# Appendix B: Recent PCB Monitoring Data

## **Technical Memorandum**

**Prepared For:** US EPA Region 10 Spokane and Little Spokane Rivers Polychlorinated Biphenyls Total Maximum Daily Loads TMDL Team

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## Table of Contents

1	P	CB Monitoring Data Query5	
	1.1	Current Surface Water PCB Conditions5	

#### List of Tables

### List of Figures

Figure B-1: Considering Spokane River basin surface water PCB monitoring data collected 2010-2024, samples from 28 unique monitoring locations were available to characterize current PCB conditions......7

### 1 PCB Monitoring Data Query

The EPA focused environmental monitoring data analysis for this TMDL project on samples collected after 2010. All PCB monitoring data considered were accessed via Ecology's Environmental Information Management (EIM) database (<u>https://ecology.wa.gov/Research-Data/Data-resources/Environmental-Information-Management-database</u>). The EIM database is the official publicly accessible repository for environmental monitoring data collected by Ecology and their partners.

To ensure all relevant PCB environmental monitoring data was considered, a broad EIM database query was executed using the following parameters. The geographic search area was set to include all studies with samples collected from Ecology Water Resource Inventory Areas (WRIAs) 54: Lower Spokane, 55: Little Spokane, 56: Hangman, and 57: Middle Spokane. After defining the geographic scope of interest, the monitoring period of interest was constrained to only those samples collected between January 1, 2010 and March 1, 2024. Sample results that satisfied the aforementioned spatial and temporal constraints and also included a result parameter in the polychlorinated biphenyls (PCBs) parameter group were then downloaded, yielding 164,125 unique records for consideration.

#### 1.1 Current Surface Water PCB Conditions

Of the 164,125 records returned from the above EIM query, 50,876 had "Sample\_Source" values coded as "Fresh/Surface Water". Of these surface water PCB samples, only 34,062 records included blank data values necessary for blank censoring. The EPA then applied the following guidelines to further constrain the surface water monitoring data used to characterize current PCB conditions in the Spokane and Little Spokane Rivers:

- Sampled and analyzed using approved QAPPs
- Analyzed using congener-specific laboratory method 1668C (see Appendix D: Water Quality Monitoring Analytical PCB Methods for additional information)
- Included associated sample blank data in Ecology's Environmental Information Management database
- Verified and assessed (QA/QC) for usability

Using this subset of PCB monitoring data (31,931 records), environmental monitoring samples were blank censored using a 5x threshold. The initial step in blank censoring involved replacing any sample and blank analyte values reported as non-detect with zero for subsequent evaluation steps. After replacing non-detect values with zeros, environmental monitoring sample analyte values were compared to associated field and method blank sample analyte values. Where environmental monitoring sample analyte values were less than 5x the associated blank sample values, those values were also replaced with zeros for subsequent evaluation steps. Once blank censoring was completed on a congener-by-conger basis, total PCB concentrations were summed to provide a single blank censored value for each sample. In all, PCB monitoring data from seven separate studies (Table B-1), collected at 28 unique locations (Figure B-1), representing 199 individual surface water PCB samples (Table B-2) satisfy all constraints necessary to characterize current Spokane and Little Spokane River PCB concentrations.

Study Name	Study ID	Study Time	Study Purpose
		Period	
Expanded Synoptic Survey	SRRTTF-	08/29/2022	The study had three objectives: 1) Support a
and Mass Balance	2022	-	mass balance assessment to identify
Assessment of PCBs in the		09/07/2022	potential unmonitored loads of PCBs to the
Spokane River			river, 2) measure PCB concentration in
			stormwater catch basin solids, and 3)
			measure the PCB concentration of a
			subsurface drainage pipe discharging to the
			river.
Kaiser Trentwood Remedial	FS53481373	01/23/2006	Remedial Investigation to supplement
Investigation, Spokane, WA		-	existing knowledge about environmental
		05/23/2022	conditions at the Kaiser Trentwood facility
			located in Spokane, Washington. The RI will
			be conducted pursuant to the requirements
			outlined in the Agreed Order No. DE 2692
			with the Washington State Department of
			Ecology, dated August 16, 2005.
Monitoring to Assist in	SRRTTF-	09/08/2021	This project consisted of conducting
Defining the Sources of PCB	MR2021	-	monitoring of water and bed sediment to
Contamination in the		09/09/2021	help better define the source(s) of observed
Spokane River Mission Reach			PCB contamination in the Mission Reach of
			the Spokane River.
Spokane River Regional	SRRTTF-	05/13/2014	2014 Synoptic Survey to Identify Potential
Toxics Task Force 2014	2014	-	Unmonitored Dry Weather Sources of PCBs
Synoptic Dry Weather Survey		08/24/2014	to the Spokane River. Includes data collected
and Confidence Testing for			in May 2014 as the basis for confidence
PCBs in Surface Water			testing of PCB concentrations informing the
			Synoptic Survey.
Spokane River Regional	SRRTTF-	08/18/2015	2015 Synoptic Survey: Continued
Toxics Task Force 2015	2015	-	Identification of Potential Unmonitored Dry
Synoptic Dry Weather Survey		08/22/2015	Weather Sources of PCBs to the Spokane
			River
Spokane River Regional	SRRTTF-	08/24/2015	2016 Groundwater Sampling is to provide a
Toxics Task Force 2016	GW2016	-	more complete understanding of the
Groundwater Sampling for		05/17/2016	relationship of PCBs in groundwater and
PCBs in the Spokane Valley-			impacts to the Spokane River.
Rathdrum Prairie Aquifer			
Spokane River Regional	SRRTTF-	03/24/2016	Seasonal variability of PCB concentrations in
Toxics Task Force 2016	2016	-	Spokane River and Tributaries
Monthly Monitoring		12/13/2016	

Table B-1: Considering Spokane River basin surface water PCB monitoring data collected 2010-2024,samples from seven separate studies were available to characterize current PCB conditions.



