Appendix B:
Data Validation Reports

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Part 1

Data Validation Memo for King County Environmental Laboratory Data

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King County

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TECHNICAL MEMORANDUM

October 9, 2017

TO: Debra Williston, Science and Technical Support Section, Water and Land Resources Division, Department of Natural Resources and Parks

FM: Carly Greyell, Science and Technical Support Section, Water and Land Resources Division, Department of Natural Resources and Parks

RE: Data Validation Memo: Green River PCB Equipment Blank Study

This technical memorandum summarizes the data validation review performed for 35 environmental samples collected from the Green River mainstem at Kanaskat-Palmer and Foster Links sampling locations between April 14, 2015 and May 12, 2017. The sampling and analysis methods are specified in the project Sampling and Analysis Plan (SAP) and additional memorandum (King County 2015 and Williston 2016). Samples were analyzed for total suspended solids (TSS) and total and dissolved organic carbon (TOC/DOC). Four samples were also submitted for analysis of total and dissolved arsenic and polycyclic aromatic hydrocarbons (PAHs)[1]. Table 1-1 provides an inventory of the samples included in this data validation review. King County Environmental Laboratory (KCEL) collected all samples and performed the analyses included in this validation.

[1] Results from these four samples (L66333-1 and -2; L66408-1 and -2) were not presented in the data report due to method blank contamination for polychlorinated biphenyl (PCB) analysis. The validated results are presented separately in Appendix D.

Table 1-1. Sample Inventory

Sample Type	Locator	Collect Date	Sample ID	TSS	DOC	TOC	Arsenic	PAHs
AC	FL319	10/31/2015	L62562-1	X	X	X		
HC	FL319	10/31/2015	L62562-2	X	X	X		
AC	KP319	4/14/2015	L62563-1	X	X	X		
HC	KP319	4/14/2015	L62563-2	X	X	X		
AC	KP319	10/7/2015	L62766-1	X	X	X		
HC	KP319	10/7/2015	L62766-2	X	X	X		
AC	FL319	6/24/2015	L63069-1	X	X	X		
HC	FL319	6/24/2015	L63069-2	X	X	X		
AC	KP319	6/24/2015	L63070-1	X	X	X		
HC	KP319	6/24/2015	L63070-2	X	X	X		
AC	FL319	8/20/2015	L63207-1	X	X	X		
HC	FL319	8/20/2015	L63207-2	X	X	X		
AC	KP319	8/20/2015	L63208-1	X	X	X		
HC	KP319	8/20/2015	L63208-2	X	X	X		
AC	FL319	10/1/2015	L63825-1	X	X	X		
HC	FL319	10/1/2015	L63825-2	X	X	X		
AC-FREP	FL319	10/1/2015	L63825-3	X	X	X		
HC-FREP	FL319	10/1/2015	L63825-4	X	X	X		
AC	KP319	9/28/2015	L63826-1	X	X	X		
HC	KP319	9/28/2015	L63826-2	X	X	X		
AC	KP319	10/30/2015	L64061-1	X	X	X		
HC	KP319	10/30/2015	L64061-2	X	X	X		
AC	FL319	12/7/2015	L64136-1	X	X	X		
HC	FL319	12/7/2015	L64136-2	X	X	X		
AC	FL319	12/21/2015	L64454-1	X	X	X		
HC	FL319	12/21/2015	L64454-2	X	X	X		
AC-FREP	FL319	12/21/2015	L64454-3	X	X	X		
HC-FREP	FL319	12/21/2015	L64454-4	X	X	X		
AC	FL319	10/6/2016	L66333-1	X	X	X	X	X
AC	KP319	10/6/2016	L66333-2	X	X	X	X	X
AC	FL319	10/13/2016	L66408-1	X	X	X	X	X
AC	KP319	10/13/2016	L66408-2	X	X	X	X	X
AC	FL319	5/4/2017	L67711-1	X	X	X		
AC	FL319	5/4/2017	L67711-2	X	X	X		
AC	FL319	5/12/2017	L67737-1	X	X	X		
			Total	**35**	**35**	**35**	**4**	**4**

HC – hand composite sample; AC – autosampler composite; -FREP – field replicate; X – parameter group analyzed

1.0 INTRODUCTION

This data validation review was based, in part, on guidance in the project SAP (King County 2015), as well as *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review* (EPA 2016a) and *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review* (EPA 2016b). Materials reviewed included Batch Reports and Analytical Quality Control (QC) Reports downloaded from the King County Laboratory Information Management System (LIMS) database and are included in this memorandum as Attachment A. Also reviewed were data anomaly forms (DAF), which are available upon request. The QC parameters reviewed during this data validation include: holding time, method blanks, spike blanks, laboratory control samples, matrix spikes, matrix spike duplicates, laboratory duplicates, and surrogates, all of which are described below.

1.1. Holding Time (HT)

The analytical HT 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 HT. For composite samples, the end of the composite period is considered the start of the HT period.

1.2. Method Blank (MB)

A MB is an aliquot of clean reference matrix that is typically processed through the entire analytical procedure. The MB is used to evaluate the levels of contamination that might be associated with the processing and analysis of samples. All MB results should be less than method detection limits (MDLs).

1.3. Spike Blank (SB)

A SB is an aliquot of the clean reference matrix used for the MB, to which a known concentration of target analyte(s) has been added. The SB is processed through the entire analytical procedure, and used as an indicator of method accuracy. SBs are not addressed in the *National Functional Guidelines*; however, King County has empirically-derived control limits for SB analytes, which are shown on the attached QC reports. SB results should be within these control limits.

1.4. Matrix Spike (MS)

A MS is a sample aliquot fortified with a known concentration of a target analyte(s). The MS is processed through the entire analytical procedure. The MS is used as an indicator of sample matrix effect on the recovery of target analyte(s). The *National Functional Guidelines* specifies control limits of 75% to 125% MS recoveries for trace metals (EPA 2016b). For all other analytes, King County has empirically-derived control limits, which are shown on the attached QC reports. MS recoveries should be within these control limits.

1.5. Matrix Spike Duplicate (MSD)

A MSD is a second sample aliquot fortified with a known concentration of a target analyte(s). The MSD 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 MS and MSD results should be within QAPP-specified control limits.

1.6. Laboratory Control Sample (LCS)

A LCS is a sample of known analyte concentration(s) that is prepared in the lab from a separate source of analyte(s) relative to the calibration standards. The LCS analysis follows the entire analytical process and is stored and prepared following the same procedures as a field sample. The LCS is used as an indicator of method accuracy and long-term analytical precision. King County uses QAPP-specified percent recovery control limits, which are shown on the attached QC reports. Percent recoveries for LCS results should be within these control limits.

1.7. Laboratory Duplicate (LD)

A LD is a second aliquot of a sample, processed concurrently and in an identical manner with the original sample. The LD is used as an indicator of method precision and laboratory subsampling procedures. The LD can also be used to provide information regarding the homogeneity of the sample matrix. QC results are reported as an RPD between the sample and LD results. The RPD between all trace metal LD results should be within 20% (EPA 2016b). QAPP-specified control limits are used for all other analytes. LD RPD results will not be qualified for samples in which the concentration is less than the reporting detection limit (RDL), because of the inherent analytical variability at concentrations less than the RDL, which is the limit of practical quantitation.

1.8. Surrogates

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

1.9. Validation Reporting

The following sections describe the data validation actions for each analyte group. This includes a table listing the HT and QC samples reviewed during the validation in each workgroup, a description of each result outside control limits, and the recommended actions for data validation. Any additional data quality issues are also discussed. Table A at the end of this memorandum lists all recommended validation qualifiers based on this review.

2.0 CONVENTIONAL PARAMETERS

Conventional parameters included TSS and TOC/DOC analyzed by Standard Methods SM2540-D and SM2540-B, respectively (APHA 1998).

2.1. Total Suspended Solids

TSS was analyzed for all 35 samples and batched as 12 workgroups (Table 2-1). The SAP specified each workgroup should include analysis of three QC sample-types: MB, LCS, and LD. Results indicate acceptable data quality for all project samples (Table 2-1).

Table 2-1. TSS Workgroups and QC Assessment

Workgroup	Samples	HT	MB	LCS	LD
WG138617	L62563-1 and -2	✓	✓	✓	✓
WG140030	L63069-1 and -2; L63070-1 and -2	✓	✓	✓	✓
WG141247	L63207-1 and -2; L63208-1 and -2	✓	✓	✓	✓
WG142137	L63825-1 through -4; L63826-1 and -2	✓	✓	✓	✓
WG142251	L62766-1 and -2	✓	✓	✓	✓
WG142751	L62562-1 and -2; L64061-1 and -2	✓	✓	✓	✓
WG143430	L64136-1 and -2	✓	✓	✓	✓
WG143740	L64454-1 through -4	✓	✓	✓	✓
WG148358	L66333-1 and -2	✓	✓	✓	✓
WG148385	L66408-1 and -2	✓	✓	✓	✓
WG151668	L67711-1 and -2	✓	✓	✓	✓
WG151839	L67737-1	✓	✓	✓	✓
	Control Limits:	7 days	<MDL	80-120% Recovery	25% RPD

✓ – meets control limits; X – outside control limits; NA – not analyzed in the workgroup

2.2. Total and Dissolved Organic Carbon

TOC and DOC were analyzed in all 35 samples and batched as 16 workgroups (Table 2-2). Each workgroup included analysis of five QC sample-types: MB, SB, LCS, MS, and LD for each parameter, with the exception of WG140380, which did not include a SB for DOC. The MS can be used to evaluate accuracy for this workgroup. The results indicate acceptable data quality for all project samples (Table 2-2), with the exception of sample handling issues (Section 2.2.1). Table A lists all recommended data qualifications.

Table 2-2. TOC/DOC Workgroups and QC Samples

Workgroup	Samples	HT	MB	SB	LCS	MS	LD
WG138805	L62563-1 and -2	✓	✓	✓	✓	✓	✓
WG140260	L63069-1 and -2; L63070-1 and -2 (TOC only)	✓	✓	✓	✓	✓	✓
WG140380	L63070-1 and -2 (DOC only)	✓	✓	✓	✓	✓	✓
WG141488	L63207-1 and -2; L63208-1 and -2	✓	✓	✓	✓	✓	✓
WG142162	L63825-1 through -4; L63826-1 and -2 (DOC only)	✓	✓	✓	✓	✓	✓
WG142381	L63826-1 and -2 (TOC only)	✓	✓	✓	✓	✓	✓
WG142691	L62766-1 and -2	✓	✓	✓	✓	✓	✓

Workgroup	Samples	HT	MB	SB	LCS	MS	LD
WG142931	L62562-1 and -2; L64061-1 and -2	✓	✓	✓	✓	✓	✓
WG143627	L64136-1 and -2 (TOC only)	✓	✓	✓	✓	✓	✓
WG143741	L64136-1 and -2 (DOC only)	✓	✓	✓	✓	✓	✓
WG143826	L64454-1 through -4	✓	✓	✓	✓	✓	✓
WG148326	L66333-1 and -2	✓	✓	✓	✓	✓	✓
WG148546	L66408-1 and -2 (DOC only)	✓	✓	✓	✓	✓	✓
WG148655	L66408-1 and -2 (TOC only)	✓	✓	✓	✓	✓	✓
WG151870	L67711-1 and -2; L67737-1 (TOC only)	✓	✓	✓	✓	✓	✓
WG151916	L67711-1 and -2; L67737-1 (DOC only)	✓	✓	✓	✓	✓	✓
Control Limits:		28 days	<MDL	80-120% Recovery	85-115% Recovery	75-125% Recovery	20% RPD

✓ – meets control limits; X – outside control limits; NA – not analyzed in the workgroup

2.2.1. Sampling Handling Issue

Four DOC samples were preserved and filtered outside of the method-specified 1-day preservation time (L63826-1 and 2; L62562-1 and -2). These results should be qualified with "J" flags and considered estimates with unknown bias.

3.0 TRACE METALS

Four samples were submitted for analysis of total and dissolved arsenic by inductively coupled plasma mass spectroscopy (ICP-MS) following EPA Method 200.8 (EPA 1995). Samples were batched as one workgroup for total arsenic and two workgroups for dissolved arsenic. The SAP did not specify analysis of arsenic, but SAPs for similar projects have specified that each workgroup include four QC sample-types: MB, SB, MS, and LD. The results indicate acceptable data quality for all project samples (Table 3-1), with the exception of sample handling issues (Section 3.1). Table A lists all recommended data qualifications.

Table 3-1. Arsenic Workgroups and QC Samples

Workgroup	Samples	HT	MB	SB	MS	LD
WG148693	L66333-1 and -2; L66408-1 and -2 (total arsenic)	✓	✓	✓	✓	✓
WG148332	L66333-1 and -2 (dissolved arsenic)	✓	✓	✓	✓	✓
WG148831	L66408-1 and -2 (dissolved arsenic)	✓	✓	✓	✓	✓
Control Limits:		180 days	<MDL	85-115% Recovery	75-125% Recovery	20% RPD

✓ – meets control limits; X – outside control limits; NA – not analyzed in the workgroup

3.1. Sampling Handling Issue

All dissolved arsenic samples were filtered outside of the method-specified 15-minute holding time. Results for these samples should be qualified with "J" flags and considered estimates with unknown bias.

4.0 TRACE ORGANICS

Four samples were submitted for analysis of PAH compounds by gas chromatography mass spectroscopy (GC-MS) following EPA Methods 3520C/8270D – SW846 (EPA 2007). The instrument method was modified by the use of a large volume injector and select ion mode (KCEL SOP #772v0). The samples were batched into two work groups shown as shown in Table 4-1. Each work group included five QC sample-types; MB, SB, MS, MSD, and surrogates. Results are summarized in Table 4-1 and indicate acceptable data quality for all project samples, with the exceptions described below (Section 4.1). Table A lists all recommended data qualifications.

Table 4-1. PAH Workgroups and QC Samples

Workgroup	Samples	HT	MB	SB	MS	MSD	Surrogates
WG148301	L66333-1 and -2	✓	X	X	X	X	✓
WG148457	L66408-1 and -2	✓	X	X	X	X	✓
Control Limits:		7/40 days*	<MDL	Variable†	Variable†	40% RPD	Variable†

✓ – meets control limits; X – outside control limits; NA – not analyzed in the workgroup; * – extracted within 7 days, analyzed within subsequent 40 days; † - Control limits vary by compound; see attached QC report.

4.1. Results Outside Control Limits

Workgroup WG148301:

Naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene were detected in the MB. All associated sample concentrations were greater than the RDL, but within five times the MB concentrations. These should be qualified with "U" flags and considered nondetects with the observed concentration as the level of detection.

The MS/MSD were performed on a Green River storm sample from a different project. The MS/MSD sample matrix should be representative for project samples. The acenaphthylene recovery in the MSD (47%) and the chrysene recoveries in both the MS and MSD (65% and 66%) were below their respective lower QC limits by a small margin (i.e., 1 to 3%). The recoveries for these compounds were within control limits in the SB associated with this workgroup; therefore, the project sample results associated with this workgroup should not be qualified based on these results.

The SB recovery for anthracene (43%) was just below the lower control limit (47%), but MS/MSD recoveries were within control limits. The associated sample results should not be qualified based on these results.

Workgroup WG148457:

Naphthalene and 2-methylnaphthalene were detected in the MB. All associated sample concentrations were greater than the RDL, but within five times the MB concentrations. These should be qualified with "U" flags and considered nondetects with the observed concentration as the level of detection.

Several compounds had SB recoveries that were 1 to 7% below the lower control limits: acenaphthylene (55%), phenanthrene (56%), fluoranthene (64%), pyrene (57%), benzo(a)anthracene (62%), chrysene (60%), and benzo(b,j,k)fluoranthene (64%). Recoveries for most compounds were acceptable in the MS/MSD, which was performed on a Green River storm sample from a different project. Benzo(a)anthracene and chrysene recoveries in the MS/MSD (63%/65% and 59%/62%) were below the lower control limits. All detected benzo(a)anthracene and chrysene sample results associated with this workgroup should be qualified with "J" flags and considered estimates with low bias. Non-detect benzo(a)anthracene and chrysene sample results should be qualified with "UJ" flags and considered estimated non-detects with low bias.

5.0 DATA USABILITY

As a general data reporting format, sample results reported as "<MDL" should be assigned "U" flags and results reported as "<RDL" should be qualified with "J" flags and considered estimates with unknown bias. All other analytical results included in this dataset may be used as reported, without qualification, with the exceptions summarized in the previous sections and Table A below. LIMS Batch and QC reports are provided as Attachment A.

6.0 REFERENCES

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

EPA 1995. *Determination of Trace Elements in Waters and Wastes by Inductively Coupled Plasma – Mass Spectrometry*. *Method 200.8, Revision 5.4*. United States Environmental Protection Agency, Office of Research and Development. Cincinnati, Ohio.

EPA. 2016a. *National Functional Guidelines for Inorganic Superfund Methods Data Review*. OLEM 9355.0-133, USEPA-540-R-2016-001. United States Environmental Protection Agency. Washington, D.C. September 2016.

EPA. 2016b. *National Functional Guidelines for Superfund Organic Methods Data Review*. OLEM 9355.0-134, USEPA-540-R-2016-002. United States Environmental Protection Agency. Washington, D.C. September 2016.

KCEL SOP #772v0. King County Environmental Laboratory Standard Operating Procedure for Analysis of PAHs and Phthalates by GC/MS-SIM-LVI. King County Water and Land Resources Division. Seattle, Washington.

King County. 2015. Green River PCB Equipment Blank Study – Sampling and Analysis Plan. Prepared by Debra Williston. King County Water and Land Resources Division, Science and Technical Support Section. Seattle, Washington.

Williston, Debra. 2016. Additional Green River Water Sampling in 2016. Memorandum. September 8, 2016. King County Water and Land Resources Division, Science and Technical Support Section. Seattle, Washington.

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

Table 1. Green River PCB Equipment Blank Study - Data Validation Flags and Bias Notation

Workgroup	Locator	Collect Date	Sample ID	Parameter	NUMVALUE	Units	Lab Qual	DV Value	DV Qual	Bias	MDL	RDL
WG142162	KP319	9/28/2015	L63826-1	Dissolved Organic Carbon	1.17	mg/L	H,SH	1.17	J	unknown	0.5	1
WG142162	KP319	9/28/2015	L63826-2	Dissolved Organic Carbon	1.08	mg/L	H,SH	1.08	J	unknown	0.5	1
WG142931	FL319	10/31/2015	L62562-1	Dissolved Organic Carbon	2.72	mg/L	H,SH	2.72	J	unknown	0.5	1
WG142931	FL319	10/31/2015	L62562-2	Dissolved Organic Carbon	2.6	mg/L	H,SH	2.6	J	unknown	0.5	1
WG148301	FL319	10/6/2016	L66333-1	1-Methylnaphthalene	0.00145	ug/L	B	0.00145	U		0.00047	0.000943
WG148301	KP319	10/6/2016	L66333-2	1-Methylnaphthalene	0.00133	ug/L	B	0.00133	U		0.00047	0.000943
WG148301	FL319	10/6/2016	L66333-1	2-Methylnaphthalene	0.00196	ug/L	B	0.00196	U		0.00047	0.000943
WG148301	KP319	10/6/2016	L66333-2	2-Methylnaphthalene	0.00172	ug/L	B	0.00172	U		0.00047	0.000943
WG148301	FL319	10/6/2016	L66333-1	Naphthalene	0.00421	ug/L	B	0.00421	U		0.0012	0.00236
WG148301	KP319	10/6/2016	L66333-2	Naphthalene	0.00409	ug/L	B	0.00409	U		0.0012	0.00236
WG148332	FL319	10/6/2016	L66333-1	Arsenic, Dissolved, ICP-MS	0.735	ug/L	H	0.735	J	unknown	0.1	0.5
WG148332	KP319	10/6/2016	L66333-2	Arsenic, Dissolved, ICP-MS	0.687	ug/L	H	0.687	J	unknown	0.1	0.5
WG148457	FL319	10/13/2016	L66408-1	2-Methylnaphthalene	0.0025	ug/L	B	0.0025	U		0.00047	0.000943
WG148457	KP319	10/13/2016	L66408-2	2-Methylnaphthalene	0.000963	ug/L	B	0.000963	U		0.00047	0.000943
WG148457	FL319	10/13/2016	L66408-1	Benzo(a)anthracene	0.00125	ug/L	JG	0.00125	J	low	0.00047	0.000943
WG148457	KP319	10/13/2016	L66408-2	Benzo(a)anthracene		ug/L	<MDL,JG	0.00047	UJ	low	0.00047	0.000943
WG148457	FL319	10/13/2016	L66408-1	Chrysene	0.00261	ug/L	JG	0.00261	J	low	0.00047	0.000943
WG148457	KP319	10/13/2016	L66408-2	Chrysene		ug/L	<MDL,JG	0.00047	UJ	low	0.00047	0.000943
WG148457	FL319	10/13/2016	L66408-1	Naphthalene	0.00492	ug/L	B	0.00492	U		0.0012	0.00236
WG148457	KP319	10/13/2016	L66408-2	Naphthalene	0.00282	ug/L	B	0.00282	U		0.0012	0.00236
WG148831	FL319	10/13/2016	L66408-1	Arsenic, Dissolved, ICP-MS	0.566	ug/L	H	0.566	J	unknown	0.1	0.5
WG148831	KP319	10/13/2016	L66408-2	Arsenic, Dissolved, ICP-MS	0.49	ug/L	<RDL,H	0.49	J	unknown	0.1	0.5

ATTACHMENT A

LIMS BATCH AND QC REPORTS

LIMSView Batch Report for Green River PCB Equipment Blank Study - Data Validation

WG138617 (TSS-VSS) Department: 3 - Conventionals Move Date: 24-APR-15

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date
L62366-1	421240-210	Wet Weather Survey(Strmwtr)	CVTSS	STORM WTR	4/14/2015	4/15/2015	4/15/2015
L62366-2	421240-210	Wet Weather Survey(Strmwtr)	CVTSS	STORM WTR	4/14/2015	4/15/2015	4/15/2015
L62366-3	421240-210	Wet Weather Survey(Strmwtr)	CVTSS	STORM WTR	4/14/2015	4/15/2015	4/15/2015
L62366-4	421240-210	Wet Weather Survey(Strmwtr)	CVTSS	STORM WTR	4/14/2015	4/15/2015	4/15/2015
L62366-5	421240-210	Wet Weather Survey(Strmwtr)	CVTSS	STORM WTR	4/14/2015	4/15/2015	4/15/2015
L62366-6	421240-210	Wet Weather Survey(Strmwtr)	CVTSS	STORM WTR	4/14/2015	4/15/2015	4/15/2015
L62366-7	421240-210	Wet Weather Survey(Strmwtr)	CVTSS	STORM WTR	4/14/2015	4/15/2015	4/15/2015
L62547-1	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	4/13/2015	4/15/2015	4/15/2015
L62547-2	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	4/13/2015	4/15/2015	4/15/2015
L62547-3	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	4/13/2015	4/15/2015	4/15/2015
L62547-4	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	4/13/2015	4/15/2015	4/15/2015
L62547-5	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	4/13/2015	4/15/2015	4/15/2015
L62547-6	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	4/13/2015	4/15/2015	4/15/2015
L62547-8	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	4/13/2015	4/15/2015	4/15/2015
L62547-9	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	4/13/2015	4/15/2015	4/15/2015
L62547-10	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	4/13/2015	4/15/2015	4/15/2015
L62547-11	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	4/13/2015	4/15/2015	4/15/2015
L62547-12	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	4/13/2015	4/15/2015	4/15/2015
L62547-13	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	4/13/2015	4/15/2015	4/15/2015
L62547-14	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	4/13/2015	4/15/2015	4/15/2015
L62547-15	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	4/13/2015	4/15/2015	4/15/2015
L62547-16	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	4/13/2015	4/15/2015	4/15/2015
L62547-17	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	4/13/2015	4/15/2015	4/15/2015
L62547-19	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	4/13/2015	4/15/2015	4/15/2015
L62547-20	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	4/13/2015	4/15/2015	4/15/2015
L62547-21	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	4/13/2015	4/15/2015	4/15/2015
L62547-22	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	4/13/2015	4/15/2015	4/15/2015
L62547-23	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	4/13/2015	4/15/2015	4/15/2015
L62547-25	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	4/13/2015	4/15/2015	4/15/2015
L62547-26	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	4/13/2015	4/15/2015	4/15/2015
L62547-27	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	4/13/2015	4/15/2015	4/15/2015
L62547-29	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	4/13/2015	4/15/2015	4/15/2015
L62547-30	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	4/13/2015	4/15/2015	4/15/2015
L62547-31	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	4/13/2015	4/15/2015	4/15/2015
L62547-32	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	4/13/2015	4/15/2015	4/15/2015
L62547-33	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	4/13/2015	4/15/2015	4/15/2015
L62547-37	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	4/14/2015	4/15/2015	4/15/2015
L62547-38	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	4/14/2015	4/15/2015	4/15/2015

L62547-39	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	4/14/2015	4/15/2015	4/15/2015
L62547-40	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	4/14/2015	4/15/2015	4/15/2015
L62547-41	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	4/14/2015	4/15/2015	4/15/2015
L62547-42	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	4/14/2015	4/15/2015	4/15/2015
L62547-44	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	4/14/2015	4/15/2015	4/15/2015
L62547-45	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	4/14/2015	4/15/2015	4/15/2015
L62547-46	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	4/14/2015	4/15/2015	4/15/2015
L62547-47	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	4/14/2015	4/15/2015	4/15/2015
L62547-48	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	4/14/2015	4/15/2015	4/15/2015
L62547-49	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	4/14/2015	4/15/2015	4/15/2015
L62563-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTSS	STORM WTR	4/14/2015	4/15/2015	4/15/2015
L62563-2	423589-330-4	Green Rvr PCB/PAH Loading	CVTSS	STORM WTR	4/14/2015	4/15/2015	4/15/2015
L62570-1	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVTSS	STORM WTR	4/10/2015	4/15/2015	4/15/2015
L62570-1	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVVSS	STORM WTR	4/10/2015	4/15/2015	4/17/2015
L62570-2	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVTSS	STORM WTR	4/10/2015	4/15/2015	4/15/2015
L62570-2	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVVSS	STORM WTR	4/10/2015	4/15/2015	4/17/2015
WG138617-1	MB		CVTSS	BLANK WTR		4/15/2015	4/15/2015
WG138617-1	MB		CVVSS	BLANK WTR		4/15/2015	4/17/2015
WG138617-2	LCS		CVTSS	BLANK WTR		4/15/2015	4/15/2015
WG138617-3	LD		CVTSS	STORM WTR		4/15/2015	4/15/2015
WG138617-3	LD		CVVSS	STORM WTR		4/15/2015	4/17/2015
WG138617-4	LD		CVTSS	FRESH WTR		4/15/2015	4/15/2015
WG138617-5	MB		CVTSS	BLANK WTR		4/15/2015	4/15/2015
WG138617-6	LCS		CVTSS	BLANK WTR		4/15/2015	4/15/2015
WG138617-7	LD		CVTSS	FRESH WTR		4/15/2015	4/15/2015
WG138617-8	MB		CVTSS	BLANK WTR		4/15/2015	4/15/2015
WG138617-9	LCS		CVTSS	BLANK WTR		4/15/2015	4/15/2015
WG138617-10	LD		CVTSS	FRESH WTR		4/15/2015	4/15/2015

WG138805 (TOC/421422, 421240, 42358) Department: 3 - Conventionals Move Date: 06-MAY-15

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date
L62366-1	421240-210	Wet Weather Survey(Strmwtr)	CVDOC	STORM WTR	4/14/2015	4/15/2015	4/24/2015
L62366-1	421240-210	Wet Weather Survey(Strmwtr)	CVTOC	STORM WTR	4/14/2015	4/23/2015	4/23/2015
L62366-2	421240-210	Wet Weather Survey(Strmwtr)	CVDOC	STORM WTR	4/14/2015	4/15/2015	4/24/2015
L62366-2	421240-210	Wet Weather Survey(Strmwtr)	CVTOC	STORM WTR	4/14/2015	4/23/2015	4/23/2015
L62366-3	421240-210	Wet Weather Survey(Strmwtr)	CVDOC	STORM WTR	4/14/2015	4/15/2015	4/24/2015
L62366-3	421240-210	Wet Weather Survey(Strmwtr)	CVTOC	STORM WTR	4/14/2015	4/23/2015	4/23/2015
L62366-4	421240-210	Wet Weather Survey(Strmwtr)	CVDOC	STORM WTR	4/14/2015	4/15/2015	4/24/2015
L62366-4	421240-210	Wet Weather Survey(Strmwtr)	CVTOC	STORM WTR	4/14/2015	4/23/2015	4/23/2015

L62366-5	421240-210	Wet Weather Survey(Strmwtr)	CVDOC	STORM WTR	4/14/2015	4/15/2015	4/24/2015
L62366-5	421240-210	Wet Weather Survey(Strmwtr)	CVTOC	STORM WTR	4/14/2015	4/23/2015	4/23/2015
L62366-6	421240-210	Wet Weather Survey(Strmwtr)	CVDOC	STORM WTR	4/14/2015	4/15/2015	4/24/2015
L62366-6	421240-210	Wet Weather Survey(Strmwtr)	CVTOC	STORM WTR	4/14/2015	4/23/2015	4/23/2015
L62366-7	421240-210	Wet Weather Survey(Strmwtr)	CVDOC	STORM WTR	4/14/2015	4/15/2015	4/24/2015
L62366-7	421240-210	Wet Weather Survey(Strmwtr)	CVTOC	STORM WTR	4/14/2015	4/23/2015	4/23/2015
L62542-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/20/2015	4/23/2015	4/23/2015
L62542-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/20/2015	4/23/2015	4/23/2015
L62543-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/20/2015	4/23/2015	4/23/2015
L62543-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/20/2015	4/23/2015	4/23/2015
L62543-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/20/2015	4/23/2015	4/23/2015
L62545-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/24/2015	4/24/2015	4/24/2015
L62545-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/24/2015	4/24/2015	4/24/2015
L62545-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/24/2015	4/24/2015	4/24/2015
L62563-1	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	STORM WTR	4/14/2015	4/15/2015	4/24/2015
L62563-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	STORM WTR	4/14/2015	4/23/2015	4/23/2015
L62563-2	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	STORM WTR	4/14/2015	4/15/2015	4/24/2015
L62563-2	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	STORM WTR	4/14/2015	4/23/2015	4/23/2015
L62594-1	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	4/21/2015	4/23/2015	4/23/2015
L62594-2	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	4/22/2015	4/23/2015	4/23/2015
L62594-3	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	4/22/2015	4/23/2015	4/23/2015
L62594-4	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	4/22/2015	4/23/2015	4/23/2015
L62594-5	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	4/22/2015	4/23/2015	4/23/2015
L62594-6	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	4/22/2015	4/23/2015	4/23/2015
L62594-7	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	4/22/2015	4/23/2015	4/23/2015
L62594-8	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	4/21/2015	4/23/2015	4/23/2015
L62594-9	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	4/21/2015	4/23/2015	4/23/2015
L62594-10	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	4/21/2015	4/23/2015	4/23/2015
L62594-11	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	4/21/2015	4/23/2015	4/23/2015
L62594-12	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	4/22/2015	4/23/2015	4/23/2015
L62594-13	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	4/22/2015	4/23/2015	4/23/2015
L62596-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	4/24/2015	4/24/2015	4/24/2015
WG138805-1	MB		CVTOC	BLANK WTR		4/23/2015	4/23/2015
WG138805-2	SB		CVTOC	BLANK WTR		4/23/2015	4/23/2015
WG138805-3	LCS		CVTOC	BLANK WTR		4/23/2015	4/23/2015
WG138805-4	LD		CVTOC	FRESH WTR		4/23/2015	4/23/2015
WG138805-5	MS		CVTOC	FRESH WTR		4/23/2015	4/23/2015
WG138805-6	LD		CVTOC	GRND WTR		4/23/2015	4/23/2015
WG138805-7	MS		CVTOC	GRND WTR		4/23/2015	4/23/2015
WG138805-8	LD		CVTOC	STORM WTR		4/23/2015	4/23/2015
WG138805-9	MS		CVTOC	STORM WTR		4/23/2015	4/23/2015

WG138805-10	MB	CVTOC	BLANK WTR	4/23/2015	4/23/2015
WG138805-11	LCS	CVTOC	BLANK WTR	4/23/2015	4/23/2015
WG138805-12	MB	CVTOC	BLANK WTR	4/24/2015	4/24/2015
WG138805-13	LCS	CVTOC	BLANK WTR	4/24/2015	4/24/2015
WG138805-14	MB	CVDOC	BLANK WTR	4/15/2015	4/24/2015
WG138805-15	SB	CVDOC	BLANK WTR	4/15/2015	4/24/2015
WG138805-16	LCS	CVDOC	BLANK WTR	4/24/2015	4/24/2015
WG138805-17	LD	CVDOC	STORM WTR	4/15/2015	4/24/2015
WG138805-18	MS	CVDOC	STORM WTR	4/15/2015	4/24/2015

WG140030 (tss-LK) Department: 3 - Conventionals Move Date: 01-JUL-15

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date
L62788-1	421874-100	City of Shoreline Monthly Water Quality Monitoring	CVTSS	FRESH WTR	6/23/2015	6/25/2015	6/26/2015
L62788-2	421874-100	City of Shoreline Monthly Water Quality Monitoring	CVTSS	FRESH WTR	6/23/2015	6/25/2015	6/26/2015
L62788-3	421874-100	City of Shoreline Monthly Water Quality Monitoring	CVTSS	FRESH WTR	6/23/2015	6/25/2015	6/26/2015
L62788-4	421874-100	City of Shoreline Monthly Water Quality Monitoring	CVTSS	FRESH WTR	6/23/2015	6/25/2015	6/26/2015
L62788-5	421874-100	City of Shoreline Monthly Water Quality Monitoring	CVTSS	FRESH WTR	6/23/2015	6/25/2015	6/26/2015
L62788-6	421874-100	City of Shoreline Monthly Water Quality Monitoring	CVTSS	FRESH WTR	6/23/2015	6/25/2015	6/26/2015
L62788-7	421874-100	City of Shoreline Monthly Water Quality Monitoring	CVTSS	FRESH WTR	6/23/2015	6/25/2015	6/26/2015
L63016-1	421422-VASW	SWD-VASW Vashon Surface Water Quarterly	CVTSS	FRESH WTR	6/23/2015	6/25/2015	6/26/2015
L63016-3	421422-VASW	SWD-VASW Vashon Surface Water Quarterly	CVTSS	FRESH WTR	6/23/2015	6/25/2015	6/26/2015
L63016-6	421422-VASW	SWD-VASW Vashon Surface Water Quarterly	CVTSS	FRESH WTR	6/23/2015	6/25/2015	6/26/2015
L63034-2	421422-CHSW-P2	SWD-CHSW P - 2 Cedar Hills Surface Water Permit 2	CVTSS	FRESH WTR	6/24/2015	6/25/2015	6/26/2015
L63045-1	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	6/22/2015	6/25/2015	6/26/2015
L63045-2	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	6/22/2015	6/25/2015	6/26/2015
L63045-3	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	6/22/2015	6/25/2015	6/26/2015
L63045-4	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	6/22/2015	6/25/2015	6/26/2015
L63045-5	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	6/22/2015	6/25/2015	6/26/2015
L63045-6	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	6/22/2015	6/25/2015	6/26/2015
L63045-8	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	6/22/2015	6/25/2015	6/26/2015
L63045-9	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	6/22/2015	6/25/2015	6/26/2015
L63045-10	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	6/22/2015	6/25/2015	6/26/2015
L63045-11	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	6/22/2015	6/25/2015	6/26/2015
L63045-12	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	6/22/2015	6/25/2015	6/26/2015
L63045-13	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	6/22/2015	6/25/2015	6/26/2015
L63045-14	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	6/22/2015	6/25/2015	6/26/2015
L63045-15	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	6/22/2015	6/25/2015	6/26/2015
L63045-16	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	6/22/2015	6/25/2015	6/26/2015
L63045-17	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	6/22/2015	6/25/2015	6/26/2015

L63045-19		421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	6/22/2015	6/25/2015	6/26/2015
L63045-20		421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	6/22/2015	6/25/2015	6/26/2015
L63045-21		421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	6/22/2015	6/25/2015	6/26/2015
L63045-22		421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	6/22/2015	6/25/2015	6/26/2015
L63045-23		421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	6/22/2015	6/25/2015	6/26/2015
L63045-25		421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	6/22/2015	6/25/2015	6/26/2015
L63045-26		421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	6/22/2015	6/25/2015	6/26/2015
L63045-27		421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	6/22/2015	6/25/2015	6/26/2015
L63045-29		421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	6/22/2015	6/25/2015	6/26/2015
L63045-30		421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	6/22/2015	6/25/2015	6/26/2015
L63045-31		421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	6/22/2015	6/25/2015	6/26/2015
L63045-32		421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	6/22/2015	6/25/2015	6/26/2015
L63045-33		421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	6/22/2015	6/25/2015	6/26/2015
L63045-37		421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	6/23/2015	6/25/2015	6/26/2015
L63045-38		421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	6/23/2015	6/25/2015	6/26/2015
L63045-39		421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	6/23/2015	6/25/2015	6/26/2015
L63045-40		421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	6/23/2015	6/25/2015	6/26/2015
L63045-41		421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	6/23/2015	6/25/2015	6/26/2015
L63045-42		421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	6/23/2015	6/25/2015	6/26/2015
L63045-44		421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	6/23/2015	6/25/2015	6/26/2015
L63045-45		421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	6/23/2015	6/25/2015	6/26/2015
L63045-46		421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	6/23/2015	6/25/2015	6/26/2015
L63045-47		421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	6/23/2015	6/25/2015	6/26/2015
L63045-48		421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	6/23/2015	6/25/2015	6/26/2015
L63045-49		421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	6/23/2015	6/25/2015	6/26/2015
L63069-1	423589-330-4		Green Rvr PCB/PAH Loading	CVTSS	FRESH WTR	6/24/2015	6/25/2015	6/26/2015
L63069-2	423589-330-4		Green Rvr PCB/PAH Loading	CVTSS	FRESH WTR	6/24/2015	6/25/2015	6/26/2015
L63070-1	423589-330-4		Green Rvr PCB/PAH Loading	CVTSS	FRESH WTR	6/24/2015	6/25/2015	6/26/2015
L63070-2	423589-330-4		Green Rvr PCB/PAH Loading	CVTSS	FRESH WTR	6/24/2015	6/25/2015	6/26/2015
WG140030-1	MB			CVTSS	BLANK WTR		6/25/2015	6/26/2015
WG140030-2	LCS			CVTSS	BLANK WTR		6/25/2015	6/26/2015
WG140030-3	LD			CVTSS	FRESH WTR		6/25/2015	6/26/2015
WG140030-4	MB			CVTSS	BLANK WTR		6/25/2015	6/26/2015
WG140030-5	LD			CVTSS	FRESH WTR		6/25/2015	6/26/2015
WG140030-6	LD			CVTSS	FRESH WTR		6/25/2015	6/26/2015
WG140030-7	MB			CVTSS	BLANK WTR		6/25/2015	6/26/2015
WG140030-8	LCS			CVTSS	BLANK WTR		6/25/2015	6/26/2015
WG140030-9	LCS			CVTSS	BLANK WTR		6/25/2015	6/26/2015
WG140030-10	LD			CVTSS	FRESH WTR		6/25/2015	6/26/2015
WG140030-11	LD			CVTSS	FRESH WTR		6/25/2015	6/26/2015

LIMSView Batch Report for Green River PCB Equipment Blank Study - Data Validation

WG140260 (TOC, DOC/421422, 423589) Department: 3 - Conventionals Move Date: 15-JUL-15

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date
L62975-1	421250ON	Ambient Offshore Water Column-North	CVDOC	FRESH WTR	6/15/2015	6/16/2015	7/13/2015
L62975-1	421250ON	Ambient Offshore Water Column-North	CVTOC	FRESH WTR	6/15/2015	7/10/2015	7/10/2015
L62975-2	421250ON	Ambient Offshore Water Column-North	CVDOC	FRESH WTR	6/15/2015	6/16/2015	7/13/2015
L62975-2	421250ON	Ambient Offshore Water Column-North	CVTOC	FRESH WTR	6/15/2015	7/10/2015	7/10/2015
L62975-3	421250ON	Ambient Offshore Water Column-North	CVDOC	FRESH WTR	6/15/2015	6/16/2015	7/13/2015
L62975-3	421250ON	Ambient Offshore Water Column-North	CVTOC	FRESH WTR	6/15/2015	7/10/2015	7/10/2015
L62976-1	421250ON	Ambient Offshore Water Column-North	CVDOC	SALT WTR	6/15/2015	6/16/2015	7/13/2015
L62976-1	421250ON	Ambient Offshore Water Column-North	CVTOC	SALT WTR	6/15/2015	7/13/2015	7/13/2015
L62976-2	421250ON	Ambient Offshore Water Column-North	CVDOC	SALT WTR	6/15/2015	6/16/2015	7/13/2015
L62976-2	421250ON	Ambient Offshore Water Column-North	CVTOC	SALT WTR	6/15/2015	7/13/2015	7/13/2015
L62976-3	421250ON	Ambient Offshore Water Column-North	CVDOC	SALT WTR	6/15/2015	6/16/2015	7/13/2015
L62976-3	421250ON	Ambient Offshore Water Column-North	CVTOC	SALT WTR	6/15/2015	7/13/2015	7/13/2015
L63041-3	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTOC	GRND WTR	6/30/2015	7/2/2015	7/2/2015
L63041-4	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTOC	GRND WTR	6/30/2015	7/2/2015	7/2/2015
L63041-5	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTOC	GRND WTR	6/30/2015	7/2/2015	7/2/2015
L63041-6	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTOC	GRND WTR	6/30/2015	7/2/2015	7/2/2015
L63069-1	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	FRESH WTR	6/24/2015	6/25/2015	7/2/2015
L63069-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRESH WTR	6/24/2015	7/2/2015	7/2/2015
L63069-2	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	FRESH WTR	6/24/2015	6/25/2015	7/2/2015
L63069-2	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRESH WTR	6/24/2015	7/2/2015	7/2/2015
L63070-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRESH WTR	6/24/2015	7/2/2015	7/2/2015
L63070-2	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRESH WTR	6/24/2015	7/2/2015	7/2/2015
L63114-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	7/2/2015	7/2/2015	7/2/2015
L63114-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	7/2/2015	7/2/2015	7/2/2015
L63114-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	7/2/2015	7/2/2015	7/2/2015
L63114-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	7/2/2015	7/2/2015	7/2/2015
L63127-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	7/6/2015	7/9/2015	7/9/2015
L63127-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	7/8/2015	7/9/2015	7/9/2015
L63127-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	7/6/2015	7/9/2015	7/9/2015
L63128-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	7/8/2015	7/9/2015	7/9/2015
WG140260-1	MB		CVTOC	BLANK WTR		7/2/2015	7/2/2015
WG140260-2	SB		CVTOC	BLANK WTR		7/2/2015	7/2/2015
WG140260-3	LCS		CVTOC	BLANK WTR		7/2/2015	7/2/2015
WG140260-4	LD		CVTOC	GRND WTR		7/2/2015	7/2/2015
WG140260-5	MS		CVTOC	GRND WTR		7/2/2015	7/2/2015
WG140260-6	LD		CVTOC	FRESH WTR		7/2/2015	7/2/2015
WG140260-7	MS		CVTOC	FRESH WTR		7/2/2015	7/2/2015

WG140260-8	MB	CVDOC	BLANK WTR	6/25/2015	7/2/2015
WG140260-9	SB	CVDOC	BLANK WTR	6/25/2015	7/2/2015
WG140260-10	LCS	CVDOC	BLANK WTR	7/2/2015	7/2/2015
WG140260-11	LD	CVDOC	FRESH WTR	6/25/2015	7/2/2015
WG140260-12	MS	CVDOC	FRESH WTR	6/25/2015	7/2/2015
WG140260-13	MB	CVTOC	BLANK WTR	7/9/2015	7/9/2015
WG140260-14	SB	CVTOC	BLANK WTR	7/9/2015	7/9/2015
WG140260-15	LCS	CVTOC	BLANK WTR	7/9/2015	7/9/2015
WG140260-16	MB	CVTOC	BLANK WTR	7/10/2015	7/10/2015
WG140260-17	SB	CVTOC	BLANK WTR	7/10/2015	7/10/2015
WG140260-18	LCS	CVTOC	BLANK WTR	7/10/2015	7/10/2015
WG140260-19	MS	CVTOC	FRESH WTR	7/10/2015	7/10/2015
WG140260-20	MB	CVTOC	BLANK WTR	7/13/2015	7/13/2015
WG140260-21	LCS	CVTOC	BLANK WTR	7/13/2015	7/13/2015
WG140260-22	LD	CVTOC	SALT WTR	7/13/2015	7/13/2015
WG140260-23	MB	CVDOC	BLANK WTR	6/16/2015	7/13/2015
WG140260-24	SB	CVDOC	BLANK WTR	6/16/2015	7/13/2015
WG140260-25	LCS	CVDOC	BLANK WTR	7/13/2015	7/13/2015
WG140260-26	MS	CVDOC	FRESH WTR	6/16/2015	7/13/2015
WG140260-27	LD	CVDOC	SALT WTR	6/16/2015	7/13/2015

WG140380 (TOC, DOC/421422, 423589) Department: 3 - Conventionals Move Date: 24-JUL-15

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date
L62784-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	7/10/2015	7/14/2015	7/14/2015
L63070-1	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	FRESH WTR	6/24/2015	6/25/2015	7/14/2015
L63070-2	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	FRESH WTR	6/24/2015	6/25/2015	7/14/2015
L63127-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	7/10/2015	7/14/2015	7/14/2015
L63128-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	7/9/2015	7/14/2015	7/14/2015
L63128-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	7/9/2015	7/14/2015	7/14/2015
L63128-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	7/10/2015	7/14/2015	7/14/2015
L63129-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	7/9/2015	7/14/2015	7/14/2015
L63129-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	7/10/2015	7/14/2015	7/14/2015
L63129-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	7/13/2015	7/14/2015	7/14/2015
L63129-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	7/13/2015	7/14/2015	7/14/2015
L63131-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	7/10/2015	7/14/2015	7/14/2015
L63131-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	7/9/2015	7/14/2015	7/14/2015
L63131-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	7/9/2015	7/14/2015	7/14/2015
L63131-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	7/10/2015	7/14/2015	7/14/2015
L63153-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	7/13/2015	7/14/2015	7/14/2015

L63153-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	7/13/2015	7/14/2015	7/14/2015
L63153-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	7/13/2015	7/14/2015	7/14/2015
L63153-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	7/14/2015	7/14/2015	7/14/2015
L63154-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	7/14/2015	7/14/2015	7/14/2015
L63154-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	7/14/2015	7/14/2015	7/14/2015
WG140260-11	LD		CVDOC	FRESH WTR		6/25/2015	7/2/2015
WG140260-12	MS		CVDOC	FRESH WTR		6/25/2015	7/2/2015
WG140380-1	MB		CVDOC	BLANK WTR		6/25/2015	7/14/2015
WG140380-2	LCS		CVDOC	BLANK WTR		7/14/2015	7/14/2015
WG140380-3	MB		CVTOC	BLANK WTR		7/14/2015	7/14/2015
WG140380-4	SB		CVTOC	BLANK WTR		7/14/2015	7/14/2015
WG140380-5	LCS		CVTOC	BLANK WTR		7/14/2015	7/14/2015
WG140380-6	LD		CVTOC	GRND WTR		7/14/2015	7/14/2015
WG140380-7	MS		CVTOC	GRND WTR		7/14/2015	7/14/2015

WG141247 (tss) Department: 3 - Conventionals Move Date: 03-SEP-15

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date
L63036-4	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTSS	GRND WTR	8/21/2015	8/25/2015	8/26/2015
L63036-5	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTSS	GRND WTR	8/21/2015	8/25/2015	8/26/2015
L63207-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTSS	FRESH WTR	8/20/2015	8/25/2015	8/26/2015
L63207-2	423589-330-4	Green Rvr PCB/PAH Loading	CVTSS	FRESH WTR	8/20/2015	8/25/2015	8/26/2015
L63208-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTSS	FRESH WTR	8/20/2015	8/25/2015	8/26/2015
L63208-2	423589-330-4	Green Rvr PCB/PAH Loading	CVTSS	FRESH WTR	8/20/2015	8/25/2015	8/26/2015
L63219-2	421422-CHSW-P2	SWD-CHSW P - 2 Cedar Hills Surface Water Permit 2	CVTSS	FRESH WTR	8/25/2015	8/25/2015	8/26/2015
L63417-5	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTSS	GRND WTR	8/24/2015	8/25/2015	8/26/2015
L63427-1	421520-500	RSMP Status and Trends - Streams	CVTSS	FRESH WTR	8/19/2015	8/25/2015	8/26/2015
L63429-1	421520-500	RSMP Status and Trends - Streams	CVTSS	FRESH WTR	8/24/2015	8/25/2015	8/26/2015
L63458-2	421581-90GW	Special Studies-Sammamish River Valley Groundwater Monitor	CVTSS	GRND WTR	8/24/2015	8/25/2015	8/26/2015
L63458-3	421581-90GW	Special Studies-Sammamish River Valley Groundwater Monitor	CVTSS	GRND WTR	8/24/2015	8/25/2015	8/26/2015
L63458-4	421581-90GW	Special Studies-Sammamish River Valley Groundwater Monitor	CVTSS	GRND WTR	8/24/2015	8/25/2015	8/26/2015
L63458-6	421581-90GW	Special Studies-Sammamish River Valley Groundwater Monitor	CVTSS	GRND WTR	8/20/2015	8/25/2015	8/26/2015
L63458-7	421581-90GW	Special Studies-Sammamish River Valley Groundwater Monitor	CVTSS	GRND WTR	8/20/2015	8/25/2015	8/26/2015
L63458-8	421581-90GW	Special Studies-Sammamish River Valley Groundwater Monitor	CVTSS	GRND WTR	8/20/2015	8/25/2015	8/26/2015
L63458-9	421581-90GW	Special Studies-Sammamish River Valley Groundwater Monitor	CVTSS	GRND WTR	8/19/2015	8/25/2015	8/26/2015
L63458-10	421581-90GW	Special Studies-Sammamish River Valley Groundwater Monitor	CVTSS	GRND WTR	8/19/2015	8/25/2015	8/26/2015
L63458-11	421581-90GW	Special Studies-Sammamish River Valley Groundwater Monitor	CVTSS	GRND WTR	8/20/2015	8/25/2015	8/26/2015
L63458-12	421581-90GW	Special Studies-Sammamish River Valley Groundwater Monitor	CVTSS	GRND WTR	8/19/2015	8/25/2015	8/26/2015
L63458-13	421581-90GW	Special Studies-Sammamish River Valley Groundwater Monitor	CVTSS	GRND WTR	8/19/2015	8/25/2015	8/26/2015
L63458-28	421581-90GW	Special Studies-Sammamish River Valley Groundwater Monitor	CVTSS	GRND WTR	8/20/2015	8/25/2015	8/26/2015

