Appendix D:
Data Validation Memoranda

King County

Technical Memorandum

Date: June 19, 2013

To: Dean Wilson, King County Toxicology and Contaminant Assessment Group
Debra Williston, King County Toxicology and Contaminant Assessment Group

From: Scott Mickelson, King County Marine and Sediment Assessment Group

Subject: Data Validation Review
Green River Basin 2012 Stream Sediment Sampling Event

This technical memorandum summarizes a data validation review performed on 35 freshwater sediment samples collected between August 13 and 30, 2012 and assigned sample numbers L56024-1 through -5, - 7 through -9, -11 through -17, -19 through -30, and -33 through -40. These samples were submitted for analysis of particle size distribution (PSD), total organic carbon (TOC), total solids, pH, acid-volatile sulfide/simultaneously extracted metals (AVS/SEM), mercury, other metals, base/neutral/acid semivolatile organic compounds (BNAs), chlorinated pesticides, and polychlorinated biphenyls (PCBs). Note that samples L56024-38 through -40 were only analyzed for PSD, TOC, and total solids. All samples were collected and all analyses performed by the King County Environmental Laboratory.

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 2012). Materials reviewed included Batch Reports and Analytical Quality Control (QC) Reports downloaded from the King County Laboratory Information System (LIMS) database, along with data anomaly forms, all of which are attached to this memorandum (see Attachment A). The QC parameters reviewed during this data validation include; holding time, method blanks, spike blanks, matrix spikes, matrix spike duplicates, laboratory control samples, standard reference materials, check standards, laboratory replicates, and surrogates, which are described below.

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. Please see the individual analytical sections for a description of the method blank for each analysis. Analysis of the method blank is used to evaluate the levels of contamination that might be associated with the processing and analysis of samples. All method blank results should be less than the method detection limit (MDL). Method blanks were included with all analyses except PSD and pH.

1.3 Spike Blank

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 as part of the QC regimen for TOC, AVS/SEM, mercury, metals, BNA, pesticide, and PCB analyses. Spike blanks are not addressed in the *National Functional Guidelines*, however, King County has method-defined or 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 as part of the QC regimen for TOC, AVS/SEM, mercury, metals, BNA, pesticide, and PCB analyses. Control limits for individual organic analytes, AVS, and TOC are not addressed in the *National Functional Guidelines*, however, King County has program-defined (Ecology 2008) or 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. Matrix spike recoveries for metals are addressed in the *National Functional* Guidelines and should be within 75 to 125% (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. Matrix spike duplicates were analyzed as part of the QC regimen for all trace organic analyses as well as mercury analysis. 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. The relative percent difference (RPD) between matrix spike and matrix spike duplicate results for trace organic analytes are not addressed in the *National Functional Guidelines*, however, King County uses program-defined (Ecology 2008) control limits for this QC analysis, which are shown on the attached QC reports. The RPD for matrix spike/matrix spike duplicate results should be less than 20% for mercury analysis (EPA 2010).

1.6 Laboratory Control Sample and Standard Reference Material

A laboratory control sample is a sample of known analyte concentration(s) that is prepared in the laboratory 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. A standard reference material is a commercially-prepared laboratory control sample. Analysis of an laboratory control sample or standard reference material is used as an indicator of method accuracy and long-term analytical precision. Laboratory control sample and/or standard reference material analysis was used as part of the QC regimen for TOC, mercury, trace metals, and trace organics QC regimen. King County uses laboratory control sample percent recovery control limits of 80 to 120% for TOC analysis. Percent recoveries for laboratory control samples/standard reference materials for trace metals analysis are addressed in *National Functional Guidelines* and results should be within control limits of 80 to 120% (EPA 2010). King County also has empirically-derived control limits for trace metals, as well as trace organic laboratory control samples, which are shown on the attached QC reports. For some methods, a duplicate laboratory control sample or standard reference material was tested to evaluate method precision.

1.8 Check Standard

A check standard is an analyte of known and verified concentration or value, which is measured following the same analytical procedure as test samples. The check standard is used as a measure of analytical accuracy. Check standards were used during analysis of pH. Check standard results for pH should be within 98 to 102% of the verified value.

1.9 Laboratory Replicate (Duplicate or Triplicate)

A laboratory replicate is a second (duplicate) or third (triplicate) aliquot of a sample, processed concurrently and in an identical manner with the original sample. Analysis of a laboratory replicate is used as an indicator of method precision and laboratory subsampling procedures. The laboratory replicate can also be used to provide information regarding the homogeneity of the sample matrix. QC results are reported as either a RPD between the sample and laboratory duplicate results or percent relative standard deviation (%RSD) between the sample and laboratory triplicate results. Laboratory duplicates were used during all metals analyses and the RPD should be below 20% (EPA 2010). Laboratory duplicates were also used during analysis of both all trace organic analyses, however, QC control limits for organics RPDs are not addressed in the *National Functional Guidelines*. King County used RDP control limits of 35% for BNA, chlorinated pesticide, and PCB laboratory duplicate analyses (Ecology 2008). Laboratory triplicates were used during AVS, PSD, TOC, and total solids analyses, however, control limits for conventional analyses are also not addressed under the *National Functional Guidelines*. King County uses %RSD control limits of 20% for all conventional analyses (Ecology 2008). The %RSD for laboratory triplicate results should be below these control limits. During analysis of pH, both laboratory duplicates and laboratory triplicates were used. Laboratory duplicate results for pH are reported as an absolute difference rather than a RPD, with a control limit of 0.2 (unitless). The RSD between pH laboratory triplicates should be less than a QC limit of 5%.

1.9 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 BNAs and PCBs. 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 surrogates, decachlorobiphenyl and 2,4,5,6-tetrachloro-m-xylene during chlorinated pesticide and PCB analyses. *National Functional Guidelines* provides control limits for percent recoveries of these surrogate compounds and King County has empirically-derived control limits as well, which are shown in Table 1-1. Surrogate recoveries should be within these control limits.

Table 1-1
Surrogate Recovery QC Limits for PCB Analysis

Compound	King County Environmental Lab Recovery Limits	National Functional Guidelines Quality Control Recovery Limits
2,4,5,6-Tetrachloro-m-xylene	20 – 115 (PCB) / 20 to 134 (Pest)	30 – 150
Decachlorobiphenyl	55 – 120 (PCB) / 47 – 122 (Pest)	30 – 150

The King County Environmental Laboratory used eight surrogates during analysis of the full suite of BNAs. Four of these compounds are deuterated monitoring compounds (DMCs). Three of the DMCs are recommended in *National Functional Guidelines*. King County has empirically-derived laboratory QC control limits, which are shown in Table 1-2 and compared to the *National Functional Guidelines* recoveries for the three DMCs.

Table 1-2
Surrogate Recovery QC Limits for BNA Analysis

Compound	King County Environmental Lab Recovery Limits	National Functional Guidelines Quality Control Recovery Limits
2,4,6-Tribromophenol	45 – 150	--
2-Fluorobiphenyl	22 – 135	--
2-Flurophenol	20 – 136	--
d4-4-Nonylphenol	20 - 150	--
d14-Terphenyl	25 – 150	--
d4-2-Chlorophenol	20 – 127	13 – 101
d5-Nitrobenzene	22 – 126	16 – 103
d5-Phenol	20 – 142	17 – 103

2.0 Conventional Analyses

Conventional analyses included particle size distribution (PSD), total organic carbon (TOC), total solids, pH, and acid volatile sulfide (AVS).

2.1 Particle Size Distribution – Work Group WG122689

PSD analysis was performed by a combination of sieve and hydrometer methods following ASTM Method D422 (ASTM 2002). Associated QC samples included laboratory triplicates.

2.1.1 Holding Time

All 35 samples were analyzed within the prescribed 6-month holding time.

2.1.2 Laboratory Triplicate

The RSD of 66% between results for the silt fraction in one of the two laboratory triplicates associated with work group WG122689 exceeded the 20% QC limit. Results for the parameter "silt" in sample L56024-7 should be qualified with a "J" flag and considered estimated with an unknown bias. If the data user feels it necessary, the individual phi sizes associated with the gravel fraction may also be qualified with a "J" flag. These phi sizes include p+5.00, p+6.00, p+7.00, and p+8.00. Since the fraction "silt" is part of the summed parameter "fines" (along with the parameter "clay," the parameter "fines" for sample L56024-7 should be qualified with a "J" flag and considered estimated with an unknown bias.

All other RSD values in both laboratory triplicates associated with this work group were below the 20% QC limit, ranging from 0 to 14%.

2.2 Total Organic Carbon – Work Groups WG122758, WG122976

TOC analysis was performed using high-temperature combustion and infrared spectroscopy following EPA Method 9060 – SW846 (EPA 2007). Associated QC samples included method blanks, spike blanks, matrix spikes, laboratory triplicates, laboratory control samples, and standard reference materials.

2.2.1 Holding Time

All 35 samples were analyzed within the prescribed 6-month holding time.

2.2.2 Method Blank

A TOC method blank consists of a conditioned sample cup containing quartz wool that is submitted to the entire analytical procedure. TOC results in the method blanks were all less than the MDL, indicating that laboratory contamination was not an issue during analysis of the samples included in these three work groups.

2.2.3 Spike Blank

All TOC spike blank recoveries were within the 80 to 120% QC limits, ranging from 92 to 112%.

2.2.4 Matrix Spike

All TOC matrix spike recoveries were within the 75 to 125% QC limits ranging from 79 to 112%.

2.2.5 Laboratory Triplicate

All RSDs between TOC laboratory triplicate results were at or below the 20% QC limit, ranging from 4 to 16%.

2.2.6 Standard Reference Material and Laboratory Control Sample

All TOC recoveries in either SRM or LCS samples were within the 80 to 120% QC limits, ranging from 86 to 109%.

2.3 Total Solids – Work Groups WG123636, WG123727, WG124317

Total (percent) solids analysis was performed using a gravimetric determination following Standard Method SM2540-G (APHA 1998). Associated QC samples included method blanks and laboratory triplicates.

2.3.1 Holding Time

All 35 samples were analyzed within the prescribed 6-month holding time.

2.3.2 Method Blank

A total solids method blank consists of a conditioned sample cup that is submitted to the entire analytical procedure. All total solids method blank results were less than the MDL, indicating acceptable balance and method performance.

2.3.3 Laboratory Triplicate

All RSDs between total solids laboratory triplicate results were below the 20% QC limit, ranging from 5 to 12%.

2.4 Acid Volatile Sulfide (AVS) – Work Groups WG122678, WG122829

AVS analysis was performed using a purge-and-trap colorometric method following *Determination of Acid Volatile Sulfide and Selected Simultaneously Extractable Metals in Sediment* (EPA 1991). Associated QC samples included method blanks, spike blanks, matrix spikes, and laboratory triplicates.

2.4.1 Holding Time

All 32 samples were analyzed within the prescribed 14-day holding time.

2.4.2 Method Blank

An AVS method blank consists of reagent water and distillation reagents that are subjected to the entire distillation process and then analyzed. AVS results in the method blanks were all less than the MDL, indicating that laboratory contamination was not an issue during analysis of the samples included in these two work groups.

2.4.3 Spike Blank

All AVS spike blank recoveries were within the 80 to 120% QC limits, ranging from 107 to 115%.

2.4.4 Matrix Spike

Both AVS matrix spike recoveries were below the 65% lower QC limit at -9% and 38%. AVS results in samples L56024-4 and L56024-19 should be qualified with a “J” flag, with bias considered low.

2.4.5 Laboratory Triplicate

The RSDs between results for the two AVS laboratory triplicates were both below the 20% QC limit, each at 19%.

2.5 pH – Work Groups 122562, WG122810

pH analysis was performed by an electrometric determination following EPA Method SW846 9045D (EPA 2007). Associated QC samples included check standards and laboratory replicates (both duplicates and triplicates).

2.5.1 Holding Time

All 32 samples were analyzed within the prescribed 1-day holding time.

2.5.2 Check Standard

All check standard recoveries in both work groups were within the 98 to 102% QC limits, ranging from 99 to 101%.

2.5.3 Laboratory Replicate

Laboratory duplicates measured the absolute difference in pH between replicated samples. All laboratory duplicate absolute differences were below the 0.2 QC limit, ranging from 0.01 to 0.05. All RSD values between pH laboratory triplicate results were below the 5% QC limit, with all RSD values at 0%.

3.0 Trace Metals Analyses

Trace metals analyses included total and simultaneously extractable (SEM) mercury and total and SEM arsenic, cadmium, chromium, copper, lead, nickel, silver, and zinc.

3.1 Total Mercury – Work Groups WG122912, WG123004

Total mercury analysis was performed by cold-vapor atomic absorption spectroscopy (CVAA) following EPA Method 7471B – SW846 (EPA 2007). Associated QC samples included method blanks, spike blanks, matrix spikes, matrix spike duplicates, laboratory duplicates, and laboratory control samples (analyzed in duplicate).

3.1.1 Holding Time

All 32 samples were digested and analyzed within the prescribed 28-day holding time.

3.1.2 Method Blank

A mercury method blank consists of an aliquot of reagent water that is digested and then analyzed. All mercury method blank results were less than the MDL, indicating that laboratory contamination was not an issue during analysis of the samples included in these work groups.

3.1.3 Spike Blank

Both mercury spike blank recoveries were within 85 to 115% QC limits, at 97 and 100%.

3.1.4 Matrix Spike and Matrix Spike Duplicate

Mercury recoveries in the matrix spikes and matrix spike duplicates associated with both work groups were all within the 75 to 125% QC limits, ranging from 82 to 97%. The RPDs between matrix spike and matrix spike duplicate results were both less than the 20% QC limit, at 4 and 2%.

3.1.5 Laboratory Duplicate

The RPDs between mercury results in both laboratory duplicates were below the 20% QC limit, at 11 and 7%.

3.1.6 Laboratory Control Samples

Laboratory control samples were analyzed in duplicate. All mercury laboratory control sample recoveries were within the 80 to 120% QC limits, ranging from 93 to 99%. RPDs between mercury laboratory control sample results were both below the 20% QC limit, at 6 and 5%.

3.2 ICPMS Metals – Work Groups WG125138, WG125139

Total metals analysis was performed by inductively-coupled plasma mass spectroscopy (ICPMS) following EPA Method 3050B/6020A – SW846 (EPA 2007). Target analytes included arsenic, cadmium, chromium, copper, lead, nickel, silver, and zinc. Associated QC samples included method blanks, spike blanks, matrix spikes, laboratory duplicates, and laboratory control samples (in duplicate).

3.3.1 Holding Time

All 32 samples were digested and analyzed within the prescribed 6-month holding time.

3.2.2 Method Blank

An ICPMS metals method blank consists of an aliquot of reagent water that is digested and then analyzed. Results for all target metals in the method blanks associated with both work groups were less than the MDL, indicating that laboratory contamination was not an issue during analysis of the samples included in these work groups.

3.2.3 Spike Blank

Spike blank recoveries for all target metals in both work group were within the 85 to 115% laboratory QC limits, ranging from 86 to 99%.

3.2.4 Matrix Spike

The arsenic recovery of 68% in the matrix spike associated with work group WG125138 was below the lower 75% QC limit. The arsenic result in sample L56024-7 should be qualified with a "J" flag and considered estimated with a low bias. The lead recovery of 323% in the matrix spike associated with work group WG125138 exceeded the upper QC limit of 125%. The lead RPD in the laboratory duplicate, which was performed on the same sample, also exceeded the QC limit (see section 3.2.5). Due to these multiple QC failures, the lead result in sample L56024-7 should be qualified with a "J" flag and considered estimated with an unknown bias. Recoveries of cadmium and silver in this matrix spike were within the 75 to 125% QC limits at 92 and 90%, respectively. The matrix spike recoveries for chromium, copper, nickel, and zinc 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).

The recoveries of arsenic (53%), copper (6%), and nickel (65%) in the matrix spike associated with work group WG125139 were all below the lower 75% QC limit. Arsenic, copper, and nickel

results in sample L56024-24 should all be qualified with a "J" flag and considered estimated with a low bias. Recoveries of cadmium, lead, and silver in this matrix spike were all within the 75 to 125% QC limits, ranging from 92 to 98%. The matrix spike recoveries for chromium and zinc 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.

3.2.5 Laboratory Duplicate

The 64% RPD between lead results in the laboratory duplicate associated with work group WG125138 exceeded the 20% QC limit. The lead result in sample L56024-7 should be qualified with a "J" flag and considered estimated with an unknown bias.

The RPDs between results for arsenic (26%) and chromium (22%) in the laboratory duplicate associated with work group WG125139 exceeded the 20% QC limit. The result for arsenic has already been qualified based on matrix spike recovery. The chromium result in sample L56024-24 should be qualified with a "J" flag and considered estimated with an unknown bias.

RPDs between all other laboratory duplicate results were below the 20% QC limit, ranging from 0 to 18%.

3.2.6 Laboratory Control Sample and Standard Reference Material

Two laboratory control samples were analyzed with each work group, with each laboratory control sample analyzed in duplicate. Recoveries for all target metals in each laboratory control sample were within the empirically-derived laboratory QC limits shown on the attached QC report. RPDs between all duplicate laboratory control sample results were less than the 20% QC limit, ranging from 0 to 4%.

3.3 SEM Mercury – Work Groups WG122754, WG122942

Simultaneously extractable metals (SEM) mercury analysis was performed by cold-vapor atomic absorption spectroscopy (CVAA) following EPA Method 7470A – SW846 (EPA 2007). The SEM extraction was performed in association with AVS analysis (see section 2.4). Associated QC samples included method blanks, spike blanks, matrix spikes, and laboratory duplicates.

3.3.1 Holding Time

All 32 samples were digested and analyzed within the prescribed 14-day holding time.

3.3.2 Method Blank

All SEM mercury method blank results were less than the MDL, indicating that laboratory contamination was not an issue during analysis of the samples included in these work groups.

3.3.3 Spike Blank

Both mercury spike blank recoveries were within 85 to 115% QC limits, at 86 and 92%.

3.3.4 Matrix Spike

Mercury recoveries in the matrix spikes associated with both work groups were within the 75 to 125% QC limits, at 92 and 101%.

3.3.5 Laboratory Duplicate

The RPDs between mercury results in both laboratory duplicates were below the 20% QC limit (mercury was not detected in one pair of laboratory duplicates).

3.4 SEM Metals – Work Groups WG122775, WG122929

SEM metals analysis was performed by inductively-coupled plasma atomic emission spectrometry (ICP) following EPA Method 200.7 (EPA 2001). The SEM extraction was performed in association with AVS analysis (see section 2.4). Target analytes included arsenic, cadmium, chromium, copper, lead, nickel, silver, and zinc. Associated QC samples included method blanks, spike blanks, matrix spikes, and laboratory duplicates.

3.4.1 Holding Time

All 32 samples were digested and analyzed within the prescribed 14-day holding time.

3.4.2 Method Blank

Results for all target metals in the method blanks associated with both work groups were less than the MDL, indicating that laboratory contamination was not an issue during analysis of the samples included in these work groups.

3.4.3 Spike Blank

Spike blank recoveries for all target metals in both work groups were within the 85 to 115% laboratory QC limits, ranging from 90 to 97%.

3.4.4 Matrix Spike

Matrix spike recoveries for all target metals in both work groups were within the 75 to 125% laboratory QC limits, ranging from 76 to 101%.

3.4.5 Laboratory Duplicate

RPDs between all laboratory duplicate results were below the 20% QC limit, ranging from 0 to 13%.

4.0 Trace Organics Analyses

Trace organics analyses included base/neutral/acid semivolatile organic compounds (BNAs), chlorinated pesticides, and polychlorinated biphenyls (PCBs).

4.1 BNAs – Work Groups WG124929, WG125090, WG124930, WG125091

BNA analysis was performed by gas chromatography/mass spectroscopy (GC/MS) following EPA Methods 3550B/8270D – SW846 (EPA 2007). Target analytes included 41 BNA compounds, shown on the attached LIMS analytical QC report. Associated QC samples in each work group included a method blank, two spike blanks (low and high concentrations), a matrix spike and matrix spike duplicate, standard reference material run in duplicate, a laboratory duplicate, and surrogates.

4.1.1 Holding Time

All 32 samples were extracted and analyzed within the prescribed frozen holding time of 1 year until extraction and, then, 40 days to analysis.

4.1.2 Method Blank

A BNA method blank consists of an aliquot of anhydrous sodium sulfate/hydro matrix to which surrogates are added. The method blank is then extracted and analyzed following the same protocols as sample analysis.

Bis(2-ethylhexyl) phthalate was detected in the method blank associated with work group WG125090 and a concentration of 3.5 µg/Kg. Bis(2-ethylhexyl) phthalate results in samples L56024-21, -22, -28, -30, -35, -36, and -37 should be qualified with a "U" flag and the sample value reported as the sample-specific, dry-weight reporting detection limit (RDL). Results for all other BNA compounds in both method blanks were all less than the MDL.

4.1.3 Spike Blank

Both lower- and higher-concentration spike blanks were analyzed with each work group. Spike blank recoveries of 0% were reported for benzoic acid in both the lower- and higher-concentration spike blanks associated with both work groups. Benzoic acid, however, is a known poor performed in spike blanks and this compound returned acceptable recoveries in both the matrix spikes and matrix spike duplicates associated with both work groups. As a result, associated benzoic acid sample data will not be qualified based on spike blank recoveries.

Recoveries of 2 and 5% were reported for 2,4-dimethylphenol in, respectively, the lower- and higher-concentration method blanks associated with work group WG124929, both of which were below the 20% lower QC limit. A recovery of 0% was reported for 2,4-dimethylphenol in the lower-concentration spike blank associated with work group WG125090. The recovery of 23% in the higher-concentration spike blank, however, was within the 20 to 121% QC limits. Since 2,4-dimethylphenol was not detected in any of the associated samples, all sample data should be qualified with a "UJ" flag with bias considered low.

The recovery of 19% for 2-methylphenol in the lower-concentration spike blank associated with work group WG125090 was below the 20% lower QC limit. Results for 2-methylphenol in samples L56024-12, -15, -16, 21, -22, -28, -29, -30, -33, -35, -36, and -37 should all be qualified with a "UJ" flag with bias considered low.

The recovery of 12% for phenol in the lower-concentration spike blank associated with work group WG125090 was below the 26% lower QC limit. Results for phenol in samples L56024-12, -15, -16, 21, -22, -28, -29, -30, -33, -35, -36, and -37 should all be qualified with a "UJ" flag with bias considered low.

Bis(2-ethylhexyl)adipate recoveries exceeded the upper 150% QC limit in both the lower- and higher-concentration spike blanks in both work groups, ranging from 186 to 206%. Since this compound was not detected in any of the 32 samples, no bis(2-ethylhexyl)adipate data will be qualified based on spike blank recoveries.

Coprostanol recoveries exceeded the upper 150% QC limit in three of the four spike blanks, ranging from 180 to 192%. The coprostanol recovery in the fourth spike blank was 129%. Non-detect results for coprostanol in all samples may be used as reported without qualification. Positive results for coprostanol in all samples should be qualified with a "J" flag and considered estimated with a high bias.

Total 4-nonylphenol recoveries in both the lower- and higher-concentration spike blanks associated with work group WG125091 exceeded the upper 150% QC limit, at 156 and 160%. The total 4-nonylphenol results in samples L56024-12 and -15 should be qualified with a "J" flag and considered an estimate with a high bias.

All other spike blank recoveries in all four work groups were within their respective empirically-derived QC limits.

4.1.4 Matrix Spike and Matrix Spike Duplicate

Recoveries of 10 and 5% were reported for 2,4-dimethylphenol, respectively, in the matrix spike and matrix spike duplicate associated with work group WG124929, which were both below the lower 27% QC limit. Associated sample data have already been qualified based on spike blank recoveries (see section 4.1.3).

The RPDs of 42% between matrix spike and matrix spike duplicate recoveries for 1,4-dichlorobenzene and 1,2-dichlorobenzene in work group WG125090-5 exceeded the 35% QC limit. Neither of these compounds were detected in the sample on which the matrix spike and matrix spike duplicate were performed so associated sample data will not be qualified based on these QC results.

Recoveries of bis(2-ethylhexyl)adipate, coprostanol, and total 4-nonylphenol were either at or exceeded the upper 150% QC limit in the matrix spikes and matrix spike duplicates associated with work groups WG124930 and WG125091, ranging from 150 to 201%. These compounds were not detected in the samples on which the matrix spike analyses were performed, however, so associated sample data will not be qualified based on these matrix spike recoveries.

4.1.5 Standard Reference Material and Standard Reference Material Duplicate

The standard reference material analyzed in association with BNA analysis includes a partial list of target analytes – a total of 10 compounds – all of which are polycyclic aromatic hydrocarbons (PAHs). Standard reference materials were analyzed in duplicate for two of the four work groups. All standard reference material recoveries were within their respective empirically-derived QC limits. RPDs between duplicate results were all below the 35% QC limit, ranging from 3 to 23%.

4.1.6 Laboratory Duplicate

RPDs between results for all BNA compounds in the laboratory duplicates associated with all four work groups were less than the 35% QC limit, ranging from 0 to 18%.

4.1.7 Surrogates

The surrogate recoveries of d4-terphenyl in samples L56024-14, -15, and -16 exceeded the 150% upper QC limit, ranging from 154 to 194%. This surrogate is one of three used to measure sample-specific performance of the base/neutral fraction of the BNA analysis. The other two surrogate recoveries, 2-fluorobiphenyl and d5-nitrobenzene, were within their respective QC limits in all three samples, so sample data for L56024-14, -15, and -16 will not be qualified based on these surrogate recovery QC exceedences.

The surrogate recoveries of 2,4,6-tribromophenol in the method blank and standard reference material duplicate associated with work group WG12429-8 and the standard reference material duplicate associated with work group WG125090 were all below the 45% lower QC limit, ranging from 34 to 43%. This surrogate is one of four used to measure sample-specific performance of the acid fraction of the BNA analysis. The other three surrogates, d5-phenol, 2-fluorphenol, and d4-2-chlorophenol, were within their respective QC limits in all three QC samples.

The surrogate d4-4-nonylphenol is associated with the target analytes bisphenol A, bis(2-ethylhexyl)adipate, coprostanol, and total 4-nonylphenol. This surrogate exceeded the upper 150% QC limit in 29 of 32 analytical samples and 6 of 12 QC samples, with recoveries ranging from 151 to 205%. Based on these typically high surrogate recoveries, as well as high spike blank and matrix spike recoveries, all positive results for coprostanol and total-4-nonylphenol in these 32 samples should be qualified with a "J" flag and considered estimated with a high bias. Non-detected results may be used as reported, without qualification. Bisphenol A and bis(2-ethylhexyl)adipate were not detected in any of the 32 samples.

4.2 PCBs – Work Groups WG124870, WG125089

PCB Aroclors were analyzed by gas chromatography with electron capture detector (GC/ECD), following EPA Method 3550B/8082A – SW846 (EPA 2007). Associated QC samples included method blanks, spike blanks, matrix spikes and matrix spike duplicates, standard reference material (analyzed in duplicate), laboratory duplicates, and surrogates.

4.2.1 Holding Time

All 32 samples were extracted analyzed within the prescribed frozen holding time of 1 year until extraction and, then, 40 days to analysis.

4.2.2 Method Blanks

Results for all seven Aroclors in both method blanks were less than the MDL, indicating that laboratory contamination was not an issue during analysis of the samples included in these work groups.

4.2.3 Spike Blank

Two Aroclors, 1242 and 1260, were used in both spike blanks as well as matrix spikes (see Section 4.2.4). Recoveries for both Aroclors were within the empirically-derived QC limits

shown on the attached LIMS analytical QC report for the spike blanks associated with both work groups.

4.2.4 Matrix Spikes and Matrix Spike Duplicates

Matrix spike recoveries for both Aroclors in both the matrix spike and matrix spike duplicate were within the empirically-derived laboratory QC limits in both work groups. The RPDs for both Aroclor results between the matrix spikes and matrix spike duplicates were less than the laboratory QC limit of 35%, ranging from 0 to 6%.

4.2.5 Standard Reference Material and Standard Reference Material Duplicate

Aroclor 1254 is used as the target PCB analyte during standard reference material analysis. Recoveries of Aroclor 1254 in both the standard reference material and standard reference material duplicate were within the empirically-derived laboratory QC limits in both work groups. The RPDs between standard reference material and standard reference material duplicate results were at or below the 35% laboratory QC limit in all five work groups, ranging from 7 to 19%.

4.2.6 Laboratory Duplicate

PCB results for all seven Aroclors in both samples upon with laboratory duplicate analysis was performed were less than the MDL.

4.2.7 Surrogates

Recoveries for both surrogates in all 32 analytical samples and all 12 of 14 QC samples were within the empirically-derived laboratory QC limits. Surrogate recoveries were also within the control limits recommended in *National Functional Guidelines* QC limits for the 32 analytical samples and 11 of 14 QC samples. The 19% recovery of 2,4,5,6-tetrachloro-m-xylene in the method blank associated with work group WG124870 was below the empirically-derived lower QC limit of 20% as well as the *National Functional Guidelines* lower QC limit of 30%. Recovery of the other surrogate compound, decachlorobiphenyl, was within both the empirically-derived and *National Functional Guidelines* QC limits for this QC sample. The 18% recovery of 2,4,5,6-tetrachloro-m-xylene in the spike blank associated with work group WG125089 was below the empirically-derived lower QC limit of 20% as well as the *National Functional Guidelines* lower QC limit of 30%. Recovery of the other surrogate compound, decachlorobiphenyl, was within both the empirically-derived and *National Functional Guidelines* QC limits for this QC sample. Data will not be qualified based on these surrogate recovery QC exceedences.

4.3 Chlorinated Pesticides – Work Groups WG124869, WG125088

Chlorinated pesticides were analyzed by GC/ECD, following EPA Method 3550B/8081B – SW846 (EPA 2007). Associated QC samples included method blanks, spike blanks, matrix spikes and matrix spike duplicates, standard reference material (analyzed in duplicate), laboratory duplicates, and surrogates.

4.3.1 Holding Time

All 32 samples were extracted analyzed within the prescribed frozen holding time of 1 year until extraction and, then, 40 days to analysis.

4.3.2 Method Blanks

Results for all chlorinated pesticides in both method blanks were less than the MDL, indicating that laboratory contamination was not an issue during analysis of the samples included in these work groups.

4.3.3 Spike Blank

Nineteen of the 20 target chlorinated pesticides (no toxaphene) were used in the spiking solution used for both spike blanks and matrix spikes (see section 4.3.4). The aldrin recovery of 48% in the spike blank associated with work group WG125088 was below the 51% lower QC limit. This compound was not detected in any of the samples associated with this work group. Aldrin results for samples L56024-12, -15, -16, -21, -22, -28, -29, -30, -33, -35, -36, and -37 should all be qualified with a "UJ" flag.

Spike blank recoveries for all remaining chlorinated pesticides in work group WG125089 as well as all chlorinated pesticides in the spike blank associated with work group WG124869 were within the empirically-derived QC limits shown on the attached LIMS analytical QC report.

4.2.4 Matrix Spikes and Matrix Spike Duplicates

The matrix spike recovery of 56% for alpha-BHC in the matrix spike associated with work group WG124869 was below the lower 65% QC limit. The 75% recovery of alpha-BHC in the matrix spike duplicate, however, was within the 65 to 90% QC limits and the 28% RPD between matrix spike and matrix spike duplicate results was below the 35% QC limit. Associated sample data for alpha-BHC data will not be qualified based on the matrix spike recovery.

The matrix spike recovery of 61% for gamma-BHC in the matrix spike associated with work group WG124869 was below the lower 67% QC limit. The 78% recovery of gamma-BHC in the matrix spike duplicate, however, was within the 67 to 91% QC limits and the 25% RPD between matrix spike and matrix spike duplicate results was below the 35% QC limit. Associated sample data for gamma-BHC data will not be qualified based on the matrix spike recovery.

The matrix spike recovery of 95% for gamma-BHC in the matrix spike associated with work group WG125088 exceeded the upper 91% QC limit. The 89% recovery of gamma-BHC in the matrix spike duplicate, however, was within the 67 to 91% QC limits and the 7% RPD between matrix spike and matrix spike duplicate results was below the 35% QC limit. Associated sample data for gamma-BHC data will not be qualified based on the matrix spike recovery.

The matrix spike recovery of 110% for methoxychlor in the matrix spike associated with work group WG125088 exceeded the upper 107% QC limit. The 106% recovery of methoxychlor in the matrix spike duplicate, however, was within the 63 to 107% QC limits and the 3% RPD between matrix spike and matrix spike duplicate results was below the 35% QC limit. Associated sample data for methoxychlor data will not be qualified based on the matrix spike recovery.

Matrix spike and matrix spike duplicate recoveries for the remaining target chlorinated pesticides in both work groups were all within their empirically-derived QC limits, shown on the attached QC reports.