*Figure B-1: Considering Spokane River basin surface water PCB monitoring data collected 2010-2024, samples from 28 unique monitoring locations were available to characterize current PCB conditions.* 

Table B-2: All surface water PCB samples used to estimate current PCB conditions in the Spokane River basin for this TMDL project. Only data collected after 2010 and hosted in Ecology's EIM Database as of April 1, 2024 were considered for further analysis, including blank censoring and spatial aggregation and relation to specific PCB-impaired AUs.

Waterbody Sampled	EIM Sample ID	Sample Latitude (NAD83)	Sample Longitude (NAD83)	Spokane River Mile	5x Blank Corrected total PCB concentration (pg/L)
Latah (Hangman) Creek	HC1-082922	47.653	-117.450	NA	0.00
Latah (Hangman) Creek	HC1-083122	47.653	-117.450	NA	1.18
Latah (Hangman) Creek	HC1-090222	47.653	-117.450	NA	0.00
Latah (Hangman) Creek	L21874-15	47.653	-117.450	NA	24.36

Waterbody Sampled	EIM Sample ID	Sample Latitude	Sample Longitude	Spokane River Mile	5x Blank Corrected
		(NAD83)	(NAD83)		total PCB
					concentration
					(pg/L)
Latah	L21877-79	47.653	-117.450	NA	5.57
(Hangman)					
Latab	121902 10	17 652	117 /50	ΝΔ	0.00
(Hangman)	L21902-10	47.055	-117.450	NA	0.00
(nanginan) Creek					
Latah	121902-17	47.653	-117,450	NA	0.00
(Hangman)			11/1100		0.00
Creek					
Latah	L21902-18	47.653	-117.450	NA	0.00
(Hangman)					
Creek					
Latah	L21910-4	47.653	-117.450	NA	16.47
(Hangman)					
Creek					
Latah	L21917-8	47.653	-117.450	NA	2,434.25
(Hangman)					
Creek	124022.42	47.650	447.450		202.20
Latah	L21932-12	47.653	-117.450	NA	202.29
(Hangman)					
Latah	121032-10	17 653	-117/150	ΝΔ	1.26
(Hangman)		47.055	-117.430		1.20
Creek					
Latah	L24941-6	47.653	-117.450	NA	0.00
(Hangman)					
Creek					
Latah	L25116-5	47.653	-117.450	NA	0.00
(Hangman)					
Creek					
Latah	L25153-8	47.653	-117.450	NA	0.00
(Hangman)					
Creek		47.052	117 150		0.00
Latan	L25297-3	47.653	-117.450	NA	0.00
(nangman) Crook					
Latah	126175-8	47 653	-117 450	NΔ	1 015 07
(Hangman)		-7.000	117.450		1,013.07
Creek					
Latah	L26749-5	47.653	-117.450	NA	0.00
(Hangman)					
Creek					

Waterbody	EIM Sample ID	Sample	Sample	Spokane	5x Blank
Sampled		Latitude	Longitude	<b>River Mile</b>	Corrected
		(NAD83)	(NAD83)		total PCB
					concentration
					(pg/L)
Latah	SWREP3	47.653	-117.450	NA	0.00
(Hangman)					
Creek					
Little	L24686-8	47.765	-117.459	NA	5.33
Spokane					
River (GW-					
dominated					
tributary)					10.55
Little	L24686-9	47.765	-117.459	NA	10.57
Spokane					
River (Gw-					
dominated					
tributary)	125420.40	47 765	117 150		1.22
Little	L25130-10	47.765	-117.459	NA	1.22
Spokane					
River (Gvv-					
dominated					
(Inducary)	101074 00	17 670	117 152	00.2	0.00
Bivor	L210/4-22	47.070	-117.155	90.5	0.00
Snokane	1 21 877-93 i	17 678	-117 153	90.3	0.00
River		47.078	-117.155	50.5	0.00
Spokane	121902-23	47.678	-117,153	90.3	0.00
River			11/1200	5010	0.00
Spokane	L21910-15	47.678	-117.153	90.3	0.00
River					
Spokane	L21932-5	47.678	-117.153	90.3	0.00
River					
Spokane	L23783-19	47.678	-117.153	90.3	0.00
River					
Spokane	L23783-36	47.678	-117.153	90.3	0.00
River					
Spokane	L23783-37	47.678	-117.153	90.3	0.00
River					
Spokane	L23784-42	47.678	-117.153	90.3	0.00
River					
Spokane	L24358-5	47.678	-117.153	90.3	0.00
River					
Spokane	L24941-3	47.678	-117.153	90.3	0.00
River					
Spokane	L24941-4	47.678	-117.153	90.3	0.00
River					

Waterbody	EIM Sample ID	Sample	Sample	Spokane	5x Blank
Sampled		Latitude	Longitude	River Mile	Corrected
		(NAD83)	(NAD83)		total PCB
					concentration
Spokano	121022 16	17 670	117 152	00.2	(pg/L)
River	LZ1932-10	47.078	-117.155	90.3	1.07
Spokane	L21932-6	47.678	-117.153	90.3	1.23
River					2
Spokane	L21874-9	47.678	-117.153	90.3	1.77
River					
Spokane	L23783-21	47.678	-117.153	90.3	11.44
River					
Spokane	L21902-6	47.678	-117.153	90.3	31.29
River	100700.04	47.670	447.450		55.64
Spokane	L23783-34	47.678	-117.153	90.3	55.61
Spokane	121521-1	17 670	_117 21/	86.6	0.00
River		47.075	-11/.214	80.0	0.00
Spokane	123783-18	47.679	-117.214	86.6	0.00
River					
Spokane	L23783-22	47.679	-117.214	86.6	0.00
River					
Spokane	L23783-33	47.679	-117.214	86.6	0.00
River					
Spokane	L23783-35	47.679	-117.214	86.6	0.00
River					
Spokane	L23783-46	47.679	-117.214	86.6	0.00
River		47.670	117 214	96.6	0.00
Spokane	L23784-41	47.679	-117.214	80.0	0.00
Snokane	121531-2	47 679	-117 214	86.6	3 75
River		47.075	11/.214	00.0	5.75
Spokane	L21466-5	47.679	-117.214	86.6	15.90
River					
Spokane	L21456-5	47.679	-117.214	86.6	16.82
River					
Spokane	L21466-4	47.679	-117.214	86.6	47.75
River					
Spokane	L21466-11	47.679	-117.214	86.6	78.22
River		47.670	447.044		
Spokane	LZ14/6-1	47.679	-117.214	86.6	86.32
Spokano	121466-15	17 670	_117 01/	86.6	102.26
River		47.079	-11/.214	00.0	103.20
Spokane	L21466-16	47.679	-117.214	86.6	133.49
River				20.0	