L63494-1	421520-500	RSMP Status and Trends - Streams	CVTSS	FRESH WTR	8/24/2015	8/25/2015	8/26/2015
L63494-2	421520-500	RSMP Status and Trends - Streams	CVTSS	FRESH WTR	8/24/2015	8/25/2015	8/26/2015
L63494-3	421520-500	RSMP Status and Trends - Streams	CVTSS	FRESH WTR	8/24/2015	8/25/2015	8/26/2015
L63494-4	421520-500	RSMP Status and Trends - Streams	CVTSS	FRESH WTR	8/24/2015	8/25/2015	8/26/2015
L63494-5	421520-500	RSMP Status and Trends - Streams	CVTSS	FRESH WTR	8/24/2015	8/25/2015	8/26/2015
L63494-6	421520-500	RSMP Status and Trends - Streams	CVTSS	FRESH WTR	8/24/2015	8/25/2015	8/26/2015
L63495-1	421520-500	RSMP Status and Trends - Streams	CVTSS	FRESH WTR	8/24/2015	8/25/2015	8/26/2015
L63495-2	421520-500	RSMP Status and Trends - Streams	CVTSS	FRESH WTR	8/24/2015	8/25/2015	8/26/2015
L63495-3	421520-500	RSMP Status and Trends - Streams	CVTSS	FRESH WTR	8/24/2015	8/25/2015	8/26/2015
L63495-4	421520-500	RSMP Status and Trends - Streams	CVTSS	FRESH WTR	8/24/2015	8/25/2015	8/26/2015
L63534-1	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTSS	GRND WTR	8/20/2015	8/25/2015	8/26/2015
L63534-3	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTSS	GRND WTR	8/20/2015	8/25/2015	8/26/2015
L63534-4	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTSS	GRND WTR	8/24/2015	8/25/2015	8/26/2015
L63534-5	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTSS	GRND WTR	8/24/2015	8/25/2015	8/26/2015
L63534-6	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTSS	GRND WTR	8/21/2015	8/25/2015	8/26/2015
L63535-3	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTSS	GRND WTR	8/24/2015	8/25/2015	8/26/2015
L63536-1	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTSS	GRND WTR	8/25/2015	8/25/2015	8/26/2015
L63536-3	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTSS	GRND WTR	8/25/2015	8/25/2015	8/26/2015
WG141247-1	MB		CVTSS	BLANK WTR		8/25/2015	8/26/2015
WG141247-2	LCS		CVTSS	BLANK WTR		8/25/2015	8/26/2015
WG141247-3	LD		CVTSS	GRND WTR		8/25/2015	8/26/2015
WG141247-4	LD		CVTSS	GRND WTR		8/25/2015	8/26/2015
WG141247-5	MB		CVTSS	BLANK WTR		8/25/2015	8/26/2015
WG141247-6	LCS		CVTSS	BLANK WTR		8/25/2015	8/26/2015
WG141247-7	LD		CVTSS	FRESH WTR		8/25/2015	8/26/2015

WG141488 (TOC/421422, 421581) Department: 3 - Conventionals Move Date: 09-SEP-15

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date
L63207-1	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	FRESH WTR	8/20/2015	8/21/2015	9/4/2015
L63207-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRESH WTR	8/20/2015	9/3/2015	9/3/2015
L63207-2	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	FRESH WTR	8/20/2015	8/21/2015	9/4/2015
L63207-2	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRESH WTR	8/20/2015	9/3/2015	9/3/2015
L63208-1	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	FRESH WTR	8/20/2015	8/21/2015	9/4/2015
L63208-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRESH WTR	8/20/2015	9/3/2015	9/3/2015
L63208-2	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	FRESH WTR	8/20/2015	8/21/2015	9/4/2015
L63208-2	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRESH WTR	8/20/2015	9/3/2015	9/3/2015
L63392-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	9/2/2015	9/2/2015	9/2/2015
L63403-1	421250ON	Ambient Offshore Water Column-North	CVDOC	FRESH WTR	8/17/2015	8/18/2015	9/3/2015
L63403-1	421250ON	Ambient Offshore Water Column-North	CVTOC	FRESH WTR	8/17/2015	9/3/2015	9/3/2015

L63403-2	421250ON	Ambient Offshore Water Column-North	CVDOC	FRESH WTR	8/17/2015	8/18/2015	9/3/2015
L63403-2	421250ON	Ambient Offshore Water Column-North	CVTOC	FRESH WTR	8/17/2015	9/3/2015	9/3/2015
L63403-3	421250ON	Ambient Offshore Water Column-North	CVDOC	FRESH WTR	8/17/2015	8/18/2015	9/3/2015
L63403-3	421250ON	Ambient Offshore Water Column-North	CVTOC	FRESH WTR	8/17/2015	9/3/2015	9/3/2015
L63404-1	421250ON	Ambient Offshore Water Column-North	CVDOC	SALT WTR	8/17/2015	8/18/2015	9/4/2015
L63404-1	421250ON	Ambient Offshore Water Column-North	CVTOC	SALT WTR	8/17/2015	9/3/2015	9/3/2015
L63404-2	421250ON	Ambient Offshore Water Column-North	CVDOC	SALT WTR	8/17/2015	8/18/2015	9/4/2015
L63404-2	421250ON	Ambient Offshore Water Column-North	CVTOC	SALT WTR	8/17/2015	9/3/2015	9/3/2015
L63404-3	421250ON	Ambient Offshore Water Column-North	CVDOC	SALT WTR	8/17/2015	8/18/2015	9/4/2015
L63404-3	421250ON	Ambient Offshore Water Column-North	CVTOC	SALT WTR	8/17/2015	9/3/2015	9/3/2015
L63420-1	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	8/17/2015	9/2/2015	9/2/2015
L63458-1	421581-90GW	Special Studies-Sammamish River Valley Groundwater Monitor	CVTOC	GRND WTR	8/25/2015	9/2/2015	9/2/2015
L63458-2	421581-90GW	Special Studies-Sammamish River Valley Groundwater Monitor	CVTOC	GRND WTR	8/24/2015	9/2/2015	9/2/2015
L63458-3	421581-90GW	Special Studies-Sammamish River Valley Groundwater Monitor	CVTOC	GRND WTR	8/24/2015	9/2/2015	9/2/2015
L63458-4	421581-90GW	Special Studies-Sammamish River Valley Groundwater Monitor	CVTOC	GRND WTR	8/24/2015	9/2/2015	9/2/2015
L63458-5	421581-90GW	Special Studies-Sammamish River Valley Groundwater Monitor	CVTOC	GRND WTR	8/25/2015	9/2/2015	9/2/2015
L63458-6	421581-90GW	Special Studies-Sammamish River Valley Groundwater Monitor	CVTOC	GRND WTR	8/20/2015	9/2/2015	9/2/2015
L63458-7	421581-90GW	Special Studies-Sammamish River Valley Groundwater Monitor	CVTOC	GRND WTR	8/20/2015	9/2/2015	9/2/2015
L63458-8	421581-90GW	Special Studies-Sammamish River Valley Groundwater Monitor	CVTOC	GRND WTR	8/20/2015	9/2/2015	9/2/2015
L63458-9	421581-90GW	Special Studies-Sammamish River Valley Groundwater Monitor	CVTOC	GRND WTR	8/19/2015	9/2/2015	9/2/2015
L63458-10	421581-90GW	Special Studies-Sammamish River Valley Groundwater Monitor	CVTOC	GRND WTR	8/19/2015	9/2/2015	9/2/2015
L63458-11	421581-90GW	Special Studies-Sammamish River Valley Groundwater Monitor	CVTOC	GRND WTR	8/20/2015	9/2/2015	9/2/2015
L63458-12	421581-90GW	Special Studies-Sammamish River Valley Groundwater Monitor	CVTOC	GRND WTR	8/19/2015	9/2/2015	9/2/2015
L63458-13	421581-90GW	Special Studies-Sammamish River Valley Groundwater Monitor	CVTOC	GRND WTR	8/19/2015	9/2/2015	9/2/2015
L63458-14	421581-90GW	Special Studies-Sammamish River Valley Groundwater Monitor	CVTOC	GRND WTR	8/18/2015	9/2/2015	9/2/2015
L63458-15	421581-90GW	Special Studies-Sammamish River Valley Groundwater Monitor	CVTOC	GRND WTR	8/18/2015	9/2/2015	9/2/2015
L63458-16	421581-90GW	Special Studies-Sammamish River Valley Groundwater Monitor	CVTOC	GRND WTR	8/18/2015	9/2/2015	9/2/2015
L63458-17	421581-90GW	Special Studies-Sammamish River Valley Groundwater Monitor	CVTOC	GRND WTR	8/18/2015	9/2/2015	9/2/2015
L63458-28	421581-90GW	Special Studies-Sammamish River Valley Groundwater Monitor	CVTOC	GRND WTR	8/20/2015	9/2/2015	9/2/2015
L63458-29	421581-90GW	Special Studies-Sammamish River Valley Groundwater Monitor	CVTOC	GRND WTR	8/25/2015	9/2/2015	9/2/2015
L63536-4	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTOC	GRND WTR	8/31/2015	9/2/2015	9/2/2015
L63537-3	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTOC	GRND WTR	8/31/2015	9/2/2015	9/2/2015
L63610-1	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	8/27/2015	9/2/2015	9/2/2015
L63610-2	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	8/27/2015	9/2/2015	9/2/2015
L63610-4	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	8/27/2015	9/2/2015	9/2/2015
L63647-1	421422-HTGW	SWD-HTGW Houghton Groundwater Quarterly	CVTOC	GRND WTR	9/2/2015	9/2/2015	9/2/2015
L63649-1	421422-HTGW	SWD-HTGW Houghton Groundwater Quarterly	CVTOC	GRND WTR	9/3/2015	9/3/2015	9/3/2015
L63649-3	421422-HTGW	SWD-HTGW Houghton Groundwater Quarterly	CVTOC	GRND WTR	9/3/2015	9/3/2015	9/3/2015
L63649-4	421422-HTGW	SWD-HTGW Houghton Groundwater Quarterly	CVTOC	GRND WTR	9/3/2015	9/3/2015	9/3/2015
L63649-5	421422-HTGW	SWD-HTGW Houghton Groundwater Quarterly	CVTOC	GRND WTR	9/3/2015	9/3/2015	9/3/2015
WG141488-1	MB		CVTOC	BLANK WTR		9/2/2015	9/2/2015

WG141488-2	SB	CVTOC	BLANK WTR	9/2/2015	9/2/2015
WG141488-3	LCS	CVTOC	BLANK WTR	9/2/2015	9/2/2015
WG141488-4	LD	CVTOC	FRESH WTR	9/2/2015	9/2/2015
WG141488-5	MS	CVTOC	FRESH WTR	9/2/2015	9/2/2015
WG141488-6	LD	CVTOC	GRND WTR	9/2/2015	9/2/2015
WG141488-7	MS	CVTOC	GRND WTR	9/2/2015	9/2/2015
WG141488-8	MB	CVTOC	BLANK WTR	9/2/2015	9/2/2015
WG141488-9	LCS	CVTOC	BLANK WTR	9/2/2015	9/2/2015
WG141488-10	LD	CVTOC	GRND WTR	9/2/2015	9/2/2015
WG141488-11	MS	CVTOC	GRND WTR	9/2/2015	9/2/2015
WG141488-12	MB	CVTOC	BLANK WTR	9/3/2015	9/3/2015
WG141488-13	SB	CVTOC	BLANK WTR	9/3/2015	9/3/2015
WG141488-14	LCS	CVTOC	BLANK WTR	9/3/2015	9/3/2015
WG141488-15	MS	CVTOC	FRESH WTR	9/3/2015	9/3/2015
WG141488-16	LD	CVTOC	SALT WTR	9/3/2015	9/3/2015
WG141488-17	LD	CVTOC	FRESH WTR	9/3/2015	9/3/2015
WG141488-18	MS	CVTOC	FRESH WTR	9/3/2015	9/3/2015
WG141488-19	MB	CVDOC	BLANK WTR	8/18/2015	9/3/2015
WG141488-20	SB	CVDOC	BLANK WTR	8/18/2015	9/3/2015
WG141488-21	LCS	CVDOC	BLANK WTR	9/3/2015	9/4/2015
WG141488-22	MS	CVDOC	FRESH WTR	8/18/2015	9/3/2015
WG141488-23	LD	CVDOC	SALT WTR	8/18/2015	9/4/2015
WG141488-24	MB	CVDOC	BLANK WTR	8/21/2015	9/4/2015
WG141488-25	SB	CVDOC	BLANK WTR	8/21/2015	9/4/2015
WG141488-26	LCS	CVDOC	BLANK WTR	9/4/2015	9/4/2015
WG141488-27	LD	CVDOC	FRESH WTR	8/21/2015	9/4/2015
WG141488-28	MS	CVDOC	FRESH WTR	8/21/2015	9/4/2015

WG142137 (TSS-LK) Department: 3 - Conventionals Move Date: 12-OCT-15

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date
L63391-3	421422-CHGW-OS	SWD-CHGW-OS Cedar Hills Groundwater Off-Site	CVTSS	GRND WTR	10/5/2015	10/5/2015	10/6/2015
L63633-1	421520-500	RSMP Status and Trends - Streams	CVTSS	FRESH WTR	9/30/2015	10/5/2015	10/6/2015
L63691-4	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTSS	GRND WTR	9/30/2015	10/5/2015	10/6/2015
L63714-1	421520-500	RSMP Status and Trends - Streams	CVTSS	FRESH WTR	9/28/2015	10/5/2015	10/6/2015
L63714-2	421520-500	RSMP Status and Trends - Streams	CVTSS	FRESH WTR	9/28/2015	10/5/2015	10/6/2015
L63714-3	421520-500	RSMP Status and Trends - Streams	CVTSS	FRESH WTR	9/28/2015	10/5/2015	10/6/2015
L63714-4	421520-500	RSMP Status and Trends - Streams	CVTSS	FRESH WTR	9/28/2015	10/5/2015	10/6/2015
L63714-5	421520-500	RSMP Status and Trends - Streams	CVTSS	FRESH WTR	9/28/2015	10/5/2015	10/6/2015
L63714-6	421520-500	RSMP Status and Trends - Streams	CVTSS	FRESH WTR	9/28/2015	10/5/2015	10/6/2015

L63715-1	421520-500	RSMP Status and Trends - Streams	CVTSS	FRESH WTR	9/28/2015	10/5/2015	10/6/2015
L63715-2	421520-500	RSMP Status and Trends - Streams	CVTSS	FRESH WTR	9/28/2015	10/5/2015	10/6/2015
L63715-3	421520-500	RSMP Status and Trends - Streams	CVTSS	FRESH WTR	9/28/2015	10/5/2015	10/6/2015
L63715-4	421520-500	RSMP Status and Trends - Streams	CVTSS	FRESH WTR	9/28/2015	10/5/2015	10/6/2015
L63715-5	421520-500	RSMP Status and Trends - Streams	CVTSS	FRESH WTR	9/28/2015	10/5/2015	10/6/2015
L63717-1	421520-500	RSMP Status and Trends - Streams	CVTSS	FRESH WTR	9/29/2015	10/5/2015	10/6/2015
L63717-2	421520-500	RSMP Status and Trends - Streams	CVTSS	FRESH WTR	9/29/2015	10/5/2015	10/6/2015
L63717-3	421520-500	RSMP Status and Trends - Streams	CVTSS	FRESH WTR	9/29/2015	10/5/2015	10/6/2015
L63717-4	421520-500	RSMP Status and Trends - Streams	CVTSS	FRESH WTR	9/29/2015	10/5/2015	10/6/2015
L63717-5	421520-500	RSMP Status and Trends - Streams	CVTSS	FRESH WTR	9/29/2015	10/5/2015	10/6/2015
L63717-6	421520-500	RSMP Status and Trends - Streams	CVTSS	FRESH WTR	9/29/2015	10/5/2015	10/6/2015
L63718-1	421520-500	RSMP Status and Trends - Streams	CVTSS	FRESH WTR	9/29/2015	10/5/2015	10/6/2015
L63718-2	421520-500	RSMP Status and Trends - Streams	CVTSS	FRESH WTR	9/29/2015	10/5/2015	10/6/2015
L63718-3	421520-500	RSMP Status and Trends - Streams	CVTSS	FRESH WTR	9/29/2015	10/5/2015	10/6/2015
L63718-4	421520-500	RSMP Status and Trends - Streams	CVTSS	FRESH WTR	9/29/2015	10/5/2015	10/6/2015
L63718-5	421520-500	RSMP Status and Trends - Streams	CVTSS	FRESH WTR	9/29/2015	10/5/2015	10/6/2015
L63718-6	421520-500	RSMP Status and Trends - Streams	CVTSS	FRESH WTR	9/29/2015	10/5/2015	10/6/2015
L63722-4	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/5/2015	10/5/2015	10/6/2015
L63825-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTSS	FRESH WTR	10/1/2015	10/5/2015	10/6/2015
L63825-2	423589-330-4	Green Rvr PCB/PAH Loading	CVTSS	FRESH WTR	10/1/2015	10/5/2015	10/6/2015
L63825-3	423589-330-4	Green Rvr PCB/PAH Loading	CVTSS	FRESH WTR	10/1/2015	10/5/2015	10/6/2015
L63825-4	423589-330-4	Green Rvr PCB/PAH Loading	CVTSS	FRESH WTR	10/1/2015	10/5/2015	10/6/2015
L63826-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTSS	FRESH WTR	9/28/2015	10/5/2015	10/6/2015
L63826-2	423589-330-4	Green Rvr PCB/PAH Loading	CVTSS	FRESH WTR	9/28/2015	10/5/2015	10/6/2015
L63832-1	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	9/28/2015	10/5/2015	10/6/2015
L63832-2	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	9/28/2015	10/5/2015	10/6/2015
L63832-3	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	9/28/2015	10/5/2015	10/6/2015
L63832-4	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	9/28/2015	10/5/2015	10/6/2015
L63832-5	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	9/28/2015	10/5/2015	10/6/2015
L63832-6	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	9/28/2015	10/5/2015	10/6/2015
L63832-8	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	9/28/2015	10/5/2015	10/6/2015
L63832-9	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	9/28/2015	10/5/2015	10/6/2015
L63832-10	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	9/28/2015	10/5/2015	10/6/2015
L63832-11	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	9/28/2015	10/5/2015	10/6/2015
L63832-12	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	9/28/2015	10/5/2015	10/6/2015
L63832-13	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	9/28/2015	10/5/2015	10/6/2015
L63832-14	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	9/28/2015	10/5/2015	10/6/2015
L63832-15	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	9/28/2015	10/5/2015	10/6/2015
L63832-16	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	9/28/2015	10/5/2015	10/6/2015
L63832-17	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	9/28/2015	10/5/2015	10/6/2015
L63832-19	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	9/28/2015	10/5/2015	10/6/2015

L63832-20	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	9/28/2015	10/5/2015	10/6/2015
L63832-21	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	9/28/2015	10/5/2015	10/6/2015
L63832-22	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	9/28/2015	10/5/2015	10/6/2015
L63832-23	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	9/28/2015	10/5/2015	10/6/2015
L63832-25	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	9/28/2015	10/5/2015	10/6/2015
L63832-26	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	9/28/2015	10/5/2015	10/6/2015
L63832-27	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	9/28/2015	10/5/2015	10/6/2015
L63832-29	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	9/28/2015	10/5/2015	10/6/2015
L63832-30	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	9/28/2015	10/5/2015	10/6/2015
L63832-31	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	9/28/2015	10/5/2015	10/6/2015
L63832-32	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	9/28/2015	10/5/2015	10/6/2015
L63832-33	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	9/28/2015	10/5/2015	10/6/2015
L63832-37	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	9/29/2015	10/5/2015	10/6/2015
L63832-38	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	9/29/2015	10/5/2015	10/6/2015
L63832-39	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	9/29/2015	10/5/2015	10/6/2015
L63832-40	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	9/29/2015	10/5/2015	10/6/2015
L63832-41	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	9/29/2015	10/5/2015	10/6/2015
L63832-42	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	9/29/2015	10/5/2015	10/6/2015
L63832-44	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	9/29/2015	10/5/2015	10/6/2015
L63832-45	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	9/29/2015	10/5/2015	10/6/2015
L63832-46	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	9/29/2015	10/5/2015	10/6/2015
L63832-47	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	9/29/2015	10/5/2015	10/6/2015
L63832-48	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	9/29/2015	10/5/2015	10/6/2015
L63832-49	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	9/29/2015	10/5/2015	10/6/2015
L63890-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/2/2015	10/5/2015	10/6/2015
L63890-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/2/2015	10/5/2015	10/6/2015
L63890-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/2/2015	10/5/2015	10/6/2015
L63890-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/2/2015	10/5/2015	10/6/2015
L63891-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/5/2015	10/5/2015	10/6/2015
WG142137-1	MB		CVTSS	BLANK WTR		10/5/2015	10/6/2015
WG142137-2	LCS		CVTSS	BLANK WTR		10/5/2015	10/6/2015
WG142137-3	LD		CVTSS	GRND WTR		10/5/2015	10/6/2015
WG142137-4	LD		CVTSS	FRESH WTR		10/5/2015	10/6/2015
WG142137-5	MB		CVTSS	BLANK WTR		10/5/2015	10/6/2015
WG142137-6	LCS		CVTSS	BLANK WTR		10/5/2015	10/6/2015
WG142137-7	LD		CVTSS	FRESH WTR		10/5/2015	10/6/2015
WG142137-8	LD		CVTSS	FRESH WTR		10/5/2015	10/6/2015
WG142137-9	MB		CVTSS	BLANK WTR		10/5/2015	10/6/2015
WG142137-10	LCS		CVTSS	BLANK WTR		10/5/2015	10/6/2015
WG142137-11	LD		CVTSS	FRESH WTR		10/5/2015	10/6/2015
WG142137-12	MB		CVTSS	BLANK WTR		10/5/2015	10/6/2015

WG142137-13	LCS	CVTSS	BLANK WTR	10/5/2015	10/6/2015
WG142137-14	LD	CVTSS	FRESH WTR	10/5/2015	10/6/2015

WG142162 (TOC, DOC/421422, 421250,) Department: 3 - Conventionals Move Date: 16-OCT-15

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date
L63391-3	421422-CHGW-OS	SWD-CHGW-OS Cedar Hills Groundwater Off-Site	CVTOC	GRND WTR	10/5/2015	10/5/2015	10/5/2015
L63670-1	421250ON	Ambient Offshore Water Column-North	CVDOC	FRESH WTR	9/21/2015	9/21/2015	10/8/2015
L63670-1	421250ON	Ambient Offshore Water Column-North	CVTOC	FRESH WTR	9/21/2015	10/3/2015	10/3/2015
L63670-2	421250ON	Ambient Offshore Water Column-North	CVDOC	FRESH WTR	9/21/2015	9/21/2015	10/8/2015
L63670-2	421250ON	Ambient Offshore Water Column-North	CVTOC	FRESH WTR	9/21/2015	10/2/2015	10/2/2015
L63670-3	421250ON	Ambient Offshore Water Column-North	CVDOC	FRESH WTR	9/21/2015	9/21/2015	10/8/2015
L63670-3	421250ON	Ambient Offshore Water Column-North	CVTOC	FRESH WTR	9/21/2015	10/3/2015	10/3/2015
L63671-1	421250ON	Ambient Offshore Water Column-North	CVDOC	SALT WTR	9/21/2015	9/21/2015	10/8/2015
L63671-1	421250ON	Ambient Offshore Water Column-North	CVTOC	SALT WTR	9/21/2015	10/3/2015	10/3/2015
L63671-2	421250ON	Ambient Offshore Water Column-North	CVDOC	SALT WTR	9/21/2015	9/21/2015	10/8/2015
L63671-2	421250ON	Ambient Offshore Water Column-North	CVTOC	SALT WTR	9/21/2015	10/5/2015	10/5/2015
L63671-3	421250ON	Ambient Offshore Water Column-North	CVDOC	SALT WTR	9/21/2015	9/21/2015	10/8/2015
L63671-3	421250ON	Ambient Offshore Water Column-North	CVTOC	SALT WTR	9/21/2015	10/5/2015	10/5/2015
L63722-4	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/5/2015	10/5/2015	10/5/2015
L63825-1	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	FRESH WTR	10/1/2015	10/2/2015	10/2/2015
L63825-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRESH WTR	10/1/2015	10/5/2015	10/5/2015
L63825-2	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	FRESH WTR	10/1/2015	10/2/2015	10/2/2015
L63825-2	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRESH WTR	10/1/2015	10/5/2015	10/5/2015
L63825-3	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	FRESH WTR	10/1/2015	10/2/2015	10/2/2015
L63825-3	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRESH WTR	10/1/2015	10/8/2015	10/8/2015
L63825-4	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	FRESH WTR	10/1/2015	10/2/2015	10/2/2015
L63825-4	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRESH WTR	10/1/2015	10/8/2015	10/8/2015
L63826-1	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	FRESH WTR	9/28/2015	9/30/2015	10/6/2015
L63826-2	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	FRESH WTR	9/28/2015	9/30/2015	10/6/2015
L63890-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/2/2015	10/5/2015	10/5/2015
L63890-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/2/2015	10/5/2015	10/5/2015
L63890-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/2/2015	10/5/2015	10/5/2015
L63891-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/5/2015	10/5/2015	10/5/2015
L63897-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/8/2015	10/8/2015	10/8/2015
WG142162-1	MB		CVTOC	BLANK WTR		10/3/2015	10/3/2015
WG142162-2	SB		CVTOC	BLANK WTR		10/3/2015	10/3/2015
WG142162-3	LCS		CVTOC	BLANK WTR		10/3/2015	10/3/2015
WG142162-4	LD		CVTOC	FRESH WTR		10/2/2015	10/2/2015
WG142162-5	MB		CVDOC	BLANK WTR		10/2/2015	10/2/2015

WG142162-6	LD	CVDOC	FRESH WTR	10/2/2015	10/2/2015
WG142162-7	MS	CVDOC	FRESH WTR	10/2/2015	10/2/2015
WG142162-8	MB	CVTOC	BLANK WTR	10/5/2015	10/5/2015
WG142162-9	SB	CVTOC	BLANK WTR	10/5/2015	10/5/2015
WG142162-10	LCS	CVTOC	BLANK WTR	10/5/2015	10/5/2015
WG142162-11	MS	CVTOC	SALT WTR	10/5/2015	10/5/2015
WG142162-12	LD	CVTOC	GRND WTR	10/5/2015	10/5/2015
WG142162-13	MS	CVTOC	GRND WTR	10/5/2015	10/5/2015
WG142162-14	LD	CVTOC	FRESH WTR	10/5/2015	10/5/2015
WG142162-15	MS	CVTOC	FRESH WTR	10/5/2015	10/5/2015
WG142162-16	MB	CVDOC	BLANK WTR	9/30/2015	10/6/2015
WG142162-17	MB	CVTOC	BLANK WTR	10/8/2015	10/8/2015
WG142162-18	LCS	CVTOC	BLANK WTR	10/8/2015	10/8/2015
WG142162-19	MB	CVDOC	BLANK WTR	9/21/2015	10/8/2015
WG142162-20	SB	CVDOC	BLANK WTR	9/21/2015	10/8/2015
WG142162-21	LCS	CVDOC	BLANK WTR	10/8/2015	10/8/2015
WG142162-22	LD	CVDOC	FRESH WTR	9/21/2015	10/8/2015
WG142162-23	MS	CVDOC	SALT WTR	9/21/2015	10/8/2015

WG142251 (TSS 10/9) Department: 3 - Conventionals Move Date: 21-OCT-15

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date
L62303-1	421195-180	Mercer Island Stormwater Monitoring	CVTSS	STORM WTR	10/7/2015	10/9/2015	10/12/2015
L62303-2	421195-180	Mercer Island Stormwater Monitoring	CVTSS	STORM WTR	10/7/2015	10/9/2015	10/12/2015
L62303-3	421195-180	Mercer Island Stormwater Monitoring	CVTSS	STORM WTR	10/7/2015	10/9/2015	10/12/2015
L62303-4	421195-180	Mercer Island Stormwater Monitoring	CVTSS	STORM WTR	10/7/2015	10/9/2015	10/12/2015
L62303-5	421195-180	Mercer Island Stormwater Monitoring	CVTSS	STORM WTR	10/7/2015	10/9/2015	10/12/2015
L62766-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTSS	STORM WTR	10/7/2015	10/9/2015	10/12/2015
L62766-2	423589-330-4	Green Rvr PCB/PAH Loading	CVTSS	STORM WTR	10/7/2015	10/9/2015	10/12/2015
L63623-1	421520-500	RSMP Status and Trends - Streams	CVTSS	FRESH WTR	10/8/2015	10/9/2015	10/12/2015
L63828-1	421520-500	RSMP Status and Trends - Streams	CVTSS	FRESH WTR	10/8/2015	10/9/2015	10/12/2015
L63889-1	421422-CHSW-P	SWD-CHSW P Cedar Hills Surface Water Permit	CVTSS	STORM WTR	10/7/2015	10/9/2015	10/12/2015
L63891-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/6/2015	10/9/2015	10/12/2015
L63891-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/8/2015	10/9/2015	10/12/2015
L63891-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/6/2015	10/9/2015	10/12/2015
L63892-1	421422-CHGW-OS	SWD-CHGW-OS Cedar Hills Groundwater Off-Site	CVTSS	GRND WTR	10/6/2015	10/9/2015	10/12/2015
L63892-4	421422-CHGW-OS	SWD-CHGW-OS Cedar Hills Groundwater Off-Site	CVTSS	GRND WTR	10/6/2015	10/9/2015	10/12/2015
L63893-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/7/2015	10/9/2015	10/12/2015
L63893-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/7/2015	10/9/2015	10/12/2015
L63893-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/7/2015	10/9/2015	10/12/2015

L63893-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/7/2015	10/9/2015	10/12/2015
L63894-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/9/2015	10/9/2015	10/12/2015
L63894-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/8/2015	10/9/2015	10/12/2015
L63894-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/6/2015	10/9/2015	10/12/2015
L63894-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/7/2015	10/9/2015	10/12/2015
L63897-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/8/2015	10/9/2015	10/12/2015
L63897-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/8/2015	10/9/2015	10/12/2015
L63897-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/9/2015	10/9/2015	10/12/2015
L63897-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/9/2015	10/9/2015	10/12/2015
L63898-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/9/2015	10/9/2015	10/12/2015
L63933-1	421301A	Georgetown Yard Industiral SW Monitoring	CVTSS	STORM WTR	10/7/2015	10/9/2015	10/12/2015
WG142251-1	MB		CVTSS	BLANK WTR		10/9/2015	10/12/2015
WG142251-2	LCS		CVTSS	BLANK WTR		10/9/2015	10/12/2015
WG142251-3	MB		CVTSS	BLANK WTR		10/9/2015	10/12/2015
WG142251-4	LCS		CVTSS	BLANK WTR		10/9/2015	10/12/2015
WG142251-5	LD		CVTSS	GRND WTR		10/9/2015	10/12/2015
WG142251-6	LD		CVTSS	STORM WTR		10/9/2015	10/12/2015
WG142251-7	LD		CVTSS	STORM WTR		10/9/2015	10/12/2015

WG142381 (TOC/421422, 423589) Department: 3 - Conventionals Move Date: 16-OCT-15

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date
L63826-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRESH WTR	9/28/2015	10/16/2015	10/16/2015
L63826-2	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	FRESH WTR	9/28/2015	10/16/2015	10/16/2015
L63890-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/2/2015	10/16/2015	10/16/2015
L63891-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/6/2015	10/16/2015	10/16/2015
L63891-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/6/2015	10/16/2015	10/16/2015
L63892-1	421422-CHGW-OS	SWD-CHGW-OS Cedar Hills Groundwater Off-Site	CVTOC	GRND WTR	10/6/2015	10/16/2015	10/16/2015
L63892-4	421422-CHGW-OS	SWD-CHGW-OS Cedar Hills Groundwater Off-Site	CVTOC	GRND WTR	10/6/2015	10/16/2015	10/16/2015
L63894-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/6/2015	10/16/2015	10/16/2015
WG142162-12	LD		CVTOC	GRND WTR		10/5/2015	10/5/2015
WG142162-13	MS		CVTOC	GRND WTR		10/5/2015	10/5/2015
WG142162-14	LD		CVTOC	FRESH WTR		10/5/2015	10/5/2015
WG142162-15	MS		CVTOC	FRESH WTR		10/5/2015	10/5/2015
WG142381-1	MB		CVTOC	BLANK WTR		10/16/2015	10/16/2015
WG142381-2	LCS		CVTOC	BLANK WTR		10/16/2015	10/16/2015

WG142691 (TOC, DOC/421422, 423589) Department: 3 - Conventionals Move Date: 06-NOV-15

LIMSView Batch Report for Green River PCB Equipment Blank Study - Data Validation

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date
L62319-1	421240-210	Wet Weather Survey(Strmwtr)	CVDOC	STORM WTR	10/26/2015	10/26/2015	11/3/2015
L62319-1	421240-210	Wet Weather Survey(Strmwtr)	CVTOC	STORM WTR	10/26/2015	10/29/2015	10/29/2015
L62319-2	421240-210	Wet Weather Survey(Strmwtr)	CVDOC	STORM WTR	10/26/2015	10/26/2015	11/3/2015
L62319-2	421240-210	Wet Weather Survey(Strmwtr)	CVTOC	STORM WTR	10/26/2015	10/29/2015	10/29/2015
L62319-3	421240-210	Wet Weather Survey(Strmwtr)	CVDOC	STORM WTR	10/26/2015	10/26/2015	11/3/2015
L62319-3	421240-210	Wet Weather Survey(Strmwtr)	CVTOC	STORM WTR	10/26/2015	10/29/2015	10/29/2015
L62319-4	421240-210	Wet Weather Survey(Strmwtr)	CVDOC	STORM WTR	10/26/2015	10/26/2015	11/3/2015
L62319-4	421240-210	Wet Weather Survey(Strmwtr)	CVTOC	STORM WTR	10/26/2015	10/29/2015	10/29/2015
L62319-5	421240-210	Wet Weather Survey(Strmwtr)	CVDOC	STORM WTR	10/26/2015	10/26/2015	11/3/2015
L62319-5	421240-210	Wet Weather Survey(Strmwtr)	CVTOC	STORM WTR	10/26/2015	10/29/2015	10/29/2015
L62319-6	421240-210	Wet Weather Survey(Strmwtr)	CVDOC	STORM WTR	10/26/2015	10/26/2015	11/3/2015
L62319-6	421240-210	Wet Weather Survey(Strmwtr)	CVTOC	STORM WTR	10/26/2015	10/29/2015	10/29/2015
L62319-7	421240-210	Wet Weather Survey(Strmwtr)	CVDOC	STORM WTR	10/26/2015	10/26/2015	11/3/2015
L62319-7	421240-210	Wet Weather Survey(Strmwtr)	CVTOC	STORM WTR	10/26/2015	10/29/2015	10/29/2015
L62766-1	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	STORM WTR	10/7/2015	10/8/2015	10/29/2015
L62766-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	STORM WTR	10/7/2015	10/28/2015	10/28/2015
L62766-2	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	STORM WTR	10/7/2015	10/8/2015	10/29/2015
L62766-2	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	STORM WTR	10/7/2015	10/28/2015	10/28/2015
L63940-1	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVDOC	STORM WTR	10/10/2015	10/10/2015	10/29/2015
L63940-2	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVDOC	STORM WTR	10/10/2015	10/10/2015	10/29/2015
L63953-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/22/2015	10/28/2015	10/28/2015
L63953-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/29/2015	10/29/2015	10/29/2015
L63953-6	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/22/2015	10/28/2015	10/28/2015
L63953-7	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/23/2015	10/28/2015	10/28/2015
L63954-1	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	10/21/2015	10/28/2015	10/28/2015
L63954-2	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	10/21/2015	10/29/2015	10/29/2015
L63954-3	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	10/21/2015	10/28/2015	10/28/2015
L63954-4	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	10/21/2015	10/28/2015	10/28/2015
L63954-5	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	10/21/2015	10/28/2015	10/28/2015
L63954-6	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	10/21/2015	10/28/2015	10/28/2015
L63954-7	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	10/22/2015	10/28/2015	10/28/2015
L63954-8	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	10/21/2015	10/28/2015	10/28/2015
L63957-1	421422-VALS-M	SWD-VALS-M Vashon Leachate Monthly	CVTOC	LEACHATE	10/26/2015	10/29/2015	10/29/2015
L63957-3	421422-VALS-M	SWD-VALS-M Vashon Leachate Monthly	CVTOC	LEACHATE	10/26/2015	10/29/2015	10/29/2015
L63957-4	421422-VALS-M	SWD-VALS-M Vashon Leachate Monthly	CVTOC	LEACHATE	10/26/2015	10/29/2015	10/29/2015
L64043-1	421422-CHSW-A5-TD	SWD-CHSW - A5 TD Cedar Hills Surface Area 5 Top Deck	CVTOC	FRESH WTR	10/26/2015	10/28/2015	10/28/2015
L64043-2	421422-CHSW-A5-TD	SWD-CHSW - A5 TD Cedar Hills Surface Area 5 Top Deck	CVTOC	FRESH WTR	10/26/2015	10/29/2015	10/29/2015

L64043-3	421422-CHSW-A5-TD	SWD-CHSW - A5 TD Cedar Hills Surface Area 5 Top Deck	CVTOC	FRESH WTR	10/26/2015	10/28/2015	10/28/2015
L64043-4	421422-CHSW-A5-TD	SWD-CHSW - A5 TD Cedar Hills Surface Area 5 Top Deck	CVTOC	FRESH WTR	10/26/2015	10/28/2015	10/28/2015
WG142691-1	MB		CVTOC	BLANK WTR		10/28/2015	10/28/2015
WG142691-2	SB		CVTOC	BLANK WTR		10/28/2015	10/28/2015
WG142691-3	LCS		CVTOC	BLANK WTR		10/28/2015	10/28/2015
WG142691-4	LD		CVTOC	GRND WTR		10/28/2015	10/28/2015
WG142691-5	MS		CVTOC	GRND WTR		10/28/2015	10/28/2015
WG142691-6	LD		CVTOC	STORM WTR		10/28/2015	10/28/2015
WG142691-7	MS		CVTOC	STORM WTR		10/28/2015	10/28/2015
WG142691-8	LD		CVTOC	FRESH WTR		10/28/2015	10/28/2015
WG142691-9	MS		CVTOC	FRESH WTR		10/28/2015	10/28/2015
WG142691-10	MB		CVTOC	BLANK WTR		10/29/2015	10/29/2015
WG142691-11	SB		CVTOC	BLANK WTR		10/29/2015	10/29/2015
WG142691-12	LCS		CVTOC	BLANK WTR		10/29/2015	10/29/2015
WG142691-13	LD		CVTOC	LEACHATE		10/29/2015	10/29/2015
WG142691-14	MS		CVTOC	LEACHATE		10/29/2015	10/29/2015
WG142691-15	MB		CVDOC	BLANK WTR		10/8/2015	10/29/2015
WG142691-16	SB		CVDOC	BLANK WTR		10/8/2015	10/29/2015
WG142691-17	LCS		CVDOC	BLANK WTR		10/29/2015	10/30/2015
WG142691-18	LD		CVDOC	STORM WTR		10/8/2015	10/29/2015
WG142691-19	MS		CVDOC	STORM WTR		10/8/2015	10/29/2015
WG142691-20	MB		CVDOC	BLANK WTR		10/26/2015	11/3/2015
WG142691-21	SB		CVDOC	BLANK WTR		10/26/2015	11/3/2015
WG142691-22	LCS		CVDOC	BLANK WTR		11/3/2015	11/3/2015
WG142691-23	LD		CVDOC	STORM WTR		10/26/2015	11/3/2015
WG142691-24	MS		CVDOC	STORM WTR		10/26/2015	11/3/2015

WG142751 (TSSVSS_1103) Department: 3 - Conventionals Move Date: 05-NOV-15

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date
L62562-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTSS	STORM WTR	10/31/2015	11/3/2015	11/3/2015
L62562-2	423589-330-4	Green Rvr PCB/PAH Loading	CVTSS	STORM WTR	10/31/2015	11/3/2015	11/3/2015
L64009-1	421422-CFGW	SWD-CFGW Cedar Falls Groundwater Quarterly	CVTSS	GRND WTR	11/2/2015	11/3/2015	11/3/2015
L64009-5	421422-CFGW	SWD-CFGW Cedar Falls Groundwater Quarterly	CVTSS	GRND WTR	10/30/2015	11/3/2015	11/3/2015
L64009-7	421422-CFGW	SWD-CFGW Cedar Falls Groundwater Quarterly	CVTSS	GRND WTR	11/2/2015	11/3/2015	11/3/2015
L64015-1	421185-100	Elliot West CSO Plant	CVTSS	STORM WTR	10/31/2015	11/3/2015	11/3/2015
L64061-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTSS	STORM WTR	10/30/2015	11/3/2015	11/3/2015
L64061-2	423589-330-4	Green Rvr PCB/PAH Loading	CVTSS	STORM WTR	10/30/2015	11/3/2015	11/3/2015

L64069-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	11/2/2015	11/3/2015	11/3/2015
L64070-3	421422-CHSW-E	SWD-CHSW E Cedar Hills Emergency	CVTSS	FRESH WTR	11/2/2015	11/3/2015	11/3/2015
L64070-3	421422-CHSW-E	SWD-CHSW E Cedar Hills Emergency	CVVSS	FRESH WTR	11/2/2015	11/3/2015	11/4/2015
L64072-1	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVTSS	STORM WTR	10/31/2015	11/3/2015	11/3/2015
L64072-1	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVVSS	STORM WTR	10/31/2015	11/3/2015	11/4/2015
L64072-2	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVTSS	STORM WTR	10/31/2015	11/3/2015	11/3/2015
L64072-2	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVVSS	STORM WTR	10/31/2015	11/3/2015	11/4/2015
L64072-3	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVTSS	STORM WTR	10/31/2015	11/3/2015	11/3/2015
L64072-3	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVVSS	STORM WTR	10/31/2015	11/3/2015	11/4/2015
L64072-4	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVTSS	STORM WTR	10/31/2015	11/3/2015	11/3/2015
L64072-4	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVVSS	STORM WTR	10/31/2015	11/3/2015	11/4/2015
L64072-5	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVTSS	STORM WTR	10/31/2015	11/3/2015	11/3/2015
L64072-5	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVVSS	STORM WTR	10/31/2015	11/3/2015	11/4/2015
L64072-6	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVTSS	STORM WTR	10/31/2015	11/3/2015	11/3/2015
L64072-6	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVVSS	STORM WTR	10/31/2015	11/3/2015	11/4/2015
L64072-7	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVTSS	STORM WTR	10/31/2015	11/3/2015	11/3/2015
L64072-7	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVVSS	STORM WTR	10/31/2015	11/3/2015	11/4/2015
L64072-8	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVTSS	STORM WTR	10/31/2015	11/3/2015	11/3/2015
L64072-8	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVVSS	STORM WTR	10/31/2015	11/3/2015	11/4/2015
L64073-1	423650	Elliott West Monitoring	CVTSS	STORM WTR	10/30/2015	11/3/2015	11/3/2015
WG142751-1	MB		CVTSS	BLANK WTR		11/3/2015	11/3/2015
WG142751-1	MB		CVVSS	BLANK WTR		11/3/2015	11/4/2015
WG142751-2	LCS		CVTSS	BLANK WTR		11/3/2015	11/3/2015
WG142751-3	LD		CVTSS	FRESH WTR		11/3/2015	11/3/2015
WG142751-3	LD		CVVSS	FRESH WTR		11/3/2015	11/4/2015
WG142751-4	LD		CVTSS	STORM WTR		11/3/2015	11/3/2015
WG142751-4	LD		CVVSS	STORM WTR		11/3/2015	11/4/2015
WG142751-5	LD		CVTSS	GRND WTR		11/3/2015	11/3/2015
WG142751-6	LD		CVTSS	STORM WTR		11/3/2015	11/3/2015
WG142751-7	LD		CVTSS	STORM WTR		11/3/2015	11/3/2015

WG142931 (TOC, DOC/421422, 423589,) Department: 3 - Conventionals Move Date: 23-NOV-15

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date
L62562-1	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	STORM WTR	10/31/2015	11/2/2015	11/12/2015
L62562-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	STORM WTR	10/31/2015	11/12/2015	11/12/2015
L62562-2	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	STORM WTR	10/31/2015	11/2/2015	11/12/2015
L62562-2	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	STORM WTR	10/31/2015	11/12/2015	11/12/2015
L63864-1	421250ON	Ambient Offshore Water Column-North	CVDOC	FRESH WTR	10/19/2015	10/20/2015	11/12/2015
L63864-1	421250ON	Ambient Offshore Water Column-North	CVTOC	FRESH WTR	10/19/2015	11/12/2015	11/12/2015

L63864-2	421250ON	Ambient Offshore Water Column-North	CVDOC	FRESH WTR	10/19/2015	10/20/2015	11/12/2015
L63864-2	421250ON	Ambient Offshore Water Column-North	CVTOC	FRESH WTR	10/19/2015	11/12/2015	11/12/2015
L63864-3	421250ON	Ambient Offshore Water Column-North	CVDOC	FRESH WTR	10/19/2015	10/20/2015	11/12/2015
L63864-3	421250ON	Ambient Offshore Water Column-North	CVTOC	FRESH WTR	10/19/2015	11/12/2015	11/12/2015
L63865-1	421250ON	Ambient Offshore Water Column-North	CVDOC	SALT WTR	10/19/2015	10/20/2015	11/12/2015
L63865-1	421250ON	Ambient Offshore Water Column-North	CVTOC	SALT WTR	10/19/2015	11/12/2015	11/12/2015
L63865-2	421250ON	Ambient Offshore Water Column-North	CVDOC	SALT WTR	10/19/2015	10/20/2015	11/12/2015
L63865-2	421250ON	Ambient Offshore Water Column-North	CVTOC	SALT WTR	10/19/2015	11/12/2015	11/12/2015
L63865-3	421250ON	Ambient Offshore Water Column-North	CVDOC	SALT WTR	10/19/2015	10/20/2015	11/12/2015
L63865-3	421250ON	Ambient Offshore Water Column-North	CVTOC	SALT WTR	10/19/2015	11/12/2015	11/12/2015
L64061-1	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	STORM WTR	10/30/2015	10/31/2015	11/12/2015
L64061-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	STORM WTR	10/30/2015	11/12/2015	11/12/2015
L64061-2	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	STORM WTR	10/30/2015	10/31/2015	11/12/2015
L64061-2	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	STORM WTR	10/30/2015	11/12/2015	11/12/2015
L64072-1	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVDOC	STORM WTR	10/31/2015	11/2/2015	11/12/2015
L64072-2	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVDOC	STORM WTR	10/31/2015	11/2/2015	11/12/2015
L64072-3	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVDOC	STORM WTR	10/31/2015	11/2/2015	11/12/2015
L64072-4	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVDOC	STORM WTR	10/31/2015	11/2/2015	11/12/2015
L64072-5	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVDOC	STORM WTR	10/31/2015	11/2/2015	11/12/2015
L64072-6	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVDOC	STORM WTR	10/31/2015	11/2/2015	11/12/2015
L64072-7	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVDOC	STORM WTR	10/31/2015	11/2/2015	11/12/2015
L64072-8	423530	Brandon-Michigan CSO TP (Georgetown Wet Weather Station)	CVDOC	STORM WTR	10/31/2015	11/2/2015	11/12/2015
L64109-2	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	11/9/2015	11/12/2015	11/12/2015
L64109-4	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	11/9/2015	11/12/2015	11/12/2015
L64110-1	421422-HOGW	SWD-HOGW Hobart Groundwater Quarterly	CVTOC	GRND WTR	11/10/2015	11/12/2015	11/12/2015
L64110-3	421422-HOGW	SWD-HOGW Hobart Groundwater Quarterly	CVTOC	GRND WTR	11/10/2015	11/12/2015	11/12/2015
L64210-1	421422-HOGW	SWD-HOGW Hobart Groundwater Quarterly	CVTOC	GRND WTR	11/12/2015	11/12/2015	11/12/2015
L64210-3	421422-HOGW	SWD-HOGW Hobart Groundwater Quarterly	CVTOC	GRND WTR	11/12/2015	11/12/2015	11/12/2015
WG142931-1	MB		CVTOC	BLANK WTR		11/12/2015	11/12/2015
WG142931-2	SB		CVTOC	BLANK WTR		11/12/2015	11/12/2015
WG142931-3	LCS		CVTOC	BLANK WTR		11/12/2015	11/12/2015
WG142931-4	LD		CVTOC	GRND WTR		11/12/2015	11/12/2015
WG142931-5	MS		CVTOC	GRND WTR		11/12/2015	11/12/2015
WG142931-6	LD		CVDOC	FRESH WTR		10/20/2015	11/12/2015
WG142931-6	LD		CVTOC	FRESH WTR		11/12/2015	11/12/2015
WG142931-7	MS		CVDOC	SALT WTR		10/20/2015	11/12/2015
WG142931-7	MS		CVTOC	SALT WTR		11/12/2015	11/12/2015
WG142931-8	LD		CVTOC	STORM WTR		11/12/2015	11/12/2015
WG142931-9	MS		CVTOC	STORM WTR		11/12/2015	11/12/2015
WG142931-10	MB		CVDOC	BLANK WTR		10/20/2015	11/12/2015
WG142931-11	SB		CVDOC	BLANK WTR		10/20/2015	11/12/2015

WG142931-12	LCS	CVDOC	BLANK WTR	11/12/2015	11/12/2015
WG142931-13	MB	CVDOC	BLANK WTR	10/31/2015	11/12/2015
WG142931-14	LD	CVDOC	STORM WTR	10/31/2015	11/12/2015
WG142931-15	MS	CVDOC	STORM WTR	10/31/2015	11/12/2015
WG142931-16	MB	CVDOC	BLANK WTR	11/2/2015	11/12/2015

WG143430 (tss-2-12/10) Department: 3 - Conventionals Move Date: 18-DEC-15

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date
L64136-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTSS	STORM WTR	12/7/2015	12/11/2015	12/14/2015
L64136-2	423589-330-4	Green Rvr PCB/PAH Loading	CVTSS	STORM WTR	12/7/2015	12/11/2015	12/14/2015
L64196-1	421195-180	Mercer Island Stormwater Monitoring	CVTSS	STORM WTR	12/7/2015	12/11/2015	12/14/2015
L64196-2	421195-180	Mercer Island Stormwater Monitoring	CVTSS	STORM WTR	12/7/2015	12/11/2015	12/14/2015
L64196-3	421195-180	Mercer Island Stormwater Monitoring	CVTSS	STORM WTR	12/7/2015	12/11/2015	12/14/2015
L64196-4	421195-180	Mercer Island Stormwater Monitoring	CVTSS	STORM WTR	12/7/2015	12/11/2015	12/14/2015
L64196-5	421195-180	Mercer Island Stormwater Monitoring	CVTSS	STORM WTR	12/7/2015	12/11/2015	12/14/2015
L64296-1	422019	WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	12/7/2015	12/11/2015	12/14/2015
L64296-2	422019	WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	12/7/2015	12/11/2015	12/14/2015
L64296-3	422019	WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	12/7/2015	12/11/2015	12/14/2015
L64296-4	422019	WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	12/7/2015	12/11/2015	12/14/2015
L64296-5	422019	WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	12/7/2015	12/11/2015	12/14/2015
L64296-6	422019	WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	12/7/2015	12/11/2015	12/14/2015
L64296-7	422019	WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	12/7/2015	12/11/2015	12/14/2015
L64296-8	422019	WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	12/7/2015	12/11/2015	12/14/2015
L64296-9	422019	WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	12/7/2015	12/11/2015	12/14/2015
L64296-10	422019	WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	12/7/2015	12/11/2015	12/14/2015
L64296-11	422019	WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	12/7/2015	12/11/2015	12/14/2015
L64296-12	422019	WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	12/7/2015	12/11/2015	12/14/2015
L64311-1	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	12/7/2015	12/11/2015	12/14/2015
L64311-2	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	12/7/2015	12/11/2015	12/14/2015
L64311-3	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	12/7/2015	12/11/2015	12/14/2015
L64311-4	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	12/7/2015	12/11/2015	12/14/2015
L64311-5	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	12/7/2015	12/11/2015	12/14/2015
L64311-6	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	12/7/2015	12/11/2015	12/14/2015
L64311-8	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	12/7/2015	12/11/2015	12/14/2015
L64311-9	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	12/7/2015	12/11/2015	12/14/2015
L64311-10	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	12/7/2015	12/11/2015	12/14/2015
L64311-11	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	12/7/2015	12/11/2015	12/14/2015
L64311-12	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	12/7/2015	12/11/2015	12/14/2015
L64311-13	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	12/7/2015	12/11/2015	12/14/2015