4.2.5 Standard Reference Material and Standard Reference Material Duplicate

The standard reference material analyzed in connection with chlorinated pesticide analysis contains a single compound, alpha-chlordane. The alpha-chlordane recoveries in the two standard reference materials analyzed in duplicate were all within the empirically-derived 69 to 136% QC limits, ranging from 111 to 131%. RPDs between standard reference material duplicate results were both below the 35% QC limit, at 3 and 11%.

4.2.6 Laboratory Duplicate

The 21% RPD between 4,4'-DDD results in the laboratory duplicate associated with work group WG124869 was below the 35% QC limit. No other chlorinated pesticides were detected in this sample. No chlorinated pesticides were detected in the laboratory duplicate sample associated with work group WG125088.

4.2.7 Surrogates

Recoveries for both surrogates in all 32 analytical samples and all 14 QC samples were within the empirically-derived laboratory QC limits. Surrogate recoveries were also within the control limits recommended in *National Functional Guidelines* QC limits for the 32 analytical samples and 12 of 14 QC samples. The 2,4,5,6-tetrachloro-m-xylene recovery of 20% in the method blank associated with work group WG124869 and 21% in the spike blank associated with work group WG125088 were both below the 30% lower QC limit recommended in *National Functional Guidelines*. Sample data, however, will not be qualified based on these two surrogate recoveries.

5.0 Data Usability

As a general data reporting format, sample results that are reported as "<MDL" by King County should be assigned a "U" flag in all cases. Sample results that are reported as "less than the reporting detection limit" (<RDL) should be assigned a "J" flag and considered estimated in all cases. Analytical data for samples L56024-1 through -5, - 7 through -9, -11 through -17, -19 through -30, and -33 through -40 may be used as reported, with the following exceptions:

- Results for the parameter "silt" in sample L56024-7 should be qualified with a "J" flag and considered estimated with an unknown bias. If the data user feels it necessary, the individual phi sizes associated with the gravel fraction may also be qualified with a "J" flag. These phi sizes include p+5.00, p+6.00, p+7.00, and p+8.00. Since the parameter "silt" is a sub-fraction of the summed parameter "fines," the parameter "fines" should also be qualified with a "J" flag and considered estimated with an unknown bias.
- AVS results in samples L56024-4 and L56024-19 should be qualified with a "J" flag, with bias considered low.
- The arsenic result in sample L56024-7 should be qualified with a "J" flag and considered estimated with a low bias.

- The lead result in sample L56024-7 should be qualified with a “J” flag and considered estimated with an unknown bias.
- Copper and nickel results in sample L56024-24 should both be qualified with a “J” flag and considered estimated with a low bias.
- The chromium result in sample L56024-24 should be qualified with a “J” flag and considered estimated with an unknown bias.
- Bis(2-ethylhexyl) phthalate results in samples L56024-21, -22, -28, -30, -35, -36, and -37 should be qualified with a “U” flag and the sample value reported as the sample-specific, dry-weight reporting detection limit (RDL).
- All 2,4-dimethylphenol results should be qualified with a “UJ” flag with bias considered low.
- Results for phenol and 2-methylphenol in samples L56024-12, -15, -16, 21, -22, -28, -29, -30, -33, -35, -36, and -37 should all be qualified with a “UJ” flag with bias considered low.
- All positive results for coprostanol and total-4-nonylphenol should be qualified with a “J” flag and considered estimated with a high bias.
- Aldrin results for samples L56024-12, -15, -16, -21, -22, -28, -29, -30, -33, -35, -36, and -37 should all be qualified with a “UJ” flag.

6.0 References

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

ASTM 2002. *Standard Test Method for Particle-Size Analysis of Soils D422-63(2002)*. American Society for Testing and Materials. West Conshohocken, Pennsylvania.

Ecology 2008. *Sediment Sampling and Analysis Plan Appendix - Guidance on the Development of Sediment Sampling and Analysis Plans Meeting the Requirements of the Sediment Management Standards (Chapter 173-204 WAC) (Revised).* Washington State Department of Ecology. Olympia, Washington.

EPA 1991. *Determination of Acid Volatile Sulfide and Selected Simultaneously Extractable Metals in Sediment*. USEPA, Office of Water Programs. Washington, D.C.

EPA 2001. *Method 200.7, Determination of Metals and Trace Elements in Water and Wastes by Inductively Coupled Plasma-Atomic Emission Spectrometry, Revision 4.*4. USEPA, Office of Research and Development. Cincinnati, OH.

EPA 2007. *Test Methods for Evaluating Solid Waste*. *Laboratory Manual – Physical/Chemical Methods, SW-846, 3rd Edition, Update IVB*. USEPA, 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. USEPA. Washington, D.C. June 2001.

EPA 2010. *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Inorganic Data Review.* OSWER 9240.1-51, USEPA-540-R-10-011. USEPA. Washington, D.C. January 2010.

King County 2012. *Stream Sediment Monitoring Sampling and Analysis Plan – Green River Basin*. King County Department of Natural Resources and Parks. Seattle, Washington.

ATTACHMENT A

LIMS BATCH AND QC REPORTS

LIMSView Batch Report for Stream Sediments - Data Validation for 2012 Sampling Event

WG122678

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Analysis Date	Comments
L56024-1	423589-330-4	Green Rvr PCB/PAH Loading	CVAVS	FRSHWTRSED	08/13/12	08/16/12	08/16/12	
L56024-2	423589-330-4	Green Rvr PCB/PAH Loading	CVAVS	FRSHWTRSED	08/13/12	08/16/12	08/16/12	
L56024-4	423589-330-4	Green Rvr PCB/PAH Loading	CVAVS	FRSHWTRSED	08/13/12	08/16/12	08/16/12	
L56024-5	423589-330-4	Green Rvr PCB/PAH Loading	CVAVS	FRSHWTRSED	08/13/12	08/16/12	08/16/12	
L56024-7	423589-330-4	Green Rvr PCB/PAH Loading	CVAVS	FRSHWTRSED	08/14/12	08/16/12	08/16/12	
L56024-8	423589-330-4	Green Rvr PCB/PAH Loading	CVAVS	FRSHWTRSED	08/14/12	08/16/12	08/16/12	
L56024-9	423589-330-4	Green Rvr PCB/PAH Loading	CVAVS	FRSHWTRSED	08/14/12	08/16/12	08/16/12	
L56024-20	423589-330-4	Green Rvr PCB/PAH Loading	CVAVS	FRSHWTRSED	08/14/12	08/16/12	08/16/12	
L56024-21	423589-330-4	Green Rvr PCB/PAH Loading	CVAVS	FRSHWTRSED	08/14/12	08/21/12	08/21/12	
L56024-22	423589-330-4	Green Rvr PCB/PAH Loading	CVAVS	FRSHWTRSED	08/14/12	08/21/12	08/21/12	
L56024-23	423589-330-4	Green Rvr PCB/PAH Loading	CVAVS	FRSHWTRSED	08/15/12	08/21/12	08/21/12	
L56024-24	423589-330-4	Green Rvr PCB/PAH Loading	CVAVS	FRSHWTRSED	08/15/12	08/21/12	08/21/12	
L56024-25	423589-330-4	Green Rvr PCB/PAH Loading	CVAVS	FRSHWTRSED	08/15/12	08/21/12	08/21/12	
L56024-26	423589-330-4	Green Rvr PCB/PAH Loading	CVAVS	FRSHWTRSED	08/15/12	08/21/12	08/21/12	
L56024-27	423589-330-4	Green Rvr PCB/PAH Loading	CVAVS	FRSHWTRSED	08/15/12	08/21/12	08/21/12	
L56024-37	423589-330-4	Green Rvr PCB/PAH Loading	CVAVS	FRSHWTRSED	08/14/12	08/21/12	08/21/12	
WG122678-1	MB		CVAVS	OTHR SOLID		08/16/12	08/16/12	MB1 08/16/12
WG122678-2	SB		CVAVS	OTHR SOLID		08/16/12	08/16/12	WG122678-1
WG122678-3	LD		CVAVS	FRSHWTRSED		08/16/12	08/16/12	L56024-4
WG122678-4	LT		CVAVS	FRSHWTRSED		08/16/12	08/16/12	WG122678-3 L56024-4
WG122678-5	MS		CVAVS	FRSHWTRSED		08/16/12	08/16/12	L56024-4
WG122678-6	MB		CVAVS	OTHR SOLID		08/21/12	08/21/12	MB1 08/21/12
WG122678-7	SB		CVAVS	OTHR SOLID		08/21/12	08/21/12	WG122678-6

WG122829

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Analysis Date	Comments
L56024-3	423589-330-4	Green Rvr PCB/PAH Loading	CVAVS	FRSHWTRSED	08/29/12	09/04/12	09/04/12	
L56024-11	423589-330-4	Green Rvr PCB/PAH Loading	CVAVS	FRSHWTRSED	08/30/12	09/04/12	09/04/12	
L56024-12	423589-330-4	Green Rvr PCB/PAH Loading	CVAVS	FRSHWTRSED	08/27/12	08/29/12	08/29/12	
L56024-13	423589-330-4	Green Rvr PCB/PAH Loading	CVAVS	FRSHWTRSED	08/28/12	08/29/12	08/29/12	
L56024-14	423589-330-4	Green Rvr PCB/PAH Loading	CVAVS	FRSHWTRSED	08/28/12	09/04/12	09/04/12	
L56024-15	423589-330-4	Green Rvr PCB/PAH Loading	CVAVS	FRSHWTRSED	08/28/12	09/04/12	09/04/12	
L56024-16	423589-330-4	Green Rvr PCB/PAH Loading	CVAVS	FRSHWTRSED	08/28/12	09/04/12	09/04/12	
L56024-17	423589-330-4	Green Rvr PCB/PAH Loading	CVAVS	FRSHWTRSED	08/28/12	09/04/12	09/04/12	
L56024-19	423589-330-4	Green Rvr PCB/PAH Loading	CVAVS	FRSHWTRSED	08/28/12	08/29/12	08/29/12	
L56024-28	423589-330-4	Green Rvr PCB/PAH Loading	CVAVS	FRSHWTRSED	08/27/12	08/29/12	08/29/12	
L56024-29	423589-330-4	Green Rvr PCB/PAH Loading	CVAVS	FRSHWTRSED	08/27/12	08/29/12	08/29/12	

L56024-30	423589-330-4	Green Rvr PCB/PAH Loading	CVAVS	FRSHWTRSED	08/27/12	08/29/12	08/29/12	
L56024-33	423589-330-4	Green Rvr PCB/PAH Loading	CVAVS	FRSHWTRSED	08/27/12	08/29/12	08/29/12	
L56024-34	423589-330-4	Green Rvr PCB/PAH Loading	CVAVS	FRSHWTRSED	08/29/12	09/04/12	09/04/12	
L56024-35	423589-330-4	Green Rvr PCB/PAH Loading	CVAVS	FRSHWTRSED	08/29/12	09/04/12	09/04/12	
L56024-36	423589-330-4	Green Rvr PCB/PAH Loading	CVAVS	FRSHWTRSED	08/27/12	08/29/12	08/29/12	
WG122829-1	MB		CVAVS	OTHR SOLID		08/29/12	08/29/12	MB1 08/29/12
WG122829-2	SB		CVAVS	OTHR SOLID		08/29/12	08/29/12	WG122829-1
WG122829-3	LD		CVAVS	FRSHWTRSED		08/29/12	08/29/12	L56024-19
WG122829-4	LT		CVAVS	FRSHWTRSED		08/29/12	08/29/12	WG122829-3 L56024-19
WG122829-5	MS		CVAVS	FRSHWTRSED		08/29/12	08/29/12	L56024-19
WG122829-6	MB		CVAVS	OTHR SOLID		09/04/12	09/04/12	MB1 09/04/12
WG122829-7	SB		CVAVS	OTHR SOLID		09/04/12	09/04/12	WG122829-6

WG122562

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Analysis Date	Comments
L56024-1	423589-330-4	Green Rvr PCB/PAH Loading	CVPH	FRSHWTRSED	08/13/12	08/14/12	08/14/12	
L56024-2	423589-330-4	Green Rvr PCB/PAH Loading	CVPH	FRSHWTRSED	08/13/12	08/14/12	08/14/12	
L56024-4	423589-330-4	Green Rvr PCB/PAH Loading	CVPH	FRSHWTRSED	08/13/12	08/14/12	08/14/12	
L56024-5	423589-330-4	Green Rvr PCB/PAH Loading	CVPH	FRSHWTRSED	08/13/12	08/14/12	08/14/12	
L56024-7	423589-330-4	Green Rvr PCB/PAH Loading	CVPH	FRSHWTRSED	08/14/12	08/15/12	08/15/12	
L56024-8	423589-330-4	Green Rvr PCB/PAH Loading	CVPH	FRSHWTRSED	08/14/12	08/15/12	08/15/12	
L56024-9	423589-330-4	Green Rvr PCB/PAH Loading	CVPH	FRSHWTRSED	08/14/12	08/15/12	08/15/12	
L56024-20	423589-330-4	Green Rvr PCB/PAH Loading	CVPH	FRSHWTRSED	08/14/12	08/15/12	08/15/12	
L56024-21	423589-330-4	Green Rvr PCB/PAH Loading	CVPH	FRSHWTRSED	08/14/12	08/15/12	08/15/12	
L56024-22	423589-330-4	Green Rvr PCB/PAH Loading	CVPH	FRSHWTRSED	08/14/12	08/15/12	08/15/12	
L56024-23	423589-330-4	Green Rvr PCB/PAH Loading	CVPH	FRSHWTRSED	08/15/12	08/16/12	08/16/12	
L56024-24	423589-330-4	Green Rvr PCB/PAH Loading	CVPH	FRSHWTRSED	08/15/12	08/16/12	08/16/12	
L56024-25	423589-330-4	Green Rvr PCB/PAH Loading	CVPH	FRSHWTRSED	08/15/12	08/16/12	08/16/12	
L56024-26	423589-330-4	Green Rvr PCB/PAH Loading	CVPH	FRSHWTRSED	08/15/12	08/16/12	08/16/12	
L56024-27	423589-330-4	Green Rvr PCB/PAH Loading	CVPH	FRSHWTRSED	08/15/12	08/16/12	08/16/12	
L56024-37	423589-330-4	Green Rvr PCB/PAH Loading	CVPH	FRSHWTRSED	08/14/12	08/15/12	08/15/12	
WG122562-1	LD		CVPH	FRSHWTRSED		08/14/12	08/14/12	L56024-2
WG122562-2	LT		CVPH	FRSHWTRSED		08/14/12	08/14/12	WG122562-1 L56024-2
WG122562-3	CS		CVPH	OTHR SOLID		08/14/12	08/14/12	LEVEL1
WG122562-4	CS		CVPH	OTHR SOLID		08/15/12	08/15/12	LEVEL1
WG122562-5	CS		CVPH	OTHR SOLID		08/15/12	08/15/12	LEVEL2
WG122562-6	CS		CVPH	OTHR SOLID		08/16/12	08/16/12	LEVEL1

LIMSView Batch Report for Stream Sediments - Data Validation for 2012 Sampling Event

WG122810

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Analysis Date	Comments
L56024-3	423589-330-4	Green Rvr PCB/PAH Loading	CVPH	FRSHWTRSED	08/29/12	08/30/12	08/30/12	
L56024-11	423589-330-4	Green Rvr PCB/PAH Loading	CVPH	FRSHWTRSED	08/30/12	08/30/12	08/30/12	
L56024-12	423589-330-4	Green Rvr PCB/PAH Loading	CVPH	FRSHWTRSED	08/27/12	08/28/12	08/28/12	
L56024-13	423589-330-4	Green Rvr PCB/PAH Loading	CVPH	FRSHWTRSED	08/28/12	08/29/12	08/29/12	
L56024-14	423589-330-4	Green Rvr PCB/PAH Loading	CVPH	FRSHWTRSED	08/28/12	08/29/12	08/29/12	
L56024-15	423589-330-4	Green Rvr PCB/PAH Loading	CVPH	FRSHWTRSED	08/28/12	08/29/12	08/29/12	
L56024-16	423589-330-4	Green Rvr PCB/PAH Loading	CVPH	FRSHWTRSED	08/28/12	08/29/12	08/29/12	
L56024-17	423589-330-4	Green Rvr PCB/PAH Loading	CVPH	FRSHWTRSED	08/28/12	08/29/12	08/29/12	
L56024-19	423589-330-4	Green Rvr PCB/PAH Loading	CVPH	FRSHWTRSED	08/28/12	08/29/12	08/29/12	
L56024-28	423589-330-4	Green Rvr PCB/PAH Loading	CVPH	FRSHWTRSED	08/27/12	08/28/12	08/28/12	
L56024-29	423589-330-4	Green Rvr PCB/PAH Loading	CVPH	FRSHWTRSED	08/27/12	08/28/12	08/28/12	
L56024-30	423589-330-4	Green Rvr PCB/PAH Loading	CVPH	FRSHWTRSED	08/27/12	08/28/12	08/28/12	
L56024-33	423589-330-4	Green Rvr PCB/PAH Loading	CVPH	FRSHWTRSED	08/27/12	08/28/12	08/28/12	
L56024-34	423589-330-4	Green Rvr PCB/PAH Loading	CVPH	FRSHWTRSED	08/29/12	08/30/12	08/30/12	
L56024-35	423589-330-4	Green Rvr PCB/PAH Loading	CVPH	FRSHWTRSED	08/29/12	08/30/12	08/30/12	
L56024-36	423589-330-4	Green Rvr PCB/PAH Loading	CVPH	FRSHWTRSED	08/27/12	08/28/12	08/28/12	
L56158-1	421184-130	OCS-Karcher Creek SD	CVPH	SLUDGE	08/28/12	08/29/12	08/29/12	
L56387-2	423258-500-1	Brightwater Reclaimed Water	CVPH	FRSHWTRSED	08/28/12	08/29/12	08/29/12	
WG122810-1	LD		CVPH	FRSHWTRSED		08/28/12	08/28/12	L56024-12
WG122810-2	LCS		CVPH	OTHR SOLID		08/28/12	08/28/12	LEVEL1
WG122810-3	LD		CVPH	FRSHWTRSED		08/29/12	08/29/12	L56024-13
WG122810-4	LT		CVPH	FRSHWTRSED		08/29/12	08/29/12	WG122810-3 L56024-13
WG122810-5	LD		CVPH	FRSHWTRSED		08/29/12	08/29/12	L56387-2
WG122810-6	CS		CVPH	OTHR SOLID		08/29/12	08/29/12	LEVEL1
WG122810-7	CS		CVPH	OTHR SOLID		08/29/12	08/29/12	LEVEL2
WG122810-8	LD		CVPH	SLUDGE		08/29/12	08/29/12	L56158-1
WG122810-9	LT		CVPH	SLUDGE		08/29/12	08/29/12	WG122810-8 L56158-1
WG122810-10	CS		CVPH	OTHR SOLID		08/29/12	08/29/12	LEVEL2
WG122810-11	CS		CVPH	OTHR SOLID		08/30/12	08/30/12	LEVEL1
WG122810-12	CS		CVPH	OTHR SOLID		08/30/12	08/30/12	LEVEL2
WG122810-13	CS		CVPH	OTHR SOLID		08/30/12	08/30/12	LEVEL2

WG122689

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Analysis Date	Comments
L56024-1	423589-330-4	Green Rvr PCB/PAH Loading	CVPSD	FRSHWTRSED	08/13/12	09/18/12	09/20/12	
L56024-2	423589-330-4	Green Rvr PCB/PAH Loading	CVPSD	FRSHWTRSED	08/13/12	09/18/12	09/20/12	
L56024-3	423589-330-4	Green Rvr PCB/PAH Loading	CVPSD	FRSHWTRSED	08/29/12	09/18/12	09/20/12	

L56024-4	423589-330-4	Green Rvr PCB/PAH Loading	CVPSD	FRSHWTRSED	08/13/12	09/18/12	09/20/12	
L56024-5	423589-330-4	Green Rvr PCB/PAH Loading	CVPSD	FRSHWTRSED	08/13/12	09/18/12	09/20/12	
L56024-7	423589-330-4	Green Rvr PCB/PAH Loading	CVPSD	FRSHWTRSED	08/14/12	09/18/12	09/20/12	
L56024-8	423589-330-4	Green Rvr PCB/PAH Loading	CVPSD	FRSHWTRSED	08/14/12	09/18/12	09/20/12	
L56024-9	423589-330-4	Green Rvr PCB/PAH Loading	CVPSD	FRSHWTRSED	08/14/12	09/18/12	09/20/12	
L56024-11	423589-330-4	Green Rvr PCB/PAH Loading	CVPSD	FRSHWTRSED	08/30/12	09/26/12	09/27/12	
L56024-12	423589-330-4	Green Rvr PCB/PAH Loading	CVPSD	FRSHWTRSED	08/27/12	09/26/12	09/27/12	
L56024-13	423589-330-4	Green Rvr PCB/PAH Loading	CVPSD	FRSHWTRSED	08/28/12	09/26/12	09/27/12	
L56024-14	423589-330-4	Green Rvr PCB/PAH Loading	CVPSD	FRSHWTRSED	08/28/12	09/26/12	09/27/12	
L56024-15	423589-330-4	Green Rvr PCB/PAH Loading	CVPSD	FRSHWTRSED	08/28/12	09/26/12	09/27/12	
L56024-16	423589-330-4	Green Rvr PCB/PAH Loading	CVPSD	FRSHWTRSED	08/28/12	09/26/12	09/27/12	
L56024-17	423589-330-4	Green Rvr PCB/PAH Loading	CVPSD	FRSHWTRSED	08/28/12	09/26/12	09/27/12	
L56024-19	423589-330-4	Green Rvr PCB/PAH Loading	CVPSD	FRSHWTRSED	08/28/12	09/26/12	09/27/12	
L56024-20	423589-330-4	Green Rvr PCB/PAH Loading	CVPSD	FRSHWTRSED	08/14/12	09/26/12	09/27/12	
L56024-21	423589-330-4	Green Rvr PCB/PAH Loading	CVPSD	FRSHWTRSED	08/14/12	10/03/12	10/04/12	
L56024-22	423589-330-4	Green Rvr PCB/PAH Loading	CVPSD	FRSHWTRSED	08/14/12	10/03/12	10/04/12	
L56024-23	423589-330-4	Green Rvr PCB/PAH Loading	CVPSD	FRSHWTRSED	08/15/12	10/03/12	10/04/12	
L56024-24	423589-330-4	Green Rvr PCB/PAH Loading	CVPSD	FRSHWTRSED	08/15/12	10/03/12	10/04/12	
L56024-25	423589-330-4	Green Rvr PCB/PAH Loading	CVPSD	FRSHWTRSED	08/15/12	10/03/12	10/04/12	
L56024-26	423589-330-4	Green Rvr PCB/PAH Loading	CVPSD	FRSHWTRSED	08/15/12	10/03/12	10/04/12	
L56024-27	423589-330-4	Green Rvr PCB/PAH Loading	CVPSD	FRSHWTRSED	08/15/12	10/03/12	10/04/12	
L56024-28	423589-330-4	Green Rvr PCB/PAH Loading	CVPSD	FRSHWTRSED	08/27/12	10/03/12	10/04/12	
L56024-29	423589-330-4	Green Rvr PCB/PAH Loading	CVPSD	FRSHWTRSED	08/27/12	10/03/12	10/04/12	
L56024-30	423589-330-4	Green Rvr PCB/PAH Loading	CVPSD	FRSHWTRSED	08/27/12	10/03/12	10/04/12	
L56024-33	423589-330-4	Green Rvr PCB/PAH Loading	CVPSD	FRSHWTRSED	08/27/12	10/10/12	10/11/12	
L56024-34	423589-330-4	Green Rvr PCB/PAH Loading	CVPSD	FRSHWTRSED	08/29/12	10/10/12	10/11/12	
L56024-35	423589-330-4	Green Rvr PCB/PAH Loading	CVPSD	FRSHWTRSED	08/29/12	10/10/12	10/11/12	
L56024-36	423589-330-4	Green Rvr PCB/PAH Loading	CVPSD	FRSHWTRSED	08/27/12	10/10/12	10/11/12	
L56024-37	423589-330-4	Green Rvr PCB/PAH Loading	CVPSD	FRSHWTRSED	08/14/12	10/10/12	10/11/12	
L56024-38	423589-330-4	Green Rvr PCB/PAH Loading	CVPSD	FRSHWTRSED	08/14/12	10/10/12	10/11/12	
L56024-39	423589-330-4	Green Rvr PCB/PAH Loading	CVPSD	FRSHWTRSED	08/14/12	10/10/12	10/11/12	
L56024-40	423589-330-4	Green Rvr PCB/PAH Loading	CVPSD	FRSHWTRSED	08/13/12	10/23/12	10/25/12	
WG122689-1	LD		CVPSD	FRSHWTRSED		09/18/12	09/20/12	L56024-7
WG122689-2	LT		CVPSD	FRSHWTRSED		09/18/12	09/20/12	WG122689-1 L56024-7
WG122689-3	LD		CVPSD	FRSHWTRSED		10/10/12	10/11/12	L56024-34
WG122689-4	LT		CVPSD	FRSHWTRSED		10/10/12	10/11/12	WG122689-3 L56024-34

WG122758

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Analysis Date	Comments
L56024-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRSHWTRSED	08/13/12	08/22/12	08/29/12	

L56024-2	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRSHWTRSED	08/13/12	08/22/12	08/29/12	
L56024-4	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRSHWTRSED	08/13/12	08/22/12	08/29/12	
L56024-5	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRSHWTRSED	08/13/12	08/22/12	08/30/12	
L56024-7	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRSHWTRSED	08/14/12	08/22/12	08/30/12	
L56024-8	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRSHWTRSED	08/14/12	08/22/12	08/30/12	
L56024-9	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRSHWTRSED	08/14/12	08/22/12	08/30/12	
L56024-20	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRSHWTRSED	08/14/12	08/22/12	08/30/12	
L56024-21	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRSHWTRSED	08/14/12	08/22/12	08/30/12	
L56024-22	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRSHWTRSED	08/14/12	08/22/12	08/30/12	
L56024-23	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRSHWTRSED	08/15/12	08/22/12	08/31/12	
L56024-24	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRSHWTRSED	08/15/12	08/22/12	08/31/12	
L56024-25	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRSHWTRSED	08/15/12	08/22/12	08/31/12	
L56024-26	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRSHWTRSED	08/15/12	08/22/12	08/31/12	
L56024-27	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRSHWTRSED	08/15/12	08/22/12	08/31/12	
L56024-37	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRSHWTRSED	08/14/12	08/22/12	08/31/12	
L56024-38	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRSHWTRSED	08/14/12	08/22/12	08/31/12	
L56024-39	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRSHWTRSED	08/14/12	08/22/12	09/05/12	
L56024-40	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRSHWTRSED	08/13/12	08/22/12	09/05/12	
L56387-2	423258-500-1	Brightwater Reclaimed Water	CVTOC	FRSHWTRSED	08/28/12	08/29/12	09/05/12	
L56387-3	423258-500-1	Brightwater Reclaimed Water	CVTOC	SOIL	08/28/12	08/29/12	09/05/12	
L56387-4	423258-500-1	Brightwater Reclaimed Water	CVTOC	SOIL	08/28/12	08/29/12	09/05/12	
L56387-5	423258-500-1	Brightwater Reclaimed Water	CVTOC	SOIL	08/28/12	08/29/12	09/06/12	
L56387-6	423258-500-1	Brightwater Reclaimed Water	CVTOC	SOIL	08/28/12	08/29/12	09/06/12	
L56387-7	423258-500-1	Brightwater Reclaimed Water	CVTOC	SOIL	08/28/12	08/29/12	09/06/12	
L56387-8	423258-500-1	Brightwater Reclaimed Water	CVTOC	SOIL	08/28/12	08/29/12	09/06/12	
WG122758-1	MB		CVTOC	OTHR SOLID		08/22/12	08/29/12	MB1 120829
WG122758-2	SRM		CVTOC	OTHR SOLID		08/22/12	08/29/12	HICONC
WG122758-3	SB		CVTOC	OTHR SOLID		08/22/12	08/29/12	WG122758-1
WG122758-4	LD		CVTOC	FRSHWTRSED		08/22/12	08/29/12	L56024-2
WG122758-5	LT		CVTOC	FRSHWTRSED		08/22/12	08/29/12	WG122758-4 L56024-2
WG122758-6	MS		CVTOC	FRSHWTRSED		08/22/12	08/29/12	L56024-2
WG122758-7	MB		CVTOC	OTHR SOLID		08/22/12	08/30/12	MB1 120830
WG122758-8	SRM		CVTOC	OTHR SOLID		08/22/12	08/30/12	HICONC
WG122758-9	MB		CVTOC	OTHR SOLID		08/22/12	08/31/12	MB1 120831
WG122758-10	SRM		CVTOC	OTHR SOLID		08/22/12	08/31/12	HICONC
WG122758-11	MB		CVTOC	OTHR SOLID		08/22/12	09/05/12	MB1 120905
WG122758-12	SRM		CVTOC	OTHR SOLID		08/22/12	09/05/12	HICONC
WG122758-13	MB		CVTOC	OTHR SOLID		08/29/12	09/06/12	MB1 120906
WG122758-14	LCS		CVTOC	OTHR SOLID		08/29/12	09/06/12	LEVEL1
WG122758-15	SB		CVTOC	OTHR SOLID		08/29/12	09/06/12	WG122758-13
WG122758-16	LD		CVTOC	SOIL		08/29/12	09/06/12	L56387-7

WG122758-17	LT		CVTOC	SOIL	08/29/12	09/06/12	WG122758-16 L56387-7
WG122758-18	MS		CVTOC	SOIL	08/29/12	09/06/12	L56387-7

WG122976

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Analysis Date	Comments
L56024-3	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRSHWTRSED	08/29/12	09/04/12	09/20/12	
L56024-11	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRSHWTRSED	08/30/12	09/04/12	09/20/12	
L56024-12	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRSHWTRSED	08/27/12	09/04/12	09/20/12	
L56024-13	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRSHWTRSED	08/28/12	09/04/12	09/20/12	
L56024-14	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRSHWTRSED	08/28/12	09/04/12	09/20/12	
L56024-15	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRSHWTRSED	08/28/12	09/04/12	09/20/12	
L56024-16	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRSHWTRSED	08/28/12	09/04/12	09/20/12	
L56024-17	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRSHWTRSED	08/28/12	09/04/12	09/26/12	
L56024-19	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRSHWTRSED	08/28/12	09/04/12	09/26/12	
L56024-28	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRSHWTRSED	08/27/12	09/04/12	09/26/12	
L56024-29	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRSHWTRSED	08/27/12	09/04/12	09/26/12	
L56024-30	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRSHWTRSED	08/27/12	09/04/12	09/26/12	
L56024-33	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRSHWTRSED	08/27/12	09/04/12	09/26/12	
L56024-34	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRSHWTRSED	08/29/12	09/04/12	09/27/12	
L56024-35	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRSHWTRSED	08/29/12	09/04/12	09/27/12	
L56024-36	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRSHWTRSED	08/27/12	09/04/12	09/27/12	
WG122976-1	MB		CVTOC	OTHR SOLID		09/04/12	09/20/12	MB1 120920
WG122976-2	LCS		CVTOC	OTHR SOLID		09/04/12	09/20/12	LEVEL1
WG122976-3	MB		CVTOC	OTHR SOLID		09/04/12	09/26/12	MB1 120926
WG122976-4	LCS		CVTOC	OTHR SOLID		09/04/12	09/26/12	LEVEL1
WG122976-5	MB		CVTOC	OTHR SOLID		09/04/12	09/27/12	MB1 120927
WG122976-6	LCS		CVTOC	OTHR SOLID		09/04/12	09/27/12	LEVEL1
WG122976-7	SB		CVTOC	OTHR SOLID		09/04/12	09/27/12	WG122976-5
WG122976-8	LD		CVTOC	FRSHWTRSED		09/04/12	09/27/12	L56024-35
WG122976-9	LT		CVTOC	FRSHWTRSED		09/04/12	09/27/12	WG122976-8 L56024-35
WG122976-10	MS		CVTOC	FRSHWTRSED		09/04/12	09/27/12	L56024-35

WG123636

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Analysis Date	Comments
L56024-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTOTS	FRSHWTRSED	08/13/12	10/16/12	11/01/12	
L56024-2	423589-330-4	Green Rvr PCB/PAH Loading	CVTOTS	FRSHWTRSED	08/13/12	10/16/12	11/01/12	
L56024-3	423589-330-4	Green Rvr PCB/PAH Loading	CVTOTS	FRSHWTRSED	08/29/12	10/16/12	11/01/12	
L56024-4	423589-330-4	Green Rvr PCB/PAH Loading	CVTOTS	FRSHWTRSED	08/13/12	10/16/12	11/01/12	
L56024-5	423589-330-4	Green Rvr PCB/PAH Loading	CVTOTS	FRSHWTRSED	08/13/12	10/16/12	11/01/12	

