WG47350	L59833-2	L21407-8 i	EPA 1668A	2,3,3',4',5',6-HxCB	73.6	pg/L	K	U	25
WG47350	L59833-2	L21407-8 i	EPA 1668A	2,2',3,3',4,5',6-HpCB	16.3	pg/L	K	U	25
WG47350	L59833-2	L21407-8 i	EPA 1668A	2,2',3,4,4',6,6'-HpCB	2.5	pg/L	K J	U	25
WG47350	L59833-2	L21407-8 i	EPA 1668A	2,2',3,3',4,4',5,6,6'-NoCB	11.5	pg/L	K	U	25
WG47350	L59938-1	L21407-9 i	EPA 1668A	2,3,3',5'-TeCB	15.4	pg/L	K	U	25
WG47350	L59938-1	L21407-9 i	EPA 1668A	3,3',4,5'-TeCB	21.8	pg/L	K	U	25
WG47350	L59938-1	L21407-9 i	EPA 1668A	2,3',4,5,5'-PeCB	2.29	pg/L	K J	U	25
WG47350	L59938-1	L21407-9 i	EPA 1668A	2,2',3,3',5,5'-HxCB	9.27	pg/L	K	U	25
WG47350	L59938-1	L21407-9 i	EPA 1668A	2,2',3,4',6,6'-HxCB	1.24	pg/L	K J	U	25
WG47350	L59938-1	L21407-9 i	EPA 1668A	2,2',3,5,6,6'-HxCB	1.32	pg/L	K J	U	25
WG47350	L59938-1	L21407-9 i	EPA 1668A	2,2',3,3',4,5',6-HpCB	3.27	pg/L	K J	U	25

Qualified Data Summary Table
Lower Duwamish Waterway - Michigan Basin Study

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
WG47350	L59938-1	L21407-9 i	EPA 1668A	2,3,3',4,4',5',6-HpCB	5.58	pg/L	K	U	25
WG47350	L59938-1	L21407-9 i	EPA 1668A	2,2',3,3',5,5',6,6'-OcCB	18.5	pg/L	K	U	25
WG47350	L59938-1	L21407-9 i	EPA 1668A	2,3,3',4,4',5,5',6-OcCB	3.09	pg/L	K J	U	25
WG47350	L59938-3	L21407-10 i2	EPA 1668A	2-MoCB	5.83	pg/L	B	U	7
WG47350	L59938-3	L21407-10 i2	EPA 1668A	2,4-DiCB	2.29	pg/L	B J	U	7
WG47350	L59938-3	L21407-10 i2	EPA 1668A	2,5-DiCB	1.8	pg/L	K J	U	25
WG47350	L60018-2	L21407-12 W	EPA 1668A	2-MoCB	1410	pg/L	B D G	J	24
WG47350	L59938-3	L21407-10 i2	EPA 1668A	3,4',5-TriCB	0.98	pg/L	K J	U	25
WG47350	L59938-3	L21407-10 i2	EPA 1668A	2,2',3,5-TeCB	3.28	pg/L	K J	U	25
WG47350	L59938-3	L21407-10 i2	EPA 1668A	2,2',3,6'-TeCB	4.53	pg/L	K	U	25
WG47350	L59938-3	L21407-10 i2	EPA 1668A	2,2',4,5-TeCB	17.5	pg/L	K	U	25
WG47350	L59938-3	L21407-10 i2	EPA 1668A	2,3,3',4,5-PeCB	2.95	pg/L	K J	U	25
WG47350	L59938-3	L21407-10 i2	EPA 1668A	2,2',3,3',4,6-HxCB	4.44	pg/L	K	U	25
WG47350	L59938-3	L21407-10 i2	EPA 1668A	2,2',3,4,4',5-HxCB	19.4	pg/L	K	U	25
WG47350	L59938-3	L21407-10 i2	EPA 1668A	2,2',3,3',4,5',6-HpCB	3.13	pg/L	K J	U	25
WG47350	L59938-3	L21407-10 i2	EPA 1668A	2,3,3',4,4',5,5'-HpCB	2.85	pg/L	K J	U	25
WG47350	L59938-3	L21407-10 i2	EPA 1668A	2,2',3,3',4,4',5,6-OcCB	14	pg/L	K	U	25
WG47350	L59938-3	L21407-10 i2	EPA 1668A	2,2',3,3',4,4',5,6'-OcCB	29.2	pg/L	K	U	25
WG47350	L60018-1	L21407-11	EPA 1668A	2,3,3',5'-TeCB	19.4	pg/L	K	U	25
WG47350	L60018-1	L21407-11	EPA 1668A	3,4,4',5-TeCB	19.5	pg/L	K	U	25
WG47350	L60018-1	L21407-11	EPA 1668A	3,3',4,4',5-PeCB	5.22	pg/L	K	U	25
WG47350	L60018-1	L21407-11	EPA 1668A	2,2',3,4,4',5-HxCB	29.3	pg/L	K	U	25
WG47350	L60018-1	L21407-11	EPA 1668A	2,2',3,5,6,6'-HxCB	1.61	pg/L	K J	U	25
WG47350	L60018-1	L21407-11	EPA 1668A	2,3,3',4,5,5'-HxCB	5.11	pg/L	K	U	25
WG47350	L60018-1	L21407-11	EPA 1668A	2,2',3,4,4',6,6'-HpCB	4.66	pg/L	K	U	25
WG47350	L60018-1	L21407-11	EPA 1668A	2,3,3',4,4',5,5'-HpCB	6.78	pg/L	K	U	25
WG47350	L60018-1	L21407-11	EPA 1668A	2,3,3',4,4',5,6-HpCB	28.3	pg/L	K	U	25