L64311-14	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	12/7/2015	12/11/2015	12/14/2015
L64311-15	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	12/7/2015	12/11/2015	12/14/2015
L64311-16	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	12/7/2015	12/11/2015	12/14/2015
L64311-17	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	12/7/2015	12/11/2015	12/14/2015
L64311-19	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	12/7/2015	12/11/2015	12/14/2015
L64311-20	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	12/7/2015	12/11/2015	12/14/2015
L64311-21	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	12/7/2015	12/11/2015	12/14/2015
L64311-22	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	12/7/2015	12/11/2015	12/14/2015
L64311-23	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	12/7/2015	12/11/2015	12/14/2015
L64311-25	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	12/7/2015	12/11/2015	12/14/2015
L64311-26	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	12/7/2015	12/11/2015	12/14/2015
L64311-27	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	12/7/2015	12/11/2015	12/14/2015
L64311-29	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	12/7/2015	12/11/2015	12/14/2015
L64311-30	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	12/7/2015	12/11/2015	12/14/2015
L64311-31	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	12/7/2015	12/11/2015	12/14/2015
L64311-32	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	12/7/2015	12/11/2015	12/14/2015
L64311-33	421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	12/7/2015	12/11/2015	12/14/2015
L64369-1	421185-100	Elliot West CSO Plant	CVTSS	STORM WTR	12/6/2015	12/11/2015	12/14/2015
L64374-1	421185-100	Elliot West CSO Plant	CVTSS	STORM WTR	12/7/2015	12/11/2015	12/14/2015
L64374-2	421185-100	Elliot West CSO Plant	CVTSS	STORM WTR	12/8/2015	12/11/2015	12/14/2015
L64379-2	421879-250	Shoreline-Echo Lake Stormwater Monitoring	CVTSS	STORM WTR	12/8/2015	12/11/2015	12/14/2015
L64379-4	421879-250	Shoreline-Echo Lake Stormwater Monitoring	CVTSS	STORM WTR	12/8/2015	12/11/2015	12/14/2015
L64379-6	421879-250	Shoreline-Echo Lake Stormwater Monitoring	CVTSS	STORM WTR	12/8/2015	12/11/2015	12/14/2015
L64379-8	421879-250	Shoreline-Echo Lake Stormwater Monitoring	CVTSS	STORM WTR	12/8/2015	12/11/2015	12/14/2015
WG143430-1	MB		CVTSS	BLANK WTR		12/11/2015	12/14/2015
WG143430-2	LCS		CVTSS	BLANK WTR		12/11/2015	12/14/2015
WG143430-3	LD		CVTSS	STORM WTR		12/11/2015	12/14/2015
WG143430-4	LD		CVTSS	FRESH WTR		12/11/2015	12/14/2015
WG143430-5	MB		CVTSS	BLANK WTR		12/11/2015	12/14/2015
WG143430-6	LCS		CVTSS	BLANK WTR		12/11/2015	12/14/2015
WG143430-7	LD		CVTSS	FRESH WTR		12/11/2015	12/14/2015
WG143430-8	MB		CVTSS	BLANK WTR		12/11/2015	12/14/2015
WG143430-9	LCS		CVTSS	BLANK WTR		12/11/2015	12/14/2015
WG143430-10	LD		CVTSS	FRESH WTR		12/11/2015	12/14/2015

WG143627 (TOC/421422) Department: 3 - Conventionals Move Date: 23-DEC-15

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date
L64066-1	421240-210	Wet Weather Survey(Strmwtr)	CVTOC	STORM WTR	12/2/2015	12/18/2015	12/18/2015
L64066-2	421240-210	Wet Weather Survey(Strmwtr)	CVTOC	STORM WTR	12/2/2015	12/18/2015	12/18/2015

L64066-3	421240-210	Wet Weather Survey(Strmwtr)	CVTOC	STORM WTR	12/2/2015	12/18/2015	12/18/2015
L64066-4	421240-210	Wet Weather Survey(Strmwtr)	CVTOC	STORM WTR	12/2/2015	12/18/2015	12/18/2015
L64066-5	421240-210	Wet Weather Survey(Strmwtr)	CVTOC	STORM WTR	12/2/2015	12/18/2015	12/18/2015
L64066-6	421240-210	Wet Weather Survey(Strmwtr)	CVTOC	STORM WTR	12/2/2015	12/18/2015	12/18/2015
L64066-7	421240-210	Wet Weather Survey(Strmwtr)	CVTOC	STORM WTR	12/2/2015	12/18/2015	12/18/2015
L64082-6	421422-CHSW-Q	SWD-CHSW Q Cedar Hills Surface Water Quarterly	CVTOC	FRESH WTR	12/15/2015	12/17/2015	12/17/2015
L64083-5	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	11/30/2015	12/16/2015	12/16/2015
L64083-6	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	11/30/2015	12/16/2015	12/16/2015
L64109-5	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	12/8/2015	12/21/2015	12/21/2015
L64117-1	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	12/8/2015	12/16/2015	12/16/2015
L64136-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	STORM WTR	12/7/2015	12/18/2015	12/18/2015
L64136-2	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	STORM WTR	12/7/2015	12/18/2015	12/18/2015
L64221-1	421422-DUSW	SWD-DUSW Duvall Surface Water Quarterly	CVTOC	FRESH WTR	12/7/2015	12/16/2015	12/16/2015
L64221-2	421422-DUSW	SWD-DUSW Duvall Surface Water Quarterly	CVTOC	FRESH WTR	12/7/2015	12/16/2015	12/16/2015
L64221-3	421422-DUSW	SWD-DUSW Duvall Surface Water Quarterly	CVTOC	FRESH WTR	12/7/2015	12/16/2015	12/16/2015
L64253-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	12/8/2015	12/21/2015	12/21/2015
L64253-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	12/8/2015	12/21/2015	12/21/2015
L64253-4	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	12/9/2015	12/21/2015	12/21/2015
L64253-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	12/10/2015	12/16/2015	12/16/2015
L64253-7	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	12/11/2015	12/21/2015	12/21/2015
L64253-8	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	12/16/2015	12/17/2015	12/17/2015
L64253-9	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	LEACHATE	12/11/2015	12/16/2015	12/16/2015
L64253-10	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	12/14/2015	12/21/2015	12/21/2015
L64253-11	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	12/14/2015	12/16/2015	12/16/2015
L64253-12	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	12/14/2015	12/16/2015	12/16/2015
L64253-13	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	12/14/2015	12/21/2015	12/21/2015
L64253-15	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	12/9/2015	12/16/2015	12/16/2015
L64253-16	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	12/9/2015	12/16/2015	12/16/2015
L64253-20	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	12/9/2015	12/16/2015	12/16/2015
L64253-21	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	12/9/2015	12/16/2015	12/16/2015
L64253-22	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	12/9/2015	12/16/2015	12/16/2015
L64253-23	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	12/9/2015	12/16/2015	12/16/2015
L64253-24	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	12/10/2015	12/21/2015	12/21/2015
L64253-25	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	12/10/2015	12/16/2015	12/16/2015
L64253-26	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	12/16/2015	12/17/2015	12/17/2015
L64253-27	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	12/16/2015	12/17/2015	12/17/2015
L64253-28	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	12/16/2015	12/17/2015	12/17/2015
L64254-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	FRESH WTR	12/17/2015	12/17/2015	12/17/2015
L64254-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	12/17/2015	12/17/2015	12/17/2015
L64254-4	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	LEACHATE	12/17/2015	12/18/2015	12/18/2015
L64254-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	12/17/2015	12/17/2015	12/17/2015

L64254-7	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	12/14/2015	12/17/2015	12/17/2015
L64254-8	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	12/15/2015	12/17/2015	12/17/2015
L64254-9	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	12/15/2015	12/17/2015	12/17/2015
L64254-10	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	12/15/2015	12/17/2015	12/17/2015
L64254-11	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	12/11/2015	12/16/2015	12/16/2015
L64254-12	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	12/11/2015	12/21/2015	12/21/2015
L64254-13	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	12/10/2015	12/21/2015	12/21/2015
L64254-14	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	12/14/2015	12/16/2015	12/16/2015
L64254-15	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	12/15/2015	12/17/2015	12/17/2015
L64254-16	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	12/15/2015	12/17/2015	12/17/2015
L64254-17	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	12/15/2015	12/17/2015	12/17/2015
L64254-18	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	12/15/2015	12/17/2015	12/17/2015
L64254-19	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	12/16/2015	12/17/2015	12/17/2015
L64254-20	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	12/16/2015	12/17/2015	12/17/2015
L64254-21	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	12/14/2015	12/16/2015	12/16/2015
L64254-22	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	12/14/2015	12/16/2015	12/16/2015
L64328-1	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTOC	GRND WTR	12/10/2015	12/16/2015	12/16/2015
L64328-3	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTOC	GRND WTR	12/10/2015	12/16/2015	12/16/2015
L64328-4	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTOC	GRND WTR	12/10/2015	12/18/2015	12/18/2015
L64331-1	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTOC	LEACHATE	12/10/2015	12/16/2015	12/16/2015
L64331-3	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTOC	LEACHATE	12/9/2015	12/18/2015	12/18/2015
L64331-4	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTOC	LEACHATE	12/9/2015	12/16/2015	12/16/2015
L64331-5	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTOC	LEACHATE	12/8/2015	12/16/2015	12/16/2015
L64333-1	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTOC	GRND WTR	12/11/2015	12/16/2015	12/16/2015
L64333-3	421422-DUGW	SWD-DUGW Duvall Groundwater Quarterly	CVTOC	GRND WTR	12/11/2015	12/16/2015	12/16/2015
L64336-1	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	12/14/2015	12/17/2015	12/17/2015
L64336-2	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	12/14/2015	12/17/2015	12/17/2015
L64336-3	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	12/14/2015	12/17/2015	12/17/2015
L64336-4	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	12/14/2015	12/17/2015	12/17/2015
L64336-5	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	12/15/2015	12/17/2015	12/17/2015
L64336-6	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	12/15/2015	12/17/2015	12/17/2015
L64336-7	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	12/14/2015	12/17/2015	12/17/2015
L64336-8	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	12/14/2015	12/17/2015	12/17/2015
L64336-9	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	12/15/2015	12/17/2015	12/17/2015
L64336-10	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	12/14/2015	12/17/2015	12/17/2015
L64336-11	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	12/14/2015	12/17/2015	12/17/2015
L64336-12	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	12/14/2015	12/17/2015	12/17/2015
L64336-13	421422-CHSW-M	SWD-CHSW M Cedar Hills Surface Water Monthly	CVTOC	FRESH WTR	12/15/2015	12/17/2015	12/17/2015
L64355-1	421422-CHGW-NP	SWD-CHGW-NP Cedar Hills Groundwater Non-Potable	CVTOC	GRND WTR	12/15/2015	12/17/2015	12/17/2015
L64356-1	421422-HTGW	SWD-HTGW Houghton Groundwater Quarterly	CVTOC	GRND WTR	12/16/2015	12/17/2015	12/17/2015
L64356-3	421422-HTGW	SWD-HTGW Houghton Groundwater Quarterly	CVTOC	GRND WTR	12/16/2015	12/17/2015	12/17/2015

L64356-4	421422-HTGW	SWD-HTGW Houghton Groundwater Quarterly	CVTOC	GRND WTR	12/18/2015	12/18/2015	12/18/2015
L64356-5	421422-HTGW	SWD-HTGW Houghton Groundwater Quarterly	CVTOC	GRND WTR	12/16/2015	12/17/2015	12/17/2015
L64356-6	421422-HTGW	SWD-HTGW Houghton Groundwater Quarterly	CVTOC	GRND WTR	12/16/2015	12/17/2015	12/17/2015
L64356-7	421422-HTGW	SWD-HTGW Houghton Groundwater Quarterly	CVTOC	GRND WTR	12/16/2015	12/17/2015	12/17/2015
L64358-1	421422-HTGW	SWD-HTGW Houghton Groundwater Quarterly	CVTOC	GRND WTR	12/17/2015	12/18/2015	12/18/2015
L64358-3	421422-HTGW	SWD-HTGW Houghton Groundwater Quarterly	CVTOC	GRND WTR	12/17/2015	12/18/2015	12/18/2015
L64359-1	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTOC	GRND WTR	12/17/2015	12/17/2015	12/17/2015
L64359-3	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTOC	GRND WTR	12/17/2015	12/18/2015	12/18/2015
L64362-1	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTOC	GRND WTR	12/21/2015	12/21/2015	12/21/2015
L64362-3	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTOC	GRND WTR	12/21/2015	12/21/2015	12/21/2015
L64362-4	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTOC	GRND WTR	12/21/2015	12/21/2015	12/21/2015
L64362-5	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTOC	GRND WTR	12/21/2015	12/21/2015	12/21/2015
L64378-1	421185	WP INPLANT 3 Day INTENSIVE STUDY	CVTOC	STORM WTR	12/8/2015	12/18/2015	12/18/2015
L64379-2	421879-250	Shoreline-Echo Lake Stormwater Monitoring	CVTOC	STORM WTR	12/8/2015	12/18/2015	12/18/2015
L64379-4	421879-250	Shoreline-Echo Lake Stormwater Monitoring	CVTOC	STORM WTR	12/8/2015	12/18/2015	12/18/2015
L64379-6	421879-250	Shoreline-Echo Lake Stormwater Monitoring	CVTOC	STORM WTR	12/8/2015	12/18/2015	12/18/2015
L64379-8	421879-250	Shoreline-Echo Lake Stormwater Monitoring	CVTOC	STORM WTR	12/8/2015	12/18/2015	12/18/2015
WG143627-1	MB		CVTOC	BLANK WTR		12/16/2015	12/16/2015
WG143627-2	SB		CVTOC	BLANK WTR		12/16/2015	12/16/2015
WG143627-3	LCS		CVTOC	BLANK WTR		12/16/2015	12/16/2015
WG143627-4	MB		CVTOC	BLANK WTR		12/16/2015	12/16/2015
WG143627-5	LCS		CVTOC	BLANK WTR		12/16/2015	12/16/2015
WG143627-6	LD		CVTOC	LEACHATE		12/16/2015	12/16/2015
WG143627-7	MS		CVTOC	LEACHATE		12/16/2015	12/16/2015
WG143627-8	LD		CVTOC	FRESH WTR		12/16/2015	12/16/2015
WG143627-9	MS		CVTOC	FRESH WTR		12/16/2015	12/16/2015
WG143627-10	LD		CVTOC	GRND WTR		12/16/2015	12/16/2015
WG143627-11	MS		CVTOC	GRND WTR		12/16/2015	12/16/2015
WG143627-12	MB		CVTOC	BLANK WTR		12/17/2015	12/17/2015
WG143627-13	SB		CVTOC	BLANK WTR		12/17/2015	12/17/2015
WG143627-14	LCS		CVTOC	BLANK WTR		12/17/2015	12/17/2015
WG143627-15	MB		CVTOC	BLANK WTR		12/17/2015	12/17/2015
WG143627-16	LCS		CVTOC	BLANK WTR		12/17/2015	12/17/2015
WG143627-17	LD		CVTOC	FRESH WTR		12/17/2015	12/17/2015
WG143627-18	MS		CVTOC	FRESH WTR		12/17/2015	12/17/2015
WG143627-19	MB		CVTOC	BLANK WTR		12/17/2015	12/17/2015
WG143627-20	LCS		CVTOC	BLANK WTR		12/17/2015	12/17/2015
WG143627-21	MB		CVTOC	BLANK WTR		12/18/2015	12/18/2015
WG143627-22	SB		CVTOC	BLANK WTR		12/18/2015	12/18/2015
WG143627-23	LCS		CVTOC	BLANK WTR		12/18/2015	12/18/2015
WG143627-24	LD		CVTOC	GRND WTR		12/18/2015	12/18/2015

WG143627-25	MS	CVTOC	GRND WTR	12/18/2015	12/18/2015
WG143627-26	LD	CVTOC	STORM WTR	12/18/2015	12/18/2015
WG143627-27	MS	CVTOC	STORM WTR	12/18/2015	12/18/2015
WG143627-28	MB	CVTOC	BLANK WTR	12/21/2015	12/21/2015
WG143627-29	SB	CVTOC	BLANK WTR	12/21/2015	12/21/2015
WG143627-30	LCS	CVTOC	BLANK WTR	12/21/2015	12/21/2015
WG143627-31	LD	CVTOC	GRND WTR	12/21/2015	12/21/2015
WG143627-32	MS	CVTOC	GRND WTR	12/21/2015	12/21/2015
WG143627-33	LD	CVTOC	GRND WTR	12/21/2015	12/21/2015
WG143627-34	MS	CVTOC	GRND WTR	12/21/2015	12/21/2015

WG143740 (TSS-12/24) Department: 3 - Conventionals Move Date: 05-JAN-16

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date
L64231-1	421874-100	City of Shoreline Monthly Water Quality Monitoring	CVTSS	FRESH WTR	12/22/2015	12/24/2015	12/24/2015
L64231-2	421874-100	City of Shoreline Monthly Water Quality Monitoring	CVTSS	FRESH WTR	12/22/2015	12/24/2015	12/24/2015
L64231-3	421874-100	City of Shoreline Monthly Water Quality Monitoring	CVTSS	FRESH WTR	12/22/2015	12/24/2015	12/24/2015
L64231-4	421874-100	City of Shoreline Monthly Water Quality Monitoring	CVTSS	FRESH WTR	12/22/2015	12/24/2015	12/24/2015
L64231-5	421874-100	City of Shoreline Monthly Water Quality Monitoring	CVTSS	FRESH WTR	12/22/2015	12/24/2015	12/24/2015
L64231-6	421874-100	City of Shoreline Monthly Water Quality Monitoring	CVTSS	FRESH WTR	12/22/2015	12/24/2015	12/24/2015
L64231-7	421874-100	City of Shoreline Monthly Water Quality Monitoring	CVTSS	FRESH WTR	12/22/2015	12/24/2015	12/24/2015
L64362-1	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTSS	GRND WTR	12/21/2015	12/24/2015	12/24/2015
L64362-3	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTSS	GRND WTR	12/21/2015	12/24/2015	12/24/2015
L64362-4	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTSS	GRND WTR	12/21/2015	12/24/2015	12/24/2015
L64362-5	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTSS	GRND WTR	12/21/2015	12/24/2015	12/24/2015
L64421-3	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTSS	GRND WTR	12/22/2015	12/24/2015	12/24/2015
L64421-4	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTSS	GRND WTR	12/22/2015	12/24/2015	12/24/2015
L64421-6	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTSS	GRND WTR	12/22/2015	12/24/2015	12/24/2015
L64454-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTSS	STORM WTR	12/21/2015	12/24/2015	12/24/2015
L64454-2	423589-330-4	Green Rvr PCB/PAH Loading	CVTSS	STORM WTR	12/21/2015	12/24/2015	12/24/2015
L64454-3	423589-330-4	Green Rvr PCB/PAH Loading	CVTSS	STORM WTR	12/21/2015	12/24/2015	12/24/2015
L64454-4	423589-330-4	Green Rvr PCB/PAH Loading	CVTSS	STORM WTR	12/21/2015	12/24/2015	12/24/2015
L64468-1	423530-100	GTS Translator Study	CVTSS	STORM WTR	12/19/2015	12/24/2015	12/24/2015
L64468-2	423530-100	GTS Translator Study	CVTSS	FRESH WTR	12/19/2015	12/24/2015	12/24/2015
L64468-3	423530-100	GTS Translator Study	CVTSS	SALT WTR	12/19/2015	12/24/2015	12/24/2015
L64488-1	421185-100	Elliot West CSO Plant	CVTSS	STORM WTR	12/21/2015	12/24/2015	12/24/2015
WG143740-1	MB		CVTSS	BLANK WTR		12/24/2015	12/24/2015
WG143740-2	LCS		CVTSS	BLANK WTR		12/24/2015	12/24/2015
WG143740-3	LD		CVTSS	FRESH WTR		12/24/2015	12/24/2015
WG143740-4	LD		CVTSS	STORM WTR		12/24/2015	12/24/2015

WG143740-5	LD	CVTSS	GRND WTR	12/24/2015	12/24/2015
WG143740-6	MB	CVTSS	BLANK WTR	12/24/2015	12/24/2015
WG143740-7	LCS	CVTSS	BLANK WTR	12/24/2015	12/24/2015

WG143741 (DOC/421240, 323589, 42187) Department: 3 - Conventionals Move Date: 30-DEC-15

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date
L64066-1	421240-210	Wet Weather Survey(Strmwtr)	CVDOC	STORM WTR	12/2/2015	12/2/2015	12/23/2015
L64066-2	421240-210	Wet Weather Survey(Strmwtr)	CVDOC	STORM WTR	12/2/2015	12/2/2015	12/23/2015
L64066-3	421240-210	Wet Weather Survey(Strmwtr)	CVDOC	STORM WTR	12/2/2015	12/2/2015	12/23/2015
L64066-4	421240-210	Wet Weather Survey(Strmwtr)	CVDOC	STORM WTR	12/2/2015	12/2/2015	12/23/2015
L64066-5	421240-210	Wet Weather Survey(Strmwtr)	CVDOC	STORM WTR	12/2/2015	12/2/2015	12/23/2015
L64066-6	421240-210	Wet Weather Survey(Strmwtr)	CVDOC	STORM WTR	12/2/2015	12/2/2015	12/23/2015
L64066-7	421240-210	Wet Weather Survey(Strmwtr)	CVDOC	STORM WTR	12/2/2015	12/2/2015	12/23/2015
L64136-1	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	STORM WTR	12/7/2015	12/8/2015	12/23/2015
L64136-2	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	STORM WTR	12/7/2015	12/8/2015	12/23/2015
L64379-2	421879-250	Shoreline-Echo Lake Stormwater Monitoring	CVDOC	STORM WTR	12/8/2015	12/9/2015	12/23/2015
L64379-4	421879-250	Shoreline-Echo Lake Stormwater Monitoring	CVDOC	STORM WTR	12/8/2015	12/9/2015	12/23/2015
WG143741-1	MB		CVDOC	BLANK WTR		12/2/2015	12/23/2015
WG143741-2	SB		CVDOC	BLANK WTR		12/2/2015	12/23/2015
WG143741-3	LCS		CVDOC	BLANK WTR		12/23/2015	12/23/2015
WG143741-4	LD		CVDOC	STORM WTR		12/2/2015	12/23/2015
WG143741-5	MS		CVDOC	STORM WTR		12/2/2015	12/23/2015
WG143741-6	MB		CVDOC	BLANK WTR		12/8/2015	12/23/2015
WG143741-7	MB		CVDOC	BLANK WTR		12/9/2015	12/23/2015

WG143826 (TOC, DOC/421422, 421250 &) Department: 3 - Conventionals Move Date: 07-JAN-16

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date
L64112-1	421422-VASW	SWD-VASW Vashon Surface Water Quarterly	CVTOC	FRESH WTR	12/28/2015	12/30/2015	12/30/2015
L64112-3	421422-VASW	SWD-VASW Vashon Surface Water Quarterly	CVTOC	FRESH WTR	12/28/2015	12/30/2015	12/30/2015
L64112-4	421422-VASW	SWD-VASW Vashon Surface Water Quarterly	CVTOC	FRESH WTR	12/28/2015	12/30/2015	12/30/2015
L64192-1	421250ON	Ambient Offshore Water Column-North	CVDOC	FRESH WTR	12/14/2015	12/15/2015	12/31/2015
L64192-1	421250ON	Ambient Offshore Water Column-North	CVTOC	FRESH WTR	12/14/2015	12/30/2015	12/30/2015
L64192-2	421250ON	Ambient Offshore Water Column-North	CVDOC	FRESH WTR	12/14/2015	12/15/2015	12/31/2015
L64192-2	421250ON	Ambient Offshore Water Column-North	CVTOC	FRESH WTR	12/14/2015	12/30/2015	12/30/2015
L64192-3	421250ON	Ambient Offshore Water Column-North	CVDOC	FRESH WTR	12/14/2015	12/15/2015	12/31/2015
L64192-3	421250ON	Ambient Offshore Water Column-North	CVTOC	FRESH WTR	12/14/2015	12/30/2015	12/30/2015
L64193-1	421250ON	Ambient Offshore Water Column-North	CVDOC	SALT WTR	12/14/2015	12/15/2015	12/31/2015

L64193-1	421250ON	Ambient Offshore Water Column-North	CVTOC	SALT WTR	12/14/2015	12/30/2015	12/30/2015
L64193-2	421250ON	Ambient Offshore Water Column-North	CVDOC	SALT WTR	12/14/2015	12/15/2015	12/31/2015
L64193-2	421250ON	Ambient Offshore Water Column-North	CVTOC	SALT WTR	12/14/2015	12/30/2015	12/30/2015
L64193-3	421250ON	Ambient Offshore Water Column-North	CVDOC	SALT WTR	12/14/2015	12/15/2015	12/31/2015
L64193-3	421250ON	Ambient Offshore Water Column-North	CVTOC	SALT WTR	12/14/2015	12/30/2015	12/30/2015
L64378-1	421185	WP INPLANT 3 Day INTENSIVE STUDY	CVDOC	STORM WTR	12/8/2015	12/9/2015	12/30/2015
L64378-2	421185	WP INPLANT 3 Day INTENSIVE STUDY	CVDOC	SALT WTR	12/8/2015	12/9/2015	12/30/2015
L64378-2	421185	WP INPLANT 3 Day INTENSIVE STUDY	CVTOC	SALT WTR	12/8/2015	12/30/2015	12/30/2015
L64378-3	421185	WP INPLANT 3 Day INTENSIVE STUDY	CVDOC	SALT WTR	12/8/2015	12/9/2015	12/30/2015
L64378-3	421185	WP INPLANT 3 Day INTENSIVE STUDY	CVTOC	SALT WTR	12/8/2015	12/30/2015	12/30/2015
L64379-6	421879-250	Shoreline-Echo Lake Stormwater Monitoring	CVDOC	STORM WTR	12/8/2015	12/9/2015	12/30/2015
L64379-8	421879-250	Shoreline-Echo Lake Stormwater Monitoring	CVDOC	STORM WTR	12/8/2015	12/9/2015	12/30/2015
L64421-1	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTOC	GRND WTR	12/29/2015	12/30/2015	12/30/2015
L64421-3	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTOC	GRND WTR	12/22/2015	12/30/2015	12/30/2015
L64421-4	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTOC	GRND WTR	12/22/2015	12/30/2015	12/30/2015
L64421-6	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTOC	GRND WTR	12/22/2015	12/30/2015	12/30/2015
L64425-1	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTOC	GRND WTR	12/29/2015	12/30/2015	12/30/2015
L64425-3	421422-PUGW	SWD-PUGW Puyallup Groundwater Quarterly	CVTOC	GRND WTR	12/30/2015	12/30/2015	12/30/2015
L64454-1	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	STORM WTR	12/21/2015	12/22/2015	12/31/2015
L64454-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	STORM WTR	12/21/2015	12/30/2015	12/30/2015
L64454-2	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	STORM WTR	12/21/2015	12/22/2015	12/31/2015
L64454-2	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	STORM WTR	12/21/2015	12/30/2015	12/30/2015
L64454-3	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	STORM WTR	12/21/2015	12/22/2015	12/31/2015
L64454-3	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	STORM WTR	12/21/2015	12/30/2015	12/30/2015
L64454-4	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	STORM WTR	12/21/2015	12/22/2015	12/31/2015
L64454-4	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	STORM WTR	12/21/2015	12/30/2015	12/30/2015
L64457-1	421520-500	RSMP Status and Trends - Streams	CVDOC	FRESH WTR	12/28/2015	12/30/2015	12/31/2015
L64457-2	421520-500	RSMP Status and Trends - Streams	CVDOC	FRESH WTR	12/28/2015	12/30/2015	12/31/2015
L64457-3	421520-500	RSMP Status and Trends - Streams	CVDOC	FRESH WTR	12/28/2015	12/30/2015	12/31/2015
L64457-4	421520-500	RSMP Status and Trends - Streams	CVDOC	FRESH WTR	12/28/2015	12/30/2015	12/31/2015
L64457-5	421520-500	RSMP Status and Trends - Streams	CVDOC	FRESH WTR	12/28/2015	12/30/2015	12/31/2015
L64457-6	421520-500	RSMP Status and Trends - Streams	CVDOC	FRESH WTR	12/28/2015	12/30/2015	12/31/2015
L64468-1	423530-100	GTS Translator Study	CVDOC	STORM WTR	12/19/2015	12/19/2015	12/31/2015
L64468-1	423530-100	GTS Translator Study	CVTOC	STORM WTR	12/19/2015	12/30/2015	12/30/2015
L64468-2	423530-100	GTS Translator Study	CVDOC	FRESH WTR	12/19/2015	12/19/2015	12/31/2015
L64468-2	423530-100	GTS Translator Study	CVTOC	FRESH WTR	12/19/2015	12/30/2015	12/30/2015
L64468-3	423530-100	GTS Translator Study	CVDOC	SALT WTR	12/19/2015	12/19/2015	12/31/2015
L64468-3	423530-100	GTS Translator Study	CVTOC	SALT WTR	12/19/2015	12/30/2015	12/30/2015
WG143826-1	MB		CVTOC	BLANK WTR		12/30/2015	12/30/2015
WG143826-2	SB		CVTOC	BLANK WTR		12/30/2015	12/30/2015
WG143826-3	LCS		CVTOC	BLANK WTR		12/30/2015	12/30/2015

WG143826-4	LD	CVTOC	GRND WTR	12/30/2015	12/30/2015
WG143826-5	MS	CVTOC	GRND WTR	12/30/2015	12/30/2015
WG143826-6	LD	CVTOC	FRESH WTR	12/30/2015	12/30/2015
WG143826-7	MS	CVTOC	FRESH WTR	12/30/2015	12/30/2015
WG143826-8	LD	CVDOC	SALT WTR	12/9/2015	12/30/2015
WG143826-8	LD	CVTOC	SALT WTR	12/30/2015	12/30/2015
WG143826-9	MS	CVDOC	SALT WTR	12/9/2015	12/31/2015
WG143826-9	MS	CVTOC	SALT WTR	12/30/2015	12/30/2015
WG143826-10	MB	CVTOC	BLANK WTR	12/30/2015	12/30/2015
WG143826-11	LCS	CVTOC	BLANK WTR	12/30/2015	12/30/2015
WG143826-12	LD	CVTOC	STORM WTR	12/30/2015	12/30/2015
WG143826-13	MS	CVDOC	STORM WTR	12/22/2015	12/31/2015
WG143826-13	MS	CVTOC	STORM WTR	12/30/2015	12/30/2015
WG143826-14	MB	CVDOC	BLANK WTR	12/9/2015	12/30/2015
WG143826-15	SB	CVDOC	BLANK WTR	12/9/2015	12/30/2015
WG143826-16	LCS	CVDOC	BLANK WTR	12/30/2015	12/30/2015
WG143826-17	MB	CVDOC	BLANK WTR	12/15/2015	12/31/2015
WG143826-18	LD	CVDOC	FRESH WTR	12/15/2015	12/31/2015
WG143826-19	MS	CVDOC	FRESH WTR	12/15/2015	12/31/2015
WG143826-20	MB	CVDOC	BLANK WTR	12/22/2015	12/31/2015
WG143826-21	LD	CVDOC	STORM WTR	12/22/2015	12/31/2015
WG143826-22	MB	CVDOC	BLANK WTR	12/30/2015	12/31/2015
WG143826-23	LCS	CVDOC	BLANK WTR	12/31/2015	12/31/2015

WG148326 (TOC/DOC - various) Department: 3 - Conventionals Move Date: 18-OCT-16

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date
L65721-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/11/2016	10/11/2016	10/11/2016
L65721-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/11/2016	10/11/2016	10/11/2016
L66285-3	421879-250	Shoreline-Echo Lake Stormwater Monitoring	CVDOC	STORM WTR	10/6/2016	10/7/2016	10/11/2016
L66285-3	421879-250	Shoreline-Echo Lake Stormwater Monitoring	CVTOC	STORM WTR	10/6/2016	10/11/2016	10/11/2016
L66302-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/6/2016	10/11/2016	10/11/2016
L66302-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/6/2016	10/11/2016	10/11/2016
L66302-4	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/6/2016	10/11/2016	10/11/2016
L66302-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/6/2016	10/11/2016	10/11/2016
L66305-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/10/2016	10/11/2016	10/11/2016
L66305-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/7/2016	10/11/2016	10/11/2016
L66305-4	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/7/2016	10/11/2016	10/11/2016
L66305-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/10/2016	10/11/2016	10/11/2016
L66307-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/10/2016	10/11/2016	10/11/2016

L66307-4	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/10/2016	10/11/2016	10/11/2016
L66307-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/11/2016	10/11/2016	10/11/2016
L66333-1	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	STORM WTR	10/6/2016	10/7/2016	10/11/2016
L66333-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	STORM WTR	10/6/2016	10/11/2016	10/11/2016
L66333-2	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	STORM WTR	10/6/2016	10/7/2016	10/11/2016
L66333-2	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	STORM WTR	10/6/2016	10/11/2016	10/11/2016
WG148326-1	MB		CVDOC	BLANK WTR		10/11/2016	10/11/2016
WG148326-1	MB		CVTOC	BLANK WTR		10/11/2016	10/11/2016
WG148326-2	SB		CVDOC	BLANK WTR		10/11/2016	10/11/2016
WG148326-2	SB		CVTOC	BLANK WTR		10/11/2016	10/11/2016
WG148326-3	LCS		CVDOC	BLANK WTR		10/11/2016	10/11/2016
WG148326-3	LCS		CVTOC	BLANK WTR		10/11/2016	10/11/2016
WG148326-4	LD		CVTOC	GRND WTR		10/11/2016	10/11/2016
WG148326-5	MS		CVTOC	GRND WTR		10/11/2016	10/11/2016
WG148326-6	LD		CVDOC	STORM WTR		10/7/2016	10/11/2016
WG148326-6	LD		CVTOC	STORM WTR		10/11/2016	10/11/2016
WG148326-7	MS		CVDOC	STORM WTR		10/7/2016	10/11/2016
WG148326-7	MS		CVTOC	STORM WTR		10/11/2016	10/11/2016

WG148358 (TSS) Department: 3 - Conventionals Move Date: 20-OCT-16

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date
L65721-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/11/2016	10/12/2016	10/13/2016
L65721-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/11/2016	10/12/2016	10/13/2016
L66305-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/10/2016	10/12/2016	10/13/2016
L66305-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/7/2016	10/12/2016	10/13/2016
L66305-4	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/7/2016	10/12/2016	10/13/2016
L66305-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/10/2016	10/12/2016	10/13/2016
L66307-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/10/2016	10/12/2016	10/13/2016
L66307-4	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/10/2016	10/12/2016	10/13/2016
L66307-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/11/2016	10/12/2016	10/13/2016
L66333-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTSS	STORM WTR	10/6/2016	10/12/2016	10/13/2016
L66333-2	423589-330-4	Green Rvr PCB/PAH Loading	CVTSS	STORM WTR	10/6/2016	10/12/2016	10/13/2016
L66336-7	422019	WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	10/10/2016	10/12/2016	10/13/2016
L66336-8	422019	WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	10/10/2016	10/12/2016	10/13/2016
L66336-9	422019	WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	10/10/2016	10/12/2016	10/13/2016
L66336-10	422019	WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	10/10/2016	10/12/2016	10/13/2016
L66336-11	422019	WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	10/10/2016	10/12/2016	10/13/2016
L66336-12	422019	WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	10/10/2016	10/12/2016	10/13/2016
L66336-14	422019	WRIA 7 Streams Ambient Monitoring	CVTSS	FRESH WTR	10/10/2016	10/12/2016	10/13/2016

L66338-1	421240A		STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	10/11/2016	10/12/2016	10/13/2016
L66338-2	421240A		STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	10/11/2016	10/12/2016	10/13/2016
L66338-3	421240A		STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	10/11/2016	10/12/2016	10/13/2016
L66338-4	421240A		STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	10/11/2016	10/12/2016	10/13/2016
L66338-5	421240A		STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	10/11/2016	10/12/2016	10/13/2016
L66338-6	421240A		STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	10/11/2016	10/12/2016	10/13/2016
L66338-7	421240A		STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	10/11/2016	10/12/2016	10/13/2016
L66338-8	421240A		STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	10/11/2016	10/12/2016	10/13/2016
L66338-9	421240A		STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	10/11/2016	10/12/2016	10/13/2016
L66338-10	421240A		STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	10/11/2016	10/12/2016	10/13/2016
L66338-11	421240A		STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	10/11/2016	10/12/2016	10/13/2016
L66339-1	421240A		STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	10/11/2016	10/12/2016	10/13/2016
L66339-2	421240A		STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	10/11/2016	10/12/2016	10/13/2016
L66339-3	421240A		STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	10/11/2016	10/12/2016	10/13/2016
L66339-4	421240A		STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	10/11/2016	10/12/2016	10/13/2016
L66339-5	421240A		STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	10/11/2016	10/12/2016	10/13/2016
L66339-6	421240A		STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	10/11/2016	10/12/2016	10/13/2016
L66339-7	421240A		STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	10/11/2016	10/12/2016	10/13/2016
L66339-8	421240A		STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	10/11/2016	10/12/2016	10/13/2016
L66339-9	421240A		STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	10/11/2016	10/12/2016	10/13/2016
L66339-10	421240A		STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	10/11/2016	10/12/2016	10/13/2016
L66339-11	421240A		STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	10/11/2016	10/12/2016	10/13/2016
L66339-12	421240A		STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	10/11/2016	10/12/2016	10/13/2016
L66339-14	421240A		STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	10/11/2016	10/12/2016	10/13/2016
L66344-39		421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	10/11/2016	10/12/2016	10/13/2016
L66344-40		421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	10/11/2016	10/12/2016	10/13/2016
L66344-41		421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	10/11/2016	10/12/2016	10/13/2016
L66344-42		421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	10/11/2016	10/12/2016	10/13/2016
L66344-43		421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	10/11/2016	10/12/2016	10/13/2016
L66344-44		421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	10/11/2016	10/12/2016	10/13/2016
L66344-46		421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	10/11/2016	10/12/2016	10/13/2016
L66344-47		421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	10/11/2016	10/12/2016	10/13/2016
L66344-48		421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	10/11/2016	10/12/2016	10/13/2016
L66344-49		421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	10/11/2016	10/12/2016	10/13/2016
L66344-50		421235	MAJOR LAKES (wtr col)	CVTSS	FRESH WTR	10/11/2016	10/12/2016	10/13/2016
WG148358-1	MB			CVTSS	BLANK WTR		10/12/2016	10/13/2016
WG148358-2	LCS			CVTSS	BLANK WTR		10/12/2016	10/13/2016
WG148358-3	LD			CVTSS	GRND WTR		10/12/2016	10/13/2016
WG148358-4	LD			CVTSS	STORM WTR		10/12/2016	10/13/2016
WG148358-5	LD			CVTSS	FRESH WTR		10/12/2016	10/13/2016
WG148358-6	MB			CVTSS	BLANK WTR		10/12/2016	10/13/2016

WG148358-7	LCS	CVTSS	BLANK WTR	10/12/2016	10/13/2016
WG148358-8	LD	CVTSS	FRESH WTR	10/12/2016	10/13/2016
WG148358-9	MB	CVTSS	BLANK WTR	10/12/2016	10/13/2016
WG148358-10	LCS	CVTSS	BLANK WTR	10/12/2016	10/13/2016
WG148358-11	LD	CVTSS	FRESH WTR	10/12/2016	10/13/2016
WG148358-12	LD	CVTSS	FRESH WTR	10/12/2016	10/13/2016

WG148385 (TSS/VSS) Department: 3 - Conventionals Move Date: 20-OCT-16

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date
L65693-1	421422-CHSW-P	SWD-CHSW P Cedar Hills Surface Water Permit	CVTSS	STORM WTR	10/13/2016	10/14/2016	10/14/2016
L65693-2	421422-CHSW-P	SWD-CHSW P Cedar Hills Surface Water Permit	CVTSS	STORM WTR	10/13/2016	10/14/2016	10/14/2016
L66314-1	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTSS	LEACHATE	10/12/2016	10/14/2016	10/14/2016
L66314-1	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVVSS	LEACHATE	10/12/2016	10/14/2016	10/14/2016
L66314-3	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTSS	LEACHATE	10/12/2016	10/14/2016	10/14/2016
L66314-3	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVVSS	LEACHATE	10/12/2016	10/14/2016	10/14/2016
L66314-5	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTSS	LEACHATE	10/12/2016	10/14/2016	10/14/2016
L66314-5	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVVSS	LEACHATE	10/12/2016	10/14/2016	10/14/2016
L66315-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/13/2016	10/14/2016	10/14/2016
L66317-1	421422-ENLS	SWD-ENLS Enumclaw Wastewater Permit	CVTSS	IW WTR	10/12/2016	10/14/2016	10/14/2016
L66318-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	10/13/2016	10/14/2016	10/14/2016
L66327-1	421301A	Georgetown Yard Industiral SW Monitoring	CVTSS	STORM WTR	10/13/2016	10/14/2016	10/14/2016
L66360-1	421240A	STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	10/12/2016	10/14/2016	10/14/2016
L66360-2	421240A	STREAMS MONITOR (surf wtr)	CVTSS	FRESH WTR	10/12/2016	10/14/2016	10/14/2016
L66382-9	421879-250	Shoreline-Echo Lake Stormwater Monitoring	CVTSS	STORM WTR	10/13/2016	10/14/2016	10/14/2016
L66382-11	421879-250	Shoreline-Echo Lake Stormwater Monitoring	CVTSS	STORM WTR	10/13/2016	10/14/2016	10/14/2016
L66382-17	421879-250	Shoreline-Echo Lake Stormwater Monitoring	CVTSS	STORM WTR	10/13/2016	10/14/2016	10/14/2016
L66382-19	421879-250	Shoreline-Echo Lake Stormwater Monitoring	CVTSS	STORM WTR	10/13/2016	10/14/2016	10/14/2016
L66384-1	421879-250	Shoreline-Echo Lake Stormwater Monitoring	CVTSS	STORM WTR	10/13/2016	10/14/2016	10/14/2016
L66384-3	421879-250	Shoreline-Echo Lake Stormwater Monitoring	CVTSS	STORM WTR	10/13/2016	10/14/2016	10/14/2016
L66408-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTSS	STORM WTR	10/13/2016	10/14/2016	10/14/2016
L66408-2	423589-330-4	Green Rvr PCB/PAH Loading	CVTSS	STORM WTR	10/13/2016	10/14/2016	10/14/2016
WG148385-1	MB		CVTSS	BLANK WTR		10/14/2016	10/14/2016
WG148385-1	MB		CVVSS	BLANK WTR		10/14/2016	10/14/2016
WG148385-2	LCS		CVTSS	BLANK WTR		10/14/2016	10/14/2016
WG148385-2	LCS		CVVSS	BLANK WTR		10/14/2016	10/14/2016
WG148385-3	LD		CVTSS	STORM WTR		10/14/2016	10/14/2016
WG148385-4	LD		CVTSS	LEACHATE		10/14/2016	10/14/2016
WG148385-4	LD		CVVSS	LEACHATE		10/14/2016	10/14/2016
WG148385-5	LD		CVTSS	GRND WTR		10/14/2016	10/14/2016

WG148385-6	LD	CVTSS	IW WTR	10/14/2016	10/14/2016
WG148385-7	LD	CVTSS	FRESH WTR	10/14/2016	10/14/2016

WG148546 (TOC/DOC - various) Department: 3 - Conventionals Move Date: 26-OCT-16

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date
L66274-1	421937-200	Brightwater Pilot MBR Study	CVTOC	INFLUENT	10/3/2016	10/20/2016	10/20/2016
L66274-2	421937-200	Brightwater Pilot MBR Study	CVTOC	EFFLUENT	10/3/2016	10/20/2016	10/20/2016
L66275-2	421937-200	Brightwater Pilot MBR Study	CVTOC	INFLUENT	10/4/2016	10/20/2016	10/20/2016
L66275-3	421937-200	Brightwater Pilot MBR Study	CVTOC	EFFLUENT	10/4/2016	10/20/2016	10/20/2016
L66315-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/13/2016	10/20/2016	10/20/2016
L66318-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/13/2016	10/20/2016	10/20/2016
L66320-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/17/2016	10/20/2016	10/20/2016
L66384-3	421879-250	Shoreline-Echo Lake Stormwater Monitoring	CVDOC	STORM WTR	10/13/2016	10/13/2016	10/20/2016
L66403-1	421422-CHSW-A5-T	SWD-CHSW - A5 TD Cedar Hills Surface Area 5 Top Deck	CVTOC	FRESH WTR	10/14/2016	10/20/2016	10/20/2016
L66403-2	421422-CHSW-A5-T	SWD-CHSW - A5 TD Cedar Hills Surface Area 5 Top Deck	CVTOC	FRESH WTR	10/14/2016	10/20/2016	10/20/2016
L66403-3	421422-CHSW-A5-T	SWD-CHSW - A5 TD Cedar Hills Surface Area 5 Top Deck	CVTOC	FRESH WTR	10/14/2016	10/20/2016	10/20/2016
L66403-4	421422-CHSW-A5-T	SWD-CHSW - A5 TD Cedar Hills Surface Area 5 Top Deck	CVTOC	FRESH WTR	10/14/2016	10/20/2016	10/20/2016
L66408-1	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	STORM WTR	10/13/2016	10/13/2016	10/20/2016
L66408-2	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	STORM WTR	10/13/2016	10/13/2016	10/20/2016
WG148546-1	MB		CVTOC	BLANK WTR		10/20/2016	10/20/2016
WG148546-2	SB		CVTOC	BLANK WTR		10/20/2016	10/20/2016
WG148546-3	LCS		CVTOC	BLANK WTR		10/20/2016	10/20/2016
WG148546-4	LD		CVTOC	FRESH WTR		10/20/2016	10/20/2016
WG148546-5	MS		CVTOC	FRESH WTR		10/20/2016	10/20/2016
WG148546-6	LD		CVTOC	GRND WTR		10/20/2016	10/20/2016
WG148546-7	MS		CVTOC	GRND WTR		10/20/2016	10/20/2016
WG148546-8	LD		CVTOC	INFLUENT		10/20/2016	10/20/2016
WG148546-9	MS		CVTOC	INFLUENT		10/20/2016	10/20/2016
WG148546-10	LD		CVTOC	EFFLUENT		10/20/2016	10/20/2016
WG148546-11	MS		CVTOC	EFFLUENT		10/20/2016	10/20/2016
WG148546-12	MB		CVDOC	BLANK WTR		10/18/2016	10/20/2016
WG148546-13	SB		CVDOC	BLANK WTR		10/18/2016	10/20/2016
WG148546-14	LCS		CVDOC	BLANK WTR		10/20/2016	10/20/2016
WG148546-15	LD		CVDOC	STORM WTR		10/13/2016	10/20/2016
WG148546-16	MS		CVDOC	STORM WTR		10/13/2016	10/20/2016

WG148655 (TOC/DOC - various) Department: 3 - Conventionals Move Date: 02-NOV-16

LIMSView Batch Report for Green River PCB Equipment Blank Study - Data Validation

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date
L65721-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/21/2016	10/24/2016	10/24/2016
L66307-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/21/2016	10/24/2016	10/24/2016
L66314-1	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTOC	LEACHATE	10/12/2016	10/25/2016	10/25/2016
L66314-3	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTOC	LEACHATE	10/12/2016	10/25/2016	10/25/2016
L66314-4	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTOC	LEACHATE	10/18/2016	10/25/2016	10/25/2016
L66314-5	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTOC	LEACHATE	10/12/2016	10/25/2016	10/25/2016
L66314-7	421422-CHLS-M	SWD-CHLS-M Cedar Hills Leachate Monthly	CVTOC	LEACHATE	10/17/2016	10/25/2016	10/25/2016
L66315-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/20/2016	10/24/2016	10/24/2016
L66318-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/20/2016	10/24/2016	10/24/2016
L66318-4	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/21/2016	10/24/2016	10/24/2016
L66320-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/19/2016	10/24/2016	10/24/2016
L66320-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTOC	GRND WTR	10/21/2016	10/24/2016	10/24/2016
L66330-1	421250ON	Ambient Offshore Water Column-North	CVDOC	FRESH WTR	10/17/2016	10/18/2016	10/24/2016
L66330-1	421250ON	Ambient Offshore Water Column-North	CVTOC	FRESH WTR	10/17/2016	10/24/2016	10/24/2016
L66330-2	421250ON	Ambient Offshore Water Column-North	CVDOC	FRESH WTR	10/17/2016	10/18/2016	10/24/2016
L66330-2	421250ON	Ambient Offshore Water Column-North	CVTOC	FRESH WTR	10/17/2016	10/24/2016	10/24/2016
L66330-3	421250ON	Ambient Offshore Water Column-North	CVDOC	FRESH WTR	10/17/2016	10/18/2016	10/24/2016
L66330-3	421250ON	Ambient Offshore Water Column-North	CVTOC	FRESH WTR	10/17/2016	10/24/2016	10/24/2016
L66331-1	421250ON	Ambient Offshore Water Column-North	CVTOC	SALT WTR	10/17/2016	10/24/2016	10/24/2016
L66331-2	421250ON	Ambient Offshore Water Column-North	CVDOC	SALT WTR	10/17/2016	10/18/2016	10/24/2016
L66331-2	421250ON	Ambient Offshore Water Column-North	CVTOC	SALT WTR	10/17/2016	10/24/2016	10/24/2016
L66331-3	421250ON	Ambient Offshore Water Column-North	CVDOC	SALT WTR	10/17/2016	10/18/2016	10/24/2016
L66331-3	421250ON	Ambient Offshore Water Column-North	CVTOC	SALT WTR	10/17/2016	10/24/2016	10/24/2016
L66384-3	421879-250	Shoreline-Echo Lake Stormwater Monitoring	CVTOC	STORM WTR	10/13/2016	10/24/2016	10/24/2016
L66408-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	STORM WTR	10/13/2016	10/24/2016	10/24/2016
L66408-2	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	STORM WTR	10/13/2016	10/24/2016	10/24/2016
L66435-3	421879-250	Shoreline-Echo Lake Stormwater Monitoring	CVDOC	STORM WTR	10/19/2016	10/20/2016	10/24/2016
L66435-3	421879-250	Shoreline-Echo Lake Stormwater Monitoring	CVTOC	STORM WTR	10/19/2016	10/25/2016	10/25/2016
L66437-1	421422-CHGW-OS	SWD-CHGW-OS Cedar Hills Groundwater Off-Site	CVTOC	GRND WTR	10/19/2016	10/24/2016	10/24/2016
L66453-1	421879-240	Federal Way Stormwater Monitoring	CVDOC	STORM WTR	10/20/2016	10/21/2016	10/24/2016
L66453-1	421879-240	Federal Way Stormwater Monitoring	CVTOC	STORM WTR	10/20/2016	10/25/2016	10/25/2016
L66453-2	421879-240	Federal Way Stormwater Monitoring	CVDOC	STORM WTR	10/20/2016	10/21/2016	10/24/2016
L66453-2	421879-240	Federal Way Stormwater Monitoring	CVTOC	STORM WTR	10/20/2016	10/25/2016	10/25/2016
L66453-3	421879-240	Federal Way Stormwater Monitoring	CVDOC	STORM WTR	10/20/2016	10/21/2016	10/24/2016
L66453-3	421879-240	Federal Way Stormwater Monitoring	CVTOC	STORM WTR	10/20/2016	10/25/2016	10/25/2016
L66453-4	421879-240	Federal Way Stormwater Monitoring	CVDOC	STORM WTR	10/20/2016	10/21/2016	10/24/2016
L66453-4	421879-240	Federal Way Stormwater Monitoring	CVTOC	STORM WTR	10/20/2016	10/25/2016	10/25/2016
L66453-5	421879-240	Federal Way Stormwater Monitoring	CVDOC	STORM WTR	10/19/2016	10/21/2016	10/24/2016
L66453-5	421879-240	Federal Way Stormwater Monitoring	CVTOC	STORM WTR	10/19/2016	10/25/2016	10/25/2016
L66453-6	421879-240	Federal Way Stormwater Monitoring	CVDOC	STORM WTR	10/19/2016	10/21/2016	10/24/2016