L56024-7	423589-330-4	Green Rvr PCB/PAH Loading	CVTOTS	FRSHWTRSED	08/14/12	10/16/12	11/01/12	
L56024-8	423589-330-4	Green Rvr PCB/PAH Loading	CVTOTS	FRSHWTRSED	08/14/12	10/16/12	11/01/12	
L56024-9	423589-330-4	Green Rvr PCB/PAH Loading	CVTOTS	FRSHWTRSED	08/14/12	10/16/12	11/01/12	
L56024-11	423589-330-4	Green Rvr PCB/PAH Loading	CVTOTS	FRSHWTRSED	08/30/12	10/16/12	11/01/12	
L56693-7	421298A	BIOSOLIDS CHARACTERIZATION	CVTOTS	SLUDGE	10/16/12	10/16/12	11/01/12	
WG123636-1	MB		CVTOTS	OTHR SOLID		10/16/12	11/01/12	MB1 121016
WG123636-2	LD		CVTOTS	FRSHWTRSED		10/16/12	11/01/12	L56024-5
WG123636-3	LT		CVTOTS	FRSHWTRSED		10/16/12	11/01/12	WG123636-2 L56024-5
WG123636-4	LD		CVTOTS	SLUDGE		10/16/12	11/01/12	L56693-7

WG123727

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Analysis Date	Comments
L56024-12	423589-330-4	Green Rvr PCB/PAH Loading	CVTOTS	FRSHWTRSED	08/27/12	11/09/12	11/13/12	
L56024-13	423589-330-4	Green Rvr PCB/PAH Loading	CVTOTS	FRSHWTRSED	08/28/12	11/09/12	11/13/12	
L56024-14	423589-330-4	Green Rvr PCB/PAH Loading	CVTOTS	FRSHWTRSED	08/28/12	11/09/12	11/13/12	
L56024-15	423589-330-4	Green Rvr PCB/PAH Loading	CVTOTS	FRSHWTRSED	08/28/12	11/09/12	11/13/12	
L56024-16	423589-330-4	Green Rvr PCB/PAH Loading	CVTOTS	FRSHWTRSED	08/28/12	11/09/12	11/13/12	
L56024-17	423589-330-4	Green Rvr PCB/PAH Loading	CVTOTS	FRSHWTRSED	08/28/12	11/09/12	11/13/12	
L56024-19	423589-330-4	Green Rvr PCB/PAH Loading	CVTOTS	FRSHWTRSED	08/28/12	11/09/12	11/13/12	
L56024-20	423589-330-4	Green Rvr PCB/PAH Loading	CVTOTS	FRSHWTRSED	08/14/12	11/09/12	11/13/12	
L56024-21	423589-330-4	Green Rvr PCB/PAH Loading	CVTOTS	FRSHWTRSED	08/14/12	11/09/12	11/13/12	
L56024-22	423589-330-4	Green Rvr PCB/PAH Loading	CVTOTS	FRSHWTRSED	08/14/12	11/09/12	11/13/12	
L56024-23	423589-330-4	Green Rvr PCB/PAH Loading	CVTOTS	FRSHWTRSED	08/15/12	11/09/12	11/13/12	
L56024-24	423589-330-4	Green Rvr PCB/PAH Loading	CVTOTS	FRSHWTRSED	08/15/12	11/09/12	11/13/12	
L56024-25	423589-330-4	Green Rvr PCB/PAH Loading	CVTOTS	FRSHWTRSED	08/15/12	11/09/12	11/13/12	
WG123727-1	MB		CVTOTS	OTHR SOLID		11/09/12	11/13/12	MB1 121024
WG123727-2	LD		CVTOTS	FRSHWTRSED		11/09/12	11/13/12	L56024-22
WG123727-3	LT		CVTOTS	FRSHWTRSED		11/09/12	11/13/12	WG123727-2 L56024-22

WG124317

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Analysis Date	Comments
L56024-26	423589-330-4	Green Rvr PCB/PAH Loading	CVTOTS	FRSHWTRSED	08/15/12	11/27/12	11/28/12	
L56024-27	423589-330-4	Green Rvr PCB/PAH Loading	CVTOTS	FRSHWTRSED	08/15/12	11/27/12	11/28/12	
L56024-28	423589-330-4	Green Rvr PCB/PAH Loading	CVTOTS	FRSHWTRSED	08/27/12	11/27/12	11/28/12	
L56024-29	423589-330-4	Green Rvr PCB/PAH Loading	CVTOTS	FRSHWTRSED	08/27/12	11/27/12	11/28/12	
L56024-30	423589-330-4	Green Rvr PCB/PAH Loading	CVTOTS	FRSHWTRSED	08/27/12	11/27/12	11/28/12	
L56024-33	423589-330-4	Green Rvr PCB/PAH Loading	CVTOTS	FRSHWTRSED	08/27/12	11/27/12	11/28/12	
L56024-34	423589-330-4	Green Rvr PCB/PAH Loading	CVTOTS	FRSHWTRSED	08/29/12	11/27/12	11/28/12	
L56024-35	423589-330-4	Green Rvr PCB/PAH Loading	CVTOTS	FRSHWTRSED	08/29/12	11/27/12	11/28/12	

L56024-36	423589-330-4	Green Rvr PCB/PAH Loading	CVTOTS	FRSHWTRSED	08/27/12	11/27/12	11/28/12	
L56024-37	423589-330-4	Green Rvr PCB/PAH Loading	CVTOTS	FRSHWTRSED	08/14/12	11/27/12	11/28/12	
L56024-38	423589-330-4	Green Rvr PCB/PAH Loading	CVTOTS	FRSHWTRSED	08/14/12	11/27/12	11/28/12	
L56024-39	423589-330-4	Green Rvr PCB/PAH Loading	CVTOTS	FRSHWTRSED	08/14/12	11/27/12	11/28/12	
L56024-40	423589-330-4	Green Rvr PCB/PAH Loading	CVTOTS	FRSHWTRSED	08/13/12	11/27/12	11/28/12	
WG124317-1	MB		CVTOTS	OTHR SOLID		11/27/12	11/28/12	MB1 121127
WG124317-2	LD		CVTOTS	FRSHWTRSED		11/27/12	11/28/12	L56024-26
WG124317-3	LT		CVTOTS	FRSHWTRSED		11/27/12	11/28/12	WG124317-2 L56024-26

WG122912

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Analysis Date	Comments
L56024-1	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-MIDS	FRSHWTRSED	08/13/12	09/05/12	09/06/12	
L56024-2	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-MIDS	FRSHWTRSED	08/13/12	09/05/12	09/06/12	
L56024-4	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-MIDS	FRSHWTRSED	08/13/12	09/05/12	09/06/12	
L56024-5	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-MIDS	FRSHWTRSED	08/13/12	09/05/12	09/06/12	
L56024-7	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-MIDS	FRSHWTRSED	08/14/12	09/05/12	09/06/12	
L56024-8	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-MIDS	FRSHWTRSED	08/14/12	09/05/12	09/06/12	
L56024-9	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-MIDS	FRSHWTRSED	08/14/12	09/05/12	09/06/12	
L56024-20	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-MIDS	FRSHWTRSED	08/14/12	09/05/12	09/06/12	
L56024-21	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-MIDS	FRSHWTRSED	08/14/12	09/05/12	09/06/12	
L56024-22	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-MIDS	FRSHWTRSED	08/14/12	09/05/12	09/06/12	
L56024-23	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-MIDS	FRSHWTRSED	08/15/12	09/05/12	09/06/12	
L56024-24	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-MIDS	FRSHWTRSED	08/15/12	09/05/12	09/06/12	
L56024-25	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-MIDS	FRSHWTRSED	08/15/12	09/05/12	09/06/12	
L56024-26	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-MIDS	FRSHWTRSED	08/15/12	09/05/12	09/06/12	
L56024-27	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-MIDS	FRSHWTRSED	08/15/12	09/05/12	09/06/12	
L56024-37	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-MIDS	FRSHWTRSED	08/14/12	09/05/12	09/06/12	
WG122912-1	LCS		MTHG-MIDS	FRSHWTRSED		09/05/12	09/06/12	WQB1
WG122912-2	LCSD		MTHG-MIDS	FRSHWTRSED		09/05/12	09/06/12	WG122912-1 WQB1
WG122912-3	MB		MTHG-MIDS	SOLIDBLANK		09/05/12	09/06/12	METHOD BLANK
WG122912-4	SB		MTHG-MIDS	SOLIDBLANK		09/05/12	09/06/12	WG122912-3 HG-SMID
WG122912-5	MS		MTHG-MIDS	FRSHWTRSED		09/05/12	09/06/12	L56024-7 HG-SMID
WG122912-6	MSD		MTHG-MIDS	FRSHWTRSED		09/05/12	09/06/12	L56024-7 HG-SMID-MSD
WG122912-7	LD		MTHG-MIDS	FRSHWTRSED		09/05/12	09/06/12	L56024-7 RPD-SOL

WG123004

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Analysis Date	Comments
L56024-3	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-MIDS	FRSHWTRSED	08/29/12	09/11/12	09/14/12	
L56024-11	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-MIDS	FRSHWTRSED	08/30/12	09/11/12	09/14/12	

L56024-12	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-MIDS	FRSHWTRSED	08/27/12	09/11/12	09/14/12	
L56024-13	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-MIDS	FRSHWTRSED	08/28/12	09/11/12	09/14/12	
L56024-14	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-MIDS	FRSHWTRSED	08/28/12	09/11/12	09/14/12	
L56024-15	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-MIDS	FRSHWTRSED	08/28/12	09/11/12	09/14/12	
L56024-16	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-MIDS	FRSHWTRSED	08/28/12	09/11/12	09/14/12	
L56024-17	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-MIDS	FRSHWTRSED	08/28/12	09/11/12	09/14/12	
L56024-19	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-MIDS	FRSHWTRSED	08/28/12	09/11/12	09/14/12	
L56024-28	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-MIDS	FRSHWTRSED	08/27/12	09/11/12	09/14/12	
L56024-29	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-MIDS	FRSHWTRSED	08/27/12	09/11/12	09/14/12	
L56024-30	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-MIDS	FRSHWTRSED	08/27/12	09/11/12	09/14/12	
L56024-33	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-MIDS	FRSHWTRSED	08/27/12	09/11/12	09/14/12	
L56024-34	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-MIDS	FRSHWTRSED	08/29/12	09/11/12	09/14/12	
L56024-35	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-MIDS	FRSHWTRSED	08/29/12	09/11/12	09/14/12	
L56024-36	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-MIDS	FRSHWTRSED	08/27/12	09/11/12	09/14/12	
WG123004-1	LCS		MTHG-MIDS	FRSHWTRSED		09/11/12	09/14/12	WQB1
WG123004-2	LCSD		MTHG-MIDS	FRSHWTRSED		09/11/12	09/14/12	WG123004-1 WQB1
WG123004-3	MB		MTHG-MIDS	SOLIDBLANK		09/11/12	09/14/12	METHOD BLANK
WG123004-4	SB		MTHG-MIDS	SOLIDBLANK		09/11/12	09/14/12	WG123004-3 HG-SMID
WG123004-5	MS		MTHG-MIDS	FRSHWTRSED		09/11/12	09/14/12	L56024-17 HG-SMID
WG123004-6	MSD		MTHG-MIDS	FRSHWTRSED		09/11/12	09/14/12	L56024-17 HG-SMID-MSD
WG123004-7	LD		MTHG-MIDS	FRSHWTRSED		09/11/12	09/14/12	L56024-17 RPD-SOL

WG122754

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Analysis Date	Comments
L56024-1	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-SEM	FRSHWTRSED	08/13/12	08/24/12	08/27/12	
L56024-2	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-SEM	FRSHWTRSED	08/13/12	08/24/12	08/27/12	
L56024-4	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-SEM	FRSHWTRSED	08/13/12	08/24/12	08/27/12	
L56024-5	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-SEM	FRSHWTRSED	08/13/12	08/24/12	08/27/12	
L56024-7	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-SEM	FRSHWTRSED	08/14/12	08/24/12	08/27/12	
L56024-8	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-SEM	FRSHWTRSED	08/14/12	08/24/12	08/27/12	
L56024-9	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-SEM	FRSHWTRSED	08/14/12	08/24/12	08/27/12	
L56024-20	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-SEM	FRSHWTRSED	08/14/12	08/24/12	08/27/12	
L56024-21	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-SEM	FRSHWTRSED	08/14/12	08/24/12	08/27/12	
L56024-22	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-SEM	FRSHWTRSED	08/14/12	08/24/12	08/27/12	
L56024-23	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-SEM	FRSHWTRSED	08/15/12	08/24/12	08/27/12	
L56024-24	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-SEM	FRSHWTRSED	08/15/12	08/24/12	08/27/12	
L56024-25	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-SEM	FRSHWTRSED	08/15/12	08/24/12	08/27/12	
L56024-26	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-SEM	FRSHWTRSED	08/15/12	08/24/12	08/27/12	
L56024-27	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-SEM	FRSHWTRSED	08/15/12	08/24/12	08/27/12	
L56024-37	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-SEM	FRSHWTRSED	08/14/12	08/24/12	08/27/12	

WG122754-1	MB		MTHG-SEM	SOLIDBLANK		08/24/12	08/27/12	METHOD BLANK
WG122754-2	SB		MTHG-SEM	SOLIDBLANK		08/24/12	08/27/12	WG122754-1 HG-SMID
WG122754-3	LD		MTHG-SEM	FRSHWTRSED		08/24/12	08/27/12	L56024-4 RPD-SOL
WG122754-4	MS		MTHG-SEM	FRSHWTRSED		08/24/12	08/27/12	L56024-4 HG-SMID
WG122754-5	MB		MTHG-SEM	SOLIDBLANK		08/24/12	08/27/12	EXTRACTION BLANK 081612
WG122754-6	MB		MTHG-SEM	SOLIDBLANK		08/24/12	08/27/12	EXTRACTION BLANK 082112

WG122942

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Analysis Date	Comments
L56024-3	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-SEM	FRSHWTRSED	08/29/12	09/06/12	09/07/12	
L56024-11	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-SEM	FRSHWTRSED	08/30/12	09/06/12	09/07/12	
L56024-12	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-SEM	FRSHWTRSED	08/27/12	09/06/12	09/07/12	
L56024-13	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-SEM	FRSHWTRSED	08/28/12	09/06/12	09/07/12	
L56024-14	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-SEM	FRSHWTRSED	08/28/12	09/06/12	09/07/12	
L56024-15	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-SEM	FRSHWTRSED	08/28/12	09/06/12	09/07/12	
L56024-16	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-SEM	FRSHWTRSED	08/28/12	09/06/12	09/07/12	
L56024-17	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-SEM	FRSHWTRSED	08/28/12	09/06/12	09/07/12	
L56024-19	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-SEM	FRSHWTRSED	08/28/12	09/06/12	09/07/12	
L56024-28	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-SEM	FRSHWTRSED	08/27/12	09/06/12	09/07/12	
L56024-29	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-SEM	FRSHWTRSED	08/27/12	09/06/12	09/07/12	
L56024-30	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-SEM	FRSHWTRSED	08/27/12	09/06/12	09/07/12	
L56024-33	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-SEM	FRSHWTRSED	08/27/12	09/06/12	09/07/12	
L56024-34	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-SEM	FRSHWTRSED	08/29/12	09/06/12	09/07/12	
L56024-35	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-SEM	FRSHWTRSED	08/29/12	09/06/12	09/07/12	
L56024-36	423589-330-4	Green Rvr PCB/PAH Loading	MTHG-SEM	FRSHWTRSED	08/27/12	09/06/12	09/07/12	
WG122942-1	MB		MTHG-SEM	SOLIDBLANK		09/06/12	09/07/12	METHOD BLANK
WG122942-2	SB		MTHG-SEM	SOLIDBLANK		09/06/12	09/07/12	WG122942-1 HG-SMID
WG122942-3	LD		MTHG-SEM	FRSHWTRSED		09/06/12	09/07/12	L56024-19 RPD-SOL
WG122942-4	MS		MTHG-SEM	FRSHWTRSED		09/06/12	09/07/12	L56024-19 HG-SMID
WG122942-5	MB		MTHG-SEM	SOLIDBLANK		09/06/12	09/07/12	EXTRACTION BLANK 082912
WG122942-6	MB		MTHG-SEM	SOLIDBLANK		09/06/12	09/07/12	EXTRACTION BLANK 090412

WG122775

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Analysis Date	Comments
L56024-1	423589-330-4	Green Rvr PCB/PAH Loading	MTICP-SEM	FRSHWTRSED	08/13/12	08/27/12	08/27/12	
L56024-2	423589-330-4	Green Rvr PCB/PAH Loading	MTICP-SEM	FRSHWTRSED	08/13/12	08/27/12	08/27/12	
L56024-4	423589-330-4	Green Rvr PCB/PAH Loading	MTICP-SEM	FRSHWTRSED	08/13/12	08/27/12	08/27/12	
L56024-5	423589-330-4	Green Rvr PCB/PAH Loading	MTICP-SEM	FRSHWTRSED	08/13/12	08/27/12	08/27/12	
L56024-7	423589-330-4	Green Rvr PCB/PAH Loading	MTICP-SEM	FRSHWTRSED	08/14/12	08/27/12	08/27/12	

L56024-8	423589-330-4	Green Rvr PCB/PAH Loading	MTICP-SEM	FRSHWTRSED	08/14/12	08/27/12	08/27/12	
L56024-9	423589-330-4	Green Rvr PCB/PAH Loading	MTICP-SEM	FRSHWTRSED	08/14/12	08/27/12	08/27/12	
L56024-20	423589-330-4	Green Rvr PCB/PAH Loading	MTICP-SEM	FRSHWTRSED	08/14/12	08/27/12	08/27/12	
L56024-21	423589-330-4	Green Rvr PCB/PAH Loading	MTICP-SEM	FRSHWTRSED	08/14/12	08/27/12	08/27/12	
L56024-22	423589-330-4	Green Rvr PCB/PAH Loading	MTICP-SEM	FRSHWTRSED	08/14/12	08/27/12	08/27/12	
L56024-23	423589-330-4	Green Rvr PCB/PAH Loading	MTICP-SEM	FRSHWTRSED	08/15/12	08/27/12	08/27/12	
L56024-24	423589-330-4	Green Rvr PCB/PAH Loading	MTICP-SEM	FRSHWTRSED	08/15/12	08/27/12	08/27/12	
L56024-25	423589-330-4	Green Rvr PCB/PAH Loading	MTICP-SEM	FRSHWTRSED	08/15/12	08/27/12	08/27/12	
L56024-26	423589-330-4	Green Rvr PCB/PAH Loading	MTICP-SEM	FRSHWTRSED	08/15/12	08/27/12	08/27/12	
L56024-27	423589-330-4	Green Rvr PCB/PAH Loading	MTICP-SEM	FRSHWTRSED	08/15/12	08/27/12	08/27/12	
L56024-37	423589-330-4	Green Rvr PCB/PAH Loading	MTICP-SEM	FRSHWTRSED	08/14/12	08/27/12	08/27/12	
WG122775-1	SB		MTICP-SEM	SOLIDBLANK		08/27/12	08/27/12	WG122775-2 ICPH
WG122775-2	MB		MTICP-SEM	SOLIDBLANK		08/27/12	08/27/12	METHOD BLANK
WG122775-3	LD		MTICP-SEM	FRSHWTRSED		08/27/12	08/27/12	L56024-4 RPD-SOL
WG122775-4	MS		MTICP-SEM	FRSHWTRSED		08/27/12	08/27/12	L56024-4 ICPH
WG122775-5	MB		MTICP-SEM	SOLIDBLANK		08/27/12	08/30/12	EXTRACTION BLANK 8/16/12
WG122775-6	MB		MTICP-SEM	SOLIDBLANK		08/27/12	08/30/12	EXTRACTION BLANK 8/21/12

WG122929

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Analysis Date	Comments
L56024-3	423589-330-4	Green Rvr PCB/PAH Loading	MTICP-SEM	FRSHWTRSED	08/29/12	09/12/12	09/12/12	
L56024-11	423589-330-4	Green Rvr PCB/PAH Loading	MTICP-SEM	FRSHWTRSED	08/30/12	09/12/12	09/12/12	
L56024-12	423589-330-4	Green Rvr PCB/PAH Loading	MTICP-SEM	FRSHWTRSED	08/27/12	09/12/12	09/12/12	
L56024-13	423589-330-4	Green Rvr PCB/PAH Loading	MTICP-SEM	FRSHWTRSED	08/28/12	09/12/12	09/12/12	
L56024-14	423589-330-4	Green Rvr PCB/PAH Loading	MTICP-SEM	FRSHWTRSED	08/28/12	09/12/12	09/12/12	
L56024-15	423589-330-4	Green Rvr PCB/PAH Loading	MTICP-SEM	FRSHWTRSED	08/28/12	09/12/12	09/12/12	
L56024-16	423589-330-4	Green Rvr PCB/PAH Loading	MTICP-SEM	FRSHWTRSED	08/28/12	09/12/12	09/12/12	
L56024-17	423589-330-4	Green Rvr PCB/PAH Loading	MTICP-SEM	FRSHWTRSED	08/28/12	09/12/12	09/12/12	
L56024-19	423589-330-4	Green Rvr PCB/PAH Loading	MTICP-SEM	FRSHWTRSED	08/28/12	09/12/12	09/12/12	
L56024-28	423589-330-4	Green Rvr PCB/PAH Loading	MTICP-SEM	FRSHWTRSED	08/27/12	09/12/12	09/12/12	
L56024-29	423589-330-4	Green Rvr PCB/PAH Loading	MTICP-SEM	FRSHWTRSED	08/27/12	09/12/12	09/12/12	
L56024-30	423589-330-4	Green Rvr PCB/PAH Loading	MTICP-SEM	FRSHWTRSED	08/27/12	09/12/12	09/12/12	
L56024-33	423589-330-4	Green Rvr PCB/PAH Loading	MTICP-SEM	FRSHWTRSED	08/27/12	09/12/12	09/12/12	
L56024-34	423589-330-4	Green Rvr PCB/PAH Loading	MTICP-SEM	FRSHWTRSED	08/29/12	09/12/12	09/12/12	
L56024-35	423589-330-4	Green Rvr PCB/PAH Loading	MTICP-SEM	FRSHWTRSED	08/29/12	09/12/12	09/12/12	
L56024-36	423589-330-4	Green Rvr PCB/PAH Loading	MTICP-SEM	FRSHWTRSED	08/27/12	09/12/12	09/12/12	
WG122929-1	SB		MTICP-SEM	SOLIDBLANK		09/12/12	09/12/12	WG122929-2 ICPH
WG122929-2	MB		MTICP-SEM	SOLIDBLANK		09/12/12	09/12/12	METHOD BLANK
WG122929-3	LD		MTICP-SEM	FRSHWTRSED		09/12/12	09/12/12	L56024-19 RPD-SOL
WG122929-4	MS		MTICP-SEM	FRSHWTRSED		09/12/12	09/12/12	L56024-19 ICPH

WG122929-5	MB	MTICP-SEM	SOLIDBLANK	09/12/12	09/12/12	EXTRACTION BLANK 082912
WG122929-6	MB	MTICP-SEM	SOLIDBLANK	09/12/12	09/12/12	EXTRACTION BLANK 090412

WG125138

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Analysis Date	Comments
L56024-1	423589-330-4	Green Rvr PCB/PAH Loading	MTICPMS-SED	FRSHWTRSED	08/13/12	01/28/13	01/30/13	
L56024-2	423589-330-4	Green Rvr PCB/PAH Loading	MTICPMS-SED	FRSHWTRSED	08/13/12	01/28/13	01/30/13	
L56024-4	423589-330-4	Green Rvr PCB/PAH Loading	MTICPMS-SED	FRSHWTRSED	08/13/12	01/28/13	01/30/13	
L56024-5	423589-330-4	Green Rvr PCB/PAH Loading	MTICPMS-SED	FRSHWTRSED	08/13/12	01/28/13	01/30/13	
L56024-7	423589-330-4	Green Rvr PCB/PAH Loading	MTICPMS-SED	FRSHWTRSED	08/14/12	01/28/13	01/30/13	
L56024-8	423589-330-4	Green Rvr PCB/PAH Loading	MTICPMS-SED	FRSHWTRSED	08/14/12	01/28/13	01/30/13	
L56024-9	423589-330-4	Green Rvr PCB/PAH Loading	MTICPMS-SED	FRSHWTRSED	08/14/12	01/28/13	01/30/13	
L56024-12	423589-330-4	Green Rvr PCB/PAH Loading	MTICPMS-SED	FRSHWTRSED	08/27/12	01/28/13	01/30/13	
L56024-13	423589-330-4	Green Rvr PCB/PAH Loading	MTICPMS-SED	FRSHWTRSED	08/28/12	01/28/13	01/30/13	
L56024-14	423589-330-4	Green Rvr PCB/PAH Loading	MTICPMS-SED	FRSHWTRSED	08/28/12	01/28/13	01/30/13	
L56024-15	423589-330-4	Green Rvr PCB/PAH Loading	MTICPMS-SED	FRSHWTRSED	08/28/12	01/28/13	01/30/13	
L56024-16	423589-330-4	Green Rvr PCB/PAH Loading	MTICPMS-SED	FRSHWTRSED	08/28/12	01/28/13	01/30/13	
L56024-17	423589-330-4	Green Rvr PCB/PAH Loading	MTICPMS-SED	FRSHWTRSED	08/28/12	01/28/13	01/30/13	
L56024-19	423589-330-4	Green Rvr PCB/PAH Loading	MTICPMS-SED	FRSHWTRSED	08/28/12	01/28/13	01/30/13	
L56024-20	423589-330-4	Green Rvr PCB/PAH Loading	MTICPMS-SED	FRSHWTRSED	08/14/12	01/28/13	01/30/13	
WG125138-1	MB		MTICPMS-SED	SOLIDBLANK		01/28/13	01/30/13	METHOD BLANK
WG125138-2	SB		MTICPMS-SED	SOLIDBLANK		01/28/13	01/30/13	WG125138-1 MS-100 SPIKE BLANK
WG125138-3	LCS		MTICPMS-SED	FRSHWTRSED		01/28/13	01/30/13	BUFFSED
WG125138-4	LCSD		MTICPMS-SED	FRSHWTRSED		01/28/13	01/30/13	WG125138-3 BUFFSED RPD-SOL
WG125138-5	LCS		MTICPMS-SED	SOIL		01/28/13	01/30/13	ERASOIL
WG125138-6	LCSD		MTICPMS-SED	SOIL		01/28/13	01/30/13	WG125138-5 ERASOIL RPD-SOL
WG125138-7	LD		MTICPMS-SED	FRSHWTRSED		01/28/13	01/30/13	L56024-7 RPD-SOL LAB DUPLICATE
WG125138-8	MS		MTICPMS-SED	FRSHWTRSED		01/28/13	01/30/13	L56024-7 MS-100 MATRIX SPIKE

WG125139

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Analysis Date	Comments
L56024-3	423589-330-4	Green Rvr PCB/PAH Loading	MTICPMS-SED	FRSHWTRSED	08/29/12	01/28/13	01/30/13	
L56024-11	423589-330-4	Green Rvr PCB/PAH Loading	MTICPMS-SED	FRSHWTRSED	08/30/12	01/28/13	01/30/13	
L56024-21	423589-330-4	Green Rvr PCB/PAH Loading	MTICPMS-SED	FRSHWTRSED	08/14/12	01/28/13	01/30/13	
L56024-22	423589-330-4	Green Rvr PCB/PAH Loading	MTICPMS-SED	FRSHWTRSED	08/14/12	01/28/13	01/30/13	
L56024-23	423589-330-4	Green Rvr PCB/PAH Loading	MTICPMS-SED	FRSHWTRSED	08/15/12	01/28/13	01/30/13	
L56024-24	423589-330-4	Green Rvr PCB/PAH Loading	MTICPMS-SED	FRSHWTRSED	08/15/12	01/28/13	01/30/13	
L56024-25	423589-330-4	Green Rvr PCB/PAH Loading	MTICPMS-SED	FRSHWTRSED	08/15/12	01/28/13	01/30/13	
L56024-26	423589-330-4	Green Rvr PCB/PAH Loading	MTICPMS-SED	FRSHWTRSED	08/15/12	01/28/13	01/30/13	

L56024-27	423589-330-4	Green Rvr PCB/PAH Loading	MTICPMS-SED	FRSHWTRSED	08/15/12	01/28/13	01/30/13	
L56024-28	423589-330-4	Green Rvr PCB/PAH Loading	MTICPMS-SED	FRSHWTRSED	08/27/12	01/28/13	01/30/13	
L56024-29	423589-330-4	Green Rvr PCB/PAH Loading	MTICPMS-SED	FRSHWTRSED	08/27/12	01/28/13	01/30/13	
L56024-30	423589-330-4	Green Rvr PCB/PAH Loading	MTICPMS-SED	FRSHWTRSED	08/27/12	01/28/13	01/30/13	
L56024-33	423589-330-4	Green Rvr PCB/PAH Loading	MTICPMS-SED	FRSHWTRSED	08/27/12	01/28/13	01/30/13	
L56024-34	423589-330-4	Green Rvr PCB/PAH Loading	MTICPMS-SED	FRSHWTRSED	08/29/12	01/28/13	01/30/13	
L56024-35	423589-330-4	Green Rvr PCB/PAH Loading	MTICPMS-SED	FRSHWTRSED	08/29/12	01/28/13	01/30/13	
L56024-36	423589-330-4	Green Rvr PCB/PAH Loading	MTICPMS-SED	FRSHWTRSED	08/27/12	01/28/13	01/30/13	
L56024-37	423589-330-4	Green Rvr PCB/PAH Loading	MTICPMS-SED	FRSHWTRSED	08/14/12	01/28/13	01/30/13	
WG125139-1	MB		MTICPMS-SED	SOLIDBLANK		01/28/13	01/30/13	METHOD BLANK
WG125139-2	SB		MTICPMS-SED	SOLIDBLANK		01/28/13	01/30/13	WG125139-1 MS-100 SPIKE BLANK
WG125139-3	LCS		MTICPMS-SED	FRSHWTRSED		01/28/13	01/30/13	BUFFSED
WG125139-4	LCSD		MTICPMS-SED	FRSHWTRSED		01/28/13	01/30/13	WG125139-3 BUFFSED RPD-SOL
WG125139-5	LCS		MTICPMS-SED	SOIL		01/28/13	01/30/13	ERASOIL
WG125139-6	LCSD		MTICPMS-SED	SOIL		01/28/13	01/30/13	WG125139-5 ERASOIL RPD-SOL
WG125139-7	LD		MTICPMS-SED	FRSHWTRSED		01/28/13	01/30/13	L56024-24 RPD-SOL LAB DUPLICATE
WG125139-8	MS		MTICPMS-SED	FRSHWTRSED		01/28/13	01/30/13	L56024-24 MS-100 MATRIX SPIKE

WG124929

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Analysis Date	Comments
L56024-1	423589-330-4	Green Rvr PCB/PAH Loading	ORBNASMS	FRSHWTRSED	08/13/12	01/10/13	02/17/13	
L56024-2	423589-330-4	Green Rvr PCB/PAH Loading	ORBNASMS	FRSHWTRSED	08/13/12	01/10/13	02/17/13	
L56024-3	423589-330-4	Green Rvr PCB/PAH Loading	ORBNASMS	FRSHWTRSED	08/29/12	01/10/13	02/17/13	
L56024-4	423589-330-4	Green Rvr PCB/PAH Loading	ORBNASMS	FRSHWTRSED	08/13/12	01/10/13	02/17/13	
L56024-5	423589-330-4	Green Rvr PCB/PAH Loading	ORBNASMS	FRSHWTRSED	08/13/12	01/10/13	02/17/13	
L56024-7	423589-330-4	Green Rvr PCB/PAH Loading	ORBNASMS	FRSHWTRSED	08/14/12	01/10/13	02/17/13	
L56024-8	423589-330-4	Green Rvr PCB/PAH Loading	ORBNASMS	FRSHWTRSED	08/14/12	01/10/13	02/17/13	
L56024-9	423589-330-4	Green Rvr PCB/PAH Loading	ORBNASMS	FRSHWTRSED	08/14/12	01/10/13	02/17/13	
L56024-11	423589-330-4	Green Rvr PCB/PAH Loading	ORBNASMS	FRSHWTRSED	08/30/12	01/10/13	02/17/13	
L56024-13	423589-330-4	Green Rvr PCB/PAH Loading	ORBNASMS	FRSHWTRSED	08/28/12	01/10/13	02/17/13	
L56024-14	423589-330-4	Green Rvr PCB/PAH Loading	ORBNASMS	FRSHWTRSED	08/28/12	01/10/13	02/17/13	
L56024-17	423589-330-4	Green Rvr PCB/PAH Loading	ORBNASMS	FRSHWTRSED	08/28/12	01/10/13	02/19/13	
L56024-19	423589-330-4	Green Rvr PCB/PAH Loading	ORBNASMS	FRSHWTRSED	08/28/12	01/10/13	02/19/13	
L56024-20	423589-330-4	Green Rvr PCB/PAH Loading	ORBNASMS	FRSHWTRSED	08/14/12	01/10/13	02/19/13	
L56024-23	423589-330-4	Green Rvr PCB/PAH Loading	ORBNASMS	FRSHWTRSED	08/15/12	01/10/13	02/19/13	
L56024-24	423589-330-4	Green Rvr PCB/PAH Loading	ORBNASMS	FRSHWTRSED	08/15/12	01/10/13	02/19/13	
L56024-25	423589-330-4	Green Rvr PCB/PAH Loading	ORBNASMS	FRSHWTRSED	08/15/12	01/10/13	02/19/13	
L56024-26	423589-330-4	Green Rvr PCB/PAH Loading	ORBNASMS	FRSHWTRSED	08/15/12	01/10/13	02/19/13	
L56024-27	423589-330-4	Green Rvr PCB/PAH Loading	ORBNASMS	FRSHWTRSED	08/15/12	01/10/13	02/19/13	
L56024-34	423589-330-4	Green Rvr PCB/PAH Loading	ORBNASMS	FRSHWTRSED	08/29/12	01/10/13	02/19/13	