Qualified Data Summary Table
Lower Duwamish Waterway - Michigan Basin Study

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
WG47350	L60018-1	L21407-11	EPA 1668A	2,3,3',4,4',5',6'-HpCB	5.66	pg/L	K	U	25
WG47350	L60018-1	L21407-11	EPA 1668A	2,2',3,3',4,5',6,6'-OcCB	7.06	pg/L	K	U	25
WG47350	L60018-1	L21407-11	EPA 1668A	2,2',3,3',4,4',5,6,6'-NoCB	4.96	pg/L	K	U	25
WG47350	L60018-2	L21407-12 W	EPA 1668A	2,3-DiCB	191	pg/L	K D	U	25
WG47350	L60018-2	L21407-12 W	EPA 1668A	3,3',4-TriCB	123	pg/L	K D	U	25
WG47350	L60018-2	L21407-12 W	EPA 1668A	2,3,3',5-TeCB	20.5	pg/L	K D J	U	25
WG47350	L60018-2	L21407-12	EPA 1668A	2,2',4,6,6'-PeCB	1.29	pg/L	K J	U	25
WG47350	L60041-1	L21407-14	EPA 1668A	2,2',3,5,6,6'-HxCB	2.8	pg/L	K J	U	25
WG47350	L60018-2	L21407-12	EPA 1668A	2,2',3,5,6,6'-HxCB	2.1	pg/L	K J	U	25
WG47350	L60018-2	L21407-12	EPA 1668A	2,2',3,4,4',5,6'-HpCB	2.43	pg/L	K J	U	25
WG47350	L60018-2	L21407-12	EPA 1668A	2,2',3,4',5,6,6'-HpCB	0.629	pg/L	K J	U	25
WG47350	L60018-3	L21407-13 i	EPA 1668A	2-MoCB	4.26	pg/L	B	U	7
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,2'-DiCB	5.28	pg/L	K B	U	25
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,4-DiCB	1.57	pg/L	B J	U	7
WG47350	L60018-3	L21407-13 i	EPA 1668A	3,4-DiCB	4.29	pg/L	C K	U	25
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,2',6-TriCB	2.42	pg/L	K B J	U	25
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,3',4-TriCB	3.69	pg/L	K J	U	25
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,3',6-TriCB	2.31	pg/L	K J	U	25
WG47350	L60018-3	L21407-13 i	EPA 1668A	3,3',5-TriCB	1	pg/L	K J	U	25
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,2',4,5-TeCB	13.7	pg/L	K	U	25
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,2',4,6-TeCB	9	pg/L	C K	U	25
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,3,3',6-TeCB	4.59	pg/L	C K	U	25
WG47350	L60018-3	L21407-13 i	EPA 1668A	3,3',4,5'-TeCB	2.34	pg/L	K J	U	25
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,3,4,4',5-PeCB	6.53	pg/L	K	U	25
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,2',3,3',5,5'-HxCB	5.2	pg/L	K	U	25
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,3,3',4,5,5'-HxCB	4.51	pg/L	K	U	25
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,3',4,4',5,5'-HxCB	14	pg/L	K	U	25

Qualified Data Summary Table
Lower Duwamish Waterway - Michigan Basin Study

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,2',3,3',4,4',5-HpCB	80.6	pg/L		J	13L
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,2',3,3',4,4',6-HpCB	30.6	pg/L	C	J	13L
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,2',3,3',4,5,5'-HpCB	22	pg/L		J	13L
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,2',3,3',4,5,6'-HpCB	108	pg/L		J	13L
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,2',3,3',4,5',6-HpCB	5.12	pg/L	K	UJ	13L,25
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,2',3,3',4,6,6'-HpCB	14	pg/L	K	UJ	13L,25
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,2',3,3',4',5,6-HpCB	76.6	pg/L		J	13L
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,2',3,3',5,5',6-HpCB	28.2	pg/L	K	UJ	13L,25
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,2',3,3',5,6,6'-HpCB	55.1	pg/L		J	13L
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,2',3,4,4',5,5'-HpCB	234	pg/L	C B	J	13L
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,2',3,4,4',5,6-HpCB		pg/L	U	UJ	13L
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,2',3,4,4',5,6'-HpCB		pg/L	U	UJ	13L
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,2',3,4,4',5',6-HpCB	88.4	pg/L	C	J	13L
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,2',3,4,4',6,6'-HpCB	33	pg/L		J	13L
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,2',3,4,5,6,6'-HpCB		pg/L	U	UJ	13L
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,2',3,4',5,5',6-HpCB	184	pg/L		J	13L
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,3,3',4,4',5,5'-HpCB	4.09	pg/L	K J	UJ	13L,25
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,3,3',4,4',5,6-HpCB	19.3	pg/L		J	13L
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,3,3',4,4',5',6-HpCB	3.92	pg/L	K J	UJ	13L,25
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,3,3',4,5,5',6-HpCB		pg/L	U	UJ	13L
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,2',3,3',4,4',5,5'-OcCB	44.2	pg/L		J	13L
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,2',3,3',4,4',5,6-OcCB	16.9	pg/L		J	13L
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,2',3,3',4,4',5,6'-OcCB	29.4	pg/L		J	13L
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,2',3,3',4,4',6,6'-OcCB	15.1	pg/L	C K	UJ	13L,25
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,2',3,3',4,5,5',6-OcCB	76.7	pg/L	C	J	13L
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,2',3,3',4,5',6,6'-OcCB	8.54	pg/L	K	UJ	13L,25
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,2',3,3',5,5',6,6'-OcCB	18.3	pg/L		J	13L

Qualified Data Summary Table
Lower Duwamish Waterway - Michigan Basin Study

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,2',3,4,4',5,5',6-OcCB	49.9	pg/L		J	13L
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,2',3,4,4',5,6,6'-OcCB		pg/L	U	UJ	13L
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,3,3',4,4',5,5',6-OcCB		pg/L	U	UJ	13L
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,2',3,3',4,4',5,5',6-NoCB	48.4	pg/L		J	13L
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,2',3,3',4,4',5,6,6'-NoCB		pg/L	U	UJ	13L
WG47350	L60018-3	L21407-13 i	EPA 1668A	2,2',3,3',4,5,5',6,6'-NoCB	20.7	pg/L		J	13L
WG47350	L60041-1	L21407-14	EPA 1668A	3,4,5-TriCB	6.88	pg/L	K	U	25
WG47350	L60041-1	L21407-14	EPA 1668A	2,3,3',4,5-PeCB	6.59	pg/L	K	U	25
WG47350	L60041-1	L21407-14	EPA 1668A	2,3,3',5,5'-PeCB	1.57	pg/L	K J	U	25
WG47350	L60041-1	L21407-14	EPA 1668A	3,3',4,4',5-PeCB	10.5	pg/L	K	U	25
WG47350	L60041-1	L21407-14	EPA 1668A	2,3,3',4',5,5'-HxCB	10.8	pg/L	K	U	25
WG47350	L60041-1	L21407-14	EPA 1668A	2,2',3,3',4,5',6-HpCB	16.1	pg/L	K	U	25
WG47350	L60041-2	L21407-15	EPA 1668A	2,2',4,6,6'-PeCB	1.43	pg/L	K J	U	25
WG47350	L60041-2	L21407-15	EPA 1668A	2,3,3',5,5'-PeCB	2.7	pg/L	K J	U	25
WG47350	L60041-2	L21407-15	EPA 1668A	2,2',3,4',5,6'-HxCB	12.4	pg/L	K	U	25
WG47350	L60041-2	L21407-15	EPA 1668A	2,2',3,4',6,6'-HxCB	5.48	pg/L	K	U	25
WG47350	L60041-2	L21407-15	EPA 1668A	2,2',3,5,6,6'-HxCB	1.81	pg/L	K J	U	25
WG47350	L60041-2	L21407-15	EPA 1668A	2,2',3,4,4',5,6-HpCB	3.23	pg/L	K J	U	25
WG47350	L60041-2	L21407-15	EPA 1668A	2,3,3',4,4',5',6-HpCB	17.2	pg/L	K	U	25
WG47350	L60041-3	L21407-16 i	EPA 1668A	2-MoCB	7.87	pg/L	B	U	7
WG47350	L60041-3	L21407-16 i	EPA 1668A	2,4-DiCB	2.62	pg/L	B J	U	7
WG47350	L60041-3	L21407-16 i	EPA 1668A	2,3,6-TriCB	0.915	pg/L	K J	U	25
WG47350	L60041-3	L21407-16 i	EPA 1668A	2,2',3,6'-TeCB	4.42	pg/L	K	U	25
WG47350	L60041-3	L21407-16 i	EPA 1668A	2,3',4,5-TeCB	1.47	pg/L	K J	U	25
WG47350	L60041-3	L21407-16 i	EPA 1668A	3,3',4,4'-TeCB	6.38	pg/L	K	U	25
WG47350	L60041-3	L21407-16 i	EPA 1668A	2,2',3,4,6'-PeCB	2.02	pg/L	K J	U	25
WG47350	L60041-3	L21407-16 i	EPA 1668A	2',3,4,4',5-PeCB	14.1	pg/L	K	U	25

Qualified Data Summary Table
Lower Duwamish Waterway - Michigan Basin Study

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
WG47350	L60041-3	L21407-16 i	EPA 1668A	2,2',3,3',4,6-HxCB	3.79	pg/L	K J	U	25
WG47350	L60041-3	L21407-16 i	EPA 1668A	2,2',3,3',5,6-HxCB	15	pg/L	C K	U	25
WG47350	L60041-3	L21407-16 i	EPA 1668A	2,2',3,4,4',6-HxCB	5.54	pg/L	C K	U	25
WG47350	L60041-3	L21407-16 i	EPA 1668A	2,3,3',4,5,5'-HxCB	2.43	pg/L	K J	U	25
WG47350	L60041-3	L21407-16 i	EPA 1668A	2,2',3,3',4,5,5'-HpCB	11.1	pg/L	K	U	25
WG47350	L60041-3	L21407-16 i	EPA 1668A	2,2',3,3',4,5',6-HpCB	3.12	pg/L	K J	U	25
WG47350	L60114-1	L21407-17	EPA 1668A	2,3,5-TriCB	6.36	pg/L	K	U	25
WG47350	L60114-1	L21407-17	EPA 1668A	3,3',4,5'-TeCB	72.8	pg/L	K	U	25
WG47350	L60114-1	L21407-17	EPA 1668A	2,3,3',5,5'-PeCB	1.75	pg/L	K J	U	25
WG47350	L60114-1	L21407-17	EPA 1668A	2,3',4,5,5'-PeCB	9.44	pg/L	K	U	25
WG47350	L60114-1	L21407-17	EPA 1668A	2,2',3,4,6,6'-HxCB	3.42	pg/L	K J	U	25
WG47350	L60114-1	L21407-17	EPA 1668A	2,2',3,4',6,6'-HxCB	6.01	pg/L	K	U	25
WG47350	L60114-1	L21407-17	EPA 1668A	2,2',3,4,4',5,6-HpCB	15.4	pg/L	K	U	25
WG47350	L60114-1	L21407-17	EPA 1668A	2,2',3,4,4',5,6'-HpCB	4.37	pg/L	K	U	25
WG47350	L60114-1	L21407-17	EPA 1668A	2,2',3,4',5,6,6'-HpCB	1.28	pg/L	K J	U	25
WG47350	L60114-1	L21407-17	EPA 1668A	2,2',3,3',4,5',6,6'-OoCB	30.2	pg/L	K	U	25
WG47350	L60114-3	L21407-18 i	EPA 1668A	2-MoCB	4.36	pg/L	B	U	7
WG47350	L60114-3	L21407-18 i	EPA 1668A	2,5-DiCB	1.25	pg/L	K J	U	25
WG47350	L60114-3	L21407-18 i	EPA 1668A	3,4-DiCB	4.1	pg/L	C K J	U	25
WG47350	L60114-3	L21407-18 i	EPA 1668A	3,3',4-TriCB	6.82	pg/L	K	U	25
WG47350	L60114-3	L21407-18 i	EPA 1668A	3,4',5-TriCB	0.766	pg/L	K J	U	25
WG47350	L60114-3	L21407-18 i	EPA 1668A	2,2',4,6-TeCB	10.6	pg/L	C K	U	25
WG47350	L60114-3	L21407-18 i	EPA 1668A	2,3',4,5-TeCB	2.03	pg/L	K J	U	25
WG47350	L60114-3	L21407-18 i	EPA 1668A	2,2',4,5',6-PeCB	2.43	pg/L	K J	U	25
WG47350	L60114-3	L21407-18 i	EPA 1668A	2,3',4,5,5'-PeCB	1.9	pg/L	K J	U	25
WG47350	L60114-3	L21407-18 i	EPA 1668A	2',3,3',4,5-PeCB	10.2	pg/L	K	U	25
WG47350	L60114-3	L21407-18 i	EPA 1668A	2',3,4,4',5-PeCB	13.1	pg/L	K	U	25

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SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
WG47350	L60114-3	L21407-18 i	EPA 1668A	3,3',4,4',5-PeCB	6.28	pg/L	K	U	25
WG47350	L60114-3	L21407-18 i	EPA 1668A	2,2',3,3',4,6-HxCB	16	pg/L	K	U	25
WG47350	L60114-3	L21407-18 i	EPA 1668A	2,2',3,4',5,6'-HxCB	1.77	pg/L	K J	U	25
WG47350	L60114-3	L21407-18 i	EPA 1668A	2,2',4,4',6,6'-HxCB	5.37	pg/L	K	U	25
WG47350	L60114-3	L21407-18 i	EPA 1668A	2,2',3,4,4',5,6-HpCB	3.48	pg/L	K J	U	25
WG47350	L60114-3	L21407-18 i	EPA 1668A	2,2',3,4',5,6,6'-HpCB	1.46	pg/L	K J	U	25