L66453-6	421879-240	Federal Way Stormwater Monitoring	CVTOC	STORM WTR	10/19/2016	10/25/2016	10/25/2016
L66453-7	421879-240	Federal Way Stormwater Monitoring	CVDOC	STORM WTR	10/19/2016	10/21/2016	10/24/2016
L66453-7	421879-240	Federal Way Stormwater Monitoring	CVTOC	STORM WTR	10/19/2016	10/25/2016	10/25/2016
L66453-8	421879-240	Federal Way Stormwater Monitoring	CVDOC	STORM WTR	10/20/2016	10/21/2016	10/24/2016
L66453-8	421879-240	Federal Way Stormwater Monitoring	CVTOC	STORM WTR	10/20/2016	10/25/2016	10/25/2016
WG148655-1	MB		CVTOC	BLANK WTR		10/24/2016	10/24/2016
WG148655-2	SB		CVTOC	BLANK WTR		10/24/2016	10/24/2016
WG148655-3	LCS		CVTOC	BLANK WTR		10/24/2016	10/24/2016
WG148655-4	LD		CVTOC	GRND WTR		10/24/2016	10/24/2016
WG148655-5	MS		CVTOC	GRND WTR		10/24/2016	10/24/2016
WG148655-6	MB		CVDOC	BLANK WTR		10/18/2016	10/24/2016
WG148655-7	MB		CVDOC	BLANK WTR		10/21/2016	10/24/2016
WG148655-8	SB		CVDOC	BLANK WTR		10/18/2016	10/24/2016
WG148655-9	LCS		CVDOC	BLANK WTR		10/24/2016	10/24/2016
WG148655-10	LD		CVDOC	STORM WTR		10/21/2016	10/24/2016
WG148655-11	MS		CVDOC	STORM WTR		10/21/2016	10/24/2016
WG148655-12	LD		CVDOC	FRESH WTR		10/18/2016	10/24/2016
WG148655-13	MS		CVDOC	FRESH WTR		10/18/2016	10/24/2016
WG148655-14	LD		CVTOC	SALT WTR		10/24/2016	10/24/2016
WG148655-15	MS		CVTOC	SALT WTR		10/24/2016	10/24/2016
WG148655-16	MB		CVTOC	BLANK WTR		10/24/2016	10/24/2016
WG148655-17	LCS		CVTOC	BLANK WTR		10/24/2016	10/24/2016
WG148655-18	MB		CVTOC	BLANK WTR		10/25/2016	10/25/2016
WG148655-19	SB		CVTOC	BLANK WTR		10/25/2016	10/25/2016
WG148655-20	LCS		CVTOC	BLANK WTR		10/25/2016	10/25/2016
WG148655-21	LD		CVTOC	STORM WTR		10/25/2016	10/25/2016
WG148655-22	MS		CVTOC	STORM WTR		10/25/2016	10/25/2016
WG148655-23	LD		CVTOC	LEACHATE		10/25/2016	10/25/2016
WG148655-24	MS		CVTOC	LEACHATE		10/25/2016	10/25/2016

WG148332 (12-OCT-16 SWD, Storms Dis) Department: 6 - Metals Move Date: 21-OCT-16

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date
L66151-1	421195-240	Horseshoe Lake WQ	MTICPMS-DISS	GRND WTR	9/29/2016	10/12/2016	10/12/2016
L66151-2	421195-240	Horseshoe Lake WQ	MTICPMS-DISS	GRND WTR	9/26/2016	10/12/2016	10/12/2016
L66151-4	421195-240	Horseshoe Lake WQ	MTICPMS-DISS	GRND WTR	9/28/2016	10/12/2016	10/12/2016
L66151-5	421195-240	Horseshoe Lake WQ	MTICPMS-DISS	GRND WTR	9/28/2016	10/12/2016	10/12/2016
L66151-6	421195-240	Horseshoe Lake WQ	MTICPMS-DISS	GRND WTR	10/6/2016	10/12/2016	10/12/2016
L66151-7	421195-240	Horseshoe Lake WQ	MTICPMS-DISS	GRND WTR	9/26/2016	10/12/2016	10/12/2016
L66154-1	421195-240	Horseshoe Lake WQ	MTICPMS-DISS	FRESH WTR	9/29/2016	10/12/2016	10/12/2016

L66154-3	421195-240	Horseshoe Lake WQ	MTICPMS-DISS	FRESH WTR	9/29/2016	10/12/2016	10/12/2016
L66285-1	421879-250	Shoreline-Echo Lake Stormwater Monitoring	MTICPMS-DISS	STORM WTR	10/6/2016	10/12/2016	10/12/2016
L66285-3	421879-250	Shoreline-Echo Lake Stormwater Monitoring	MTICPMS-DISS	STORM WTR	10/6/2016	10/12/2016	10/12/2016
L66305-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	MTICPMS-DISS	GRND WTR	10/10/2016	10/12/2016	10/12/2016
L66305-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	MTICPMS-DISS	GRND WTR	10/7/2016	10/12/2016	10/12/2016
L66305-4	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	MTICPMS-DISS	GRND WTR	10/7/2016	10/12/2016	10/12/2016
L66305-5	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	MTICPMS-DISS	GRND WTR	10/10/2016	10/12/2016	10/12/2016
L66307-1	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	MTICPMS-DISS	GRND WTR	10/10/2016	10/12/2016	10/12/2016
L66307-4	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	MTICPMS-DISS	GRND WTR	10/10/2016	10/12/2016	10/12/2016
L66333-1	423589-330-4	Green Rvr PCB/PAH Loading	MTICPMS-DISS	STORM WTR	10/6/2016	10/12/2016	10/12/2016
L66333-2	423589-330-4	Green Rvr PCB/PAH Loading	MTICPMS-DISS	STORM WTR	10/6/2016	10/12/2016	10/12/2016
WG148332-1	MB		MTICPMS-DISS	BLANK WTR		10/12/2016	10/12/2016
WG148332-2	SB		MTICPMS-DISS	BLANK WTR		10/12/2016	10/12/2016
WG148332-3	LD		MTICPMS-DISS	GRND WTR		10/12/2016	10/12/2016
WG148332-4	MS		MTICPMS-DISS	GRND WTR		10/12/2016	10/12/2016
WG148332-5	LD		MTICPMS-DISS	GRND WTR		10/12/2016	10/12/2016
WG148332-6	MS		MTICPMS-DISS	GRND WTR		10/12/2016	10/12/2016

WG148693 (28-OCT-16 Green R As) Department: 6 - Metals Move Date: 04-NOV-16

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date
L66333-1	423589-330-4	Green Rvr PCB/PAH Loading	MTICPMS	STORM WTR	10/6/2016	10/28/2016	11/2/2016
L66333-2	423589-330-4	Green Rvr PCB/PAH Loading	MTICPMS	STORM WTR	10/6/2016	10/28/2016	11/2/2016
L66408-1	423589-330-4	Green Rvr PCB/PAH Loading	MTICPMS	STORM WTR	10/13/2016	10/28/2016	11/2/2016
L66408-2	423589-330-4	Green Rvr PCB/PAH Loading	MTICPMS	STORM WTR	10/13/2016	10/28/2016	11/2/2016
WG148693-1	MB		MTICPMS	BLANK WTR		10/28/2016	11/2/2016
WG148693-2	SB		MTICPMS	BLANK WTR		10/28/2016	11/2/2016
WG148693-3	LD		MTICPMS	STORM WTR		10/28/2016	11/2/2016
WG148693-4	MS		MTICPMS	STORM WTR		10/28/2016	11/2/2016

WG148831 (07-NOV-16 Green R Diss) Department: 6 - Metals Move Date: 10-NOV-16

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date
L66408-1	423589-330-4	Green Rvr PCB/PAH Loading	MTICPMS-DISS	STORM WTR	10/13/2016	11/7/2016	11/7/2016
L66408-2	423589-330-4	Green Rvr PCB/PAH Loading	MTICPMS-DISS	STORM WTR	10/13/2016	11/7/2016	11/7/2016
WG148831-1	MB		MTICPMS-DISS	BLANK WTR		11/7/2016	11/7/2016
WG148831-2	SB		MTICPMS-DISS	BLANK WTR		11/7/2016	11/7/2016
WG148831-3	LD		MTICPMS-DISS	STORM WTR		11/7/2016	11/7/2016
WG148831-4	MS		MTICPMS-DISS	STORM WTR		11/7/2016	11/7/2016

WG148301 (PAH-SIM_LVI-LL bl#425) Department: 7 - Organics Move Date: 04-NOV-16

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date
L65804-4	421520-600	Ecology - USGS Stormwater testing	ORPAH-SIM-LVI-LL	STORM WTR	10/7/2016	10/11/2016	11/2/2016
L66333-1	423589-330-4	Green Rvr PCB/PAH Loading	ORPAH-SIM-LVI-LL	STORM WTR	10/6/2016	10/11/2016	11/2/2016
L66333-2	423589-330-4	Green Rvr PCB/PAH Loading	ORPAH-SIM-LVI-LL	STORM WTR	10/6/2016	10/11/2016	11/2/2016
WG148301-1	MB		ORPAH-SIM-LVI-LL	BLANK WTR		10/11/2016	11/2/2016
WG148301-2	SB		ORPAH-SIM-LVI-LL	BLANK WTR		10/11/2016	11/2/2016
WG148301-3	MS		ORPAH-SIM-LVI-LL	STORM WTR		10/11/2016	11/2/2016
WG148301-4	MSD		ORPAH-SIM-LVI-LL	STORM WTR		10/11/2016	11/2/2016

WG148457 (SIM-LVI-LL bl#429) Department: 7 - Organics Move Date: 04-NOV-16

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date
L65804-5	421520-600	Ecology - USGS Stormwater testing	ORPAH-SIM-LVI-LL	STORM WTR	10/13/2016	10/18/2016	11/2/2016
L66408-1	423589-330-4	Green Rvr PCB/PAH Loading	ORPAH-SIM-LVI-LL	STORM WTR	10/13/2016	10/18/2016	11/2/2016
L66408-2	423589-330-4	Green Rvr PCB/PAH Loading	ORPAH-SIM-LVI-LL	STORM WTR	10/13/2016	10/18/2016	11/2/2016
WG148457-1	MB		ORPAH-SIM-LVI-LL	BLANK WTR		10/18/2016	11/2/2016
WG148457-2	SB		ORPAH-SIM-LVI-LL	BLANK WTR		10/18/2016	11/2/2016
WG148457-3	MS		ORPAH-SIM-LVI-LL	STORM WTR		10/18/2016	11/2/2016
WG148457-4	MSD		ORPAH-SIM-LVI-LL	STORM WTR		10/18/2016	11/2/2016

WG151668 (TSS) Department: 3 - Conventionals Move Date: 15-MAY-17

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date
L67641-2	421422-CHGW	SWD-CHGW Cedar Hills Groundwater Quarterly	CVTSS	GRND WTR	5/4/2017	5/8/2017	5/9/2017
L67641-4	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTSS	GRND WTR	5/8/2017	5/8/2017	5/9/2017
L67648-1	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTSS	GRND WTR	5/4/2017	5/8/2017	5/9/2017
L67648-2	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTSS	GRND WTR	5/4/2017	5/8/2017	5/9/2017
L67648-5	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTSS	GRND WTR	5/8/2017	5/8/2017	5/9/2017
L67651-1	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTSS	GRND WTR	5/8/2017	5/8/2017	5/9/2017
L67711-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTSS	STORM WTR	5/4/2017	5/8/2017	5/9/2017
L67711-2	423589-330-4	Green Rvr PCB/PAH Loading	CVTSS	STORM WTR	5/4/2017	5/8/2017	5/9/2017
WG151668-1	MB		CVTSS	BLANK WTR		5/8/2017	5/9/2017
WG151668-2	LCS		CVTSS	BLANK WTR		5/8/2017	5/9/2017
WG151668-3	LD		CVTSS	STORM WTR		5/8/2017	5/9/2017
WG151668-4	LD		CVTSS	GRND WTR		5/8/2017	5/9/2017

LIMSView Batch Report for Green River PCB Equipment Blank Study - Data Validation

WG151839 (TSS) Department: 3 - Conventionals Move Date: 25-MAY-17

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date
L67694-1	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/15/2017	5/16/2017	5/17/2017
L67694-2	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/15/2017	5/16/2017	5/17/2017
L67694-3	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/15/2017	5/16/2017	5/17/2017
L67694-4	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/15/2017	5/16/2017	5/17/2017
L67694-5	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/15/2017	5/16/2017	5/17/2017
L67694-6	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/15/2017	5/16/2017	5/17/2017
L67694-8	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/15/2017	5/16/2017	5/17/2017
L67694-9	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/15/2017	5/16/2017	5/17/2017
L67694-10	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/15/2017	5/16/2017	5/17/2017
L67694-11	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/15/2017	5/16/2017	5/17/2017
L67694-12	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/15/2017	5/16/2017	5/17/2017
L67694-13	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/15/2017	5/16/2017	5/17/2017
L67694-14	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/15/2017	5/16/2017	5/17/2017
L67694-15	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/15/2017	5/16/2017	5/17/2017
L67694-17	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/15/2017	5/16/2017	5/17/2017
L67694-18	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/15/2017	5/16/2017	5/17/2017
L67694-19	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/15/2017	5/16/2017	5/17/2017
L67694-20	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/15/2017	5/16/2017	5/17/2017
L67694-21	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/15/2017	5/16/2017	5/17/2017
L67694-22	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/15/2017	5/16/2017	5/17/2017
L67694-23	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/15/2017	5/16/2017	5/17/2017
L67694-25	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/15/2017	5/16/2017	5/17/2017
L67694-26	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/15/2017	5/16/2017	5/17/2017
L67694-27	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/15/2017	5/16/2017	5/17/2017
L67694-28	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/15/2017	5/16/2017	5/17/2017
L67694-29	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/15/2017	5/16/2017	5/17/2017
L67694-30	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/15/2017	5/16/2017	5/17/2017
L67694-31	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/15/2017	5/16/2017	5/17/2017
L67694-33	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/15/2017	5/16/2017	5/17/2017
L67694-34	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/15/2017	5/16/2017	5/17/2017
L67694-35	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/15/2017	5/16/2017	5/17/2017
L67694-36	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/15/2017	5/16/2017	5/17/2017
L67694-37	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/15/2017	5/16/2017	5/17/2017
L67694-38	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/15/2017	5/16/2017	5/17/2017
L67694-39	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/15/2017	5/16/2017	5/17/2017
L67697-1	421250ON	Ambient Offshore Water Column-North	CVTSS	FRESH WTR	5/15/2017	5/16/2017	5/17/2017

L67697-2	421250ON	Ambient Offshore Water Column-North	CVTSS	FRESH WTR	5/15/2017	5/16/2017	5/17/2017
L67697-3	421250ON	Ambient Offshore Water Column-North	CVTSS	FRESH WTR	5/15/2017	5/16/2017	5/17/2017
L67698-1	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/15/2017	5/16/2017	5/17/2017
L67698-2	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/15/2017	5/16/2017	5/17/2017
L67698-3	421250ON	Ambient Offshore Water Column-North	CVTSS	SALT WTR	5/15/2017	5/16/2017	5/17/2017
L67737-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTSS	STORM WTR	5/12/2017	5/16/2017	5/17/2017
WG151839-1	MB		CVTSS	BLANK WTR		5/16/2017	5/17/2017
WG151839-2	LCS		CVTSS	BLANK WTR		5/16/2017	5/17/2017
WG151839-3	LD		CVTSS	SALT WTR		5/16/2017	5/17/2017
WG151839-4	MB		CVTSS	BLANK WTR		5/16/2017	5/17/2017
WG151839-5	LCS		CVTSS	BLANK WTR		5/16/2017	5/17/2017
WG151839-6	LD		CVTSS	SALT WTR		5/16/2017	5/17/2017
WG151839-7	MB		CVTSS	BLANK WTR		5/16/2017	5/17/2017
WG151839-8	LCS		CVTSS	BLANK WTR		5/16/2017	5/17/2017
WG151839-9	LD		CVTSS	FRESH WTR		5/16/2017	5/17/2017
WG151839-10	LD		CVTSS	STORM WTR		5/16/2017	5/17/2017

WG151870 (TOC/DOC - various) Department: 3 - Conventionals Move Date: 19-MAY-17

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date
L67472-2	421422-CHSW-A5-T	SWD-CHSW - A5 TD Cedar Hills Surface Area 5 Top Deck	CVTOC	FRESH WTR	5/5/2017	5/16/2017	5/16/2017
L67521-3	421422-VASW	SWD-VASW Vashon Surface Water Quarterly	CVTOC	FRESH WTR	5/11/2017	5/16/2017	5/16/2017
L67521-4	421422-VASW	SWD-VASW Vashon Surface Water Quarterly	CVTOC	FRESH WTR	5/11/2017	5/16/2017	5/16/2017
L67711-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	STORM WTR	5/4/2017	5/16/2017	5/16/2017
L67711-2	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	STORM WTR	5/4/2017	5/16/2017	5/16/2017
L67724-1	421879-240	Federal Way Stormwater Monitoring	CVDOC	BLANK WTR	5/8/2017	5/9/2017	5/16/2017
L67737-1	423589-330-4	Green Rvr PCB/PAH Loading	CVTOC	STORM WTR	5/12/2017	5/16/2017	5/16/2017
L67739-1	421422-VASW	SWD-VASW Vashon Surface Water Quarterly	CVTOC	FRESH WTR	5/11/2017	5/16/2017	5/16/2017
L67739-3	421422-VASW	SWD-VASW Vashon Surface Water Quarterly	CVTOC	FRESH WTR	5/11/2017	5/16/2017	5/16/2017
WG151870-1	MB		CVTOC	BLANK WTR		5/16/2017	5/16/2017
WG151870-2	SB		CVTOC	BLANK WTR		5/16/2017	5/16/2017
WG151870-3	LCS		CVDOC	BLANK WTR		5/16/2017	5/16/2017
WG151870-3	LCS		CVTOC	BLANK WTR		5/16/2017	5/16/2017
WG151870-4	LD		CVTOC	FRESH WTR		5/16/2017	5/16/2017
WG151870-5	MS		CVTOC	FRESH WTR		5/16/2017	5/16/2017
WG151870-6	MB		CVDOC	BLANK WTR		5/9/2017	5/16/2017
WG151870-7	LD		CVTOC	STORM WTR		5/16/2017	5/16/2017
WG151870-8	MS		CVTOC	STORM WTR		5/16/2017	5/16/2017

LIMSView Batch Report for Green River PCB Equipment Blank Study - Data Validation

WG151916 (DOC/TOC) Department: 3 - Conventionals Move Date: 02-JUN-17

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date
L67576-7	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	5/17/2017	5/18/2017	5/18/2017
L67648-4	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	5/17/2017	5/18/2017	5/18/2017
L67651-2	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	5/17/2017	5/18/2017	5/18/2017
L67651-5	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	5/17/2017	5/18/2017	5/18/2017
L67652-1	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	5/17/2017	5/18/2017	5/18/2017
L67652-2	421422-VAGW	SWD-VAGW Vashon Groundwater Quarterly	CVTOC	GRND WTR	5/17/2017	5/18/2017	5/18/2017
L67711-1	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	STORM WTR	5/4/2017	5/18/2017	5/18/2017
L67711-2	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	STORM WTR	5/4/2017	5/18/2017	5/18/2017
L67737-1	423589-330-4	Green Rvr PCB/PAH Loading	CVDOC	STORM WTR	5/12/2017	5/18/2017	5/18/2017
WG151916-1	MB		CVTOC	BLANK WTR		5/18/2017	5/18/2017
WG151916-2	SB		CVTOC	BLANK WTR		5/18/2017	5/18/2017
WG151916-3	LCS		CVDOC	BLANK WTR		5/18/2017	5/18/2017
WG151916-3	LCS		CVTOC	BLANK WTR		5/18/2017	5/18/2017
WG151916-4	MB		CVDOC	BLANK WTR		5/18/2017	5/18/2017
WG151916-5	SB		CVDOC	BLANK WTR		5/18/2017	5/18/2017
WG151916-6	LD		CVDOC	STORM WTR		5/18/2017	5/18/2017
WG151916-7	MS		CVDOC	STORM WTR		5/18/2017	5/18/2017
WG151916-8	LD		CVTOC	GRND WTR		5/18/2017	5/18/2017
WG151916-9	MS		CVTOC	GRND WTR		5/18/2017	5/18/2017

WG151977 () Department: 2 - Environmental Services Move Date: 23-MAY-17

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date
L67711-1	423589-330-4	Green Rvr PCB/PAH Loading	ESS	STORM WTR	5/4/2017		
L67711-1	423589-330-4	Green Rvr PCB/PAH Loading	ESS-FIELDOBS	STORM WTR	5/4/2017	5/4/2017	5/4/2017
L67711-2	423589-330-4	Green Rvr PCB/PAH Loading	ESS	STORM WTR	5/4/2017		
L67711-2	423589-330-4	Green Rvr PCB/PAH Loading	ESS-FIELDOBS	STORM WTR	5/4/2017	5/4/2017	5/4/2017
L67737-1	423589-330-4	Green Rvr PCB/PAH Loading	ESS	STORM WTR	5/12/2017		
L67737-1	423589-330-4	Green Rvr PCB/PAH Loading	ESS-FIELDOBS	STORM WTR	5/12/2017	5/12/2017	5/12/2017
L67737-2	423589-330-4	Green Rvr PCB/PAH Loading	ESS	STORM WTR	5/12/2017		
L67737-2	423589-330-4	Green Rvr PCB/PAH Loading	ESS-FIELDOBS	STORM WTR	5/12/2017	5/12/2017	5/12/2017

LIMSView QC Report for Green River PCB Equipment Blank Study - Data Validation

Workgroup: WG138617 (TSS-VSS) Run ID: R202682

MB:WG138617-1 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

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

MB:WG138617-1 Matrix: BLANK WTR Listtype:CVVSS Method:EPA 160.4 Project: Pkey:STD
(Method Blank)

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

LCS:WG138617-2 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	98	98		80--120

LD:WG138617-3 L62570-2 Matrix: STORM WTR Listtype:CVTSS Method:SM2540-D Project:423530 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	69	63	9		0--25

LD:WG138617-3 L62570-2 Matrix: STORM WTR Listtype:CVVSS Method:EPA 160.4 Project:423530 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Volatile Suspended Solids	5	10	mg/L	50	46	8		0--25

LD:WG138617-4 L62547-6 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:421235 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1.3	2.5	mg/L	26	23.8	9		0--25

MB:WG138617-5 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

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

LCS:WG138617-6 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	95	95		80--120

LD:WG138617-7 L62547-30 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:421235 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	0.5	1	mg/L	0.8	0.9			0--25

MB:WG138617-8 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

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

LCS:WG138617-9 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

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

LD:WG138617-10 L62547-45 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:421235 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	0.5	1	mg/L	4.1	4.3	5		0--25

Workgroup: WG138805 (TOC/421422, 421240, 423589) Run ID: R202858

MB:WG138805-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

SB:WG138805-2 MB:WG138805-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

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

LCS:WG138805-3 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

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

LD:WG138805-4 L62594-3 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHSW-Q Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	2.78	2.78	0		0--20

MS:WG138805-5 L62594-3 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHSW-Q Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	2.78	10	12.9	101		75--125

LD:WG138805-6 L62542-2 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Lab Duplicate)

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

MS:WG138805-7 L62542-2 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	10.6	106		75--125

LD:WG138805-8 L62366-1 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:421240-210 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	5.01	4.82	4		0--20

MS:WG138805-9 L62366-1 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:421240-210 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	5.01	10	14.9	99		75--125

MB:WG138805-10 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

LCS:WG138805-11 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

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

MB:WG138805-12 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual

Total Organic Carbon	0.5	1	mg/L	<MDL

LCS:WG138805-13 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

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

MB:WG138805-14 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

SB:WG138805-15 MB:WG138805-14 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

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

LCS:WG138805-16 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

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

LD:WG138805-17 L62563-2 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	0.77	0.72			0--20

MS:WG138805-18 L62563-2 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	0.77	10	10.3	95		75--125

Workgroup: WG140030 (tss-LK) Run ID: R204376

MB:WG140030-1 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

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

LCS:WG140030-2 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD

(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	103	103		80--120

LD:WG140030-3 L62788-1 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:421874-100 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	2	mg/L	5.2	5	4		0--25

MB:WG140030-4 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

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

LD:WG140030-5 L63016-6 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:421422-VASW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	2.1	4.2	mg/L	545	652	18		0--25

LD:WG140030-6 L63070-2 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:423589-330-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	2	mg/L	1	1.3			0--25

MB:WG140030-7 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

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

LCS:WG140030-8 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	98	98		80--120

LCS:WG140030-9 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	98	98		80--120

LD:WG140030-10 L63045-30 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:421235 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	0.5	1	mg/L	3.7	3.6	3		0--25

LD:WG140030-11 L63045-45 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:421235 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	0.5	1	mg/L	3.7	3.6	3		0--25

Workgroup: WG140260 (TOC, DOC/421422, 423589) Run ID: R204721

MB:WG140260-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

SB:WG140260-2 MB:WG140260-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	9.78	98		80--120

LCS:WG140260-3 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

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

LD:WG140260-4 L63041-5 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-PUGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	0.78	0.75			0--20

MS:WG140260-5 L63041-5 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-PUGW Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	0.78	10	10.6	98		75--125

LD:WG140260-6 L63070-2 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	0.96	0.96			0--20

MS:WG140260-7 L63070-2 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	0.96	10	11.4	104		75--125

MB:WG140260-8 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

SB:WG140260-9 MB:WG140260-8 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	10	10.6	106		80--120

LCS:WG140260-10 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	10	10.8	108		85--115

LD:WG140260-11 L63069-2 Matrix: FRESH WTR Listtype:CVDOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	1.76	1.64	7		0--20

MS:WG140260-12 L63069-2 Matrix: FRESH WTR Listtype:CVDOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	1.76	10	11.7	99		75--125

MB:WG140260-13 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

SB:WG140260-14 MB:WG140260-13 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

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

LCS:WG140260-15 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD

(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	10.5	105		85--115

MB:WG140260-16 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

SB:WG140260-17 MB:WG140260-16 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	9.67	97		80--120

LCS:WG140260-18 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	9.9	99		85--115

MS:WG140260-19 L62975-3 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421250ON Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	1.7	10	10.6	89		75--125

MB:WG140260-20 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

LCS:WG140260-21 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	9.56	96		85--115

LD:WG140260-22 L62976-1 Matrix: SALT WTR Listtype:CVTOC Method:SM5310-B Project:421250ON Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	1.21	1.15	5		0--20

MB:WG140260-23 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

SB:WG140260-24 MB:WG140260-23 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	10	9.16	92		80--120

LCS:WG140260-25 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	10	9.79	98		85--115

MS:WG140260-26 L62975-3 Matrix: FRESH WTR Listtype:CVDOC Method:SM5310-B Project:421250ON Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	1.26	10	10	87		75--125

LD:WG140260-27 L62976-1 Matrix: SALT WTR Listtype:CVDOC Method:SM5310-B Project:421250ON Pkey:STD
(Lab Duplicate)

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

Workgroup: WG140380 (TOC, DOC/421422, 423589) Run ID: R204785

MB:WG140380-1 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

LCS:WG140380-2 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	10	9.91	99		85--115

MB:WG140380-3 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

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SB:WG140380-4 MB:WG140380-3 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	9.4	94		80--120

LCS:WG140380-5 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

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

LD:WG140380-6 L63129-5 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Lab Duplicate)

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

MS:WG140380-7 L63129-5 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	9.67	97		75--125

LD:WG140260-11 L63069-2 Matrix: FRESH WTR Listtype:CVDOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	1.76	1.64	7		0--20

MS:WG140260-12 L63069-2 Matrix: FRESH WTR Listtype:CVDOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	1.76	10	11.7	99		75--125

Workgroup: WG141247 (tss) Run ID: R205750

MB:WG141247-1 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

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

LCS:WG141247-2 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit

Total Suspended Solids	5	10	mg/L	100	90.1	90		80--120

LD:WG141247-3 L63534-3 Matrix: GRND WTR Listtype:CVTSS Method:SM2540-D Project:421422-DUGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1.1	2.2	mg/L	16.9	18.3	8		0--25

LD:WG141247-4 L63458-10 Matrix: GRND WTR Listtype:CVTSS Method:SM2540-D Project:421581-90GW Pkey:STD
(Lab Duplicate)

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

MB:WG141247-5 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

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

LCS:WG141247-6 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	83.1	83		80--120

LD:WG141247-7 L63494-6 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:421520-500 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1.1	2.2	mg/L	2	1.6			0--25

Workgroup: WG141488 (TOC/421422, 421581) Run ID: R206056

MB:WG141488-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

SB:WG141488-2 MB:WG141488-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

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

LCS:WG141488-3 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD

(Lab Control Sample)

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

LD:WG141488-4 L63420-1 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHSW-M Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	1.19	1.4	16		0--20

MS:WG141488-5 L63420-1 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHSW-M Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	1.19	10	11.4	102		75--125

LD:WG141488-6 L63392-1 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	4.09	3.88	5		0--20

MS:WG141488-7 L63392-1 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	4.09	10	14	99		75--125

MB:WG141488-8 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

LCS:WG141488-9 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	9.25	92		85--115

LD:WG141488-10 L63458-9 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421581-90GW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	2.5	5	mg/L	12.8	12.5	3		0--20

MS:WG141488-11 L63458-9 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421581-90GW Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	2.5	5	mg/L	12.8	10	58.5	91		75--125

MB:WG141488-12 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

SB:WG141488-13 MB:WG141488-12 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	9.74	97		80--120

LCS:WG141488-14 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

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

MS:WG141488-15 L63403-1 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421250ON Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	1.95	10	10.8	88		75--125

LD:WG141488-16 L63404-3 Matrix: SALT WTR Listtype:CVTOC Method:SM5310-B Project:421250ON Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	1.31	1.44	9		0--20

LD:WG141488-17 L63207-1 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	2.05	1.97	4		0--20

MS:WG141488-18 L63207-1 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	2.05	10	12.5	104		75--125

MB:WG141488-19 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual

Dissolved Organic Carbon	0.5	1	mg/L	<MDL	

SB:WG141488-20 MB:WG141488-19 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	10	11	110		80--120

LCS:WG141488-21 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

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

MS:WG141488-22 L63403-1 Matrix: FRESH WTR Listtype:CVDOC Method:SM5310-B Project:421250ON Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	1.19	10	11.1	99		75--125

LD:WG141488-23 L63404-3 Matrix: SALT WTR Listtype:CVDOC Method:SM5310-B Project:421250ON Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	1.05	1.05	0		0--20

MB:WG141488-24 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

SB:WG141488-25 MB:WG141488-24 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	10	10.6	106		80--120

LCS:WG141488-26 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	10	10.9	109		85--115

LD:WG141488-27 L63208-1 Matrix: FRESH WTR Listtype:CVDOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	0.95	0.98			0--20

MS:WG141488-28 L63208-1 Matrix: FRESH WTR Listtype:CVDOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	0.95	10	11.2	103		75--125

Workgroup: WG142137 (TSS-LK) Run ID: R206928

MB:WG142137-1 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

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

LCS:WG142137-2 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	6.3	13	mg/L	100	93.8	94		80--120

LD:WG142137-3 L63890-6 Matrix: GRND WTR Listtype:CVTSS Method:SM2540-D Project:421422-CHGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	2	mg/L	2.6	3	14		0--25

LD:WG142137-4 L63715-1 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:421520-500 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	2	mg/L	1	1.4			0--25

MB:WG142137-5 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

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

LCS:WG142137-6 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	7.4	15	mg/L	100	94.1	94		80--120

LD:WG142137-7 L63717-6 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:421520-500 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	2	mg/L	8.6	9.36	8		0--25

LD:WG142137-8 L63832-4 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:421235 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	0.5	1	mg/L	0.8	0.6			0--25

MB:WG142137-9 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

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

LCS:WG142137-10 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	10	20	mg/L	100	88	88		80--120

LD:WG142137-11 L63832-30 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:421235 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	0.5	1	mg/L	<MDL	0.8			0--25

MB:WG142137-12 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

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

LCS:WG142137-13 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	10	20	mg/L	100	92	92		80--120

LD:WG142137-14 L63832-45 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:421235 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	0.5	1	mg/L	0.6	0.7			0--25

Workgroup: WG142162 (TOC, DOC/421422, 421250, 423589) Run ID: R207194

MB:WG142162-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

SB:WG142162-2 MB:WG142162-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	9.21	92		80--120

LCS:WG142162-3 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	9.32	93		85--115

LD:WG142162-4 L63670-2 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421250ON Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	1.4	1.19	17		0--20

MB:WG142162-5 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

LD:WG142162-6 L63825-2 Matrix: FRESH WTR Listtype:CVDOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	1.28	1.27	1		0--20

MS:WG142162-7 L63825-2 Matrix: FRESH WTR Listtype:CVDOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	1.28	10	11	97		75--125

MB:WG142162-8 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

SB:WG142162-9 MB:WG142162-8 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD

(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	8.52	85		80--120

LCS:WG142162-10 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	8.49	85		85--115

MS:WG142162-11 L63671-2 Matrix: SALT WTR Listtype:CVTOC Method:SM5310-B Project:421250ON Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	1.38	10	10.1	88		75--125

LD:WG142162-12 L63891-1 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Lab Duplicate)

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

MS:WG142162-13 L63891-1 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	9.61	96		75--125

LD:WG142162-14 L63825-2 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	1.32	1.33	1		0--20

MS:WG142162-15 L63825-2 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	1.32	10	10.2	89		75--125

MB:WG142162-16 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

MB:WG142162-17 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

LCS:WG142162-18 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

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

MB:WG142162-19 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

SB:WG142162-20 MB:WG142162-19 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	10	9.69	97		80--120

LCS:WG142162-21 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

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

LD:WG142162-22 L63670-2 Matrix: FRESH WTR Listtype:CVDOC Method:SM5310-B Project:421250ON Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	1.17	1.24	6		0--20

MS:WG142162-23 L63671-2 Matrix: SALT WTR Listtype:CVDOC Method:SM5310-B Project:421250ON Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	1.01	10	11.3	103		75--125

Workgroup: WG142251 (TSS 10/9) Run ID: R207092

MB:WG142251-1 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

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

LCS:WG142251-2 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	9.8	20	mg/L	100	92.2	92		80--120

MB:WG142251-3 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

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

LCS:WG142251-4 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	10	20	mg/L	100	90	90		80--120

LD:WG142251-5 L63897-6 Matrix: GRND WTR Listtype:CVTSS Method:SM2540-D Project:421422-CHGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	2	mg/L	2.8	2.5	11		0--25

LD:WG142251-6 L63889-1 Matrix: STORM WTR Listtype:CVTSS Method:SM2540-D Project:421422-CHSW-P Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	2	4	mg/L	29.6	32.8	10		0--25

LD:WG142251-7 L62303-3 Matrix: STORM WTR Listtype:CVTSS Method:SM2540-D Project:421195-180 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	2	4	mg/L	54.8	57.2	4		0--25

Workgroup: WG142381 (TOC/421422, 423589) Run ID: R207200

MB:WG142381-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

LCS:WG142381-2 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit

Total Organic Carbon	0.5	1	mg/L	10	9.17	92		85--115

LD:WG142162-12 L63891-1 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Lab Duplicate)

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

MS:WG142162-13 L63891-1 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	9.61	96		75--125

LD:WG142162-14 L63825-2 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	1.32	1.33	1		0--20

MS:WG142162-15 L63825-2 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	1.32	10	10.2	89		75--125

Workgroup: WG142691 (TOC, DOC/421422, 423589) Run ID: R207707

MB:WG142691-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

SB:WG142691-2 MB:WG142691-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

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

LCS:WG142691-3 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

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

LD:WG142691-4 L63953-7 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD

(Lab Duplicate)

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

MS:WG142691-5 L63953-7 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	10.3	103		75--125

LD:WG142691-6 L62766-1 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	1.84	1.74	6		0--20

MS:WG142691-7 L62766-1 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	1.84	10	11.6	97		75--125

LD:WG142691-8 L64043-3 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHSW-A5-TD Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	1	2	mg/L	18	16.7	7		0--20

MS:WG142691-9 L64043-3 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHSW-A5-TD Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	1	2	mg/L	18	10	37.7	98		75--125

MB:WG142691-10 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

SB:WG142691-11 MB:WG142691-10 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

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

LCS:WG142691-12 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

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

LD:WG142691-13 L63957-4 Matrix: LEACHATE Listtype:CVTOC Method:SM5310-B Project:421422-VALS-M Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	2.5	5	mg/L	26.6	26.4	1		0--20

MS:WG142691-14 L63957-4 Matrix: LEACHATE Listtype:CVTOC Method:SM5310-B Project:421422-VALS-M Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	2.5	5	mg/L	26.6	10	72	91		75--125

MB:WG142691-15 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

SB:WG142691-16 MB:WG142691-15 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	10	11.2	112		80--120

LCS:WG142691-17 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

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

LD:WG142691-18 L62766-1 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	1.8	1.79	1		0--20

MS:WG142691-19 L62766-2 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	1.7	10	11.8	101		75--125

MB:WG142691-20 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual

Dissolved Organic Carbon	0.5	1	mg/L	<MDL

SB:WG142691-21 MB:WG142691-20 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	10	9.33	93		80--120

LCS:WG142691-22 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	10	9.74	97		85--115

LD:WG142691-23 L62319-2 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:421240-210 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	4.31	4.08	5		0--20

MS:WG142691-24 L62319-2 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:421240-210 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	4.31	10	13.5	92		75--125

Workgroup: WG142751 (TSSVSS_1103) Run ID: R207650

MB:WG142751-1 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

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

MB:WG142751-1 Matrix: BLANK WTR Listtype:CVVSS Method:EPA 160.4 Project: Pkey:STD
(Method Blank)

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

LCS:WG142751-2 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5.2	10	mg/L	100	99	99		80--120

LD:WG142751-3 L64070-3 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:421422-CHSW-E Pkey:STD

(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	145	145	0		0--25

LD:WG142751-3 L64070-3 Matrix: FRESH WTR Listtype:CVVSS Method:EPA 160.4 Project:421422-CHSW-E Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Volatile Suspended Solids	5	10	mg/L	40	37.2	7		0--25

LD:WG142751-4 L64072-1 Matrix: STORM WTR Listtype:CVTSS Method:SM2540-D Project:423530 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	5.2	10	mg/L	265	267	1		0--25

LD:WG142751-4 L64072-1 Matrix: STORM WTR Listtype:CVVSS Method:EPA 160.4 Project:423530 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Volatile Suspended Solids	5.2	10	mg/L	86.6	87.9	2		0--25

LD:WG142751-5 L64009-7 Matrix: GRND WTR Listtype:CVTSS Method:SM2540-D Project:421422-CFGW Pkey:STD
(Lab Duplicate)

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

LD:WG142751-6 L62562-1 Matrix: STORM WTR Listtype:CVTSS Method:SM2540-D Project:423589-330-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	2	mg/L	32.6	32.7	0		0--25

LD:WG142751-7 L64073-1 Matrix: STORM WTR Listtype:CVTSS Method:SM2540-D Project:423650 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	4.7	9.4	mg/L	135	114	17		0--25

Workgroup: WG142931 (TOC, DOC/421422, 423589, 423530) Run ID: R207830

MB:WG142931-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

SB:WG142931-2 MB:WG142931-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	9.89	99		80--120

LCS:WG142931-3 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	9.99	100		85--115

LD:WG142931-4 L64110-1 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-HOGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	2	2.04	2		0--20

MS:WG142931-5 L64110-1 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-HOGW Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	2	10	11.7	97		75--125

LD:WG142931-6 L63864-3 Matrix: FRESH WTR Listtype:CVDOC Method:SM5310-B Project:421250ON Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	1	1.03	3		0--20

LD:WG142931-6 L63864-3 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421250ON Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	1.18	1.2	1		0--20

MS:WG142931-7 L63865-3 Matrix: SALT WTR Listtype:CVDOC Method:SM5310-B Project:421250ON Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	1	10	11.3	103		75--125

MS:WG142931-7 L63865-3 Matrix: SALT WTR Listtype:CVTOC Method:SM5310-B Project:421250ON Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	0.85	10	11.3	105		75--125

LD:WG142931-8 L64061-1 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	1.17	1.16	0		0--20

MS:WG142931-9 L64061-1 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	1.17	10	11.1	99		75--125

MB:WG142931-10 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

SB:WG142931-11 MB:WG142931-10 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

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

LCS:WG142931-12 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	10	10.5	105		85--115

MB:WG142931-13 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

LD:WG142931-14 L64061-2 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	1.02	1.04	1		0--20

MS:WG142931-15 L64061-2 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	1.02	10	11.8	108		75--125

MB:WG142931-16 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD

(Method Blank)

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

Workgroup: WG143430 (tss-2-12/10) Run ID: R208648

MB:WG143430-1 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

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

LCS:WG143430-2 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5.1	10	mg/L	100	95	95		80--120

LD:WG143430-3 L64379-6 Matrix: STORM WTR Listtype:CVTSS Method:SM2540-D Project:421879-250 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	2	4	mg/L	59.6	59.6	0		0--25

LD:WG143430-4 L64296-2 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:422019 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	2	4.1	mg/L	157	154	2		0--25

MB:WG143430-5 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

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

LCS:WG143430-6 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5.2	10	mg/L	100	93.8	94		80--120

LD:WG143430-7 L64311-4 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:421235 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	0.5	1	mg/L	0.8	0.7			0--25

MB:WG143430-8 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

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

LCS:WG143430-9 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	97	97		80--120

LD:WG143430-10 L64311-30 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:421235 Pkey:STD
(Lab Duplicate)

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

Workgroup: WG143627 (TOC/421422) Run ID: R208827

MB:WG143627-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

SB:WG143627-2 MB:WG143627-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

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

LCS:WG143627-3 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

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

MB:WG143627-4 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

LCS:WG143627-5 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

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

LD:WG143627-6 L64331-1 Matrix: LEACHATE Listtype:CVTOC Method:SM5310-B Project:421422-CHLS-M Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	100	200	mg/L	263	258	2		0--20

MS:WG143627-7 L64331-1 Matrix: LEACHATE Listtype:CVTOC Method:SM5310-B Project:421422-CHLS-M Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	100	200	mg/L	263	10	2320	103		75--125

LD:WG143627-8 L64083-5 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHSW-M Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	3.63	3.76	4		0--20

MS:WG143627-9 L64083-5 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHSW-M Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	3.63	10	14	104		75--125

LD:WG143627-10 L64254-22 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	2.5	5	mg/L	12.4	11.3	10		0--20

MS:WG143627-11 L64254-22 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	2.5	5	mg/L	12.4	10	62.1	99		75--125

MB:WG143627-12 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

SB:WG143627-13 MB:WG143627-12 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit

Total Organic Carbon	0.5	1	mg/L	<MDL	10	10.8	108	80--120

LCS:WG143627-14 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

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

MB:WG143627-15 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

LCS:WG143627-16 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

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

LD:WG143627-17 L64254-1 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	3.3	3.26	1		0--20

MS:WG143627-18 L64254-1 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	3.3	10	13.2	99		75--125

MB:WG143627-19 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

LCS:WG143627-20 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

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

MB:WG143627-21 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

SB:WG143627-22 MB:WG143627-21 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	9.68	97		80--120

LCS:WG143627-23 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	9.8	98		85--115

LD:WG143627-24 L64356-4 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-HTGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	0.73	0.72			0--20

MS:WG143627-25 L64356-4 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-HTGW Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	0.73	10	10.3	96		75--125

LD:WG143627-26 L64066-7 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:421240-210 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	1	2	mg/L	9.65	9.76	1		0--20

MS:WG143627-27 L64066-7 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:421240-210 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	1	2	mg/L	9.65	10	29	97		75--125

MB:WG143627-28 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

SB:WG143627-29 MB:WG143627-28 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

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

LCS:WG143627-30 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

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

LD:WG143627-31 L64253-1 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	0.69	0.68			0--20

MS:WG143627-32 L64253-1 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	0.69	10	10.7	100		75--125

LD:WG143627-33 L64362-1 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-PUGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	1	2	mg/L	11.8	11.7	1		0--20

MS:WG143627-34 L64362-1 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-PUGW Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	1	2	mg/L	11.8	10	33	106		75--125

Workgroup: WG143740 (TSS-12/24) Run ID: R208885

MB:WG143740-1 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

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

LCS:WG143740-2 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

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

LD:WG143740-3 L64231-4 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:421874-100 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit

Total Suspended Solids	1	2	mg/L	1	1.2		0--25

LD:WG143740-4 L64362-3 Matrix: STORM WTR Listtype:CVTSS Method:SM2540-D Project:421422-PUGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	5.1	10	mg/L	160	142	12		0--25

LD:WG143740-5 L64454-4 Matrix: GRND WTR Listtype:CVTSS Method:SM2540-D Project:423589-330-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	2	mg/L	13.6	13.7	1		0--25

MB:WG143740-6 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

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

LCS:WG143740-7 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	98	98		80--120

Workgroup: WG143741 (DOC/421240, 323589, 421879) Run ID: R208985

MB:WG143741-1 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

SB:WG143741-2 MB:WG143741-1 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	10	9.68	97		80--120

LCS:WG143741-3 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	10	9.84	98		85--115

LD:WG143741-4 L64066-3 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:421240-210 Pkey:STD

(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	8.16	8.36	2		0--20

MS:WG143741-5 L64066-3 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:421240-210 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	8.16	10	18	98		75--125

MB:WG143741-6 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

MB:WG143741-7 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

Workgroup: WG143826 (TOC, DOC/421422, 421250 & others) Run ID: R209028

MB:WG143826-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

SB:WG143826-2 MB:WG143826-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	9.91	99		80--120

LCS:WG143826-3 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	9.91	99		85--115

LD:WG143826-4 L64421-4 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-PUGW Pkey:STD
(Lab Duplicate)

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

MS:WG143826-5 L64421-4 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-PUGW Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	9.55	95		75--125

LD:WG143826-6 L64112-4 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421422-VASW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	5.83	5.92	2		0--20

MS:WG143826-7 L64112-4 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421422-VASW Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	5.83	10	15.6	98		75--125

LD:WG143826-8 L64378-2 Matrix: SALT WTR Listtype:CVDOC Method:SM5310-B Project:421185 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	2.17	2.06	5		0--20

LD:WG143826-8 L64378-2 Matrix: SALT WTR Listtype:CVTOC Method:SM5310-B Project:421185 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	2.34	2.43	4		0--20

MS:WG143826-9 L64378-3 Matrix: SALT WTR Listtype:CVDOC Method:SM5310-B Project:421185 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	1.22	10	10.8	95		75--125

MS:WG143826-9 L64378-3 Matrix: SALT WTR Listtype:CVTOC Method:SM5310-B Project:421185 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	1.11	10	10.7	96		75--125

MB:WG143826-10 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

LCS:WG143826-11 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

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

LD:WG143826-12 L64454-4 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	2.4	2.31	4		0--20

MS:WG143826-13 L64454-4 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	2.2	10	12.3	101		75--125

MS:WG143826-13 L64454-4 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	2.4	10	12.3	99		75--125

MB:WG143826-14 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

SB:WG143826-15 MB:WG143826-14 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

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

LCS:WG143826-16 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	10	10.9	109		85--115

MB:WG143826-17 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

LD:WG143826-18 L64192-1 Matrix: FRESH WTR Listtype:CVDOC Method:SM5310-B Project:421250ON Pkey:STD

(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	1.46	1.44	1		0--20

MS:WG143826-19 L64192-2 Matrix: FRESH WTR Listtype:CVDOC Method:SM5310-B Project:421250ON Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	2.08	10	11.9	98		75--125

MB:WG143826-20 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

LD:WG143826-21 L64454-3 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	2.34	2.35	0		0--20

MB:WG143826-22 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

LCS:WG143826-23 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

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

Workgroup: WG148326 (TOC/DOC - various) Run ID: R214371

MB:WG148326-1 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

MB:WG148326-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

SB:WG148326-2 MB:WG148326-1 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

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

SB:WG148326-2 MB:WG148326-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	9.86	99		80--120

LCS:WG148326-3 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

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

LCS:WG148326-3 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	9.97	100		85--115

LD:WG148326-4 L66302-4 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Lab Duplicate)

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

MS:WG148326-5 L66302-4 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	9.77	98		75--125

LD:WG148326-6 L66333-2 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	0.92	0.77			0--20

LD:WG148326-6 L66333-2 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	0.97	1.02	5		0--20

MS:WG148326-7 L66333-2 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	0.92	10	11	101		75--125

MS:WG148326-7 L66333-2 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	0.97	10	11.4	104		75--125

Workgroup: WG148358 (TSS) Run ID: R214429

MB:WG148358-1 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

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

LCS:WG148358-2 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	91	91		80--120

LD:WG148358-3 L66307-1 Matrix: GRND WTR Listtype:CVTSS Method:SM2540-D Project:421422-CHGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	2	mg/L	4.8	4	18		0--25

LD:WG148358-4 L66333-1 Matrix: STORM WTR Listtype:CVTSS Method:SM2540-D Project:423589-330-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	2	mg/L	7.6	7.33	4		0--25

LD:WG148358-5 L66336-10 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:422019 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	2	mg/L	1.4	1.2			0--25

MB:WG148358-6 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual

Total Suspended Solids	0.5	1	mg/L	<MDL

LCS:WG148358-7 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

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

LD:WG148358-8 L66338-6 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:421240A Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	0.5	1	mg/L	3.5	3.3	6		0--25

MB:WG148358-9 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

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

LCS:WG148358-10 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	95	95		80--120

LD:WG148358-11 L66339-9 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:421240A Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	0.5	1	mg/L	3.3	3.5	6		0--25

LD:WG148358-12 L66344-47 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:421235 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	0.5	1	mg/L	0.8	0.6			0--25

Workgroup: WG148385 (TSS/VSS) Run ID: R214462

MB:WG148385-1 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

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

MB:WG148385-1 Matrix: BLANK WTR Listtype:CVVSS Method:EPA 160.4 Project: Pkey:STD

(Method Blank)

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

LCS:WG148385-2 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	0.5	1	mg/L	62.6	69.4	111		74--126

LCS:WG148385-2 Matrix: BLANK WTR Listtype:CVVSS Method:EPA 160.4 Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Volatile Suspended Solids	0.5	1	mg/L	44.5	51.2	115		73--127

LD:WG148385-3 L65693-1 Matrix: STORM WTR Listtype:CVTSS Method:SM2540-D Project:421422-CHSW-P Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1.4	2.9	mg/L	117	122	5		0--25

LD:WG148385-4 L66314-1 Matrix: LEACHATE Listtype:CVTSS Method:SM2540-D Project:421422-CHLS-M Pkey:STD
(Lab Duplicate)

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

LD:WG148385-4 L66314-1 Matrix: LEACHATE Listtype:CVVSS Method:EPA 160.4 Project:421422-CHLS-M Pkey:STD
(Lab Duplicate)

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

LD:WG148385-5 L66315-1 Matrix: GRND WTR Listtype:CVTSS Method:SM2540-D Project:421422-CHGW Pkey:STD
(Lab Duplicate)

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

LD:WG148385-6 L66317-1 Matrix: IW WTR Listtype:CVTSS Method:SM2540-D Project:421422-ENLS Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	6.3	13	mg/L	63.8	61.3	4		0--25

LD:WG148385-7 L66360-1 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:421240A Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	2	mg/L	6.2	6.4	3		0--25

Workgroup: WG148546 (TOC/DOC - various) Run ID: R214599

MB:WG148546-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

SB:WG148546-2 MB:WG148546-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

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

LCS:WG148546-3 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

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

LD:WG148546-4 L66403-3 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHSW-A5-TD Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	1	2	mg/L	9.54	9.38	2		0--20

MS:WG148546-5 L66403-3 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHSW-A5-TD Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	1	2	mg/L	9.54	10	29.6	100		75--125

LD:WG148546-6 L66320-1 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Lab Duplicate)

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

MS:WG148546-7 L66320-1 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	9.92	99		75--125

LD:WG148546-8 L66275-2 Matrix: INFLUENT Listtype:CVTOC Method:SM5310-B Project:421937-200 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	25	50	mg/L	88.5	84.5	5		0--20

MS:WG148546-9 L66275-2 Matrix: INFLUENT Listtype:CVTOC Method:SM5310-B Project:421937-200 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	25	50	mg/L	88.5	10	561	95		75--125

LD:WG148546-10 L66275-3 Matrix: EFFLUENT Listtype:CVTOC Method:SM5310-B Project:421937-200 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	10	20	mg/L	87.1	82.2	6		0--20

MS:WG148546-11 L66275-3 Matrix: EFFLUENT Listtype:CVTOC Method:SM5310-B Project:421937-200 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	10	20	mg/L	87.1	10	289	101		75--125

MB:WG148546-12 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

SB:WG148546-13 MB:WG148546-12 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	10	9.97	100		80--120

LCS:WG148546-14 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

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

LD:WG148546-15 L66408-1 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	1.61	1.54	4		0--20

MS:WG148546-16 L66408-1 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423589-330-4 Pkey:STD

(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	1.61	10	11	94		75--125

Workgroup: WG148655 (TOC/DOC - various) Run ID: R214812

MB:WG148655-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

SB:WG148655-2 MB:WG148655-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	<MDL	10	9.61	96		80--120

LCS:WG148655-3 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	9.82	98		85--115

LD:WG148655-4 L66315-2 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	1.04	1.02	2		0--20

MS:WG148655-5 L66315-2 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-CHGW Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	1.04	10	10.4	93		75--125

MB:WG148655-6 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

MB:WG148655-7 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

SB:WG148655-8 MB:WG148655-6 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	<MDL	10	9.38	94		80--120

LCS:WG148655-9 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	10	9.46	95		85--115

LD:WG148655-10 L66453-7 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:421879-240 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	7.72	7.79	1		0--20

MS:WG148655-11 L66453-7 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:421879-240 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	7.72	10	16.3	86		75--125

LD:WG148655-12 L66330-1 Matrix: FRESH WTR Listtype:CVDOC Method:SM5310-B Project:421250ON Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	1.26	1.15	10		0--20

MS:WG148655-13 L66330-1 Matrix: FRESH WTR Listtype:CVDOC Method:SM5310-B Project:421250ON Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	1.26	10	12.1	108		75--125

LD:WG148655-14 L66331-1 Matrix: SALT WTR Listtype:CVTOC Method:SM5310-B Project:421250ON Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	0.94	0.9			0--20

MS:WG148655-15 L66331-1 Matrix: SALT WTR Listtype:CVTOC Method:SM5310-B Project:421250ON Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	0.94	10	12.2	113		75--125

MB:WG148655-16 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

LCS:WG148655-17 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	10.9	109		85--115

MB:WG148655-18 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

SB:WG148655-19 MB:WG148655-18 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

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

LCS:WG148655-20 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

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

LD:WG148655-21 L66453-2 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:421879-240 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	1	2	mg/L	11.9	12.1	2		0--20

MS:WG148655-22 L66453-2 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:421879-240 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	1	2	mg/L	11.9	10	31.8	100		75--125

LD:WG148655-23 L66314-1 Matrix: LEACHATE Listtype:CVTOC Method:SM5310-B Project:421422-CHLS-M Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	100	200	mg/L	542	544	0		0--20

MS:WG148655-24 L66314-1 Matrix: LEACHATE Listtype:CVTOC Method:SM5310-B Project:421422-CHLS-M Pkey:STD

(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	100	200	mg/L	542	10	2620	104		75--125

Workgroup: WG148332 (12-OCT-16 SWD, Storms Diss) Run ID: R214416

MB:WG148332-1 Matrix: BLANK WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project: Pkey:STD

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Beryllium, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	
Sodium, Dissolved, ICP-MS	100	100	ug/L	<MDL	
Magnesium, Dissolved, ICP-MS	50	50	ug/L	<MDL	
Aluminum, Dissolved, ICP-MS	2	10	ug/L	<MDL	
Potassium, Dissolved, ICP-MS	100	500	ug/L	<MDL	
Calcium, Dissolved, ICP-MS	50	50	ug/L	<MDL	
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	<MDL	
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	<MDL	
Iron, Dissolved, ICP-MS	10	50	ug/L	<MDL	
Manganese, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	
Cobalt, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	
Copper, Dissolved, ICP-MS	0.2	2	ug/L	<MDL	
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	<MDL	
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	
Selenium, Dissolved, ICP-MS	0.5	1	ug/L	<MDL	
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	
Cadmium, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	
Antimony, Dissolved, ICP-MS	0.3	1	ug/L	<MDL	
Barium, Dissolved, ICP-MS	0.5	0.5	ug/L	<MDL	
Thallium, Dissolved, ICP-MS	0.1	0.2	ug/L	<MDL	
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	

SB:WG148332-2 MB:WG148332-1 Matrix: BLANK WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project: Pkey:STD

(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Beryllium, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	20	18.9	94		85--115
Sodium, Dissolved, ICP-MS	100	100	ug/L	<MDL	5000	5060	101		85--115
Magnesium, Dissolved, ICP-MS	50	50	ug/L	<MDL	5000	4920	98		85--115
Aluminum, Dissolved, ICP-MS	2	10	ug/L	<MDL	20	18.4	92		85--115
Potassium, Dissolved, ICP-MS	100	500	ug/L	<MDL	5000	4970	99		85--115

Calcium, Dissolved, ICP-MS	50	50	ug/L	<MDL	5000	4830	97	85--115
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	<MDL	20	18.1	90	85--115
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	<MDL	20	18.2	91	85--115
Iron, Dissolved, ICP-MS	10	50	ug/L	<MDL	5000	5170	103	85--115
Manganese, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	20	18	90	85--115
Cobalt, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	20	18.1	91	85--115
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	20	18.1	90	85--115
Copper, Dissolved, ICP-MS	0.2	2	ug/L	<MDL	20	17.7	89	85--115
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	<MDL	20	21.1	106	85--115
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	20	17.7	88	85--115
Selenium, Dissolved, ICP-MS	0.5	1	ug/L	<MDL	20	18.2	91	85--115
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	20	18.6	93	85--115
Cadmium, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	20	17.7	88	85--115
Antimony, Dissolved, ICP-MS	0.3	1	ug/L	<MDL	20	17.1	85	85--115
Barium, Dissolved, ICP-MS	0.5	0.5	ug/L	<MDL	20	17.3	87	85--115
Thallium, Dissolved, ICP-MS	0.1	0.2	ug/L	<MDL	20	18.1	91	85--115
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	20	18	90	85--115

LD:WG148332-3 L66151-1 Matrix: GRND WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project:421195-240 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Beryllium, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	<MDL			0--20
Sodium, Dissolved, ICP-MS	100	100	ug/L	3940	3970	1		0--20
Magnesium, Dissolved, ICP-MS	50	50	ug/L	4890	4880	0		0--20
Aluminum, Dissolved, ICP-MS	2	10	ug/L	<MDL	<MDL			0--20
Calcium, Dissolved, ICP-MS	50	50	ug/L	20000	20200	1		0--20
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	0.27	0.24			0--20
Iron, Dissolved, ICP-MS	10	50	ug/L	58.6	57.3	2		0--20
Manganese, Dissolved, ICP-MS	0.1	0.5	ug/L	3.82	3.87	1		0--20
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	0.32	0.32			0--20
Copper, Dissolved, ICP-MS	0.2	2	ug/L	<MDL	0.21			0--20
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	<MDL	<MDL			0--20
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	0.35	0.35			0--20
Selenium, Dissolved, ICP-MS	0.5	1	ug/L	<MDL	<MDL			0--20
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	<MDL			0--20
Cadmium, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	<MDL			0--20
Antimony, Dissolved, ICP-MS	0.3	1	ug/L	<MDL	<MDL			0--20
Thallium, Dissolved, ICP-MS	0.1	0.2	ug/L	<MDL	<MDL			0--20
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	<MDL			0--20

MS:WG148332-4 L66151-1 Matrix: GRND WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project:421195-240 Pkey:STD

(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Beryllium, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	20	19.3	97		75--125
Sodium, Dissolved, ICP-MS	100	100	ug/L	3940	5000	8620	94		75--125
Magnesium, Dissolved, ICP-MS	50	50	ug/L	4890	5000	9750	97		75--125
Aluminum, Dissolved, ICP-MS	2	10	ug/L	<MDL	20	19.2	96		75--125
Calcium, Dissolved, ICP-MS	50	50	ug/L	20000	5000	24600		4xRule	75--125
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	0.27	20	20.1	99		75--125
Iron, Dissolved, ICP-MS	10	50	ug/L	58.6	5000	4990	99		75--125
Manganese, Dissolved, ICP-MS	0.1	0.5	ug/L	3.82	20	22	91		75--125
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	0.32	20	20.4	100		75--125
Copper, Dissolved, ICP-MS	0.2	2	ug/L	<MDL	20	19.7	99		75--125
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	<MDL	20	20.7	104		75--125
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	0.35	20	21.1	104		75--125
Selenium, Dissolved, ICP-MS	0.5	1	ug/L	<MDL	20	20.9	104		75--125
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	20	20.6	103		75--125
Cadmium, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	20	19.9	100		75--125
Antimony, Dissolved, ICP-MS	0.3	1	ug/L	<MDL	20	19.5	98		75--125
Thallium, Dissolved, ICP-MS	0.1	0.2	ug/L	<MDL	20	20.1	101		75--125
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	20	20.1	101		75--125

LD:WG148332-5 L66305-1 Matrix: GRND WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project:421422-CHGW Pkey:STD

(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Beryllium, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	<MDL			0--20
Sodium, Dissolved, ICP-MS	100	100	ug/L	7230	7280	1		0--20
Magnesium, Dissolved, ICP-MS	50	50	ug/L	13600	13500	1		0--20
Potassium, Dissolved, ICP-MS	100	500	ug/L	1160	1160	0		0--20
Calcium, Dissolved, ICP-MS	50	50	ug/L	17000	17000	0		0--20
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	0.586	0.594	1		0--20
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	0.21	<MDL			0--20
Iron, Dissolved, ICP-MS	10	50	ug/L	<MDL	<MDL			0--20
Manganese, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	<MDL			0--20
Cobalt, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	<MDL			0--20
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	0.19	0.19			0--20
Copper, Dissolved, ICP-MS	0.2	2	ug/L	<MDL	<MDL			0--20
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	0.85	0.85			0--20
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	0.613	0.658	7		0--20
Selenium, Dissolved, ICP-MS	0.5	1	ug/L	1.14	1.1	4		0--20
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	<MDL			0--20
Cadmium, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	<MDL			0--20

Antimony, Dissolved, ICP-MS	0.3	1	ug/L	<MDL	<MDL		0--20
Barium, Dissolved, ICP-MS	0.5	0.5	ug/L	4.6	4.58	0	0--20
Thallium, Dissolved, ICP-MS	0.1	0.2	ug/L	<MDL	<MDL		0--20
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	<MDL		0--20

MS:WG148332-6 L66305-1 Matrix: GRND WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project:421422-CHGW Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Beryllium, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	20	19.7	98		75--125
Sodium, Dissolved, ICP-MS	100	100	ug/L	7230	5000	12000	96		75--125
Magnesium, Dissolved, ICP-MS	50	50	ug/L	13600	5000	18600	100		75--125
Potassium, Dissolved, ICP-MS	100	500	ug/L	1160	5000	5910	95		75--125
Calcium, Dissolved, ICP-MS	50	50	ug/L	17000	5000	21700	93		75--125
Vanadium, Dissolved, ICP-MS	0.075	0.375	ug/L	0.586	20	19.5	94		75--125
Chromium, Dissolved, ICP-MS	0.2	1	ug/L	0.21	20	19.4	96		75--125
Iron, Dissolved, ICP-MS	10	50	ug/L	<MDL	5000	4820	96		75--125
Manganese, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	20	18	90		75--125
Cobalt, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	20	17.8	89		75--125
Nickel, Dissolved, ICP-MS	0.1	0.5	ug/L	0.19	20	19.4	96		75--125
Copper, Dissolved, ICP-MS	0.2	2	ug/L	<MDL	20	19.2	96		75--125
Zinc, Dissolved, ICP-MS	0.5	2.5	ug/L	0.85	20	21.4	103		75--125
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	0.613	20	20.8	101		75--125
Selenium, Dissolved, ICP-MS	0.5	1	ug/L	1.14	20	23.8	113		75--125
Silver, Dissolved, ICP-MS	0.04	0.2	ug/L	<MDL	20	20.4	102		75--125
Cadmium, Dissolved, ICP-MS	0.05	0.25	ug/L	<MDL	20	20	100		75--125
Antimony, Dissolved, ICP-MS	0.3	1	ug/L	<MDL	20	19.7	99		75--125
Barium, Dissolved, ICP-MS	0.5	0.5	ug/L	4.6	20	24.7	101		75--125
Thallium, Dissolved, ICP-MS	0.1	0.2	ug/L	<MDL	20	20	100		75--125
Lead, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	20	19.9	100		75--125

Workgroup: WG148693 (28-OCT-16 Green R As) Run ID: R214896

MB:WG148693-1 Matrix: BLANK WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Arsenic, Total, ICP-MS	0.1	0.5	ug/L	<MDL	

SB:WG148693-2 MB:WG148693-1 Matrix: BLANK WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit

Arsenic, Total, ICP-MS	0.1	0.5	ug/L	<MDL	20	21	105	85--115

LD:WG148693-3 L66333-1 Matrix: STORM WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project:423589-330-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Arsenic, Total, ICP-MS	0.1	0.5	ug/L	0.944	0.921	2		0--20

MS:WG148693-4 L66333-1 Matrix: STORM WTR Listtype:MTICPMS Method:EPA 200.8*SW846 6020A Project:423589-330-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Arsenic, Total, ICP-MS	0.1	0.5	ug/L	0.944	20	21.5	103		75--125

Workgroup: WG148831 (07-NOV-16 Green R Diss) Run ID: R214984

MB:WG148831-1 Matrix: BLANK WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	

SB:WG148831-2 MB:WG148831-1 Matrix: BLANK WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	<MDL	20	19.1	95		85--115

LD:WG148831-3 L66408-1 Matrix: STORM WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project:423589-330-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	0.566	0.51	10		0--20

MS:WG148831-4 L66408-1 Matrix: STORM WTR Listtype:MTICPMS-DISS Method:EPA 200.8*SW846 6020A Project:423589-330-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Arsenic, Dissolved, ICP-MS	0.1	0.5	ug/L	0.566	20	20.7	100		75--125

Workgroup: WG148301 (PAH-SIM_LVI-LL bl#425) Run ID: R214909

MB:WG148301-1 Matrix: BLANK WTR Listtype:ORPAH-SIM-LVI-LL Method:SW846 3520C*8270D SIM Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual

Naphthalene	0.0013	0.0025	ug/L	0.0022	B
2-Methylnaphthalene	0.0005	0.001	ug/L	0.00119	B
1-Methylnaphthalene	0.0005	0.001	ug/L	0.00061	B
Acenaphthylene	0.0005	0.001	ug/L	<MDL	
Acenaphthene	0.0005	0.001	ug/L	<MDL	
Fluorene	0.0005	0.001	ug/L	<MDL	
Phenanthrene	0.0005	0.001	ug/L	<MDL	
Anthracene	0.0005	0.001	ug/L	<MDL	
Fluoranthene	0.0005	0.001	ug/L	<MDL	
Pyrene	0.0005	0.001	ug/L	<MDL	
Benzo(a)anthracene	0.0005	0.001	ug/L	<MDL	
Chrysene	0.0005	0.001	ug/L	<MDL	
Benzo(b,j,k)fluoranthene	0.0005	0.001	ug/L	<MDL	
Benzo(a)pyrene	0.0005	0.001	ug/L	<MDL	
Indeno(1,2,3-Cd)Pyrene	0.0005	0.001	ug/L	<MDL	
Dibenzo(a,h)anthracene	0.0005	0.001	ug/L	<MDL	
Benzo(g,h,i)perylene	0.0005	0.001	ug/L	<MDL	

SB:WG148301-2 MB:WG148301-1 Matrix: BLANK WTR Listtype:ORPAH-SIM-LVI-LL Method:SW846 3520C*8270D SIM Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Naphthalene	0.0013	0.0025	ug/L	0.0022	0.1	0.0596	57		32--110
2-Methylnaphthalene	0.0005	0.001	ug/L	0.00119	0.1	0.0538	53		21--136
1-Methylnaphthalene	0.0005	0.001	ug/L	0.00061	0.1	0.0519	51		21--136
Acenaphthylene	0.0005	0.001	ug/L	<MDL	0.1	0.0622	62		56--124
Acenaphthene	0.0005	0.001	ug/L	<MDL	0.1	0.0652	65		45--114
Fluorene	0.0005	0.001	ug/L	<MDL	0.1	0.0651	65		54--122
Phenanthrene	0.0005	0.001	ug/L	<MDL	0.1	0.0701	70		57--104
Anthracene	0.0005	0.001	ug/L	<MDL	0.1	0.0435	43	*	47--107
Fluoranthene	0.0005	0.001	ug/L	<MDL	0.1	0.0785	78		69--116
Pyrene	0.0005	0.001	ug/L	<MDL	0.1	0.0706	71		59--143
Benzo(a)anthracene	0.0005	0.001	ug/L	<MDL	0.1	0.0686	69		67--111
Chrysene	0.0005	0.001	ug/L	<MDL	0.1	0.0713	71		62--111
Benzo(b,j,k)fluoranthene	0.0005	0.001	ug/L	<MDL	0.2	0.16	80		71--131
Benzo(a)pyrene	0.0005	0.001	ug/L	<MDL	0.1	0.0409	41		40--135
Indeno(1,2,3-Cd)Pyrene	0.0005	0.001	ug/L	<MDL	0.1	0.0714	71		58--137
Dibenzo(a,h)anthracene	0.0005	0.001	ug/L	<MDL	0.1	0.0776	78		61--139
Benzo(g,h,i)perylene	0.0005	0.001	ug/L	<MDL	0.1	0.0771	77		63--126

MSD:WG148301-4 MS:WG148301-3 L65804-4 Matrix: STORM WTR Listtype:ORPAH-SIM-LVI-LL Method:SW846 3520C*8270D SIM Project:421520-600 Pkey:STD
(Matrix Spike Duplicate, Matrix Spike)

LIMSView QC Report for Green River PCB Equipment Blank Study - Data Validation

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueValu	MSD Valu	% Rec.	Qual	RPD	Qual	LabLimit
Naphthalene	0.0012	0.00248	ug/L	0.00347	0.099	0.055	52		20--90	0.105	0.0428	37		25		0--40
2-Methylnaphthalene	0.0005	0.00099	ug/L	0.0019	0.099	0.0518	50		28--97	0.105	0.0426	39		19		0--40
1-Methylnaphthalene	0.0005	0.00099	ug/L	0.00181	0.099	0.0505	49		28--97	0.105	0.0408	37		21		0--40
Acenaphthylene	0.0005	0.00099	ug/L	<MDL	0.099	0.0589	59		48--107	0.105	0.0492	47	*	18		0--40
Acenaphthene	0.0005	0.00099	ug/L	0.00125	0.099	0.0605	60		38--90	0.105	0.0505	47		18		0--40
Fluorene	0.0005	0.00099	ug/L	0.00089	0.099	0.0588	59		42--113	0.105	0.0548	51		7		0--40
Phenanthrene	0.0005	0.00099	ug/L	0.00228	0.099	0.0732	72		51--98	0.105	0.0702	65		4		0--40
Anthracene	0.0005	0.00099	ug/L	<MDL	0.099	0.0598	60		49--112	0.105	0.0645	61		7		0--40
Fluoranthene	0.0005	0.00099	ug/L	0.0018	0.099	0.0796	79		65--125	0.105	0.0823	77		3		0--40
Pyrene	0.0005	0.00099	ug/L	0.00119	0.099	0.0634	63		38--150	0.105	0.0672	63		6		0--40
Benzo(a)anthracene	0.0005	0.00099	ug/L	0.00052	0.099	0.0665	67		67--114	0.105	0.0734	69		10		0--40
Chrysene	0.0005	0.00099	ug/L	0.00067	0.099	0.0649	65	*	68--115	0.105	0.0698	66	*	7		0--40
Benzo(b,j,k)fluoranthene	0.0005	0.00099	ug/L	0.0011	0.198	0.15	75		43--146	0.211	0.155	73		4		0--40
Benzo(a)pyrene	0.0005	0.00099	ug/L	<MDL	0.099	0.057	58		27--150	0.105	0.0694	66		20		0--40
Indeno(1,2,3-Cd)Pyrene	0.0005	0.00099	ug/L	<MDL	0.099	0.0665	67		20--150	0.105	0.0716	68		7		0--40
Dibenzo(a,h)anthracene	0.0005	0.00099	ug/L	<MDL	0.099	0.0705	71		24--150	0.105	0.0769	73		9		0--40
Benzo(g,h,i)perylene	0.0005	0.00099	ug/L	0.00066	0.099	0.0701	70		26--140	0.105	0.0746	70		6		0--40

Surrogate:	2-Fluorobiphenyl	d14-Terphenyl
(Lab Limits)	23--124	45--150
L65804-4	46	53
L66333-1	54	59
L66333-2	53	63
WG148301-1	49	66
WG148301-2	49	62
WG148301-3	45	55
WG148301-4	35	55

Workgroup: WG148457 (SIM-LVI-LL bl#429) Run ID: R214907

MB:WG148457-1 Matrix: BLANK WTR Listtype:ORPAH-SIM-LVI-LL Method:SW846 3520C*8270D SIM Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Naphthalene	0.0013	0.0025	ug/L	0.0016	B
2-Methylnaphthalene	0.0005	0.001	ug/L	0.00075	B
1-Methylnaphthalene	0.0005	0.001	ug/L	<MDL	
Acenaphthylene	0.0005	0.001	ug/L	<MDL	
Acenaphthene	0.0005	0.001	ug/L	<MDL	

Fluorene	0.0005	0.001	ug/L	<MDL
Phenanthrene	0.0005	0.001	ug/L	<MDL
Anthracene	0.0005	0.001	ug/L	<MDL
Fluoranthene	0.0005	0.001	ug/L	<MDL
Pyrene	0.0005	0.001	ug/L	<MDL
Benzo(a)anthracene	0.0005	0.001	ug/L	<MDL
Chrysene	0.0005	0.001	ug/L	<MDL
Benzo(b,j,k)fluoranthene	0.0005	0.001	ug/L	<MDL
Benzo(a)pyrene	0.0005	0.001	ug/L	<MDL
Indeno(1,2,3-Cd)Pyrene	0.0005	0.001	ug/L	<MDL
Dibenzo(a,h)anthracene	0.0005	0.001	ug/L	<MDL
Benzo(g,h,i)perylene	0.0005	0.001	ug/L	<MDL

SB:WG148457-2 MB:WG148457-1 Matrix: BLANK WTR Listtype:ORPAH-SIM-LVI-LL Method:SW846 3520C*8270D SIM Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Naphthalene	0.0013	0.0025	ug/L	0.0016	0.1	0.0507	49		32--110
2-Methylnaphthalene	0.0005	0.001	ug/L	0.00075	0.1	0.052	51		21--136
1-Methylnaphthalene	0.0005	0.001	ug/L	<MDL	0.1	0.0501	50		21--136
Acenaphthylene	0.0005	0.001	ug/L	<MDL	0.1	0.055	55	*	56--124
Acenaphthene	0.0005	0.001	ug/L	<MDL	0.1	0.0557	56		45--114
Fluorene	0.0005	0.001	ug/L	<MDL	0.1	0.0574	57		54--122
Phenanthrene	0.0005	0.001	ug/L	<MDL	0.1	0.0563	56	*	57--104
Anthracene	0.0005	0.001	ug/L	<MDL	0.1	0.0544	54		47--107
Fluoranthene	0.0005	0.001	ug/L	<MDL	0.1	0.0642	64	*	69--116
Pyrene	0.0005	0.001	ug/L	<MDL	0.1	0.0571	57	*	59--143
Benzo(a)anthracene	0.0005	0.001	ug/L	<MDL	0.1	0.0619	62	*	67--111
Chrysene	0.0005	0.001	ug/L	<MDL	0.1	0.0598	60	*	62--111
Benzo(b,j,k)fluoranthene	0.0005	0.001	ug/L	<MDL	0.2	0.128	64	*	71--131
Benzo(a)pyrene	0.0005	0.001	ug/L	<MDL	0.1	0.0616	62		40--135
Indeno(1,2,3-Cd)Pyrene	0.0005	0.001	ug/L	<MDL	0.1	0.058	58		58--137
Dibenzo(a,h)anthracene	0.0005	0.001	ug/L	<MDL	0.1	0.0647	65		61--139
Benzo(g,h,i)perylene	0.0005	0.001	ug/L	<MDL	0.1	0.0645	64		63--126

MSD:WG148457-4 MS:WG148457-3 L65804-5 Matrix: STORM WTR Listtype:ORPAH-SIM-LVI-LL Method:SW846 3520C*8270D SIM Project:421520-600 Pkey:STD
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueValu	MSD Valu	% Rec.	Qual	RPD	Qual	LabLimit
Naphthalene	0.0013	0.0025	ug/L	0.0041	0.1	0.0453	41		20--90	0.1	0.0453	41		0		0--40
2-Methylnaphthalene	0.0005	0.001	ug/L	0.00203	0.1	0.0425	40		28--97	0.1	0.0428	41		1		0--40
1-Methylnaphthalene	0.0005	0.001	ug/L	0.00269	0.1	0.0446	42		28--97	0.1	0.0414	39		8		0--40
Acenaphthylene	0.0005	0.001	ug/L	0.00096	0.1	0.0486	48		48--107	0.1	0.0503	49		3		0--40

Acenaphthene	0.0005	0.001	ug/L	0.00124	0.1	0.0503	49	38--90	0.1	0.0511	50	2	0--40
Fluorene	0.0005	0.001	ug/L	0.001	0.1	0.0525	51	42--113	0.1	0.0522	51	1	0--40
Phenanthrene	0.0005	0.001	ug/L	0.00391	0.1	0.0605	57	51--98	0.1	0.0664	62	9	0--40
Anthracene	0.0005	0.001	ug/L	0.00091	0.1	0.0559	55	49--112	0.1	0.0616	61	10	0--40
Fluoranthene	0.0005	0.001	ug/L	0.00452	0.1	0.0736	69	65--125	0.1	0.0762	72	3	0--40
Pyrene	0.0005	0.001	ug/L	0.00323	0.1	0.0589	56	38--150	0.1	0.0623	59	6	0--40
Benzo(a)anthracene	0.0005	0.001	ug/L	0.00127	0.1	0.0638	63 *	67--114	0.1	0.0662	65 *	4	0--40
Chrysene	0.0005	0.001	ug/L	0.00197	0.1	0.0614	59 *	68--115	0.1	0.0636	62 *	3	0--40
Benzo(b,j,k)fluoranthene	0.0005	0.001	ug/L	0.00366	0.2	0.133	65	43--146	0.2	0.138	67	4	0--40
Benzo(a)pyrene	0.0005	0.001	ug/L	0.0014	0.1	0.061	60	27--150	0.1	0.0631	62	3	0--40
Indeno(1,2,3-Cd)Pyrene	0.0005	0.001	ug/L	0.00162	0.1	0.0676	66	20--150	0.1	0.0647	63	4	0--40
Dibenzo(a,h)anthracene	0.0005	0.001	ug/L	<MDL	0.1	0.0692	69	24--150	0.1	0.0692	69	0	0--40
Benzo(g,h,i)perylene	0.0005	0.001	ug/L	0.0022	0.1	0.0682	66	26--140	0.1	0.0685	66	0	0--40

Surrogate:	2-Fluorobiphenyl	d14-Terphenyl
(Lab Limits)	23--124	45--150
L65804-5	39	52
L66408-1	51	56
L66408-2	43	60
WG148457-1	51	62
WG148457-2	39	51
WG148457-3	37	50
WG148457-4	37	53

Workgroup: WG151668 (TSS) Run ID: R218388

MB:WG151668-1 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

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

LCS:WG151668-2 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

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

LD:WG151668-3 L67711-2 Matrix: STORM WTR Listtype:CVTSS Method:SM2540-D Project:423589-330-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	2	mg/L	14	16	13		0--25

LD:WG151668-4 L67648-2 Matrix: GRND WTR Listtype:CVTSS Method:SM2540-D Project:421422-VAGW Pkey:STD
(Lab Duplicate)

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

Workgroup: WG151839 (TSS) Run ID: R218564

MB:WG151839-1 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

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

LCS:WG151839-2 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

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

LD:WG151839-3 L67694-17 Matrix: SALT WTR Listtype:CVTSS Method:SM2540-D Project:421250ON Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	20	mg/L	3.2	1.8			0--25

MB:WG151839-4 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

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

LCS:WG151839-5 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Suspended Solids	5	10	mg/L	100	98	98		80--120

LD:WG151839-6 L67694-37 Matrix: SALT WTR Listtype:CVTSS Method:SM2540-D Project:421250ON Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit

Total Suspended Solids	1	20	mg/L	1.6	2		0--25

MB:WG151839-7 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Method Blank)

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

LCS:WG151839-8 Matrix: BLANK WTR Listtype:CVTSS Method:SM2540-D Project: Pkey:STD
(Lab Control Sample)

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

LD:WG151839-9 L67697-3 Matrix: FRESH WTR Listtype:CVTSS Method:SM2540-D Project:421250ON Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	2	mg/L	7.2	6.89	4		0--25

LD:WG151839-10 L67737-1 Matrix: STORM WTR Listtype:CVTSS Method:SM2540-D Project:423589-330-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Suspended Solids	1	2	mg/L	10.2	10.6	4		0--25

Workgroup: WG151870 (TOC/DOC - various) Run ID: R218621

MB:WG151870-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

SB:WG151870-2 MB:WG151870-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

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

LCS:WG151870-3 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

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

LCS:WG151870-3 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD

(Lab Control Sample)

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

LD:WG151870-4 L67739-1 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421422-VASW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	5.18	5.35	3		0--20

MS:WG151870-5 L67739-1 Matrix: FRESH WTR Listtype:CVTOC Method:SM5310-B Project:421422-VASW Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	5.18	10	15.8	106		75--125

MB:WG151870-6 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

LD:WG151870-7 L67737-1 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	2.09	2.12	2		0--20

MS:WG151870-8 L67737-1 Matrix: STORM WTR Listtype:CVTOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	2.09	10	11.6	96		75--125

Workgroup: WG151916 (DOC/TOC) Run ID: R218692

MB:WG151916-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

SB:WG151916-2 MB:WG151916-1 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

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

LCS:WG151916-3 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

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

LCS:WG151916-3 Matrix: BLANK WTR Listtype:CVTOC Method:SM5310-B Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	10	10.5	105		85--115

MB:WG151916-4 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Method Blank)

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

SB:WG151916-5 MB:WG151916-4 Matrix: BLANK WTR Listtype:CVDOC Method:SM5310-B Project: Pkey:STD
(Spike Blank, Method Blank)

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

LD:WG151916-6 L67737-1 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	2.02	1.96	3		0--20

MS:WG151916-7 L67737-1 Matrix: STORM WTR Listtype:CVDOC Method:SM5310-B Project:423589-330-4 Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Dissolved Organic Carbon	0.5	1	mg/L	2.02	10	11.9	99		75--125

LD:WG151916-8 L67651-2 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-VAGW Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	0.66	0.6			0--20

MS:WG151916-9 L67651-2 Matrix: GRND WTR Listtype:CVTOC Method:SM5310-B Project:421422-VAGW Pkey:STD
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	0.5	1	mg/L	0.66	10	10.6	100		75--125

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

Part 2

Data Validation Memos for PCB Congener Data

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LABORATORY DATA CONSULTANTS, INC.
2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

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

June 2, 2016

SUBJECT: Revised LDW PCB Equipment Blank Study, Data Validation

Dear Mr. Grothkopp,

Enclosed is the revised validation report for the fraction listed below. Please replace the previously submitted report with the enclosed revised report.

LDC Project #35314:

SDG #	Fraction
PR15327-3286	Polychlorinated Biphenyls as Congeners

- Revision: PCB Congeners - Revised initial calibration criteria for labeled compounds to 35.0% and removed qualifiers

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

Sincerely,

Stella Cuenco
Operations Manager/Senior Chemist

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: LDW PCB Equipment Blank Study

LDC Report Date: June 1, 2016

Parameters: Polychlorinated Biphenyls as Congeners

Validation Level: Level III

Laboratory: Pacific Rim Laboratories, Inc.

Sample Delivery Group (SDG): PR15327-3286

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
PR153271	L63069-1	Water	06/25/15
PR153272	L63069-2	Water	06/25/15
PR153273	L63070-1	Water	06/25/15
PR153274	L63070-2	Water	06/25/15
PR153275	L63207-1	Water	08/20/15
PR153276	L63207-2	Water	08/20/15
PR153277	L63208-1	Water	08/20/15
PR153278	L63208-2	Water	08/20/15
PR153279	L63330-1	Water	07/24/15
PR153280	L63330-2	Water	07/24/15
PR153281	L63330-3	Water	07/24/15
PR153282	L63330-4	Water	07/24/15
PR153283	L63543-1	Water	08/21/15
PR153284	L63543-2	Water	08/21/15
PR153285	L63543-3	Water	08/21/15
PR153286	L63543-4	Water	08/21/15
PR153279DUP	L63330-1DUP	Water	07/24/15

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Final Green River PCB Equipment Blank Study Sampling and Analysis Plan (August 2015) and US Environmental Protection Agency (EPA) Region 10 SOP for the Validation of Polychlorinated Biphenyl (PCB) Data (Revision 1.0, December 8, 1995). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Polychlorinated Biphenyls (PCBs) as Congeners by Environmental Protection Agency (EPA) Method 1668C

All sample results were subjected to Level III data validation, which comprises an evaluation of quality control (QC) summary results.

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.

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.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition; however, the cooler temperature upon receipt was reported at 12.8°C. Using professional judgment, no data were qualified due to the cooler temperature non-conformance since PCBs are environmentally stable and are not expected to degrade significantly during transit or storage.

All technical holding time requirements were met.

II. HRGC/HRMS Instrument Performance Check

Instrument performance was checked at the required frequency.

Retention time windows were established for all congeners. The chromatographic resolution between the congeners PCB-23 and PCB-34 and congeners PCB-182 and PCB-187 was resolved with a valley of less than or equal to 40%.

The static resolving power was at least 10,000 (10% valley definition).

III. Initial Calibration and Initial Calibration Verification

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

The 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 compounds were within validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

All of the continuing calibration percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within QC limits for all compounds.

The ion abundance ratios for all compounds were within validation criteria.

V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks with the following exceptions:

Blank ID	Extraction Date	Compound	Concentration	Associated Samples
PRL005	09/28/15	PCB-001 PCB-002 PCB-004 PCB-005/008 PCB-011 PCB-018 PCB-031 PCB-020/033 PCB-052/069 PCB-041 PCB-066 Monochlorobiphenyls Dichlorobiphenyls Trichlorobiphenyls Tetrachlorobiphenyls	8.84 pg/L 1.92 pg/L 25.1 pg/L 25 pg/L 42.2 pg/L 11.5 pg/L 8.95 pg/L 6.65 pg/L 7.11 pg/L 2.76 pg/L 2.4 pg/L 10.8 pg/L 92.3 pg/L 27.1 pg/L 12.3 pg/L	PR153271 PR153272 PR153273 PR153274 PR153275 PR153276 PR153277 PR153278 PR153279 PR153279DUP
PRL006	09/29/15	PCB-005/008 PCB-011 Dichlorobiphenyls	24.4 pg/L 33.6 pg/L 58 pg/L	PR153280 PR153281 PR153282 PR153283 PR153284 PR153285 PR153286

Sample concentrations were compared to concentrations detected in the laboratory blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated laboratory blanks with the following exceptions:

Sample	Compound	Reported Concentration	Modified Final Concentration
PR153271	PCB-001 PCB-002 PCB-005/008 PCB-011 PCB-018 PCB-031 PCB-052/069 Monochlorobiphenyls Dichlorobiphenyls Trichlorobiphenyls	8.88 pg/L 1.76 pg/L 18.5 pg/L 51.5 pg/L 14.6 pg/L 6.8 pg/L 10.3 pg/L 10.6 pg/L 70 pg/L 64.6 pg/L	8.88U pg/L 1.76U pg/L 18.5U pg/L 51.5U pg/L 14.6U pg/L 6.8U pg/L 10.3U pg/L 10.6J pg/L 70J pg/L 64.6J pg/L
PR153272	PCB-001 PCB-002 PCB-005/008 PCB-011 PCB-018 PCB-031 PCB-052/069 Monochlorobiphenyls Dichlorobiphenyls Trichlorobiphenyls Tetrachlorobiphenyls	13.5 pg/L 1.33 pg/L 10.7 pg/L 48.9 pg/L 8.82 pg/L 5.27 pg/L 11.8 pg/L 19.7 pg/L 59.6 pg/L 36.5 pg/L 34.9 pg/L	13.5U pg/L 1.33U pg/L 10.7U pg/L 48.9U pg/L 8.82U pg/L 5.27U pg/L 11.8U pg/L 19.7J pg/L 59.6J pg/L 36.5J pg/L 34.9J pg/L

Sample	Compound	Reported Concentration	Modified Final Concentration
PR153273	PCB-001	11 pg/L	11U pg/L
	PCB-002	1.63 pg/L	1.63U pg/L
	PCB-005/008	4.31 pg/L	4.31U pg/L
	PCB-011	44.1 pg/L	44.1U pg/L
	PCB-031	4.07 pg/L	4.07U pg/L
	PCB-020/033	4.23 pg/L	4.23U pg/L
	Monochlorobiphenyls	12.6 pg/L	12.6J pg/L
	Dichlorobiphenyls	48.4 pg/L	48.4J pg/L
	Trichlorobiphenyls	12.6 pg/L	12.6J pg/L
PR153274	PCB-001	7.34 pg/L	7.34U pg/L
	PCB-002	0.89 pg/L	0.89U pg/L
	PCB-005/008	7.49 pg/L	7.49U pg/L
	PCB-011	35.4 pg/L	35.4U pg/L
	PCB-018	7.29 pg/L	7.29U pg/L
	PCB-031	5.04 pg/L	5.04U pg/L
	PCB-052/069	6.84 pg/L	6.84U pg/L
	Monochlorobiphenyls	9.3 pg/L	9.3J pg/L
	Dichlorobiphenyls	42.9 pg/L	42.9J pg/L
	Trichlorobiphenyls	26.2 pg/L	26.2J pg/L
	Tetrachlorobiphenyls	12.7 pg/L	12.7J pg/L
PR153275	PCB-001	10.7 pg/L	10.7U pg/L
	PCB-002	3.07 pg/L	3.07U pg/L
	PCB-005/008	8.4 pg/L	8.4U pg/L
	PCB-011	37.1 pg/L	37.1U pg/L
	PCB-018	14.9 pg/L	14.9U pg/L
	PCB-031	6.12 pg/L	6.12U pg/L
	PCB-020/033	3.24 pg/L	3.24U pg/L
	PCB-052/069	9.27 pg/L	9.27U pg/L
	Monochlorobiphenyls	18.3 pg/L	18.3J pg/L
	Dichlorobiphenyls	45.5 pg/L	45.5J pg/L
	Trichlorobiphenyls	55.9 pg/L	55.9J pg/L
PR153276	PCB-002	3.82 pg/L	3.82U pg/L
	PCB-004	21.8 pg/L	21.8U pg/L
	PCB-005/008	6.42 pg/L	6.42U pg/L
	PCB-011	33.5 pg/L	33.5U pg/L
	PCB-018	9.19 pg/L	9.19U pg/L
	PCB-031	6.52 pg/L	6.52U pg/L
	PCB-020/033	1.71 pg/L	1.71U pg/L
	PCB-052/069	6.01 pg/L	6.01U pg/L
	PCB-066	9.43 pg/L	9.43U pg/L
	Monochlorobiphenyls	3.8 pg/L	3.8J pg/L
	Dichlorobiphenyls	61.7 pg/L	61.7J pg/L
	Trichlorobiphenyls	25.2 pg/L	25.2J pg/L
	Tetrachlorobiphenyls	27.6 pg/L	27.6J pg/L
PR153277	PCB-001	22.9 pg/L	22.9U pg/L
	PCB-002	2.76 pg/L	2.76U pg/L
	PCB-005/008	11.8 pg/L	11.8U pg/L
	PCB-011	57.1 pg/L	57.1U pg/L
	PCB-031	3.97 pg/L	3.97U pg/L
	PCB-020/033	5.28 pg/L	5.28U pg/L
	Monochlorobiphenyls	25.7 pg/L	25.7J pg/L
	Dichlorobiphenyls	68.9 pg/L	68.9J pg/L
	Trichlorobiphenyls	17.6 pg/L	17.6J pg/L

Sample	Compound	Reported Concentration	Modified Final Concentration
PR153278	PCB-001	12.4 pg/L	12.4U pg/L
	PCB-004	18.4 pg/L	18.4U pg/L
	PCB-005/008	8.71 pg/L	8.71U pg/L
	PCB-011	44.2 pg/L	44.2U pg/L
	PCB-018	5.79 pg/L	5.79U pg/L
	PCB-031	4.04 pg/L	4.04U pg/L
	PCB-020/033	6.17 pg/L	6.17U pg/L
	PCB-052/069	6.81 pg/L	6.81U pg/L
	Monochlorobiphenyls	18.3 pg/L	18.3J pg/L
	Dichlorobiphenyls	71.3 pg/L	71.3J pg/L
	Trichlorobiphenyls	43.9 pg/L	43.9J pg/L
	Tetrachlorobiphenyls	13.5 pg/L	13.5J pg/L
PR153279	PCB-001	6.72 pg/L	6.72U pg/L
	PCB-004	13.5 pg/L	13.5U pg/L
	PCB-005/008	13.5 pg/L	13.5U pg/L
	PCB-011	34.7 pg/L	34.7U pg/L
	PCB-018	6.29 pg/L	6.29U pg/L
	PCB-031	4.5 pg/L	4.5U pg/L
	PCB-020/033	3.92 pg/L	3.92U pg/L
	PCB-052/069	5.88 pg/L	5.88U pg/L
	Monochlorobiphenyls	9.5 pg/L	9.5J pg/L
	Dichlorobiphenyls	61.7 pg/L	61.7J pg/L
	Trichlorobiphenyls	40.5 pg/L	40.5J pg/L
PR153279DUP	PCB-001	8.51 pg/L	8.51U pg/L
	PCB-004	5.79 pg/L	5.79U pg/L
	PCB-005/008	11.3 pg/L	11.3U pg/L
	PCB-011	28 pg/L	28U pg/L
	PCB-018	7.87 pg/L	7.87U pg/L
	PCB-031	3.77 pg/L	3.77U pg/L
	PCB-052/069	4.42 pg/L	4.42U pg/L
	Monochlorobiphenyls	12.5 pg/L	12.5J pg/L
	Dichlorobiphenyls	39.3 pg/L	39.3J pg/L
	Trichlorobiphenyls	36.8 pg/L	36.8J pg/L
PR153280	PCB-005/008	21.2 pg/L	21.2U pg/L
	PCB-011	27.1 pg/L	27.1U pg/L
	Dichlorobiphenyls	48.3 pg/L	48.3J pg/L
PR153281	PCB-005/008	19 pg/L	19U pg/L
	PCB-011	37.7 pg/L	37.7U pg/L
	Dichlorobiphenyls	56.7 pg/L	56.7J pg/L
PR153282	PCB-011	14.3 pg/L	14.3U pg/L
	Dichlorobiphenyls	14.3 pg/L	14.3J pg/L
PR153283	PCB-005/008	14.5 pg/L	14.5U pg/L
	PCB-011	34.7 pg/L	34.7U pg/L
	Dichlorobiphenyls	49.2 pg/L	49.2J pg/L
PR153284	PCB-005/008	8.73 pg/L	8.73U pg/L
	PCB-011	25.2 pg/L	25.2U pg/L
	Dichlorobiphenyls	55.3 pg/L	55.3J pg/L
PR153285	PCB-005/008	16.5 pg/L	16.5U pg/L
	PCB-011	56.7 pg/L	56.7U pg/L
	Dichlorobiphenyls	73.2 pg/L	73.2J pg/L

Sample	Compound	Reported Concentration	Modified Final Concentration
PR153286	PCB-005/008 PCB-011 Dichlorobiphenyls	11.2 pg/L 48.3 pg/L 59.5 pg/L	11.2U pg/L 48.3U pg/L 59.5J pg/L

Laboratory blank results flagged "N" by the laboratory as estimated maximum possible concentration (EMPC) are considered not detected.

VI. Field Blanks

No field blanks were identified in this SDG.

VII. Matrix Spike/Matrix Spike Duplicates/Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

VIII. Laboratory Control Samples

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Internal Standards

All internal standard recoveries (%R) were within QC limits with the following exceptions:

Sample	Internal Standards	%R (Limits)	Affected Compound	Flag	A or P
PR153282	^{13}C-PCB-205	150 (10-145)	Octachlorobiphenyls PCB-205 PCB-201 PCB-204 PCB-197 PCB-200 PCB-198 PCB-199 PCB-196 PCB-203 PCB-195 PCB-194	J (all detects) UJ (all non-detects)	P

XI. Compound Quantitation

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

Sample	Compound	Flag	A or P
All samples in SDG PR15327-3286	All compounds flagged "N" by the laboratory as estimated maximum possible concentration (EMPC).	U	A

Raw data were not reviewed for Level III validation.

XII. Target Compound Identification

Raw data were not reviewed for Level III validation.

XIII. System Performance

Raw data were not reviewed for Level III validation.

XIV. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to internal standard %R, data were qualified as estimated in one sample.

Due to results reported by the laboratory as EMPCs, data were qualified as not detected in seventeen samples.

Due to laboratory blank contamination, data were qualified as not detected or estimated in seventeen samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the data validation all other results are considered valid and usable for all purposes.

LDW PCB Equipment Blank Study
Polychlorinated Biphenyls as Congeners - Data Qualification Summary - SDG PR15327-3286

Sample	Compound	Flag	A or P	Reason
PR153282	Octachlorobiphenyls PCB-205 PCB-201 PCB-204 PCB-197 PCB-200 PCB-198 PCB-199 PCB-196 PCB-203 PCB-195 PCB-194	J (all detects) UJ (all non-detects)	P	Internal standards (%R)
PR153271 PR153272 PR153273 PR153274 PR153275 PR153276 PR153277 PR153278 PR153279 PR153280 PR153281 PR153282 PR153283 PR153284 PR153285 PR153286 PR153279DUP	All compounds flagged "N" by the laboratory as estimated maximum possible concentration (EMPC).	U	A	Compound quantitation (EMPC)

LDW PCB Equipment Blank Study
Polychlorinated Biphenyls as Congeners - Laboratory Blank Data Qualification Summary - SDG PR15327-3286

Sample	Compound	Modified Final Concentration	A or P
PR153271	PCB-001	8.88U pg/L	A
	PCB-002	1.76U pg/L	
	PCB-005/008	18.5U pg/L	
	PCB-011	51.5U pg/L	
	PCB-018	14.6U pg/L	
	PCB-031	6.8U pg/L	
	PCB-052/069	10.3U pg/L	
	Monochlorobiphenyls	10.6J pg/L	
	Dichlorobiphenyls	70J pg/L	
	Trichlorobiphenyls	64.6J pg/L	

Sample	Compound	Modified Final Concentration	A or P
PR153272	PCB-001	13.5U pg/L	A
	PCB-002	1.33U pg/L	
	PCB-005/008	10.7U pg/L	
	PCB-011	48.9U pg/L	
	PCB-018	8.82U pg/L	
	PCB-031	5.27U pg/L	
	PCB-052/069	11.8U pg/L	
	Monochlorobiphenyls	19.7J pg/L	
	Dichlorobiphenyls	59.6J pg/L	
	Trichlorobiphenyls	36.5J pg/L	
	Tetrachlorobiphenyls	34.9J pg/L	
PR153273	PCB-001	11U pg/L	A
	PCB-002	1.63U pg/L	
	PCB-005/008	4.31U pg/L	
	PCB-011	44.1U pg/L	
	PCB-031	4.07U pg/L	
	PCB-020/033	4.23U pg/L	
	Monochlorobiphenyls	12.6J pg/L	
	Dichlorobiphenyls	48.4J pg/L	
	Trichlorobiphenyls	12.6J pg/L	
PR153274	PCB-001	7.34U pg/L	A
	PCB-002	0.89U pg/L	
	PCB-005/008	7.49U pg/L	
	PCB-011	35.4U pg/L	
	PCB-018	7.29U pg/L	
	PCB-031	5.04U pg/L	
	PCB-052/069	6.84U pg/L	
	Monochlorobiphenyls	9.3J pg/L	
	Dichlorobiphenyls	42.9J pg/L	
	Trichlorobiphenyls	26.2J pg/L	
	Tetrachlorobiphenyls	12.7J pg/L	
PR153275	PCB-001	10.7U pg/L	A
	PCB-002	3.07U pg/L	
	PCB-005/008	8.4U pg/L	
	PCB-011	37.1U pg/L	
	PCB-018	14.9U pg/L	
	PCB-031	6.12U pg/L	
	PCB-020/033	3.24U pg/L	
	PCB-052/069	9.27U pg/L	
	Monochlorobiphenyls	18.3J pg/L	
	Dichlorobiphenyls	45.5J pg/L	
	Trichlorobiphenyls	55.9J pg/L	
PR153276	PCB-002	3.82U pg/L	A
	PCB-004	21.8U pg/L	
	PCB-005/008	6.42U pg/L	
	PCB-011	33.5U pg/L	
	PCB-018	9.19U pg/L	
	PCB-031	6.52U pg/L	
	PCB-020/033	1.71U pg/L	
	PCB-052/069	6.01U pg/L	
	PCB-066	9.43U pg/L	
	Monochlorobiphenyls	3.8J pg/L	
	Dichlorobiphenyls	61.7J pg/L	
	Trichlorobiphenyls	25.2J pg/L	
	Tetrachlorobiphenyls	27.6J pg/L	

Sample	Compound	Modified Final Concentration	A or P
PR153277	PCB-001 PCB-002 PCB-005/008 PCB-011 PCB-031 PCB-020/033 Monochlorobiphenyls Dichlorobiphenyls Trichlorobiphenyls	22.9U pg/L 2.76U pg/L 11.8U pg/L 57.1U pg/L 3.97U pg/L 5.28U pg/L 25.7J pg/L 68.9J pg/L 17.6J pg/L	A
PR153278	PCB-001 PCB-004 PCB-005/008 PCB-011 PCB-018 PCB-031 PCB-020/033 PCB-052/069 Monochlorobiphenyls Dichlorobiphenyls Trichlorobiphenyls Tetrachlorobiphenyls	12.4U pg/L 18.4U pg/L 8.71U pg/L 44.2U pg/L 5.79U pg/L 4.04U pg/L 6.17U pg/L 6.81U pg/L 18.3J pg/L 71.3J pg/L 43.9J pg/L 13.5J pg/L	A
PR153279	PCB-001 PCB-004 PCB-005/008 PCB-011 PCB-018 PCB-031 PCB-020/033 PCB-052/069 Monochlorobiphenyls Dichlorobiphenyls Trichlorobiphenyls	6.72U pg/L 13.5U pg/L 13.5U pg/L 34.7U pg/L 6.29U pg/L 4.5U pg/L 3.92U pg/L 5.88U pg/L 9.5J pg/L 61.7J pg/L 40.5J pg/L	A
PR153279DUP	PCB-001 PCB-004 PCB-005/008 PCB-011 PCB-018 PCB-031 PCB-052/069 Monochlorobiphenyls Dichlorobiphenyls Trichlorobiphenyls	8.51U pg/L 5.79U pg/L 11.3U pg/L 28U pg/L 7.87U pg/L 3.77U pg/L 4.42U pg/L 12.5J pg/L 39.3J pg/L 36.8J pg/L	A
PR153280	PCB-005/008 PCB-011 Dichlorobiphenyls	21.2U pg/L 27.1U pg/L 48.3J pg/L	A
PR153281	PCB-005/008 PCB-011 Dichlorobiphenyls	19U pg/L 37.7U pg/L 56.7J pg/L	A
PR153282	PCB-011 Dichlorobiphenyls	14.3U pg/L 14.3J pg/L	A
PR153283	PCB-005/008 PCB-011 Dichlorobiphenyls	14.5U pg/L 34.7U pg/L 49.2J pg/L	A

Sample	Compound	Modified Final Concentration	A or P
PR153284	PCB-005/008 PCB-011 Dichlorobiphenyls	8.73U pg/L 25.2U pg/L 55.3J pg/L	A
PR153285	PCB-005/008 PCB-011 Dichlorobiphenyls	16.5U pg/L 56.7U pg/L 73.2J pg/L	A
PR153286	PCB-005/008 PCB-011 Dichlorobiphenyls	11.2U pg/L 48.3U pg/L 59.5J pg/L	A

LDC #: 35314A31 **VALIDATION COMPLETENESS WORKSHEET** Date: 11-12-15
SDG #: PR15327-3286 Level III Page: 1 of 2
Laboratory: Pacific Rim Laboratories Inc. Reviewer: TM
2nd Reviewer: M

METHOD: HRGC/HRMS Polychlorinated Biphenyl Congeners (EPA Method 1668C)

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.	Sample receipt/Technical holding times	A / A	temp 12.8°C
II.	HRGC/HRMS Instrument performance check	N	60m HT8(SGE) column
III.	Initial calibration/ICV	~~A~~ SW / N	≤ 20 / 35
IV.	Continuing calibration	A	QC limits
V.	Laboratory Blanks	SW	
VI.	Field blanks	N	
VII.	Matrix spike/Matrix spike duplicates / ~~DUP~~	N / A	C.S. / D = 9 + 17
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Internal standards	SW	
XI.	Compound quantitation RL/~~LOQ/LODs~~	SW	
XII.	Target compound identification	N	
XIII.	System performance	N	
XIV.	Overall assessment of data	A	

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; SB=Source blank; OTHER:

	Client ID	Lab ID	Matrix	Date
1 1	PR153271	L63069-1	Water	06/25/15
2 1	PR153272	L63069-2	Water	06/25/15
3 1	PR153273	L63070-1	Water	06/25/15
4 1	PR153274	L63070-2	Water	06/25/15
5 1	PR153275	L63207-1	Water	08/20/15
6 1	PR153276	L63207-2	Water	08/20/15
7 1	PR153277	L63208-1	Water	08/20/15
8 1	PR153278	L63208-2	Water	08/20/15
9 1	PR153279	L63330-1	Water	07/24/15
10 2	PR153280	L63330-2	Water	07/24/15
11 2	PR153281	L63330-3	Water	07/24/15
12 2	PR153282	L63330-4	Water	07/24/15
13 2	PR153283	L63543-1	Water	08/21/15
14 2	PR153284	L63543-2	Water	08/21/15

LDC #: 35314A31 **VALIDATION COMPLETENESS WORKSHEET** Date: 11-12-15
SDG #: PR15327-3286 Level III Page: 2 of 2
Laboratory: Pacific Rim Laboratories Inc. Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: HRGC/HRMS Polychlorinated Biphenyl Congeners (EPA Method 1668C)

	Client ID	Lab ID	Matrix	Date
15 2	PR153285	L63543-3	Water	08/21/15
16 2	PR153286	L63543-4	Water	08/21/15
17 1	PR153279DUP	L63330-1DUP	Water	07/24/15
18				
19				
20				
21				
22				
23				
24				
25				

Notes:

1	PRL005						
2	PRL006						

LDC #: 35314A31

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer:
2nd Reviewer:

METHOD: HRGC/HRMS PCB Congeners (EPA Method 1668C)

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

Y N N/A Were all samples associated with a method blank?
Y N N/A Was a method blank performed for each matrix and whenever a sample extraction was performed?
Y N N/A Was the method blank contaminated?

Blank extraction date: 09/28/15 **Blank analysis date:** 10/14/15 **Associated samples:** 1-9, 17

Conc. units: pg/L

Compound	Blank ID		Sample Identification									
	PRL005	5x	1	2	3	4	5	6	7	8	9	17
PCB-001	8.84	44.2	8.88 /U	13.5 /U	11 /U	7.34 /U	10.7 /U		22.9 /U	12.4 /U	6.72 /U	8.51 /U
PCB-002	1.92	9.60	1.76 /U	1.33 /U	1.63 /U	0.89 /U	3.07 /U	3.82 /U	2.76 /U			
PCB-004	25.1	126						21.8 /U		18.4 /U	13.5 /U	5.79 /U
PCB-005/008	25	125	18.5 /U	10.7 /U	4.31 /U	7.49 /U	8.4 /U	6.42 /U	11.8 /U	8.71 /U	13.5 /U	11.3 /U
PCB-011	42.2	211	51.5 /U	48.9 /U	44.1 /U	35.4 /U	37.1 /U	33.5 /U	57.1 /U	44.2 /U	34.7 /U	28 /U
PCB-018	11.5	57.5	14.6 /U	8.82 /U		7.29 /U	14.9 /U	9.19 /U		5.79 /U	6.29 /U	7.87 /U
PCB-031	8.95	44.8	6.8 /U	5.27 /U	4.07 /U	5.04 /U	6.12 /U	6.52 /U	3.97 /U	4.04 /U	4.5 /U	3.77 /U
PCB-020/033	6.65	33.3			4.23 /U		3.24 /U	1.71 /U	5.28 /U	6.17 /U	3.92 /U	
PCB-052/069	7.11	35.6	10.3 /U	11.8 /U		6.84 /U	9.27 /U	6.01 /U		6.81 /U	5.88 /U	4.42 /U
PCB-041	2.76	13.8										
PCB-066	2.4	12.0						9.43 /U				
Monochlorobiphenyls	10.8	54.0	10.6 /J	19.7 /J	12.6 /J	9.3 /J	18.3 /J	3.8 /J	25.7 /J	18.3 /J	9.5 /J	12.5 /J
Dichlorobiphenyls	92.3	462	70 /J	59.6 /J	48.4 /J	42.9 /J	45.5 /J	61.7 /J	68.9 /J	71.3 /J	61.7 /J	39.3 /J
Trichlorobiphenyls	27.1	136	64.6 /J	36.5 /J	12.6 /J	26.2 /J	55.9 /J	25.2 /J	17.6 /J	43.9 /J	40.5 /J	36.8 /J
Tetrachlorobiphenyls	12.3	61.5		34.9 /J		12.7 /J		27.6 /J		13.5 /J		

*EMPC results considered "ND"

LDC #: 35314A31

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: 9m
2nd Reviewer: R

METHOD: HRGC/HRMS PCB Congeners (EPA Method 1668C)

Blank extraction date: 09/29/15 **Blank analysis date:** 10/13/15 **Associated samples:** 10-16
Conc. units: pg/L

Compound	Blank ID		Sample Identification									
	PRL006	5x	10	11	12	13	14	15	16			
PCB-005/008	24.4	122	21.2 /U	19 /U		14.5 /U	8.73 /U	16.5 /U	11.2 /U			
PCB-011	33.6	168	27.1 /U	37.7 /U	14.3 /U	34.7 /U	25.2 /U	56.7 /U	48.3 /U			
Dichlorobiphenyls	58	290	48.3 /J	56.7 /J	14.3 /J	49.2 /J	55.3 /J	73.2 /J	59.5 /J			

*EMPC results considered "ND"

LDC #: 35314A31

VALIDATION FINDINGS WORKSHEET
Internal Standards

Page: 1 of 1
Reviewer: [signature]
2nd Reviewer: [signature]

METHOD: HRGC/HRMS PCB Congeners (EPA Method 1668C)
Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y (N) N/A Are all internal standard recoveries were within the ~~25-150%~~ criteria?
(Y) N N/A Was the Ion Abundance Ratio within criteria?
Y N (N/A) Was the S/N ratio all internal standard peaks ≥ 10?

#	Date	Lab ID/Reference	Internal Standard	% Recovery (Limit: ~~25-150%~~)	Qualifications
		12	13C PCB-205	150 (10-145)	J/UJ/P (see attached) (det/ND)
				( )	+ Octachlorobiphenyls
				( )	
				( )	
				( )	
				( )	
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				( )	
				( )	

35314A31 - IS attachment

DATA REPORT

Client:	King County	Date Collected:	7/24/2015
Client ID:	L63330-4	Date Extracted:	9/29/2015
Project ID:	423589-330-4 Equipment Blank Study	Date Analysed:	10/13/2015
PRL ID:	PR153282	HRMS File:	FS10131507
		Work Group No.:	PRL006

IUPAC Name	PCB #	CAS #	Conc. pg/L	SDL pg/L	Flag	EQL pg/L
2,2',3,4,4',5,6-HpCB	PCB-181	74472-47-2	0	0.03	U J	10
2,2',3,3',4,5',6'-HpCB	PCB-177	52663-70-4	0	0.03	U J	10
2,2',3,3',4,4',6-HpCB	PCB-171	52663-71-5	0	0.03	U J	10
2,2',3,3',4,5,6-HpCB	PCB-173	68194-16-1	0	0.03	U J	10
2,2',3,3',4,5,5'-HpCB	PCB-172	52663-74-8	0	0.03	U J	10
2,3,3',4,5,5',6-HpCB	PCB-192	74472-51-8	0	0.02	U J	10
2,2',3,4,4',5,5'-HpCB	PCB-180	35065-29-3	0	0.03	U J	10
2,3,3',4',5,5',6-HpCB	PCB-193	69782-91-8	0	0.02	U J	10
2,3,3',4,4',5',6-HpCB	PCB-191	74472-50-7	0	0.02	U J	10
2,2',3,3',4,4',5-HpCB	PCB-170	35065-30-6	0	0.03	U J	10
2,3,3',4,4',5,6-HpCB	PCB-190	41411-64-7	0	0.02	U J	10
2,3,3',4,4',5,5'-HpCB	PCB-189	39635-31-9	0	0.01	U J	10
2,2',3,3',5,5',6,6'-OcCB	PCB-202	2136-99-4	0	0.07	U J	10
2,2',3,3',4,5',6,6'-OcCB	PCB-201	40186-71-8	0	0.04	U J	10
2,2',3,4,4',5,6,6'-OcCB	PCB-204	74472-52-9	0	0.04	U J	10
2,2',3,3',4,4',6,6'-OcCB	PCB-197	33091-17-7	0	0.04	U J	10
2,2',3,3',4,5,6,6'-OcCB	PCB-200	52663-73-7	0	0.04	U J	10
2,2',3,3',4,5,5',6-OcCB	PCB-198	68194-17-2	0	0.06	U J	10
2,2',3,3',4,5,5',6'-OcCB	PCB-199	52663-75-9	0	0.05	U J	10
2,2',3,3',4,4',5,6'-OcCB	PCB-196	42740-50-1	0	0.06	U J	10
2,2',3,4,4',5,5',6-OcCB	PCB-203	52663-76-0	0	0.06	U J	10
2,2',3,3',4,4',5,6-OcCB	PCB-195	52663-78-2	0	0.03	U J	10
2,2',3,3',4,4',5,5'-OcCB	PCB-194	35694-08-7	0.59	0.03	N J	10
2,3,3',4,4',5,5',6-OcCB	PCB-205	74472-53-0	0	0.02	U J	10
2,2',3,3',4,5,5',6,6'-NoCB	PCB-208	52663-77-1	0	2.65	U J	10
2,2',3,3',4,4',5,6,6'-NoCB	PCB-207	52663-79-3	0	2.05	U J	10
2,2',3,3',4,4',5,5',6-NoCB	PCB-206	40186-72-9	0	2.45	U J	10
2,2',3,3',4,4',5,5',6,6'-DeCB	PCB-209	2051-24-3	0	0.34	U J	10

Homologs	# of Congeners				
Monochlorobiphenyls	3	0	0.43	U J	10
Dichlorobiphenyls	12	14.3	2.01	B	10
Trichlorobiphenyls	24	6.5	0.27	J	10
Tetrachlorobiphenyls	42	7.2	0.07	J	10
Pentachlorobiphenyls	46	0	0.76	U J	10
Hexachlorobiphenyls	42	0	0.03	U J	10
Heptachlorobiphenyls	24	0	0.01	U J	10
Octachlorobiphenyls	12	0	0.02	U J	10
Nonachlorobiphenyls	3	0	2.05	U J	10
Decachlorobiphenyl	1	0	0.34	U J	10
Total PCB		27.9	0.01	B	10

LDC #: 35314A31

VALIDATION FINDINGS WORKSHEET
Compound Quantitation and Reported CRQLs

Reviewer: YM
2nd Reviewer: [illegible]

METHOD: HRGC/HRMS PCB Congeners (EPA Method 1668C)

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 CRQLs were adjusted to reflect all sample dilutions and dry weight factors (if necessary).

#	Date	Compound	Finding	Associated Samples	Qualifications
			EMPC results flagged "N"	all + Dup	U/A

Comments: ~~See sample calculation verification worksheet for recalculations~~

LABORATORY DATA CONSULTANTS, INC.
2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

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

June 2, 2016

SUBJECT: Revised LDW PCB Equipment Blank Study, Data Validation

Dear Mr. Grothkopp,

Enclosed is the revised validation report for the fraction listed below. Please replace the previously submitted report with the enclosed revised report.

LDC Project #35828:

SDG #	Fraction
PR154538	Polychlorinated Biphenyls as Congeners

- Revision: PCB Congeners - Revised initial calibration criteria for labeled compounds to 35.0% and removed qualifiers

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

Sincerely,

Stella Cuenco
Operations Manager/Senior Chemist

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: LDW PCB Equipment Blank Study

LDC Report Date: June 1, 2016

Parameters: Polychlorinated Biphenyls as Congeners

Validation Level: Level III

Laboratory: Pacific Rim Laboratories, Inc.

Sample Delivery Group (SDG): PR154538

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
L63772-1	PRI154538	Water	09/16/15
L63772-2	PRI154539	Water	09/17/15
L63826-1	PRI154540	Water	09/28/15
L63826-2	PRI154541	Water	09/28/15
L63825-1	PRI154542	Water	10/01/15
L63825-2	PRI154543	Water	10/01/15
L63825-3	PRI154544	Water	10/01/15
L63825-4	PRI154545	Water	10/01/15
L62766-1	PRI154546	Water	10/07/15
L62766-2	PRI154547	Water	10/07/15
L64061-1	PRI154548	Water	10/30/15
L64061-2	PRI154549	Water	10/30/15
L62562-1	PRI154550	Water	10/31/15
L62562-2	PRI154551	Water	10/31/15
L64136-1	PRI154552	Water	12/07/15
L64136-2	PRI154553	Water	12/07/15
L64454-1	PRI154554	Water	12/21/15
L64454-2	PRI154555	Water	12/21/15
L64454-3	PRI154556	Water	12/21/15
L64454-4	PRI154557	Water	12/21/15
L64487-1	PRI154558	Water	12/23/15
L63825-4DUP	PRI154545DUP	Water	10/01/15
L62562-2DUP	PRI154551DUP	Water	10/31/15

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Final Green River PCB Equipment Blank Study Sampling and Analysis Plan (August 2015) and US Environmental Protection Agency (EPA) Region 10 SOP for the Validation of Polychlorinated Biphenyl (PCB) Data (Revision 1.0, December 8, 1995). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Polychlorinated Biphenyls (PCBs) as Congeners by Environmental Protection Agency (EPA) Method 1668C

All sample results were subjected to Level III data validation, which comprises an evaluation of quality control (QC) summary results.

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.

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.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. HRGC/HRMS Instrument Performance Check

Instrument performance was checked at the required frequency.

Retention time windows were established for all congeners. The chromatographic resolution between the congeners PCB-23 and PCB-34 and congeners PCB-182 and PCB-187 was resolved with a valley of less than or equal to 40%.

The static resolving power was at least 10,000 (10% valley definition).

III. Initial Calibration and Initial Calibration Verification

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

The 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 compounds were within validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

All of the continuing calibration results were within the QC limits for all compounds.

The ion abundance ratios for all compounds were within validation criteria.

V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks with the following exceptions:

Blank ID	Extraction Date	Compound	Concentration	Associated Samples
PRL010	12/31/15	PCB-003 PCB-043/049 PCB-180 Monochlorobiphenyls Tetrachlorobiphneyls Heptachlorobiphenyls	3.12 pg/L 8.3 pg/L 1.23 pg/L 3.1 pg/L 8.3 pg/L 1.2 pg/L	L63772-1 L63772-2 L63826-1 L63826-2 L63825-1 L63825-2 L63825-3 L63825-4 L62766-1 L62766-2 L63825-4DUP
PRL011	01/04/16	PCB-011 PCB-028 PCB-052/069 Dichlorobiphenyls Trichlorobiphneyls Tetrachlorobiphenyls	23.7 pg/L 8.46 pg/L 11.6 pg/L 23.7 pg/L 8.5 pg/L 11.6 pg/L	L64061-1 L64061-2 L62562-1 L62562-2 L64136-1 L64136-2 L64454-1 L64454-2 L64454-3 L64454-4 L64487-1 L62562-2DUP

Sample concentrations were compared to concentrations detected in the laboratory blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated laboratory blanks with the following exceptions:

Sample	Compound	Reported Concentration	Modified Final Concentration
L63772-1	Tetrachlorobiphneyls	2.9 pg/L	2.9J pg/L
L63772-2	Heptachlorobiphenyls	2.8 pg/L	2.8J pg/L
L63826-1	Heptachlorobiphenyls	1.1 pg/L	1.1J pg/L
L63825-4	PCB-003 Monochlorobiphenyls	1.95 pg/L 2 pg/L	1.95U pg/L 2J pg/L
L62766-2	Tetrachlorobiphneyls	2.4 pg/L	2.4J pg/L
L63825-4DUP	PCB-003 Monochlorobiphenyls	2.58 pg/L 2.6 pg/L	2.58U pg/L 2.6J pg/L
L64061-1	PCB-011 PCB-028 Dichlorobiphenyls Trichlorobiphneyls	19.6 pg/L 8.3 pg/L 19.6 pg/L 14.1 pg/L	19.6U pg/L 8.3U pg/L 19.6J pg/L 14.1J pg/L

Sample	Compound	Reported Concentration	Modified Final Concentration
L64061-2	PCB-011 Dichlorobiphenyls Trichlorobiphneyls Tetrachlorobiphenyls	18 pg/L 18 pg/L 18.2 pg/L 4.8 pg/L	18U pg/L 18J pg/L 18.2J pg/L 4.8J pg/L
L62562-1	Dichlorobiphenyls Trichlorobiphneyls	10.9 pg/L 21.2 pg/L	10.9J pg/L 21.2J pg/L
L62562-2	PCB-028 PCB-052/069 Trichlorobiphneyls Tetrachlorobiphenyls	8.67 pg/L 18.6 pg/L 8.7 pg/L 29.3 pg/L	8.67U pg/L 18.6U pg/L 8.7J pg/L 29.3J pg/L
L64136-1	PCB-052/069 Dichlorobiphenyls Trichlorobiphneyls Tetrachlorobiphenyls	16.2 pg/L 21.7 pg/L 39.5 pg/L 16.2 pg/L	16.2U pg/L 21.7J pg/L 39.5J pg/L 16.2J pg/L
L64136-2	PCB-011 PCB-028 PCB-052/069 Dichlorobiphenyls Tetrachlorobiphenyls	36.4 pg/L 15.9 pg/L 15.8 pg/L 46.4 pg/L 30.1 pg/L	36.4U pg/L 15.9U pg/L 15.8U pg/L 46.4J pg/L 30.1J pg/L
L64454-1	PCB-028	17.5 pg/L	17.5U pg/L
L64454-2	Tetrachlorobiphenyls	15.5 pg/L	15.5J pg/L
L64454-4	PCB-028 PCB-052/069 Trichlorobiphneyls Tetrachlorobiphenyls	9.45 pg/L 15.7 pg/L 25.3 pg/L 15.7 pg/L	9.45U pg/L 15.7U pg/L 25.3J pg/L 15.7J pg/L
L64487-1	PCB-028 Trichlorobiphneyls Tetrachlorobiphenyls	13.1 pg/L 13.1 pg/L 8.1 pg/L	13.1U pg/L 13.1J pg/L 8.1J pg/L
L62562-2DUP	PCB-028 PCB-052/069 Trichlorobiphneyls Tetrachlorobiphenyls	5.51 pg/L 22 pg/L 5.5 pg/L 30.5 pg/L	5.51U pg/L 22U pg/L 5.5J pg/L 30.5J pg/L

Laboratory blank results flagged "N" or “NJ” by the laboratory as estimated maximum possible concentration (EMPC) are considered not detected.

VI. Field Blanks

No field blanks were identified in this SDG.

VII. Matrix Spike/Matrix Spike Duplicates/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 analysis was performed on an associated project sample. Results were within QC limits.

VIII. Laboratory Control Samples

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits with the following exceptions:

LCS ID	Compound	%R (Limits)	Associated Samples	Flag	A or P
PC151292S	PCB-005/008	150.1 (60-135)	L63772-1 L63772-2 L63826-1 L63826-2 L63825-1 L63825-2 L63825-3 L63825-4 L62766-1 L62766-2 L63825-4DUP	NA	-
PC151292S	PCB-090 PCB-182/187	59.8 (60-135) 59.6 (60-135)	L63772-1 L63772-2 L63826-1 L63826-2 L63825-1 L63825-2 L63825-3 L63825-4 L62766-1 L62766-2 L63825-4DUP	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	P

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Internal Standards

All internal standard recoveries (%R) were within QC limits.

XI. Compound Quantitation

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

Sample	Compound	Flag	A or P
All samples in SDG PR154538	All compounds flagged "N" or "NJ" by the laboratory as estimated maximum possible concentration (EMPC).	U	A

Raw data were not reviewed for Level III validation.

XII. Target Compound Identification

Raw data were not reviewed for Level III validation.

XIII. System Performance

Raw data were not reviewed for Level III validation.

XIV. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to LCS %R, data were qualified as estimated in eleven samples.

Due to results reported by the laboratory as EMPCs, data were qualified as not detected in twenty-three samples.

Due to laboratory blank contamination, data were qualified as not detected or estimated in seventeen samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the data validation all other results are considered valid and usable for all purposes.

LDW PCB Equipment Blank Study
Polychlorinated Biphenyls as Congeners - Data Qualification Summary - SDG PR154538

Sample	Compound	Flag	A or P	Reason
L63772-1 L63772-2 L63826-1 L63826-2 L63825-1 L63825-2 L63825-3 L63825-4 L62766-1 L62766-2 L63825-4DUP	PCB-090 PCB-182/187	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	P	Laboratory control samples (%R)
L63772-1 L63772-2 L63826-1 L63826-2 L63825-1 L63825-2 L63825-3 L63825-4 L62766-1 L62766-2 L64061-1 L64061-2 L62562-1 L62562-2 L64136-1 L64136-2 L64454-1 L64454-2 L64454-3 L64454-4 L64487-1 L63825-4DUP L62562-2DUP	All compounds flagged "N" or "NJ" by the laboratory as estimated maximum possible concentration (EMPC).	U	A	Compound quantitation (EMPC)

LDW PCB Equipment Blank Study
Polychlorinated Biphenyls as Congeners - Laboratory Blank Data Qualification Summary - SDG PR154538

Sample	Compound	Modified Final Concentration	A or P
L63772-1	Tetrachlorobiphneyls	2.9J pg/L	A
L63772-2	Heptachlorobiphenyls	2.8J pg/L	A
L63826-1	Heptachlorobiphenyls	1.1J pg/L	A
L63825-4	PCB-003 Monochlorobiphenyls	1.95U pg/L 2J pg/L	A

Sample	Compound	Modified Final Concentration	A or P
L62766-2	Tetrachlorobiphneyls	2.4J pg/L	A
L63825-4DUP	PCB-003 Monochlorobiphenyls	2.58U pg/L 2.6J pg/L	A
L64061-1	PCB-011 PCB-028 Dichlorobiphenyls Trichlorobiphneyls	19.6U pg/L 8.3U pg/L 19.6J pg/L 14.1J pg/L	A
L64061-2	PCB-011 Dichlorobiphenyls Trichlorobiphneyls Tetrachlorobiphenyls	18U pg/L 18J pg/L 18.2J pg/L 4.8J pg/L	A
L62562-1	Dichlorobiphenyls Trichlorobiphneyls	10.9J pg/L 21.2J pg/L	A
L62562-2	PCB-028 PCB-052/069 Trichlorobiphneyls Tetrachlorobiphenyls	8.67U pg/L 18.6U pg/L 8.7J pg/L 29.3J pg/L	A
L64136-1	PCB-052/069 Dichlorobiphenyls Trichlorobiphneyls Tetrachlorobiphenyls	16.2U pg/L 21.7J pg/L 39.5J pg/L 16.2J pg/L	A
L64136-2	PCB-011 PCB-028 PCB-052/069 Dichlorobiphenyls Tetrachlorobiphenyls	36.4U pg/L 15.9U pg/L 15.8U pg/L 46.4J pg/L 30.1J pg/L	A
L64454-1	PCB-028	17.5U pg/L	A
L64454-2	Tetrachlorobiphenyls	15.5J pg/L	A
L64454-4	PCB-028 PCB-052/069 Trichlorobiphneyls Tetrachlorobiphenyls	9.45U pg/L 15.7U pg/L 25.3J pg/L 15.7J pg/L	A
L64487-1	PCB-028 Trichlorobiphneyls Tetrachlorobiphenyls	13.1U pg/L 13.1J pg/L 8.1J pg/L	A
L62562-2DUP	PCB-028 PCB-052/069 Trichlorobiphneyls Tetrachlorobiphenyls	5.51U pg/L 22U pg/L 5.5J pg/L 30.5J pg/L	A

LDC #: 35828A31 **VALIDATION COMPLETENESS WORKSHEET** Date: 2-16-16
SDG #: PR154538 Level III Page: 1 of 2
Laboratory: Pacific Rim Laboratories Inc. Reviewer: SM
2nd Reviewer: A

METHOD: HRGC/HRMS Polychlorinated Biphenyl Congeners (EPA Method 1668C)

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.	Sample receipt/Technical holding times	A / A	
II.	HRGC/HRMS Instrument performance check	A	(60m HT8 column)
III.	Initial calibration/ICV	A-SW/N	≤20/35
IV.	Continuing calibration	A-SW/N	QC limits
V.	Laboratory Blanks	SW	
VI.	Field blanks	N	
VII.	Matrix spike/Matrix spike duplicates /DUP	N/A	C.S. /D= 8+22, 14+23 (all ≤5x QL)
VIII.	Laboratory control samples	SW	LCS
IX.	Field duplicates	N	
X.	Internal standards	A	
XI.	Compound quantitation RL/~~LOQ/LODs~~	SW	
XII.	Target compound identification	N	
XIII.	System performance	N	
XIV.	Overall assessment of data	A	

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; SB=Source blank; OTHER:

	Client ID	Lab ID	Matrix	Date
1	L63772-1	PRI154538	Water	09/16/15
2	L63772-2	PRI154539	Water	09/17/15
3	L63826-1	PRI154540	Water	09/28/15
4	L63826-2	PRI154541	Water	09/28/15
5	L63825-1	PRI154542	Water	10/01/15
6	L63825-2	PRI154543	Water	10/01/15
7	L63825-3	PRI154544	Water	10/01/15
8	L63825-4	PRI154545	Water	10/01/15
9	L62766-1	PRI154546	Water	10/07/15
10	L62766-2	PRI154547	Water	10/07/15
11	L64061-1	PRI154548	Water	10/30/15
12	L64061-2	PRI154549	Water	10/30/15
13	L62562-1	PRI154550	Water	10/31/15
14	L62562-2	PRI154551	Water	10/31/15

LDC #: 35828A31 **VALIDATION COMPLETENESS WORKSHEET** Date: 2-16-16
SDG #: PR154538 Level III Page: 2 of 2
Laboratory: Pacific Rim Laboratories Inc. Reviewer:
2nd Reviewer:

METHOD: HRGC/HRMS Polychlorinated Biphenyl Congeners (EPA Method 1668C)

	Client ID	Lab ID	Matrix	Date
15	L64136-1	PRI154552	Water	12/07/15
16	L64136-2	PRI154553	Water	12/07/15
17	L64454-1	PRI154554	Water	12/21/15
18	L64454-2	PRI154555	Water	12/21/15
19	L64454-3	PRI154556	Water	12/21/15
20	L64454-4	PRI154557	Water	12/21/15
21	L64487-1	PRI154558	Water	12/23/15
22	L63825-4DUP	PRI154545DUP	Water	10/01/15
23	L62562-2DUP	PRI154551DUP	Water	10/31/15
24				
25				
26				
27				

Notes:

1	PRL010						
2	PRL011						

LDC #: 35828A31

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: HRGC/HRMS PCB Congeners (EPA Method 1668C)

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

Y N N/A Were all samples associated with a method blank?
Y N N/A Was a method blank performed for each matrix and whenever a sample extraction was performed?
Y N N/A Was the method blank contaminated?

Blank extraction date: 12/31/15 **Blank analysis date:** 01/09-01/12/16 **Associated samples:** 1-10, 22
Conc. units: pg/L

Compound	Blank ID		Sample Identification								
	PRL010	5x	1	2	3	8	10	22			
PCB-003	3.12	15.6				1.95/U		2.58/U			
PCB-043/049	8.3	41.5									
PCB-180	1.23	6.15									
Monochlorobiphenyls	3.1	15.5				2/J		2.6/J			
Tetrachlorobiphenyls	8.3	41.5	2.9/J				2.4/J				
Heptachlorobiphenyls	1.2	6.00		2.8J	1.1/J						

*EMPC results flagged "N" or "NJ" considered nondetect (ND)

LDC #: 35828A31

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: HRGC/HRMS PCB Congeners (EPA Method 1668C)

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

Y N N/A Were all samples associated with a method blank?
Y N N/A Was a method blank performed for each matrix and whenever a sample extraction was performed?
Y N N/A Was the method blank contaminated?

Blank extraction date: 01/04/16 **Blank analysis date:** 01/09-01/12/16 **Associated samples:** 11-21, 23

Conc. units: pg/L

Compound	Blank ID		Sample Identification								
	PRL011	5x	11	12	13	14	15	16	17	18	20
PCB-011	23.7	119	19.6/u	18/u				36.4/u			
PCB-028	8.46	42.3	8.3/u			8.67/u		15.9/u	17.5/u		9.45/u
PCB-052/069	11.6	58.0				18.6/u	16.2/u	15.8/u			15.7/u
Dichlorobiphenyls	23.7	119	19.6/J	18/J	10.9/J		21.7/J	46.4/J			
Trichlorobiphenyls	8.5	42.5	14.1/J	18.2/J	21.2/J	8.7/J	39.5/J				25.3/J
Tetrachlorobiphenyls	11.6	58.0		4.8/J		29.3/J	16.2/J	30.1/J		15.5/J	15.7/J

*EMPC results flagged "N" or "NJ" considered nondetect (ND)

LDC #: 35828A31

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: 2
2nd Reviewer: 2

METHOD: HRGC/HRMS PCB Congeners (EPA Method 1668C)

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

Y N N/A Were all samples associated with a method blank?
Y N N/A Was a method blank performed for each matrix and whenever a sample extraction was performed?
Y N N/A Was the method blank contaminated?

Blank extraction date: 01/04/16 **Blank analysis date:** 01/09-01/12/16 **Associated samples:** 11-21, 23
Conc. units: pg/L

Compound	Blank ID		Sample Identification								
	PRL011	5x	21	23							
PCB-011	23.7	119									
PCB-028	8.46	42.3	13.1/U	5.51/U							
PCB-052/069	11.6	58.0		22/U							
Dichlorobiphenyls	23.7	119									
Trichlorobiphenyls	8.5	42.5	13.1/J	5.5/J							
Tetrachlorobiphenyls	11.6	58.0	8.1/J	30.5/J							

*EMPC results flagged "N" or "NJ" considered nondetect (ND)

LDC #: 35828A31

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Page: 1 of 1
Reviewer:
2nd Reviewer:

METHOD: HRGC/HRMS PCB Congeners (EPA Method 1668C)

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

[✓ Y] N N/A Was a LCS required?
[✓ Y] N N/A Was a LCS analyzed every 20 samples for each matrix or whenever a sample extraction was performed?
Y [✓ N] N/A Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

#	Date	Lab ID/Reference	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		PC151292S	PCB-005/008	150.1 (60-135)	( )	( )	1-10, 22, PRL010	J dets/P (ND)
			-090	59.8 ( )	( )	( )		J/UJ/P (det/ND)
		↓	-182/187	59.6 (↓)	( )	( )	↓	↓ ↓
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
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				( )	( )	( )		
				( )	( )	( )		

LDC #: 35828A31

VALIDATION FINDINGS WORKSHEET
Compound Quantitation and Reported CRQLs

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: HRGC/HRMS PCB Congeners (EPA Method 1668C)

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 CRQLs were adjusted to reflect all sample dilutions and dry weight factors (if necessary).

#	Date	Compound	Finding	Associated Samples	Qualifications
			EMPC results flagged "N" or "NJ"	all	U/A

Comments: ~~See sample calculation verification worksheet for recalculations~~

LABORATORY DATA CONSULTANTS, INC.
2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

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

March 25, 2016

SUBJECT: LDW Green River PCB EB Study, Data Validation

Dear Mr. Grothkopp,

Enclosed is the final validation report for the fraction listed below. This SDG was received on March 16, 2016. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project #36043:

SDG #	Fraction
DPWG54306	Polychlorinated Biphenyls as Congeners

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

- Green River Study, Suspended Solids Characterization Sampling and Analysis Plan, January 2013
- US Environmental Protection Agency Region 10 SOP for the Validation of Polychlorinated Biphenyl Data, Revision 1.0, December 8, 1995

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

Sincerely,

Stella Cuenco
Operations Manager/Senior Chemist

Level III EDD

LDC #36043 (King County - Seattle WA / LDW Green River PCB EB Study)

Project #423589-330-4

LDC	SDG#	DATE REC'D	(3) DATE DUE	PCB Cong. (1668A)																													
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
A	DPWG54306	03/16/16	04/06/16	2	0																												
Total	T/SC			2	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	2

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

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: LDW Green River PCB EB Study

LDC Report Date: March 24, 2016

Parameters: Polychlorinated Biphenyls as Congeners

Validation Level: Level III

Laboratory: AXYS Analytical Services, Ltd.

Sample Delivery Group (SDG): DPWG54306

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
L64454-1	L24480-1	Water	12/21/15
L64454-2	L24480-2	Water	12/21/15

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Final Green River PCB Equipment Blank Study Sampling and Analysis Plan (August 2015) and US Environmental Protection Agency (EPA) Region 10 SOP for the Validation of Polychlorinated Biphenyl (PCB) Data (Revision 1.0, December 8, 1995). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Polychlorinated Biphenyls (PCBs) as Congeners by Environmental Protection Agency (EPA) Method 1668A

All sample results were subjected to Level III data validation, which comprises an evaluation of quality control (QC) summary results.

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.

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.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. HRGC/HRMS Instrument Performance Check

Instrument performance was checked at the required frequency.

Retention time windows were established for all congeners. The chromatographic resolution between the congeners PCB-23 and PCB-34 and congeners PCB-182 and PCB-187 was resolved with a valley of less than or equal to 40%.

The static resolving power was at least 10,000 (10% valley definition).

III. Initial Calibration

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

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

The ion abundance ratios for all compounds were within validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

All of the continuing calibration percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were less than or equal to 30.0% for unlabeled compounds and less than or equal to 50.0% for labeled compounds.

The ion abundance ratios for all compounds were within validation criteria.

V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks with the following exceptions:

Blank ID	Extraction Date	Compound	Concentration	Associated Samples
WG53482-101	02/01/16	PCB-1	4.00 pg/L	All samples in SDG DPWG54306
		PCB-2	1.76 pg/L	
		PCB-3	5.42 pg/L	
		PCB-4	2.57 pg/L	
		PCB-7	4.11 pg/L	
		PCB-8	3.67 pg/L	
		PCB-11	38.4 pg/L	
		PCB-15	4.05 pg/L	
		PCB-16	1.56 pg/L	
		PCB-17	1.69 pg/L	
		PCB-18/30	2.83 pg/L	
		PCB-19	1.24 pg/L	
		PCB-20/28	7.23 pg/L	
		PCB-22	2.17 pg/L	
		PCB-23	0.767 pg/L	
		PCB-26/29	1.16 pg/L	
		PCB-31	4.89 pg/L	
		PCB-37	1.99 pg/L	
		PCB-40/41/71	2.12 pg/L	
		PCB-42	1.20 pg/L	
		PCB-44/47/65	4.59 pg/L	
		PCB-48	0.976 pg/L	
		PCB-49/69	2.08 pg/L	
		PCB-52	4.76 pg/L	
		PCB-61/70/74/76	4.67 pg/L	
		PCB-66	3.03 pg/L	
		PCB-83/99	3.56 pg/L	
		PCB-85/116/117	0.831 pg/L	
		PCB-86/87/97/108/119/125	2.58 pg/L	
		PCB-105	2.83 pg/L	
		PCB-118	5.01 pg/L	
		PCB-129/138/160/163	7.00 pg/L	
		PCB-132	1.58 pg/L	
		PCB-147/149	2.96 pg/L	
		PCB-153/168	6.55 pg/L	
		PCB-156/157	1.30 pg/L	
		PCB-170	1.90 pg/L	
		PCB-174	0.874 pg/L	
		PCB-180/193	3.32 pg/L	
		PCB-187	3.56 pg/L	
		PCB-209	1.01 pg/L	
		Total Monochlorobiphenyls	11.2 pg/L	
		Total Dichlorobiphenyls	52.8 pg/L	
		Total Trichlorobiphenyls	25.5 pg/L	
		Total Tetrachlorobiphenyls	23.4 pg/L	
		Total Pentachlorobiphenyls	14.8 pg/L	
		Total Hexachlorobiphenyls	19.4 pg/L	
		Total Heptachlorobiphenyls	9.65 pg/L	

Sample concentrations were compared to concentrations detected in the laboratory blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated laboratory blanks with the following exceptions:

Sample	Compound	Reported Concentration	Modified Final Concentration
L64454-1	PCB-1	2.92 pg/L	2.92U pg/L
	PCB-2	1.84 pg/L	1.84U pg/L
	PCB-3	3.57 pg/L	3.57U pg/L
	PCB-8	9.12 pg/L	9.12U pg/L
	PCB-11	36.3 pg/L	36.3U pg/L
	PCB-15	6.37 pg/L	6.37U pg/L
	PCB-16	2.48 pg/L	2.48U pg/L
	PCB-17	5.66 pg/L	5.66U pg/L
	PCB-18/30	6.31 pg/L	6.31U pg/L
	PCB-20/28	12.4 pg/L	12.4U pg/L
	PCB-22	3.86 pg/L	3.86U pg/L
	PCB-26/29	1.75 pg/L	1.75U pg/L
	PCB-31	8.37 pg/L	8.37U pg/L
	PCB-40/41/71	4.54 pg/L	4.54U pg/L
	PCB-42	2.45 pg/L	2.45U pg/L
	PCB-48	1.55 pg/L	1.55U pg/L
	PCB-52	10.4 pg/L	10.4U pg/L
	PCB-61/70/74/76	12.2 pg/L	12.2U pg/L
	PCB-66	6.03 pg/L	6.03U pg/L
	PCB-83/99	7.60 pg/L	7.60U pg/L
	PCB-85/116/117	2.52 pg/L	2.52U pg/L
	PCB-86/87/97/108/119/125	8.84 pg/L	8.84U pg/L
	PCB-105	5.71 pg/L	5.71U pg/L
	PCB-118	12.6 pg/L	12.6U pg/L
	PCB-129/138/160/163	16.2 pg/L	16.2U pg/L
	PCB-153/168	13.1 pg/L	13.1U pg/L
	PCB-156/157	2.45 pg/L	2.45U pg/L
	PCB-187	4.94 pg/L	4.94U pg/L
	Total Monochlorobiphenyls	8.33 pg/L	8.33J pg/L
	Total Dichlorobiphenyls	68.9 pg/L	68.9J pg/L
	Total Trichlorobiphenyls	52.9 pg/L	52.9J pg/L
	Total Hexachlorobiphenyls	36.0 pg/L	36.0J pg/L
	Total Heptachlorobiphenyls	4.94 pg/L	4.94J pg/L

Sample	Compound	Reported Concentration	Modified Final Concentration
L64454-2	PCB-1	1.65 pg/L	1.65U pg/L
	PCB-2	1.18 pg/L	1.18U pg/L
	PCB-3	2.10 pg/L	2.10U pg/L
	PCB-4	3.46 pg/L	3.46U pg/L
	PCB-8	5.65 pg/L	5.65U pg/L
	PCB-11	30.2 pg/L	30.2U pg/L
	PCB-15	3.91 pg/L	3.91U pg/L
	PCB-17	4.26 pg/L	4.26U pg/L
	PCB-18/30	5.28 pg/L	5.28U pg/L
	PCB-19	2.12 pg/L	2.12U pg/L
	PCB-20/28	10.7 pg/L	10.7U pg/L
	PCB-22	3.56 pg/L	3.56U pg/L
	PCB-26/29	1.74 pg/L	1.74U pg/L
	PCB-31	7.39 pg/L	7.39U pg/L
	PCB-37	2.48 pg/L	2.48U pg/L
	PCB-42	2.44 pg/L	2.44U pg/L
	PCB-44/47/65	11.1 pg/L	11.1U pg/L
	PCB-52	11.1 pg/L	11.1U pg/L
	PCB-61/70/74/76	12.0 pg/L	12.0U pg/L
	PCB-66	5.44 pg/L	5.44U pg/L
	PCB-85/116/117	2.48 pg/L	2.48U pg/L
	PCB-86/87/97/108/119/125	8.67 pg/L	8.67U pg/L
	PCB-105	5.62 pg/L	5.62U pg/L
	PCB-118	11.3 pg/L	11.3U pg/L
	PCB-129/138/160/163	17.7 pg/L	17.7U pg/L
	PCB-147/149	8.87 pg/L	8.87U pg/L
	PCB-153/168	14.9 pg/L	14.9U pg/L
	PCB-180/193	8.68 pg/L	8.68U pg/L
	PCB-187	5.79 pg/L	5.79U pg/L
	Total Monochlorobiphenyls	4.93 pg/L	4.93J pg/L
	Total Dichlorobiphenyls	43.2 pg/L	43.2J pg/L
	Total Trichlorobiphenyls	47.5 pg/L	47.5J pg/L
	Total Tetrachlorobiphenyls	53.3 pg/L	53.3J pg/L
	Total Pentachlorobiphenyls	66.1 pg/L	66.1J pg/L
	Total Hexachlorobiphenyls	55.6 pg/L	55.6J pg/L
	Total Heptachlorobiphenyls	19.0 pg/L	19.0J pg/L

VI. Field Blanks

No field blanks were identified in this SDG.

VII. 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.

VIII. Ongoing Precision Recovery

Ongoing precision recovery (OPR) samples were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Internal Standards

All internal standard recoveries (%R) were within QC limits.

XI. Compound Quantitation

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

Sample	Compound	Flag	A or P
All samples in SDG DPWG54306	All compounds flagged "K" by the laboratory as estimated maximum possible concentration (EMPC).	U	A

Raw data were not reviewed for Level III validation.

XII. Target Compound Identification

Raw data were not reviewed for Level III validation.

XIII. System Performance

Raw data were not reviewed for Level III validation.

XIV. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to results reported by the laboratory as EMPCs, data were qualified as not detected in two samples.

Due to laboratory blank contamination, data were qualified as not detected or estimated in two samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the data validation all other results are considered valid and usable for all purposes.

LDW Green River PCB EB Study
Polychlorinated Biphenyls as Congeners - Data Qualification Summary - SDG DPWG54306

Sample	Compound	Flag	A or P	Reason
L64454-1 L64454-2	All compounds flagged "K" by the laboratory as estimated maximum possible concentration (EMPC).	U	A	Compound quantitation (EMPC)

LDW Green River PCB EB Study
Polychlorinated Biphenyls as Congeners - Laboratory Blank Data Qualification Summary - SDG DPWG54306

Sample	Compound	Modified Final Concentration	A or P
L64454-1	PCB-1	2.92U pg/L	A
	PCB-2	1.84U pg/L	
	PCB-3	3.57U pg/L	
	PCB-8	9.12U pg/L	
	PCB-11	36.3U pg/L	
	PCB-15	6.37U pg/L	
	PCB-16	2.48U pg/L	
	PCB-17	5.66U pg/L	
	PCB-18/30	6.31U pg/L	
	PCB-20/28	12.4U pg/L	
	PCB-22	3.86U pg/L	
	PCB-26/29	1.75U pg/L	
	PCB-31	8.37U pg/L	
	PCB-40/41/71	4.54U pg/L	
	PCB-42	2.45U pg/L	
	PCB-48	1.55U pg/L	
	PCB-52	10.4U pg/L	
	PCB-61/70/74/76	12.2U pg/L	
	PCB-66	6.03U pg/L	
	PCB-83/99	7.60U pg/L	
	PCB-85/116/117	2.52U pg/L	
	PCB-86/87/97/108/119/125	8.84U pg/L	
	PCB-105	5.71U pg/L	
	PCB-118	12.6U pg/L	
	PCB-129/138/160/163	16.2U pg/L	
	PCB-153/168	13.1U pg/L	
	PCB-156/157	2.45U pg/L	
	PCB-187	4.94U pg/L	
	Total Monochlorobiphenyls	8.33J pg/L	
	Total Dichlorobiphenyls	68.9J pg/L	
	Total Trichlorobiphenyls	52.9J pg/L	
	Total Hexachlorobiphenyls	36.0J pg/L	
	Total Heptachlorobiphenyls	4.94J pg/L	

Sample	Compound	Modified Final Concentration	A or P
L64454-2	PCB-1	1.65U pg/L	A
	PCB-2	1.18U pg/L	
	PCB-3	2.10U pg/L	
	PCB-4	3.46U pg/L	
	PCB-8	5.65U pg/L	
	PCB-11	30.2U pg/L	
	PCB-15	3.91U pg/L	
	PCB-17	4.26U pg/L	
	PCB-18/30	5.28U pg/L	
	PCB-19	2.12U pg/L	
	PCB-20/28	10.7U pg/L	
	PCB-22	3.56U pg/L	
	PCB-26/29	1.74U pg/L	
	PCB-31	7.39U pg/L	
	PCB-37	2.48U pg/L	
	PCB-42	2.44U pg/L	
	PCB-44/47/65	11.1U pg/L	
	PCB-52	11.1U pg/L	
	PCB-61/70/74/76	12.0U pg/L	
	PCB-66	5.44U pg/L	
	PCB-85/116/117	2.48U pg/L	
	PCB-86/87/97/108/119/125	8.67U pg/L	
	PCB-105	5.62U pg/L	
	PCB-118	11.3U pg/L	
	PCB-129/138/160/163	17.7U pg/L	
	PCB-147/149	8.87U pg/L	
	PCB-153/168	14.9U pg/L	
	PCB-180/193	8.68U pg/L	
	PCB-187	5.79U pg/L	
	Total Monochlorobiphenyls	4.93J pg/L	
	Total Dichlorobiphenyls	43.2J pg/L	
	Total Trichlorobiphenyls	47.5J pg/L	
	Total Tetrachlorobiphenyls	53.3J pg/L	
	Total Pentachlorobiphenyls	66.1J pg/L	
	Total Hexachlorobiphenyls	55.6J pg/L	
	Total Heptachlorobiphenyls	19.0J pg/L	

LDC #: 36043A31 **VALIDATION COMPLETENESS WORKSHEET** Date: 3-21-16
SDG #: ~~14126~~ DPWG54306 Level III Page: 1 of 1
Laboratory: Axys Analytical Services, Ltd. Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: HRGC/HRMS Polychlorinated Biphenyl Congeners (EPA Method 1668A)

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.	Sample receipt/Technical holding times	A / A	
II.	HRGC/HRMS Instrument performance check	A	
III.	Initial calibration/ICV	A / N	≤20
IV.	Continuing calibration	A	≤30/50
V.	Laboratory Blanks	SW	
VI.	Field blanks	N	
VII.	Matrix spike/Matrix spike duplicates	N	C.S.
VIII.	Laboratory control samples	A	OPR
IX.	Field duplicates	N	
X.	Internal standards	A	
XI.	Compound quantitation RL/~~LOQ/LODs~~	SW	
XII.	Target compound identification	N	
XIII.	System performance	N	
XIV.	Overall assessment of data	A	

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; SB=Source blank; OTHER:

	Client ID	Lab ID	Matrix	Date
1	L64454-1	L24480-1	Water	12/21/15
2	L64454-2	L24480-2	Water	12/21/15
3				
4				
5				
6				
7				
8				
9				
10				

Notes:

	WG53482-101						

LDC #: 36043A31

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: YM
2nd Reviewer: a

METHOD: HRGC/HRMS PCB Congeners (EPA Method 1668A)

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

Y N N/A Were all samples associated with a method blank?
Y N N/A Was a method blank performed for each matrix and whenever a sample extraction was performed?
Y N N/A Was the method blank contaminated?

Blank extraction date: 02/01/16 **Blank analysis date:** 02/12/16 **Associated samples:** all

Conc. units: pg/L

Compound	Blank ID		Sample Identification								
	WG53482-101	5x	1	2							
PCB-1	4.00	20.0	2.92 /U	1.65 /U							
PCB-2	1.76	8.80	1.84 /U	1.18 /U							
PCB-3	5.42	27.1	3.57 /U	2.10 /U							
PCB-4	2.57	12.9		3.46 /U							
PCB-7	4.11	20.6									
PCB-8	3.67	18.4	9.12 /U	5.65 /U							
PCB-11	38.4	192	36.3 /U	30.2 /U							
PCB-15	4.05	20.3	6.37 /U	3.91 /U							
PCB-16	1.56	7.80	2.48 /U								
PCB-17	1.69	8.45	5.66 /U	4.26 /U							
PCB-18/30	2.83	14.2	6.31 /U	5.28 /U							
PCB-19	1.24	6.20		2.12 /U							
PCB-20/28	7.23	36.2	12.4 /U	10.7 /U							
PCB-22	2.17	10.9	3.86 /U	3.56 /U							
PCB-23	0.767	3.84									
PCB-26/29	1.16	5.80	1.75 /U	1.74 /U							
PCB-31	4.89	24.5	8.37 /U	7.39 /U							
PCB-37	1.99	9.95		2.48 /U							
PCB-40/41/71	2.12	10.6	4.54 /U								
PCB-42	1.20	6.00	2.45 /U	2.44 /U							

LDC #: 36043A31

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: TN
2nd Reviewer: 9L

METHOD: HRGC/HRMS PCB Congeners (EPA Method 1668A)

Compound	Blank ID		Sample Identification								
	WG53482-101	5x	1	2							
PCB-44/47/65	4.59	23.0		11.1 /U							
PCB-48	0.976	4.88	1.55 /U								
PCB-49/69	2.08	10.4									
PCB-52	4.76	23.8	10.4 /U	11.1 /U							
PCB-61/70/74/76	4.67	23.4	12.2 /U	12.0 /U							
PCB-66	3.03	15.2	6.03 /U	5.44 /U							
PCB-83/99	3.56	17.8	7.60 /U								
PCB-85/116/117	0.831	4.16	2.52 /U	2.48 /U							
PCB-86/87/97/108/119/125	2.58	12.9	8.84 /U	8.67 /U							
PCB-105	2.83	14.2	5.71 /U	5.62 /U							
PCB-118	5.01	25.1	12.6 /U	11.3 /U							
PCB-129/138/160/163	7.00	35.0	16.2 /U	17.7 /U							
PCB-132	1.58	7.90									
PCB-147/149	2.96	14.8		8.87 /U							
PCB-153/168	6.55	32.8	13.1 /U	14.9 /U							
PCB-156/157	1.30	6.50	2.45 /U								
PCB-170	1.90	9.50									
PCB-174	0.874	4.37									
PCB-180/193	3.32	16.6		8.68 /U							
PCB-187	3.56	17.8	4.94 /U	5.79 /U							
PCB-209	1.01	5.05									
Total Monochloro Biphenyls	11.2	56.0	8.33 /J	4.93 /J							
Total Dichloro Biphenyls	52.8	264	68.9 /J	43.2 /J							
Total Trichloro Biphenyls	25.5	128	52.9 /J	47.5 /J							

LDC #: 36043A31

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: YM
2nd Reviewer: CL

METHOD: HRGC/HRMS PCB Congeners (EPA Method 1668A)

Compound	Blank ID		Sample Identification								
	WG53482-101	5x	1	2							
Total Tetrachloro Biphenyls	23.4	117		53.3 /J							
Total Pentachloro Biphenyls	14.8	74.0		66.1 /J							
Total Hexachloro Biphenyls	19.4	97.0	36.0 /J	55.6 /J							
Total Heptachloro Biphenyls	9.65	48.3	4.94 /J	19.0 /J							

*EMPC results flagged "K" by laboratory considered nondetect (ND)

LDC #: 36043A31

VALIDATION FINDINGS WORKSHEET
Compound Quantitation and Reported CRQLs

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: HRGC/HRMS PCB Congeners (EPA Method 1668C)

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 CRQLs were adjusted to reflect all sample dilutions and dry weight factors (if necessary).

#	Date	Compound	Finding	Associated Samples	Qualifications
			EMPC results flagged "K"	All	U/A

Comments: ~~See sample calculation verification worksheet for recalculations~~

LDC #: 36043

EDD POPULATION COMPLETENESS WORKSHEET

Date: 3/25/16
Page: 1 of 1
2nd Reviewer:

The LDC job number listed above was entered by SE.

	EDD Process		Comments/Action
I.	EDD Completeness	-	
Ia.	- All methods present?	Y	
Ib.	- All samples present/match report?	Y	
Ic.	- All reported analytes present?	Y	
Id.	-10% or 100% verification of EDD?	Y	
II.	EDD Preparation/Entry	-	
IIa.	- Carryover U/J?	—	
IIb.	- Reason Codes used? If so, note which codes	Y	LDC
IIc.	-Additional Information (QC Level, Validator, Date, Validated Y/N, etc.)	—	
III.	Reasonableness Checks	-	
IIIa.	- Do all qualified ND results have ND qualifier (i.e. UJ)?	Y	
IIIb.	- Do all qualified detect results have detect qualifier (i.e. J)?	Y	
IIIc.	- If reason codes used, do all qualified results have reason code field populated?	Y	
IIId.	-Does the detect flag require changing for blank qualifiers? If so, are all U results marked ND?	/	
IIIe.	- Do blank concentrations in report match EDD, where data was qualified due to blank?	Y	
IIIf.	- Were any results rejected for overall assessment? If so, were results changed to nonreportable?	/	
IIIg.	- Is the readme complete? If applicable, were edits or discrepancies listed in the readme?	Y	

Notes: _____

The zip file provided contains two files:

File	Format	Description	SDG	LDC#
1) Readme_Duwamish_022916.doc	MS Word 2007	A "Readme" file (this document).		
2) DPWG54306_V53482PCB_Database_1.xlsx	MS Excel 2007		DPWG54306	36043A

No discrepancies were observed between the hardcopy data packages and the electronic data deliverables during EDD population of validation qualifiers. A 100% verification of the EDD was not performed.

Please contact Stella Cuenco at (760) 827-1100 if you have any questions regarding this electronic data submittal.

LABORATORY DATA CONSULTANTS, INC.
2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

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

June 20, 2016

SUBJECT: Revised LDW Green River PCB EB Study, Data Validation

Dear Mr. Grothkopp,

Enclosed is the revised validation report for the fraction listed below. Please replace the previously submitted report with the enclosed revised report.

LDC Project #36402:

SDG #	Fraction
PR151342 DPWG51522 PR150778	Polychlorinated Biphenyls as Congeners

- Revision: Samples IDs corrected for SDGs PR151342 & PR150778

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

Sincerely,

Stella Cuenco
Operations Manager/Senior Chemist

776 Pages-SF

Attachment 1

Level III EDD

LDC #36402 (King County - Seattle WA / LDW Green River PCB EB Study)

Project #423589-330-4

LDC	SDG#	DATE REC'D	(3) DATE DUE	PCB Cong. (1668A)																															
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
Aa	PR151342	05/25/16	06/16/16	2	0																														
Ab	DPWG51522	05/25/16	06/16/16	2	0																														
B	PR150778	05/25/16	06/16/16	2	0																														
Total	A/SC			6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6

Shaded cells indicate Level IV validation (all other cells are Level II validation). These sample counts do not include MS/MSD, and DUPs L:\King County\Duwamish\Green River PCB EB Study\36402ST.wpd

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: LDW Green River PCB EB Study

LDC Report Date: June 20, 2016

Parameters: Polychlorinated Biphenyls as Congeners

Validation Level: Level III

Laboratory: Pacific Rim Laboratories, Inc.

Sample Delivery Group (SDG): PR151342

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
L62563-1	PR151342	Water	04/14/15
L62563-2	PR151343	Water	04/14/15

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Final Green River PCB Equipment Blank Study Sampling and Analysis Plan (August 2015) and US Environmental Protection Agency (EPA) Region 10 SOP for the Validation of Polychlorinated Biphenyl (PCB) Data (Revision 1.0, December 8, 1995). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Polychlorinated Biphenyls (PCBs) as Congeners by Environmental Protection Agency (EPA) Method 1668C

All sample results were subjected to Level III data validation, which comprises an evaluation of quality control (QC) summary results.

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.

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.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. HRGC/HRMS Instrument Performance Check

Instrument performance was checked at the required frequency.

The static resolving power was at least 10,000 (10% valley definition).

III. Initial Calibration and Initial Calibration Verification

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

The 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 with the following exceptions:

Date	Compound	%RSD (Limits)	Associated Samples	Affected Compound	Flag	A or P
05/16/15	^{13}C12-PCB-81 ^{13}C12-PCB-77	37.28 (≤35) 36.16 (≤35)	All samples in SDG PR151342	PCB-054 PCB-050 PCB-053 PCB-051 PCB-045 PCB-046 PCB-052/069 PCB-073 PCB-043/049 PCB-065/075 PCB-047/048 PCB-062 PCB-044 PCB-059 PCB-042 PCB-064/072 PCB-071 PCB-041 PCB-068 PCB-040/057 PCB-067 PCB-063 PCB-058 PCB-061 PCB-074 PCB-070 PCB-055 PCB-080 PCB-066 PCB-076 PCB-060 PCB-056 PCB-079 PCB-078 PCB-081 PCB-077 Tetrachlorobiphenyls	J (all detects) UJ (all non-detects)	P

The ion abundance ratios for all compounds were within validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

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

The ion abundance ratios for all compounds were within validation criteria.

V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks with the following exceptions:

Blank ID	Extraction Date	Compound	Concentration	Associated Samples
PC150330B	05/07/15	PCB-001	20.2 pg/L	All samples in SDG PR151342
		PCB-002	3.13 pg/L	
		PCB-003	16.8 pg/L	
		PCB-004	15.2 pg/L	
		PCB-005/008	7.13 pg/L	
		PCB-011	74 pg/L	
		PCB-015	22 pg/L	
		PCB-018	5.72 pg/L	
		PCB-016	2.68 pg/L	
		PCB-031	7.17 pg/L	
		PCB-028	9.83 pg/L	
		PCB-052/069	10.4 pg/L	
		PCB-044	5.64 pg/L	
		PCB-095	6.97 pg/L	
		PCB-118	10.7 pg/L	
		PCB-114	11.1 pg/L	
		PCB-156	8.72 pg/L	
		PCB-157	9.63 pg/L	
		Monochlorobiphenyls	40.1 pg/L	
		Dichlorobiphenyls	118 pg/L	
		Trichlorobiphenyls	25.4 pg/L	
		Tetrachlorobiphenyls	16 pg/L	
		Pentachlorobiphenyls	28.8 pg/L	
		Hexachlorobiphenyls	18.3 pg/L	

Sample concentrations were compared to concentrations detected in the laboratory blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated laboratory blanks with the following exceptions:

Sample	Compound	Reported Concentration	Modified Final Concentration
L62563-1	PCB-001	11.2 pg/L	11.2U pg/L
	PCB-002	2.38 pg/L	2.38U pg/L
	PCB-003	7.93 pg/L	7.93U pg/L
	PCB-004	11.6 pg/L	11.6U pg/L
	PCB-005/008	9.95 pg/L	9.95U pg/L
	PCB-011	61.2 pg/L	61.2U pg/L
	PCB-015	13.8 pg/L	13.8U pg/L
	PCB-018	4.98 pg/L	4.98U pg/L
	PCB-052/069	11.2 pg/L	11.2U pg/L
	PCB-118	8.6 pg/L	8.6U pg/L
	PCB-156	9 pg/L	9U pg/L
	PCB-157	7.55 pg/L	7.55U pg/L
	Monochlorobiphenyls	21.5 pg/L	21.5J pg/L
	Dichlorobiphenyls	96.5 pg/L	96.5J pg/L
	Trichlorobiphenyls	30.6 pg/L	30.6J pg/L
	Pentachlorobiphenyls	13.2 pg/L	13.2J pg/L
	Hexachlorobiphenyls	16.6 pg/L	16.6J pg/L

Sample	Compound	Reported Concentration	Modified Final Concentration
L62563-2	PCB-001	16.8 pg/L	16.8U pg/L
	PCB-002	2.34 pg/L	2.34U pg/L
	PCB-003	15.7 pg/L	15.7U pg/L
	PCB-004	19.2 pg/L	19.2U pg/L
	PCB-005/008	8.15 pg/L	8.15U pg/L
	PCB-011	65.4 pg/L	65.4U pg/L
	PCB-015	16.5 pg/L	16.5U pg/L
	PCB-018	5.22 pg/L	5.22U pg/L
	PCB-118	6.75 pg/L	6.75U pg/L
	PCB-156	10.2 pg/L	10.2U pg/L
	PCB-157	8.99 pg/L	8.99U pg/L
	Monochlorobiphenyls	34.8 pg/L	34.8J pg/L
	Dichlorobiphenyls	109 pg/L	109J pg/L
	Trichlorobiphenyls	34.4 pg/L	34.4J pg/L
	Tetrachlorobiphenyls	18.2 pg/L	18.2J pg/L
	Pentachlorobiphenyls	6.8 pg/L	6.8J pg/L
	Hexachlorobiphenyls	19.2 pg/L	19.2J pg/L

Laboratory blank results flagged "N" or "NJ" by the laboratory as estimated maximum possible concentration (EMPC) are considered not detected.

VI. Field Blanks

No field blanks were identified in this SDG.

VII. 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.

VIII. Laboratory Control Samples

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits with the following exceptions:

LCS ID	Compound	%R (Limits)	Associated Samples	Affected Compound	Flag	A or P
PC150331S	PCB-040	55.4 (60-135)	All samples in SDG PR151342	PCB-040	J (all detects) UJ (all non-detects)	P
	PCB-095	57.2 (60-135)		PCB-095		
	PCB-090	56.4 (60-135)		PCB-090		
	PCB-087/115	58.4 (60-135)		PCB-087/115		
	PCB-151	58.3 (60-135)		PCB-151		
				Tetrachlorobiphenyls		
				Pentachlorobiphenyls		
				Hexachlorobiphenyls		

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Internal Standards

All internal standard recoveries (%R) were within QC limits.

XI. Compound Quantitation

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

Sample	Compound	Flag	A or P
All samples in SDG PR151342	All compounds flagged "N" or "NJ" by the laboratory as estimated maximum possible concentration (EMPC).	U	A

Raw data were not reviewed for Level III validation.

XII. Target Compound Identification

Raw data were not reviewed for Level III validation.

XIII. System Performance

Raw data were not reviewed for Level III validation.

XIV. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to initial calibration %RSD and LCS %R, data were qualified as estimated in two samples.

Due to results reported by the laboratory as EMPCs, data were qualified as not detected in two samples.

Due to laboratory blank contamination, data were qualified as not detected or estimated in two samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the data validation all other results are considered valid and usable for all purposes.

LDW Green River PCB EB Study
Polychlorinated Biphenyls as Congeners - Data Qualification Summary - SDG PR151342

Sample	Compound	Flag	A or P	Reason
L62563-1 L62563-2	PCB-054 PCB-050 PCB-053 PCB-051 PCB-045 PCB-046 PCB-052/069 PCB-073 PCB-043/049 PCB-065/075 PCB-047/048 PCB-062 PCB-044 PCB-059 PCB-042 PCB-064/072 PCB-071 PCB-041 PCB-068 PCB-040/057 PCB-067 PCB-063 PCB-058 PCB-061 PCB-074 PCB-070 PCB-055 PCB-080 PCB-066 PCB-076 PCB-060 PCB-056 PCB-079 PCB-078 PCB-081 PCB-077 Tetrachlorobiphenyls	J (all detects) UJ (all non-detects)	P	Initial calibration (%RSD)
L62563-1 L62563-2	PCB-040 PCB-095 PCB-090 PCB-087/115 PCB-151 Tetrachlorobiphenyls Pentachlorobiphenyls Hexachlorobiphenyls	J (all detects) UJ (all non-detects)	P	Laboratory control samples (%R)
L62563-1 L62563-2	All compounds flagged "N" or "NJ" by the laboratory as estimated maximum possible concentration (EMPC).	U	A	Compound quantitation (EMPC)

LDW Green River PCB EB Study
Polychlorinated Biphenyls as Congeners - Laboratory Blank Data Qualification Summary - SDG PR151342

Sample	Compound	Modified Final Concentration	A or P
L62563-1	PCB-001	11.2U pg/L	A
	PCB-002	2.38U pg/L	
	PCB-003	7.93U pg/L	
	PCB-004	11.6U pg/L	
	PCB-005/008	9.95U pg/L	
	PCB-011	61.2U pg/L	
	PCB-015	13.8U pg/L	
	PCB-018	4.98U pg/L	
	PCB-052/069	11.2U pg/L	
	PCB-118	8.6U pg/L	
	PCB-156	9U pg/L	
	PCB-157	7.55U pg/L	
	Monochlorobiphenyls	21.5J pg/L	
	Dichlorobiphenyls	96.5J pg/L	
	Trichlorobiphenyls	30.6J pg/L	
	Pentachlorobiphenyls	13.2J pg/L	
	Hexachlorobiphenyls	16.6J pg/L	
L62563-2	PCB-001	16.8U pg/L	A
	PCB-002	2.34U pg/L	
	PCB-003	15.7U pg/L	
	PCB-004	19.2U pg/L	
	PCB-005/008	8.15U pg/L	
	PCB-011	65.4U pg/L	
	PCB-015	16.5U pg/L	
	PCB-018	5.22U pg/L	
	PCB-118	6.75U pg/L	
	PCB-156	10.2U pg/L	
	PCB-157	8.99U pg/L	
	Monochlorobiphenyls	34.8J pg/L	
	Dichlorobiphenyls	109J pg/L	
	Trichlorobiphenyls	34.4J pg/L	
	Tetrachlorobiphenyls	18.2J pg/L	
	Pentachlorobiphenyls	6.8J pg/L	
	Hexachlorobiphenyls	19.2J pg/L	

LDC #: 36402A31a

VALIDATION COMPLETENESS WORKSHEET

Level III

Date: 06/02/16

SDG #: PR151342

Page: 1 of 1

Laboratory: Pacific Rim Laboratories, Inc.

Reviewer: CJM

2nd Reviewer: A

METHOD: HRGC/HRMS Polychlorinated Biphenyl Congeners (EPA Method 1668~~A~~C)

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.	Sample receipt/Technical holding times	A / A	
II.	HRGC/HRMS Instrument performance check	A	
III.	Initial calibration/ICV	SW / N	≤20/35
IV.	Continuing calibration	A	QC limits
V.	Laboratory Blanks	SW	
VI.	Field blanks	N ~~SW~~	~~EB: L62288-1 (PR150778)~~
VII.	Matrix spike/Matrix spike duplicates	N	C.S.
VIII.	Laboratory control samples	SW	LCS
IX.	Field duplicates	N	
X.	Internal standards	~~SW~~ A	
XI.	Compound quantitation RL/~~LOQ/LODs~~	SW	
XII.	Target compound identification	N	
XIII.	System performance	N	
XIV.	Overall assessment of data	A	

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; SB=Source blank; OTHER:

	Client ID	Lab ID	Matrix	Date
1	L62563-1	PR151342	Water	04/14/15
2	L62563-2	PR151343	Water	04/14/15
3				
4				
5				
6				
7				
8				
9				
10				

Notes:

	PC150330B						

(received @ 8.9°C)

LDC #: 36402A31a

VALIDATION FINDINGS WORKSHEET
Initial Calibration

Page: 1 of 1
Reviewer: [signature]
2nd Reviewer: [signature]

METHOD: HRGC/HRMS PCB Congeners (EPA Method 1668C)

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

(Y) N N/A Was the initial calibration performed at 5 concentration levels?
Y (N) N/A Were all percent relative standard deviations (%RSD) ≤ 20%? /35%
(Y) N N/A Did all calibration standards meet the Ion Abundance Ratio criteria?
Y N (N/A) Was the signal to noise ratio for each target compound ≥ 2.5 and for each recovery and internal standard ≥ 10?

#	Date	Standard ID	Compound	Finding %RSD (Limit: ≤~~20.0%~~)	Finding Ion Abundace Ratio	Associated Samples	Qualifications
	05/16/15	FS051615	13C12 PCB-81	37.28 (≤35)		all (det/ND)	J/UJ/P (see attached)
	↓	↓	↓ -77	36.16 ↓		↓ ↓	↓ ↓
							(+ Tetrachlorobiphenyls)

36402A36a- attachment

DATA REPORT

Client:	King County	Date Collected:	4/14/2015
Client ID:	L62563-1	Date Extracted:	5/7/2015
Project ID:	423589-330-4 LDW Green River Inputs	Date Analysed:	5/17/2015
PRL ID:	PR151342	HRMS File:	FS05161513
		Work Group No.:	PRL004

IUPAC Name	PCB #	CAS #	Conc. pg/L	SDL pg/L	Flag	EQL pg/L
2-MoCB	PCB-001	2051-60-7	11.2	0.26	B J	18.2
3-MoCB	PCB-002	2051-61-8	2.38	0.32	B J	18.2
4-MoCB	PCB-003	2051-62-9	7.93	0.26	B J	18.2
2,6-DiCB	PCB-010	33146-45-1	0	0.8	U J	18.2
2,2'-DiCB	PCB-004	13029-08-8	11.6	1.13	B J	18.2
2,5-DiCB	PCB-009	34883-39-1	0	0.8	U J	18.2
2,4-DiCB	PCB-007	33284-50-3	0	0.81	U J	18.2
2,3'-DiCB	PCB-006	25569-80-6	0	0.82	U J	18.2
2,3/2,4'-DiCB	PCB-005/008		9.95	0.84	B J	18.2
3,5-DiCB	PCB-014	34883-41-5	0	0.81	U J	18.2
3,3'-DiCB	PCB-011	2050-67-1	61.2	0.84	B	18.2
3,4/3,4'-DiCB	PCB-012/013		0	0.91	U J	18.2
4,4'-DiCB	PCB-015	2050-68-2	13.8	0.81	B J	18.2
2,2',6-TrCB	PCB-019	38444-73-4	10.4	0.72	J	18.2
2,4,6-TrCB	PCB-030	35693-92-6	0	0.43	U J	18.2
2,2',5-TrCB	PCB-018	37680-65-2	4.98	0.6	B J	18.2
2,2',4-TrCB	PCB-017	37680-66-3	2.9	0.6	J	18.2
2,3,6-TrCB	PCB-024	55702-45-9	0	0.5	U J	18.2
2,3',6-TrCB	PCB-027	38444-76-7	0	0.39	U J	18.2
2,4',6-TrCB	PCB-032	38444-77-8	0	0.77	U J	18.2
2,2',3-TrCB	PCB-016	38444-78-9	0	0.21	U J	18.2
2,3,5-TrCB	PCB-023	55720-44-0	0	0.27	U J	18.2
2,3',5'-TrCB	PCB-034	37680-68-5	1.12	0.28	N J	18.2
2,4,5-TrCB	PCB-029	15862-07-4	0	0.24	U J	18.2
2,3',5-TrCB	PCB-026	38444-81-4	1.19	0.23	N J	18.2
2,3',4-TrCB	PCB-025	55712-37-3	0.94	0.28	N J	18.2
2,4',5-TrCB	PCB-031	16606-02-3	6.11	0.23	N J	18.2
2,4,4'-TrCB	PCB-028	7012-37-5	7.68	0.26	N J	18.2
2,3,4-TrCB	PCB-021	55702-46-0	0	0.36	U J	18.2
	PCB-020/033		4.15	0.28	N J	18.2
2,3,4'-TrCB	PCB-022	38444-85-8	4.48	0.34	N J	18.2
3,3',5-TrCB	PCB-036	38444-87-0	0	0.27	U J	18.2
3,4',5-TrCB	PCB-039	38444-88-1	0	0.29	U J	18.2
3,4,5-TrCB	PCB-038	53555-66-1	0	0.34	U J	18.2
3,3',4-TrCB	PCB-035	37680-69-6	0	0.31	U J	18.2
3,4,4'-TrCB	PCB-037	38444-90-5	12.3	0.34	J	18.2
2,2',6,6'-TeCB	PCB-054	15968-05-5	3.87	0.22	N J	18.2
2,2',4,6-TeCB	PCB-050	62796-65-0	0	0.35	U J	18.2
2,2',5,6'-TeCB	PCB-053	41464-41-9	0	0.37	U J	18.2
2,2',4,6'-TeCB	PCB-051	68194-04-7	52.2	0.37		18.2
2,2',3,6-TeCB	PCB-045	70362-45-7	0	0.39	U J	18.2
2,2',3,6'-TeCB	PCB-046	41464-47-5	0	0.44	U J	18.2
	PCB-052/069		11.2	0.34	B J	18.2
2,3',5',6-TeCB	PCB-073	74338-23-1	0	0.31	U J	18.2
	PCB-043/049		12	0.42	J	18.2
	PCB-065/075		0	0.36	U J	18.2
	PCB-047/048		172	0.32		18.2
2,3,4,6-TeCB	PCB-062	54230-22-7	0	0.39	U J	18.2
2,2',3,5'-TeCB	PCB-044	41464-39-5	0	0.48	U J	18.2
2,3,3',6-TeCB	PCB-059	74472-33-6	0	0.3	U J	18.2
2,2',3,4'-TeCB	PCB-042	36559-22-5	0	0.47	U J	18.2
	PCB-064/072		0	0.29	U J	18.2

36402 ASb - attachment

DATA REPORT

Client:	King County	Date Collected:	4/14/2015
Client ID:	L62563-1	Date Extracted:	5/7/2015
Project ID:	423589-330-4 LDW Green River Inputs	Date Analysed:	5/17/2015
PRL ID:	PR151342	HRMS File:	FS05161513
		Work Group No.:	PRL004

IUPAC Name	PCB #	CAS #	Conc. pg/L	SDL pg/L	Flag	EQL pg/L
2,3',4',6-TeCB	PCB-071	41464-46-4	0	0.3	U J	18.2
2,2',3,4-TeCB	PCB-041	52663-59-9	0	0.47	U J	18.2
2,3',4,5'-TeCB	PCB-068	73575-52-7	108	0.28		18.2
	PCB-040/057		0	0.36	U J	18.2
2,3',4,5-TeCB	PCB-067	73575-53-8	0	0.3	U J	18.2
2,3,4',5-TeCB	PCB-063	74472-34-7	0	0.27	U J	18.2
2,3,3',5'-TeCB	PCB-058	41464-49-7	0	0.29	U J	18.2
2,3,4,5-TeCB	PCB-061	33284-53-6	0	0.35	U J	18.2
2,4,4',5-TeCB	PCB-074	32690-93-0	1.92	0.3	J	18.2
2,3',4',5-TeCB	PCB-070	32598-11-1	0	0.32	U J	18.2
2,3,3',4-TeCB	PCB-055	74338-24-2	0	0.31	U J	18.2
3,3',5,5'-TeCB	PCB-080	33284-52-5	0	0.28	U J	18.2
2,3',4,4'-TeCB	PCB-066	32598-10-0	2.71	0.29	N J	18.2
2,3',4',5'-TeCB	PCB-076	70362-48-0	0	0.31	U J	18.2
2,3,4,4'-TeCB	PCB-060	33025-41-1	0	0.36	U J	18.2
2,3,3',4'-TeCB	PCB-056	41464-43-1	1.36	0.33	N J	18.2
3,3',4,5'-TeCB	PCB-079	41464-48-6	0	0.32	U J	18.2
3,3',4,5-TeCB	PCB-078	70362-49-1	0	0.36	U J	18.2
3,4,4',5-TeCB	PCB-081	70362-50-4	0	0.36	U J	18.2
3,3',4,4'-TeCB	PCB-077	32598-13-3	6.6	0.39	J	18.2
~~2,2',4,6,6'-PeCB~~	~~PCB-104~~	~~56558-16-8~~	~~0~~	~~1.98~~	~~U J~~	~~18.2~~
2,2',3,6,6'-PeCB	PCB-096	73575-54-9	0	2.18	U J	18.2
2,2',4,5',6-PeCB	PCB-103	60145-21-3	0	2.6	U J	18.2
2,2',4,4',6-PeCB	PCB-100	39485-83-1	0	2.76	U J	18.2
2,2',3,5,6'-PeCB	PCB-094	73575-55-0	0	3.23	U J	18.2
	PCB-093/098/102		0	3.2	U J	18.2
2,2',3,5',6-PeCB	PCB-095	38379-99-6	6.77	2.9	N J	18.2
2,2',3,4,6-PeCB	PCB-088	55215-17-3	0	3.02	U J	18.2
	PCB-091/121		4.64	2.57	J	18.2
2,2',3,3',6-PeCB	PCB-084	52663-60-2	0	3.42	U J	18.2
2,2',3,5,5'-PeCB	PCB-092	52663-61-3	0	2.93	U J	18.2
2,2',3,4,6'-PeCB	PCB-089	73575-57-2	0	3.21	U J	18.2
2,2',3,4',5-PeCB	PCB-090	68194-07-0	0	3.33	U J	18.2
2,2',4,5,5'-PeCB	PCB-101	37680-73-2	0	2.53	U J	18.2
2,3,3',5',6-PeCB	PCB-113	68194-10-5	0	2.43	U J	18.2
2,2',4,4',5-PeCB	PCB-099	38380-01-7	0	2.89	U J	18.2
	PCB-112/119		0	2.35	U J	18.2
	PCB-083/109		0	3.15	U J	18.2
	PCB-086/097/117		0	3.32	U J	18.2
	PCB-116/125		0	2.95	U J	18.2
	PCB-087/115		0	3.12	U J	18.2
2,3,3',5,5'-PeCB	PCB-111	39635-32-0	0	2.66	U J	18.2
2,2',3,4,4'-PeCB	PCB-085	65510-45-4	0	3.62	U J	18.2
2,3',4,5,5'-PeCB	PCB-120	68194-12-7	0	2.73	U J	18.2
2,3,3',4',6-PeCB	PCB-110	38380-03-9	0	2.44	U J	18.2
2,2',3,3',4-PeCB	PCB-082	52663-62-4	0	4.08	U J	18.2
2,3',4',5,5'-PeCB	PCB-124	70424-70-3	0	0.82	U J	18.2
	PCB-107/108		0	1.12	U J	18.2
2,3',4,4',5'-PeCB	PCB-123	65510-44-3	0	0.87	U J	18.2
2,3,3',4,5-PeCB	PCB-106	70424-69-0	0	1.11	U J	18.2
2,3',4,4',5-PeCB	PCB-118	31508-00-6	8.6	0.88	B J	18.2
2,3,4,4',5-PeCB	PCB-114	74472-37-0	4.37	1	N J	18.2

LDC #: 36402A31a

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: HRGC/HRMS PCB Congeners (EPA Method 1668C)

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

Y N N/A Were all samples associated with a method blank?
Y N N/A Was a method blank performed for each matrix and whenever a sample extraction was performed?
Y N N/A Was the method blank contaminated?

Blank extraction date: 05/07/15 **Blank analysis date:** 05/16/15 **Associated samples:** all

Conc. units: pg/L

Compound	Blank ID		Sample Identification								
	PC150330B	5x	1	2							
PCB-001	20.2	101	11.2 /U	16.8 /U							
PCB-002	3.13	15.7	2.38 /U	2.34 /U							
PCB-003	16.8	84.0	7.93 /U	15.7 /U							
PCB-004	15.2	76.0	11.6 /U	19.2 /U							
PCB-005/008	7.13	35.7	9.95 /U	8.15 /U							
PCB-011	74	370	61.2 /U	65.4 /U							
PCB-015	22	110	13.8 /U	16.5 /U							
PCB-018	5.72	28.6	4.98 /U	5.22 /U							
PCB-016	2.68	13.4									
PCB-031	7.17	35.9									
PCB-028	9.83	49.2									
PCB-052/069	10.4	52.0	11.2 /U								
PCB-044	5.64	28.2									
PCB-095	6.97	34.9									
PCB-118	10.7	53.5	8.6 /U	6.75 /U							
PCB-114	11.1	55.5									
PCB-156	8.72	43.6	9 /U	10.2 /U							
PCB-157	9.63	48.2	7.55 /U	8.99 /U							
Monochlorobiphenyls	40.1	201	21.5 /J	34.8 /J							
Dichlorobiphenyls	118	590	96.5 /J	109 /J							

LDC #: 36402A31a

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: AR
2nd Reviewer: AR

METHOD: HRGC/HRMS PCB Congeners (EPA Method 1668C)

Compound	Blank ID		Sample Identification								
	PC150330B	5x	1	2							
Trichlorobiphenyls	25.4	127	30.6 /J	34.4 /J							
Tetrachlorobiphenyls	16	80.0		18.2 /J							
Pentachlorobiphenyls	28.8	144	13.2 /J	6.8 /J							
Hexachlorobiphenyls	18.3	91.5	16.6 /J	19.2 /J							

EMPC results flagged "N" considered Non-Detect

LDC #:36402A31a

VALIDATION FINDINGS WORKSHEET

Laboratory Control Samples (LCS)

Page: 1 of 1
Reviewer:
2nd Reviewer:

METHOD: HRGC/HRMS PCB Congeners (EPA Method 1668C)

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

[✓ Y] N N/A Was a LCS required?

[✓ Y] N N/A Was a LCS analyzed every 20 samples for each matrix or whenever a sample extraction was performed?

Y [✓ N] N/A Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

#	Date	Lab ID/Reference	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		PC1503315	PCB-040	55.4 (60-135)	( )	( )	all	J/UJ/P (ND)
			-095	57.2 ( )	( )	( )		
			-090	56.4 ( )	( )	( )		
			-087/115	58.4 ( )	( )	( )		
			-151	58.3 ( )	( )	( )		
				( )	( )	( )		+Tetrachlorobiphenyls
				( )	( )	( )		Penta
				( )	( )	( )		Hexa
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		

LDC #: 36402A31a

VALIDATION FINDINGS WORKSHEET
Compound Quantitation and Reported CRQLs

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: HRGC/HRMS PCB Congeners (EPA Method 1668C)

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 CRQLs were adjusted to reflect all sample dilutions and dry weight factors (if necessary).

#	Date	Compound	Finding	Associated Samples	Qualifications
			EMPC results flagged "N" or "NJ"	all	U/A

Comments: ~~See sample calculation verification worksheet for recalculations~~

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: LDW Green River PCB EB Study

LDC Report Date: June 14, 2016

Parameters: Polychlorinated Biphenyls as Congeners

Validation Level: Level III

Laboratory: AXYS Analytical Services, Ltd.

Sample Delivery Group (SDG): DPWG51522

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
L62563-1	L23123-1	Water	04/14/15
L62563-2	L23123-2	Water	04/14/15

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Final Green River PCB Equipment Blank Study Sampling and Analysis Plan (August 2015) and US Environmental Protection Agency (EPA) Region 10 SOP for the Validation of Polychlorinated Biphenyl (PCB) Data (Revision 1.0, December 8, 1995). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Polychlorinated Biphenyls (PCBs) as Congeners by Environmental Protection Agency (EPA) Method 1668A

All sample results were subjected to Level III data validation, which comprises an evaluation of quality control (QC) summary results.

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.

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.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. HRGC/HRMS Instrument Performance Check

Instrument performance was checked at the required frequency.

Retention time windows were established for all congeners. The chromatographic resolution between the congeners PCB-23 and PCB-34 and congeners PCB-182 and PCB-187 was resolved with a valley of less than or equal to 40%.

The static resolving power was at least 10,000 (10% valley definition).

III. Initial Calibration

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

The 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 compounds were within validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

All of the continuing calibration percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were less than or equal to 30.0% for unlabeled compounds and less than or equal to 50.0% for labeled compounds.

The ion abundance ratios for all compounds were within validation criteria.

V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks with the following exceptions:

Blank ID	Extraction Date	Compound	Concentration	Associated Samples
WG51112-101	05/04/15	PCB-1	2.92 pg/L	All samples in SDG DPWG51522
		PCB-2	1.48 pg/L	
		PCB-8	4.44 pg/L	
		PCB-11	34.5 pg/L	
		PCB-17	1.83 pg/L	
		PCB-20/28	5.95 pg/L	
		PCB-21/33	2.88 pg/L	
		PCB-22	2.43 pg/L	
		PCB-31	4.26 pg/L	
		PCB-37	2.10 pg/L	
		PCB-42	1.18 pg/L	
		PCB-49/69	2.22 pg/L	
		PCB-52	18.4 pg/L	
		PCB-56	1.86 pg/L	
		PCB-61/70/74/76	7.88 pg/L	
		PCB-66	3.29 pg/L	
		PCB-85/116/117	1.08 pg/L	
		PCB-86/87/97/108/119/125	4.40 pg/L	
		PCB-90/101/113	5.22 pg/L	
		PCB-92	0.856 pg/L	
		PCB-105	2.15 pg/L	
		PCB-110/115	6.16 pg/L	
		PCB-118	7.01 pg/L	
		PCB-132	1.41 pg/L	
		PCB-135/151/154	0.876 pg/L	
		PCB-147/149	2.10 pg/L	
		PCB-153/168	3.10 pg/L	
		PCB-187	0.538 pg/L	
		Total Monochlorobiphenyls	4.40 pg/L	
		Total Dichlorobiphenyls	38.9 pg/L	
		Total Trichlorobiphenyls	19.5 pg/L	
		Total Tetrachlorobiphenyls	34.8 pg/L	
		Total Pentachlorobiphenyls	26.9 pg/L	
		Total Hexachlorobiphenyls	7.49 pg/L	
		Total Heptachlorobiphenyls	0.538 pg/L	

Sample concentrations were compared to concentrations detected in the laboratory blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated laboratory blanks with the following exceptions:

Sample	Compound	Reported Concentration	Modified Final Concentration
L62563-1	PCB-1	2.59 pg/L	2.59U pg/L
	PCB-2	1.78 pg/L	1.78U pg/L
	PCB-11	34.3 pg/L	34.3U pg/L
	PCB-17	2.64 pg/L	2.64U pg/L
	PCB-20/28	6.38 pg/L	6.38U pg/L
	PCB-21/33	6.63 pg/L	6.63U pg/L
	PCB-22	2.40 pg/L	2.40U pg/L
	PCB-31	5.20 pg/L	5.20U pg/L
	PCB-37	1.98 pg/L	1.98U pg/L
	PCB-49/69	6.30 pg/L	6.30U pg/L
	PCB-52	20.5 pg/L	20.5U pg/L
	PCB-61/70/74/76	7.74 pg/L	7.74U pg/L
	PCB-66	4.04 pg/L	4.04U pg/L
	PCB-86/87/97/108/119/125	4.51 pg/L	4.51U pg/L
	PCB-90/101/113	6.01 pg/L	6.01U pg/L
	PCB-110/115	6.94 pg/L	6.94U pg/L
	PCB-118	6.61 pg/L	6.61U pg/L
	PCB-135/151/154	1.52 pg/L	1.52U pg/L
	PCB-147/149	2.68 pg/L	2.68U pg/L
	PCB-153/168	3.34 pg/L	3.34U pg/L
	PCB-187	0.622 pg/L	0.622U pg/L
	Total Monochlorobiphenyls	4.37 pg/L	4.37J pg/L
	Total Dichlorobiphenyls	36.7 pg/L	36.7J pg/L
	Total Trichlorobiphenyls	31.1 pg/L	31.1J pg/L
	Total Pentachlorobiphenyls	28.1 pg/L	28.1J pg/L
	Total Hexachlorobiphenyls	13.0 pg/L	13.0J pg/L
	Total Heptachlorobiphenyls	2.37 pg/L	2.37J pg/L
L62563-2	PCB-1	1.32 pg/L	1.32U pg/L
	PCB-8	3.19 pg/L	3.19U pg/L
	PCB-11	32.5 pg/L	32.5U pg/L
	PCB-17	2.02 pg/L	2.02U pg/L
	PCB-20/28	5.31 pg/L	5.31U pg/L
	PCB-21/33	3.11 pg/L	3.11U pg/L
	PCB-22	2.32 pg/L	2.32U pg/L
	PCB-31	4.12 pg/L	4.12U pg/L
	PCB-49/69	2.39 pg/L	2.39U pg/L
	PCB-52	17.7 pg/L	17.7U pg/L
	PCB-61/70/74/76	6.53 pg/L	6.53U pg/L
	PCB-86/87/97/108/119/125	4.55 pg/L	4.55U pg/L
	PCB-105	2.18 pg/L	2.18U pg/L
	PCB-118	6.87 pg/L	6.87U pg/L
	PCB-153/168	3.52 pg/L	3.52U pg/L
	Total Monochlorobiphenyls	1.32 pg/L	1.32J pg/L
	Total Dichlorobiphenyls	35.7 pg/L	35.7J pg/L
	Total Trichlorobiphenyls	24.2 pg/L	24.2J pg/L
	Total Tetrachlorobiphenyls	34.6 pg/L	34.6J pg/L
	Total Pentachlorobiphenyls	18.6 pg/L	18.6J pg/L
	Total Hexachlorobiphenyls	7.82 pg/L	7.82J pg/L
	Total Heptachlorobiphenyls	0.542 pg/L	0.542J pg/L

Laboratory blank results flagged "K" by the laboratory as estimated maximum possible concentration (EMPC) are considered not detected.

VI. Field Blanks

No field blanks were identified in this SDG.

VII. 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.

VIII. Ongoing Precision Recovery

Ongoing precision recovery (OPR) samples were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Internal Standards

All internal standard recoveries (%R) were within QC limits.

XI. Compound Quantitation

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

Sample	Compound	Flag	A or P
All samples in SDG DPWG51522	All compounds flagged "K" by the laboratory as estimated maximum possible concentration (EMPC).	U	A

Raw data were not reviewed for Level III validation.

XII. Target Compound Identification

Raw data were not reviewed for Level III validation.

XIII. System Performance

Raw data were not reviewed for Level III validation.

XIV. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to results reported by the laboratory as EMPCs, data were qualified as not detected in two samples.

Due to laboratory blank contamination, data were qualified as not detected or estimated in two samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the data validation all other results are considered valid and usable for all purposes.

LDW Green River PCB EB Study
Polychlorinated Biphenyls as Congeners - Data Qualification Summary - SDG DPWG51522

Sample	Compound	Flag	A or P	Reason
L62563-1 L62563-2	All compounds flagged "K" by the laboratory as estimated maximum possible concentration (EMPC).	U	A	Compound quantitation (EMPC)

LDW Green River PCB EB Study
Polychlorinated Biphenyls as Congeners - Laboratory Blank Data Qualification Summary - SDG DPWG51522

Sample	Compound	Modified Final Concentration	A or P
L62563-1	PCB-1	2.59U pg/L	A
	PCB-2	1.78U pg/L	
	PCB-11	34.3U pg/L	
	PCB-17	2.64U pg/L	
	PCB-20/28	6.38U pg/L	
	PCB-21/33	6.63U pg/L	
	PCB-22	2.40U pg/L	
	PCB-31	5.20U pg/L	
	PCB-37	1.98U pg/L	
	PCB-49/69	6.30U pg/L	
	PCB-52	20.5U pg/L	
	PCB-61/70/74/76	7.74U pg/L	
	PCB-66	4.04U pg/L	
	PCB-86/87/97/108/119/125	4.51U pg/L	
	PCB-90/101/113	6.01U pg/L	
	PCB-110/115	6.94U pg/L	
	PCB-118	6.61U pg/L	
	PCB-135/151/154	1.52U pg/L	
	PCB-147/149	2.68U pg/L	
	PCB-153/168	3.34U pg/L	
	PCB-187	0.622U pg/L	
	Total Monochlorobiphenyls	4.37J pg/L	
	Total Dichlorobiphenyls	36.7J pg/L	
	Total Trichlorobiphenyls	31.1J pg/L	
	Total Pentachlorobiphenyls	28.1J pg/L	
	Total Hexachlorobiphenyls	13.0J pg/L	
	Total Heptachlorobiphenyls	2.37J pg/L	

Sample	Compound	Modified Final Concentration	A or P
L62563-2	PCB-1	1.32U pg/L	A
	PCB-8	3.19U pg/L	
	PCB-11	32.5U pg/L	
	PCB-17	2.02U pg/L	
	PCB-20/28	5.31U pg/L	
	PCB-21/33	3.11U pg/L	
	PCB-22	2.32U pg/L	
	PCB-31	4.12U pg/L	
	PCB-49/69	2.39U pg/L	
	PCB-52	17.7U pg/L	
	PCB-61/70/74/76	6.53U pg/L	
	PCB-86/87/97/108/119/125	4.55U pg/L	
	PCB-105	2.18U pg/L	
	PCB-118	6.87U pg/L	
	PCB-153/168	3.52U pg/L	
	Total Monochlorobiphenyls	1.32J pg/L	
	Total Dichlorobiphenyls	35.7J pg/L	
	Total Trichlorobiphenyls	24.2J pg/L	
	Total Tetrachlorobiphenyls	34.6J pg/L	
	Total Pentachlorobiphenyls	18.6J pg/L	
	Total Hexachlorobiphenyls	7.82J pg/L	
	Total Heptachlorobiphenyls	0.542J pg/L	

LDC #: 36402A31b **VALIDATION COMPLETENESS WORKSHEET** Date: 9/02/16
SDG #: DPWG51522 Level III Page: 1 of 1
Laboratory: Axys Analytical Services, Ltd. Reviewer: SW
2nd Reviewer: AC

METHOD: HRGC/HRMS Polychlorinated Biphenyl Congeners (EPA Method 1668A)

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.	Sample receipt/Technical holding times	A / A	
II.	HRGC/HRMS Instrument performance check	A	
III.	Initial calibration/ICV	A / N	≤20/35
IV.	Continuing calibration	A	≤30/50
V.	Laboratory Blanks	SW	
VI.	Field blanks	N	
VII.	Matrix spike/Matrix spike duplicates	N	C.S.
VIII.	Laboratory control samples	A	OPR
IX.	Field duplicates	N	
X.	Internal standards	A	
XI.	Compound quantitation RL/~~LOQ/LODs~~	SW	
XII.	Target compound identification	N	
XIII.	System performance	N	
XIV.	Overall assessment of data	A	

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; SB=Source blank; OTHER:

	Client ID	Lab ID	Matrix	Date
1	L62563-1	L23123-1	Water	04/14/15
2	L62563-2	L23123-2	Water	04/14/15
3				
4				
5				
6				
7				
8				
9				
10				

Notes:

WG51112-101							

LDC #: 36402A31b

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: CM
2nd Reviewer: 2

METHOD: HRGC/HRMS PCB Congeners (EPA Method 1668A)

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

Y N N/A Were all samples associated with a method blank?
Y N N/A Was a method blank performed for each matrix and whenever a sample extraction was performed?
Y N N/A Was the method blank contaminated?

Blank extraction date: 05/04/15 **Blank analysis date:** 05/20/15 **Associated samples:** all

Conc. units: pg/L

Compound	Blank ID		Sample Identification								
	WG51112-101	5x	1	2							
PCB-1	2.92	14.6	2.59 /U	1.32 /U							
PCB-2	1.48	7.40	1.78 /U								
PCB-8	4.44	22.2		3.19 /U							
PCB-11	34.5	173	34.3 /U	32.5 /U							
PCB-17	1.83	9.15	2.64 /U	2.02 /U							
PCB-20/28	5.95	29.8	6.38 /U	5.31 /U							
PCB-21/33	2.88	14.4	6.63 /U	3.11 /U							
PCB-22	2.43	12.2	2.40 /U	2.32 /U							
PCB-31	4.26	21.3	5.20 /U	4.12 /U							
PCB-37	2.10	10.5	1.98 /U								
PCB-42	1.18	5.90									
PCB-49/69	2.22	11.1	6.30 /U	2.39 /U							
PCB-52	18.4	92.0	20.5 /U	17.7 /U							
PCB-56	1.86	9.30									
PCB-61/70/74/76	7.88	39.4	7.74 /U	6.53 /U							
PCB-66	3.29	16.5	4.04 /U								
PCB-85/116/117	1.08	5.40									
PCB-86/87/97/108/119/125	4.40	22.0	4.51 /U	4.55 /U							
PCB-90/101/113	5.22	26.1	6.01 /U								
PCB-92	0.856	4.28									

LDC #: 36402A31b

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: 2nd
2nd Reviewer: 2nd

METHOD: HRGC/HRMS PCB Congeners (EPA Method 1668A)

Compound	Blank ID		Sample Identification								
	WG51112-101	5x	1	2							
PCB-105	2.15	10.8		2.18 /U							
PCB-110/115	6.16	30.8	6.94 /U								
PCB-118	7.01	35.1	6.61 /U	6.87 /U							
PCB-132	1.41	7.05									
PCB-135/151/154	0.876	4.38	1.52 /U								
PCB-147/149	2.10	10.5	2.68 /U								
PCB-153/168	3.10	15.5	3.34 /U	3.52 /U							
PCB-187	0.538	2.69	0.622 /U								
Total Monochloro Biphenyls	4.40	22.0	4.37 /J	1.32 /J							
Total Dichloro Biphenyls	38.9	195	36.7 /J	35.7 /J							
Total Trichloro Biphenyls	19.5	97.5	31.1 /J	24.2 /J							
Total Tetrachloro Biphenyls	34.8	174		34.6 /J							
Total Pentachloro Biphenyls	26.9	135	28.1 /J	18.6 /J							
Total Hexachloro Biphenyls	7.49	37.5	13.0 /J	7.82 /J							
Total Heptachloro Biphenyls	0.538	2.69	2.37 /J	0.542 /J							

EMPC results flagged "K" considered Non-Detect

LDC #: 36402A31b

VALIDATION FINDINGS WORKSHEET
Compound Quantitation and Reported CRQLs

Reviewer:
2nd Reviewer:

METHOD: HRGC/HRMS PCB Congeners (EPA Method 1668A)

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 CRQLs were adjusted to reflect all sample dilutions and dry weight factors (if necessary).

#	Date	Compound	Finding	Associated Samples	Qualifications
			EMPC results flagged "K"	All	U/A

Comments: ~~See sample calculation verification worksheet for recalculations~~

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: LDW Green River PCB EB Study

LDC Report Date: June 20, 2016

Parameters: Polychlorinated Biphenyls as Congeners

Validation Level: Level III

Laboratory: Pacific Rim Laboratories, Inc.

Sample Delivery Group (SDG): PR150778

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
L59595-1	PR150784	Water	01/29/14
L62288-1	PR150785	Water	02/25/15

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Final Green River PCB Equipment Blank Study Sampling and Analysis Plan (August 2015) and US Environmental Protection Agency (EPA) Region 10 SOP for the Validation of Polychlorinated Biphenyl (PCB) Data (Revision 1.0, December 8, 1995). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Polychlorinated Biphenyls (PCBs) as Congeners by Environmental Protection Agency (EPA) Method 1668C

All sample results were subjected to Level III data validation, which comprises an evaluation of quality control (QC) summary results.

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.

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.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. HRGC/HRMS Instrument Performance Check

Instrument performance was checked at the required frequency.

The static resolving power was at least 10,000 (10% valley definition).

III. Initial Calibration and Initial Calibration Verification

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

The 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 with the following exceptions:

Date	Compound	%RSD (Limits)	Associated Samples	Affected Compound	Flag	A or P
03/20/15	PCB-169	22.5 (≤20.0)	All samples in SDG PR150778	PCB-169 Hexachlorobiphenyls	J (all detects) UJ (all non-detects)	P

The ion abundance ratios for all compounds were within validation criteria with the following exceptions:

Date (Standard ID)	Compound	Ion abundance ratio (Limits)	Associated Samples	Affected Compound
03/20/15 (CS5)	PCB-004	0.756 (0.558-0.754)	All samples in SDG PR150778	PCB-4 Dichlorobiphenyls

Using professional judgment, no data were qualified for PCB-004 ion abundance ratio outside limits in the CS5 standard since the ion abundance ratios were within limits in the other initial calibration standards, CS1-CS4.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

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

The ion abundance ratios for all compounds were within validation criteria.

V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks with the following exceptions:

Blank ID	Extraction Date	Compound	Concentration	Associated Samples
PC150190B	03/12/15	PCB-001 PCB-011 PCB-018 PCB-052/069 PCB-186 Monochlorobiphenyls Dichlorobiphenyls Trichlorobiphenyls Tetrachlorobiphenyls Heptachlorobiphenyls	4.68 pg/L 36.9 pg/L 6.43 pg/L 8.92 pg/L 6.1 pg/L 4.7 pg/L 36.9 pg/L 6.4 pg/L 8.9 pg/L 6.1 pg/L	All samples in SDG PR150778

Sample concentrations were compared to concentrations detected in the laboratory blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated laboratory blanks with the following exceptions:

Sample	Compound	Reported Concentration	Modified Final Concentration
L59595-1	PCB-001 PCB-011 PCB-018 PCB-052/069 Monochlorobiphenyls Dichlorobiphenyls Trichlorobiphenyls	3.91 pg/L 32.4 pg/L 4.8 pg/L 5.45 pg/L 3.9 pg/L 32.4 pg/L 29.1 pg/L	3.91U pg/L 32.4U pg/L 4.8U pg/L 5.45U pg/L 3.9J pg/L 32.4J pg/L 29.1J pg/L
L62288-1	PCB-001 PCB-011 PCB-018 PCB-052/069 Monochlorobiphenyls Dichlorobiphenyls Trichlorobiphenyls Heptachlorobiphenyls	2.49 pg/L 30.2 pg/L 4.72 pg/L 6.31 pg/L 2.5 pg/L 41.6 pg/L 13.6 pg/L 5.4 pg/L	2.49U pg/L 30.2U pg/L 4.72U pg/L 6.31U pg/L 2.5J pg/L 41.6J pg/L 13.6J pg/L 5.4J pg/L

Laboratory blank results flagged "N" or "NJ" by the laboratory as estimated maximum possible concentration (EMPC) are considered not detected.

VI. Field Blanks

Sample L62288-1 was identified as an equipment blank. No contaminants were found with the following exceptions:

Blank ID	Collection Date	Compound	Concentration
L62288-1	02/25/15	PCB-001	2.49 pg/L
		PCB-009	11.4 pg/L
		PCB-011	30.2 pg/L
		PCB-018	4.72 pg/L
		PCB-017	5.59 pg/L
		PCB-023	3.26 pg/L
		PCB-051	78.2 pg/L
		PCB-052/069	6.31 pg/L
		PCB-047/048	43.6 pg/L
		PCB-068	26.8 pg/L
		PCB-060	2.14 pg/L
		PCB-153	2.69 pg/L
		PCB-180	5.4 pg/L
		Monochlorobiphenyls	2.5 pg/L
		Dichlorobiphenyls	41.6 pg/L
		Trichlorobiphenyls	13.6 pg/L
		Tetrachlorobiphenyls	157 pg/L
		Hexachlorobiphenyls	2.7 pg/L
		Heptachlorobiphenyls	5.4 pg/L

VII. 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.

VIII. Laboratory Control Samples

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits with the following exceptions:

LCS ID	Compound	%R (Limits)	Associated Samples	Affected Compound	Flag	A or P
PC150199S	PCB-040	57.1 (60-135)	All samples in SDG PR150778	PCB-040 Tetrachlorobiphenyls	J (all detects) UJ (all non-detects)	P

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Internal Standards

All internal standard recoveries (%R) were within QC limits.

XI. Compound Quantitation

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

Sample	Compound	Flag	A or P
All samples in SDG PR150778	All compounds flagged "N" or "NJ" by the laboratory as estimated maximum possible concentration (EMPC).	U	A

Raw data were not reviewed for Level III validation.

XII. Target Compound Identification

Raw data were not reviewed for Level III validation.

XIII. System Performance

Raw data were not reviewed for Level III validation.

XIV. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to initial calibration %RSD and LCS %R, data were qualified as estimated in two samples.

Due to results reported by the laboratory as EMPCs, data were qualified as not detected in two samples.

Due to laboratory blank contamination, data were qualified as not detected or estimated in two samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the data validation all other results are considered valid and usable for all purposes.

LDW Green River PCB EB Study
Polychlorinated Biphenyls as Congeners - Data Qualification Summary - SDG PR150778

Sample	Compound	Flag	A or P	Reason
L59595-1 L62288-1	PCB-169 Hexachlorobiphenyls	J (all detects) UJ (all non-detects)	P	Initial calibration (%RSD)
L59595-1 L62288-1	PCB-040 Tetrachlorobiphenyls	J (all detects) UJ (all non-detects)	P	Laboratory control samples (%R)
L59595-1 L62288-1	All compounds flagged "N" or "NJ" by the laboratory as estimated maximum possible concentration (EMPC).	U	A	Compound quantitation (EMPC)

LDW Green River PCB EB Study
Polychlorinated Biphenyls as Congeners - Laboratory Blank Data Qualification Summary - SDG PR150778

Sample	Compound	Modified Final Concentration	A or P
L59595-1	PCB-001 PCB-011 PCB-018 PCB-052/069 Monochlorobiphenyls Dichlorobiphenyls Trichlorobiphenyls	3.91U pg/L 32.4U pg/L 4.8U pg/L 5.45U pg/L 3.9J pg/L 32.4J pg/L 29.1J pg/L	A
L62288-1	PCB-001 PCB-011 PCB-018 PCB-052/069 Monochlorobiphenyls Dichlorobiphenyls Trichlorobiphenyls Heptachlorobiphenyls	2.49U pg/L 30.2U pg/L 4.72U pg/L 6.31U pg/L 2.5J pg/L 41.6J pg/L 13.6J pg/L 5.4J pg/L	A

LDC #: 36402B31A

SDG #: PR150778

Laboratory: Pacific Rim Laboratories, Inc.

VALIDATION COMPLETENESS WORKSHEET

Level III

Date: 06/02/16

Page: 1 of 1

Reviewer: [illegible]

2nd Reviewer: [illegible]

METHOD: HRGC/HRMS Polychlorinated Biphenyl Congeners (EPA Method 1668~~A~~C)

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.	Sample receipt/Technical holding times	A, A	
II.	HRGC/HRMS Instrument performance check	A	
III.	Initial calibration/ICV	SW, N	≤ 20/35
IV.	Continuing calibration	~~A~~SW, A	QC limits
V.	Laboratory Blanks	SW	
VI.	Field blanks	SW	EB = 2
VII.	Matrix spike/Matrix spike duplicates	N	C.S.
VIII.	Laboratory control samples	SW	LCS
IX.	Field duplicates	~~SW~~N	
X.	Internal standards	A	
XI.	Compound quantitation RL~~/LOQ/LODs~~	SW	
XII.	Target compound identification	N	
XIII.	System performance	N	
XIV.	Overall assessment of data	A	

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; SB=Source blank; OTHER:

	Client ID	Lab ID	Matrix	Date
1	L59595-1	PR150784	Water	01/29/14
2	L62288-1	PT150785	Water	02/25/15
3				
4				
5				
6				
7				
8				
9				
10				

Notes:

	PC150190B						

LDC #: 36402B31a

VALIDATION FINDINGS WORKSHEET
Initial Calibration

Page: 1 of 1
Reviewer:
2nd Reviewer:

METHOD: HRGC/HRMS PCB Congeners (EPA Method 1668C)

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

(Y) N N/A Was the initial calibration performed at 5 concentration levels?
Y (N) N/A Were all percent relative standard deviations (%RSD) ≤ 20%?
(Y) N N/A Did all calibration standards meet the Ion Abundance Ratio criteria?
Y (N) N/A Was the signal to noise ratio for each target compound ≥ 2.5 and for each recovery and internal standard ≥ 10?

#	Date	Standard ID	Compound	Finding %RSD (Limit: ≤20.0%)	Finding Ion Abundace Ratio	Associated Samples	Qualifications
	03/20/15	FS032015	PCB-169	22.5		all	J/UJ/P (ND) (+Hexachlorobiphenyls)
	03/20/15	FS03201506 CS5	PCB-4		0.752 (0.558-0.754)	↓ No qual	~~J/UJ/P~~ (ND) (+~~Tetrachlorobiphenyls~~) CS6-CS4 w/in criteria

LDC #: 36402B31a

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: HRGC/HRMS PCB Congeners (EPA Method 1668C)

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

Y N N/A Were all samples associated with a method blank?
Y N N/A Was a method blank performed for each matrix and whenever a sample extraction was performed?
Y N N/A Was the method blank contaminated?

Blank extraction date: 03/12/15 **Blank analysis date:** 03/21/15 **Associated samples:** all

Conc. units: pg/L

Compound	Blank ID		Sample Identification								
	PC150190B	5x	1	2							
PCB-001	4.68	23.4	3.91 /U	2.49 /U							
PCB-011	36.9	185	32.4 /U	30.2 /U							
PCB-018	6.43	32.2	4.8 /U	4.72 /U							
PCB-052/069	8.92	44.6	5.45 /U	6.31 /U							
PCB-186	6.1	30.5									
Monochlorobiphenyls	4.7	23.5	3.9 /J	2.5 /J							
Dichlorobiphenyls	36.9	185	32.4 /J	41.6 /J							
Trichlorobiphenyls	6.4	32.0	29.1 /J	13.6 /J							
Tetrachlorobiphenyls	8.9	44.5									
Heptachlorobiphenyls	6.1	30.5		5.4 /J							

EMPC results flagged "N" considered Non-Detect

LDC #: 36402B31a

VALIDATION FINDINGS WORKSHEET
Field Blanks

Reviewer: TM
2nd reviewer: [illegible]

METHOD: HRGC/HRMS Polychlorinated Biphenyl Congeners (EPA Method 1668C)

Sample: 2 (EB) Field Blank / Trip Blank / Rinsate (circle one)

Compound	Concentration Units (pg/l)
PCB-001	2.49
PCB-009	11.4
PCB-011	30.2
PCB-018	4.72
PCB-017	5.59
PCB-023	3.26
PCB-051	78.2
PCB-052/069	6.31
PCB-047/048	43.6
PCB-068	26.8
PCB-060	2.14
PCB-153	2.69
PCB-180	5.4
Monochlorobiphenyls	2.5
Dichlorobiphenyls	41.6
Trichlorobiphenyls	13.6
Tetrachlorobiphenyls	157
Hexachlorobiphenyls	2.7
Heptachlorobiphenyls	5.4

LDC #: 36402B31a

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Page: 1 of 1
Reviewer:
2nd Reviewer:

METHOD: HRGC/HRMS PCB Congeners (EPA Method 1668C)

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

[✓ Y] N N/A Was a LCS required?

[✓ Y] N N/A Was a LCS analyzed every 20 samples for each matrix or whenever a sample extraction was performed?

Y [✓ N] N/A Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

#	Date	Lab ID/Reference	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		PC1501995	PCB-040	57.1 (60-135)	( )	( )	all (ND)	J/UJ/P (+ Tetrachlorobipheny
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
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				( )	( )	( )		
				( )	( )	( )		

LDC #: 36402B31a

VALIDATION FINDINGS WORKSHEET
Compound Quantitation and Reported CRQLs

Reviewer:
2nd Reviewer:

METHOD: HRGC/HRMS PCB Congeners (EPA Method 1668C)

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 CRQLs were adjusted to reflect all sample dilutions and dry weight factors (if necessary).

#	Date	Compound	Finding	Associated Samples	Qualifications
			EMPC results flagged "N" or "NJ"	all	U/A

Comments: ~~See sample calculation verification worksheet for recalculations~~

LDC #: 36402

EDD POPULATION COMPLETENESS WORKSHEET

Date: 6/16/16
Page: 1 of 1
2nd Reviewer:

The LDC job number listed above was entered by SZ.

	EDD Process		Comments/Action
I.	EDD Completeness	-	
Ia.	- All methods present?	Y	
Ib.	- All samples present/match report?	Y	
Ic.	- All reported analytes present?	Y	
Id.	-10% or 100% verification of EDD?	Y	
II.	EDD Preparation/Entry	-	
IIa.	- Carryover U/J?	—	
IIb.	- Reason Codes used? If so, note which codes	Y	LDC
IIc.	-Additional Information (QC Level, Validator, Date, Validated Y/N, etc.)	—	
III.	Reasonableness Checks	-	
IIIa.	- Do all qualified ND results have ND qualifier (i.e. UJ)?	Y	
IIIb.	- Do all qualified detect results have detect qualifier (i.e. J)?	Y	
IIIc.	- If reason codes used, do all qualified results have reason code field populated?	Y	
IIId.	-Does the detect flag require changing for blank qualifiers? If so, are all U results marked ND?	—	
IIIe.	- Do blank concentrations in report match EDD, where data was qualified due to blank?	Y	
IIIf.	- Were any results rejected for overall assessment? If so, were results changed to nonreportable?	—	
IIIg.	- Is the readme complete? If applicable, were edits or discrepancies listed in the readme?	Y	

Notes: _____

The zip file provided contains four files:

File	Format	Description	SDG	LDC#
1) Readme_Duwamish_061616.doc	MS Word 2007	A "Readme" file (this document).		
2) PR151342_1343 PCB EDD 423589-330-4 LDW Green River Inputs PCB.xlsx	MS Excel 2007		PR151342	36402Aa
3) DPWG51522_V51112PCB_Database_1.xlsx			DPWG51522	36402Ab
4) PR150784_0785 EDD PCB 423589-330-4 LDW Green River Inputs revised 14Apr15.xlsx			PR150778	36402B

No discrepancies were observed between the hardcopy data packages and the electronic data deliverables during EDD population of validation qualifiers. A 100% verification of the EDD was not performed.

Please contact Stella Cuenco at (760) 827-1100 if you have any questions regarding this electronic data submittal.

LABORATORY DATA CONSULTANTS, INC.
2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

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

August 17, 2016

SUBJECT: LDW Green River PCB EB Study, Data Validation

Dear Mr. Grothkopp,

Enclosed is the final validation report for the fraction listed below. This SDG was received on July 28, 2016. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project #36816:

SDG #	Fraction
PR161839	Polychlorinated Biphenyls as Congeners

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

- Final Green River PCB Equipment Blank Study Sampling and Analysis Plan, August 2015
- US Environmental Protection Agency Region 10 SOP for the Validation of Polychlorinated Biphenyl Data, Revision 1.0, December 8, 1995

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

Sincerely,

Stella Cuenco
Operations Manager/Senior Chemist

165 Pages-SF

Attachment 1

Level III EDD

LDC #36816 (King County - Seattle WA / LDW Green River PCB EB Study)

Project #423589-330-4

LDC	SDG#	DATE REC'D	(3) DATE DUE	PCB Cong. (1668C)																													
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
A	PR161839	07/28/16	08/18/16	3	0																												
Total	A/SC			3	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	3

Shaded cells indicate Level IV validation (all other cells are Level II validation). These sample counts do not include MS/MSD, and DUPs L:\King County\Duwamish\Green River PCB EB Study\36816ST.wpd

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: LDW Green River PCB EB Study

LDC Report Date: August 16, 2016

Parameters: Polychlorinated Biphenyls as Congeners

Validation Level: Level III

Laboratory: Pacific Rim Laboratories, Inc.

Sample Delivery Group (SDG): PR161839

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
L64136-1	PR161839	Water	12/05/15
L64136-2	PR161840	Water	12/05/15
L65645-1	PR161841	Water	06/22/15
L64136-1DUP	PR161839DUP	Water	12/05/15

Introduction

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The analyses were performed by the following method:

Polychlorinated Biphenyls (PCBs) as Congeners by Environmental Protection Agency (EPA) Method 1668C

All sample results were subjected to Level III data validation, which comprises an evaluation of quality control (QC) summary results.

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.

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.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. HRGC/HRMS Instrument Performance Check

Instrument performance was checked at the required frequency.

The static resolving power was at least 10,000 (10% valley definition).

III. Initial Calibration and Initial Calibration Verification

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

The 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 compounds were within validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

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

The ion abundance ratios for all compounds were within validation criteria.

V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks with the following exceptions:

Blank ID	Extraction Date	Compound	Concentration	Associated Samples
MB	06/24/16	PCB-031 PCB-020/033 Trichlorobiphenyls	8.29 pg/L 6.58 pg/L 14.9 pg/L	All samples in SDG PR161839

Sample concentrations were compared to concentrations detected in the laboratory blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated laboratory blanks with the following exceptions:

Sample	Compound	Reported Concentration	Modified Final Concentration
L64136-1	Trichlorobiphenyls	11.3 pg/L	11.3J pg/L
L64136-1DUP	PCB-031 PCB-020/033 Trichlorobiphenyls	6.08 pg/L 5.6 pg/L 32.6 pg/L	6.08U pg/L 5.6U pg/L 32.6J pg/L
L64136-2	PCB-031 PCB-020/033 Trichlorobiphenyls	4.32 pg/L 2.75 pg/L 17.8 pg/L	4.32U pg/L 2.75U pg/L 17.8J pg/L
L65645-1	PCB-031 Trichlorobiphenyls	4.9 pg/L 4.9 pg/L	4.9U pg/L 4.9J pg/L

Laboratory blank results flagged "N" or "NJ" by the laboratory as estimated maximum possible concentration (EMPC) are considered not detected.

VI. Field Blanks

No field blanks were identified in this SDG.

VII. Matrix Spike/Matrix Spike Duplicates/Duplicate Sample Analysis

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 analysis was performed on an associated project sample. Results were within QC limits.

VIII. Laboratory Control Samples

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Internal Standards

All internal standard recoveries (%R) were within QC limits.

XI. Compound Quantitation

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

Sample	Compound	Flag	A or P
All samples in SDG PR161839	All compounds flagged "N" or "NJ" by the laboratory as estimated maximum possible concentration (EMPC).	U	A

Raw data were not reviewed for Level III validation.

XII. Target Compound Identification

Raw data were not reviewed for Level III validation.

XIII. System Performance

Raw data were not reviewed for Level III validation.

XIV. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to results reported by the laboratory as EMPCs, data were qualified as not detected in three samples.

Due to laboratory blank contamination, data were qualified as not detected or estimated in three samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the data validation all other results are considered valid and usable for all purposes.

LDW Green River PCB EB Study
Polychlorinated Biphenyls as Congeners - Data Qualification Summary - SDG PR161839

Sample	Compound	Flag	A or P	Reason
L64136-1 L64136-2 L65645-1	All compounds flagged "N" or "NJ" by the laboratory as estimated maximum possible concentration (EMPC).	U	A	Compound quantitation (EMPC)

LDW Green River PCB EB Study
Polychlorinated Biphenyls as Congeners - Laboratory Blank Data Qualification Summary - SDG PR161839

Sample	Compound	Modified Final Concentration	A or P
L64136-1	Trichlorobiphenyls	11.3J pg/L	A
L64136-2	PCB-031 PCB-020/033 Trichlorobiphenyls	4.32U pg/L 2.75U pg/L 17.8J pg/L	A
L65645-1	PCB-031 Trichlorobiphenyls	4.9U pg/L 4.9J pg/L	A

LDC #: 36816A31 **VALIDATION COMPLETENESS WORKSHEET** Date: 3/22/16
SDG #: PR161839 Level III Page: 1 of 1
Laboratory: Pacific Rim Laboratories, Inc. Reviewer: C
2nd Reviewer: AC

METHOD: HRGC/HRMS Polychlorinated Biphenyl Congeners (EPA Method 1668A)

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.	Sample receipt/Technical holding times	A	
II.	HRGC/HRMS Instrument performance check	A	
III.	Initial calibration/ICV	A	RSD ≤ 20/35%
IV.	Continuing calibration	A	
V.	Laboratory Blanks	SW	
VI.	Field blanks	N	
VII.	Matrix spike/Matrix spike duplicates	N/A	LCS
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Internal standards	A	
XI.	Compound quantitation RL/LOQ/LODs	SW	All results flagged "N" or "NJ" - EMPC - qual U
XII.	Target compound identification	N	
XIII.	System performance	N	
XIV.	Overall assessment of data	A	

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; SB=Source blank; OTHER:

	Client ID	Lab ID	Matrix	Date
1	L64136-1	PR161839	Water	12/05/15
2	L64136-2	PR161840	Water	12/05/15
3	L65645-1	PR161841	Water	06/22/15
4	L64136-1DUP	PR161839DUP	Water	12/05/15
5				
6				
7				
8				
9				
10				

Notes:

LDC #: 36816A31

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: HRGC/HRMS PCB Congeners (EPA Method 1668C)

Blank extraction date: 6/24/16 **Blank analysis date:** 6/27/16
Conc. units: pg/L **Associated samples:** All Qualify U

Compound	Blank ID	Sample Identification									
	MB	5x	1	4	2	3					
PCB-031	8.29	41.45		6.08/U	4.32/U	4.9/U					
PCB-020/033	6.58	32.9		5.6/U	2.75/U						
Trichlorobiphenyls	14.9	74.5	11.3/J	32.6/J	17.8/J	4.9/J					

*EMPC — considered U
(N)

All contaminants within five times the blank concentration were qualified as not detected, "U".

LDC #: 36816

EDD POPULATION COMPLETENESS WORKSHEET

Date: 8/17/16
Page: 1 of 1
2nd Reviewer:

The LDC job number listed above was entered by SE.

	EDD Process		Comments/Action
I.	EDD Completeness	-	
Ia.	- All methods present?	Y	
Ib.	- All samples present/match report?	Y	
Ic.	- All reported analytes present?	Y	
Id.	-10% or 100% verification of EDD?	Y	
II.	EDD Preparation/Entry	-	
IIa.	- Carryover U/J?	—	
IIb.	- Reason Codes used? If so, note which codes	Y	LDC
IIc.	-Additional Information (QC Level, Validator, Date, Validated Y/N, etc.)	—	
III.	Reasonableness Checks	-	
IIIa.	- Do all qualified ND results have ND qualifier (i.e. UJ)?	Y	
IIIb.	- Do all qualified detect results have detect qualifier (i.e. J)?	Y	
IIIc.	- If reason codes used, do all qualified results have reason code field populated?	Y	
IIId.	-Does the detect flag require changing for blank qualifiers? If so, are all U results marked ND?	—	
IIIe.	- Do blank concentrations in report match EDD, where data was qualified due to blank?	Y	
IIIf.	- Were any results rejected for overall assessment? If so, were results changed to nonreportable?	—	
IIIg.	- Is the readme complete? If applicable, were edits or discrepancies listed in the readme?	Y	

Notes: _____

The zip file provided contains two files:

File	Format	Description		
1) Readme_Duwamish_081716.docx	MS Word 2007	A "Readme" file (this document).		
	MS Excel 2007		SDG	LDC#
2) EDD 423589-330-4 PR161839-1841 PCB.xlsx			PR161839	36816A

No discrepancies were observed between the hardcopy data packages and the electronic data deliverables during EDD population of validation qualifiers. A 100% verification of the EDD was not performed.

Please contact Stella Cuenco at (760) 827-1100 if you have any questions regarding this electronic data submittal.

LABORATORY DATA CONSULTANTS, INC.
2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

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

August 18, 2017

SUBJECT: LDW, Green River PCB EB Study, Data Validation

Dear Mr. Grothkopp,

Enclosed is the final validation report for the fraction listed below. This SDG was received on August 2, 2017. Attachment 1 is a summary of the samples that were reviewed for analysis.

LDC Project #39192:

SDG #	Fraction
PR171572	Polychlorinated Biphenyls as Congeners

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

- Final Green River PCB Equipment Blank Study Sampling and Analysis Plan, August 2015
- USEPA Region 10 SOP for the validation of Polychlorinated Biphenyl Data, Revision 1.0, December 8, 1995

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

Sincerely,

Stella Cuenco
Operations Manager/Senior Chemist

276 Pages-SF

Attachment 1

Level III EDD **LDC #39192 (King County - Seattle WA / LDW Green River PCB EB Study)** **Project #423589-330-4**

LDC	SDG#	DATE REC'D	(3) DATE DUE	PCB Cong. (1668C)																													
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
A	PR171572	08/02/17	08/23/17	6	0																												
Total	J/SC			6	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	6

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

LDC Report# 39192A31

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: LDW Green River PCB EB Study

LDC Report Date: August 16, 2017

Parameters: Polychlorinated Biphenyls as Congeners

Validation Level: Level III

Laboratory: Pacific Rim Laboratories, Inc.

Sample Delivery Group (SDG): PR171572

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
L66603-1	PR171572	Water	11/0716
L67549-1	PR171573	Water	04/12/17
L67711-1	PR171574	Water	05/04/17
L67711-2	PR171575	Water	05/04/17
L67737-1	PR171576	Water	05/11/17
L67737-2	PR171577	Water	05/11/17
L67737-1DUP	PR171576DUP	Water	05/11/17

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Final Green River PCB Equipment Blank Study Sampling and Analysis Plan (August 2015) and US Environmental Protection Agency (EPA) Region 10 SOP for the Validation of Polychlorinated Biphenyl (PCB) Data (Revision 1.0, December 8, 1995). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Polychlorinated Biphenyls (PCBs) as Congeners by Environmental Protection Agency (EPA) Method 1668C

All sample results were subjected to Level III data validation, which comprises an evaluation of quality control (QC) summary results.

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.

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.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition.

The chain-of-custodies were reviewed for documentation of temperatures. Although the cooler temperatures for were reported at 17.2°C upon receipt by the laboratory, no data was qualified based on these cooler temperatures since the compounds are not expected to degrade significantly during shipping or storage.

All technical holding time requirements were met.

II. HRGC/HRMS Instrument Performance Check

Instrument performance was checked at the required frequency.

The static resolving power was at least 10,000 (10% valley definition).

III. Initial Calibration

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

The 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 compounds were within validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

All of the continuing calibration results were within the QC limits for unlabeled compounds and labeled compounds with the following exceptions:

Date	Compound	%R (Limits)	Associated Samples	Affected Compound	Flag	A or P
06/05/17	PCB-118 ^{13}C-PCB-1 ^{13}C-PCB-3 ^{13}C-PCB-37 ^{13}C-PCB-209	201 (70-130) 171 (50-150) 175 (50-150) 164 (50-150) 40 (50-150)	L67737-2	PCB-001 PCB-002 PCB-003 PCB-030 PCB-018 PCB-017 PCB-024 PCB-027 PCB-032 PCB-016 PCB-023 PCB-034 PCB-029 PCB-026 PCB-025 PCB-031 PCB-028 PCB-021 PCB-020/033 PCB-022 PCB-036 PCB-039 PCB-038 PCB-035 PCB-037 PCB-118 PCB-209 Monochlorobiphenyls Trichlorobiphenyls Pentachlorobiphenyls Decachlorobiphenyl	J (all detects) UJ (all non-detects)	P

The ion abundance ratios for all compounds were within validation criteria.

V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks with the following exceptions:

Blank ID	Extraction Date	Compound	Concentration	Associated Samples
MBPC170394B	05/18/17	PCB-011 PCB-031 Dichlorobiphenyls Trichlorobiphenyls	47.4 pg/L 4.35 pg/L 47.4 pg/L 4.4 pg/L	All samples in SDG PR171572

Sample concentrations were compared to concentrations detected in the laboratory blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated laboratory blanks with the following exceptions:

Sample	Compound	Reported Concentration	Modified Final Concentration
L67549-1	PCB-011 Dichlorobiphenyls	25.7 pg/L 25.7 pg/L	25.7U pg/L 25.7U pg/L
L67711-1	PCB-011 PCB-031 Dichlorobiphenyls Trichlorobiphenyls	53.4 pg/L 5.03 pg/L 53.4 pg/L 15.7 pg/L	53.4U pg/L 5.03U pg/L 53.4U pg/L 15.7J pg/L
L67711-2	PCB-011 PCB-031 Dichlorobiphenyls Trichlorobiphenyls	49.7 pg/L 5.6 pg/L 49.7 pg/L 5.6 pg/L	49.7U pg/L 5.6U pg/L 49.7U pg/L 5.6U pg/L
L67737-1	PCB-011 Dichlorobiphenyls	62.2 pg/L 62.2 pg/L	62.2U pg/L 62.2U pg/L
L67737-1DUP	PCB-011 PCB-031 Dichlorobiphenyls Trichlorobiphenyls	35.6 pg/L 3.58 pg/L 35.6 pg/L 17.4 pg/L	35.6U pg/L 3.58U pg/L 35.6U pg/L 17.4J pg/L
L67737-2	PCB-011 PCB-031 Dichlorobiphenyls Trichlorobiphenyls	40.4 pg/L 2.51 pg/L 40.4 pg/L 32.1 pg/L	40.4U pg/L 2.51U pg/L 40.4U pg/L 32.1J pg/L

VI. Field Blanks

No field blanks were identified in this SDG.

VII. Matrix Spike/Matrix Spike Duplicates/Duplicate Sample Analysis

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 analysis was performed on an associated project sample. Results were within QC limits with the following exceptions:

DUP ID (Associated Samples)	Compound	RPD (Limits)	Affected Compounds	Flag	A or P
L67737-1DUP (L67737-1 L67737-1DUP)	PCB-011	54 (≤50)	PCB-011 Dichlorobiphenyls	J (all detects) J (all detects)	A

VIII. Laboratory Control Samples

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Internal Standards

All internal standard recoveries (%R) were within QC limits.

XI. Compound Quantitation

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

Sample	Compound	Flag	A or P
All samples in SDG PR171572	All compounds flagged "N" or "NJ" by the laboratory as estimated maximum possible concentration (EMPC).	U	A

Raw data were not reviewed for Level III validation.

XII. Target Compound Identification

Raw data were not reviewed for Level III validation.

XIII. System Performance

Raw data were not reviewed for Level III validation.

XIV. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to continuing calibration %R and DUP RPD, data were qualified as estimated in three samples.

Due to results reported by the laboratory as EMPCs, data were qualified as not detected in seven samples.

Due to laboratory blank contamination, data were qualified as not detected or estimated in six samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the data validation all other results are considered valid and usable for all purposes.

LDW Green River PCB EB Study
Polychlorinated Biphenyls as Congeners - Data Qualification Summary - SDG PR171572

Sample	Compound	Flag	A or P	Reason
L67737-2	PCB-001 PCB-002 PCB-003 PCB-030 PCB-018 PCB-017 PCB-024 PCB-027 PCB-032 PCB-016 PCB-023 PCB-034 PCB-029 PCB-026 PCB-025 PCB-031 PCB-028 PCB-021 PCB-020/033 PCB-022 PCB-036 PCB-039 PCB-038 PCB-035 PCB-037 PCB-118 PCB-209 Monochlorobiphenyls Trichlorobiphenyls Pentachlorobiphenyls Decachlorobiphenyl	J (all detects) UJ (all non-detects)	P	Continuing calibration (%R)
L67737-1 L67737-1DUP	PCB-011 Dichlorobiphenyls	J (all detects) J (all detects)	A	Duplicate sample analysis (RPD)
L66603-1 L67549-1 L67711-1 L67711-2 L67737-1 L67737-2 L67737-1DUP	All compounds flagged "N" or "NJ" by the laboratory as estimated maximum possible concentration (EMPC).	U	A	Compound quantitation (EMPC)

LDW Green River PCB EB Study
Polychlorinated Biphenyls as Congeners - Laboratory Blank Data Qualification Summary - SDG PR171572

Sample	Compound	Modified Final Concentration	A or P
L67549-1	PCB-011 Dichlorobiphenyls	25.7U pg/L 25.7U pg/L	A

Sample	Compound	Modified Final Concentration	A or P
L67711-1	PCB-011 PCB-031 Dichlorobiphenyls Trichlorobiphenyls	53.4U pg/L 5.03U pg/L 53.4U pg/L 15.7J pg/L	A
L67711-2	PCB-011 PCB-031 Dichlorobiphenyls Trichlorobiphenyls	49.7U pg/L 5.6U pg/L 49.7U pg/L 5.6U pg/L	A
L67737-1	PCB-011 Dichlorobiphenyls	62.2U pg/L 62.2U pg/L	A
L67737-1DUP	PCB-011 PCB-031 Dichlorobiphenyls Trichlorobiphenyls	35.6U pg/L 3.58U pg/L 35.6U pg/L 17.4J pg/L	A
L67737-2	PCB-011 PCB-031 Dichlorobiphenyls Trichlorobiphenyls	40.4U pg/L 2.51U pg/L 40.4U pg/L 32.1J pg/L	A

LDC #: 39192A31
SDG #: PR171572
Laboratory: Pacific Rim Laboratories, Inc.

VALIDATION COMPLETENESS WORKSHEET
Level III

Date: 8/13/17
Page: 1 of 1
Reviewer:
2nd Reviewer:

METHOD: HRGC/HRMS Polychlorinated Biphenyl Congeners (EPA Method 1668C)

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.	Sample receipt/Technical holding times	SW, A	cooler temp 17.2°C (text)
II.	HRGC/HRMS Instrument performance check	A	
III.	Initial calibration/~~ICV~~	A	RSD≤20/35
IV.	Continuing calibration	SW	
V.	Laboratory Blanks	SW	
VI.	Field blanks	N	
VII.	Matrix spike/Matrix spike duplicates /DUP	N/SW	
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Internal standards	A	
XI.	Compound quantitation RL/LOQ/LODs	SW	
XII.	Target compound identification	N	
XIII.	System performance	N	
XIV.	Overall assessment of data	A	

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; SB=Source blank; OTHER:

	Client ID	Lab ID	Matrix	Date
1	L66603-1	PR171572	Water	11/07/16
2	L67549-1	PR171573	Water	04/12/17
3	L67711-1	PR171574	Water	05/04/17
4	L67711-2	PR171575	Water	05/04/17
5	L67737-1	PR171576	Water	05/11/17
6	L67737-2	PR171577	Water	05/11/17
7	L67737-1DUP	PR171576DUP	Water	05/11/17
8				
9				
10				

Notes:

	PC170394B						

LDC #: 39192 A31

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Reviewer: SR
2nd Reviewer: [illegible]

METHOD: HRGC/HRMS PCB Congeners (EPA Method 1668C)

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

Y N N/A Was a continuing calibration performed at the beginning and end of each 12 hour period?

Y (N) N/A Were all percent differences (%D) ≤ 20% for unlabeled compounds and ≤ 30% for labeled compounds?

Y (N) N/A Did all continuing calibration standards meet the Ion Abundance Ratio criteria?

#	Date	Standard ID	Compound	Finding ~~ng/mL~~ %R (Limit:)	Finding Ion Abundance Ratio	Associated Samples	Qualifications
	6/5/17	fs0605170	PCB-118	201 (70-130)		6 (all) + ND	J/UJ/P ~~(+Penta-CBs)~~
			13C-PCB-1	171 (50-150)			
			3	175			
			37	164			
			209	40			
							(see attached)

DATA REPORT - Revised

Client:	King County	**Date Collected:**	5-11-2017
Client ID:	L67737-2	**Date Extracted:**	5-18-2017
Project ID:	423589-330-4	**Date Analysed:**	6-5-2017
PRL ID:	PR171577	**HRMS File:**	FS06051705
		Work Group No.:	PRL030

IUPAC Name	PCB #	CAS #	Conc. pg/L	SDL pg/L	Flag	EQL pg/L
2-MoCB	PCB-001	2051-60-7	0	0.81	U J	19.8
3-MoCB	PCB-002	2051-61-8	0	0.75	U J	19.8
4-MoCB	PCB-003	2051-62-9	0	0.87	U J	19.8
2,6-DiCB	PCB-010	33146-45-1	0	4.59	U J	19.8
2,2'-DiCB	PCB-004	13029-08-8	0	6.84	U J	19.8
2,5-DiCB	PCB-009	34883-39-1	0	4.55	U J	19.8
2,4-DiCB	PCB-007	33284-50-3	0	3.28	U J	19.8
2,3'-DiCB	PCB-006	25569-80-6	0	3.89	U J	19.8
2,3/2,4'-DiCB	PCB-005/008		7.08	3.96	N J	19.8
3,5-DiCB	PCB-014	34883-41-5	0	3.75	U J	19.8
3,3'-DiCB	PCB-011	2050-67-1	40.4	3.91	B	19.8
3,4/3,4'-DiCB	PCB-012/013		0	4.11	U J	19.8
4,4'-DiCB	PCB-015	2050-68-2	0	4.07	U J	19.8
2,2',6-TrCB	PCB-019	38444-73-4	0	2.78	U J	19.8
2,4,6-TrCB	PCB-030	35693-92-6	0	2.57	U J	19.8
2,2',5-TrCB	PCB-018	37680-65-2	9.29	2.41	J	19.8
2,2',4-TrCB	PCB-017	37680-66-3	12.2	3.55	J	19.8
2,3,6-TrCB	PCB-024	55702-45-9	0	3.73	U J	19.8
2,3',6-TrCB	PCB-027	38444-76-7	0	1.31	U J	19.8
2,4',6-TrCB	PCB-032	38444-77-8	0	1.47	U J	19.8
2,2',3-TrCB	PCB-016	38444-78-9	0	1.31	U J	19.8
2,3,5-TrCB	PCB-023	55720-44-0	0	0.61	U J	19.8
2,3',5'-TrCB	PCB-034	37680-68-5	0	0.76	U J	19.8
2,4,5-TrCB	PCB-029	15862-07-4	0	0.42	U J	19.8
2,3',5-TrCB	PCB-026	38444-81-4	0	0.46	U J	19.8
2,3',4-TrCB	PCB-025	55712-37-3	0	0.49	U J	19.8
2,4',5-TrCB	PCB-031	16606-02-3	2.51	0.46	B J	19.8
2,4,4'-TrCB	PCB-028	7012-37-5	4.8	0.82	J	19.8
2,3,4-TrCB	PCB-021	55702-46-0	3.31	1.09	J	19.8
	PCB-020/033		0	0.87	U J	19.8
2,3,4'-TrCB	PCB-022	38444-85-8	0	0.97	U J	19.8
3,3',5-TrCB	PCB-036	38444-87-0	0	0.8	U J	19.8
3,4',5-TrCB	PCB-039	38444-88-1	0	0.84	U J	19.8
3,4,5-TrCB	PCB-038	53555-66-1	0	0.98	U J	19.8
3,3',4-TrCB	PCB-035	37680-69-6	0	0.93	U J	19.8
3,4,4'-TrCB	PCB-037	38444-90-5	0	1.48	U J	19.8
2,2',6,6'-TeCB	PCB-054	15968-05-5	0	2.44	U J	19.8
2,2',4,6-TeCB	PCB-050	62796-65-0	0	2.12	U J	19.8
2,2',5,6'-TeCB	PCB-053	41464-41-9	0	2.3	U J	19.8
2,2',4,6'-TeCB	PCB-051	68194-04-7	64	2.08		19.8
2,2',3,6-TeCB	PCB-045	70362-45-7	0	2.45	U J	19.8
2,2',3,6'-TeCB	PCB-046	41464-47-5	0	2.7	U J	19.8
	PCB-052/069		0	2.24	U J	19.8
2,3',5',6-TeCB	PCB-073	74338-23-1	0	1.34	U J	19.8
	PCB-043/049		0	2.08	U J	19.8
	PCB-065/075		0	2.25	U J	19.8
	PCB-047/048		186	1.52		19.8
2,3,4,6-TeCB	PCB-062	54230-22-7	0	1.64	U J	19.8
2,2',3,5'-TeCB	PCB-044	41464-39-5	0	3.41	U J	19.8
2,3,3',6-TeCB	PCB-059	74472-33-6	0	1.54	U J	19.8
2,2',3,4'-TeCB	PCB-042	36559-22-5	0	2.45	U J	19.8
	PCB-072/064/071		0	1.83	U J	19.8

DATA REPORT - Revised

Client:	King County	**Date Collected:**	5-11-2017
Client ID:	L67737-2	**Date Extracted:**	5-18-2017
Project ID:	423589-330-4	**Date Analysed:**	6-5-2017
PRL ID:	PR171577	**HRMS File:**	FS06051705
		Work Group No.:	PRL030

IUPAC Name	PCB #	CAS #	Conc. pg/L	SDL pg/L	Flag	EQL pg/L
2,2',3,4-TeCB	PCB-041	52663-59-9	0	1.83	U J	19.8
2,3',4,5'-TeCB	PCB-068	73575-52-7	162	1.41		19.8
2,2',3,3'-TeCB	PCB-040	38444-93-8	0	3.96	U J	19.8
2,3,3',5-TeCB	PCB-057	70424-67-8	0	1.5	U J	19.8
2,3',4,5-TeCB	PCB-067	73575-53-8	0	1.77	U J	19.8
	PCB-063/058		0	1.69	U J	19.8
	PCB-061/074		0	1.74	U J	19.8
2,3',4',5-TeCB	PCB-070	32598-11-1	0	2.59	U J	19.8
2,3,3',4-TeCB	PCB-055	74338-24-2	0	1.28	U J	19.8
	PCB-080/066		0	1.48	U J	19.8
2,3',4',5'-TeCB	PCB-076	70362-48-0	0	1.89	U J	19.8
	PCB-060/056		0	1.61	U J	19.8
3,3',4,5'-TeCB	PCB-079	41464-48-6	0	1.54	U J	19.8
3,3',4,5-TeCB	PCB-078	70362-49-1	0	1.72	U J	19.8
3,4,4',5-TeCB	PCB-081	70362-50-4	0	1.95	U J	19.8
3,3',4,4'-TeCB	PCB-077	32598-13-3	0	1.82	U J	19.8
2,2',4,6,6'-PeCB	PCB-104	56558-16-8	0	3.17	U J	19.8
2,2',3,6,6'-PeCB	PCB-096	73575-54-9	0	3.97	U J	19.8
2,2',4,5',6-PeCB	PCB-103	60145-21-3	0	4.33	U J	19.8
2,2',4,4',6-PeCB	PCB-100	39485-83-1	0	4.91	U J	19.8
2,2',3,5,6'-PeCB	PCB-094	73575-55-0	0	5.8	U J	19.8
	PCB-102/093/098/095		0	5.2	U J	19.8
2,2',3,4,6-PeCB	PCB-088	55215-17-3	0	5.83	U J	19.8
2,2',3,4',6-PeCB	PCB-091/121	68194-05-8	0	4.29	U J	19.8
2,2',3,3',6-PeCB	PCB-084	52663-60-2	0	4.81	U J	19.8
2,2',3,5,5'-PeCB	PCB-092	52663-61-3	0	7.17	U J	19.8
2,2',3,4,6'-PeCB	PCB-089	73575-57-2	0	5.34	U J	19.8
2,2',3,4',5-PeCB	PCB-090	68194-07-0	0	5.42	U J	19.8
2,2',4,5,5'-PeCB	PCB-101	37680-73-2	12.3	3.43	N J	19.8
2,3,3',5',6-PeCB	PCB-113	68194-10-5	0	4.34	U J	19.8
2,2',4,4',5-PeCB	PCB-099	38380-01-7	0	4.6	U J	19.8
	PCB-119/112		0	3.82	U J	19.8
	PCB-083/109		0	4.79	U J	19.8
2,2',3,4,5-PeCB	PCB-086	55312-69-1	0	7.6	U J	19.8
	PCB-097/117/116		0	4.75	U J	19.8
	PCB-125		0	3.59	U J	19.8
	PCB-087/115		0	4.47	U J	19.8
	PCB-111		0	4.07	U J	19.8
	PCB-085		0	4.61	U J	19.8
2,3,3',4',6-PeCB	PCB-110	38380-03-9	14.2	3.28	J	19.8
2,3',4,5,5'-PeCB	PCB-120	68194-12-7	0	4.92	U J	19.8
2,2',3,3',4-PeCB	PCB-082	52663-62-4	0	5.85	U J	19.8
2,3',4',5,5'-PeCB	PCB-124	70424-70-3	0	1.07	U J	19.8
	PCB-107/108		0	1.82	U J	19.8
2,3',4,4',5'-PeCB	PCB-123	65510-44-3	0	2.33	U J	19.8
2,3,3',4,5-PeCB	PCB-106	70424-69-0	0	2.47	U J	19.8
2,3',4,4',5-PeCB	PCB-118	31508-00-6	10.8	2.07	J	19.8
2,3,4,4',5-PeCB	PCB-114	74472-37-0	0	2.32	U J	19.8
2,3,3',4',5'-PeCB	PCB-122	76842-07-4	0	1.88	U J	19.8
2,3,3',4,4'-PeCB	PCB-105	32598-14-4	0	2.19	U J	19.8
3,3',4,5,5'-PeCB	PCB-127	39635-33-1	0	1.5	U J	19.8
3,3',4,4',5-PeCB	PCB-126	57465-28-8	0	2.22	U J	19.8

DATA REPORT - Revised

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PRL ID:	PR171577	**HRMS File:**	FS06051705
		Work Group No.:	PRL030

IUPAC Name	PCB #	CAS #	Conc. pg/L	SDL pg/L	Flag	EQL pg/L
2,2',3,3',4,5,5'-HpCB	PCB-172	52663-74-8	0	0.85	U J	19.8
2,3,3',4,5,5',6-HpCB	PCB-192	74472-51-8	0	0.68	U J	19.8
2,2',3,4,4',5,5'-HpCB	PCB-180	35065-29-3	0	1.15	U J	19.8
2,3,3',4',5,5',6-HpCB	PCB-193	69782-91-8	0	0.52	U J	19.8
2,3,3',4,4',5',6-HpCB	PCB-191	74472-50-7	0	0.68	U J	19.8
2,2',3,3',4,4',5-HpCB	PCB-170	35065-30-6	0	0.84	U J	19.8
2,3,3',4,4',5,6-HpCB	PCB-190	41411-64-7	0	0.61	U J	19.8
2,3,3',4,4',5,5'-HpCB	PCB-189	39635-31-9	0	0.41	U J	19.8
2,2',3,3',5,5',6,6'-OcCB	PCB-202	2136-99-4	0	0.46	U J	19.8
2,2',3,3',4,5',6,6'-OcCB	PCB-201	40186-71-8	0	0.56	U J	19.8
2,2',3,4,4',5,6,6'-OcCB	PCB-204	74472-52-9	0	0.49	U J	19.8
2,2',3,3',4,4',6,6'-OcCB	PCB-197	33091-17-7	0	0.61	U J	19.8
2,2',3,3',4,5,6,6'-OcCB	PCB-200	52663-73-7	0	0.53	U J	19.8
	PCB-198/199		0	0.84	U J	19.8
	PCB-196/203		0	0.69	U J	19.8
2,2',3,3',4,4',5,6-OcCB	PCB-195	52663-78-2	0	0.36	U J	19.8
2,2',3,3',4,4',5,5'-OcCB	PCB-194	35694-08-7	0	0.33	U J	19.8
2,3,3',4,4',5,5',6-OcCB	PCB-205	74472-53-0	0	0.36	U J	19.8
2,2',3,3',4,5,5',6,6'-NoCB	PCB-208	52663-77-1	0	4.66	U J	19.8
2,2',3,3',4,4',5,6,6'-NoCB	PCB-207	52663-79-3	0	4.61	U J	19.8
2,2',3,3',4,4',5,5',6-NoCB	PCB-206	40186-72-9	0	6.25	U J	19.8
2,2',3,3',4,4',5,5',6,6'-DeCB	PCB-209	2051-24-3	0	1.1	U J	19.8

Homologs	# of Congeners				
Monochlorobiphenyls	3	0	0.75	U J	19.8
Dichlorobiphenyls	12	40.4	3.28	B	19.8
Trichlorobiphenyls	24	32.1	0.42		19.8
Tetrachlorobiphenyls	42	412	1.28		19.8
Pentachlorobiphenyls	46	25	1.07		19.8
Hexachlorobiphenyls	42	21.5	0.21		19.8
Heptachlorobiphenyls	24	0	0.41	U J	19.8
Octachlorobiphenyls	12	0	0.33	U J	19.8
Nonachlorobiphenyls	3	0	4.61	U J	19.8
Decachlorobiphenyl	1	0	1.1	U J	19.8
Total PCB		531	0.21		19.8

LDC #: 39192A31

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: HRGC/HRMS PCB Congeners (EPA Method 1668C)

Blank extraction date: 05/18/17 **Blank analysis date:** 06/02/17
Conc. units: pg/L **Associated samples:** All Qualify U

Compound	Blank ID	Sample Identification									
	MBPC170234B 39	5x	2	3	4	5	7	6			
PCB-011	47.4	237	25.7	53.4	49.7	62.2	35.6	40.4			
PCB-031	4.35	21.75		5.03	5.6		3.58	2.51			
Dichlorobiphenyls	47.4	237	25.7	53.4	49.7	62.2	35.6	40.4			
Trichlorobiphenyls	4.4	22		15.7/J	5.6		17.4/J	32.1/J			

No EMPCs reported.

All contaminants within five times the blank concentration were qualified as not detected, "U".

LDC #: 39192A31

VALIDATION FINDINGS WORKSHEET
Duplicate Analysis

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: HRGC/HRMS PCB Congeners (EPA Method 1668C)

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

(Y) N N/A Was a duplicate sample analyzed for each matrix in this SDG?
Y (N) N/A Were all duplicate sample relative percent differences (RPD) within the QC limits?

#	Date	Duplicate ID	Matrix	Compound	RPD (Limits)	Associated Samples	Qualifications
		7	W	PCB-011	54 (≤50)	5,7	J dets/A (+ Dichlorobiphenyls)

Comments: _____

LDC #: 39192A31

VALIDATION FINDINGS WORKSHEET
Compound Quantitation and Reported CRQLs

Reviewer: MJ
2nd Reviewer: Q

METHOD: HRGC/HRMS PCB Congeners (EPA Method 1668C)

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 CRQLs were adjusted to reflect all sample dilutions and dry weight factors (if necessary).

#	Date	Sample ID	Finding	Associated Samples	Qualifications
			Results flagged "N" or "NJ" as EMPC	All	U/A

Comments: See sample calculation verification worksheet for recalculations

LDC #: 39192

EDD POPULATION COMPLETENESS WORKSHEET

Date: 8/17
Page: 1 of 1
2nd Reviewer: BA

The LDC job number listed above was entered by JE.

	EDD Process		Comments/Action
I.	EDD Completeness	-	
Ia.	- All methods present?	Y	
Ib.	- All samples present/match report?	Y	
Ic.	- All reported analytes present?	Y	
Id.	- 10% or 100% verification of EDD?	Y	
II.	EDD Preparation/Entry	-	
IIa.	- Carryover U/J?	—	
IIb.	- Reason Codes used? If so, note which codes.	Y	LOC
IIc.	- Additional Information (QC Level, Validator, Validated Y/N, etc.)	—	
III.	Reasonableness Checks	-	
IIIa.	- Do all qualified ND results have ND qualifier (e.g. UJ)?	Y	
IIIb.	- Do all qualified detect results have detect qualifier (e.g. J)?	Y	
IIIc.	- If reason codes are used, do all qualified results have reason code field populated, and vice versa?	Y	
IIId.	-Does the detect flag require changing for blank qualifier? If so, are all U results marked ND?	Y/N/A	
IIIe.	- Do blank concentrations in report match EDD where data was qualified due to blank contamination?	Y	
IIIf.	- Were multiple results reported due to dilutions/reanalysis? If so, were results qualified appropriately?	+	
IIIg.	-Are there any discrepancies between the data packet and the EDD?	N	

Notes: *see discrepancy sheet