WG124929-1	MB	ORBNASMS	OTHR SOLID	01/10/13	02/17/13	MB130110
WG124929-2	SB	ORBNASMS	OTHR SOLID	01/10/13	02/17/13	WG124929-1
WG124929-3	SB	ORBNASMS	OTHR SOLID	01/10/13	02/15/13	WG124929-1
WG124929-4	MS	ORBNASMS	FRSHWTRSED	01/10/13	02/15/13	L56024-8
WG124929-5	MSD	ORBNASMS	FRSHWTRSED	01/10/13	02/15/13	WG124929-4 L56024-8
WG124929-6	SRM	ORBNASMS	FRSHWTRSED	01/10/13	02/15/13	
WG124929-7	SRMD	ORBNASMS	FRSHWTRSED	01/10/13	02/15/13	WG124929-6
WG124929-8	LD	ORBNASMS	FRSHWTRSED	01/10/13	02/17/13	L56024-9

WG125090

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Analysis Date	Comments
L56024-12	423589-330-4	Green Rvr PCB/PAH Loading	ORBNASMS	FRSHWTRSED	08/27/12	01/24/13	02/20/13	
L56024-15	423589-330-4	Green Rvr PCB/PAH Loading	ORBNASMS	FRSHWTRSED	08/28/12	01/24/13	02/20/13	
L56024-16	423589-330-4	Green Rvr PCB/PAH Loading	ORBNASMS	FRSHWTRSED	08/28/12	01/24/13	02/20/13	
L56024-21	423589-330-4	Green Rvr PCB/PAH Loading	ORBNASMS	FRSHWTRSED	08/14/12	01/24/13	02/20/13	
L56024-22	423589-330-4	Green Rvr PCB/PAH Loading	ORBNASMS	FRSHWTRSED	08/14/12	01/24/13	02/20/13	
L56024-28	423589-330-4	Green Rvr PCB/PAH Loading	ORBNASMS	FRSHWTRSED	08/27/12	01/24/13	02/20/13	
L56024-29	423589-330-4	Green Rvr PCB/PAH Loading	ORBNASMS	FRSHWTRSED	08/27/12	01/24/13	02/20/13	
L56024-30	423589-330-4	Green Rvr PCB/PAH Loading	ORBNASMS	FRSHWTRSED	08/27/12	01/24/13	02/20/13	
L56024-33	423589-330-4	Green Rvr PCB/PAH Loading	ORBNASMS	FRSHWTRSED	08/27/12	01/24/13	02/20/13	
L56024-35	423589-330-4	Green Rvr PCB/PAH Loading	ORBNASMS	FRSHWTRSED	08/29/12	01/24/13	02/20/13	
L56024-36	423589-330-4	Green Rvr PCB/PAH Loading	ORBNASMS	FRSHWTRSED	08/27/12	01/24/13	02/20/13	
L56024-37	423589-330-4	Green Rvr PCB/PAH Loading	ORBNASMS	FRSHWTRSED	08/14/12	01/24/13	02/20/13	
WG125090-1	MB		ORBNASMS	OTHR SOLID		01/24/13	02/20/13	MB130124
WG125090-2	SB		ORBNASMS	OTHR SOLID		01/24/13	02/20/13	WG125090-1
WG125090-3	SB		ORBNASMS	OTHR SOLID		01/24/13	02/16/13	WG125090-1
WG125090-4	MS		ORBNASMS	FRSHWTRSED		01/24/13	02/16/13	L56024-21
WG125090-5	MSD		ORBNASMS	FRSHWTRSED		01/24/13	02/16/13	WG125090-4 L56024-21
WG125090-6	SRM		ORBNASMS	FRSHWTRSED		01/24/13	02/16/13	
WG125090-7	SRMD		ORBNASMS	FRSHWTRSED		01/24/13	02/16/13	WG125090-6
WG125090-8	LD		ORBNASMS	FRSHWTRSED		01/24/13	02/20/13	L56024-36

WG124869

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Analysis Date	Comments
L56024-1	423589-330-4	Green Rvr PCB/PAH Loading	ORCLPEST	FRSHWTRSED	08/13/12	01/04/13	01/16/13	
L56024-2	423589-330-4	Green Rvr PCB/PAH Loading	ORCLPEST	FRSHWTRSED	08/13/12	01/04/13	01/16/13	
L56024-3	423589-330-4	Green Rvr PCB/PAH Loading	ORCLPEST	FRSHWTRSED	08/29/12	01/04/13	01/16/13	
L56024-4	423589-330-4	Green Rvr PCB/PAH Loading	ORCLPEST	FRSHWTRSED	08/13/12	01/04/13	01/16/13	
L56024-5	423589-330-4	Green Rvr PCB/PAH Loading	ORCLPEST	FRSHWTRSED	08/13/12	01/04/13	01/16/13	

L56024-7	423589-330-4	Green Rvr PCB/PAH Loading	ORCLPEST	FRSHWTRSED	08/14/12	01/04/13	01/16/13	
L56024-8	423589-330-4	Green Rvr PCB/PAH Loading	ORCLPEST	FRSHWTRSED	08/14/12	01/04/13	01/16/13	
L56024-9	423589-330-4	Green Rvr PCB/PAH Loading	ORCLPEST	FRSHWTRSED	08/14/12	01/04/13	01/16/13	
L56024-11	423589-330-4	Green Rvr PCB/PAH Loading	ORCLPEST	FRSHWTRSED	08/30/12	01/04/13	01/16/13	
L56024-13	423589-330-4	Green Rvr PCB/PAH Loading	ORCLPEST	FRSHWTRSED	08/28/12	01/04/13	01/17/13	
L56024-14	423589-330-4	Green Rvr PCB/PAH Loading	ORCLPEST	FRSHWTRSED	08/28/12	01/04/13	01/17/13	
L56024-17	423589-330-4	Green Rvr PCB/PAH Loading	ORCLPEST	FRSHWTRSED	08/28/12	01/04/13	01/17/13	
L56024-19	423589-330-4	Green Rvr PCB/PAH Loading	ORCLPEST	FRSHWTRSED	08/28/12	01/04/13	01/16/13	
L56024-20	423589-330-4	Green Rvr PCB/PAH Loading	ORCLPEST	FRSHWTRSED	08/14/12	01/04/13	01/16/13	
L56024-23	423589-330-4	Green Rvr PCB/PAH Loading	ORCLPEST	FRSHWTRSED	08/15/12	01/04/13	01/16/13	
L56024-24	423589-330-4	Green Rvr PCB/PAH Loading	ORCLPEST	FRSHWTRSED	08/15/12	01/04/13	01/16/13	
L56024-25	423589-330-4	Green Rvr PCB/PAH Loading	ORCLPEST	FRSHWTRSED	08/15/12	01/04/13	01/16/13	
L56024-26	423589-330-4	Green Rvr PCB/PAH Loading	ORCLPEST	FRSHWTRSED	08/15/12	01/04/13	01/16/13	
L56024-27	423589-330-4	Green Rvr PCB/PAH Loading	ORCLPEST	FRSHWTRSED	08/15/12	01/04/13	01/16/13	
L56024-34	423589-330-4	Green Rvr PCB/PAH Loading	ORCLPEST	FRSHWTRSED	08/29/12	01/04/13	01/16/13	
WG124869-1	MB		ORCLPEST	OTHR SOLID		01/04/13	01/16/13	MB130104
WG124869-2	SB		ORCLPEST	OTHR SOLID		01/04/13	01/16/13	WG124869-1
WG124869-3	MS		ORCLPEST	FRSHWTRSED		01/04/13	01/16/13	L56024-34
WG124869-4	MSD		ORCLPEST	FRSHWTRSED		01/04/13	01/16/13	WG124869-3 L56024-34
WG124869-5	SRM		ORCLPEST	FRSHWTRSED		01/04/13	01/16/13	
WG124869-6	SRMD		ORCLPEST	FRSHWTRSED		01/04/13	01/16/13	WG124869-5
WG124869-7	LD		ORCLPEST	FRSHWTRSED		01/04/13	01/16/13	L56024-1

WG125088

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Analysis Date	Comments
L56024-12	423589-330-4	Green Rvr PCB/PAH Loading	ORCLPEST	FRSHWTRSED	08/27/12	01/24/13	02/05/13	
L56024-15	423589-330-4	Green Rvr PCB/PAH Loading	ORCLPEST	FRSHWTRSED	08/28/12	01/24/13	02/05/13	
L56024-16	423589-330-4	Green Rvr PCB/PAH Loading	ORCLPEST	FRSHWTRSED	08/28/12	01/24/13	02/05/13	
L56024-21	423589-330-4	Green Rvr PCB/PAH Loading	ORCLPEST	FRSHWTRSED	08/14/12	01/24/13	02/05/13	
L56024-22	423589-330-4	Green Rvr PCB/PAH Loading	ORCLPEST	FRSHWTRSED	08/14/12	01/24/13	02/05/13	
L56024-28	423589-330-4	Green Rvr PCB/PAH Loading	ORCLPEST	FRSHWTRSED	08/27/12	01/24/13	02/05/13	
L56024-29	423589-330-4	Green Rvr PCB/PAH Loading	ORCLPEST	FRSHWTRSED	08/27/12	01/24/13	02/05/13	
L56024-30	423589-330-4	Green Rvr PCB/PAH Loading	ORCLPEST	FRSHWTRSED	08/27/12	01/24/13	02/05/13	
L56024-33	423589-330-4	Green Rvr PCB/PAH Loading	ORCLPEST	FRSHWTRSED	08/27/12	01/24/13	02/05/13	
L56024-35	423589-330-4	Green Rvr PCB/PAH Loading	ORCLPEST	FRSHWTRSED	08/29/12	01/24/13	02/05/13	
L56024-36	423589-330-4	Green Rvr PCB/PAH Loading	ORCLPEST	FRSHWTRSED	08/27/12	01/24/13	02/05/13	
L56024-37	423589-330-4	Green Rvr PCB/PAH Loading	ORCLPEST	FRSHWTRSED	08/14/12	01/24/13	02/05/13	
WG125088-1	MB		ORCLPEST	OTHR SOLID		01/24/13	02/05/13	MB130124
WG125088-2	SB		ORCLPEST	OTHR SOLID		01/24/13	02/05/13	WG125088-1
WG125088-3	MS		ORCLPEST	FRSHWTRSED		01/24/13	02/05/13	L56024-35

WG125088-4	MSD	ORCLPEST	FRSHWTRSED	01/24/13	02/05/13	WG125088-3 L56024-35
WG125088-5	SRM	ORCLPEST	FRSHWTRSED	01/24/13	02/05/13	
WG125088-6	SRMD	ORCLPEST	FRSHWTRSED	01/24/13	02/05/13	WG125088-5
WG125088-7	LD	ORCLPEST	FRSHWTRSED	01/24/13	02/05/13	L56024-21

WG124930

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Analysis Date	Comments
L56024-1	423589-330-4	Green Rvr PCB/PAH Loading	OREDC	FRSHWTRSED	08/13/12	01/10/13	02/17/13	
L56024-2	423589-330-4	Green Rvr PCB/PAH Loading	OREDC	FRSHWTRSED	08/13/12	01/10/13	02/17/13	
L56024-3	423589-330-4	Green Rvr PCB/PAH Loading	OREDC	FRSHWTRSED	08/29/12	01/10/13	02/17/13	
L56024-4	423589-330-4	Green Rvr PCB/PAH Loading	OREDC	FRSHWTRSED	08/13/12	01/10/13	02/17/13	
L56024-5	423589-330-4	Green Rvr PCB/PAH Loading	OREDC	FRSHWTRSED	08/13/12	01/10/13	02/17/13	
L56024-7	423589-330-4	Green Rvr PCB/PAH Loading	OREDC	FRSHWTRSED	08/14/12	01/10/13	02/17/13	
L56024-8	423589-330-4	Green Rvr PCB/PAH Loading	OREDC	FRSHWTRSED	08/14/12	01/10/13	02/17/13	
L56024-9	423589-330-4	Green Rvr PCB/PAH Loading	OREDC	FRSHWTRSED	08/14/12	01/10/13	02/17/13	
L56024-11	423589-330-4	Green Rvr PCB/PAH Loading	OREDC	FRSHWTRSED	08/30/12	01/10/13	02/17/13	
L56024-13	423589-330-4	Green Rvr PCB/PAH Loading	OREDC	FRSHWTRSED	08/28/12	01/10/13	02/17/13	
L56024-14	423589-330-4	Green Rvr PCB/PAH Loading	OREDC	FRSHWTRSED	08/28/12	01/10/13	02/17/13	
L56024-17	423589-330-4	Green Rvr PCB/PAH Loading	OREDC	FRSHWTRSED	08/28/12	01/10/13	02/19/13	
L56024-19	423589-330-4	Green Rvr PCB/PAH Loading	OREDC	FRSHWTRSED	08/28/12	01/10/13	02/19/13	
L56024-20	423589-330-4	Green Rvr PCB/PAH Loading	OREDC	FRSHWTRSED	08/14/12	01/10/13	02/19/13	
L56024-23	423589-330-4	Green Rvr PCB/PAH Loading	OREDC	FRSHWTRSED	08/15/12	01/10/13	02/19/13	
L56024-24	423589-330-4	Green Rvr PCB/PAH Loading	OREDC	FRSHWTRSED	08/15/12	01/10/13	02/19/13	
L56024-25	423589-330-4	Green Rvr PCB/PAH Loading	OREDC	FRSHWTRSED	08/15/12	01/10/13	02/19/13	
L56024-26	423589-330-4	Green Rvr PCB/PAH Loading	OREDC	FRSHWTRSED	08/15/12	01/10/13	02/19/13	
L56024-27	423589-330-4	Green Rvr PCB/PAH Loading	OREDC	FRSHWTRSED	08/15/12	01/10/13	02/19/13	
L56024-34	423589-330-4	Green Rvr PCB/PAH Loading	OREDC	FRSHWTRSED	08/29/12	01/10/13	02/19/13	
WG124930-1	MB		OREDC	OTHR SOLID		01/10/13	02/17/13	MB130110
WG124930-2	SB		OREDC	OTHR SOLID		01/10/13	02/17/13	WG124930-1
WG124930-3	SB		OREDC	OTHR SOLID		01/10/13	02/15/13	WG124930-1
WG124930-4	MS		OREDC	FRSHWTRSED		01/10/13	02/15/13	L56024-8
WG124930-5	MSD		OREDC	FRSHWTRSED		01/10/13	02/15/13	WG124930-4 L56024-8
WG124930-8	LD		OREDC	FRSHWTRSED		01/10/13	02/17/13	L56024-9

WG125091

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Analysis Date	Comments
L56024-12	423589-330-4	Green Rvr PCB/PAH Loading	OREDC	FRSHWTRSED	08/27/12	01/24/13	02/20/13	
L56024-15	423589-330-4	Green Rvr PCB/PAH Loading	OREDC	FRSHWTRSED	08/28/12	01/24/13	02/20/13	
L56024-16	423589-330-4	Green Rvr PCB/PAH Loading	OREDC	FRSHWTRSED	08/28/12	01/24/13	02/20/13	

L56024-21	423589-330-4	Green Rvr PCB/PAH Loading	OREDC	FRSHWTRSED	08/14/12	01/24/13	02/20/13	
L56024-22	423589-330-4	Green Rvr PCB/PAH Loading	OREDC	FRSHWTRSED	08/14/12	01/24/13	02/20/13	
L56024-28	423589-330-4	Green Rvr PCB/PAH Loading	OREDC	FRSHWTRSED	08/27/12	01/24/13	02/20/13	
L56024-29	423589-330-4	Green Rvr PCB/PAH Loading	OREDC	FRSHWTRSED	08/27/12	01/24/13	02/20/13	
L56024-30	423589-330-4	Green Rvr PCB/PAH Loading	OREDC	FRSHWTRSED	08/27/12	01/24/13	02/20/13	
L56024-33	423589-330-4	Green Rvr PCB/PAH Loading	OREDC	FRSHWTRSED	08/27/12	01/24/13	02/20/13	
L56024-35	423589-330-4	Green Rvr PCB/PAH Loading	OREDC	FRSHWTRSED	08/29/12	01/24/13	02/20/13	
L56024-36	423589-330-4	Green Rvr PCB/PAH Loading	OREDC	FRSHWTRSED	08/27/12	01/24/13	02/20/13	
L56024-37	423589-330-4	Green Rvr PCB/PAH Loading	OREDC	FRSHWTRSED	08/14/12	01/24/13	02/20/13	
WG125091-1	MB		OREDC	OTHR SOLID		01/24/13	02/20/13	MB140124
WG125091-2	SB		OREDC	OTHR SOLID		01/24/13	02/20/13	WG125091-1
WG125091-3	SB		OREDC	OTHR SOLID		01/24/13	02/16/13	WG125091-1
WG125091-4	MS		OREDC	FRSHWTRSED		01/24/13	02/16/13	L56024-21
WG125091-5	MSD		OREDC	FRSHWTRSED		01/24/13	02/16/13	WG125091-4 L56024-21
WG125091-8	LD		OREDC	FRSHWTRSED		01/24/13	02/20/13	L56024-36

WG124870

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Analysis Date	Comments
L56024-1	423589-330-4	Green Rvr PCB/PAH Loading	ORPCB	FRSHWTRSED	08/13/12	01/04/13	01/11/13	
L56024-2	423589-330-4	Green Rvr PCB/PAH Loading	ORPCB	FRSHWTRSED	08/13/12	01/04/13	01/11/13	
L56024-3	423589-330-4	Green Rvr PCB/PAH Loading	ORPCB	FRSHWTRSED	08/29/12	01/04/13	01/11/13	
L56024-4	423589-330-4	Green Rvr PCB/PAH Loading	ORPCB	FRSHWTRSED	08/13/12	01/04/13	01/11/13	
L56024-5	423589-330-4	Green Rvr PCB/PAH Loading	ORPCB	FRSHWTRSED	08/13/12	01/04/13	01/11/13	
L56024-7	423589-330-4	Green Rvr PCB/PAH Loading	ORPCB	FRSHWTRSED	08/14/12	01/04/13	01/11/13	
L56024-8	423589-330-4	Green Rvr PCB/PAH Loading	ORPCB	FRSHWTRSED	08/14/12	01/04/13	01/11/13	
L56024-9	423589-330-4	Green Rvr PCB/PAH Loading	ORPCB	FRSHWTRSED	08/14/12	01/04/13	01/11/13	
L56024-11	423589-330-4	Green Rvr PCB/PAH Loading	ORPCB	FRSHWTRSED	08/30/12	01/04/13	01/11/13	
L56024-13	423589-330-4	Green Rvr PCB/PAH Loading	ORPCB	FRSHWTRSED	08/28/12	01/04/13	01/11/13	
L56024-14	423589-330-4	Green Rvr PCB/PAH Loading	ORPCB	FRSHWTRSED	08/28/12	01/04/13	01/11/13	
L56024-17	423589-330-4	Green Rvr PCB/PAH Loading	ORPCB	FRSHWTRSED	08/28/12	01/04/13	01/11/13	
L56024-19	423589-330-4	Green Rvr PCB/PAH Loading	ORPCB	FRSHWTRSED	08/28/12	01/04/13	01/11/13	
L56024-20	423589-330-4	Green Rvr PCB/PAH Loading	ORPCB	FRSHWTRSED	08/14/12	01/04/13	01/11/13	
L56024-23	423589-330-4	Green Rvr PCB/PAH Loading	ORPCB	FRSHWTRSED	08/15/12	01/04/13	01/11/13	
L56024-24	423589-330-4	Green Rvr PCB/PAH Loading	ORPCB	FRSHWTRSED	08/15/12	01/04/13	01/11/13	
L56024-25	423589-330-4	Green Rvr PCB/PAH Loading	ORPCB	FRSHWTRSED	08/15/12	01/04/13	01/11/13	
L56024-26	423589-330-4	Green Rvr PCB/PAH Loading	ORPCB	FRSHWTRSED	08/15/12	01/04/13	01/11/13	
L56024-27	423589-330-4	Green Rvr PCB/PAH Loading	ORPCB	FRSHWTRSED	08/15/12	01/04/13	01/11/13	
L56024-34	423589-330-4	Green Rvr PCB/PAH Loading	ORPCB	FRSHWTRSED	08/29/12	01/04/13	01/11/13	
WG124870-1	MB		ORPCB	OTHR SOLID		01/04/13	01/11/13	MB130104
WG124870-2	SB		ORPCB	OTHR SOLID		01/04/13	01/11/13	WG124870-1

WG124870-3	MS	ORPCB	FRSHWTRSED	01/04/13	01/11/13	L56024-7
WG124870-4	MSD	ORPCB	FRSHWTRSED	01/04/13	01/11/13	WG124870-3 L56024-7
WG124870-5	SRM	ORPCB	FRSHWTRSED	01/04/13	01/11/13	
WG124870-6	SRMD	ORPCB	FRSHWTRSED	01/04/13	01/11/13	WG124870-5
WG124870-7	LD	ORPCB	FRSHWTRSED	01/04/13	01/11/13	L56024-1

WG125089

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Analysis Date	Comments
L56024-12	423589-330-4	Green Rvr PCB/PAH Loading	ORPCB	FRSHWTRSED	08/27/12	01/24/13	02/01/13	
L56024-15	423589-330-4	Green Rvr PCB/PAH Loading	ORPCB	FRSHWTRSED	08/28/12	01/24/13	02/01/13	
L56024-16	423589-330-4	Green Rvr PCB/PAH Loading	ORPCB	FRSHWTRSED	08/28/12	01/24/13	02/01/13	
L56024-21	423589-330-4	Green Rvr PCB/PAH Loading	ORPCB	FRSHWTRSED	08/14/12	01/24/13	02/01/13	
L56024-22	423589-330-4	Green Rvr PCB/PAH Loading	ORPCB	FRSHWTRSED	08/14/12	01/24/13	02/01/13	
L56024-28	423589-330-4	Green Rvr PCB/PAH Loading	ORPCB	FRSHWTRSED	08/27/12	01/24/13	02/01/13	
L56024-29	423589-330-4	Green Rvr PCB/PAH Loading	ORPCB	FRSHWTRSED	08/27/12	01/24/13	02/01/13	
L56024-30	423589-330-4	Green Rvr PCB/PAH Loading	ORPCB	FRSHWTRSED	08/27/12	01/24/13	02/01/13	
L56024-33	423589-330-4	Green Rvr PCB/PAH Loading	ORPCB	FRSHWTRSED	08/27/12	01/24/13	02/01/13	
L56024-35	423589-330-4	Green Rvr PCB/PAH Loading	ORPCB	FRSHWTRSED	08/29/12	01/24/13	02/01/13	
L56024-36	423589-330-4	Green Rvr PCB/PAH Loading	ORPCB	FRSHWTRSED	08/27/12	01/24/13	02/01/13	
L56024-37	423589-330-4	Green Rvr PCB/PAH Loading	ORPCB	FRSHWTRSED	08/14/12	01/24/13	02/01/13	
WG125089-1	MB		ORPCB	OTHR SOLID		01/24/13	02/01/13	MB130124
WG125089-2	SB		ORPCB	OTHR SOLID		01/24/13	02/01/13	WG125089-1
WG125089-3	MS		ORPCB	FRSHWTRSED		01/24/13	02/01/13	L56024-35
WG125089-4	MSD		ORPCB	FRSHWTRSED		01/24/13	02/01/13	WG125089-3 L56024-35
WG125089-5	SRM		ORPCB	FRSHWTRSED		01/24/13	02/01/13	
WG125089-6	SRMD		ORPCB	FRSHWTRSED		01/24/13	02/01/13	WG125089-5
WG125089-7	LD		ORPCB	FRSHWTRSED		01/24/13	02/01/13	L56024-21

LIMSView QC Report for Stream Sediments - Data Validation for 2012 Sampling Event

WG122678

MB:WG122678-1 Matrix: OTHR SOLID Listtype:CVAVS Method:EPA DEC 1991 Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Sulfide, Acid Volatile	0.25	1	mg/Kg	<MDL	

SB:WG122678-2 MB:WG122678-1 Matrix: OTHR SOLID Listtype:CVAVS Method:EPA DEC 1991 Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Sulfide, Acid Volatile	0.25	1	mg/Kg	<MDL	26.985	29.7	110		80--120

LT:WG122678-4 LD:WG122678-3 L56024-4 Matrix: FRSHWTRSED Listtype:CVAVS Method:EPA DEC 1991 Project:423589-330-4 Pkey:SED
(Lab Triplicate, Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	LT Value	RSD	Qual	LabLimit
Sulfide, Acid Volatile	1.2	4.88	mg/Kg	24.5	18.8	17.1	19		0--20

MS:WG122678-5 L56024-4 Matrix: FRSHWTRSED Listtype:CVAVS Method:EPA DEC 1991 Project:423589-330-4 Pkey:SED
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Sulfide, Acid Volatile	1.2	4.86	mg/Kg	24.5	25.7175	22.1	-9	*	65--135

MB:WG122678-6 Matrix: OTHR SOLID Listtype:CVAVS Method:EPA DEC 1991 Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Sulfide, Acid Volatile	0.25	1	mg/Kg	<MDL	

SB:WG122678-7 MB:WG122678-6 Matrix: OTHR SOLID Listtype:CVAVS Method:EPA DEC 1991 Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Sulfide, Acid Volatile	0.25	1	mg/Kg	<MDL	25.16	27.5	109		80--120

WG122829

MB:WG122829-1 Matrix: OTHR SOLID Listtype:CVAVS Method:EPA DEC 1991 Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Sulfide, Acid Volatile	0.25	1	mg/Kg	<MDL	

SB:WG122829-2 MB:WG122829-1 Matrix: OTHR SOLID Listtype:CVAVS Method:EPA DEC 1991 Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Sulfide, Acid Volatile	0.25	1	mg/Kg	<MDL	25.615	29.6	115		80--120

LT:WG122829-4 LD:WG122829-3 L56024-19 Matrix: FRSHWTRSED Listtype:CVAVS Method:EPA DEC 1991 Project:423589-330-4 Pkey:SED
(Lab Triplicate, Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	LT Value	RSD	Qual	LabLimit
Sulfide, Acid Volatile	0.24	0.966	mg/Kg	1.24	1.16	1.64	19		0--20

MS:WG122829-5 L56024-19 Matrix: FRSHWTRSED Listtype:CVAVS Method:EPA DEC 1991 Project:423589-330-4 Pkey:SED
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Sulfide, Acid Volatile	0.23	0.913	mg/Kg	1.24	24.9513	10.4	38	*	65--135

MB:WG122829-6 Matrix: OTHR SOLID Listtype:CVAVS Method:EPA DEC 1991 Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Sulfide, Acid Volatile	0.25	1	mg/Kg	<MDL	

SB:WG122829-7 MB:WG122829-6 Matrix: OTHR SOLID Listtype:CVAVS Method:EPA DEC 1991 Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Sulfide, Acid Volatile	0.25	1	mg/Kg	<MDL	26.51	28.3	107		80--120

WG122562

LT:WG122562-2 LD:WG122562-1 L56024-2 Matrix: FRSHWTRSED Listtype:CVPH Method:SW846 9045D Project:423589-330-4 Pkey:SED
(Lab Triplicate, Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	LT Value	RSD	Qual	LabLimit
pH			pH	6.84	6.94	6.91	1		0--5

CS:WG122562-3 Matrix: OTHR SOLID Listtype:CVPH Method:SW846 9045D Project: Pkey:STD
(Check Standard)

Parameter	MDL	RDL	Units	TrueValue	CS Value	% Rec.	Qual	LabLimit
pH			pH	6.86	6.82	99		98--102

CS:WG122562-4 Matrix: OTHR SOLID Listtype:CVPH Method:SW846 9045D Project: Pkey:STD
(Check Standard)

Parameter	MDL	RDL	Units	TrueValue	CS Value	% Rec.	Qual	LabLimit
pH			pH	6.86	6.86	100		98--102

CS:WG122562-5 Matrix: OTHR SOLID Listtype:CVPH Method:SW846 9045D Project: Pkey:STD
(Check Standard)

Parameter	MDL	RDL	Units	TrueValue	CS Value	% Rec.	Qual	LabLimit
pH			pH	9.18	9.21	100		99--101

CS:WG122562-6 Matrix: OTHR SOLID Listtype:CVPH Method:SW846 9045D Project: Pkey:STD
(Check Standard)

Parameter	MDL	RDL	Units	TrueValue	CS Value	% Rec.	Qual	LabLimit
pH			pH	6.86	6.93	101		98--102

WG122810

LD:WG122810-1 L56024-12 Matrix: FRSHWTRSED Listtype:CVPH Method:SW846 9045D Project:423589-330-4 Pkey:SED
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	Abs. Diff	Qual	LabLimit
pH			pH	6.44	6.49	0.05		0--.2

LCS:WG122810-2 Matrix: OTHR SOLID Listtype:CVPH Method:SW846 9045D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
pH			pH	6.86	6.9	101		98--102

LT:WG122810-4 LD:WG122810-3 L56024-13 Matrix: FRSHWTRSED Listtype:CVPH Method:SW846 9045D Project:423589-330-4 Pkey:SED
(Lab Triplicate, Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	LT Value	RSD	Qual	LabLimit
pH			pH	6.56	6.58	6.58	0		0--5

LD:WG122810-5 L56387-2 Matrix: FRSHWTRSED Listtype:CVPH Method:SW846 9045D Project:423258-500-1 Pkey:SED
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	Abs. Diff	Qual	LabLimit
pH			pH	6.86	6.85	0.01		0--.2

CS:WG122810-6 Matrix: OTHR SOLID Listtype:CVPH Method:SW846 9045D Project: Pkey:STD
(Check Standard)

Parameter	MDL	RDL	Units	TrueValue	CS Value	% Rec.	Qual	LabLimit
pH			pH	6.86	6.89	100		98--102

CS:WG122810-7 Matrix: OTHR SOLID Listtype:CVPH Method:SW846 9045D Project: Pkey:STD
(Check Standard)

Parameter	MDL	RDL	Units	TrueValue	CS Value	% Rec.	Qual	LabLimit
pH			pH	9.18	9.2	100		99--101

LT:WG122810-9 LD:WG122810-8 L56158-1 Matrix: SLUDGE Listtype:CVPH Method:SW846 9045D Project:421184-130 Pkey:STD
(Lab Triplicate, Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	LT Value	RSD	Qual	LabLimit
pH			pH	8.13	8.09	8.14	0		0--5

CS:WG122810-10 Matrix: OTHR SOLID Listtype:CVPH Method:SW846 9045D Project: Pkey:STD
(Check Standard)

Parameter	MDL	RDL	Units	TrueValue	CS Value	% Rec.	Qual	LabLimit
pH			pH	9.18	9.2	100		99--101

CS:WG122810-11 Matrix: OTHR SOLID Listtype:CVPH Method:SW846 9045D Project: Pkey:STD
(Check Standard)

Parameter	MDL	RDL	Units	TrueValue	CS Value	% Rec.	Qual	LabLimit
pH			pH	6.86	6.91	101		98--102

CS:WG122810-12 Matrix: OTHR SOLID Listtype:CVPH Method:SW846 9045D Project: Pkey:STD
(Check Standard)