Waterbody	EIM Sample ID	Sample	Sample	Spokane	5x Blank
Sampled		Latitude	Longitude	River Mile	Corrected
		(NAD83)	(NAD83)		total PCB
					concentration
Crakara		47.070	117 214	96.6	(pg/L)
River	L21400-12	47.679	-117.214	80.0	151.44
Spokane River	L24358-6	47.679	-117.214	86.6	164.4
Spokane River	L21476-5	47.679	-117.214	86.6	195.57
Spokane	RIVER AT	47.683	-117.221	86.2	0.00
River	PUMPHOUSE_102020211110				
Spokane River	RIVER@PUMPHOUSE- 042922	47.683	-117.221	86.2	0.00
Spokane	L23784-39	47.697	-117.242	84.8	0.00
Spokane	125116-3	17 607	_117 2/2	Q / Q	0.00
River		47.057	-11/.242	04.0	0.00
Spokane	L25153-3	47.697	-117.242	84.8	0.00
River					
Spokane	SR7-082922	47.697	-117.242	84.8	0.00
River					
Spokane	L26175-3	47.697	-117.242	84.8	8.12
River	125207 7	47.007	447.040		24.04
Spokane	L25297-7	47.697	-117.242	84.8	21.04
Spokane	SR7-090122	17 607	-117 2/12	8/1 8	24 78
River	517 050122	47.057	117.272	04.0	24.70
Spokane	SR7-083022	47.697	-117.242	84.8	25.69
River					
Spokane River	L21932-7	47.697	-117.242	84.8	27.07
Spokane Biver	L23783-25	47.697	-117.242	84.8	30.50
Spokane	SR7-090222	47.697	-117.242	84.8	31.54
River					
Spokane River	SR7-083122	47.697	-117.242	84.8	33.67
Spokane River	L26749-2	47.697	-117.242	84.8	38.63
Spokane Biver	L21932-17	47.697	-117.242	84.8	52.27
Spokane	123783-20	47,697	-117 242	84 8	66.07
River		.7.057	±±1.272	07.0	00.07
Spokane	L23783-32	47.697	-117.242	84.8	68.22
Kiver					

Waterbody	EIM Sample ID	Sample	Sample	Spokane	5x Blank
Sampled		Latitude	Longitude	River Mile	Corrected
		(NAD83)	(NAD83)		total PCB
					concentration
Crakara		47.07	117 242	04.0	(pg/L)
Spokane River	L218/7-911	47.697	-117.242	84.8	87.54
Spokane	L21902-13	47.697	-117.242	84.8	94.76
River					
Spokane	L23783-17	47.697	-117.242	84.8	106.23
River					
Spokane	L23783-41	47.697	-117.242	84.8	109.41
River					
Spokane	L21910-16	47.697	-117.242	84.8	126.46
River	121222 11	47.007	447.040		125.05
Spokane	L21902-14	47.697	-117.242	84.8	126.86
Spokane	121910-17	17 607	_117 2/12	Q / Q	136.00
River		47.037	-11/.242	04.0	130.90
Spokane	121874-10	47.697	-117.242	84.8	146.13
River			/	0.10	
Spokane	L24358-3	47.697	-117.242	84.8	171.4
River					
Spokane	L21902-7	47.697	-117.242	84.8	388.69
River					
Spokane	SR5B-082922	47.687	-117.327	80.3	18.64
River					
Spokane	SR5B-090222	47.687	-117.327	80.3	22.73
River		17 697	117 227	80.2	26.12
Spokane	SK5B-083022	47.687	-117.327	80.3	26.13
Snokane	SR5B-083122	47 687	-117 327	80.3	34 54
River	51150 005122	47.007	117.527	00.5	54.54
Spokane	SR5B-090122	47.687	-117.327	80.3	36.47
River					
Spokane	SR5A-090222	47.681	-117.334	79.8	1.20
River					
Spokane	SR5A-090122	47.681	-117.334	79.8	3.97
River					
Spokane	SR5A-082922	47.681	-117.334	79.8	7.38
River		17 001			
Spokane	SK5A-083022	47.681	-117.334	/9.8	7.96
Spokano		17 601	_117 22/	70 0	16 54
River	JVVNEFZ	47.001	-11/.334	13.0	10.54
Spokane	SR5A-083122	47.681	-117.334	79.8	53 41
River					55.11

Sampled     Latitude     Longitude (NAD83)     River Mile (NAD83)     Corrected total PCB concentration (pg/L)       Spokane     L25153-4     47.678     117.363     78.3     0.00       River     25153-6     47.678     117.363     78.3     0.00       Spokane     L25153-6     47.678     117.363     78.3     0.00       Spokane     SR4-090122     47.678     117.363     78.3     1.11       River     Spokane     SR4-090122     47.678     117.363     78.3     1.93       Spokane     L26749-3     47.678     117.363     78.3     6.57       River     Spokane     L2527-6     47.678     117.363     78.3     6.57       River     L21932-18     47.678     117.363     78.3     9.31       River     Spokane     L21932-8     47.678     117.363     78.3     9.31       River     Spokane     L21932-8     47.678     117.363     78.3     11.67       River     Spokane     L21932-8     47.678     117.	Waterbody	EIM Sample ID	Sample	Sample	Spokane	5x Blank
INAD83     INAD83     INAD83     INAD83     INAD83     INAD83     Inade 17.5       Spokane     L25153-4     77.678     -117.363     78.3     0.00       Spokane     L25153-6     47.678     -117.363     78.3     0.00       River     SR4-090222     47.678     -117.363     78.3     1.11       Spokane     SR4-090222     47.678     -117.363     78.3     1.13       Spokane     SR4-090122     47.678     -117.363     78.3     1.93       River     Spokane     SR4-082922     47.678     -117.363     78.3     6.14       Spokane     L25297-6     47.678     -117.363     78.3     6.57       River     Spokane     L21932-18     47.678     -117.363     78.3     6.98       Spokane     L21932-18     47.678     -117.363     78.3     9.31       River     Spokane     L23784-36     47.678     -117.363     78.3     11.67       Spokane     L23783-28     47.678     -117.363     78.3	Sampled		Latitude	Longitude	River Mile	Corrected
Spokane River     L25153-4     47.678     -117.363     78.3     0.00       River     L25153-6     47.678     -117.363     78.3     0.00       Spokane River     SR4-090222     47.678     -117.363     78.3     0.00       Spokane River     SR4-090222     47.678     -117.363     78.3     1.11       Spokane River     SR4-090122     47.678     -117.363     78.3     1.93       Spokane River     SR4-090122     47.678     -117.363     78.3     1.93       Spokane River     SR4-090122     47.678     -117.363     78.3     6.14       Spokane River     SR4-082922     47.678     -117.363     78.3     6.98       Spokane River     L25297-6     47.678     -117.363     78.3     6.98       Spokane River     SR4-083122     47.678     -117.363     78.3     9.31       Spokane River     L23784-36     47.678     -117.363     78.3     14.67       Spokane River     L23783-28     47.678     -117.363     78.3     14.51			(NAD83)	(NAD83)		total PCB
Spokane River     L25153-4     47.678     -117.363     78.3     0.00       Spokane River     L25153-6     47.678     -117.363     78.3     0.00       Spokane River     SR4-090222     47.678     -117.363     78.3     0.00       Spokane River     SR4-090122     47.678     -117.363     78.3     1.11       River     Spokane     SR4-090122     47.678     -117.363     78.3     1.93       Spokane     SR4-090122     47.678     -117.363     78.3     1.93       Spokane     SR4-082922     47.678     -117.363     78.3     6.14       River     Spokane     L25297-6     47.678     -117.363     78.3     6.98       River     Spokane     L21932-18     47.678     -117.363     78.3     6.98       Spokane     L21932-8     47.678     -117.363     78.3     11.67       Spokane     L23783-28     47.678     -117.363     78.3     12.56       River     Spokane     L23783-28     47.678     -117.363						(ng/L)
Niver     Image: Spokane River     Sp3p Spakane Spakane River     SP4-090222     47.678     -117.363     78.3     0.00       Spokane River     SR4-090222     47.678     -117.363     78.3     1.11       Spokane River     SR4-090122     47.678     -117.363     78.3     1.93       Spokane River     Spokane River     126749-3     47.678     -117.363     78.3     2.50       Spokane River     Spokane River     125297-6     47.678     -117.363     78.3     6.14       Spokane River     125297-6     47.678     -117.363     78.3     6.57       Spokane River     12932-18     47.678     -117.363     78.3     6.98       Spokane River     Spokane River     121932-18     47.678     -117.363     78.3     9.31       Spokane River     Spokane River     Spokane River     -117.363     78.3     116.76       Spokane River     123784-36     47.678     -117.363     78.3     14.45       Spokane River     123783-31     47.678     -117.363     78.3     15.	Spokane	L25153-4	47.678	-117.363	78.3	0.00
Spokane River     L25153-6     47.678     -117.363     78.3     0.00       Spokane River     SR4-090222     47.678     -117.363     78.3     1.11       Spokane River     SR4-090122     47.678     -117.363     78.3     1.13       Spokane River     SR4-090122     47.678     -117.363     78.3     1.93       Spokane River     L26749-3     47.678     -117.363     78.3     2.50       Spokane River     SP04082922     47.678     -117.363     78.3     6.14       Spokane River     L25297-6     47.678     -117.363     78.3     6.98       Spokane River     L21932-18     47.678     -117.363     78.3     9.31       Spokane River     SR4-083122     47.678     -117.363     78.3     11.67       Spokane River     L23784-36     47.678     -117.363     78.3     11.67       Spokane River     L23783-28     47.678     -117.363     78.3     11.45       Spokane River     L24941-5     -117.363     78.3     11.45	River					
River     Image and the section of the sectio	Spokane	L25153-6	47.678	-117.363	78.3	0.00
Spokane Niver     SR4-090222     47.678     -117.363     78.3     1.111       River     Spokane     SR4-090122     47.678     -117.363     78.3     1.93       Spokane Niver     L26749-3     47.678     -117.363     78.3     2.50       Spokane Niver     Spokane     SR4-082922     47.678     -117.363     78.3     6.14       Spokane Niver     Spokane     Sp297-6     47.678     -117.363     78.3     6.57       Spokane Niver     L25297-6     47.678     -117.363     78.3     6.98       Spokane Niver     L21932-18     47.678     -117.363     78.3     9.31       Spokane Niver     L21932-8     47.678     -117.363     78.3     11.67       Spokane Niver     L23784-36     47.678     -117.363     78.3     14.45       Spokane Niver     L23783-28     47.678     -117.363     78.3     14.45       Spokane Niver     L2430-1     47.678     -117.363     78.3     14.45       Spokane Niver     L2430-1     47.678	River					
River     Second Secon	Spokane	SR4-090222	47.678	-117.363	78.3	1.11
Spokane     Spokane <t< td=""><td>River</td><td><u>CD4 000122</u></td><td>47.070</td><td>117 202</td><td>70.2</td><td>1.02</td></t<>	River	<u>CD4 000122</u>	47.070	117 202	70.2	1.02
Nucl     126749-3     47.678     -117.363     78.3     2.50       River     Spokane     SR4-082922     47.678     -117.363     78.3     6.14       River     Spokane     L25297-6     47.678     -117.363     78.3     6.57       Spokane     L25297-6     47.678     -117.363     78.3     6.57       Spokane     L21932-18     47.678     -117.363     78.3     6.98       River     Spokane     SR4-083122     47.678     -117.363     78.3     9.31       Spokane     River     -	Spokane	SR4-090122	47.678	-117.303	78.3	1.93
Byokane River     Construction     Data of the set	Spokane	126749-3	47,678	-117,363	78.3	2.50
Spokane River     SR4-082922     47.678     -117.363     78.3     6.14       Spokane River     L25297-6     47.678     -117.363     78.3     6.57       River     2000     47.678     -117.363     78.3     6.57       River     2000     78.3     6.57     6.57       Spokane     L21932-18     47.678     -117.363     78.3     6.98       Spokane     SR4-083122     47.678     -117.363     78.3     9.31       River     2000     78.3     9.31     11.67       Spokane     L21932-8     47.678     -117.363     78.3     11.67       Spokane     L23783-28     47.678     -117.363     78.3     12.56       River     2000     47.678     -117.363     78.3     14.45       Spokane     L24230-1     47.678     -117.363     78.3     15.16       River     2000-1     47.678     -117.363     78.3     18.31       Spokane     L24941-5     47.678     -117.363     78.3	River			11/1000	, 0.0	2.00
River     C     C     C     C     C     C       Spokane     L25297-6     47.678     -117.363     78.3     6.57       River     200     78.3     6.98     6.98       Spokane     L21932-18     47.678     -117.363     78.3     6.98       Spokane     River     -117.363     78.3     9.31       Spokane     L21932-8     47.678     -117.363     78.3     9.31       Spokane     L23784-36     47.678     -117.363     78.3     11.67       River     -     -     -     -     -     -       Spokane     L23784-36     47.678     -117.363     78.3     14.45       River     -	Spokane	SR4-082922	47.678	-117.363	78.3	6.14
Spokane River     L25297-6     47.678     -117.363     78.3     6.57       Spokane River     L21932-18     47.678     -117.363     78.3     6.98       Spokane River     SR4-083122     47.678     -117.363     78.3     9.31       Spokane River     SR4-083122     47.678     -117.363     78.3     9.31       Spokane River     L21932-8     47.678     -117.363     78.3     9.31       Spokane River     L23784-36     47.678     -117.363     78.3     11.67       Spokane River     L23783-28     47.678     -117.363     78.3     14.45       Spokane River     L24230-1     47.678     -117.363     78.3     15.16       River     L25116-4     47.678     -117.363     78.3     21.38       Spokane River     L24941-5     47.678     -117.363     78.3     21.38       Spokane River     L21902-15     47.678     -117.363     78.3     26.37       Spokane River     L21902-15     47.678     -117.363     78.3     59.43 </td <td>River</td> <td></td> <td></td> <td></td> <td></td> <td></td>	River					
River     L21932-18     47.678     -117.363     78.3     6.98       Spokane River     SR4-083122     47.678     -117.363     78.3     9.31       Spokane River     SR4-083122     47.678     -117.363     78.3     9.31       Spokane River     L21932-8     47.678     -117.363     78.3     9.31       Spokane River     L23784-36     47.678     -117.363     78.3     11.67       Spokane River     L23783-28     47.678     -117.363     78.3     12.56       Spokane River     L24230-1     47.678     -117.363     78.3     15.16       Spokane River     L2416-4     47.678     -117.363     78.3     18.31       Spokane River     L24941-5     47.678     -117.363     78.3     26.37       Spokane River     L21902-15     47.678     -117.363     78.3     26.37       Spokane River     L21902-15     47.678     -117.363     78.3     26.37       Spokane River     L21902-24     47.678     -117.363     78.3     65.60 <	Spokane	L25297-6	47.678	-117.363	78.3	6.57
Spokane River     L21932-18     47.678     -117.363     78.3     6.98       River     -     47.678     -117.363     78.3     9.31       Spokane River     121932-8     47.678     -117.363     78.3     9.31       Spokane River     121932-8     47.678     -117.363     78.3     11.67       Spokane     L23784-36     47.678     -117.363     78.3     12.56       River     -     -     -     -     -     -       Spokane     L23783-28     47.678     -117.363     78.3     14.45       Spokane     L24230-1     47.678     -117.363     78.3     15.16       River     -     -     -     -     -     -       Spokane     L24941-5     47.678     -117.363     78.3     18.31       River     -     -     -     -     -     -     -       Spokane     L24941-5     47.678     -117.363     78.3     26.37     -     -     -     - <td>River</td> <td></td> <td>47.670</td> <td>447.060</td> <td>70.0</td> <td>6.00</td>	River		47.670	447.060	70.0	6.00
Nikel     SR4-083122     47.678     -117.363     78.3     9.31       River     117.363     78.3     9.31       Spokane     L21932-8     47.678     -117.363     78.3     9.31       Spokane     L23784-36     47.678     -117.363     78.3     11.67       Spokane     L23783-28     47.678     -117.363     78.3     12.56       River     -     -     -     -     -     -       Spokane     L23783-28     47.678     -117.363     78.3     14.45       River     -     -     -     -     -     -       Spokane     L24230-1     47.678     -117.363     78.3     18.31       River     -     -     -     -     -     -       Spokane     L24941-5     47.678     -117.363     78.3     21.38       River     -     -     -     -     -     -       Spokane     L21902-15     47.678     -117.363     78.3     59.43 <td>Spokane</td> <td>L21932-18</td> <td>47.678</td> <td>-117.363</td> <td>/8.3</td> <td>6.98</td>	Spokane	L21932-18	47.678	-117.363	/8.3	6.98
Spokane     L21932-8     47.678     117.363     78.3     11.67       River     1     47.678     -117.363     78.3     11.67       Spokane     L23784-36     47.678     -117.363     78.3     12.56       River     1     47.678     -117.363     78.3     12.56       Spokane     L23783-28     47.678     -117.363     78.3     14.45       River     1     47.678     -117.363     78.3     14.45       Spokane     L24230-1     47.678     -117.363     78.3     15.16       River     1     47.678     -117.363     78.3     18.31       Spokane     L25116-4     47.678     -117.363     78.3     21.38       River     1     47.678     -117.363     78.3     26.37       Spokane     L21902-15     47.678     -117.363     78.3     59.43       River     1     -117.363     78.3     59.43     .       Spokane     L21902-15     47.678     -117.363 <t< td=""><td>Snokane</td><td>SR4-083122</td><td>47 678</td><td>-117 363</td><td>78 3</td><td>9 31</td></t<>	Snokane	SR4-083122	47 678	-117 363	78 3	9 31
Spokane River     L21932-8     47.678     -117.363     78.3     11.67       Spokane River     L23784-36     47.678     -117.363     78.3     12.56       Spokane River     L23783-28     47.678     -117.363     78.3     14.45       Spokane River     L24230-1     47.678     -117.363     78.3     14.45       Spokane River     L24230-1     47.678     -117.363     78.3     15.16       Spokane River     L2491-5     47.678     -117.363     78.3     18.31       Spokane River     L24941-5     47.678     -117.363     78.3     21.38       Spokane River     L21902-15     47.678     -117.363     78.3     26.37       Spokane River     L21902-15     47.678     -117.363     78.3     59.43       Spokane River     L21902-14     47.678     -117.363     78.3     65.60       Spokane River     L21902-24     47.678     -117.363     78.3     68.07       Spokane River     L21877-88     47.678     -117.363     78.3     68.07 </td <td>River</td> <td>514 005122</td> <td>47.070</td> <td>117.505</td> <td>70.5</td> <td>5.51</td>	River	514 005122	47.070	117.505	70.5	5.51
River     L23784-36     47.678     -117.363     78.3     12.56       River     L23783-28     47.678     -117.363     78.3     14.45       Spokane     L23783-28     47.678     -117.363     78.3     14.45       River     - <td>Spokane</td> <td>L21932-8</td> <td>47.678</td> <td>-117.363</td> <td>78.3</td> <td>11.67</td>	Spokane	L21932-8	47.678	-117.363	78.3	11.67
Spokane River     L23784-36     47.678     -117.363     78.3     12.56       River     L23783-28     47.678     -117.363     78.3     14.45       River     -117.363     78.3     14.45     14.45       River     -117.363     78.3     14.45       Spokane     L24230-1     47.678     -117.363     78.3     15.16       River     -117.363     78.3     15.16     15.16       Spokane     L25116-4     47.678     -117.363     78.3     18.31       River     -117.363     78.3     21.38     18.31       Spokane     L24941-5     47.678     -117.363     78.3     26.37       Spokane     L23783-31     47.678     -117.363     78.3     26.37       River     -     -     -     -     -     -       Spokane     L21902-15     47.678     -117.363     78.3     59.43       River     -     -     -     -     -     -       Spokane     L2	River					
River     L23783-28     47.678     -117.363     78.3     14.45       River     2     47.678     -117.363     78.3     14.45       Spokane     L24230-1     47.678     -117.363     78.3     15.16       River     2     -117.363     78.3     15.16       Spokane     L25116-4     47.678     -117.363     78.3     18.31       River     2     -117.363     78.3     18.31       Spokane     L24941-5     47.678     -117.363     78.3     21.38       River     2     -117.363     78.3     26.37       Spokane     L23783-31     47.678     -117.363     78.3     26.37       River     2     -117.363     78.3     59.43       Spokane     L21902-15     47.678     -117.363     78.3     59.43       River     2     -117.363     78.3     65.60     -117.363     78.3     65.60       River     2     -117.363     78.3     68.07     -117.363     78.3 </td <td>Spokane</td> <td>L23784-36</td> <td>47.678</td> <td>-117.363</td> <td>78.3</td> <td>12.56</td>	Spokane	L23784-36	47.678	-117.363	78.3	12.56
Spokane     L23783-28     47.678     -117.363     78.3     14.45       River     -	River					
River     L24230-1     47.678     -117.363     78.3     15.16       River     L25116-4     47.678     -117.363     78.3     18.31       River     L24941-5     47.678     -117.363     78.3     18.31       Spokane     L24941-5     47.678     -117.363     78.3     21.38       River     -     -     -     -     -     -       Spokane     L23783-31     47.678     -117.363     78.3     26.37       River     -     -     -     -     -     -     -       Spokane     L21902-15     47.678     -117.363     78.3     26.37       River     -     -     -     -     -     -     -       Spokane     L21902-15     47.678     -117.363     78.3     59.43       River     -     -     -     -     -     -       Spokane     L21902-24     47.678     -117.363     78.3     68.07       River     -     -	Spokane	L23783-28	47.678	-117.363	78.3	14.45
Spokane   L24230-1   47.678   -117.363   78.3   15.16     River   25116-4   47.678   -117.363   78.3   18.31     River   24941-5   47.678   -117.363   78.3   21.38     Spokane   L24941-5   47.678   -117.363   78.3   21.38     Spokane   L23783-31   47.678   -117.363   78.3   26.37     Spokane   L21902-15   47.678   -117.363   78.3   59.43     River   -   -   -   -   -   -     Spokane   L21902-15   47.678   -117.363   78.3   59.43     River   -   -   -   -   -   -     Spokane   L21902-24   47.678   -117.363   78.3   65.60     River   -   -   -   -   -   -     Spokane   L21877-88   47.678   -117.363   78.3   68.07     River   -   -   -   -   -   -     Spokane   L21902-8   47.678   -1	Snokane	124230-1	17 678	-117 363	78.3	15 16
Spokane     L25116-4     47.678     -117.363     78.3     18.31       River     L24941-5     47.678     -117.363     78.3     21.38       Spokane     L24941-5     47.678     -117.363     78.3     21.38       Spokane     L23783-31     47.678     -117.363     78.3     26.37       Spokane     L21902-15     47.678     -117.363     78.3     26.37       Spokane     L21902-15     47.678     -117.363     78.3     59.43       River     -     -     -     -     -     -       Spokane     L21902-15     47.678     -117.363     78.3     65.60       River     -     -     -     -     -     -     -       Spokane     L21902-24     47.678     -117.363     78.3     68.07     -       River     -     -     -     -     -     -     -       Spokane     L21902-8     47.678     -117.363     78.3     77.43       River	River		47.078	-117.505	78.5	15.10
River     Image: Constraint of the second s	Spokane	L25116-4	47.678	-117.363	78.3	18.31
Spokane River     L24941-5     47.678     -117.363     78.3     21.38       Spokane River     L23783-31     47.678     -117.363     78.3     26.37       Spokane River     L21902-15     47.678     -117.363     78.3     26.37       Spokane River     L21902-15     47.678     -117.363     78.3     59.43       Spokane River     L21902-24     47.678     -117.363     78.3     65.60       River     200     47.678     -117.363     78.3     65.60       Spokane     L21902-24     47.678     -117.363     78.3     68.07       Spokane     L21902-8     47.678     -117.363     78.3     68.07       Spokane     L21902-8     47.678     -117.363     78.3     77.43       River     2     47.678     -117.363     78.3     21.7       Spokane     L26175-4     47.678     -117.363     78.3     82.17	River					
River     L23783-31     47.678     -117.363     78.3     26.37       River     2	Spokane	L24941-5	47.678	-117.363	78.3	21.38
Spokane River     L23783-31     47.678     -117.363     78.3     26.37       Spokane River     L21902-15     47.678     -117.363     78.3     59.43       Spokane River     L21902-24     47.678     -117.363     78.3     59.43       Spokane River     L21902-24     47.678     -117.363     78.3     65.60       Spokane River     L21877-88     47.678     -117.363     78.3     68.07       Spokane River     L21902-8     47.678     -117.363     78.3     68.07       Spokane River     L21902-8     47.678     -117.363     78.3     26.37       Spokane     L21902-8     47.678     -117.363     78.3     82.17       Spokane     L26175-4     47.678     -117.363     78.3     82.17	River					
River     L21902-15     47.678     -117.363     78.3     59.43       River     47.678     -117.363     78.3     65.60       Spokane     L21902-24     47.678     -117.363     78.3     65.60       River     47.678     -117.363     78.3     65.60       Spokane     L21877-88     47.678     -117.363     78.3     68.07       River     47.678     -117.363     78.3     68.07       Spokane     L21902-8     47.678     -117.363     78.3     77.43       River     -     -     -     -     -     -       Spokane     L26175-4     47.678     -117.363     78.3     82.17	Spokane	L23783-31	47.678	-117.363	78.3	26.37
Spokane   L21902-13   47.678   -117.363   78.3   59.43     River   47.678   -117.363   78.3   65.60     River   47.678   -117.363   78.3   65.60     Spokane   L21877-88   47.678   -117.363   78.3   68.07     River   47.678   -117.363   78.3   68.07     Spokane   L21902-8   47.678   -117.363   78.3   68.07     Spokane   L21902-8   47.678   -117.363   78.3   68.07     Spokane   L21902-8   47.678   -117.363   78.3   82.17     Spokane   L26175-4   47.678   -117.363   78.3   82.17	River	121002 15	17 679	117 262	70.2	EQ 42
Spokane     L21902-24     47.678     -117.363     78.3     65.60       River     2     47.678     -117.363     78.3     68.07       Spokane     L21877-88     47.678     -117.363     78.3     68.07       River     2     47.678     -117.363     78.3     68.07       Spokane     L21902-8     47.678     -117.363     78.3     77.43       River     2     47.678     -117.363     78.3     82.17	River	L21902-13	47.070	-117.505	76.5	59.45
River     L21877-88     47.678     -117.363     78.3     68.07       River     2     47.678     -117.363     78.3     68.07       Spokane     L21902-8     47.678     -117.363     78.3     77.43       River     2     47.678     -117.363     78.3     77.43       Spokane     L26175-4     47.678     -117.363     78.3     82.17	Spokane	L21902-24	47.678	-117.363	78.3	65.60
Spokane River     L21877-88     47.678     -117.363     78.3     68.07       Spokane River     L21902-8     47.678     -117.363     78.3     77.43       Spokane     L26175-4     47.678     -117.363     78.3     82.17	River					
River     Image: Constraint of the system     Image: Constand of the system	Spokane	L21877-88	47.678	-117.363	78.3	68.07
Spokane     L21902-8     47.678     -117.363     78.3     77.43       River     Spokane     L26175-4     47.678     -117.363     78.3     82.17	River					
River     47.678     -117.363     78.3     82.17	Spokane	L21902-8	47.678	-117.363	78.3	77.43
א 1/1/303 א 1/2017-4 א	Kiver		17 670	117 262	70.2	00.17
River	River		47.078	-11/.303	10.3	82.17

Waterbody	EIM Sample ID	Sample	Sample	Spokane	5x Blank
Sampled			Longitude	River Mille	Corrected
		(INADOS)	(INADOS)		concentration
					(pg/L)
Spokane	L24358-10	47.678	-117.363	78.3	84.51
River					
Spokane	L21902-12	47.678	-117.363	78.3	115.28
River					
Spokane	L24358-4	47.678	-117.363	78.3	121.46
River		47 670	117 262	70.2	142.94
Biver	L21874-8	47.078	-117.303	78.3	142.84
Spokane	121910-18	47,678	-117,363	78.3	159.67
River			11/1000	, 0.0	200107
Spokane	SR4-083022	47.678	-117.363	78.3	386.81
River					
Spokane	SR-7b	47.672	-117.388	76.9	98.03
River					
Spokane	SR-7a	47.672	-117.388	76.9	233.09
River	CD 7-	47 (7)	117 207	76.0	F 47 11
Spokane	SR-7C	47.672	-117.387	76.9	547.11
Spokane	SB-6c	47,662	-117,393	76.2	93.62
River		171002	11/1000	, 012	50102
Spokane	SR-6b	47.662	-117.393	76.2	120.62
River					
Spokane	SR-6a	47.662	-117.394	76.2	137.98
River					
Spokane	SR-5a	47.660	-117.396	76.0	89.98
River	SP Eb	17 660	117 206	76.0	08 80
River	56-50	47.000	-117.590	70.0	98.80
Spokane	SR-5c	47.660	-117.396	76.0	168.90
River					
Spokane	SR-4a	47.662	-117.401	75.7	78.09
River					
Spokane	SR-4b	47.662	-117.401	75.7	80.51
River					
Spokane	SR-4c	47.662	-117.402	75.7	143.03
Kiver Spokano	SB3V-000222	17 662	_117 /11	75.0	1 77
River	JNJA-UJUZZZ	47.003	-11/.411	75.0	1.22
Spokane	SR3A-083122	47.663	-117.411	75.0	38.96
River					00.00
Spokane	SR3A-083022	47.663	-117.411	75.0	41.14
River					