Parameter	MDL	RDL	Units	TrueValue	CS Value	% Rec.	Qual	LabLimit
pH			pH	9.18	9.2	100		99--101

CS:WG122810-13 Matrix: OTHR SOLID Listtype:CVPH Method:SW846 9045D Project: Pkey:STD
(Check Standard)

Parameter	MDL	RDL	Units	TrueValue	CS Value	% Rec.	Qual	LabLimit
pH			pH	9.18	9.19	100		99--101

WG122689

LT:WG122689-2 LD:WG122689-1 L56024-7 Matrix: FRSHWTRSED Listtype:CVPSD Method:ASTM D422 Project:423589-330-4 Pkey:SED
(Lab Triplicate, Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	LT Value	RSD	Qual	LabLimit
Gravel	0.1	1.3	%	6.8	6.1	6.2	6		0--20
Sand	0.1	1.3	%	92.6	86.9	89.4	3		0--20
Silt	0.7	1.3	%	0.7	0.7	2	66	*	0--20
Clay	0.7	1.3	%	2.6	3.3	2.6	14		0--20

LT:WG122689-4 LD:WG122689-3 L56024-34 Matrix: FRSHWTRSED Listtype:CVPSD Method:ASTM D422 Project:423589-330-4 Pkey:SED
(Lab Triplicate, Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	LT Value	RSD	Qual	LabLimit
Gravel	0.1	1.2	%	9.4	10.2	8.9	7		0--20
Sand	0.1	1.2	%	90.2	88.9	90	1		0--20
Silt	0.6	1.2	%	<MDL	<MDL	<MDL			0--20
Clay	0.6	1.2	%	2.4	2.5	2.4	2		0--20

WG122758

MB:WG122758-1 Matrix: OTHR SOLID Listtype:CVTOC Method:SW846 9060-PSEP96 Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	500	1000	mg/Kg	<MDL	

SRM:WG122758-2 Matrix: OTHR SOLID Listtype:CVTOC Method:SW846 9060-PSEP96 Project: Pkey:STD
(Std Reference Material)

Parameter	MDL	RDL	Units	TrueValue	SRM Value	% Rec.	Qual	LabLimit
Total Organic Carbon	2800	5530	mg/Kg	36900	31700	86		80--120

SB:WG122758-3 MB:WG122758-1 Matrix: OTHR SOLID Listtype:CVTOC Method:SW846 9060-PSEP96 Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	500	1000	mg/Kg	<MDL	2500	2790	112		80--120

LT:WG122758-5 LD:WG122758-4 L56024-2 Matrix: FRSHWTRSED Listtype:CVTOC Method:SW846 9060-PSEP96 Project:423589-330-4 Pkey:SED
(Lab Triplicate, Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	LT Value	RSD	Qual	LabLimit
Total Organic Carbon	1300	2660	mg/Kg	7750	7910	7260	4		0--20

MS:WG122758-6 L56024-2 Matrix: FRSHWTRSED Listtype:CVTOC Method:SW846 9060-PSEP96 Project:423589-330-4 Pkey:SED
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	950	1900	mg/Kg	7750	2500	12800	79		75--125

MB:WG122758-7 Matrix: OTHR SOLID Listtype:CVTOC Method:SW846 9060-PSEP96 Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	500	1000	mg/Kg	<MDL	

SRM:WG122758-8 Matrix: OTHR SOLID Listtype:CVTOC Method:SW846 9060-PSEP96 Project: Pkey:STD
(Std Reference Material)

Parameter	MDL	RDL	Units	TrueValue	SRM Value	% Rec.	Qual	LabLimit
Total Organic Carbon	3100	6280	mg/Kg	36900	32400	88		80--120

MB:WG122758-9 Matrix: OTHR SOLID Listtype:CVTOC Method:SW846 9060-PSEP96 Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	500	1000	mg/Kg	<MDL	

SRM:WG122758-10 Matrix: OTHR SOLID Listtype:CVTOC Method:SW846 9060-PSEP96 Project: Pkey:STD
(Std Reference Material)

Parameter	MDL	RDL	Units	TrueValue	SRM Value	% Rec.	Qual	LabLimit
Total Organic Carbon	3300	6560	mg/Kg	36900	33500	91		80--120

MB:WG122758-11 Matrix: OTHR SOLID Listtype:CVTOC Method:SW846 9060-PSEP96 Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	500	1000	mg/Kg	<MDL	

SRM:WG122758-12 Matrix: OTHR SOLID Listtype:CVTOC Method:SW846 9060-PSEP96 Project: Pkey:STD
(Std Reference Material)

Parameter	MDL	RDL	Units	TrueValue	SRM Value	% Rec.	Qual	LabLimit
Total Organic Carbon	2500	4930	mg/Kg	36900	33300	90		80--120

MB:WG122758-13 Matrix: OTHR SOLID Listtype:CVTOC Method:SW846 9060-PSEP96 Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	500	1000	mg/Kg	<MDL	

LCS:WG122758-14 Matrix: OTHR SOLID Listtype:CVTOC Method:SW846 9060-PSEP96 Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	2600	5150	mg/Kg	33510	36600	109		80--120

SB:WG122758-15 MB:WG122758-13 Matrix: OTHR SOLID Listtype:CVTOC Method:SW846 9060-PSEP96 Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	500	1000	mg/Kg	<MDL	2500	2430	97		80--120

LT:WG122758-17 LD:WG122758-16 L56387-7 Matrix: SOIL Listtype:CVTOC Method:SW846 9060-PSEP96 Project:423258-500-1 Pkey:STD
(Lab Triplicate, Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	LT Value	RSD	Qual	LabLimit
Total Organic Carbon	490	977	mg/Kg	1290	1240	950	16		0--20

MS:WG122758-18 L56387-7 Matrix: SOIL Listtype:CVTOC Method:SW846 9060-PSEP96 Project:423258-500-1 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	490	988	mg/Kg	1290	2500	3990	112		75--125

WG122976

MB:WG122976-1 Matrix: OTHR SOLID Listtype:CVTOC Method:SW846 9060-PSEP96 Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	500	1000	mg/Kg	<MDL	

LCS:WG122976-2 Matrix: OTHR SOLID Listtype:CVTOC Method:SW846 9060-PSEP96 Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	3300	6510	mg/Kg	33510	32000	95		80--120

MB:WG122976-3 Matrix: OTHR SOLID Listtype:CVTOC Method:SW846 9060-PSEP96 Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	500	1000	mg/Kg	<MDL	

LCS:WG122976-4 Matrix: OTHR SOLID Listtype:CVTOC Method:SW846 9060-PSEP96 Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	2500	4980	mg/Kg	21900	20600	94		80--120

MB:WG122976-5 Matrix: OTHR SOLID Listtype:CVTOC Method:SW846 9060-PSEP96 Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	500	1000	mg/Kg	<MDL	

LCS:WG122976-6 Matrix: OTHR SOLID Listtype:CVTOC Method:SW846 9060-PSEP96 Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	2800	5590	mg/Kg	33510	32000	96		80--120

SB:WG122976-7 MB:WG122976-5 Matrix: OTHR SOLID Listtype:CVTOC Method:SW846 9060-PSEP96 Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	500	1000	mg/Kg	<MDL	2500	2300	92		80--120

LT:WG122976-9 LD:WG122976-8 L56024-35 Matrix: FRSHWTRSED Listtype:CVTOC Method:SW846 9060-PSEP96 Project:423589-330-4 Pkey:SED
(Lab Triplicate, Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	LT Value	RSD	Qual	LabLimit
Total Organic Carbon	470	931	mg/Kg	3150	3530	3400	6		0--20

MS:WG122976-10 L56024-35 Matrix: FRSHWTRSED Listtype:CVTOC Method:SW846 9060-PSEP96 Project:423589-330-4 Pkey:SED
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	440	889	mg/Kg	3150	2500	5150	84		75--125

WG123636

MB:WG123636-1 Matrix: OTHR SOLID Listtype:CVTOTS Method:SM2540-G Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Solids	0.005	0.01	%	<MDL	

LT:WG123636-3 LD:WG123636-2 L56024-5 Matrix: FRSHWTRSED Listtype:CVTOTS Method:SM2540-G Project:423589-330-4 Pkey:SED
(Lab Triplicate, Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	LT Value	RSD	Qual	LabLimit
Total Solids	0.005	0.01	%	35.4	43.6	44.8	12		0--20

LD:WG123636-4 L56693-7 Matrix: SLUDGE Listtype:CVTOTS Method:SM2540-G Project:421298A Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Solids	0.005	0.01	%	27	25.3	7		0--20

WG123727

MB:WG123727-1 Matrix: OTHR SOLID Listtype:CVTOTS Method:SM2540-G Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Solids	0.005	0.01	%	<MDL	

LT:WG123727-3 LD:WG123727-2 L56024-22 Matrix: FRSHWTRSED Listtype:CVTOTS Method:SM2540-G Project:423589-330-4 Pkey:SED
(Lab Triplicate, Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	LT Value	RSD	Qual	LabLimit
Total Solids	0.005	0.01	%	42.9	47.6	46.1	5		0--20

WG124317

MB:WG124317-1 Matrix: OTHR SOLID Listtype:CVTOTS Method:SM2540-G Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Solids	0.005	0.01	%	<MDL	

LT:WG124317-3 LD:WG124317-2 L56024-26 Matrix: FRSHWTRSED Listtype:CVTOTS Method:SM2540-G Project:423589-330-4 Pkey:SED
(Lab Triplicate, Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	LT Value	RSD	Qual	LabLimit
Total Solids	0.005	0.01	%	30.5	32.9	34.8	7		0--20

WG122912

LCSD:WG122912-2 LCS:WG122912-1 Matrix: FRSHWTRSED Listtype:MTHG-MIDS Method:SW846 7471B Project: Pkey:SED
(Lab Control Sample Duplicate, Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit	TrueValue	LCSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Mercury, Total, CVAA	0.025	0.253	mg/Kg	1.09	1.01	93		80--120	1.09	1.07	99		6		0--20

MB:WG122912-3 Matrix: SOLIDBLANK Listtype:MTHG-MIDS Method:SW846 7471B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Total, CVAA	0.005	0.048	mg/Kg	<MDL	

SB:WG122912-4 MB:WG122912-3 Matrix: SOLIDBLANK Listtype:MTHG-MIDS Method:SW846 7471B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Mercury, Total, CVAA	0.005	0.048	mg/Kg	<MDL	0.0952	0.0956	100		85--115

MSD:WG122912-6 MS:WG122912-5 L56024-7 Matrix: FRSHWTRSED Listtype:MTHG-MIDS Method:SW846 7471B Project:423589-330-4 Pkey:SED
(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	0.048	mg/Kg	0.019	0.0966	0.102	86		75--125	0.0973	0.0983	82		4		0--20

LD:WG122912-7 L56024-7 Matrix: FRSHWTRSED Listtype:MTHG-MIDS Method:SW846 7471B Project:423589-330-4 Pkey:SED
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Mercury, Total, CVAA	0.005	0.048	mg/Kg	0.019	0.017			0--20

WG123004

LCSD:WG123004-2 LCS:WG123004-1 Matrix: FRSHWTRSED Listtype:MTHG-MIDS Method:SW846 7471B Project: Pkey:SED
(Lab Control Sample Duplicate, Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit	TrueValue	LCSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Mercury, Total, CVAA	0.025	0.25	mg/Kg	1.09	1.07	98		80--120	1.09	1.02	94		5		0--20

MB:WG123004-3 Matrix: SOLIDBLANK Listtype:MTHG-MIDS Method:SW846 7471B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Total, CVAA	0.005	0.048	mg/Kg	<MDL	

SB:WG123004-4 MB:WG123004-3 Matrix: SOLIDBLANK Listtype:MTHG-MIDS Method:SW846 7471B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Mercury, Total, CVAA	0.005	0.048	mg/Kg	<MDL	0.0952	0.0922	97		85--115

MSD:WG123004-6 MS:WG123004-5 L56024-17 Matrix: FRSHWTRSED Listtype:MTHG-MIDS Method:SW846 7471B Project:423589-330-4 Pkey:SED
(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	0.049	mg/Kg	0.03	0.0978	0.123	96		75--125	0.0984	0.125	97		2		0--20

LD:WG123004-7 L56024-17 Matrix: FRSHWTRSED Listtype:MTHG-MIDS Method:SW846 7471B Project:423589-330-4 Pkey:SED
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Mercury, Total, CVAA	0.005	0.048	mg/Kg	0.03	0.028			0--20

WG122754

MB:WG122754-1 Matrix: SOLIDBLANK Listtype:MTHG-SEM Method:EPA 821 1991/245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Extractable, SEM	0.001	0.003	mg/Kg	<MDL	

SB:WG122754-2 MB:WG122754-1 Matrix: SOLIDBLANK Listtype:MTHG-SEM Method:EPA 821 1991/245.1*SW846 7470A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Mercury, Extractable, SEM	0.001	0.003	mg/Kg	<MDL	0.02	0.0172	86		85--115

LD:WG122754-3 L56024-4 Matrix: FRSHWTRSED Listtype:MTHG-SEM Method:EPA 821 1991/245.1*SW846 7470A Project:423589-330-4 Pkey:SED
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Mercury, Extractable, SEM	1E-03	0.003	mg/Kg	<MDL	<MDL			0--20

MS:WG122754-4 L56024-4 Matrix: FRSHWTRSED Listtype:MTHG-SEM Method:EPA 821 1991/245.1*SW846 7470A Project:423589-330-4 Pkey:SED
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Mercury, Extractable, SEM	1E-03	0.003	mg/Kg	<MDL	0.0194	0.0196	101		75--125

MB:WG122754-5 Matrix: SOLIDBLANK Listtype:MTHG-SEM Method:EPA 821 1991/245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Extractable, SEM	0.001	0.003	mg/Kg	<MDL	

MB:WG122754-6 Matrix: SOLIDBLANK Listtype:MTHG-SEM Method:EPA 821 1991/245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Extractable, SEM	0.001	0.003	mg/Kg	<MDL	

WG122942

MB:WG122942-1 Matrix: SOLIDBLANK Listtype:MTHG-SEM Method:EPA 821 1991/245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Extractable, SEM	0.001	0.003	mg/Kg	<MDL	

SB:WG122942-2 MB:WG122942-1 Matrix: SOLIDBLANK Listtype:MTHG-SEM Method:EPA 821 1991/245.1*SW846 7470A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Mercury, Extractable, SEM	0.001	0.003	mg/Kg	<MDL	0.02	0.0184	92		85--115

LD:WG122942-3 L56024-19 Matrix: FRSHWTRSED Listtype:MTHG-SEM Method:EPA 821 1991/245.1*SW846 7470A Project:423589-330-4 Pkey:SED
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Mercury, Extractable, SEM	9E-04	0.003	mg/Kg	0.0013	0.0013			0--20

MS:WG122942-4 L56024-19 Matrix: FRSHWTRSED Listtype:MTHG-SEM Method:EPA 821 1991/245.1*SW846 7470A Project:423589-330-4 Pkey:SED
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Mercury, Extractable, SEM	9E-04	0.003	mg/Kg	0.0013	0.0183	0.0181	92		75--125

MB:WG122942-5 Matrix: SOLIDBLANK Listtype:MTHG-SEM Method:EPA 821 1991/245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Extractable, SEM	0.001	0.003	mg/Kg	<MDL	

MB:WG122942-6 Matrix: SOLIDBLANK Listtype:MTHG-SEM Method:EPA 821 1991/245.1*SW846 7470A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Extractable, SEM	0.001	0.003	mg/Kg	<MDL	

WG122775

SB:WG122775-1 MB:WG122775-2 Matrix: SOLIDBLANK Listtype:MTICP-SEM Method:EPA 1991/200.7 Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Silver, Extractable, SEM	0.08	0.4	mg/Kg	<MDL	20	19.3	97		85--115
Arsenic, Extractable, SEM	0.5	2.5	mg/Kg	<MDL	20	18.4	92		85--115
Cadmium, Extractable, SEM	0.04	0.2	mg/Kg	<MDL	20	17.9	90		85--115
Chromium, Extractable, SE	0.06	0.3	mg/Kg	<MDL	20	18.1	91		85--115
Copper, Extractable, SEM	0.08	0.4	mg/Kg	<MDL	20	18.3	92		85--115
Nickel, Extractable, SEM	0.1	0.5	mg/Kg	<MDL	20	18	90		85--115
Lead, Extractable, SEM	0.4	2	mg/Kg	<MDL	20	18.5	92		85--115
Zinc, Extractable, SEM	0.1	0.5	mg/Kg	<MDL	20	17.9	90		85--115

MB:WG122775-2 Matrix: SOLIDBLANK Listtype:MTICP-SEM Method:EPA 1991/200.7 Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Silver, Extractable, SEM	0.08	0.4	mg/Kg	<MDL	
Arsenic, Extractable, SEM	0.5	2.5	mg/Kg	<MDL	
Cadmium, Extractable, SEM	0.04	0.2	mg/Kg	<MDL	
Chromium, Extractable, SE	0.06	0.3	mg/Kg	<MDL	
Copper, Extractable, SEM	0.08	0.4	mg/Kg	<MDL	
Nickel, Extractable, SEM	0.1	0.5	mg/Kg	<MDL	
Lead, Extractable, SEM	0.4	2	mg/Kg	<MDL	
Zinc, Extractable, SEM	0.1	0.5	mg/Kg	<MDL	

LIMSView QC Report for Stream Sediments - Data Validation for 2012 Sampling Event

LD:WG122775-3 L56024-4 Matrix: FRSHWTRSED Listtype:MTICP-SEM Method:EPA 1991/200.7 Project:423589-330-4 Pkey:SED
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Silver, Extractable, SEM	0.078	0.389	mg/Kg	<MDL	<MDL			0--20
Arsenic, Extractable, SEM	0.49	2.43	mg/Kg	4.03	4.03	0		0--20
Cadmium, Extractable, SEM	0.039	0.194	mg/Kg	0.092	0.083			0--20
Chromium, Extractable, SE	0.058	0.292	mg/Kg	1.07	0.949	12		0--20
Copper, Extractable, SEM	0.078	0.389	mg/Kg	3.51	3.23	8		0--20
Nickel, Extractable, SEM	0.097	0.486	mg/Kg	1.44	1.3	10		0--20
Lead, Extractable, SEM	0.39	1.94	mg/Kg	3.17	2.8	13		0--20
Zinc, Extractable, SEM	0.097	0.486	mg/Kg	25.3	23.8	6		0--20

MS:WG122775-4 L56024-4 Matrix: FRSHWTRSED Listtype:MTICP-SEM Method:EPA 1991/200.7 Project:423589-330-4 Pkey:SED
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Silver, Extractable, SEM	0.078	0.389	mg/Kg	<MDL	19.4	19.6	101		75--125
Arsenic, Extractable, SEM	0.49	2.43	mg/Kg	4.03	19.4	21.5	90		75--125
Cadmium, Extractable, SEM	0.039	0.194	mg/Kg	0.092	19.4	17.1	87		75--125
Chromium, Extractable, SE	0.058	0.292	mg/Kg	1.07	19.4	19	92		75--125
Copper, Extractable, SEM	0.078	0.389	mg/Kg	3.51	19.4	21.7	94		75--125
Nickel, Extractable, SEM	0.097	0.486	mg/Kg	1.44	19.4	19.5	93		75--125
Lead, Extractable, SEM	0.39	1.94	mg/Kg	3.17	19.4	21.1	92		75--125
Zinc, Extractable, SEM	0.097	0.486	mg/Kg	25.3	19.4	40.6	79		75--125

MB:WG122775-5 Matrix: SOLIDBLANK Listtype:MTICP-SEM Method:EPA 1991/200.7 Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Silver, Extractable, SEM	0.08	0.4	mg/Kg	<MDL	
Arsenic, Extractable, SEM	0.5	2.5	mg/Kg	<MDL	
Cadmium, Extractable, SEM	0.04	0.2	mg/Kg	<MDL	
Chromium, Extractable, SE	0.06	0.3	mg/Kg	<MDL	
Copper, Extractable, SEM	0.08	0.4	mg/Kg	<MDL	
Nickel, Extractable, SEM	0.1	0.5	mg/Kg	<MDL	
Lead, Extractable, SEM	0.4	2	mg/Kg	<MDL	
Zinc, Extractable, SEM	0.1	0.5	mg/Kg	<MDL	

MB:WG122775-6 Matrix: SOLIDBLANK Listtype:MTICP-SEM Method:EPA 1991/200.7 Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Silver, Extractable, SEM	0.08	0.4	mg/Kg	<MDL	
Arsenic, Extractable, SEM	0.5	2.5	mg/Kg	<MDL	

Cadmium, Extractable, SEM	0.04	0.2	mg/Kg	<MDL
Chromium, Extractable, SE	0.06	0.3	mg/Kg	<MDL
Copper, Extractable, SEM	0.08	0.4	mg/Kg	<MDL
Nickel, Extractable, SEM	0.1	0.5	mg/Kg	<MDL
Lead, Extractable, SEM	0.4	2	mg/Kg	<MDL
Zinc, Extractable, SEM	0.1	0.5	mg/Kg	<MDL

WG122929

SB:WG122929-1 MB:WG122929-2 Matrix: SOLIDBLANK Listtype:MTICP-SEM Method:EPA 1991/200.7 Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Silver, Extractable, SEM	0.08	0.4	mg/Kg	<MDL	20	19.4	97		85--115
Arsenic, Extractable, SEM	0.5	2.5	mg/Kg	<MDL	20	18.8	94		85--115
Cadmium, Extractable, SEM	0.04	0.2	mg/Kg	<MDL	20	18.7	93		85--115
Chromium, Extractable, SE	0.06	0.3	mg/Kg	<MDL	20	19.3	96		85--115
Copper, Extractable, SEM	0.08	0.4	mg/Kg	<MDL	20	19.5	97		85--115
Nickel, Extractable, SEM	0.1	0.5	mg/Kg	<MDL	20	18.9	95		85--115
Lead, Extractable, SEM	0.4	2	mg/Kg	<MDL	20	19.1	96		85--115
Zinc, Extractable, SEM	0.1	0.5	mg/Kg	<MDL	20	18.6	93		85--115

MB:WG122929-2 Matrix: SOLIDBLANK Listtype:MTICP-SEM Method:EPA 1991/200.7 Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Silver, Extractable, SEM	0.08	0.4	mg/Kg	<MDL	
Arsenic, Extractable, SEM	0.5	2.5	mg/Kg	<MDL	
Cadmium, Extractable, SEM	0.04	0.2	mg/Kg	<MDL	
Chromium, Extractable, SE	0.06	0.3	mg/Kg	<MDL	
Copper, Extractable, SEM	0.08	0.4	mg/Kg	<MDL	
Nickel, Extractable, SEM	0.1	0.5	mg/Kg	<MDL	
Lead, Extractable, SEM	0.4	2	mg/Kg	<MDL	
Zinc, Extractable, SEM	0.1	0.5	mg/Kg	<MDL	

LD:WG122929-3 L56024-19 Matrix: FRSHWTRSED Listtype:MTICP-SEM Method:EPA 1991/200.7 Project:423589-330-4 Pkey:SED
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Silver, Extractable, SEM	0.073	0.365	mg/Kg	<MDL	<MDL			0--20
Arsenic, Extractable, SEM	0.46	2.28	mg/Kg	0.79	0.74			0--20
Cadmium, Extractable, SEM	0.037	0.183	mg/Kg	0.067	0.066			0--20
Chromium, Extractable, SE	0.055	0.274	mg/Kg	0.932	0.866	7		0--20
Copper, Extractable, SEM	0.073	0.365	mg/Kg	3.02	3.09	2		0--20

Nickel, Extractable, SEM	0.091	0.457	mg/Kg	0.794	0.786	1	0--20
Lead, Extractable, SEM	0.37	1.83	mg/Kg	6.63	6.5	2	0--20
Zinc, Extractable, SEM	0.091	0.457	mg/Kg	47.6	47.3	1	0--20

MS:WG122929-4 L56024-19 Matrix: FRSHWTRSED Listtype:MTICP-SEM Method:EPA 1991/200.7 Project:423589-330-4 Pkey:SED
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Silver, Extractable, SEM	0.073	0.365	mg/Kg	<MDL	18.3	17.9	98		75--125
Arsenic, Extractable, SEM	0.46	2.28	mg/Kg	0.79	18.3	17.6	92		75--125
Cadmium, Extractable, SEM	0.037	0.183	mg/Kg	0.067	18.3	16.9	92		75--125
Chromium, Extractable, SE	0.055	0.274	mg/Kg	0.932	18.3	18.8	98		75--125
Copper, Extractable, SEM	0.073	0.365	mg/Kg	3.02	18.3	21.3	100		75--125
Nickel, Extractable, SEM	0.091	0.457	mg/Kg	0.794	18.3	18.3	96		75--125
Lead, Extractable, SEM	0.37	1.83	mg/Kg	6.63	18.3	23.9	95		75--125
Zinc, Extractable, SEM	0.091	0.457	mg/Kg	47.6	18.3	61.6	76		75--125

MB:WG122929-5 Matrix: SOLIDBLANK Listtype:MTICP-SEM Method:EPA 1991/200.7 Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Silver, Extractable, SEM	0.08	0.4	mg/Kg	<MDL	
Arsenic, Extractable, SEM	0.5	2.5	mg/Kg	<MDL	
Cadmium, Extractable, SEM	0.04	0.2	mg/Kg	<MDL	
Chromium, Extractable, SE	0.06	0.3	mg/Kg	<MDL	
Copper, Extractable, SEM	0.08	0.4	mg/Kg	<MDL	
Nickel, Extractable, SEM	0.1	0.5	mg/Kg	<MDL	
Lead, Extractable, SEM	0.4	2	mg/Kg	<MDL	
Zinc, Extractable, SEM	0.1	0.5	mg/Kg	<MDL	

MB:WG122929-6 Matrix: SOLIDBLANK Listtype:MTICP-SEM Method:EPA 1991/200.7 Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Silver, Extractable, SEM	0.08	0.4	mg/Kg	<MDL	
Arsenic, Extractable, SEM	0.5	2.5	mg/Kg	<MDL	
Cadmium, Extractable, SEM	0.04	0.2	mg/Kg	<MDL	
Chromium, Extractable, SE	0.06	0.3	mg/Kg	<MDL	
Copper, Extractable, SEM	0.08	0.4	mg/Kg	<MDL	
Nickel, Extractable, SEM	0.1	0.5	mg/Kg	<MDL	
Lead, Extractable, SEM	0.4	2	mg/Kg	<MDL	
Zinc, Extractable, SEM	0.1	0.5	mg/Kg	<MDL	

LIMSView QC Report for Stream Sediments - Data Validation for 2012 Sampling Event

WG125138

MB:WG125138-1 Matrix: SOLIDBLANK Listtype:MTICPMS-SED Method:SW846 3050B*SW846 6020A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Chromium, Total, ICP-MS	0.016	0.082	mg/Kg	<MDL	
Nickel, Total, ICP-MS	0.008	0.041	mg/Kg	<MDL	
Copper, Total, ICP-MS	0.033	0.164	mg/Kg	<MDL	
Zinc, Total, ICP-MS	0.041	0.205	mg/Kg	<MDL	
Arsenic, Total, ICP-MS	0.008	0.041	mg/Kg	<MDL	
Silver, Total, ICP-MS	0.003	0.016	mg/Kg	<MDL	
Cadmium, Total, ICP-MS	0.004	0.021	mg/Kg	<MDL	
Lead, Total, ICP-MS	0.008	0.041	mg/Kg	<MDL	

SB:WG125138-2 MB:WG125138-1 Matrix: SOLIDBLANK Listtype:MTICPMS-SED Method:SW846 3050B*SW846 6020A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Chromium, Total, ICP-MS	0.016	0.082	mg/Kg	<MDL	1.64	1.51	92		85--115
Nickel, Total, ICP-MS	0.008	0.041	mg/Kg	<MDL	1.64	1.55	95		85--115
Copper, Total, ICP-MS	0.033	0.164	mg/Kg	<MDL	1.64	1.55	94		85--115
Zinc, Total, ICP-MS	0.041	0.205	mg/Kg	<MDL	1.64	1.53	93		85--115
Arsenic, Total, ICP-MS	0.008	0.041	mg/Kg	<MDL	1.64	1.4	86		85--115
Silver, Total, ICP-MS	0.003	0.016	mg/Kg	<MDL	1.64	1.55	95		85--115
Cadmium, Total, ICP-MS	0.004	0.021	mg/Kg	<MDL	1.64	1.5	92		85--115
Lead, Total, ICP-MS	0.008	0.041	mg/Kg	<MDL	1.64	1.57	96		85--115

LCSD:WG125138-4 LCS:WG125138-3 Matrix: FRSHWTRSED Listtype:MTICPMS-SED Method:SW846 3050B*SW846 6020A Project: Pkey:SED
(Lab Control Sample Duplicate, Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit	TrueValue	LCSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Chromium, Total, ICP-MS	0.2	0.977	mg/Kg	121.9	59.7	49		40--80	121.9	59.6	49		0		0--20
Nickel, Total, ICP-MS	0.098	0.488	mg/Kg	42.9	31.2	73		70--105	42.9	31.5	73		1		0--20
Zinc, Total, ICP-MS	0.49	2.44	mg/Kg	408	361	88		69--109	408	359	88		0		0--20
Arsenic, Total, ICP-MS	0.098	0.488	mg/Kg	17	12.7	75		66--144	17	12.8	75		0		0--20
Cadmium, Total, ICP-MS	0.049	0.244	mg/Kg	2.94	2.76	94		76--116	2.94	2.73	93		1		0--20
Lead, Total, ICP-MS	0.098	0.488	mg/Kg	150	141	94		71--111	150	137	91		3		0--20

LCSD:WG125138-6 LCS:WG125138-5 Matrix: SOIL Listtype:MTICPMS-SED Method:SW846 3050B*SW846 6020A Project: Pkey:STD
(Lab Control Sample Duplicate, Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit	TrueValue	LCSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Chromium, Total, ICP-MS	0.2	0.977	mg/Kg	119	103	87		80--120	119	103	86		1		0--20
Nickel, Total, ICP-MS	0.098	0.488	mg/Kg	70	61.9	88		80--120	70	61.2	87		1		0--20

Copper, Total, ICP-MS	0.39	1.95	mg/Kg	118	102	86	80--120	118	100	85	1	0--20
Zinc, Total, ICP-MS	0.49	2.44	mg/Kg	276	271	98	80--121	276	271	98	0	0--20
Arsenic, Total, ICP-MS	0.098	0.488	mg/Kg	168	152	90	80--120	168	150	90	1	0--20
Silver, Total, ICP-MS	0.039	0.195	mg/Kg	42.3	40.1	95	66--134	42.3	41.1	97	3	0--20
Cadmium, Total, ICP-MS	0.049	0.244	mg/Kg	103	95.9	93	80--120	103	95.3	93	1	0--20
Lead, Total, ICP-MS	0.098	0.488	mg/Kg	76.9	76.4	99	80--120	76.9	74.9	97	2	0--20

LD:WG125138-7 L56024-7 Matrix: FRSHWTRSED Listtype:MTICPMS-SED Method:SW846 3050B*SW846 6020A Project:423589-330-4 Pkey:SED
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Chromium, Total, ICP-MS	0.13	0.632	mg/Kg	22.3	20.5	9		0--20
Nickel, Total, ICP-MS	0.063	0.316	mg/Kg	19.6	16.9	15		0--20
Copper, Total, ICP-MS	0.25	1.26	mg/Kg	24.9	27.5	10		0--20
Zinc, Total, ICP-MS	0.32	1.58	mg/Kg	113	124	9		0--20
Arsenic, Total, ICP-MS	0.016	0.079	mg/Kg	2.8	2.5	11		0--20
Silver, Total, ICP-MS	0.006	0.032	mg/Kg	0.0372	0.034	9		0--20
Cadmium, Total, ICP-MS	0.008	0.04	mg/Kg	0.182	0.186	2		0--20
Lead, Total, ICP-MS	0.016	0.079	mg/Kg	9.42	18.2	64	*	0--20

MS:WG125138-8 L56024-7 Matrix: FRSHWTRSED Listtype:MTICPMS-SED Method:SW846 3050B*SW846 6020A Project:423589-330-4 Pkey:SED
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Chromium, Total, ICP-MS	0.13	0.632	mg/Kg	22.3	3.14	23.8		4xRule	75--125
Nickel, Total, ICP-MS	0.063	0.316	mg/Kg	19.6	3.14	19.2		4xRule	75--125
Copper, Total, ICP-MS	0.25	1.26	mg/Kg	24.9	3.14	33.4		4xRule	75--125
Zinc, Total, ICP-MS	0.32	1.58	mg/Kg	113	3.14	141		4xRule	75--125
Arsenic, Total, ICP-MS	0.016	0.079	mg/Kg	2.8	3.14	4.95	68	*	75--125
Silver, Total, ICP-MS	0.006	0.032	mg/Kg	0.0372	3.14	2.87	90		75--125
Cadmium, Total, ICP-MS	0.008	0.04	mg/Kg	0.182	3.14	3.08	92		75--125
Lead, Total, ICP-MS	0.016	0.079	mg/Kg	9.42	3.14	19.6	323	*	75--125

WG125139

MB:WG125139-1 Matrix: SOLIDBLANK Listtype:MTICPMS-SED Method:SW846 3050B*SW846 6020A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Chromium, Total, ICP-MS	0.015	0.077	mg/Kg	<MDL	
Nickel, Total, ICP-MS	0.008	0.039	mg/Kg	<MDL	
Copper, Total, ICP-MS	0.031	0.154	mg/Kg	<MDL	
Zinc, Total, ICP-MS	0.038	0.192	mg/Kg	<MDL	
Arsenic, Total, ICP-MS	0.008	0.039	mg/Kg	<MDL	

Silver, Total, ICP-MS	0.003	0.015	mg/Kg	<MDL
Cadmium, Total, ICP-MS	0.004	0.019	mg/Kg	<MDL
Lead, Total, ICP-MS	0.008	0.039	mg/Kg	<MDL

SB:WG125139-2 MB:WG125139-1 Matrix: SOLIDBLANK Listtype:MTICPMS-SED Method:SW846 3050B*SW846 6020A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Chromium, Total, ICP-MS	0.015	0.077	mg/Kg	<MDL	1.54	1.47	95		85--115
Nickel, Total, ICP-MS	0.008	0.039	mg/Kg	<MDL	1.54	1.52	99		85--115
Copper, Total, ICP-MS	0.031	0.154	mg/Kg	<MDL	1.54	1.52	99		85--115
Zinc, Total, ICP-MS	0.038	0.192	mg/Kg	<MDL	1.54	1.53	99		85--115
Arsenic, Total, ICP-MS	0.008	0.039	mg/Kg	<MDL	1.54	1.4	91		85--115
Silver, Total, ICP-MS	0.003	0.015	mg/Kg	<MDL	1.54	1.47	95		85--115
Cadmium, Total, ICP-MS	0.004	0.019	mg/Kg	<MDL	1.54	1.49	97		85--115
Lead, Total, ICP-MS	0.008	0.039	mg/Kg	<MDL	1.54	1.48	96		85--115

LCSD:WG125139-4 LCS:WG125139-3 Matrix: FRSHWTRSED Listtype:MTICPMS-SED Method:SW846 3050B*SW846 6020A Project: Pkey:SED
(Lab Control Sample Duplicate, Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit	TrueValue	LCSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Chromium, Total, ICP-MS	0.2	0.996	mg/Kg	121.9	62.1	51		40--80	121.9	62	51		0		0--20
Nickel, Total, ICP-MS	0.1	0.498	mg/Kg	42.9	32.3	75		70--105	42.9	32.9	77		2		0--20
Zinc, Total, ICP-MS	0.5	2.49	mg/Kg	408	369	90		69--109	408	366	90		1		0--20
Arsenic, Total, ICP-MS	0.1	0.498	mg/Kg	17	13.3	78		66--144	17	13.2	78		1		0--20
Cadmium, Total, ICP-MS	0.05	0.249	mg/Kg	2.94	2.83	96		76--116	2.94	2.92	99		3		0--20
Lead, Total, ICP-MS	0.1	0.498	mg/Kg	150	138	92		71--111	150	137	91		1		0--20

LCSD:WG125139-6 LCS:WG125139-5 Matrix: SOIL Listtype:MTICPMS-SED Method:SW846 3050B*SW846 6020A Project: Pkey:STD
(Lab Control Sample Duplicate, Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit	TrueValue	LCSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Chromium, Total, ICP-MS	0.22	1.11	mg/Kg	119	105	88		80--120	119	106	89		1		0--20
Nickel, Total, ICP-MS	0.11	0.556	mg/Kg	70	64.4	92		80--120	70	66	94		2		0--20
Copper, Total, ICP-MS	0.44	2.22	mg/Kg	118	107	91		80--120	118	107	90		0		0--20
Zinc, Total, ICP-MS	0.56	2.78	mg/Kg	276	275	100		80--121	276	282	102		3		0--20
Arsenic, Total, ICP-MS	0.11	0.556	mg/Kg	168	154	91		80--120	168	156	93		2		0--20
Silver, Total, ICP-MS	0.044	0.222	mg/Kg	42.3	38.8	92		66--134	42.3	38.9	92		0		0--20
Cadmium, Total, ICP-MS	0.056	0.278	mg/Kg	103	95.8	93		80--120	103	99.3	96		4		0--20
Lead, Total, ICP-MS	0.11	0.556	mg/Kg	76.9	72.6	94		80--120	76.9	73	95		1		0--20

LD:WG125139-7 L56024-24 Matrix: FRSHWTRSED Listtype:MTICPMS-SED Method:SW846 3050B*SW846 6020A Project:423589-330-4 Pkey:SED
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Chromium, Total, ICP-MS	0.13	0.655	mg/Kg	13.4	10.8	22	*	0--20
Nickel, Total, ICP-MS	0.066	0.328	mg/Kg	10.3	10.3	0		0--20
Copper, Total, ICP-MS	0.26	1.31	mg/Kg	6.13	7.37	18		0--20
Zinc, Total, ICP-MS	0.082	0.41	mg/Kg	35.8	33.2	8		0--20
Arsenic, Total, ICP-MS	0.016	0.082	mg/Kg	8.62	6.63	26	*	0--20
Silver, Total, ICP-MS	0.007	0.033	mg/Kg	0.019	0.027			0--20
Cadmium, Total, ICP-MS	0.008	0.041	mg/Kg	0.0448	0.04	10		0--20
Lead, Total, ICP-MS	0.016	0.082	mg/Kg	4.53	4.01	12		0--20

MS:WG125139-8 L56024-24 Matrix: FRSHWTRSED Listtype:MTICPMS-SED Method:SW846 3050B*SW846 6020A Project:423589-330-4 Pkey:SED
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Chromium, Total, ICP-MS	0.13	0.655	mg/Kg	13.4	3.28	12.5		4xRule	75--125
Nickel, Total, ICP-MS	0.066	0.328	mg/Kg	10.3	3.28	10.5	6	*	75--125
Copper, Total, ICP-MS	0.26	1.31	mg/Kg	6.13	3.28	8.26	65	*	75--125
Zinc, Total, ICP-MS	0.082	0.41	mg/Kg	35.8	3.28	31.9		4xRule	75--125
Arsenic, Total, ICP-MS	0.016	0.082	mg/Kg	8.62	3.28	10.4	53	*	75--125
Silver, Total, ICP-MS	0.007	0.033	mg/Kg	0.019	3.28	3.08	93		75--125
Cadmium, Total, ICP-MS	0.008	0.041	mg/Kg	0.0448	3.28	3.27	98		75--125
Lead, Total, ICP-MS	0.016	0.082	mg/Kg	4.53	3.28	7.55	92		75--125

WG124929

MB:WG124929-1 Matrix: OTHR SOLID Listtype:ORBNASMS Method:SW846 3550B*SW846 8270D Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Phenol	8.9	26.7	ug/Kg	<MDL	
1,4-Dichlorobenzene	2.67	2.67	ug/Kg	<MDL	
Benzyl Alcohol	4.44	4.44	ug/Kg	<MDL	
1,2-Dichlorobenzene	1.78	1.78	ug/Kg	<MDL	
2-Methylphenol	1.8	3.56	ug/Kg	<MDL	
3-,4-Methylphenol	8.9	17.8	ug/Kg	<MDL	
2,4-Dimethylphenol	1.8	3.56	ug/Kg	<MDL	
Benzoic Acid	35.6	35.6	ug/Kg	<MDL	
1,2,4-Trichlorobenzene	0.18	0.356	ug/Kg	<MDL	
Naphthalene	1.8	3.56	ug/Kg	<MDL	
Hexachlorobutadiene	0.89	1.78	ug/Kg	<MDL	
2-Methylnaphthalene	1.8	3.56	ug/Kg	<MDL	

Dimethyl Phthalate	3.56	3.56	ug/Kg	<MDL
Acenaphthylene	1.8	3.56	ug/Kg	<MDL
Acenaphthene	1.8	3.56	ug/Kg	<MDL
Dibenzofuran	1.8	3.56	ug/Kg	<MDL
Diethyl Phthalate	3.6	7.11	ug/Kg	<MDL
Fluorene	1.8	3.56	ug/Kg	<MDL
N-Nitrosodiphenylamine	4.44	4.44	ug/Kg	<MDL
Hexachlorobenzene	0.18	0.356	ug/Kg	<MDL
Pentachlorophenol	26.7	26.7	ug/Kg	<MDL
Phenanthrene	1.8	3.56	ug/Kg	<MDL
Anthracene	1.8	3.56	ug/Kg	<MDL
Carbazole	1.8	3.56	ug/Kg	<MDL
Di-N-Butyl Phthalate	3.6	7.11	ug/Kg	<MDL
Fluoranthene	1.8	3.56	ug/Kg	<MDL
Pyrene	1.8	3.56	ug/Kg	<MDL
Benzyl Butyl Phthalate	2.67	2.67	ug/Kg	<MDL
Benzo(a)anthracene	1.8	3.56	ug/Kg	<MDL
Chrysene	1.8	3.56	ug/Kg	<MDL
Bis(2-Ethylhexyl)Phthalate	3.6	7.11	ug/Kg	<MDL
Di-N-Octyl Phthalate	3.56	3.56	ug/Kg	<MDL
Benzo(b,j,k)fluoranthene	1.8	3.56	ug/Kg	<MDL
Benzo(a)pyrene	1.8	3.56	ug/Kg	<MDL
Indeno(1,2,3-Cd)Pyrene	1.8	3.56	ug/Kg	<MDL
Dibenzo(a,h)anthracene	1.8	3.56	ug/Kg	<MDL
Benzo(g,h,i)perylene	1.8	3.56	ug/Kg	<MDL
Total LPAHs	1.8	3.56	ug/Kg	<MDL
Total HPAHS	1.8	3.56	ug/Kg	<MDL

SB:WG124929-2 MB:WG124929-1 Matrix: OTHR SOLID Listtype:ORBNASMS Method:SW846 3550B*SW846 8270D Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Phenol	8.9	26.7	ug/Kg	<MDL	267	104	39		26--136
1,4-Dichlorobenzene	2.67	2.67	ug/Kg	<MDL	267	187	70		40--103
Benzyl Alcohol	4.44	4.44	ug/Kg	<MDL	267	132	49		26--111
1,2-Dichlorobenzene	1.78	1.78	ug/Kg	<MDL	267	200	75		44--105
2-Methylphenol	1.8	3.56	ug/Kg	<MDL	267	60.7	23		20--123
3-,4-Methylphenol	8.9	17.8	ug/Kg	<MDL	267	88.1	33		22--119
2,4-Dimethylphenol	1.8	3.56	ug/Kg	<MDL	267	6.4	2	*	20--121
Benzoic Acid	35.6	35.6	ug/Kg	<MDL	267	<MDL	0	*	20--92
1,2,4-Trichlorobenzene	0.18	0.356	ug/Kg	<MDL	267	235	88		39--94
Naphthalene	1.8	3.56	ug/Kg	<MDL	267	243	91		28--109

Hexachlorobutadiene	0.89	1.78	ug/Kg	<MDL	267	258	97		20--135
2-Methylnaphthalene	1.8	3.56	ug/Kg	<MDL	267	256	96		20--128
Dimethyl Phthalate	3.56	3.56	ug/Kg	<MDL	267	243	91		70--129
Acenaphthylene	1.8	3.56	ug/Kg	<MDL	267	217	81		45--132
Acenaphthene	1.8	3.56	ug/Kg	<MDL	267	217	81		43--126
Dibenzofuran	1.8	3.56	ug/Kg	<MDL	267	226	85		52--133
Diethyl Phthalate	3.6	7.11	ug/Kg	<MDL	267	238	89		75--131
Fluorene	1.8	3.56	ug/Kg	<MDL	267	222	83		57--150
N-Nitrosodiphenylamine	4.44	4.44	ug/Kg	<MDL	267	216	81		57--136
Hexachlorobenzene	0.18	0.356	ug/Kg	<MDL	267	233	87		53--150
Pentachlorophenol	26.7	26.7	ug/Kg	<MDL	267	236	88		25--135
Phenanthrene	1.8	3.56	ug/Kg	<MDL	267	238	89		47--141
Anthracene	1.8	3.56	ug/Kg	<MDL	267	222	83		48--149
Carbazole	1.8	3.56	ug/Kg	<MDL	267	246	92		48--149
Di-N-Butyl Phthalate	3.6	7.11	ug/Kg	<MDL	267	266	100		71--142
Fluoranthene	1.8	3.56	ug/Kg	<MDL	267	248	93		56--143
Pyrene	1.8	3.56	ug/Kg	<MDL	267	270	101		60--144
Benzyl Butyl Phthalate	2.67	2.67	ug/Kg	<MDL	267	328	123		36--150
Benzo(a)anthracene	1.8	3.56	ug/Kg	<MDL	267	263	99		51--150
Chrysene	1.8	3.56	ug/Kg	<MDL	267	266	100		45--150
Bis(2-Ethylhexyl)Phthalate	3.6	7.11	ug/Kg	<MDL	267	270	101		61--150
Di-N-Octyl Phthalate	3.56	3.56	ug/Kg	<MDL	267	288	108		43--150
Benzo(b,j,k)fluoranthene	1.8	3.56	ug/Kg	<MDL	800	608	76		45--143
Benzo(a)pyrene	1.8	3.56	ug/Kg	<MDL	267	273	102		61--140
Indeno(1,2,3-Cd)Pyrene	1.8	3.56	ug/Kg	<MDL	267	269	101		42--150
Dibenzo(a,h)anthracene	1.8	3.56	ug/Kg	<MDL	267	268	101		41--150
Benzo(g,h,i)perylene	1.8	3.56	ug/Kg	<MDL	267	219	82		28--150

SB:WG124929-3 MB:WG124929-1 Matrix: OTHR SOLID Listtype:ORBNASMS Method:SW846 3550B*SW846 8270D Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Phenol	8.9	26.7	ug/Kg	<MDL	1070	764	72		26--136
1,4-Dichlorobenzene	2.67	2.67	ug/Kg	<MDL	1070	718	67		40--103
Benzyl Alcohol	4.44	4.44	ug/Kg	<MDL	1070	762	71		26--111
1,2-Dichlorobenzene	1.78	1.78	ug/Kg	<MDL	1070	770	72		44--105
2-Methylphenol	1.8	3.56	ug/Kg	<MDL	1070	562	53		20--123
3-,4-Methylphenol	8.9	17.8	ug/Kg	<MDL	1070	563	53		22--119
2,4-Dimethylphenol	1.8	3.56	ug/Kg	<MDL	1070	56.1	5	*	20--121
Benzoic Acid	35.6	35.6	ug/Kg	<MDL	1070	<MDL	0	*	20--92
1,2,4-Trichlorobenzene	0.18	0.356	ug/Kg	<MDL	1070	820	77		39--94
Naphthalene	1.8	3.56	ug/Kg	<MDL	1070	931	87		28--109

Hexachlorobutadiene	0.89	1.78	ug/Kg	<MDL	1070	905	85	20--135
2-Methylnaphthalene	1.8	3.56	ug/Kg	<MDL	1070	749	70	20--128
Dimethyl Phthalate	3.56	3.56	ug/Kg	<MDL	1070	985	92	70--129
Acenaphthylene	1.8	3.56	ug/Kg	<MDL	1070	890	83	45--132
Acenaphthene	1.8	3.56	ug/Kg	<MDL	1070	870	82	43--126
Dibenzofuran	1.8	3.56	ug/Kg	<MDL	1070	916	86	52--133
Diethyl Phthalate	3.6	7.11	ug/Kg	<MDL	1070	948	89	75--131
Fluorene	1.8	3.56	ug/Kg	<MDL	1070	909	85	57--150
N-Nitrosodiphenylamine	4.44	4.44	ug/Kg	<MDL	1070	907	85	57--136
Hexachlorobenzene	0.18	0.356	ug/Kg	<MDL	1070	936	88	53--150
Pentachlorophenol	26.7	26.7	ug/Kg	<MDL	1070	935	88	25--135
Phenanthrene	1.8	3.56	ug/Kg	<MDL	1070	944	88	47--141
Anthracene	1.8	3.56	ug/Kg	<MDL	1070	896	84	48--149
Carbazole	1.8	3.56	ug/Kg	<MDL	1070	962	90	48--149
Di-N-Butyl Phthalate	3.6	7.11	ug/Kg	<MDL	1070	1000	94	71--142
Fluoranthene	1.8	3.56	ug/Kg	<MDL	1070	956	90	56--143
Pyrene	1.8	3.56	ug/Kg	<MDL	1070	1020	96	60--144
Benzyl Butyl Phthalate	2.67	2.67	ug/Kg	<MDL	1070	1210	113	36--150
Benzo(a)anthracene	1.8	3.56	ug/Kg	<MDL	1070	1020	95	51--150
Chrysene	1.8	3.56	ug/Kg	<MDL	1070	1000	94	45--150
Bis(2-Ethylhexyl)Phthalate	3.6	7.11	ug/Kg	<MDL	1070	989	93	61--150
Di-N-Octyl Phthalate	3.56	3.56	ug/Kg	<MDL	1070	1010	95	43--150
Benzo(b,j,k)fluoranthene	1.8	3.56	ug/Kg	<MDL	3200	2250	70	45--143
Benzo(a)pyrene	1.8	3.56	ug/Kg	<MDL	1070	1050	99	61--140
Indeno(1,2,3-Cd)Pyrene	1.8	3.56	ug/Kg	<MDL	1070	1050	98	42--150
Dibenzo(a,h)anthracene	1.8	3.56	ug/Kg	<MDL	1070	1060	99	41--150
Benzo(g,h,i)perylene	1.8	3.56	ug/Kg	<MDL	1070	883	83	28--150

MSD:WG124929-5 MS:WG124929-4 L56024-8 Matrix: FRSHWTRSED Listtype:ORBNASMS Method:SW846 3550B*SW846 8270D Project:423589-330-4 Pkey:SED
(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
Phenol	130	400	ug/Kg	<MDL	3200	2010	63		21--142	3200	2170	68		8		0--35
1,4-Dichlorobenzene	40	40	ug/Kg	<MDL	3200	1810	57		20--105	3200	1780	56		1		0--35
Benzyl Alcohol	66.7	66.7	ug/Kg	<MDL	3200	2130	66		28--111	3200	2300	72		8		0--35
1,2-Dichlorobenzene	26.7	26.7	ug/Kg	<MDL	3200	1950	61		20--110	3200	1970	62		1		0--35
2-Methylphenol	27	53.3	ug/Kg	<MDL	3200	1780	56		21--126	3200	1640	51		8		0--35
3-,4-Methylphenol	130	267	ug/Kg	<MDL	3200	1880	59		24--129	3200	1770	55		6		0--35
2,4-Dimethylphenol	27	53.3	ug/Kg	<MDL	3200	334	10	*	27--126	3200	151	5	*	75	*	0--35
Benzoic Acid	533	533	ug/Kg	<MDL	3200	1950	61		20--150	3200	2160	67		10		0--35
1,2,4-Trichlorobenzene	2.7	5.33	ug/Kg	<MDL	3200	2250	70		22--95	3200	2350	73		4		0--35
Naphthalene	27	53.3	ug/Kg	<MDL	3200	2580	80		20--112	3200	2680	84		4		0--35

Hexachlorobutadiene	13	26.7	ug/Kg	<MDL	3200	2430	76		20--133	3200	2530	79		4	0--35
2-Methylnaphthalene	27	53.3	ug/Kg	<MDL	3200	2420	76		22--109	3200	2450	76		1	0--35
Dimethyl Phthalate	53.3	53.3	ug/Kg	<MDL	3200	3110	97		66--128	3200	3100	97		0	0--35
Acenaphthylene	27	53.3	ug/Kg	<MDL	3200	2800	87		44--134	3200	2820	88		1	0--35
Acenaphthene	27	53.3	ug/Kg	<MDL	3200	2840	89		37--129	3200	2820	88		1	0--35
Dibenzofuran	27	53.3	ug/Kg	<MDL	3200	2970	93		49--135	3200	2960	92		0	0--35
Diethyl Phthalate	53	107	ug/Kg	<MDL	3200	3050	95		71--130	3200	3020	94		1	0--35
Fluorene	27	53.3	ug/Kg	<MDL	3200	2890	90		52--150	3200	2930	92		1	0--35
N-Nitrosodiphenylamine	66.7	66.7	ug/Kg	<MDL	3200	2890	90		58--140	3200	2880	90		0	0--35
Hexachlorobenzene	2.7	5.33	ug/Kg	<MDL	3200	3010	94		51--149	3200	3130	98		4	0--35
Pentachlorophenol	400	400	ug/Kg	<MDL	3200	3510	110		35--134	3200	3490	109		1	0--35
Phenanthrene	27	53.3	ug/Kg	<MDL	3200	3030	95		51--136	3200	3060	96		1	0--35
Anthracene	27	53.3	ug/Kg	<MDL	3200	2350	73		37--150	3200	2340	73		1	0--35
Carbazole	27	53.3	ug/Kg	<MDL	3200	3050	95		37--150	3200	3080	96		1	0--35
Di-N-Butyl Phthalate	53	107	ug/Kg	<MDL	3200	3270	102		64--150	3200	3310	103		1	0--35
Fluoranthene	27	53.3	ug/Kg	11.7	3200	3050	95		53--144	3200	3160	98		3	0--35
Pyrene	27	53.3	ug/Kg	11.9	3200	3250	101		59--143	3200	3240	101		0	0--35
Benzyl Butyl Phthalate	40	40	ug/Kg	<MDL	3200	3940	123		27--150	3200	3940	123		0	0--35
Benzo(a)anthracene	27	53.3	ug/Kg	<MDL	3200	3200	100		52--149	3200	3190	100		0	0--35
Chrysene	27	53.3	ug/Kg	6.9	3200	3230	101		47--141	3200	3230	101		0	0--35
Bis(2-Ethylhexyl)Phthalate	53	107	ug/Kg	29.6	3200	3240	100		54--150	3200	3240	100		0	0--35
Di-N-Octyl Phthalate	53.3	53.3	ug/Kg	<MDL	3200	3320	104		43--150	3200	3380	106		2	0--35
Benzo(b,j,k)fluoranthene	27	53.3	ug/Kg	17.5	9600	7260	75		48--135	9600	7390	77		2	0--35
Benzo(a)pyrene	27	53.3	ug/Kg	7.2	3200	3280	102		62--136	3200	3320	104		1	0--35
Indeno(1,2,3-Cd)Pyrene	27	53.3	ug/Kg	<MDL	3200	3260	102		41--150	3200	3210	100		1	0--35
Dibenzo(a,h)anthracene	27	53.3	ug/Kg	<MDL	3200	3220	101		39--150	3200	3210	100		0	0--35
Benzo(g,h,i)perylene	27	53.3	ug/Kg	<MDL	3200	2740	86		27--150	3200	2710	85		1	0--35

SRMD:WG124929-7 SRM:WG124929-6 Matrix: FRSHWTRSED Listtype:ORBNASMS Method:SW846 3550B*SW846 8270D Project: Pkey:SED
(Std Reference Material Duplicate, Std Reference Material)

Parameter	MDL	RDL	Units	TrueValue	SRM Value	% Rec.	Qual	LabLimit	TrueValue	SRMD Value	% Rec.	Qual	RPD	Qual	LabLimit
Phenanthrene	270	533	ug/Kg	5200	3930	76		49--124	5200	4430	85		12		0--35
Fluoranthene	270	533	ug/Kg	8800	7030	80		56--137	8800	7960	90		12		0--35
Pyrene	270	533	ug/Kg	9570	7580	79		58--123	9570	8280	87		9		0--35
Benzo(a)anthracene	270	533	ug/Kg	4660	3470	74		48--127	4660	3910	84		12		0--35
Chrysene	270	533	ug/Kg	4800	4830	101		64--150	4800	5530	115		13		0--35
Benzo(b,j,k)fluoranthene	270	533	ug/Kg	8150	7630	94		50--126	8150	8380	103		9		0--35
Benzo(a)pyrene	270	533	ug/Kg	4240	2560	60		48--119	4240	2920	69		13		0--35
Indeno(1,2,3-Cd)Pyrene	270	533	ug/Kg	2740	2150	78		40--130	2740	2290	84		6		0--35
Dibenzo(a,h)anthracene	270	533	ug/Kg	419	776	185		54--200	419	613	146		23		0--35
Benzo(g,h,i)perylene	270	533	ug/Kg	2800	2240	80		42--141	2800	2350	84		5		0--35

LIMSView QC Report for Stream Sediments - Data Validation for 2012 Sampling Event

LD:WG124929-8 L56024-9 Matrix: FRSHWTRSED Listtype:ORBNASMS Method:SW846 3550B*SW846 8270D Project:423589-330-4 Pkey:SED
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Phenol	8.9	26.7	ug/Kg	<MDL	<MDL			0--35
1,4-Dichlorobenzene	2.67	2.67	ug/Kg	<MDL	<MDL			0--35
Benzyl Alcohol	4.44	4.44	ug/Kg	<MDL	<MDL			0--35
1,2-Dichlorobenzene	1.78	1.78	ug/Kg	<MDL	<MDL			0--35
2-Methylphenol	1.8	3.56	ug/Kg	<MDL	<MDL			0--35
3-,4-Methylphenol	44	88.9	ug/Kg	131	110	18		0--35
2,4-Dimethylphenol	8.9	17.8	ug/Kg	<MDL	<MDL			0--35
Benzoic Acid	178	178	ug/Kg	<MDL	<MDL			0--35
1,2,4-Trichlorobenzene	0.89	1.78	ug/Kg	<MDL	<MDL			0--35
Naphthalene	8.9	17.8	ug/Kg	<MDL	<MDL			0--35
Hexachlorobutadiene	4.4	8.89	ug/Kg	<MDL	<MDL			0--35
2-Methylnaphthalene	8.9	17.8	ug/Kg	<MDL	<MDL			0--35
Dimethyl Phthalate	3.56	3.56	ug/Kg	<MDL	<MDL			0--35
Acenaphthylene	1.8	3.56	ug/Kg	<MDL	<MDL			0--35
Acenaphthene	1.8	3.56	ug/Kg	<MDL	<MDL			0--35
Dibenzofuran	1.8	3.56	ug/Kg	<MDL	<MDL			0--35
Diethyl Phthalate	3.6	7.11	ug/Kg	<MDL	<MDL			0--35
Fluorene	1.8	3.56	ug/Kg	<MDL	<MDL			0--35
N-Nitrosodiphenylamine	4.44	4.44	ug/Kg	<MDL	<MDL			0--35
Hexachlorobenzene	0.18	0.356	ug/Kg	<MDL	<MDL			0--35
Pentachlorophenol	26.7	26.7	ug/Kg	<MDL	<MDL			0--35
Phenanthrene	1.8	3.56	ug/Kg	8.68	8.81	1		0--35
Anthracene	1.8	3.56	ug/Kg	<MDL	<MDL			0--35
Carbazole	1.8	3.56	ug/Kg	1.9	2.1			0--35
Di-N-Butyl Phthalate	3.6	7.11	ug/Kg	<MDL	<MDL			0--35
Fluoranthene	1.8	3.56	ug/Kg	26.6	26.9	1		0--35
Pyrene	1.8	3.56	ug/Kg	25.5	25	2		0--35
Benzyl Butyl Phthalate	2.67	2.67	ug/Kg	<MDL	<MDL			0--35
Benzo(a)anthracene	1.8	3.56	ug/Kg	8.61	8.58	0		0--35
Chrysene	1.8	3.56	ug/Kg	16	14.9	7		0--35
Bis(2-Ethylhexyl)Phthalate	3.6	7.11	ug/Kg	50.9	52.7	4		0--35
Di-N-Octyl Phthalate	17.8	17.8	ug/Kg	<MDL	<MDL			0--35
Benzo(b,j,k)fluoranthene	8.9	17.8	ug/Kg	31.7	29.6	7		0--35
Benzo(a)pyrene	8.9	17.8	ug/Kg	10	11			0--35
Indeno(1,2,3-Cd)Pyrene	8.9	17.8	ug/Kg	<MDL	<MDL			0--35
Dibenzo(a,h)anthracene	8.9	17.8	ug/Kg	<MDL	<MDL			0--35
Benzo(g,h,i)perylene	8.9	17.8	ug/Kg	<MDL	<MDL			0--35
Total LPAHs	1.8	3.56	ug/Kg	8.68	8.81	1		0--35

Total HPAHS	1.8	3.56	ug/Kg	118.41	115.98	2	0--35

Surrogate:	2,4,6-Tribromophenol	2-Fluorobiphenyl	2-Fluorophenol	d14-Terphenyl	d4-2-Chlorophenol	d5-Nitrobenzene	d5-Phenol
(Lab Limits)	45--150	22--135	20--136	25--150	20--127	22--126	20--142
L56024-1	82	75	55	96	38	87	33
L56024-2	94	59	62	88	61	74	72
L56024-3	105	71	71	102	67	82	79
L56024-4	111	69	73	99	70	80	88
L56024-5	96	67	70	108	67	79	85
L56024-7	89	64	66	123	65	83	79
L56024-8	116	78	65	98	61	74	76
L56024-9	100	65	65	97	65	72	75
L56024-11	107	71	68	117	66	73	81
L56024-13	107	69	68	118	66	74	79
L56024-14	99	76	62	154 *	62	69	73
L56024-17	97	63	57	101	56	65	71
L56024-19	109	74	68	108	65	76	76
L56024-20	100	68	66	94	62	70	69
L56024-23	121	73	76	98	72	82	87
L56024-24	108	74	78	96	70	90	77
L56024-25	117	66	51	101	49	60	56
L56024-26	103	75	68	91	62	77	73
L56024-27	109	77	71	96	69	77	80
L56024-34	106	71	74	99	71	80	82
WG124929-1	42 *	77	52	93	50	109	47
WG124929-2	78	73	68	94	54	90	46
WG124929-3	82	66	73	86	69	84	81
WG124929-4	95	78	65	92	61	73	70
WG124929-5	96	77	67	93	67	77	77
WG124929-6	48	83	36	96	47	73	58
WG124929-7	34 *	90	26	99	47	78	57
WG124929-8	90	64	63	92	60	70	70

WG125090

MB:WG125090-1 Matrix: OTHR SOLID Listtype:ORBNASMS Method:SW846 3550B*SW846 8270D Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Phenol	8.4	25.3	ug/Kg	<MDL	
1,4-Dichlorobenzene	2.53	2.53	ug/Kg	<MDL	
Benzyl Alcohol	4.21	4.21	ug/Kg	<MDL	

1,2-Dichlorobenzene	1.68	1.68	ug/Kg	<MDL	
2-Methylphenol	1.7	3.37	ug/Kg	<MDL	
3-,4-Methylphenol	8.4	16.8	ug/Kg	<MDL	
2,4-Dimethylphenol	8.4	16.8	ug/Kg	<MDL	
Benzoic Acid	168	168	ug/Kg	<MDL	
1,2,4-Trichlorobenzene	0.84	1.68	ug/Kg	<MDL	
Naphthalene	8.4	16.8	ug/Kg	<MDL	
Hexachlorobutadiene	4.2	8.42	ug/Kg	<MDL	
2-Methylnaphthalene	8.4	16.8	ug/Kg	<MDL	
Dimethyl Phthalate	3.37	3.37	ug/Kg	<MDL	
Acenaphthylene	1.7	3.37	ug/Kg	<MDL	
Acenaphthene	1.7	3.37	ug/Kg	<MDL	
Dibenzofuran	1.7	3.37	ug/Kg	<MDL	
Diethyl Phthalate	3.4	6.74	ug/Kg	<MDL	
Fluorene	1.7	3.37	ug/Kg	<MDL	
N-Nitrosodiphenylamine	4.21	4.21	ug/Kg	<MDL	
Hexachlorobenzene	0.17	0.337	ug/Kg	<MDL	
Pentachlorophenol	25.3	25.3	ug/Kg	<MDL	
Phenanthrene	1.7	3.37	ug/Kg	<MDL	
Anthracene	1.7	3.37	ug/Kg	<MDL	
Carbazole	1.7	3.37	ug/Kg	<MDL	
Di-N-Butyl Phthalate	3.4	6.74	ug/Kg	<MDL	
Fluoranthene	1.7	3.37	ug/Kg	<MDL	
Pyrene	1.7	3.37	ug/Kg	<MDL	
Benzyl Butyl Phthalate	2.53	2.53	ug/Kg	<MDL	
Benzo(a)anthracene	1.7	3.37	ug/Kg	<MDL	
Chrysene	1.7	3.37	ug/Kg	<MDL	
Bis(2-Ethylhexyl)Phthalate	3.4	6.74	ug/Kg	3.5	B
Di-N-Octyl Phthalate	3.37	3.37	ug/Kg	<MDL	
Benzo(b,j,k)fluoranthene	1.7	3.37	ug/Kg	<MDL	
Benzo(a)pyrene	1.7	3.37	ug/Kg	<MDL	
Indeno(1,2,3-Cd)Pyrene	1.7	3.37	ug/Kg	<MDL	
Dibenzo(a,h)anthracene	1.7	3.37	ug/Kg	<MDL	
Benzo(g,h,i)perylene	1.7	3.37	ug/Kg	<MDL	
Total LPAHs	8.4	16.8	ug/Kg	<MDL	
Total HPAHS	1.7	3.37	ug/Kg	<MDL	