Waterbody	EIM Sample ID	Sample	Sample	Spokane	5x Blank
Sampled		Latitude	Longitude	River Mile	Corrected
		(NADOS)	(INADOS)		concentration
					(pg/L)
Spokane	SR3A-082922	47.663	-117.411	75.0	65.81
River					
Spokane	SR3A-090122	47.663	-117.411	75.0	79.64
River					
Spokane	SWREP1	47.663	-117.411	75.0	143.26
River	CD 2	47.000	117 111	75.0	257.67
Spokane	SK-3	47.663	-117.411	75.0	257.67
Spokane	SR-2	47 660	-117 427	74.2	94.8
River	5112	47.000	11/.42/	74.2	54.0
Spokane	L25153-7	47.659	-117.450	73.1	0.00
River					
Spokane	L26471-2 i	47.659	-117.450	73.1	0.00
River					
Spokane	L26749-6	47.659	-117.450	73.1	0.00
River	SP2 000222	47 650	117 /50	72 1	1 22
River	3K3-090222	47.059	-117.450	75.1	1.22
Spokane	L23784-35	47.659	-117.450	73.1	2.91
River					
Spokane	L24941-7	47.659	-117.450	73.1	3.00
River					
Spokane	L25297-5	47.659	-117.450	73.1	3.37
River	125207.4	47.050	447 450	72.4	2.40
Spokane	L25297-4	47.659	-117.450	/3.1	3.49
Spokane	125116-6	47 659	-117 450	73 1	11.60
River		47.055	117.450	, 3.1	11.00
Spokane	SR3-082922	47.659	-117.450	73.1	11.92
River					
Spokane	L21932-9	47.659	-117.450	73.1	12.88
River					
Spokane	SR3-090122	47.659	-117.450	73.1	14.61
River	502 002022	47.650	117 /50	72 1	21.02
River	3N3-003022	47.009	-117.450	/3.1	21.03
Spokane	SR3-083122	47.659	-117.450	73.1	23.83
River					
Spokane	L23783-30	47.659	-117.450	73.1	37.02
River					
Spokane	L23783-29	47.659	-117.450	73.1	38.79
River					

Waterbody	EIM Sample ID	Sample	Sample	Spokane	5x Blank
Sampled		Latitude	Longitude	River Mile	Corrected
		(NAD83)	(NAD83)		total PCB
					concentration
Snakana	122782 45	47.650	117 450	70.1	(pg/L)
River	LZ3783-45	47.059	-117.450	/3.1	60.90
Spokane	L24358-9	47.659	-117.450	73.1	78.91
River					
Spokane River	L218/7-87	47.659	-117.450	/3.1	85.48
Spokane	L21902-11	47.659	-117.450	73.1	93.11
River	121002.10	47.050	117 150	72.4	04.20
Spokane River	L21902-19	47.659	-117.450	/3.1	94.38
Spokane	L21917-9	47.659	-117.450	73.1	144.43
River					
Spokane	L21874-17	47.659	-117.450	73.1	150.55
River		47.050	117 150	72.4	154.00
Spokane River	L24358-8	47.659	-117.450	73.1	154.08
Spokane	L26175-7	47.659	-117.450	73.1	167.07
River					
Spokane	L21910-5	47.659	-117.450	73.1	171.87
River	124002.20	47.050	117 150	72.4	205 72
Spokane River	L21902-20	47.659	-117.450	/3.1	295.72
Spokane	L21932-13	47.659	-117.450	73.1	304.03
River					
Spokane	SR-1	47.657	-117.452	72.9	212.70
River		47.740	117 520	62.1	2.66
River	SKIA-090222	47.740	-117.520	02.1	2.00
Spokane	SR1A-083122	47.740	-117.520	62.1	3.52
River					
Spokane River	SWREP4	47.740	-117.520	62.1	3.88
Spokane	SR1A-082922	47.740	-117.520	62.1	7.21
River					
Spokane	SR1A-083022	47.740	-117.520	62.1	8.95
River		47.740	447 500	<u> </u>	
Spokane River	SR1A-090122	47.740	-117.520	62.1	199.51
Spokane	SR1-083022	47.783	-117.545	57.8	4.82
River					
Spokane	SR1-090222	47.783	-117.545	57.8	5.10
River					

Waterbody Sampled	EIM Sample ID	Sample Latitude (NAD83)	Sample Longitude (NAD83)	Spokane River Mile	5x Blank Corrected total PCB concentration
					(pg/L)
Spokane River	SR1-082922	47.783	-117.545	57.8	5.26
Spokane River	L24941-8	47.783	-117.545	57.8	5.39
Spokane River	L25297-2	47.783	-117.545	57.8	5.92
Spokane River	L25153-5	47.783	-117.545	57.8	11.15
Spokane River	L26749-4	47.783	-117.545	57.8	18.63
Spokane River	L21932-10	47.783	-117.545	57.8	33.30
Spokane River	L26175-6	47.783	-117.545	57.8	34.98
Spokane River	L25116-7	47.783	-117.545	57.8	35.18
Spokane River	L21932-11	47.783	-117.545	57.8	36.59
Spokane River	SR1-090122	47.783	-117.545	57.8	42.54
Spokane River	L26175-5	47.783	-117.545	57.8	56.70
Spokane River	L21902-9	47.783	-117.545	57.8	82.74
Spokane River	L21877-81	47.783	-117.545	57.8	94.53
Spokane River	L21902-16	47.783	-117.545	57.8	96.47
Spokane River	L21874-14	47.783	-117.545	57.8	148.41
Spokane River	L21910-3	47.783	-117.545	57.8	156.87
Spokane River	L21874-16	47.783	-117.545	57.8	181.94
Spokane River	L21917-7	47.783	-117.545	57.8	200.68