LIMSView QC Report for Stream Sediments - Data Validation for 2012 Sampling Event

SB:WG125090-2 MB:WG125090-1 Matrix: OTHR SOLID Listtype:ORBNASMS Method:SW846 3550B*SW846 8270D Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Phenol	8.4	25.3	ug/Kg	<MDL	253	29.1	12	*	26--136
1,4-Dichlorobenzene	2.53	2.53	ug/Kg	<MDL	253	168	67		40--103
Benzyl Alcohol	4.21	4.21	ug/Kg	<MDL	253	68.8	27		26--111
1,2-Dichlorobenzene	1.68	1.68	ug/Kg	<MDL	253	159	63		44--105
2-Methylphenol	1.7	3.37	ug/Kg	<MDL	253	48.4	19	*	20--123
3-,4-Methylphenol	8.4	16.8	ug/Kg	<MDL	253	107	42		22--119
2,4-Dimethylphenol	8.4	16.8	ug/Kg	<MDL	253	<MDL	0	*	20--121
Benzoic Acid	168	168	ug/Kg	<MDL	253	<MDL	0	*	20--92
1,2,4-Trichlorobenzene	0.84	1.68	ug/Kg	<MDL	253	207	82		39--94
Naphthalene	8.4	16.8	ug/Kg	<MDL	253	232	92		28--109
Hexachlorobutadiene	4.2	8.42	ug/Kg	<MDL	253	225	89		20--135
2-Methylnaphthalene	8.4	16.8	ug/Kg	<MDL	253	185	73		20--128
Dimethyl Phthalate	3.37	3.37	ug/Kg	<MDL	253	227	90		70--129
Acenaphthylene	1.7	3.37	ug/Kg	<MDL	253	206	82		45--132
Acenaphthene	1.7	3.37	ug/Kg	<MDL	253	203	80		43--126
Dibenzofuran	1.7	3.37	ug/Kg	<MDL	253	212	84		52--133
Diethyl Phthalate	3.4	6.74	ug/Kg	<MDL	253	231	91		75--131
Fluorene	1.7	3.37	ug/Kg	<MDL	253	210	83		57--150
N-Nitrosodiphenylamine	4.21	4.21	ug/Kg	<MDL	253	228	90		57--136
Hexachlorobenzene	0.17	0.337	ug/Kg	<MDL	253	223	88		53--150
Pentachlorophenol	25.3	25.3	ug/Kg	<MDL	253	236	94		25--135
Phenanthrene	1.7	3.37	ug/Kg	<MDL	253	229	91		47--141
Anthracene	1.7	3.37	ug/Kg	<MDL	253	223	88		48--149
Carbazole	1.7	3.37	ug/Kg	<MDL	253	245	97		48--149
Di-N-Butyl Phthalate	3.4	6.74	ug/Kg	<MDL	253	253	100		71--142
Fluoranthene	1.7	3.37	ug/Kg	<MDL	253	239	95		56--143
Pyrene	1.7	3.37	ug/Kg	<MDL	253	255	101		60--144
Benzyl Butyl Phthalate	2.53	2.53	ug/Kg	<MDL	253	305	121		36--150
Benzo(a)anthracene	1.7	3.37	ug/Kg	<MDL	253	254	100		51--150
Chrysene	1.7	3.37	ug/Kg	<MDL	253	254	101		45--150
Bis(2-Ethylhexyl)Phthalate	3.4	6.74	ug/Kg	3.5	253	252	98		61--150
Di-N-Octyl Phthalate	3.37	3.37	ug/Kg	<MDL	253	259	103		43--150
Benzo(b,j,k)fluoranthene	1.7	3.37	ug/Kg	<MDL	758	564	74		45--143
Benzo(a)pyrene	1.7	3.37	ug/Kg	<MDL	253	261	103		61--140
Indeno(1,2,3-Cd)Pyrene	1.7	3.37	ug/Kg	<MDL	253	274	108		42--150
Dibenzo(a,h)anthracene	1.7	3.37	ug/Kg	<MDL	253	273	108		41--150
Benzo(g,h,i)perylene	1.7	3.37	ug/Kg	<MDL	253	239	95		28--150

LIMSView QC Report for Stream Sediments - Data Validation for 2012 Sampling Event

SB:WG125090-3 MB:WG125090-1 Matrix: OTHR SOLID Listtype:ORBNASMS Method:SW846 3550B*SW846 8270D Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Phenol	8.4	25.3	ug/Kg	<MDL	1010	773	76		26--136
1,4-Dichlorobenzene	2.53	2.53	ug/Kg	<MDL	1010	672	67		40--103
Benzyl Alcohol	4.21	4.21	ug/Kg	<MDL	1010	783	77		26--111
1,2-Dichlorobenzene	1.68	1.68	ug/Kg	<MDL	1010	723	72		44--105
2-Methylphenol	1.7	3.37	ug/Kg	<MDL	1010	687	68		20--123
3-,4-Methylphenol	8.4	16.8	ug/Kg	<MDL	1010	642	64		22--119
2,4-Dimethylphenol	8.4	16.8	ug/Kg	<MDL	1010	230	23		20--121
Benzoic Acid	168	168	ug/Kg	<MDL	1010	<MDL	0	*	20--92
1,2,4-Trichlorobenzene	0.84	1.68	ug/Kg	<MDL	1010	787	78		39--94
Naphthalene	8.4	16.8	ug/Kg	<MDL	1010	899	89		28--109
Hexachlorobutadiene	4.2	8.42	ug/Kg	<MDL	1010	842	83		20--135
2-Methylnaphthalene	8.4	16.8	ug/Kg	<MDL	1010	735	73		20--128
Dimethyl Phthalate	3.37	3.37	ug/Kg	<MDL	1010	1010	100		70--129
Acenaphthylene	1.7	3.37	ug/Kg	<MDL	1010	900	89		45--132
Acenaphthene	1.7	3.37	ug/Kg	<MDL	1010	881	87		43--126
Dibenzofuran	1.7	3.37	ug/Kg	<MDL	1010	944	93		52--133
Diethyl Phthalate	3.4	6.74	ug/Kg	<MDL	1010	982	97		75--131
Fluorene	1.7	3.37	ug/Kg	<MDL	1010	932	92		57--150
N-Nitrosodiphenylamine	4.21	4.21	ug/Kg	<MDL	1010	968	96		57--136
Hexachlorobenzene	0.17	0.337	ug/Kg	<MDL	1010	955	95		53--150
Pentachlorophenol	25.3	25.3	ug/Kg	<MDL	1010	945	94		25--135
Phenanthrene	1.7	3.37	ug/Kg	<MDL	1010	969	96		47--141
Anthracene	1.7	3.37	ug/Kg	<MDL	1010	952	94		48--149
Carbazole	1.7	3.37	ug/Kg	<MDL	1010	1010	100		48--149
Di-N-Butyl Phthalate	3.4	6.74	ug/Kg	<MDL	1010	1040	103		71--142
Fluoranthene	1.7	3.37	ug/Kg	<MDL	1010	992	98		56--143
Pyrene	1.7	3.37	ug/Kg	<MDL	1010	1070	106		60--144
Benzyl Butyl Phthalate	2.53	2.53	ug/Kg	<MDL	1010	1250	124		36--150
Benzo(a)anthracene	1.7	3.37	ug/Kg	<MDL	1010	1040	103		51--150
Chrysene	1.7	3.37	ug/Kg	<MDL	1010	1040	103		45--150
Bis(2-Ethylhexyl)Phthalate	3.4	6.74	ug/Kg	3.5	1010	999	99		61--150
Di-N-Octyl Phthalate	3.37	3.37	ug/Kg	<MDL	1010	1030	102		43--150
Benzo(b,j,k)fluoranthene	1.7	3.37	ug/Kg	<MDL	3030	2250	74		45--143
Benzo(a)pyrene	1.7	3.37	ug/Kg	<MDL	1010	1080	107		61--140
Indeno(1,2,3-Cd)Pyrene	1.7	3.37	ug/Kg	<MDL	1010	1120	111		42--150
Dibenzo(a,h)anthracene	1.7	3.37	ug/Kg	<MDL	1010	1120	111		41--150
Benzo(g,h,i)perylene	1.7	3.37	ug/Kg	<MDL	1010	962	95		28--150

LIMSView QC Report for Stream Sediments - Data Validation for 2012 Sampling Event

MSD:WG125090-5 MS:WG125090-4 L56024-21 Matrix: FRSHWTRSED Listtype:ORBNASMS Method:SW846 3550B*SW846 8270D Project:423589-330-4 Pkey:SED
(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
Phenol	130	400	ug/Kg	<MDL	3200	2160	67		21--142	3200	1970	62		9		0--35
1,4-Dichlorobenzene	40	40	ug/Kg	<MDL	3200	2030	63		20--105	3200	1330	41		42	*	0--35
Benzyl Alcohol	66.7	66.7	ug/Kg	<MDL	3200	2180	68		28--111	3200	2030	63		7		0--35
1,2-Dichlorobenzene	26.7	26.7	ug/Kg	<MDL	3200	2210	69		20--110	3200	1450	45		42	*	0--35
2-Methylphenol	27	53.3	ug/Kg	<MDL	3200	2030	63		21--126	3200	2030	63		0		0--35
3-,4-Methylphenol	130	267	ug/Kg	<MDL	3200	1970	62		24--129	3200	1970	62		0		0--35
2,4-Dimethylphenol	27	53.3	ug/Kg	<MDL	3200	1630	51		27--126	3200	1380	43		17		0--35
Benzoic Acid	533	533	ug/Kg	<MDL	3200	2240	70		20--150	3200	1930	60		15		0--35
1,2,4-Trichlorobenzene	2.7	5.33	ug/Kg	<MDL	3200	2580	81		22--95	3200	1890	59		31		0--35
Naphthalene	27	53.3	ug/Kg	<MDL	3200	2850	89		20--112	3200	2210	69		26		0--35
Hexachlorobutadiene	13	26.7	ug/Kg	<MDL	3200	2810	88		20--133	3200	1990	62		34		0--35
2-Methylnaphthalene	27	53.3	ug/Kg	<MDL	3200	2550	80		22--109	3200	2020	63		23		0--35
Dimethyl Phthalate	53.3	53.3	ug/Kg	<MDL	3200	3150	99		66--128	3200	3030	95		4		0--35
Acenaphthylene	27	53.3	ug/Kg	<MDL	3200	2890	90		44--134	3200	2610	82		10		0--35
Acenaphthene	27	53.3	ug/Kg	<MDL	3200	2840	89		37--129	3200	2590	81		9		0--35
Dibenzofuran	27	53.3	ug/Kg	<MDL	3200	2960	92		49--135	3200	2810	88		5		0--35
Diethyl Phthalate	53	107	ug/Kg	<MDL	3200	3080	96		71--130	3200	3040	95		1		0--35
Fluorene	27	53.3	ug/Kg	<MDL	3200	2950	92		52--150	3200	2820	88		4		0--35
N-Nitrosodiphenylamine	66.7	66.7	ug/Kg	<MDL	3200	3140	98		58--140	3200	3020	94		4		0--35
Hexachlorobenzene	2.7	5.33	ug/Kg	<MDL	3200	3100	97		51--149	3200	2990	93		3		0--35
Pentachlorophenol	400	400	ug/Kg	<MDL	3200	3510	110		35--134	3200	2990	94		16		0--35
Phenanthrene	27	53.3	ug/Kg	<MDL	3200	3100	97		51--136	3200	3030	95		2		0--35
Anthracene	27	53.3	ug/Kg	<MDL	3200	2750	86		37--150	3200	2700	84		2		0--35
Carbazole	27	53.3	ug/Kg	<MDL	3200	3190	100		37--150	3200	3110	97		3		0--35
Di-N-Butyl Phthalate	53	107	ug/Kg	<MDL	3200	3330	104		64--150	3200	3260	102		2		0--35
Fluoranthene	27	53.3	ug/Kg	13.1	3200	3230	100		53--144	3200	3390	106		5		0--35
Pyrene	27	53.3	ug/Kg	12.2	3200	3340	104		59--143	3200	3560	111		6		0--35
Benzyl Butyl Phthalate	40	40	ug/Kg	<MDL	3200	4000	125		27--150	3200	3950	123		1		0--35
Benzo(a)anthracene	27	53.3	ug/Kg	6.3	3200	3310	103		52--149	3200	3400	106		3		0--35
Chrysene	27	53.3	ug/Kg	13.7	3200	3300	103		47--141	3200	3340	104		1		0--35
Bis(2-Ethylhexyl)Phthalate	53	107	ug/Kg	15	3200	3340	104		54--150	3200	3260	101		3		0--35
Di-N-Octyl Phthalate	53.3	53.3	ug/Kg	<MDL	3200	3250	102		43--150	3200	3240	101		0		0--35
Benzo(b,j,k)fluoranthene	27	53.3	ug/Kg	15.3	9600	7230	75		48--135	9600	7190	75		1		0--35
Benzo(a)pyrene	27	53.3	ug/Kg	<MDL	3200	3440	107		62--136	3200	3410	107		1		0--35
Indeno(1,2,3-Cd)Pyrene	27	53.3	ug/Kg	<MDL	3200	3480	109		41--150	3200	3410	107		2		0--35
Dibenzo(a,h)anthracene	27	53.3	ug/Kg	<MDL	3200	3480	109		39--150	3200	3400	106		2		0--35
Benzo(g,h,i)perylene	27	53.3	ug/Kg	<MDL	3200	2960	93		27--150	3200	2940	92		1		0--35

LIMSView QC Report for Stream Sediments - Data Validation for 2012 Sampling Event

SRMD:WG125090-7 SRM:WG125090-6 Matrix: FRSHWTRSED Listtype:ORBNASMS Method:SW846 3550B*SW846 8270D Project: Pkey:SED
(Std Reference Material Duplicate, Std Reference Material)

Parameter	MDL	RDL	Units	TrueValue	SRM Value	% Rec.	Qual	LabLimit	TrueValue	SRMD Value	% Rec.	Qual	RPD	Qual	LabLimit
Phenanthrene	270	533	ug/Kg	5200	3570	69		49--124	5200	3830	74		7		0--35
Fluoranthene	270	533	ug/Kg	8800	6250	71		56--137	8800	7130	81		13		0--35
Pyrene	270	533	ug/Kg	9570	6770	71		58--123	9570	7660	80		12		0--35
Benzo(a)anthracene	270	533	ug/Kg	4660	3130	67		48--127	4660	3520	76		12		0--35
Chrysene	270	533	ug/Kg	4800	4460	93		64--150	4800	4910	102		10		0--35
Benzo(b,j,k)fluoranthene	270	533	ug/Kg	8150	6320	77		50--126	8150	7020	86		11		0--35
Benzo(a)pyrene	270	533	ug/Kg	4240	2420	57		48--119	4240	2860	67		17		0--35
Indeno(1,2,3-Cd)Pyrene	270	533	ug/Kg	2740	1880	69		40--130	2740	2010	73		7		0--35
Dibenzo(a,h)anthracene	270	533	ug/Kg	419	665	159		54--200	419	683	163		3		0--35
Benzo(g,h,i)perylene	270	533	ug/Kg	2800	1960	70		42--141	2800	2070	74		5		0--35

LD:WG125090-8 L56024-36 Matrix: FRSHWTRSED Listtype:ORBNASMS Method:SW846 3550B*SW846 8270D Project:423589-330-4 Pkey:SED
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Phenol	27	80	ug/Kg	<MDL	<MDL			0--35
1,4-Dichlorobenzene	8	8	ug/Kg	<MDL	<MDL			0--35
Benzyl Alcohol	13.3	13.3	ug/Kg	<MDL	<MDL			0--35
1,2-Dichlorobenzene	5.33	5.33	ug/Kg	<MDL	<MDL			0--35
2-Methylphenol	5.3	10.7	ug/Kg	<MDL	<MDL			0--35
3-,4-Methylphenol	27	53.3	ug/Kg	<MDL	<MDL			0--35
2,4-Dimethylphenol	27	53.3	ug/Kg	<MDL	<MDL			0--35
Benzoic Acid	533	533	ug/Kg	<MDL	<MDL			0--35
1,2,4-Trichlorobenzene	2.7	5.33	ug/Kg	<MDL	<MDL			0--35
Naphthalene	27	53.3	ug/Kg	<MDL	<MDL			0--35
Hexachlorobutadiene	13	26.7	ug/Kg	<MDL	<MDL			0--35
2-Methylnaphthalene	27	53.3	ug/Kg	<MDL	<MDL			0--35
Dimethyl Phthalate	10.7	10.7	ug/Kg	<MDL	<MDL			0--35
Acenaphthylene	5.3	10.7	ug/Kg	<MDL	<MDL			0--35
Acenaphthene	5.3	10.7	ug/Kg	<MDL	<MDL			0--35
Dibenzofuran	5.3	10.7	ug/Kg	<MDL	<MDL			0--35
Diethyl Phthalate	11	21.3	ug/Kg	<MDL	16			0--35
Fluorene	5.3	10.7	ug/Kg	<MDL	<MDL			0--35
N-Nitrosodiphenylamine	13.3	13.3	ug/Kg	<MDL	<MDL			0--35
Hexachlorobenzene	0.53	1.07	ug/Kg	<MDL	<MDL			0--35
Pentachlorophenol	80	80	ug/Kg	<MDL	<MDL			0--35
Phenanthrene	5.3	10.7	ug/Kg	<MDL	<MDL			0--35
Anthracene	5.3	10.7	ug/Kg	<MDL	<MDL			0--35
Carbazole	5.3	10.7	ug/Kg	<MDL	<MDL			0--35

Di-N-Butyl Phthalate	11	21.3	ug/Kg	<MDL	<MDL		0--35
Fluoranthene	5.3	10.7	ug/Kg	<MDL	<MDL		0--35
Pyrene	5.3	10.7	ug/Kg	<MDL	<MDL		0--35
Benzyl Butyl Phthalate	8	8	ug/Kg	<MDL	<MDL		0--35
Benzo(a)anthracene	5.3	10.7	ug/Kg	<MDL	<MDL		0--35
Chrysene	5.3	10.7	ug/Kg	<MDL	<MDL		0--35
Bis(2-Ethylhexyl)Phthalate	11	21.3	ug/Kg	26.3	27.7	5	0--35
Di-N-Octyl Phthalate	10.7	10.7	ug/Kg	<MDL	<MDL		0--35
Benzo(b,j,k)fluoranthene	5.3	10.7	ug/Kg	<MDL	<MDL		0--35
Benzo(a)pyrene	5.3	10.7	ug/Kg	<MDL	<MDL		0--35
Indeno(1,2,3-Cd)Pyrene	5.3	10.7	ug/Kg	<MDL	<MDL		0--35
Dibenzo(a,h)anthracene	5.3	10.7	ug/Kg	<MDL	<MDL		0--35
Benzo(g,h,i)perylene	5.3	10.7	ug/Kg	<MDL	<MDL		0--35
Total LPAHs	27	53.3	ug/Kg	<MDL	<MDL		0--35
Total HPAHS	5.3	10.7	ug/Kg	<MDL	<MDL		0--35

Surrogate:	2,4,6-Tribromophenol	2-Fluorobiphenyl	2-Fluorophenol	d14-Terphenyl	d4-2-Chlorophenol	d5-Nitrobenzene	d5-Phenol
(Lab Limits)	45--150	22--135	20--136	25--150	20--127	22--126	20--142
L56024-12	109	62	78	114	76	85	95
L56024-15	123	80	82	194 *	77	89	94
L56024-16	136	77	64	154 *	65	71	89
L56024-21	124	65	74	96	70	81	85
L56024-22	114	72	77	99	71	86	78
L56024-28	141	85	70	123	70	73	94
L56024-29	112	69	68	98	66	70	84
L56024-30	108	66	76	91	70	82	86
L56024-33	100	68	66	94	66	71	81
L56024-35	120	68	76	96	70	80	78
L56024-36	107	71	81	95	76	88	91
L56024-37	95	61	60	98	56	63	64
WG125090-1	50	66	64	95	65	75	78
WG125090-2	91	77	79	98	75	88	88
WG125090-3	97	73	78	98	74	87	87
WG125090-4	105	76	76	99	69	87	76
WG125090-5	103	69	58	102	58	69	74
WG125090-6	52	74	38	89	48	66	58
WG125090-7	43 *	80	26	99	41	58	53
WG125090-8	110	72	86	94	76	96	87

WG124869

MB:WG124869-1 Matrix: OTHR SOLID Listtype:ORCLPEST Method:SW846 3550B*SW846 8081B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Alpha-BHC	0.53	1.07	ug/Kg	<MDL	
Beta-BHC	0.53	1.07	ug/Kg	<MDL	
Delta-BHC	0.53	1.07	ug/Kg	<MDL	
Gamma-BHC (Lindane)	0.53	1.07	ug/Kg	<MDL	
Heptachlor	0.53	1.07	ug/Kg	<MDL	
Aldrin	0.53	1.07	ug/Kg	<MDL	
Heptachlor Epoxide	0.53	1.07	ug/Kg	<MDL	
Endosulfan I	0.53	1.07	ug/Kg	<MDL	
Dieldrin	0.53	1.07	ug/Kg	<MDL	
4,4'-DDE	0.53	1.07	ug/Kg	<MDL	
Endrin	0.53	1.07	ug/Kg	<MDL	
Endosulfan II	0.53	1.07	ug/Kg	<MDL	
4,4'-DDD	0.53	1.07	ug/Kg	<MDL	
Endrin Aldehyde	0.53	1.07	ug/Kg	<MDL	
Endosulfan Sulfate	0.53	1.07	ug/Kg	<MDL	
4,4'-DDT	0.53	1.07	ug/Kg	<MDL	
Methoxychlor	2.7	5.33	ug/Kg	<MDL	
trans-Chlordane	0.53	1.07	ug/Kg	<MDL	
Alpha-Chlordane	0.53	1.07	ug/Kg	<MDL	
Toxaphene	11	53.3	ug/Kg	<MDL	

SB:WG124869-2 MB:WG124869-1 Matrix: OTHR SOLID Listtype:ORCLPEST Method:SW846 3550B*SW846 8081B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Alpha-BHC	0.53	1.07	ug/Kg	<MDL	10.7	4.62	43		35--77
Beta-BHC	0.53	1.07	ug/Kg	<MDL	10.7	6.9	65		54--90
Delta-BHC	0.53	1.07	ug/Kg	<MDL	10.7	8.07	76		53--98
Gamma-BHC (Lindane)	0.53	1.07	ug/Kg	<MDL	10.7	5.37	50		39--82
Heptachlor	0.53	1.07	ug/Kg	<MDL	10.7	5	47		40--81
Aldrin	0.53	1.07	ug/Kg	<MDL	10.7	5.44	51		51--71
Heptachlor Epoxide	0.53	1.07	ug/Kg	<MDL	10.7	7.29	68		54--94
Endosulfan I	0.53	1.07	ug/Kg	<MDL	10.7	6.6	62		27--104
Dieldrin	0.53	1.07	ug/Kg	<MDL	10.7	8.54	80		60--102
4,4'-DDE	0.53	1.07	ug/Kg	<MDL	10.7	8.81	83		62--99
Endrin	0.53	1.07	ug/Kg	<MDL	10.7	8.69	81		63--106
Endosulfan II	0.53	1.07	ug/Kg	<MDL	10.7	7.81	73		40--105

4,4'-DDD	0.53	1.07	ug/Kg	<MDL	10.7	8.97	84	57--107
Endrin Aldehyde	0.53	1.07	ug/Kg	<MDL	10.7	4.6	43	36--63
Endosulfan Sulfate	0.53	1.07	ug/Kg	<MDL	10.7	7.83	73	55--95
4,4'-DDT	0.53	1.07	ug/Kg	<MDL	10.7	8.89	83	47--131
Methoxychlor	2.7	5.33	ug/Kg	<MDL	10.7	9.17	86	60--107
trans-Chlordane	0.53	1.07	ug/Kg	<MDL	10.7	7.83	73	52--105
Alpha-Chlordane	0.53	1.07	ug/Kg	<MDL	10.7	7.99	75	69--98

MSD:WG124869-4 MS:WG124869-3 L56024-34 Matrix: FRSHWTRSED Listtype:ORCLPEST Method:SW846 3550B*SW846 8081B Project:423589-330-4 Pkey:SED
(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
Alpha-BHC	0.53	1.07	ug/Kg	<MDL	10.7	6.03	56	*	65--90	10.7	8	75		28		0--35
Beta-BHC	0.53	1.07	ug/Kg	<MDL	10.7	7.75	73		62--101	10.7	8.79	82		13		0--35
Delta-BHC	0.53	1.07	ug/Kg	<MDL	10.7	8.25	77		63--105	10.7	8.89	83		7		0--35
Gamma-BHC (Lindane)	0.53	1.07	ug/Kg	<MDL	10.7	6.48	61	*	67--91	10.7	8.3	78		25		0--35
Heptachlor	0.53	1.07	ug/Kg	<MDL	10.7	8.68	81		60--102	10.7	8.13	76		6		0--35
Aldrin	0.53	1.07	ug/Kg	<MDL	10.7	6.75	63		63--92	10.7	8.44	79		22		0--35
Heptachlor Epoxide	0.53	1.07	ug/Kg	<MDL	10.7	7.64	72		62--97	10.7	8.48	80		10		0--35
Endosulfan I	0.53	1.07	ug/Kg	<MDL	10.7	6.67	63		20--113	10.7	7.33	69		9		0--35
Dieldrin	0.53	1.07	ug/Kg	<MDL	10.7	8.27	78		62--104	10.7	8.86	83		7		0--35
4,4'-DDE	0.53	1.07	ug/Kg	<MDL	10.7	8.76	82		59--106	10.7	9.16	86		5		0--35
Endrin	0.53	1.07	ug/Kg	<MDL	10.7	8.98	84		66--112	10.7	9.38	88		4		0--35
Endosulfan II	0.53	1.07	ug/Kg	<MDL	10.7	7.62	71		33--99	10.7	7.53	71		1		0--35
4,4'-DDD	0.53	1.07	ug/Kg	<MDL	10.7	8.73	82		53--108	10.7	8.78	82		1		0--35
Endrin Aldehyde	0.53	1.07	ug/Kg	<MDL	10.7	5.01	47		30--68	10.7	4.45	42		12		0--35
Endosulfan Sulfate	0.53	1.07	ug/Kg	<MDL	10.7	7.54	71		47--99	10.7	7.52	71		0		0--35
4,4'-DDT	0.53	1.07	ug/Kg	<MDL	10.7	8.94	84		50--110	10.7	8.64	81		3		0--35
Methoxychlor	2.7	5.33	ug/Kg	<MDL	10.7	9.05	85		63--107	10.7	8.83	83		2		0--35
trans-Chlordane	0.53	1.07	ug/Kg	<MDL	10.7	8.08	76		40--131	10.7	8.53	80		5		0--35
Alpha-Chlordane	0.53	1.07	ug/Kg	<MDL	10.7	7.97	75		59--113	10.7	8.59	81		7		0--35

SRMD:WG124869-6 SRM:WG124869-5 Matrix: FRSHWTRSED Listtype:ORCLPEST Method:SW846 3550B*SW846 8081B Project: Pkey:SED
(Std Reference Material Duplicate, Std Reference Material)

Parameter	MDL	RDL	Units	TrueValue	SRM Value	% Rec.	Qual	LabLimit	TrueValue	SRMD Value	% Rec.	Qual	RPD	Qual	LabLimit
Alpha-Chlordane	5.3	10.7	ug/Kg	16.5	18.3	111		69--136	16.5	20.6	125		11		0--35

LD:WG124869-7 L56024-1 Matrix: FRSHWTRSED Listtype:ORCLPEST Method:SW846 3550B*SW846 8081B Project:423589-330-4 Pkey:SED
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Alpha-BHC	0.53	1.07	ug/Kg	<MDL	<MDL			0--35
Beta-BHC	0.53	1.07	ug/Kg	<MDL	<MDL			0--35

Delta-BHC	0.53	1.07	ug/Kg	<MDL	<MDL	0--35
Gamma-BHC (Lindane)	0.53	1.07	ug/Kg	<MDL	<MDL	0--35
Heptachlor	0.53	1.07	ug/Kg	<MDL	<MDL	0--35
Aldrin	0.53	1.07	ug/Kg	<MDL	<MDL	0--35
Heptachlor Epoxide	0.53	1.07	ug/Kg	<MDL	<MDL	0--35
Endosulfan I	0.53	1.07	ug/Kg	<MDL	<MDL	0--35
Dieldrin	0.53	1.07	ug/Kg	<MDL	<MDL	0--35
4,4'-DDE	0.53	1.07	ug/Kg	<MDL	<MDL	0--35
Endrin	0.53	1.07	ug/Kg	<MDL	<MDL	0--35
Endosulfan II	0.53	1.07	ug/Kg	<MDL	<MDL	0--35
4,4'-DDD	0.53	1.07	ug/Kg	1	0.81	0--35
Endrin Aldehyde	0.53	1.07	ug/Kg	<MDL	<MDL	0--35
Endosulfan Sulfate	0.53	1.07	ug/Kg	<MDL	<MDL	0--35
4,4'-DDT	0.53	1.07	ug/Kg	<MDL	<MDL	0--35
Methoxychlor	2.7	5.33	ug/Kg	<MDL	<MDL	0--35
trans-Chlordane	0.53	1.07	ug/Kg	<MDL	<MDL	0--35
Alpha-Chlordane	0.53	1.07	ug/Kg	<MDL	<MDL	0--35
Toxaphene	11	53.3	ug/Kg	<MDL	<MDL	0--35

Surrogate:	2,4,5,6-Tetrachloro-m-xylene	Decachlorobiphenyl
(Lab Limits)	20--134	47--122
L56024-1	53	78
L56024-2	63	78
L56024-3	70	77
L56024-4	69	75
L56024-5	64	76
L56024-7	65	71
L56024-8	61	73
L56024-9	66	75
L56024-11	60	75
L56024-13	65	70
L56024-14	62	71
L56024-17	68	69
L56024-19	69	80
L56024-20	64	75
L56024-23	58	72
L56024-24	43	68
L56024-25	58	72
L56024-26	65	72
L56024-27	57	74
L56024-34	55	78

WG124869-1	20	75
WG124869-2	34	82
WG124869-3	41	77
WG124869-4	63	73
WG124869-5	66	81
WG124869-6	65	92
WG124869-7	64	78

WG125088

MB:WG125088-1 Matrix: OTHR SOLID Listtype:ORCLPEST Method:SW846 3550B*SW846 8081B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Alpha-BHC	0.53	1.07	ug/Kg	<MDL	
Beta-BHC	0.53	1.07	ug/Kg	<MDL	
Delta-BHC	0.53	1.07	ug/Kg	<MDL	
Gamma-BHC (Lindane)	0.53	1.07	ug/Kg	<MDL	
Heptachlor	0.53	1.07	ug/Kg	<MDL	
Aldrin	0.53	1.07	ug/Kg	<MDL	
Heptachlor Epoxide	0.53	1.07	ug/Kg	<MDL	
Endosulfan I	0.53	1.07	ug/Kg	<MDL	
Dieldrin	0.53	1.07	ug/Kg	<MDL	
4,4'-DDE	0.53	1.07	ug/Kg	<MDL	
Endrin	0.53	1.07	ug/Kg	<MDL	
Endosulfan II	0.53	1.07	ug/Kg	<MDL	
4,4'-DDD	0.53	1.07	ug/Kg	<MDL	
Endrin Aldehyde	0.53	1.07	ug/Kg	<MDL	
Endosulfan Sulfate	0.53	1.07	ug/Kg	<MDL	
4,4'-DDT	0.53	1.07	ug/Kg	<MDL	
Methoxychlor	2.7	5.33	ug/Kg	<MDL	
trans-Chlordane	0.53	1.07	ug/Kg	<MDL	
Alpha-Chlordane	0.53	1.07	ug/Kg	<MDL	
Toxaphene	11	53.3	ug/Kg	<MDL	

SB:WG125088-2 MB:WG125088-1 Matrix: OTHR SOLID Listtype:ORCLPEST Method:SW846 3550B*SW846 8081B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Alpha-BHC	0.53	1.07	ug/Kg	<MDL	10.7	4.14	39		35--77
Beta-BHC	0.53	1.07	ug/Kg	<MDL	10.7	7.01	66		54--90
Delta-BHC	0.53	1.07	ug/Kg	<MDL	10.7	7.7	72		53--98
Gamma-BHC (Lindane)	0.53	1.07	ug/Kg	<MDL	10.7	5.23	49		39--82

Heptachlor	0.53	1.07	ug/Kg	<MDL	10.7	5.49	51		40--81
Aldrin	0.53	1.07	ug/Kg	<MDL	10.7	5.15	48	*	51--71
Heptachlor Epoxide	0.53	1.07	ug/Kg	<MDL	10.7	7.22	68		54--94
Endosulfan I	0.53	1.07	ug/Kg	<MDL	10.7	6.3	59		27--104
Dieldrin	0.53	1.07	ug/Kg	<MDL	10.7	8.27	78		60--102
4,4'-DDE	0.53	1.07	ug/Kg	<MDL	10.7	8.14	76		62--99
Endrin	0.53	1.07	ug/Kg	<MDL	10.7	8.95	84		63--106
Endosulfan II	0.53	1.07	ug/Kg	<MDL	10.7	7.48	70		40--105
4,4'-DDD	0.53	1.07	ug/Kg	<MDL	10.7	8.19	77		57--107
Endrin Aldehyde	0.53	1.07	ug/Kg	<MDL	10.7	3.8	36		36--63
Endosulfan Sulfate	0.53	1.07	ug/Kg	<MDL	10.7	7.64	72		55--95
4,4'-DDT	0.53	1.07	ug/Kg	<MDL	10.7	9.45	89		47--131
Methoxychlor	2.7	5.33	ug/Kg	<MDL	10.7	10.2	96		60--107
trans-Chlordane	0.53	1.07	ug/Kg	<MDL	10.7	7.53	71		52--105
Alpha-Chlordane	0.53	1.07	ug/Kg	<MDL	10.7	7.69	72		69--98

MSD:WG125088-4 MS:WG125088-3 L56024-35 Matrix: FRSHWTRSED Listtype:ORCLPEST Method:SW846 3550B*SW846 8081B Project:423589-330-4 Pkey:SED
(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
Alpha-BHC	0.53	1.07	ug/Kg	<MDL	10.7	9.64	90		65--90	10.7	8.91	84		8		0--35
Beta-BHC	0.53	1.07	ug/Kg	<MDL	10.7	10.4	98		62--101	10.7	10.1	95		3		0--35
Delta-BHC	0.53	1.07	ug/Kg	<MDL	10.7	10.6	100		63--105	10.7	10.4	98		2		0--35
Gamma-BHC (Lindane)	0.53	1.07	ug/Kg	<MDL	10.7	10.2	95	*	67--91	10.7	9.44	89		7		0--35
Heptachlor	0.53	1.07	ug/Kg	<MDL	10.7	10.7	100		60--102	10.7	9.88	93		8		0--35
Aldrin	0.53	1.07	ug/Kg	<MDL	10.7	9.83	92		63--92	10.7	8.95	84		9		0--35
Heptachlor Epoxide	0.53	1.07	ug/Kg	<MDL	10.7	10	94		62--97	10.7	9.91	93		1		0--35
Endosulfan I	0.53	1.07	ug/Kg	<MDL	10.7	8.45	79		20--113	10.7	8.44	79		0		0--35
Dieldrin	0.53	1.07	ug/Kg	<MDL	10.7	10.1	95		62--104	10.7	10.2	96		1		0--35
4,4'-DDE	0.53	1.07	ug/Kg	<MDL	10.7	10.5	99		59--106	10.7	10.5	98		1		0--35
Endrin	0.53	1.07	ug/Kg	<MDL	10.7	11.2	105		66--112	10.7	10.8	101		4		0--35
Endosulfan II	0.53	1.07	ug/Kg	<MDL	10.7	8.32	78		33--99	10.7	8.4	79		1		0--35
4,4'-DDD	0.53	1.07	ug/Kg	<MDL	10.7	9.72	91		53--108	10.7	9.56	90		2		0--35
Endrin Aldehyde	0.53	1.07	ug/Kg	<MDL	10.7	4.1	38		30--68	10.7	3.4	32		19		0--35
Endosulfan Sulfate	0.53	1.07	ug/Kg	<MDL	10.7	8.46	79		47--99	10.7	8.26	77		2		0--35
4,4'-DDT	0.53	1.07	ug/Kg	<MDL	10.7	11.2	105		50--110	10.7	10.9	102		3		0--35
Methoxychlor	2.7	5.33	ug/Kg	<MDL	10.7	11.7	110	*	63--107	10.7	11.3	106		3		0--35
trans-Chlordane	0.53	1.07	ug/Kg	<MDL	10.7	10.1	95		40--131	10.7	9.9	93		2		0--35
Alpha-Chlordane	0.53	1.07	ug/Kg	<MDL	10.7	10	94		59--113	10.7	10.1	95		1		0--35

LIMSView QC Report for Stream Sediments - Data Validation for 2012 Sampling Event

SRMD:WG125088-6 SRM:WG125088-5 Matrix: FRSHWTRSED Listtype:ORCLPEST Method:SW846 3550B*SW846 8081B Project: Pkey:SED
(Std Reference Material Duplicate, Std Reference Material)

Parameter	MDL	RDL	Units	TrueValue	SRM Value	% Rec.	Qual	LabLimit	TrueValue	SRMD Value	% Rec.	Qual	RPD	Qual	LabLimit
Alpha-Chlordane	5.3	10.7	ug/Kg	16.5	21.7	131		69--136	16.5	21	127		3		0--35

LD:WG125088-7 L56024-21 Matrix: FRSHWTRSED Listtype:ORCLPEST Method:SW846 3550B*SW846 8081B Project:423589-330-4 Pkey:SED
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Alpha-BHC	0.53	1.07	ug/Kg	<MDL	<MDL			0--35
Beta-BHC	0.53	1.07	ug/Kg	<MDL	<MDL			0--35
Delta-BHC	0.53	1.07	ug/Kg	<MDL	<MDL			0--35
Gamma-BHC (Lindane)	0.53	1.07	ug/Kg	<MDL	<MDL			0--35
Heptachlor	0.53	1.07	ug/Kg	<MDL	<MDL			0--35
Aldrin	0.53	1.07	ug/Kg	<MDL	<MDL			0--35
Heptachlor Epoxide	0.53	1.07	ug/Kg	<MDL	<MDL			0--35
Endosulfan I	0.53	1.07	ug/Kg	<MDL	<MDL			0--35
Dieldrin	0.53	1.07	ug/Kg	<MDL	<MDL			0--35
4,4'-DDE	0.53	1.07	ug/Kg	<MDL	<MDL			0--35
Endrin	0.53	1.07	ug/Kg	<MDL	<MDL			0--35
Endosulfan II	0.53	1.07	ug/Kg	<MDL	<MDL			0--35
4,4'-DDD	0.53	1.07	ug/Kg	<MDL	<MDL			0--35
Endrin Aldehyde	0.53	1.07	ug/Kg	<MDL	<MDL			0--35
Endosulfan Sulfate	0.53	1.07	ug/Kg	<MDL	<MDL			0--35
4,4'-DDT	0.53	1.07	ug/Kg	<MDL	<MDL			0--35
Methoxychlor	2.7	5.33	ug/Kg	<MDL	<MDL			0--35
trans-Chlordane	0.53	1.07	ug/Kg	<MDL	<MDL			0--35
Alpha-Chlordane	0.53	1.07	ug/Kg	<MDL	<MDL			0--35
Toxaphene	11	53.3	ug/Kg	<MDL	<MDL			0--35

Surrogate:	2,4,5,6-Tetrachloro-m-xylene	Decachlorobiphenyl
(Lab Limits)	20--134	47--122
L56024-12	86	73
L56024-15	87	74
L56024-16	87	75
L56024-21	62	88
L56024-22	78	81
L56024-28	79	84
L56024-29	69	78
L56024-30	63	82
L56024-33	80	78
L56024-35	69	86

L56024-36	53	76
L56024-37	65	86
WG125088-1	30	86
WG125088-2	21	79
WG125088-3	78	83
WG125088-4	69	84
WG125088-5	87	82
WG125088-6	92	86
WG125088-7	63	85

WG124930

MB:WG124930-1 Matrix: OTHR SOLID Listtype:OREDC Method:SW846 3550B*SW846 8270D Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total 4-Nonylphenol	27	284	ug/Kg	<MDL	
Bisphenol A	59	284	ug/Kg	<MDL	
Bis(2-ethylhexyl)adipate	59	284	ug/Kg	<MDL	
Coprostanol	59	569	ug/Kg	<MDL	

SB:WG124930-2 MB:WG124930-1 Matrix: OTHR SOLID Listtype:OREDC Method:SW846 3550B*SW846 8270D Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total 4-Nonylphenol	27	284	ug/Kg	<MDL	178	230	129		20--150
Bisphenol A	59	284	ug/Kg	<MDL	178	150	84		20--150
Bis(2-ethylhexyl)adipate	59	284	ug/Kg	<MDL	444	912	205	*	20--150
Coprostanol	59	569	ug/Kg	<MDL	222	430	192	*	20--150

SB:WG124930-3 MB:WG124930-1 Matrix: OTHR SOLID Listtype:OREDC Method:SW846 3550B*SW846 8270D Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total 4-Nonylphenol	27	284	ug/Kg	<MDL	178	210	119		20--150
Bisphenol A	59	284	ug/Kg	<MDL	178	130	71		20--150
Bis(2-ethylhexyl)adipate	59	284	ug/Kg	<MDL	1240	2320	186	*	20--150
Coprostanol	59	569	ug/Kg	<MDL	222	290	129		20--150

MSD:WG124930-5 MS:WG124930-4 L56024-8 Matrix: FRSHWTRSED Listtype:OREDC Method:SW846 3550B*SW846 8270D Project:423589-330-4 Pkey:SED
(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
Total 4-Nonylphenol	400	4270	ug/Kg	<MDL	533	800	150		20--150	533	830	155	*	4		0--35
Bisphenol A	270	4270	ug/Kg	<MDL	533	600	113		20--150	533	530	100		12		0--35

Bis(2-ethylhexyl)adipate	880	4270	ug/Kg	<MDL	3730	7380	198	*	20--150	3730	7470	200	*	1	0--35
Coprostanol	880	8530	ug/Kg	<MDL	667	1200	173	*	20--150	667	1200	187	*	8	0--35

LD:WG124930-8 L56024-9 Matrix: FRSHWTRSED Listtype:OREDC Method:SW846 3550B*SW846 8270D Project:423589-330-4 Pkey:SED
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total 4-Nonylphenol	27	284	ug/Kg	<MDL	<MDL			0--35
Bisphenol A	59	284	ug/Kg	<MDL	<MDL			0--35
Bis(2-ethylhexyl)adipate	59	284	ug/Kg	<MDL	<MDL			0--35
Coprostanol	290	2840	ug/Kg	<MDL	<MDL			0--35

Surrogate:	D4-4-NONYLPHENOL
(Lab Limits)	20--150
L56024-1	94
L56024-2	130
L56024-3	177 *
L56024-4	183 *
L56024-5	187 *
L56024-7	116
L56024-8	163 *
L56024-9	159 *
L56024-11	183 *
L56024-13	190 *
L56024-14	186 *
L56024-17	167 *
L56024-19	186 *
L56024-20	164 *
L56024-23	179 *
L56024-24	179 *
L56024-25	197 *
L56024-26	162 *
L56024-27	177 *
L56024-34	189 *
WG124930-1	23
WG124930-2	127
WG124930-3	130
WG124930-4	160 *
WG124930-5	142
WG124930-8	149

WG125091

MB:WG125091-1 Matrix: OTHR SOLID Listtype:OREDC Method:SW846 3550B*SW846 8270D Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total 4-Nonylphenol	25	269	ug/Kg	<MDL	
Bisphenol A	56	269	ug/Kg	<MDL	
Bis(2-ethylhexyl)adipate	56	269	ug/Kg	<MDL	
Coprostanol	56	539	ug/Kg	<MDL	

SB:WG125091-2 MB:WG125091-1 Matrix: OTHR SOLID Listtype:OREDC Method:SW846 3550B*SW846 8270D Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total 4-Nonylphenol	25	269	ug/Kg	<MDL	168	260	156	*	20--150
Bisphenol A	56	269	ug/Kg	<MDL	168	200	117		20--150
Bis(2-ethylhexyl)adipate	56	269	ug/Kg	<MDL	421	856	203	*	20--150
Coprostanol	56	539	ug/Kg	<MDL	211	400	189	*	20--150

SB:WG125091-3 MB:WG125091-1 Matrix: OTHR SOLID Listtype:OREDC Method:SW846 3550B*SW846 8270D Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total 4-Nonylphenol	25	269	ug/Kg	<MDL	168	270	160	*	20--150
Bisphenol A	56	269	ug/Kg	<MDL	168	200	116		20--150
Bis(2-ethylhexyl)adipate	56	269	ug/Kg	<MDL	1180	2430	206	*	20--150
Coprostanol	56	539	ug/Kg	<MDL	211	380	180	*	20--150

MSD:WG125091-5 MS:WG125091-4 L56024-21 Matrix: FRSHWTRSED Listtype:OREDC Method:SW846 3550B*SW846 8270D Project:423589-330-4 Pkey:SED
(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
Total 4-Nonylphenol	400	4270	ug/Kg	<MDL	533	980	184	*	20--150	533	920	173	*	7		0--35
Bisphenol A	530	4270	ug/Kg	<MDL	533	760	143		20--150	533	730	137		4		0--35
Bis(2-ethylhexyl)adipate	880	4270	ug/Kg	<MDL	3730	7460	200	*	20--150	3730	7510	201	*	1		0--35
Coprostanol	880	8530	ug/Kg	<MDL	667	1300	189	*	20--150	667	1300	188	*	1		0--35

LD:WG125091-8 L56024-36 Matrix: FRSHWTRSED Listtype:OREDC Method:SW846 3550B*SW846 8270D Project:423589-330-4 Pkey:SED
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total 4-Nonylphenol	80	853	ug/Kg	<MDL	<MDL			0--35
Bisphenol A	180	853	ug/Kg	<MDL	<MDL			0--35
Bis(2-ethylhexyl)adipate	180	853	ug/Kg	<MDL	<MDL			0--35
Coprostanol	180	1710	ug/Kg	<MDL	<MDL			0--35

Surrogate:	D4-4-NONYLPHENOL
(Lab Limits)	20--150
L56024-12	159 *
L56024-15	189 *
L56024-16	188 *
L56024-21	167 *
L56024-22	158 *
L56024-28	205 *
L56024-29	155 *
L56024-30	151 *
L56024-33	156 *
L56024-35	164 *
L56024-36	165 *
L56024-37	168 *
WG125091-1	23
WG125091-2	151 *
WG125091-3	157 *
WG125091-4	176 *
WG125091-5	172 *
WG125091-8	160 *

WG124870

MB:WG124870-1 Matrix: OTHR SOLID Listtype:ORPCB Method:SW846 3550B*SW846 8082A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Aroclor 1016	1.3	5.33	ug/Kg	<MDL	
Aroclor 1221	2.7	5.33	ug/Kg	<MDL	
Aroclor 1232	2.7	5.33	ug/Kg	<MDL	
Aroclor 1242	1.3	5.33	ug/Kg	<MDL	
Aroclor 1248	1.3	5.33	ug/Kg	<MDL	
Aroclor 1254	1.3	5.33	ug/Kg	<MDL	
Aroclor 1260	1.3	5.33	ug/Kg	<MDL	
Total Aroclors	2.7	5.33	ug/Kg	<MDL	

SB:WG124870-2 MB:WG124870-1 Matrix: OTHR SOLID Listtype:ORPCB Method:SW846 3550B*SW846 8082A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Aroclor 1242	1.3	5.33	ug/Kg	<MDL	107	45.2	42		23--92
Aroclor 1260	1.3	5.33	ug/Kg	<MDL	107	82.2	77		52--103

LIMSView QC Report for Stream Sediments - Data Validation for 2012 Sampling Event

MSD:WG124870-4 MS:WG124870-3 L56024-7 Matrix: FRSHWTRSED Listtype:ORPCB Method:SW846 3550B*SW846 8082A Project:423589-330-4 Pkey:SED
(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
Aroclor 1242	1.3	5.33	ug/Kg	3.2	107	74.6	67		57--111	107	70	63		6		0--35
Aroclor 1260	1.3	5.33	ug/Kg	<MDL	107	73.1	69		33--105	107	72.2	68		1		0--35

SRMD:WG124870-6 SRM:WG124870-5 Matrix: FRSHWTRSED Listtype:ORPCB Method:SW846 3550B*SW846 8082A Project: Pkey:SED
(Std Reference Material Duplicate, Std Reference Material)

Parameter	MDL	RDL	Units	TrueValue	SRM Value	% Rec.	Qual	LabLimit	TrueValue	SRMD Value	% Rec.	Qual	RPD	Qual	LabLimit
Aroclor 1260	13	53.3	ug/Kg	108	78.5	73		38--167	108	84.3	78		7		0--35

LD:WG124870-7 L56024-1 Matrix: FRSHWTRSED Listtype:ORPCB Method:SW846 3550B*SW846 8082A Project:423589-330-4 Pkey:SED
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Aroclor 1016	1.3	5.33	ug/Kg	<MDL	<MDL			0--35
Aroclor 1221	2.7	5.33	ug/Kg	<MDL	<MDL			0--35
Aroclor 1232	2.7	5.33	ug/Kg	<MDL	<MDL			0--35
Aroclor 1242	1.3	5.33	ug/Kg	<MDL	<MDL			0--35
Aroclor 1248	1.3	5.33	ug/Kg	<MDL	<MDL			0--35
Aroclor 1254	1.3	5.33	ug/Kg	<MDL	<MDL			0--35
Aroclor 1260	1.3	5.33	ug/Kg	<MDL	<MDL			0--35
Total Aroclors	2.7	5.33	ug/Kg	<MDL	<MDL			0--35

Surrogate:	2,4,5,6-Tetrachloro-m-xylene	Decachlorobiphenyl
(Lab Limits)	20--115	55--120
L56024-1	50	73
L56024-2	68	74
L56024-2	68	74
L56024-3	75	78
L56024-4	69	78
L56024-5	69	79
L56024-7	72	74
L56024-8	65	79
L56024-9	72	83
L56024-11	77	84
L56024-13	74	77
L56024-14	75	77
L56024-17	74	71
L56024-19	75	79
L56024-20	63	72
L56024-23	72	79

L56024-24	53	80
L56024-25	76	84
L56024-26	75	81
L56024-27	70	82
L56024-34	56	82
WG124870-1	19 *	84
WG124870-2	30	82
WG124870-3	70	68
WG124870-4	68	69
WG124870-5	40	66
WG124870-6	48	73
WG124870-7	60	75

WG125089

MB:WG125089-1 Matrix: OTHR SOLID Listtype:ORPCB Method:SW846 3550B*SW846 8082A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Aroclor 1016	1.3	5.33	ug/Kg	<MDL	
Aroclor 1221	2.7	5.33	ug/Kg	<MDL	
Aroclor 1232	2.7	5.33	ug/Kg	<MDL	
Aroclor 1242	1.3	5.33	ug/Kg	<MDL	
Aroclor 1248	1.3	5.33	ug/Kg	<MDL	
Aroclor 1254	1.3	5.33	ug/Kg	<MDL	
Aroclor 1260	1.3	5.33	ug/Kg	<MDL	
Total Aroclors	2.7	5.33	ug/Kg	<MDL	

SB:WG125089-2 MB:WG125089-1 Matrix: OTHR SOLID Listtype:ORPCB Method:SW846 3550B*SW846 8082A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Aroclor 1242	1.3	5.33	ug/Kg	<MDL	107	43.7	41		23--92
Aroclor 1260	1.3	5.33	ug/Kg	<MDL	107	77.6	73		52--103

MSD:WG125089-4 MS:WG125089-3 L56024-35 Matrix: FRSHWTRSED Listtype:ORPCB Method:SW846 3550B*SW846 8082A Project:423589-330-4 Pkey:SED
(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
Aroclor 1242	1.3	5.33	ug/Kg	<MDL	107	66.1	62		57--111	107	68.7	64		4		0--35
Aroclor 1260	1.3	5.33	ug/Kg	<MDL	107	81.2	76		33--105	107	81	76		0		0--35

LIMSView QC Report for Stream Sediments - Data Validation for 2012 Sampling Event

SRMD:WG125089-6 SRM:WG125089-5 Matrix: FRSHWTRSED Listtype:ORPCB Method:SW846 3550B*SW846 8082A Project: Pkey:SED
(Std Reference Material Duplicate, Std Reference Material)

Parameter	MDL	RDL	Units	TrueValue	SRM Value	% Rec.	Qual	LabLimit	TrueValue	SRMD Value	% Rec.	Qual	RPD	Qual	LabLimit
Aroclor 1260	13	53.3	ug/Kg	108	106	98		38--167	108	88	81		19		0--35

LD:WG125089-7 L56024-21 Matrix: FRSHWTRSED Listtype:ORPCB Method:SW846 3550B*SW846 8082A Project:423589-330-4 Pkey:SED
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Aroclor 1016	1.3	5.33	ug/Kg	<MDL	<MDL			0--35
Aroclor 1221	2.7	5.33	ug/Kg	<MDL	<MDL			0--35
Aroclor 1232	2.7	5.33	ug/Kg	<MDL	<MDL			0--35
Aroclor 1242	1.3	5.33	ug/Kg	<MDL	<MDL			0--35
Aroclor 1248	1.3	5.33	ug/Kg	<MDL	<MDL			0--35
Aroclor 1254	1.3	5.33	ug/Kg	<MDL	<MDL			0--35
Aroclor 1260	1.3	5.33	ug/Kg	<MDL	<MDL			0--35
Total Aroclors	2.7	5.33	ug/Kg	<MDL	<MDL			0--35

Surrogate:	2,4,5,6-Tetrachloro-m-xylene	Decachlorobiphenyl
(Lab Limits)	20--115	55--120
L56024-12	71	80
L56024-15	64	75
L56024-16	64	73
L56024-21	51	84
L56024-22	58	73
L56024-28	53	67
L56024-29	59	71
L56024-30	50	71
L56024-33	59	71
L56024-35	51	78
L56024-36	45	75
L56024-37	45	74
WG125089-1	24	82
WG125089-2	18 *	76
WG125089-3	47	82
WG125089-4	47	78
WG125089-5	54	83
WG125089-6	52	79
WG125089-7	55	89

Laboratory Data Consultants, Inc.

7750 El Camino Real, Ste. 2L Carlsbad, CA 92009

Phone 760.634.0437 **Web** www.lab-data.com **Fax** 760.634.0439

King County Environmental Laboratory
322 W. Ewing Street
Seattle WA 98119
ATTN: Mr. Fritz Grothkopp

April 16, 2013

SUBJECT: Lower Duwamish Waterway, Green River Basin, Data Validation

Dear Mr. Grothkopp,

Enclosed is the final validation report for the fraction listed below. This SDG was received on March 28, 2013. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project # 29424:

SDG #	**Fraction**
DPWG43052	Dioxins/Dibenzofurans

The data validation was performed under EPA Level III guidelines. The analyses were validated using the following documents, as applicable to each method:

- Stream Sediment Monitoring, Sampling and Analysis Plan, Green River Basin, August 2012
- EPA Region 10 SOP for the Validation of Polychlorinated Polychlorinated Dibenzodioxin, PCDD, and Polychlorinated Dibenzofuran, PCDF, Data, Revision 2.0, January 31, 1996

Please feel free to contact us if you have any questions.

Sincerely,

Stella S. Cuenco
Operations Manager/Senior Chemist

0 Pages CD EDD RTC CD

Attachment 1

III LDC #29424 (King County - Seattle WA / Lower Duwamish Waterway, Green River Basin) Project

LDC	SDG#	DATE REC'D	(3) DATE DUE	Dioxins (1613B)																															
Matrix:	Water/Sediment			W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	DPWG43052	03/28/13	04/18/13	0	8																														
Total	A/SC			0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8

Shaded cells indicate Level IV validation (all other cells are Level II validation). These sample counts do not include MS/MSD, and DUPs

29424ST.wpd

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Lower Duwamish Waterway, Green River Basin
Collection Date:	August 13 through August 30, 2012
LDC Report Date:	April 16, 2013
Matrix:	Sediment
Parameters:	Dioxins/Dibenzofurans
Validation Level:	EPA Level III
Laboratory:	AXYS Analytical Services Ltd.
Sample Delivery Group (SDG):	DPWG43052

Sample Identification

L56024-1
L56024-11
L56024-34
L56024-37
L56024-38
L56024-39
L56024-40
L56024-34DUP

Introduction

This data review covers 8 sediment samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA Method 1613B for Polychlorinated Dioxins/Dibenzofurans.

This review follows the Stream Sediment Monitoring, Sampling and Analysis Plan, Green River Basin (August 2012) and EPA Region 10 SOP for the Validation of Polychlorinated Dibenzodioxin (PCDD) and Polychlorinated Dibenzofuran (PCDF) Data (Revision 2.0, January 31, 1996).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

- J1 Blank Contamination: Indicates possible high bias and/or false positives.
- J2 Calibration Range exceeded: Indicates possible low bias.
- J3 Holding times not met: Indicates low bias for most analytes.
- J4 Other QC parameters outside control limits: bias not readily determined.
- J5 Other QC parameters outside control limits. The reported results appear to be biased high. The actual value of target compound in the sample may be lower than the value reported by the laboratory.
- J6 Other QC parameters outside control limits. The reported results appear to be biased low. The actual value of target compound in the sample may be higher than the value reported by the laboratory.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. HRGC/HRMS Instrument Performance Check

Instrument performance was checked at the required daily frequency.

Retention time windows were established for all homologues. The chromatographic resolution between ^{13}C-2,3,7,8-TCDD and ^{13}C-1,2,3,4-TCDD was less than or equal to 25%.

III. Initial Calibration

A five point initial calibration was performed as required by the method.

Percent relative standard deviations (%RSD) were less than or equal to 20.0% for unlabeled compounds and less than or equal to 35.0% for labeled compounds.

The ion abundance ratios for all PCDDs and PCDFs were within validation criteria.

IV. Routine Calibration (Continuing)

Routine calibration was performed at the required frequencies.

All of the routine calibration results were within the QC limits for unlabeled compounds and labeled compounds.

The ion abundance ratios for all PCDDs and PCDFs were within method criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated dioxin/dibenzofuran contaminants were found in the method.

Method blank results flagged "U" by the laboratory as estimated maximum possible concentration (EMPC) were considered not detected.

VI. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits.

VII. Ongoing Precision & Recovery Samples (OPR)

Ongoing precision and recovery (OPR) samples were reviewed for each matrix as applicable. The percent recoveries (%R) were within the QC limits.

VIII. Regional Quality Assurance and Quality Control

Not applicable.

IX. Internal Standards

All internal standard recoveries were within QC limits.

X. Target Compound Identifications

Raw data were not reviewed for this SDG.

XI. Compound Quantitation

All compound quantitation were within validation criteria with the following exceptions:

Sample	Compound	Flag	A or P
All samples in SDG DPWG43052	All TCL compounds flagged "K" by the laboratory as estimated maximum possible concentration.	U	A

Raw data were not reviewed for this SDG.

XII. System Performance

Raw data were not reviewed for this SDG.

XIII. Overall Assessment of Data

The overall assessment of data was acceptable. In the case where more than one result was reported for an individual sample, the least technically acceptable results were rejected as follows:

Sample	Compound	Flag	A or P
L56024-1 L56024-11 L56024-37 L56024-38 L56024-39 L56024-40	2,3,7,8-TCDF (from DB-5)	R	A

Data flags are summarized at the end of this report if data has been qualified.

XIV. Field Duplicates

No field duplicates were identified in this SDG.

XV. Field Blanks

No field blanks were identified in this SDG.

Lower Duwamish Waterway, Green River Basin
Dioxins/Dibenzofurans - Data Qualification Summary - SDG DPWG43052

SDG	Sample	Compound	Flag	A or P	Reason
DPWG43052	L56024-1 L56024-11 L56024-34 L56024-37 L56024-38 L56024-39 L56024-40 L56024-34DUP	All TCL compounds flagged "K" by the laboratory as estimated maximum possible concentration.	U	A	Compound quantitation (EMPC)
DPWG43052	L56024-1 L56024-11 L56024-37 L56024-38 L56024-39 L56024-40	2,3,7,8-TCDF (from DB-5)	R	A	Overall assessment of data

Lower Duwamish Waterway, Green River Basin
Dioxins/Dibenzofurans - Laboratory Blank Data Qualification Summary - SDG DPWG43052

No Sample Data Qualified in this SDG

LDC #: 29424A21 **VALIDATION COMPLETENESS WORKSHEET** Date: 4-16-13

SDG #: DPWG43052 Level III Page: 1 of 1

Laboratory: AXYS Analytical Services Ltd. Reviewer: [illegible]

2nd Reviewer: [illegible]

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 8/13/12 → 8/30/12
II.	HRGC/HRMS Instrument performance check	A	
III.	Initial calibration	A	≤20/35
IV.	Routine calibration/~~ICV~~	A	QC limits
V.	Blanks	A	EMPC - U
VI.	Matrix spike/Matrix spike duplicates /DUP	N/A	client / ≤50 (<5xRL)
VII.	Laboratory control samples	A	OPR
VIII.	Regional quality assurance and quality control	N	
IX.	Internal standards	A	
X.	Target compound identifications	~~SW~~ N	
XI.	Compound quantitation/~~RL/LOQ/LODs~~	~~SW~~ N	
XII.	System performance	N	
XIII.	Overall assessment of data	SW	
XIV.	Field duplicates	N	
XV.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: sediment

1	L56024-1	11	WG42490-101	21		31	
2	L56024-11	12		22		32	
3	L56024-34	13		23		33	
4	L56024-37	14		24		34	
5	L56024-38	15		25		35	
6	L56024-39	16		26		36	
7	L56024-40	17		27		37	
8	#3-DUP	18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

VALIDATION FINDINGS WORKSHEET

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)

A. 2,3,7,8-TCDD	F. 1,2,3,4,6,7,8-HpCDD	K. 1,2,3,4,7,8-HxCDF	P. 1,2,3,4,7,8,9-HpCDF	U. Total HpCDD
B. 1,2,3,7,8-PeCDD	G. OCDD	L. 1,2,3,6,7,8-HxCDF	Q. OCDF	V. Total TCDF
C. 1,2,3,4,7,8-HxCDD	H. 2,3,7,8-TCDF	M. 2,3,4,6,7,8-HxCDF	R. Total TCDD	W. Total PeCDF
D. 1,2,3,6,7,8-HxCDD	I. 1,2,3,7,8-PeCDF	N. 1,2,3,7,8,9-HxCDF	S. Total PeCDD	X. Total HxCDF
E. 1,2,3,7,8,9-HxCDD	J. 2,3,4,7,8-PeCDF	O. 1,2,3,4,6,7,8-HpCDF	T. Total HxCDD	Y. Total HpCDF

Notes:_____

LDC #: 29424A21

VALIDATION FINDINGS WORKSHEET
Compound Quantitation and Reported RLs

Reviewer: GM
2nd Reviewer: 9

METHOD: GC/MS Dioxins/Dibenzofurans (Method 1613)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were the correct internal standard (IS), quantitation ions and relative response factors (RRF) used to quantitate the compound?
Y N N/A Compound quantitation and RLs were adjusted to reflect all sample dilutions and dry weight factors (if necessary).

#	Date	Compound	Finding	Associated Samples	Qualifications
			All EMPC qualified "K"	All	U/A
			~~Percent moisture exceeds limits at 68.7~~	~~2~~	~~J/UJ/A~~
			Percent moisture exceeds limits at 87.4	6	J/UJ/A
			~~Percent moisture exceeds limits at 76.7~~	~~7~~	~~J/UJ/A~~ 9

Comments: See sample calculation verification worksheet for recalculations

LDC #: 29424A21

VALIDATION FINDINGS WORKSHEET
Overall Assessment of Data

Page: 1 of 1
Reviewer: SM
2nd Reviewer: [illegible]

METHOD: GC/MS Dioxins/Dibenzofurans (Method 1613B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

All available information pertaining to the data were reviewed using professional judgement to compliment the determination of the overall quality of the data.

Y N N/A Was the overall quality and usability of the data acceptable?

#	Date	Sample ID	Finding	Associated Samples	Qualifications
			2,3,7,8-TCDF result from DB-5 column	1, 2, 4, 5, 6, 7	R/A

Comments: