

SAF-RC-118
Columbia River Component of the RCBRA –
Tissues
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

Kathy Wendt H4-21

KW 2/1/10
INITIAL/DATE

COMMENTS:

SDG SEQ092309

SAF-RC-118

Rad only

Chem only

Rad & Chem

Complete

Partial

Sampling Location:

STURGEON 27 FILLET/CARCASS
STURGEON 28 FILLET/CARCASS
STURGEON 29 FILLET/CARCASS
STURGEON 30 FILLET/CARCASS

RECEIVED
FEB 04 2010

EDMC

Analytical Chemistry Data Package Inorganics Analysis

**Project: Washington Closures Hanford
As Speciation Analysis of Tissue**

SDG 091109
SDG 091809
SDG 092309



PNNL Project No. 56166
MSL CF No. 2981



Pacific Northwest
NATIONAL LABORATORY

Marine Sciences Laboratory
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SEQ092309

INORGANIC CHEMISTRY ANALYSIS DATA PACKAGE CONTENTS

As Speciation Analysis in Tissue

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BATTELLE MARINE SCIENCES LABORATORY

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Washington Closure Hanford
 Arsenic Speciation Study
 SDG091109, SDG091809, and SDG092309

MSL Code	Client ID	SDG	Received Date	Collection Date	Analysis Date	Analytical Batch ID	Percent Dry Wt	AsB µg/g dry wt.	DMA µg/g dry wt.	MMA µg/g dry wt.	As ³⁺ µg/g dry wt.	Total As µg/g dry wt.
<i>Method Detection Limit (MDL)</i>								<i>0.002¹</i>	<i>0.005</i>	<i>0.007</i>	<i>0.01</i>	<i>Cal.</i>
2981-186	J19476	SDG091109	09/11/09	09/03/09	12/02/09	120209-LC'DRC	27.6	0.0796	0.005 U	0.278	0.0164	0.379
2981-188	J19477	SDG091109	09/11/09	09/03/09	12/02/09	120209-LC'DRC	30.2	0.0271	0.005 U	0.007 U	0.01 U	0.0491
2981-189	J19487	SDG091109	09/11/09	09/03/09	12/02/09	120209-LC'DRC	43.4	0.002 U	0.005 U	0.007 U	0.0116	0.0256
2981-191	J19486	SDG091109	09/11/09	09/03/09	12/02/09	120209-LC'DRC	34.0	0.0319	0.005 U	0.007 U	0.01 U	0.0539
2981-193	J19497	SDG091109	09/11/09	09/08/09	12/02/09	120209-LC'DRC	34.4	0.105	0.005 U	0.007 U	0.01 U	0.127
2981-196	J19496	SDG091109	09/11/09	09/08/09	12/02/09	120209-LC'DRC	26.6	0.276	0.005 U	0.007 U	0.01 U	0.298
2981-198	J194B7	SDG091109	09/11/09	09/08/09	12/02/09	120209-LC'DRC	32.6	0.0296	0.005 U	0.007 U	0.0106	0.0523
2981-200	J194B8	SDG091109	09/11/09	09/08/09	12/02/09	120209-LC'DRC	19.3	0.0113	0.005 U	0.007 U	0.0115	0.0347
2981-201	J194C8	SDG091109	09/11/09	09/09/09	12/02/09	120209-LC'DRC	11.0	0.0709	0.005 U	0.0186	0.0150	0.110
2981-202	J194C9	SDG091109	09/11/09	09/09/09	12/02/09	120209-LC'DRC	15.0	0.0313	0.005 U	0.007 U	0.01 U	0.0533
2981-203	J19503	SDG091809	09/18/09	09/10/09	12/02/09	120209-LC'DRC	31.1	0.0848	0.005 U	0.007 U	0.01 U	0.107
2981-204	J19504	SDG091809	09/18/09	09/10/09	12/02/09	120209-LC'DRC	37.9	0.0313	0.005 U	0.007 U	0.01 U	0.0533
2981-205	J195R1	SDG091809	09/18/09	09/10/09	12/03/09	120309-LC'DRC	42.3	0.00784	0.005 U	0.007 U	0.01 U	0.0298
2981-206	J195R0	SDG091809	09/18/09	09/10/09	12/03/09	120309-LC'DRC	34.5	0.0363	0.005 U	0.0156	0.01 U	0.0669
2981-207	J195T2	SDG091809	09/18/09	09/14/09	12/03/09	120309-LC'DRC	36.7	0.0444	0.005 U	0.007 U	0.01 U	0.0664
2981-207DUF	J195T2	SDG091809	09/18/09	09/14/09	12/03/09	120309-LC'DRC	36.7	0.0445	0.005 U	0.007 U	0.0104	0.0669
2981-208	J195T3	SDG091809	09/18/09	09/14/09	12/03/09	120309-LC'DRC	40.2	0.0155	0.005 U	0.007 U	0.01 U	0.0375
2981-209	J195Y0	SDG091809	09/18/09	09/15/09	12/03/09	120309-LC'DRC	37.7	0.0223	0.005 U	0.007 U	0.01 U	0.0443
2981-210	J195X9	SDG091809	09/18/09	09/15/09	12/03/09	120309-LC'DRC	32.2	0.0451	0.005 U	0.007 U	0.01 U	0.0671
2981-211	J19609	SDG091809	09/18/09	09/15/09	12/03/09	120309-LC'DRC	32.9	0.0279	0.005 U	0.007 U	0.01 U	0.0499
2981-212	J19610	SDG091809	09/18/09	09/15/09	12/03/09	120309-LC'DRC	38.7	0.0122	0.005 U	0.007 U	0.0115	0.0358
2981-213	J19629	SDG092309	09/23/09	09/16/09	12/03/09	120309-LC'DRC	34.7	0.0220	0.005 U	0.007 U	0.0130	0.0470
2981-214	J19628	SDG092309	09/23/09	09/16/09	12/03/09	120309-LC'DRC	28.9	0.0461	0.005 U	0.007 U	0.01 U	0.0681
2981-215	J19639	SDG092309	09/23/09	09/16/09	12/03/09	120309-LC'DRC	23.9	0.0395	0.005 U	0.007 U	0.01 U	0.0615
2981-218	J19640	SDG092309	09/23/09	09/16/09	12/03/09	120309-LC'DRC	29.7	0.0154	0.005 U	0.007 U	0.01 U	0.0374
2981-219	J19650	SDG092309	09/23/09	09/17/09	12/03/09	120309-LC'DRC	36.0	0.0249	0.005 U	0.007 U	0.01 U	0.0469
2981-220	J19649	SDG092309	09/23/09	09/17/09	12/03/09	120309-LC'DRC	29.2	0.0690	0.005 U	0.007 U	0.01 U	0.0910
2981-221	J19660	SDG092309	09/23/09	09/17/09	12/03/09	120309-LC'DRC	32.0	0.0587	0.005 U	0.007 U	0.0121	0.0828
2981-222	J19659	SDG092309	09/23/09	09/17/09	12/03/09	120309-LC'DRC	28.7	0.131	0.005 U	0.007 U	0.01 U	0.153

QUALITY CONTROL SAMPLE RESULTS

Average 31.7

Method Blank

Blank R1	SDG091109	09/11/09	12/02/09	120209-LC'DRC	0.002 U	0.005 U	0.007 U	0.01 U	NA
Blank R2	Multiple		12/03/09	120309-LC'DRC	0.002 U	0.005 U	0.007 U	0.01 U	NA

Standard Reference Material

DORM-2 r1	SDG091109	09/11/09	12/02/09	120209-LC'DRC	14.5	0.0407	0.007 U	0.01 U	14.6
DORM-2 r2	Multiple		12/03/09	120309-LC'DRC	12.7	0.203	0.007 U	0.01 U	12.9

Certified Value

% Recovery	88%	NA	NA	NA	18.0
% Recovery	77%				72%

Blank Spike Results

LCS R1	SDG091109	09/11/09	12/02/09	120209-LC'DRC	2.02	2.08	2.00	4.02	10.1
LCS R2	Multiple		12/03/09	120309-LC'DRC	1.97	1.91	2.01	3.87	9.75

Spike

% Rec	101%	104%	100%	100%	101%
% Rec	98%	95%	100%	97%	98%

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Arsenic Speciation Study
 SDG091109, SDG091809, and SDG092309

MSL Code	Client ID	SDG	Received Date	Collection Date	Analysis Date	Analytical Batch ID	Percent Dry Wt	AsB	DMA	MMA	As ³⁺	Total As
								µg/g dry wt.	µg/g dry wt.	µg/g dry wt.	µg/g dry wt.	µg/g dry wt.
<i>Method Detection Limit (MDL)</i>												
								0.002 ¹	0.005	0.007	0.01	Cal.
Replicate Analysis Results												
2981-187	J195V0	SDG091109	09/11/09	09/03/09	12/02/09	120209-LCDRC	32.2	0.0327	0.005 U	0.007 U	0.0102	0.0549
2981-187DUF	J195V0	SDG091109	09/11/09	09/03/09	12/02/09	120209-LCDRC	32.2	0.0295	0.005 U	0.007 U	0.01 U	0.0515
RPD								10%	NA	NA	NA	6%
2981-207	J195T2	SDG091809	09/18/09	09/14/09	12/03/09	120309-LCDRC	36.7	0.0444	0.005 U	0.007 U	0.01 U	0.0664
2981-207DUF	J195T2	SDG091809	09/18/09	09/14/09	12/03/09	120309-LCDRC	36.7	0.0445	0.005 U	0.007 U	0.0104	0.0669
RPD								0%	NA	NA	NA	1%
Matrix Spike Accuracy												
2981-185	J195T9	SDG091109	09/11/09	09/03/09	12/02/09	120209-LCDRC	26.4	0.0951	0.005 U	0.007 U	0.01 U	0.117
2981-185 MS								2.49	0.42	1.82	4.14	8.87
2981-185 MSD								2.95	0.20	1.26	3.89	8.30
Spike Amount, MS								2.43	NA	NA	4.87	NA
Spike Amount, MSD								2.35	NA	NA	4.69	NA
% Recovery, MS								99%	NA	NA	85%	NA
% Recovery, MSD								117%	NA	NA	80%	NA
RPD								17%	NA	NA	6%	NA
2981-210	J195X9	SDG091809	09/18/09	09/15/09	12/03/09	120309-LCDRC	32.2	0.0451	0.005 U	0.007 U	0.01 U	0.0671
2981-210MS								2.06	0.17	0.95	3.04	6.22
2981-210MSD								2.06	0.11	0.49	2.91	5.57
Spike Amount, MS								2.05	NA	NA	4.10	NA
Spike Amount, MSD								2.05	NA	NA	4.11	NA
% Recovery, MS								98%	NA	NA	74% N	NA
% Recovery, MSD								98%	NA	NA	71% N	NA
RPD								0%	NA	NA	4%	NA

NOTES: Arsenobetaine (AsB)
 Dimethylarsinic acid (DMA)
 Monomethylarsonic acid (MMA)
 Arsenate (V or As⁵⁺)
 Arsenite (III or As³⁺)
 Total Inorganic Arsenic = As³⁺⁵
 Total As = Sum of AsB, DMA, MMA, and As³⁺⁵
 Cal = Calculated Value

¹ Method detection limit (MDL) for AsB calculated from instrument detection limit converted to µg/g using the average sample mass and volume for this project.

U Not detected at or above MDL shown

NS Not spiked

N Outside Method DQOs for Blank Spikes (≤ 15%), MS/MSD (≤ 25%), SRM (≤ 25%) results

* Outside Method DQOs for Duplicates (≤ 25%)

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Washington Closure Hanford

Arsenic Speciation Study
 SDG091109, SDG091809, and SDG092309
 WET WEIGHT TABLE

MSL Code	Client ID	SDG	Received Date	Collection Date	Analysis Date	Analytical Batch ID	Percent Dry Wt	AsB	DMA	MMA	As ^V	Total As
								µg/g wet wt.	µg/g wet wt.	µg/g wet wt.	µg/g wet wt.	µg/g wet wt.
<i>Method Detection Limit (MDL)</i>								<i>0.00063¹</i>	<i>0.002</i>	<i>0.002</i>	<i>0.003</i>	<i>Cal</i>
2981-186	J19476	SDG091109	09/11/09	09/03/09	12/02/09	120209-LC'DRC	27.6	0.0220	0.002 U	0.0768	0.00453	0.105
2981-188	J19477	SDG091109	09/11/09	09/03/09	12/02/09	120209-LC'DRC	30.2	0.00817	0.002 U	0.007 U	0.003 U	0.0272
2981-189	J19487	SDG091109	09/11/09	09/03/09	12/02/09	120209-LC'DRC	43.4	0.000869	0.002 U	0.007 U	0.00502	0.0149
2981-191	J19486	SDG091109	09/11/09	09/03/09	12/02/09	120209-LC'DRC	34.0	0.0109	0.002 U	0.007 U	0.003 U	0.0299
2981-193	J19497	SDG091109	09/11/09	09/08/09	12/02/09	120209-LC'DRC	34.4	0.0361	0.002 U	0.007 U	0.003 U	0.0551
2981-196	J19496	SDG091109	09/11/09	09/08/09	12/02/09	120209-LC'DRC	26.6	0.0732	0.002 U	0.007 U	0.003 U	0.0922
2981-198	J194B7	SDG091109	09/11/09	09/08/09	12/02/09	120209-LC'DRC	32.6	0.00965	0.002 U	0.007 U	0.00345	0.0221
2981-200	J194B8	SDG091109	09/11/09	09/08/09	12/02/09	120209-LC'DRC	19.3	0.00218	0.002 U	0.007 U	0.003 U	0.0134
2981-201	J194C8	SDG091109	09/11/09	09/09/09	12/02/09	120209-LC'DRC	11.0	0.00777	0.002 U	0.00204	0.003 U	0.0135
2981-202	J194C9	SDG091109	09/11/09	09/09/09	12/02/09	120209-LC'DRC	15.0	0.00471	0.002 U	0.007 U	0.003 U	0.0237
2981-203	J19503	SDG091809	09/18/09	09/10/09	12/02/09	120209-LC'DRC	31.1	0.0264	0.002 U	0.007 U	0.003 U	0.0454
2981-204	J19504	SDG091809	09/18/09	09/10/09	12/02/09	120209-LC'DRC	37.9	0.0118	0.002 U	0.007 U	0.003 U	0.0308
2981-205	J195R1	SDG091809	09/18/09	09/10/09	12/03/09	120309-LC'DRC	42.3	0.00331	0.002 U	0.007 U	0.003 U	0.0223
2981-206	J195R0	SDG091809	09/18/09	09/10/09	12/03/09	120309-LC'DRC	34.5	0.0125	0.002 U	0.00538	0.003 U	0.0299
2981-207	J195T2	SDG091809	09/18/09	09/14/09	12/03/09	120309-LC'DRC	36.7	0.0163	0.002 U	0.007 U	0.003 U	0.0353
2981-207DUI	J195T2	SDG091809	09/18/09	09/14/09	12/03/09	120309-LC'DRC	36.7	0.0163	0.002 U	0.007 U	0.00383	0.0292
2981-208	J195T3	SDG091809	09/18/09	09/14/09	12/03/09	120309-LC'DRC	40.2	0.00621	0.002 U	0.007 U	0.003 U	0.0252
2981-209	J195Y0	SDG091809	09/18/09	09/15/09	12/03/09	120309-LC'DRC	37.7	0.00839	0.002 U	0.007 U	0.003 U	0.0274
2981-210	J195X9	SDG091809	09/18/09	09/15/09	12/03/09	120309-LC'DRC	32.2	0.0145	0.002 U	0.007 U	0.003 U	0.0335
2981-211	J19609	SDG091809	09/18/09	09/15/09	12/03/09	120309-LC'DRC	32.9	0.00918	0.002 U	0.007 U	0.003 U	0.0282
2981-212	J19610	SDG091809	09/18/09	09/15/09	12/03/09	120309-LC'DRC	38.7	0.00474	0.002 U	0.007 U	0.00446	0.0182
2981-213	J19629	SDG092309	09/23/09	09/16/09	12/03/09	120309-LC'DRC	34.7	0.00764	0.002 U	0.007 U	0.00450	0.0211
2981-214	J19628	SDG092309	09/23/09	09/16/09	12/03/09	120309-LC'DRC	28.9	0.0133	0.002 U	0.007 U	0.003 U	0.0323
2981-215	J19639	SDG092309	09/23/09	09/16/09	12/03/09	120309-LC'DRC	23.9	0.00946	0.002 U	0.007 U	0.003 U	0.0285
2981-218	J19640	SDG092309	09/23/09	09/16/09	12/03/09	120309-LC'DRC	29.7	0.00459	0.002 U	0.007 U	0.003 U	0.0236
2981-219	J19650	SDG092309	09/23/09	09/17/09	12/03/09	120309-LC'DRC	36.0	0.00896	0.002 U	0.007 U	0.003 U	0.0280
2981-220	J19649	SDG092309	09/23/09	09/17/09	12/03/09	120309-LC'DRC	29.2	0.0202	0.002 U	0.007 U	0.003 U	0.0392
2981-221	J19660	SDG092309	09/23/09	09/17/09	12/03/09	120309-LC'DRC	32.0	0.0188	0.002 U	0.007 U	0.00385	0.0316
2981-222	J19659	SDG092309	09/23/09	09/17/09	12/03/09	120309-LC'DRC	28.7	0.0375	0.002 U	0.007 U	0.003 U	0.0565

QUALITY CONTROL SAMPLE RESULTS

Average 31.7

Method Blank

Blank R1	SDG091109	09/11/09	12/02/09	120209-LC'DRC	0.0006 U	0.001 U	0.002 U	0.003 U	N/A
Blank R2	Multiple		12/03/09	120309-LC'DRC	0.0006 U	0.001 U	0.002 U	0.003 U	N/A

NOTES: Arsenobetaine (AsB)

Dimethylarsinic acid (DMA)

Monomethylarsonic acid (MMA)

Arsenate (V or As^V)

Arsenite (III or As^{III})

Total Inorganic Arsenic = As^{III, V}

Total As = Sum of AsB, DMA, MMA, and As^{III, V}

Cal = Calculated Value

¹ Method detection limit (MDL) for AsB calculated from instrument detection limit converted to µg/g using the average sample mass and volume for this project.

U Not detected at or above MDL shown

QA/QC NARRATIVE

PROJECT: Washington Closures Hanford SDG091109, 091809, and 092309
PARAMETER: Arsenic Speciation – Total Inorganic Arsenic (TIA)
LABORATORY: Pacific Northwest National Laboratory (PNNL) operated by Battelle, Marine Sciences Laboratory (MSL), Sequim, Washington
MATRIX: Tissue Homogenate
SAMPLE CUSTODY AND PROCESSING: Tissue samples were received at MSL in three shipments on 09/11/09, 09/18/09, and 09/23/09. All samples were received in good condition (i.e., no sample containers were broken or leaking). Samples were assigned a Battelle Central File (CF) identification number (2981) and were entered into the MSL sample tracking and project management system.

SAMPLE PROCESSING INFORMATION:

MSL Code:	SDG091109: 2981*186-202 select #s SDG091809: 2981*203-212 SDG092309: 2981*213-222 select #s
Description:	Freshwater Fish Homogenate
Collection dates	September 2009
Laboratory arrival date	09/11/09, 09/18/09, 09/23/09
Cooler temperature on arrival	3.7, 2.7, and 2.0°C, respectively
Extraction Dates:	12/01/09 and 12/02/09
Analyses Dates:	12/01/09 and 12/02/09

METHODS:

The tissue homogenate was processed and analyzed for total inorganic arsenic defined as the sum of arsenate (V or As⁵⁺) and arsenite (III or As³⁺) following MSL standard operating procedure MSL-I-037 Arsenic Speciation using High Performance Liquid Chromatography – Inductively Coupled Plasma Mass Spectrometry (HPLC-ICP-MS) in Aqueous, Sediment, and Tissue Samples. This method was developed from guidance in EPA Method 1632 for the speciation of arsenic in waters. This method is applicable to the determination of total inorganic arsenic (As) and arsenic species in drinking, surface, groundwater, seawater, tissue and sediment extracts. The anionic or cationic arsenic species are separated by an anion ion exchange column on high-performance liquid chromatography (HPLC) followed by detection and quantification using inductively coupled plasma – mass spectrometry with a dynamic reaction cell accessory (ICP-DRC-MS). This method quantitatively determines organic species of arsenic including arsenobetaine (AsB), dimethylarsinic acid (DMA), monomethylarsonic acid (MMA), and can be set up to separate the inorganic oxidation states of 3+ and 5+. This allows risk assessment to be conducted on a chemical species of interest rather than just the total arsenic. This is particularly significant for arsenic as the toxicity is highly dependent on the chemical species, with the most toxic being the As³⁺ oxidation state. The data for the organic arsenic species were included along with the total inorganic arsenic determined as the sum of the inorganic oxidation states of 3+ and 5+. The quality control evaluated was conducted only on the total inorganic arsenic concentration identified in the table as As³⁺⁵.

Upon arrival at MSL, the wet tissue samples were stored at <-18°C until samples were lyophilized. Approximately 500 mg of dried, homogenized tissue was extracting using deionized water and tetramethyl ammonium hydroxide (TMAOH). An aliquot of the supernatant is subsequently analyzed for arsenic species using the HPLC coupled with the ICP-DRC-MS. Analytical results are reported in µg/g dry weight. These concentrations are then converted back to a wet weight concentration using the

QA/QC NARRATIVE

following formula: wet weight concentration = dry weight concentration * % dry weight / 100.

NOTE: The data for arsenobetaine (AsB), dimethylarsinic acid (DMA), monomethylarsonic acid (MMA) are reported for information purposes only. The data are quantitatively determined, but the MSL QA program only validates the analytes requested by the client. The requested species of arsenic is the total inorganic arsenic, which is the sum of the two inorganic oxidation states of 3+ and 5+. The other arsenic species may be validated upon request. The quality control review below applies only to the As³⁺⁵ data.

HOLDING TIMES: Wet tissue samples were stored at either 4 °C, frozen, or at ≤ -18 °C from time of collection to analysis. Holding times are 28 days at 4 ± 2 °C and 180 days at ≤ -18 °C. Dry samples in plastic or glass jars may be stored at room temperature for 180 days. The samples were received 3-7 days after collection and stored at ≤ -18 °C and then lyophilized. With these storage requirements the samples were analyzed within the 180 days from collection.

DATA QUALITY CRITERIA (DQC):

Analyte	Analytical Method	Range of Blank Spike Recovery	Range of MS/MSD Spike Recovery	SRM Percent Recovery	Replicate Precisions (RPD)	Achieved MDL (µg/g dry wt.)	Achieved MDL (µg/g wet wt.)
AsB	HPLC/ICP-DRC-MS	NA	NA	NA	NA	0.002 µg/g	0.0006 µg/g
DMA	HPLC/ICP-DRC-MS	NA	NA	NA	NA	0.005 µg/g	0.001 µg/g
MMA	HPLC/ICP-DRC-MS	NA	NA	NA	NA	0.007 µg/g	0.002 µg/g
As ³⁺⁵	HPLC/ICP-DRC-MS	85-115%	75-125%	±25%	≤25%	0.01 µg/g	0.003 µg/g

NA = Data quality not applicable to the organic arsenic species for this project.

DETECTION LIMITS: Analytical results were reported to the laboratory achieved method detection limits (MDL) as determined from the Annual MDL study. The MDLs were determined according to EPA's "Definition and Procedure for the Determination of the Method Detection Limit - revision 1.11" 40 CFR Part 136, Appendix B. The only exception is the MDL determined for the AsB, which was the instrument detection limit converted from µg/L to µg/g using the average sample mass and volume for these samples. Data were evaluated and flagged in accordance with the following criteria:

U Undetected at the MDL, MDL reported.

* Duplicates outside the QC sample criterion.

N Spikes outside the QC sample criterion.

METHOD BLANKS: Method blanks were prepared and analyzed with the samples at a frequency of one each per analytical batch of 20 or fewer samples. Two analytical batches are reported for this data set. None of the arsenic species were detected in the method blanks.

LABORATORY CONTROL SAMPLE (LCS) ACCURACY: Laboratory control samples (LCS) were prepared and analyzed at a frequency of one each per analytical batch of 20 or fewer samples. The LCS consists of reagents spiked with the arsenic species of interest that are processed and analyzed with the samples. The LCS samples were within the QC criterion of 85-115% recovery.

QA/QC NARRATIVE

REPLICATE PRECISION:

Laboratory duplicates were analyzed at a frequency of one each per 20 field samples or analytical batch. Due to an error, the duplicate for analytical batch 120209-LCDRC was conducted on a Washington Closures Hanford sample that was not selected for total inorganic arsenic analyses. The value is reported for the purpose of meeting the quality control requirement. The sample did not contain detectable As^{III}; therefore, precision was assessed using the matrix spike duplicates. Analytical precision was assessed using the matrix spike duplicates and were within the QC acceptance criterion of $\leq 25\%$ RPD.

MATRIX SPIKE ACCURACY:

The analytical method requires a matrix spike at a frequency of one per 20 samples or analytical batch. A matrix spike duplicate was also added to provide a measure of precision (as discussed above). Due to an error, the matrix spike and duplicate matrix spike for analytical batch 120209-LCDRC were conducted on a Washington Closures Hanford sample that was not selected for total inorganic arsenic analyses. The values are provided to demonstrate the quality control was within requirements for this analytical batch. The matrix spikes were within the QC acceptance criterion of 75-125%. The duplicate matrix spikes for analytical batch 120309-LCDRC were just outside the QC acceptance criterion (74% and 71%, respectively). The matrix spikes were reprocessed, but resulted in the same low recoveries. The LCS was within the QC criterion; therefore, the batch was reported. The data may be considered biased slightly low; however, the sample concentrations were all within three times the method detection limit. The data are not considered significantly impacted.

STANDARD REFERENCE MATERIAL:

The standard reference material (SRM) Dorm-2 Dogfish Mussel was prepared and analyzed with each analytical batch. The SRM is not certified for total inorganic arsenic, but certified values are provided for AsB and total As. The concentrations for these two species were within the QC criterion of $\pm 25\%$ difference.

REFERENCES:

- Francesconi, K.A. and Kuehnelt, D., 2004. Determination of arsenic species: A critical review of methods and application, 2000-2003. *Analyst*, 129: 373-395.
- Gong, Z., Lu, X., Ma, M., Watt, C., Le, C., 2002. Arsenic speciation analysis. *Talanta*, 58: 77-96
- Mandal, B.K., Ogra, Y., Suzuki, K.T., 2003. Speciation of arsenic in human nail and hair from arsenic-affected area by HPLC-inductively coupled argon plasma mass spectrometry. *Toxicol. Appl. Pharmacol.*, 189: 73-83.
- U.S. EPA, 2000. Method 1632, Revision A (1632A), Chemical Speciation of Arsenic in Water and Tissue by Hydride Generation Quartz Furnace atomic Absorption Spectrometry.

SAMPLE LOGIN

Project Manager: Brandenberger
Date Received: 9/11/2009
Batch: 15
Login Designee: Mcgahan

Project: **Washington Closure Hanford**



Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382
PH: (360) 681-4565

Sponsor ID	Site Description	Battelle Code	Matrix	Storage Location	Requested Parameters	Collection Date
J195T9	na	2981-185	other solid	Deep Freezer B-1	MeHg	09/03/09
J19476	na	2981-186	other solid	Deep Freezer B-1	TIA, HCr	09/03/09
J195V0	na	2981-187	other solid	Deep Freezer B-1	MeHg	09/03/09
J19477	na	2981-188	other solid	Deep Freezer B-1	TIA, HCr	09/03/09
J19487	na	2981-189	other solid	Deep Freezer B-1	TIA, HCr	09/03/09
J195V2	na	2981-190	other solid	Deep Freezer B-1	MeHg	09/03/09
J19486	na	2981-191	other solid	Deep Freezer B-1	TIA, HCr	09/03/09
J195V1	na	2981-192	other solid	Deep Freezer B-1	MeHg	09/03/09
J19497	na	2981-193	other solid	Deep Freezer B-1	TIA, HCr	09/08/09
J195V4	na	2981-194	other solid	Deep Freezer B-1	MeHg	09/08/09
J195V3	na	2981-195	other solid	Deep Freezer B-1	MeHg	09/08/09
J19496	na	2981-196	other solid	Deep Freezer B-1	TIA, HCr	09/08/09
J195V5	na	2981-197	other solid	Deep Freezer B-1	MeHg	09/08/09
J194B7	na	2981-198	other solid	Deep Freezer B-1	TIA, HCr	09/08/09
J195V6	na	2981-199	other solid	Deep Freezer B-1	MeHg	09/08/09
J194B8	na	2981-200	other solid	Deep Freezer B-1	TIA, HCr	09/08/09
J194C8	na	2981-201	other solid	Deep Freezer B-1	TIA, HCr	09/09/09
J194C9	na	2981-202	other solid	Deep Freezer B-1	TIA, HCr	09/09/09

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-778		Page 1 of 1	
Collector M.F. dino		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code 9K N 1/2 8/09	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 17 FILLET		SAF No. RC-118		Data Turnaround 45 Days			
Ice Chest No. WCH-DB-001-4		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/Air Bill No. FDX # 797922488504					
POSSIBLE SAMPLE HAZARDS/REMARKS N/A				Preservation	Cool 4C	Freeze			
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"				Type of Container	P/G	G/P			
				No. of Container(s)	0	1			
				Volume	15mL	60mL			
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M				
Sample No.	Matrix *	Sample Date	Sample Time						
J19476	2981-186	OTHER SOLID	9/3/09	1045	X	X			
CHAIN OF POSSESSION				Sign/Print Names		SPECIAL INSTRUCTIONS			
Relinquished By/Removed From M.F. dino		Date/Time 9/3/09 1045		Received By/Stored In EAS LOCKED STORAGE		Date/Time 9/3/09 1045		Matrix * S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue W1=Wage L=Liquid V=Vegetation X=Other	
Relinquished By/Removed From EAS LOCKED STORAGE		Date/Time 9/10/09		Received By/Stored In SHANNAN JOHNSON		Date/Time 9/10/09			
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time 9/10/09		Received By/Stored In		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
LABORATORY SECTION				Received By		Title		Date/Time	
FINAL SAMPLE DISPOSITION				Disposal Method		Disposed By		Date/Time	

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-851	Page 1 of 1
Collector <i>M. F. dino</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>915</i>	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 17 CARCASS		SAF No. RC-118	<i>483105</i>		
Ice Chest No. <i>WCH-08-001-4</i>		Field Logbook No. EL-1638	COA BESCR6520	Method of Shipment FED EX			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/Air Bill No. FD 797922488504			
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>		Preservation	Freeze				
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>		Type of Container	P				
		No. of Container(s)	1				
		Volume	60mL				
SAMPLE ANALYSIS			Methyl Mercury by EPA 1631M; Mercury - 7473				
Sample No.	Matrix *	Sample Date	Sample Time				
J195V0 <i>2981.187</i>	OTHER SOLID	<i>9/3/09</i>	<i>1100</i>	X			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>M. F. dino</i>	Date/Time <i>9/3/09 1100</i>	Received By/Stored In <i>EAS LOCKED STORAGE</i>	Date/Time <i>9/3/09 1100</i>	<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>			<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SL=Sludge W = Water O=Oil A=Air DS=Dry Solids DL=Dry Liquids T=Tissue WL=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From <i>EAS LOCKED STORAGE</i>	Date/Time <i>9/10/09 1100</i>	Received By/Stored In <i>SHANNAN JOHNSON</i>	Date/Time <i>9/10/09 1100</i>				
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>	Date/Time <i>9/10/09 1100</i>	Received By/Stored In <i>FDX</i>	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In <i>Shannon Johnson</i>	Date/Time <i>09/10/09 1458</i>				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title		Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-779		Page 1 of 1	
Collector M. Edino		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code 9K N MS 8/109	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 17 CARCASS		SAF No. RC-118		Data Turnaround 45 Days			
Ice Chest No. WCH-08-001-4		Field Logbook No. EL-1638		COA BESCRC6520		Method of Shipment FED EX			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/Air Bill No. FD 797922488504					
POSSIBLE SAMPLE HAZARDS/REMARKS N/A		Preservation		Cool 4C	Freeze				
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"		Type of Container		P/G	G/P				
		No. of Container(s)		0	1				
		Volume		15mL	60mL				
SAMPLE ANALYSIS		Total Inorganic Arsenic		Chromium Hex in Solids - 1636M					
Sample No.	Matrix *	Sample Date	Sample Time						
J19477 2981.188	OTHER SOLID	9/3/09	1100	X	X				
CHAIN OF POSSESSION					SPECIAL INSTRUCTIONS				
Relinquished By/Removed From M. Edino		Date/Time 9/3/09 1100		Received By/Stored In EAS LOCKED STORAGE 2		Date/Time 9/3/09 1100		Matrix *	
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time 9/10/09 1013		Received By/Stored In SHANNAN JOHNSON		Date/Time 9/10/09 1000		S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other	
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time 9/10/09 1013		Received By/Stored In EDV		Date/Time 9/10/09 1452		in duplicate for shipment to lab. Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
LABORATORY SECTION		Received By		Title		Date/Time			
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By		Date/Time			

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-789		Page 1 of 1				
Collector <i>M. Fidino</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>ND 8/109</i>		Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 18 CARCASS				SAF No. RC-118						
Ice Chest No. <i>WCH-DB-001-4</i>		Field Logbook No. EL-1638		COA BESCRC6520		Method of Shipment FED EX						
Shipped To Battelle Marine Sciences		Offsite Property No. N/A				Bill of Lading/Air Bill No. FDX# 797922488506						
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>		Preservation		Cool 4C	Freeze							
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>		Type of Container		P/G	G/P							
		No. of Container(s)		0	1							
		Volume		15mL	60mL							
SAMPLE ANALYSIS		Total Inorganic Arsenic		Chromium Hex in Solids - 1636M								
Sample No.	Matrix *	Sample Date	Sample Time									
<i>J19487 2781-189</i>	<i>OTHER SOLID</i>	<i>9/13/09</i>	<i>1430</i>	<i>X</i>	<i>X</i>							
CHAIN OF POSSESSION				Sign/Print Names				SPECIAL INSTRUCTIONS				Matrix *
Relinquished By/Removed From <i>M. Fidino</i>		Date/Time <i>9/13/09 1430</i>		Received By/Stored In <i>EAS LOCKED STORAGE</i>		Date/Time <i>9/13/09</i>		<i>31 samples for shipment to lab.</i> <i>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody.</i>				<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid Sl=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue Wl=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From <i>EAS LOCKED STORAGE</i>		Date/Time <i>9/16/09</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>9/16/09</i>						
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>9/16/09</i>		Received By/Stored In <i>FDX</i>		Date/Time <i>9/16/09</i>						
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time						
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time						
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time						
LABORATORY SECTION		Received By				Title				Date/Time		
FINAL SAMPLE DISPOSITION		Disposal Method				Disposed By				Date/Time		

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-853	Page 1 of 1
Collector <i>M. F. d. no</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 18 CARCASS		SAF No. RC-118	<i>N</i> <i>483109</i>		
Ice Chest No. <i>WCH-08-001-4</i>	Field Logbook No. EL-1638	COA BESRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading Air Bill No. FD: 797922488504			
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>			Preservation	Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>			Type of Container	P			
			No. of Container(s)	1			
			Volume	60mL			
SAMPLE ANALYSIS				Methyl Mercury by EPA 1631M; Mercury - 7473			
Sample No.	Matrix *	Sample Date	Sample Time				
J195V2 <i>2981.198</i>	OTHER SOLID	<i>9/3/09</i>	<i>1430</i>	X			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS		Matrix *	
Relinquished By/Removed From <i>M. F. d. no</i>		Date/Time <i>9/3/09 1430</i>		Received By/Stored In EAS LOCKED STORAGE 2		Date/Time <i>9/3/09</i>	
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time <i>9/10/09</i>		Received By/Stored In SHANNAN JOHNSON		Date/Time <i>9/10/09</i>	
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>9/10/09</i>		Received By/Stored In <i>[Signature]</i>		Date/Time <i>9/10/09 1430</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
LABORATORY SECTION				Received By		Title	
FINAL SAMPLE DISPOSITION				Disposal Method		Disposed By	
						Date/Time	
						Date/Time	

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-788		Page 1 of 1			
Collector M. F. dino		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code 9K N ND 8/8/09			
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 18 FILLET		SAF No. RC-118		Data Turnaround 45 Days					
Ice Chest No. WCH-03-001-4		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX					
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading Air Bill No. FDX#797922488504							
POSSIBLE SAMPLE HAZARDS/REMARKS N/A				Preservation		Cool 4C		Freeze			
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"				Type of Container		P/G		G/P			
				No. of Container(s)		0		1			
				Volume		15mL		60mL			
SAMPLE ANALYSIS				Total Inorganic Arsenic		Chromium Hex in Solids - 1636M					
Sample No.		Matrix *		Sample Date		Sample Time					
J19486 2981.191		OTHER SOLID		9/3/09		1415		X X			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS				Matrix *			
Relinquished By/Removed From M. F. dino		Date/Time 9/3/09 1415		Received By/Stored In EAS LOCKED STORAGE 2		Date/Time 9/3/09		<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SL=Sludge W=Water CO=Oil A=Air DS=Drum Solids DI=Drum Liquids T=Tissue W=Wgc L=Liquid V=Vegetation X=Other 			
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time 9/10/09		Received By/Stored In SHANNAN JOHNSON		Date/Time 9/10/09					
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time 9/10/09		Received By/Stored In FDX		Date/Time 10/2					
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time					
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time					
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time					
LABORATORY SECTION				Received By				Title			
FINAL SAMPLE DISPOSITION				Disposal Method				Disposed By			
								Date/Time			
								Date/Time			

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-852	Page 1 of 1
Collector M. F. d'ino		Company Contact JOAN KESSNER		Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9K	Data Turnaround 45 Days
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 18 FILLET			SAF No. RC-118	<i>Handwritten signature</i>	
Ice Chest No. WCH-08-001-4		Field Logbook No. EL-1638	COA BESCR6520	Method of Shipment FED EX			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/Air Bill No. FDV 797922488504			
POSSIBLE SAMPLE HAZARDS/REMARKS N/A		Preservation	F.c.ze				
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"		Type of Container	P				
		No. of Container(s)	1				
		Volume	60mL				
SAMPLE ANALYSIS			Methyl Mercury by EPA 1631M; Mercury - 7473				
Sample No.	Matrix *	Sample Date	Sample Time				
J195V1	2981.192	OTHER SOLID	9/3/09	1415	X		
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From M. F. d'ino		Date/Time 9/3/09 1415	Received By/Stored In EAS LOCKED STORAGE 2		Date/Time 9/3/09 1415		
Relinquished By/Removed From EAS LOCKED STORAGE		Date/Time 9/10/09	Received By/Stored In SHANNAN JOHNSON		Date/Time 9/10/09		
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time 9/10/09	Received By/Stored In FDX		Date/Time		
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time		
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time		
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time		
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time		
LABORATORY SECTION	Received By		Title			Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method		Disposed By			Date/Time	

WCH-EE-011

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-799	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 19 CARCASS		SAF No. RC-118	<i>2/28/09</i>		
Ice Chest No. <i>WCH-08-001-4</i>	Field Logbook No. EL-1638	COA BESCR6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A	Bill of Lading/Air Bill No. FD 797922488504				
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze	
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P	
				No. of Container(s)	0	1	
				Volume	15mL	60mL	
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M		
Sample No.	Matrix *	Sample Date	Sample Time				
J19497	<i>2981-193</i>	<i>9-8-09</i>	<i>1340</i>	X	X		
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS		Matrix *	
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>9/8/09 1340</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>9/8/09 1340</i>	
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time <i>9/10/09</i>		Received By/Stored In SHANNAN JOHNSON		Date/Time <i>10/1/09</i>	
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>9/10/09</i>		Received By/Stored In <i>[Signature]</i>		Date/Time <i>9/11/09 1450</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
LABORATORY SECTION				Received By		Title	
FINAL SAMPLE DISPOSITION				Disposal Method		Disposed By	

WCH-EE-011

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-855	Page 1 of 1															
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i>	Data Turnaround 45 Days																
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 19 CARCASS		SAF No. RC-118	<i>MCS105</i>																	
Ice Chest No. <i>WCH-08-001-4</i>	Field Logbook No. EL-1638	COA BESRC6520	Method of Shipment FED EX																			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A	Bill of Lading/Air Bill No. FDY # 797922488504																			
POSSIBLE SAMPLE HAZARDS/REMARKS N/A				Preservation	Freeze																	
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"				Type of Container	P																	
				No. of Container(s)	1																	
				Volume	60mL																	
SAMPLE ANALYSIS				Methyl Mercury by EPA 1631M: Mercury - 7473																		
Sample No.	Matrix *	Sample Date	Sample Time																			
J195V4 <i>2981194</i>	OTHER SOLID	<i>9.8.09</i>	<i>1340</i>	<i>X</i>																		
CHAIN OF POSSESSION				Sign/Print Names				SPECIAL INSTRUCTIONS						Matrix *								
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>1340 9.8.09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>1340 9.8.09</i>		<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>						<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other 								
EAS LOCKED STORAGE 2		<i>9/10/09</i>		SHANNAN JOHNSON		<i>9/10/09</i>																
SHANNAN JOHNSON		<i>9/10/09</i>		FDY		<i>9/10/09</i>																
LABORATORY SECTION		Received By		Title				Date/Time														
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By				Date/Time														

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-854		Page 1 of 1					
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>ND 83109</i>		Data Turnaround 45 Days			
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 19 FILLET				SAF No. RC-118							
Ice Chest No. <i>WCH-DB-001-9</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX							
Shipped To Battelle Marine Sciences		Offsite Property No. N/A				Bill # <i>FD 79922488504</i>							
POSSIBLE SAMPLE HAZARDS/REMARKS N/A		Preservation Freeze		Type of Container P		No. of Container(s) 1		Volume 60mL					
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"													
SAMPLE ANALYSIS				Methyl Mercury by EPA 1631M; Mercury - 7473									
Sample No.	Matrix *	Sample Date	Sample Time										
J195V3 2981.195	OTHER SOLID	9.8.09	1230	X									
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS				Matrix *					
Relinquished By/Removed From <i>Wendy West</i>		Date/Time 9.8.09 1230		Received By/Stored In <i>Wendy West</i>		Date/Time 9.8.09 1230		SPECIAL INSTRUCTIONS Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.				Matrix * S-Soil SE-Sediment SO-Solid SI-Sludge W-Water O-Oil A-Air DS-Drum Solids DL-Drum Liquids T-Tissue Wl-Wipe L-Liquid V-Vegetation X-Other	
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time 9/10/09		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time 9/10/09							
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time 9/10/09		Received By/Stored In <i>FDX</i>		Date/Time							
Relinquished By/Removed From		Date/Time		Received By/Stored In <i>Shannon Johnson</i>		Date/Time 9/10/09 1450							
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time							
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time							
LABORATORY SECTION		Received By				Title				Date/Time			
FINAL SAMPLE DISPOSITION		Disposal Method				Disposed By				Date/Time			

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-798		Page 1 of 1	
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>81109</i>	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 19 FILLET		SAF No. RC-118		Data Turnaround 45 Days			
Ice Chest No. <i>WCH-08-001-4</i>		Field Logbook No. EL-1638		COA BESCRC6520		Method of Shipment FED EX			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading (Tr. Bill) No. FDX#797922488504					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>		Preservation		Cool 4C	Freeze				
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>		Type of Container		P/G	G/P				
		No. of Container(s)		0	1				
		Volume		15mL	60mL				
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M				
Sample No.	Matrix *	Sample Date	Sample Time						
J19496 2981.196	OTHER SOLID	9.8.09	1230	X	X				
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS				Matrix *	
Relinquished By/Removed From <i>Wendy West</i>		Date/Time 1230 9.8.09		Received By/Stored In <i>Wendy West</i>		Date/Time 1230 9.8.09		<p>EAS LOCKED STORAGE 2</p> <p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p> <p>S=Soil SE=Sediment SO=Solid Sl=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue Wl=W gc L=Liquid V=Vegetation X=Other</p>	
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time 9/10/09 160		Received By/Stored In SHANNAN JOHNSON		Date/Time 9/10/09 160			
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time 9/10/09		Received By/Stored In <i>FDX</i>		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In <i>Shannon Johnson</i>		Date/Time 09/11/09 1450			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
LABORATORY SECTION		Received By		Title				Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By				Date/Time	

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-856		Page 1 of 1			
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>11/13/09</i>		Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 20 FILLET			SAF No. RC-118						
Ice Chest No. <i>WCH-08-001-4</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX					
Shipped To Battelle Marine Sciences		Offsite Property No. N/A			Bill of Lading # FDX# 797922488504						
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation		Freeze					
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container		P					
				No. of Container(s)		1					
				Volume		60mL					
SAMPLE ANALYSIS					Methyl Mercury by EPA 1630M; Mercury - 7473						
Sample No.		Matrix *		Sample Date		Sample Time					
<i>J195V5 2981-197</i>		<i>OTHER SOLID</i>		<i>9-8-09</i>		<i>1545</i>		<i>X</i>			
CHAIN OF POSSESSION					SPECIAL INSTRUCTIONS			Matrix *			
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>1545</i>		Received By/Stored In <i>EAS LOCKED STORAGE</i>		Date/Time <i>1545</i>		<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p> <ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Dryum Solids DL=Dryum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other 			
Relinquished By/Removed From <i>EAS LOCKED STORAGE</i>		Date/Time <i>9-8-09</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>9-8-09</i>					
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>9-10-09</i>		Received By/Stored In <i>FDX</i>		Date/Time <i>10/1/09</i>					
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time					
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time					
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time					
LABORATORY SECTION		Received By			Title			Date/Time			
FINAL SAMPLE DISPOSITION		Disposal Method			Disposed By			Date/Time			

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-808		Page 1 of 1	
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>48109</i>	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 20 FILLET		SAF No. RC-118		Data Turnaround 45 Days			
Ice Chest No. <i>WCH-08-001-4</i>		Field Logbook No. EL-1638		COA BESCRC6520		Method of Shipment FED EX			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading # FDX# 797922488504					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation		Cool 4C	Freeze		
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container		P/G	G/P		
				No. of Container(s)		0	1		
				Volume		15mL	60mL		
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M				
Sample No.	Matrix *	Sample Date	Sample Time						
J194B7 <i>2981.198</i>	OTHER SOLID	<i>9.8.09</i>	<i>1545</i>	X	X				
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS				Matrix *	
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>9.8.09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>9.8.09</i>		<p>EAS LOCKED STORAGE 2 9809</p> <p>SHANNAN JOHNSON</p> <p>SHANNAN JOHNSON</p> <p>FDX</p> <p><i>09/11/09 1450</i></p> <p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment in lab</p>	
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time <i>9/10/09</i>		Received By/Stored In SHANNAN JOHNSON		Date/Time <i>9/10/09</i>			
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>9/10/09</i>		Received By/Stored In FDX		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
LABORATORY SECTION		Received By		Title				Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By				Date/Time	

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-857		Page 1 of 1		
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>1/19/09</i>		
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 20 CARCASS				SAF No. RC-118		Data Turnaround 45 Days		
Ice Chest No. <i>WCH-08-001-4</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading # <i>FE 97922488504</i>						
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>			Preservation		Freeze					
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>			Type of Container		P					
			No. of Container(s)		1					
			Volume		60mL					
SAMPLE ANALYSIS					Methyl Mercury by EPA 1631M; Mercury - 7473					
Sample No.	Matrix *	Sample Date	Sample Time							
<i>J195V6 2981.199</i>	<i>OTHER SOLID</i>	<i>9.8.09</i>	<i>1600</i>	<i>X</i>						
CHAIN OF POSSESSION					SPECIAL INSTRUCTIONS					
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab</p>		<p>Matrix *</p> <ul style="list-style-type: none"> S=Soil SE=Settlement SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Turner WI=Wipe L=Liquid V=Vegetation X=Other
<i>Wendy West</i>		<i>9.8.09 1600</i>		<i>EAS lock storage</i>		<i>1600</i>				
<i>EAS LOCKS</i>		<i>9/10/09 1500</i>		<i>Wendy West</i>		<i>9.8.09</i>				
<i>SHANNAN JOHNSON</i>		<i>9/10/09 1500</i>		<i>SHANNAN JOHNSON</i>		<i>9/11/09 1500</i>				
				<i>FOX</i>						
				<i>Shannan Johnson</i>		<i>09/11/09 1450</i>				
LABORATORY SECTION		Received By		Title		Date/Time				
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By		Date/Time				

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-809		Page 1 of 1		
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>AD 6/10/09</i>		
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 20 CARCASS		SAF No. RC-118		Data Turnaround 45 Days				
Ice Chest No. <i>WCH-DB-001-4</i>		Field Logbook No. EL-1638		COA BESRC6520		Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading # FDX# 797922488504						
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>			Preservation	Cool 4C	Freeze					
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>			Type of Container	P/G	G/P					
			No. of Container(s)	0	1					
			Volume	15mL	60mL					
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M					
Sample No.	Matrix *	Sample Date	Sample Time							
J194B8	<i>2987-200</i>	<i>9.8.09</i>	<i>1100</i>	<i>X</i>	<i>X</i>					
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS				Matrix *		
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>9.8.09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>9.8.09</i>		<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Dissolved Solids DL=Dissolved Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other 		
EAS LOCKED STORAGE 2		<i>9/10/09</i>		SHANNAN JOHNSON		<i>9/10/09</i>				
SHANNAN JOHNSON		<i>9/10/09</i>		FDV		<i>9/10/09</i>				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab</p>		
LABORATORY SECTION		Received By		Title		Date/Time				
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By		Date/Time				

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-818		Page 1 of 1	
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>OK</i> <i>N</i> <i>AK 8109</i>	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 21 FILLET		SAF No. RC-118		Data Turnaround 45 Days			
Ice Chest No. <i>WCH-08-001-4</i>		Field Logbook No. EL-1638		COA BESCRC6520		Method of Shipment FED EX			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading # FDX# 797922488504					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P			
				No. of Container(s)	0	1			
				Volume	15mL	60mL			
				SAMPLE ANALYSIS		Total Inorganic Arsenic	Chromium Hex in Solids - 1636M		
Sample No.	Matrix *	Sample Date	Sample Time						
J194C8 2981-201	OTHER SOLID	9.9.09	1045	X	X				
CHAIN OF POSSESSION					SPECIAL INSTRUCTIONS				
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>10/45</i>		Received By/Stored In <i>EAS LOCKED STORAGE 2</i>		Date/Time <i>9.9.09</i>		Matrix * S=Soil SE=Sediment SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other	
Relinquished By/Removed From <i>EAS LOCKED STORAGE 2</i>		Date/Time <i>9/10/09</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>9/10/09</i>			
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>9/10/09</i>		Received By/Stored In <i>EDX</i>		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In <i>Shannon</i>		Date/Time <i>09/11/09 1430</i>			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>	
LABORATORY SECTION	Received By		Title				Date/Time		
FINAL SAMPLE DISPOSITION	Disposal Method		Disposed By				Date/Time		

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-819		Page 1 of 1	
Collector <i>Wendy Weir</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>9/11/09</i>	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 21 CARCASS		SAF No. RC-118		Data Turnaround 45 Days			
Ice Chest No. <i>WCH-08-001-4</i>		Field Logbook No. EL-1638		COA BESCRC6520		Method of Shipment FED EX			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading # FDX# 797922488504					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P			
				No. of Container(s)	0	1			
				Volume	15mL	60mL			
				SAMPLE ANALYSIS		Total Inorganic Arsenic	Chromium Hex in Solids - 1636M		
Sample No.	Matrix *	Sample Date	Sample Time						
<i>J194C9 2981-202</i>	<i>OTHER SOLID</i>	<i>9.9.09</i>	<i>10:55</i>	<i>X</i>	<i>X</i>				
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS				Matrix *	
Relinquished By/Removed From		Date/Time		Sign/Print Names		Date/Time		<p>Matrix *</p> <p>S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WJ=Wipe L=Liquid V=Vegetation X=Other</p>	
<i>Wendy Weir</i>		<i>9.9.09 10:55</i>		<i>EAS LOCKED STORAGE</i>		<i>9.9.09 10:55</i>			
<i>EAS LOCKED STORAGE 2</i>		<i>9/11/09</i>		<i>SHANNAN JOHNSON</i>		<i>9/11/09</i>			
<i>SHANNAN JOHNSON</i>		<i>9/11/09</i>		<i>FDX</i>		<i>9/11/09</i>			
<i>SHANNAN JOHNSON</i>		<i>9/11/09</i>		<i>FDX</i>		<i>9/11/09</i>			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab</p>	
<i>SHANNAN JOHNSON</i>		<i>9/11/09</i>		<i>SHANNAN JOHNSON</i>		<i>9/11/09 1450</i>			
<i>SHANNAN JOHNSON</i>		<i>9/11/09</i>		<i>SHANNAN JOHNSON</i>		<i>9/11/09</i>			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
<i>SHANNAN JOHNSON</i>		<i>9/11/09</i>		<i>SHANNAN JOHNSON</i>		<i>9/11/09</i>			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
<i>SHANNAN JOHNSON</i>		<i>9/11/09</i>		<i>SHANNAN JOHNSON</i>		<i>9/11/09</i>			
LABORATORY SECTION		Received By		Title		Date/Time			
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By		Date/Time			

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Central File #: 2981

Sample No(s): 185-204

Project Manager: Brandenberger

TO BE COMPLETED BY PROJECT MANAGER (prior to sample arrival when possible)

Matrix: _____ WP# _____

Yes No

Navy-type Project (requires high-level sample tracking procedures)

USDA Soils (or overseas, including Hawaii and the U.S. Virgin Islands) See Compliance Agreement Checklist

Filter Samples: Acceptable Entire sample Half of sample

Freeze dry sample(s) - samples will be weighed and placed in Ultra-low temp freezer (Lab# 503)

Special instructions: _____

Sample Preservation Instructions: _____

See LIMS for archive/disposal information

TO BE COMPLETED UPON SAMPLE ARRIVAL/LOG-IN

Yes No N/A (Initial appropriate box when completed)

Custody seal present

Custody seal intact

Cooler(s) temperature (acceptable ranges = water: 4±2°C / solid: frozen) 3.7 °C

(if multiple coolers, note temp. of each) _____ °C

Project Manager notified of any discrepancies or if temperature outside acceptable range?

Comments/Remedy: _____

All chain of custody forms signed and dated?

Samples Filtered?

Sample condition(s): Acceptable other explain: _____

Container type: Plastic Jars

Notes: _____

Completed By: [Signature] Date/Time: 09/11/09 1450

SAMPLE PRESERVATION

Sample preserved at MSL

Sample preserved prior to arrival at MSL (noted on CoC / Sample / per PM Instruction)

Random pH checked for ~10% of samples (use dip paper) Sample IDs: _____

Complete pH check required for project (use pH meter and record on pH Record form)

If preservation necessary, record Acid Lot#

Type: 0.2% HNO3 Notes: _____

0.5% HCl (Hg samples) Notes: _____

Refrigerate Notes: _____

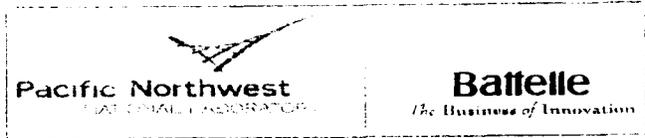
Freeze Notes: Outside freezer - to be transferred to deep freezer

Other Notes: _____

Completed By: [Signature] Date/Time: 09/11/09 1450

SAMPLE LOGIN

Project Manager: Brandenberger
 Date Received: 9/18/2009 ✓
 Batch: 16
 Login Designee: Mcgahan



Marine Sciences Laboratory
 1529 West Sequim Bay Road
 Sequim, Washington 98382
 PH: (360) 681-4565

Project: **Washington Closure Hanford**

Sponsor ID	Site Description	Battelle Code	Matrix	Storage Location	Requested Parameters	Collection Date
J19503 ✓	na	2981-203 ✓	other solid	Deep Freezer D-1	Total Inorganic As, Cr Hex in Solids 1636M ✓	09/10/09 ✓
J19504 ✓	na	2981-204	other solid	Deep Freezer D-1	Total Inorganic As, Cr Hex in Solids 1636M	09/10/09
J195R1 ✓	na	2981-205	other solid	Deep Freezer D-1	Total Inorganic As, Cr Hex in Solids 1636M	09/10/09
J195R0 ✓	na	2981-206	other solid	Deep Freezer D-1	Total Inorganic As, Cr Hex in Solids 1636M	09/10/09
J195T2 ✓	na	2981-207	other solid	Deep Freezer D-1	Total Inorganic As, Cr Hex in Solids 1636M	09/14/09 ✓
J195T3 ✓	na	2981-208	other solid	Deep Freezer D-1	Total Inorganic As, Cr Hex in Solids 1636M	09/14/09
J195Y0 ✓	na	2981-209	other solid	Deep Freezer D-1	Total Inorganic As, Cr Hex in Solids 1636M	09/15/09 ✓
J195X9 ✓	na	2981-210	other solid	Deep Freezer D-1	Total Inorganic As, Cr Hex in Solids 1636M	09/15/09
J19609 ✓	na	2981-211	other solid	Deep Freezer D-1	Total Inorganic As, Cr Hex in Solids 1636M	09/15/09
J19610 ✓	na	2981-212 ✓	other solid	Deep Freezer D-1	Total Inorganic As, Cr Hex in Solids 1636M	09/15/09 ✓

✓ J19503

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-828	Page 1 of 1	
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH	Price Code <i>9K</i>	Data Turnaround 45 Days
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 22 FILLET		SAF No. RC-118				
Ice Chest No. <i>AES-04-041</i>		Field Logbook No. EL-1638		COA BESCRC6520		Method of Shipment FED EX		
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading # <i>FDX# 797941463127</i>				
POSSIBLE SAMPLE HAZARDS/REMARKS N/A		Preservation	Cool +C	Freeze				
Special Handling and/or Storage <i>FREEZE *MATRIX COMPOSED OF FISH*</i>		Type of Container	P/G	G/P				
		No. of Container(s)	0	1				
		Volume	15mL	60mL				
SAMPLE ANALYSIS		Total Inorganic Arsenic	Chromium Hex in Solids - 1636M					
Sample No.	Matrix *	Sample Date	Sample Time					
<i>J19503 2981-203</i>	OTHER SOLID	<i>9/10/09</i>	<i>1100</i>	X	X			
CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS				Matrix *
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>1100</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>1100</i>	<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to let.</p>				<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids I=Issue WI=Wipe L=Liquid V=Vegetation X=Other
EAS LOCKED STORAGE 2	<i>9/10/09</i>	EAS LOCKED STORAGE 2	<i>9/10/09</i>					
SHANNAN JOHNSON	<i>9/17/09</i>	SHANNAN JOHNSON	<i>9/17/09</i>					
SHANNAN JOHNSON	<i>9/17/09</i>	SHANNAN JOHNSON	<i>9/17/09</i>					
LABORATORY SECTION	Received By		Title		Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method		Disposed By		Date/Time			

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-829		Page 1 of 1			
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>4/25/09</i>			
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 22 CARCASS		SAF No. RC-118		Data Turnaround 45 Days					
Ice Chest No. <i>AFS-04-041</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX					
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading # <i>FDX# 797941463127</i>							
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation		Cool 4C		Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container		P/G		G/P			
				No. of Container(s)		0		1			
				Volume		15mL		60mL			
				Total Inorganic Arsenic		Chromium Hex in Solids - 1636M					
SAMPLE ANALYSIS											
Sample No.		Matrix *		Sample Date		Sample Time					
<i>J19504 2981.204</i>		<i>OTHER SOLID</i>		<i>9/10/09</i>		<i>1130</i>		<i>X X</i>			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS				Matrix *			
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>9/10/09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>9/10/09</i>		<p>EAS LOCKED STORAGE 2</p> <p>SHANNAN JOHNSON</p> <p>FOX</p> <p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>			
Relinquished By/Removed From <i>EAS LOCKED STORAGE 2</i>		Date/Time <i>9/17/09</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>9/17/09</i>					
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>9/17/09</i>		Received By/Stored In <i>FOX</i>		Date/Time					
Relinquished By/Removed From		Date/Time		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>9/18/09 1230</i>					
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time					
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time					
LABORATORY SECTION		Received By		Title				Date/Time			
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By				Date/Time			

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-839		Page 1 of 1				
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>1082709</i>				
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 23 CARCASS				SAF No. RC-118		Data Turnaround 45 Days				
Ice Chest No. <i>APS-04-041</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX						
Shipped To Battelle Marine Sciences		Offsite Property No. N/A				Bill of Lading/Air Bill No. FDX# 797941463127						
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>		Preservation		Cool 4C	Freeze							
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>		Type of Container		P/G	G/P							
		No. of Container(s)		0	1							
		Volume		15mL	60mL							
		SAMPLE ANALYSIS		Total Inorganic Arsenic	Chromium Hex in Solids - 1636M							
Sample No.	Matrix *	Sample Date	Sample Time									
J195R1 <i>2981.205</i>	OTHER SOLID	<i>9/10/09</i>	<i>15/5</i>	X	X							
CHAIN OF POSSESSION		Sign/Print Names				SPECIAL INSTRUCTIONS				Matrix *		
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>15/5</i> <i>9/10/09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>15/5</i> <i>9/10/09</i>		<p>SAMPLER UNAVAILABLE TO REMOVE SAMPLES FROM CONTROLLED STORAGE. SHIPPER REMOVED SAMPLES FROM STORAGE LOCATION TAKING CUSTODY OF SAMPLES FOR SHIPMENT TO LAB.</p>				<ul style="list-style-type: none"> S=Soil SE=Settlement SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time <i>9/17/09</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>9/17/09</i>						
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>9/17/09</i>		Received By/Stored In <i>FDX</i>		Date/Time						
Relinquished By/Removed From		Date/Time		Received By/Stored In <i>Wendy West</i>		Date/Time <i>09/18/09 1230</i>						
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time						
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time						
LABORATORY SECTION		Received By				Title				Date/Time		
FINAL SAMPLE DISPOSITION		Disposal Method				Disposed By				Date/Time		

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-838		Page 1 of 1			
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>OK</i> <i>N</i> <i>11/8/09</i>			
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 23 FILLET			SAF No. RC-118		Data Turnaround 45 Days				
Ice Chest No. <i>AFS-04-041</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX					
Shipped To Battelle Marine Sciences		Offsite Property No. N/A			Bill of Lading/Av. Bill No. FDX# 797941463127						
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation		Cool +C		Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container		P/G		G/P			
				No. of Container(s)		0		1			
				Volume		15mL		60mL			
				Total Inorganic Arsenic		Chromium Hex in Solids - 1636M					
SAMPLE ANALYSIS											
Sample No.		Matrix *		Sample Date		Sample Time					
<i>J195R0 2981-206</i>		<i>OTHER SOLID</i>		<i>9/10/09</i>		<i>1500</i>		<i>X X</i>			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS				Matrix *			
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>1500 9/10/09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>1500 9/10/09</i>		<p>EAS LOCKED STORAGE 2</p> <p>SHANNAN JOHNSON</p> <p>FDX</p> <p><i>Shannon 9/18/09 1230</i></p> <p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>			
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time <i>950 9/17/09</i>		Received By/Stored In SHANNAN JOHNSON		Date/Time <i>950 9/17/09</i>					
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>950 9/17/09</i>		Received By/Stored In FDX		Date/Time					
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time					
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time					
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time					
LABORATORY SECTION		Received By		Title				Date/Time			
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By				Date/Time			

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-848		Page 1 of 1			
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>OK</i> <i>N</i> <i>AD 28109</i>			
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 24 FILLET		SAF No. RC-118		Data Turnaround 45 Days					
Ice Chest No. <i>APS-04-041</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX					
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading # FDX# 797941463127							
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation		Cool 4C		Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container		P/G		G/P			
				No. of Container(s)		0		1			
				Volume		15mL		60mL			
				Total Inorganic Arsenic		Chromium Hex in Solids - 1636M					
SAMPLE ANALYSIS											
Sample No.		Matrix *		Sample Date		Sample Time					
<i>J195T2 2981-207</i>		<i>OTHER SOLID</i>		<i>9/17/09 1130</i>		<i>X X</i>					
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS				Matrix *			
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>9/14/09 9:13 AM</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>9/14/09 9:13 AM</i>		<p>EAS LOCKED STORAGE 2</p> <p>EAS LOCKED STORAGE 2</p> <p>SHANNAN JOHNSON</p> <p>FDX</p> <p><i>Shannan Johnson 09/18/09 1230</i></p> <p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>			
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>9/17/09 9:50</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>9/17/09 9:50</i>					
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time					
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time					
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time					
LABORATORY SECTION		Received By		Title		Date/Time					
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By		Date/Time					

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-849		Page 1 of 1	
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9M</i> <i>N</i> <i>11/8/09</i>	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 24 CARCASS				SAF No. RC-118		Data Turnaround 45 Days	
Ice Chest No. <i>AFS-04-04</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A				Bill of Lading/Air Bill No. FDX# 797941463127			
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>			Preservation	Cool 4C	Freeze				
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>			Type of Container	P/G	G/P				
			No. of Container(s)	0	1				
			Volume	15mL	60mL				
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M				
Sample No.	Matrix *	Sample Date	Sample Time						
J195T3 <i>2981-205</i>	OTHER SOLID	<i>9-13-09 9:14:09</i>	<i>1206</i>	X	X				
CHAIN OF POSSESSION					SPECIAL INSTRUCTIONS				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		Matrix *	
<i>Wendy West</i>		<i>9/14/09 9:13:09</i>		<i>EAS LOCKED STORAGE 2</i>		<i>1206</i>		S-Soil	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		SE-Sediment	
<i>EAS LOCKED STORAGE 2</i>		<i>9/17/09 9:52</i>		<i>SHANNAN JOHNSON</i>		<i>9/17/09 9:52</i>		SO-Solid	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		SI-Sludge	
<i>SHANNAN JOHNSON</i>		<i>9/17/09 9:50</i>		<i>FDX</i>				W-Water	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		O-Oil	
				<i>Shannon Johnson</i>		<i>09/18/09 1230</i>		A-Air	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		D6-Drum Solids	
								DL-Drum Liquids	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		T-Tissue	
								W1-Wipe	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		L-Liquid	
								V-Vegetation	
								X-Other	
LABORATORY SECTION		Received By		Title		Date/Time			
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By		Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-879		Page 1 of 1	
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>AD8109</i>	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 25 CARCASS				SAF No. RC-118		Data Turnaround 45 Days	
Ice Chest No. <i>APS-04-04</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A				Bill of Lading/Air Bill No. FRW 797941463127			
POSSIBLE SAMPLE HAZARDS/REMARKS N/A		Preservation		Cool AC	Freeze				
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>		Type of Container		P/G	G/P				
		No. of Container(s)		0	1				
		Volume		15mL	60mL				
SAMPLE ANALYSIS		Total Inorganic Arsenic		Chromium Hex in Solids - 1636M					
Sample No.	Matrix *	Sample Date	Sample Time						
J195Y0 <i>2981209</i>	OTHER SOLID	<i>9/15/09</i>	<i>1130</i>	X	X				
CHAIN OF POSSESSION		Sign/Print Names				SPECIAL INSTRUCTIONS			
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>9/15/09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>9/15/09</i>		Matrix *	
Relinquished By/Removed From <i>EAS LOCKED STORAGE 2</i>		Date/Time <i>9/17/09</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>9/17/09</i>		S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Trash WI=Wipe L=Liquid V=Vegetation X=Other	
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>9/17/09</i>		Received By/Stored In <i>FDX</i>		Date/Time		Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.	
Relinquished By/Removed From <i>[Signature]</i>		Date/Time <i>09/18/09</i>		Received By/Stored In <i>[Signature]</i>		Date/Time <i>1230</i>			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
LABORATORY SECTION		Received By				Title			
FINAL SAMPLE DISPOSITION		Disposal Method				Disposed By			
						Date/Time			
						Date/Time			

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-878		Page 1 of 1	
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>OK</i> <i>1/19/09</i>	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 25 FILLET				SAF No. RC-118		Data Turnaround 45 Days	
Ice Chest No. <i>APS-04-041</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A				Bill of Lading # <i>FDX# 797941463127</i>			
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>			Preservation	Cool 4C	Freeze				
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>			Type of Container	P/G	G/P				
			No. of Container(s)	0	1				
			Volume	15mL	60mL				
			SAMPLE ANALYSIS		Total Inorganic Arsenic	Chromium Hex in Solids - 1636M			
Sample No.	Matrix *	Sample Date	Sample Time						
J195X9	<i>2981-210</i>	OTHER SOLID	<i>9.15.09</i>	<i>1100</i>	X	X			
CHAIN OF POSSESSION					SPECIAL INSTRUCTIONS				
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>9.15.09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>9.15.09</i>		Matrix *	
Relinquished By/Removed From <i>EAS LOCKED STORAGE 2</i>		Date/Time <i>9/17/09</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>9/17/09</i>		<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other 	
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>9/17/09</i>		Received By/Stored In <i>FDX</i>		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In <i>Wendy West</i>		Date/Time <i>9/18/09 1230</i>			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
LABORATORY SECTION		Received By			Title			Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method			Disposed By			Date/Time	

WCH-EE-011

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-888		Page 1 of 1					
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> Data Turnaround <i>45 Days</i>					
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 26 FILLET			SAF No. RC-118		<i>N</i> <i>9109</i>						
Ice Chest No. <i>AFS-04-041</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX							
Shipped To Battelle Marine Sciences		Offsite Property No. N/A			Bill of Lading # <i>FDX# 97941463121</i>								
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation		Cool 4C		Freeze					
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container		P/G		P		G/P			
				No. of Container(s)		0		1		1			
				Volume		15mL		60mL		60mL			
				SAMPLE ANALYSIS		Total Inorganic Arsenic		Methyl Mercury by EPA 1631M; Mercury - 7473		Chromium Hex in Solids - 1636M			
Sample No.		Matrix *		Sample Date		Sample Time							
<i>J19609 2781-211</i>		<i>OTHER SOLID</i>		<i>9/15/09</i>		<i>1410</i>		<i>X</i>		<i>X</i>			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS				Matrix *					
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>9/15/09 1410</i>		Received By/Stored In <i>EAS LOCKED STORAGE 2</i>		Date/Time <i>9/15/09</i>		Perform Total Inorganic Arsenic out of Chromium Hex bottle.				S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WJ=Wipe L=Liquid V=Vegetation X=Other	
Relinquished By/Removed From <i>EAS LOCKED STORAGE 2</i>		Date/Time <i>9/17/09 950</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>9/17/09</i>							
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>9/17/09 950</i>		Received By/Stored In <i>FDY</i>		Date/Time							
Relinquished By/Removed From		Date/Time		Received By/Stored In <i>Dr. Hahn</i>		Date/Time <i>09/18/09 1230</i>							
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time							
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time							
LABORATORY SECTION		Received By				Title				Date/Time			
FINAL SAMPLE DISPOSITION		Disposal Method				Disposed By				Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-889		Page 1 of 1	
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>NA 9109</i>	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 26 CARCASS		SAF No. RC-118		Data Turnaround 45 Days			
Ice Chest No. <i>AFS-04-041</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/Air Bill No. FDX# 797941463127					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Coci 4C	Freeze	Freeze		
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	P	G/P		
				No. of Container(s)	0	1	1		
				Volume	15mL	60mL	60mL		
				Total Inorganic Arsenic	Methyl Mercury by EPA 1631M; Mercury - 7473	Chromium Hex in Solids - 1636M			
SAMPLE ANALYSIS				Sample No.	Matrix *	Sample Date	Sample Time		
				<i>J19610</i>	<i>2981-212</i>	<i>9-15-09</i>	<i>1430</i>	<i>X X X</i>	
CHAIN OF POSSESSION				Sign/Print Names		SPECIAL INSTRUCTIONS			
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>9/15/09</i>		Received By/Stored In <i>EAS LOCKED STORAGE 2</i>		Date/Time <i>9/15/09</i>		Perform Total Inorganic Arsenic out of Chromium Hex bottle.	
Relinquished By/Removed From <i>EAS LOCKED STORAGE 2</i>		Date/Time <i>9/17/09</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>9/17/09</i>		Matrix *	
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>9/17/09</i>		Received By/Stored In <i>FDX</i>		Date/Time		S=Soil SE=Sediment SO=Solid SH=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue W1=Wipe L=Liquid V=Vegetation X=Other	
Relinquished By/Removed From		Date/Time		Received By/Stored In <i>Shannan Johnson</i>		Date/Time <i>09/18/09</i>		Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
LABORATORY SECTION		Received By		Title		Date/Time			
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By		Date/Time			

Central File #: 2981 Sample No(s): 203-212 Project Manager: Brandenberger

TO BE COMPLETED BY PROJECT MANAGER (prior to sample arrival when possible)

Matrix: _____ WP# _____

Yes No

Navy-type Project (requires high-level sample tracking procedures)

USDA Soils (or overseas, including Hawaii and the U.S. Virgin Islands) See Compliance Agreement Checklist

Filter Samples: Amount: Entire sample Half of sample

Freeze dry sample(s) - samples will be weighed and placed in Ultra-low temp freezer (Lab# 503)

Special instructions: _____

Sample Preservation Instructions: _____

See LIMS for archive/disposal information

TO BE COMPLETED UPON SAMPLE ARRIVAL/LOG-IN

Yes No N/A (Initial appropriate box when completed)

Custody seal present

Custody seal intact

Cooler(s) temperature (acceptable ranges = water: 4±2°C / solid: frozen) 27 °C
(if multiple coolers, note temp. of each) _____ °C

Project Manager notified of any discrepancies or if temperature outside acceptable range?
Comments/Remedy: _____

All chain of custody forms signed and dated?

Samples Filtered?

Sample condition(s): Acceptable Other (explain): _____

Container type: Teflon Poly Glass Cap. Vial Other Plastic

Notes: _____

Completed By: [Signature] Date/Time: 09/18/09 1225

SAMPLE PRESERVATION

Sample preserved at MSL

Sample preserved prior to arrival at MSL (noted on CoC / Sample / per PM Instruction)

Random pH checked for ~10% of samples (use dip paper) Sample IDs: _____

Complete pH check required for project (use pH meter and record on pH Record form)

If preservation necessary, record Acid Lot#

Type: 0.2% HNO3 Notes: _____

0.5% HCl (Hg samples) Notes: _____

Refrigerate Notes: _____

Freeze Notes: Deep freezer D-1

Other Notes: _____

Completed By: [Signature] Date/Time: 09/18/09 1225

SAMPLE LOGIN

Pacific Northwest

Battelle

Business Innovation

Project Manager: Brandenberger

Date Received: 9/23/2009

Batch: 17

Login Designee: Mcgahan

Project: **Washington Closure Hanford**

Marine Sciences Laboratory

1529 West Sequim Bay Road

Sequim, Washington 98382

PH: (360) 681-4565

Sponsor ID	Site Description	Battelle Code	Matrix	Storage Location	Requested Parameters	Collection Date
J19629	na	2981-213a & b	other solid	Deep Freezer C-1	Total Inorganic As, Cr Hex in Solids 1636M, Methyl Hg, Mercury-7473	09/16/09
J19628	na	2981-214a & b	other solid	Deep Freezer C-1	Total Inorganic As, Cr Hex in Solids 1636M, Methyl Hg, Mercury-7473	09/16/09
J19639	na	2981-215	other solid	Deep Freezer C-1	Total Inorganic As, Cr Hex in Solids 1636M	09/16/09
J19698	na	2981-216	other solid	Deep Freezer C-1	Methyl Hg by EPA 1630M; Mercury-7473	09/16/09
J19699	na	2981-217	other solid	Deep Freezer C-1	Methyl Hg by EPA 1630M; Mercury-7473	09/16/09
J19640	na	2981-218	other solid	Deep Freezer C-1	Total Inorganic As, Cr Hex in Solids 1636M	09/16/09
J19650	na	2981-219	other solid	Deep Freezer C-1	Total Inorganic As, Cr Hex in Solids 1636M	09/17/09
J19649	na	2981-220	other solid	Deep Freezer C-1	Total Inorganic As, Cr Hex in Solids 1636M	09/17/09
J19660	na	2981-221	other solid	Deep Freezer C-1	Total Inorganic As, Cr Hex in Solids 1636M	09/17/09
J19659	na	2981-222	other solid	Deep Freezer C-1	Total Inorganic As, Cr Hex in Solids 1636M	09/17/09

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST					RC-118-899		Page 1 of 1			
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>9809</i>		Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 27 CARCASS			SAF No. RC-118							
Ice Chest No. <i>WCH-08-003-2</i>		Field Logbook No. EL-1638		COA BESCRC6520		Method of Shipment FED EX						
Shipped To Battelle Marine Sciences		Offsite Property No. N/A			Bill of Lading/ FDX# 796967152240							
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze	Freeze					
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	P	G/P					
				No. of Container(s)	0	1	1					
				Volume	15mL	60mL	60mL					
				Total Inorganic Arsenic	Methyl Mercury by EPA 1630M; Mercury - 7473	Chromium Hex in Solids - 1636M						
SAMPLE ANALYSIS												
Sample No.	Matrix *	Sample Date	Sample Time									
<i>J19629 2981-2/3a/b</i>	OTHER SOLID	<i>9/16/09</i>	<i>1115</i>	<i>X</i>	<i>X</i>	<i>X</i>						
CHAIN OF POSSESSION												
Relinquished By/Removed From			Date/Time		Received By/Stored In			Date/Time		SPECIAL INSTRUCTIONS		Matrix *
<i>Wendy West</i>			<i>1115</i> <i>9/16/09</i>		EAS LOCKED STORAGE 2 <i>Wendy West</i>			<i>1115</i> <i>9/16/09</i>		Perform Total Inorganic Arsenic out of Chromium Hex bottle.		S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue Wl=Wipe L=Liquid V=Vegetation X=Other
EAS LOCKED STORAGE 2			<i>1121/09</i> <i>100</i>		SHANNAN JOHNSON			<i>9/27/09</i> <i>100</i>				
SHANNAN JOHNSON			<i>9/27/09</i> <i>100</i>		FOX							
Relinquished By/Removed From			Date/Time		Received By/Stored In			Date/Time				
					<i>[Signature]</i>			<i>1250</i> <i>9/23/09</i>				
Relinquished By/Removed From			Date/Time		Received By/Stored In			Date/Time				
Relinquished By/Removed From			Date/Time		Received By/Stored In			Date/Time				
LABORATORY SECTION	Received By		Title					Date/Time				
FINAL SAMPLE DISPOSITION	Disposal Method		Disposed By					Date/Time				

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-898		Page 1 of 1	
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>4/19/09</i>	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 27 FILLET		SAF No. RC-118		Data Turnaround 45 Days			
Ice Chest No. <i>WCH-DB-003-2</i>		Field Logbook No. EL-1638		COA BESCRC6520		Method of Shipment FED EX			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/Air Bill No. FDA 796967152240					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cocci 4C	Freeze	Freeze		
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	P	G/P		
				No. of Container(s)	0	1	1		
				Volume	15mL	60mL	60mL		
				SAMPLE ANALYSIS				Total Inorganic Arsenic	Methyl Mercury by EPA 1630M; Mercury - 7473
Sample No.	Matrix *	Sample Date	Sample Time						
J19628	<i>2981.2145b</i>	<i>9/16/09</i>	<i>1100</i>	X	X	X			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS				Matrix *	
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>1100</i> <i>9/16/09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>1100</i> <i>9/16/09</i>		Perform Total Inorganic Arsenic out of Chromium Hex bottle. Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.	
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time <i>1100</i> <i>9/22/09</i>		Received By/Stored In SHANNAN JOHNSON		Date/Time <i>1100</i> <i>9/22/09</i>			
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>1100</i> <i>9/22/09</i>		Received By/Stored In <i>FDX</i>		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WJ=Wipe L=Liquid V=Vegetation X=Other 	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
LABORATORY SECTION		Received By		Title				Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By				Date/Time	

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-908		Page 1 of 1	
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>AS 909</i>	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 28 FILLET		SAF No. RC-118		Data Turnaround 45 Days			
Ice Chest No. <i>WCH-08-003-2</i>		Field Logbook No. EL-1638		COA BESRC6520		Method of Shipment FED EX			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading # FDX# 796967152240					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P			
				No. of Container(s)	0	1			
				Volume	15mL	60mL			
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M				
Sample No.	Matrix *	Sample Date	Sample Time						
J19639 <i>2981.215</i>	OTHER SOLID	<i>9/16/09</i>	<i>1345</i>	<i>X</i>	<i>X</i>				
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS				Matrix *	
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>1345</i> <i>9/16/09</i>		Received By/Stored In <i>EAS LOCKED STORAGE 2</i> <i>wendy west</i>		Date/Time <i>1345</i> <i>9/16/09</i>		<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab</p> <ul style="list-style-type: none"> S=Soil SF=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue Wl=Wipe L=Liquid V=Vegetation X=Other 	
Relinquished By/Removed From <i>EAS LOCKED STORAGE 2</i>		Date/Time <i>9/22/09</i> <i>100</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>9/22/09</i> <i>100</i>			
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>9/22/09</i> <i>100</i>		Received By/Stored In <i>FDX</i>		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In <i>Wendy West</i>		Date/Time <i>09/23/09 1250</i>			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
LABORATORY SECTION	Received By	Title				Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-966	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 28 FILLET		SAF No. RC-118		<i>N/A 9009</i>		
Ice Chest No. <i>WCH-DB-003-2</i>	Field Logbook No. EL-1638	COA BESRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A		Bill of Lading/Alt. Bill No. FDX # 796967152240				
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>			Preservation	Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>			Type of Container	P			
			No. of Container(s)	1			
			Volume	60mL			
SAMPLE ANALYSIS			Methyl Mercury by EPA 1630M; Mercury - 7473				
Sample No.	Matrix *	Sample Date	Sample Time				
J19698	<i>281-216</i>	<i>9/16/09</i>	<i>1345</i>	X			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>1345</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>1345</i>	<p>EAS LOCKED STORAGE</p> <p>SHANNAN JOHNSON</p> <p>FDX</p> <p>09/23/09 1252</p> <p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>			<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Dry Solids DL=Dry Liquids T=Tissue Wt=Wtpe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From <i>EAS LOCKED STORAGE</i>	Date/Time <i>9/16/09</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>9/16/09</i>				
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>	Date/Time <i>9/22/09</i>	Received By/Stored In <i>SHANNAN JOHNSON</i>	Date/Time <i>9/22/09</i>				
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>	Date/Time <i>9/22/09</i>	Received By/Stored In <i>FDX</i>	Date/Time <i>100</i>				
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>	Date/Time <i>100</i>	Received By/Stored In <i>FDX</i>	Date/Time <i>100</i>				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title		Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-967	Page 1 of 1	
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>9K</i>	Data Turnaround 45 Days			
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 28 CARCASS	SAF No. RC-118	Method of Shipment FED EX					
Ice Chest No. <i>WCH-08-003-2</i>	Field Logbook No. EL-1638	COA BESRC6520	Bill of Lading/ATA Form No. FDX 796967152240					
Shipped To Battelle Marine Sciences	Offsite Property No. N/A							
POSSIBLE SAMPLE HAZARDS/REMARKS N/A		Preservation	Freeze:					
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"		Type of Container	P					
		No. of Container(s)	1					
		Volume	60mL					
SAMPLE ANALYSIS			Methyl Mercury by EPA 1630M; Mercury - 7473					
Sample No.	Matrix *	Sample Date	Sample Time					
J19699 2981-217	OTHER SOLID	9/16/09	1400	X				
CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS				Matrix *
Relinquished By/Removed From <i>Wendy West</i>	Date/Time 1400 9/16/09	Received By/Stored In <i>Wendy West</i>	Date/Time 1400 9/16/09	<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>				<ul style="list-style-type: none"> S=Soil SE=Settlement SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Dross Solids DL=Dross Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other
EAS LOCKED STORAGE	9/22/09	SHANNAN JOHNSON	100					
SHANNAN JOHNSON	9/23/09	FDX	100					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
LABORATORY SECTION	Received By	Title		Date/Time				
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time				

WCH-EE-011

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-909		Page 1 of 1			
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>1119809</i>			
Project Destination Columbia River Component of the RCBRA - Tissues		Sampling Location SURGEON 28 CARCASS		SAF No. RC-118		Data Turnaround 45 Days					
Ice Chest No. <i>WCH-08-003-2</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX					
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading # FDA# 796967152240							
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation		Cool 4C		Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container		P/G		G/P			
				No. of Container(s)		0		1			
				Volume		15mL		60mL			
				Total Inorganic Arsenic		Chromium Hex in Solids - 1636M					
SAMPLE ANALYSIS											
Sample No.		Matrix *	Sample Date	Sample Time							
<i>J19640 2981-218</i>		<i>OTHER SOLID</i>	<i>9/11/09</i>	<i>1400</i>	<i>X</i>	<i>X</i>					
CHAIN OF POSSESSION				Sign/Print Names				SPECIAL INSTRUCTIONS		Matrix *	
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>1400 9/11/09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>1400 9/11/09</i>		<p>EAS LOCKED STORAGE 2</p> <p>SHANNAN JOHNSON</p> <p>FDX</p> <p><i>09/23/09 1252</i></p> <p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>		<ul style="list-style-type: none"> S=Soil SE=Sediments SO=Solid Sl=Sediment W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue Wl=Wipe L=Liquid V=Vegetation X=Other 	
Relinquished By/Removed From <i>EAS LOCKED STORAGE 2</i>		Date/Time <i>100 9/22/09</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>100 9/22/09</i>					
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>100 9/22/09</i>		Received By/Stored In <i>FDX</i>		Date/Time					
Relinquished By/Removed From		Date/Time		Received By/Stored In <i>09/23/09 1252</i>		Date/Time					
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time					
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time					
LABORATORY SECTION		Received By				Title				Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method				Disposed By				Date/Time	

WCH-EE-011

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-919	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>9K</i>	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 29 CARCASS		SAF No. RC-118	<i>MA 9909</i>			
Ice Chest No. <i>WCH-08-003-2</i>	Field Logbook No. EL-1638	COA BESCR6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading/Air Bill No. FDX# 796967152240					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze	
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P	
				No. of Container(s)	0	1	
				Volume	15mL	60mL	
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M		
Sample No.	Matrix *	Sample Date	Sample Time				
J19650 2981-219	OTHER SOLID	9/17/09	1215	X	X		
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>Wendy West</i>	Date/Time 9/17/09	Received By/Stored In <i>Wendy West</i>	Date/Time 9/17/09	Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.			S=Soil SE=Settlement SO=Solid Sl=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue Wl=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE 2	Date/Time 9/22/09	Received By/Stored In <i>SHANNAN JOHNSON</i>	Date/Time 9/22/09				
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>	Date/Time 9/22/09	Received By/Stored In <i>FDX</i>	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In <i>FDX</i>	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title				Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time	

WCH-EE-011

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-918		Page 1 of 1			
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>09/09/09</i>			
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 29 FILLET		SAF No. RC-118		Data Turnaround 45 Days					
Ice Chest No. <i>WCH-08-603-2</i>		Field Logbook No. EL-1638		COA BESRC6520		Method of Shipment FED EX					
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/Air FDX # 796967152240							
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation		Cool 4C		Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container		P/G		G/P			
				No. of Container(s)		0		1			
				Volume		15mL		60mL			
SAMPLE ANALYSIS				Total Inorganic Arsenic		Chromium Hex in Solids - 1636M					
Sample No.		Matrix *	Sample Date	Sample Time							
<i>J19649 2981-220</i>		<i>OTHER SOLID</i>	<i>9/17/09</i>	<i>1200</i>	<i>X</i>	<i>K</i>					
CHAIN OF POSSESSION				Sign/Print Names		SPECIAL INSTRUCTIONS					
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>1200 9/17/09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>1200 9/17/09</i>		Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.		Matrix * S-Soil SE-Sediment SO-Solid SL-Sludge W-Water O-Oil A-Air DS-Drum Solids DL-Drum Liquids T-Tissue WI-Wipe L-Liquid V-Vegetation X-Other	
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time <i>5) 9/22/09</i>		Received By/Stored In SHANNAN JOHNSON		Date/Time <i>100 9/22/09</i>					
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>9/22/09</i>		Received By/Stored In FDX		Date/Time <i>100</i>					
Relinquished By/Removed From		Date/Time		Received By/Stored In <i>Shannan Johnson</i>		Date/Time <i>09/23/09 1250</i>					
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time					
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time					
LABORATORY SECTION	Received By		Title			Date/Time					
FINAL SAMPLE DISPOSITION	Disposal Method		Disposed By			Date/Time					

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-929		Page 1 of 1		
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>8/29/09</i>		
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 30 CARCASS		SAF No. RC-118		Data Turnaround 45 Days				
Ice Chest No. <i>WCH-08-003-2</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading # FDX# 796967152240						
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>			Preservation	Cool 4C	Freeze					
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>			Type of Container	P/G	G/P					
			No. of Container(s)	0	1					
			Volume	15mL	60mL					
			SAMPLE ANALYSIS		Total Inorganic Arsenic	Chromium Hex in Solids - 1636M				
Sample No.	Matrix *	Sample Date	Sample Time							
J19660	2981-221	OTHER SOLID	9/17/09	1500	X	X				
CHAIN OF POSSESSION					SPECIAL INSTRUCTIONS					
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>1500</i> <i>9/17/09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>1500</i> <i>9/17/09</i>		<p>EAS LOCKED STORAGE 2</p> <p>SHANNAN JOHNSON</p> <p>SHANNAN JOHNSON</p> <p><i>Shannan Johnson</i> 09/23/09 1250</p> <p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>		
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time <i>9/22/09</i> <i>100</i>		Received By/Stored In SHANNAN JOHNSON		Date/Time <i>9/22/09</i> <i>100</i>				
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>9/22/09</i> <i>100</i>		Received By/Stored In <i>Shannan Johnson</i>		Date/Time <i>09/23/09</i> <i>1250</i>				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time				
LABORATORY SECTION		Received By		Title		Date/Time				
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By		Date/Time				

WCH-EE-011

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-928	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>9K</i>	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 30 FILLET	SAF No. RC-118	<div style="text-align: right;"><i>44989</i></div>				
Ice Chest No. <i>WCH-DB-003-2</i>	Field Logbook No. EL-1638	COA BESRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading/Air Bill # FDX # 796967152240					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>		Preservation	Cool 4C	Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>		Type of Container	P/G	G/P			
		No. of Container(s)	0	1			
		Volume	15mL	60mL			
SAMPLE ANALYSIS		Total Inorganic Arsenic	Chromium Hex in Solids - 1636M				
Sample No.	Matrix *	Sample Date	Sample Time				
J196592981 222	OTHER SOLID	9/17/09	1445	X	X		
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>9/17/09 1445</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>9/17/09 1445</i>	<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>			<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SL=Sludge W=Water U=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WJ=Wipe L=Liquid V=Vegetation X=Other
EAS LOCKED STORAGE 2							
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>	Date/Time <i>9/22/09 100</i>	Received By/Stored In <i>SHANNAN JOHNSON</i>	Date/Time <i>9/22/09 100</i>				
SHANNAN JOHNSON FDX							
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>	Date/Time <i>9/23/09 100</i>	Received By/Stored In <i>SHANNAN JOHNSON</i>	Date/Time <i>9/23/09 1250</i>				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title				Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time	

LOG-IN CHECKLIST

Reference SOP#MSLA-001

Central File #: 2981

Sample No(s): 213-222

Project Manager: Brandenberger

TO BE COMPLETED BY PROJECT MANAGER (prior to sample arrival when possible)

Matrix: _____ WP# _____

Yes No

Navy-type Project (requires high-level sample tracking procedures)

USDA Soils (or overseas, including Hawaii and the U.S. Virgin Islands) See Compliance Agreement Checklist

Filter Samples: Amount: Entire sample: Half of sample

Freeze dry sample(s) - samples will be weighed and placed in Ultra-low temp freezer (Lab# 503)

Special instructions: _____

Sample Preservation Instructions: _____

****See LIMS for archive/disposal information****

TO BE COMPLETED UPON SAMPLE ARRIVAL/LOG-IN

Yes No N/A (Initial appropriate box when completed)

Custody seal present

Custody seal intact

Cooler(s) temperature (acceptable ranges = water: 4±2°C / solid: frozen) 2.0 °C

(if multiple coolers, note temp. of each) _____ °C

Project Manager notified of any discrepancies or if temperature outside acceptable range?

Comments/Remedy: _____

All chain of custody forms signed and dated?

Samples Filtered?

Sample condition(s): Acceptable Other (explain): _____

Container type: Teflon Roll Glass Cap Vial Other: _____

Notes: _____

Completed By: [Signature] Date/Time: 09/23/09 1240

SAMPLE PRESERVATION

Sample preserved at MSL

Sample preserved prior to arrival at MSL (noted on CoC / Sample / per PM Instruction)

Random pH checked for ~10% of samples (use dip paper) Sample IDs: _____

Complete pH check required for project (use pH meter and record on pH Record form)

If preservation necessary, record Acid Lot#

Type: 0.2% HNO3 Notes: _____

0.5% HCl (Hg samples) Notes: _____

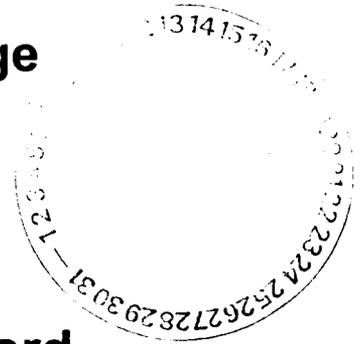
Refrigerate Notes: _____

Freeze Notes: Deep freeze C-1

Other Notes: _____

Completed By: [Signature] Date/Time: 09/23/09 1240

Analytical Chemistry Data Package Inorganics Analysis



Project: Washington Closures Hanford
Total and Methyl Mercury
Fish Tissue Homogenate

Analysis of Mercury in Tissue

Battelle Project No. 56166
CF No. 2981



Pacific Northwest
NATIONAL LABORATORY

Pacific Northwest National Laboratory operated by Battelle
Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, WA 98382
(360) 681-4564

SEQ 092309

INORGANIC CHEMISTRY ANALYSIS DATA PACKAGE CONTENTS

Washington Closures Hanford
Total and Methyl Mercury
Fish Tissue Homogenate

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BATTELLE MARINE SCIENCES LABORATORY

1529 West Sequim Bay Road
 Sequim, Washington 98382
 (360) 681-4564

Washington Closure Hanford
 SDG 091109 and SDG092309 Mercury Speciation in Biota
 Dry Weight Concentrations (µg/g)

MSL Code	Client ID	SDG	Received Date	Collection Date	Analysis Date	Analytical Batch ID	Analysis Date	Analytical Batch ID	Percent Dry Wt	Mercury Concentrations	
										THg µg/g dry wt.	MeHg µg/g dry wt.
Method Detection Limit (MDL)											
2981-185	J195T9	SDG091109	09/11/09	09/03/09	11/23/09	112309HGDMA	10/15/09	101509MeA	26.4	0.398	0.393
2981-187	J195V0	SDG091109	09/11/09	09/03/09	11/23/09	112309HGDMA	10/15/09	101509MeA	32.2	0.165	0.154
2981-190	J195V2	SDG091109	09/11/09	09/03/09	11/23/09	112309HGDMA	10/15/09	101509MeA	43.1	0.116	0.0823
2981-192	J195V1	SDG091109	09/11/09	09/03/09	11/23/09	112309HGDMA	10/15/09	101509MeA	33.9	0.333	0.312
2981-194	J195V4	SDG091109	09/11/09	09/08/09	11/23/09	112309HGDMA	10/15/09	101509MeA	34.6	0.396	0.351
2981-195 R1	J195V3	SDG091109	09/11/09	09/08/09	11/23/09	112309HGDMA	10/15/09	101509MeA	26.8	0.848	0.892
2981-195 R2	J195V3	SDG091109	09/11/09	09/08/09	11/23/09	112309HGDMA	--	--	26.8	0.841	--
2981-197	J195V5	SDG091109	09/11/09	09/08/09	11/23/09	112309HGDMA	10/15/09	101509MeA	32.3	0.212	0.223
2981-199	J195V6	SDG091109	09/11/09	09/08/09	11/23/09	112309HGDMA	10/15/09	101509MeA	40.2	0.0962	0.0820
2981-213	J19629	SDG092309	09/23/09	09/16/09	11/23/09	112309HGDMA	10/15/09	101509MeA	34.7	0.0244	0.0267
2981-214R1	J19628	SDG092309	09/23/09	09/16/09	11/23/09	112309HGDMA	10/15/09	101509MeA	28.9	0.0465	0.0477
2981-214R2	J19628	SDG092309	09/23/09	09/16/09	--	--	10/15/09	101509MeA	28.9	--	0.0474
2981-216	J19698	SDG092309	09/23/09	09/16/09	11/23/09	112309HGDMA	10/15/09	101509MeA	24.5	0.334	0.392
2981-217	J19699	SDG092309	09/23/09	09/16/09	11/23/09	112309HGDMA	10/15/09	101509MeA	29.7	0.540	0.177

QUALITY CONTROL SAMPLE RESULTS

Average % Dry Wt. 31.6

Method Blank

Blank R1 Blank100609R1

0.002 U 0.001 U

Standard Reference Material

DORM-3 R1 100609

0.373 0.355

Certified Value

Range

0.382 0.355

% Recovery

100.60 100.056

98% 100%

Blank Spike Results

LCS R1 OPR 100609R1

0.378 0.302

LCS R2 OPR 100609R2

-- 0.293

Spike Concentration

% Rec

0.388 0.297

% Rec

97% 102%

-- **99%**

Replicate Analysis Results

2981-195 R1 J195V3 SDG091109 09/11/09 09/08/09 11/23/09 112309HGDMA 10/15/09 101509MeA

26.8 0.848 0.892

2981-195 R2 J195V3 SDG091109 09/11/09 09/08/09 11/23/09 112309HGDMA -- --

26.8 0.841 --

RPD

0.8% --

2981-214R1 J19628 SDG092309 09/23/09 09/16/09

10/15/09 101509MeA 28.9 -- 0.0477

2981-214R2 J19628 SDG092309 09/23/09 09/16/09

10/15/09 101509MeA 28.9 -- 0.0474

RPD

-- **0.5%**

Matrix Spike Accuracy

2981-185 J195T9 SDG091109 09/11/09 09/03/09 11/23/09 112309HGDMA 10/15/09 101509MeA

26.4 0.398 0.393

2981-185MS

-- 1.98

2981-185MSD

-- 2.13

Spike Amount, MS

-- 1.67

Spike Amount, MSD

-- 1.74

% Recovery, MS

-- **95%**

% Recovery, MSD

-- **100%**

RPD

-- **5%**

BATTELLE MARINE SCIENCES LABORATORY

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Washington Closure Hanford
 SDG 091109 and SDG092309 Mercury Speciation in Biota
 Dry Weight Concentrations (µg/g)

MSL Code	Client ID	SDG	Received Date	Collection Date	Analysis Date	Analytical Batch ID	Analysis Date	Analytical Batch ID	Percent Dry Wt	Mercury Concentrations	
										THg µg/g dry wt.	MeHg µg/g dry wt.
<i>Method Detection Limit (MDL)</i>											
2981-216	J19698	SDG092309	09/23/09	09/16/09			10/15/09	101509MeA	24.5	--	0.392
2981-216MS										--	2.24
2981-216MSD										--	2.05
Spike Amount, MS										--	1.87
Spike Amount, MSD										--	1.79
% Recovery, MS										--	99%
% Recovery, MSD										--	93%
RPD										--	6%
2981-213	J19629	SDG092309	09/23/09	09/16/09	11/23/09	112309HGDMA	10/15/09	101509MeA	34.7	0.0244	0.0267
2981-213MS										0.158	--
Spike Amount, MS										0.134	--
% Recovery, MS										100%	--

NOTES:

- U Not detected at or above MDL shown
- NS Not spiked
- N Outside Method DQOs listed below:

	THg	MeHg
MS/MSD	80-120%	65-135%
SRM	80-120%	67-133%
OPR/LCS	80-120%	67-133%

- * Outside Method DQOs as stated below:

	THg	MeHg
DUP	≤ 25%	≤ 35%

BATTELLE MARINE SCIENCES LABORATORY

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 Sequim, Washington 98382
 (360) 681-4564

Washington Closure Hanford
 SDG 091109 and SDG092309 Mercury Speciation in Biota
 Wet Weight Concentrations (µg/g)

MSL Code	Client ID	SDG	Received Date	Collection Date	Analysis Date	Analytical Batch ID	Analysis Date	Analytical Batch ID	Percent Dry Wt	Mercury Concentrations	
										THg µg/g WET wt.	MeHg µg/g WET wt.
<i>Method Detection Limit (MDL)</i>										0.0006	0.0003
2981-185	J195T9	SDG091109	09/11/09	09/03/09	11/23/09	112309HGDMA	10/15/09	101509MeA	26.4	0.105	0.104
2981-187	J195V0	SDG091109	09/11/09	09/03/09	11/23/09	112309HGDMA	10/15/09	101509MeA	32.2	0.0531	0.0496
2981-190	J195V2	SDG091109	09/11/09	09/03/09	11/23/09	112309HGDMA	10/15/09	101509MeA	43.1	0.0500	0.0355
2981-192	J195V1	SDG091109	09/11/09	09/03/09	11/23/09	112309HGDMA	10/15/09	101509MeA	33.9	0.113	0.106
2981-194	J195V4	SDG091109	09/11/09	09/08/09	11/23/09	112309HGDMA	10/15/09	101509MeA	34.6	0.137	0.121
2981-195 R1	J195V3	SDG091109	09/11/09	09/08/09	11/23/09	112309HGDMA	10/15/09	101509MeA	26.8	0.227	0.239
2981-195 R2	J195V3	SDG091109	09/11/09	09/08/09	11/23/09	112309HGDMA	--	--	26.8	0.225	--
2981-197	J195V5	SDG091109	09/11/09	09/08/09	11/23/09	112309HGDMA	10/15/09	101509MeA	32.3	0.0685	0.0721
2981-199	J195V6	SDG091109	09/11/09	09/08/09	11/23/09	112309HGDMA	10/15/09	101509MeA	40.2	0.0387	0.0330
2981-213	J19629	SDG092309	09/23/09	09/16/09	11/23/09	112309HGDMA	10/15/09	101509MeA	34.7	0.00846	0.00927
2981-214R1	J19628	SDG092309	09/23/09	09/16/09	11/23/09	112309HGDMA	10/15/09	101509MeA	28.9	0.0134	0.0138
2981-214R2	J19628	SDG092309	09/23/09	09/16/09	--	--	10/15/09	101509MeA	28.9	--	0.0137
2981-216	J19698	SDG092309	09/23/09	09/16/09	11/23/09	112309HGDMA	10/15/09	101509MeA	24.5	0.0817	0.0959
2981-217	J19699	SDG092309	09/23/09	09/16/09	11/23/09	112309HGDMA	10/15/09	101509MeA	29.7	0.160	0.0527

QUALITY CONTROL SAMPLE RESULTS

Average % Dry Wt. 31.6

Method Blank

Blank R1	Blank100609R1									0.0006 U	0.0003 U
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QA/QC NARRATIVE

PROJECT: Washington Closures Hanford - Total and Methylmercury SDGs 091109 and 092309
PARAMETER: Total Mercury (THg) and Methylmercury (MeHg)
LABORATORY: Pacific Northwest National Marine Sciences Laboratory (MSL), Sequim, Washington
MATRIX: Fish Tissue Homogenate
SAMPLE CUSTODY AND PROCESSING: A total of twelve homogenized tissue samples were received in two batches and identified for the quantification of total and methylmercury. Eight tissue samples were received on 09/11/09 and four on 09/23/09. All samples were received in good condition (i.e., no sample containers were broken or leaking) and cooler temperature was acceptable. The project was assigned a Battelle central file (CF) identification number (2981) and samples were entered into the MSL sample tracking and project management system.

SAMPLE PROCESSING INFORMATION:

Lab Sample IDs:	SDG 091109: 2981*185, 187, 190, 192, 194, 195, 197, 199 SDG 092309: 213, 214, 216, and 217
Description:	Fish Tissue Homogenate
Collection date	09/03/09, 09/08/09, 09/16/09
Laboratory arrival date	09/11/09 and 09/23/09
Cooler temp. on arrival	3.7°C and 2.0°C, respectively
THg Analysis Date (TD-CVAAS, MSL-I-034)	11/23/09
MeHg Analysis Dates (CVAF, MSL-I-015)	10/15/09

METHODS: The fish tissue samples were freeze-dried and homogenized using a ball-mill prior to digestion according to Battelle standard operating procedure (SOP) MSL-C-003, Percent Dry Weight and Homogenizing Dry Sediment, Soil and Tissue.

Methods for THg:

Dried, homogenized samples were analyzed for total Hg using direct thermal decomposition atomic absorption spectrometry (TD-CVAAS) according to Battelle SOP MSL-I-034, Total Mercury in Tissue and Sediment by Thermal Decomposition, Amalgamation, and Atomic Absorption Spectrophotometry. This procedure is based on EPA Method 7473.

Methods for MeHg:

Approximately 0.1-0.2 g of each dried, homogenized sample was digested with potassium hydroxide (KOH) and methanol (MeOH) prior to analysis for MeHg. The MeHg is quantification using a cold vapor atomic fluorescence technique (CVAF) based upon the emission of 254 nm radiation by excited mercury (Hg) atoms in an inert gas stream. An aliquot of the digested sample is ethylated to form a volatile methyl-ethylmercury derivative, and then purged onto graphitized carbon traps as a means of preconcentration and interference removal. The sample is then isothermally chromatographed, pyrolytically broken down to elemental mercury, and detected using CVAF. This procedure is based on a peer-reviewed publication by Bloom (1989), which was also adapted into the draft EPA Method 1630, which was never promulgated.

All data were determined and reported in units of µg/g dry weight and also converted to units of µg/g wet weight using the following equation:

$$\text{Dry Weight Sample Concentration} \times (\% \text{ dry weight}/100) = \text{Wet Weight Concentration}$$

QA/QC NARRATIVE

HOLDING TIMES: There are no specific holding times for MeHg, but the samples were analyzed within the 90 day holding time defined by EPA Method 1631revE for total Hg in water and the one year frozen holding time stated in the Appendix to Method 1631 for Total Mercury in Tissue, Sludge, Sediment, and Soil by Acid Digestion and BrCl Oxidation, EPA-821-R-01-013.

DATA QUALITY CRITERIA (DQC):

Analyte	Analytical Method	OPR or LCS Recovery	Range of MS/MSD Recovery	Replicate Precisions (RPD)	SRM Accuracy (PR)	Method Blank
THg	TD-CVAAS	80-120%	80-120%	≤25%	80%-120%	<5 x MDL
MeHg	CVAF Draft EPA Method 1630 mod	67-133%	65-135%	≤35%	67-133%	Max 0.1ng/L or Avg <0.05ng/L

RPD = Relative Percent Difference

PR = Percent Recovery

DETECTION LIMITS: Analytical results were reported to the laboratory achieved method detection limits (MDL) as determined from the Annual MDL study. The MDLs were determined according to EPA's "Definition and Procedure for the Determination of the Method Detection Limit - revision 1.11" 40 CFR Part 136, Appendix B. Data were evaluated and flagged in accordance with the following criteria:

U Undetected at the MDL, MDL reported.

* Duplicates outside the DQC

N Spikes and SRM outside the DQC

METHOD BLANKS: **Total Hg:** A minimum of one method blank(s) was prepared and analyzed with the tissue samples. The method blank(s) were less than the MDL and the MDL was inserted in the value field.

MeHg: A minimum of one method blank(s) was prepared and analyzed with the tissue samples. The method blank(s) were less than the MDL and the MDL was inserted in the value field.

LABORATORY CONTROL SAMPLE (LCS) ACCURACY:

Total Hg: One laboratory control sample (OPR or LCS) was prepared and analyzed with the samples. The percent recovery was within the QC criterion of 80-120% recovery.

MeHg: Two ongoing precision and recovery samples (OPR) were prepared and analyzed with the samples for MeHg. The percent recoveries were within the QC criterion of 67-133%.

MATRIX SPIKE (MS/MSD) ACCURACY:

Total Hg: A matrix spike was prepared and analyzed with this batch of samples. The matrix spike recovery was within the QC criterion of 80-120% recovery.

QA/QC NARRATIVE

**MATRIX SPIKE
(MS/MSD)
ACCURACY:**

MeHg: A set of MS/MSD samples were prepared and analyzed for each SDG. The matrix spike recoveries for MeHg were within the QC criterion of 65-135% recovery.

**REPLICATE
PRECISION:**

Reproducibility was assessed by a laboratory duplicate and duplicate matrix spikes for methylmercury. A laboratory duplicate was performed as a split of a sample carried through the preparation and analysis as two individual samples. Laboratory reproducibility was expressed as the relative percent difference (RPD) between the replicate results.

Total Hg: The RPD for the laboratory duplicate was within the QC criterion of $\leq 25\%$ RPD.

MeHg: Both measures of precision were within the QC criterion of $\leq 35\%$ RPD.

**STANDARD
REFERENCE
MATERIAL
ACCURACY:**

Analytical accuracy was expressed as the percent recovery of the measured value relative to the certified or reference value of a SRM.

Total Hg: The SRM DORM-3 Dogfish tissue was used as the tissue matrix for verification of the total Hg sample digestion and analysis. The percent recovery was within the QC criterion of 80-120% recovery.

MeHg: The SRM DORM-3 Dogfish tissue was used to evaluate the accuracy for the MeHg extraction and analysis. The percent recovery was within the QC criterion of 67-133% recovery.

REFERENCES:

Bloom, N.S. 1989. "Determination of Picogram Levels of Methylmercury by Aqueous Phase Ethylation, Followed by Cryogenic Gas Chromatography with Cold Vapor Atomic Fluorescence Detection." *Can. J. Fish Aq. Sci.* 7:1131.

SAMPLE LOGIN

Project Manager: Brandenberger
Date Received: 9/11/2009
Batch: 15
Login Designee: Mcgahan

Project: **Washington Closure Hanford**



Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382
PH: (360) 681-4565

Sponsor ID	Site Description	Battelle Code	Matrix	Storage Location	Requested Parameters	Collection Date
J195T9	na	2981-185	other solid	Deep Freezer B-1	MeHg	09/03/09
J19476	na	2981-186	other solid	Deep Freezer B-1	TIA, HCr	09/03/09
J195V0	na	2981-187	other solid	Deep Freezer B-1	MeHg	09/03/09
J19477	na	2981-188	other solid	Deep Freezer B-1	TIA, HCr	09/03/09
J19487	na	2981-189	other solid	Deep Freezer B-1	TIA, HCr	09/03/09
J195V2	na	2981-190	other solid	Deep Freezer B-1	MeHg	09/03/09
J19486	na	2981-191	other solid	Deep Freezer B-1	TIA, HCr	09/03/09
J195V1	na	2981-192	other solid	Deep Freezer B-1	MeHg	09/03/09
J19497	na	2981-193	other solid	Deep Freezer B-1	TIA, HCr	09/08/09
J195V4	na	2981-194	other solid	Deep Freezer B-1	MeHg	09/08/09
J195V3	na	2981-195	other solid	Deep Freezer B-1	MeHg	09/08/09
J19496	na	2981-196	other solid	Deep Freezer B-1	TIA, HCr	09/08/09
J195V5	na	2981-197	other solid	Deep Freezer B-1	MeHg	09/08/09
J194B7	na	2981-198	other solid	Deep Freezer B-1	TIA, HCr	09/08/09
J195V6	na	2981-199	other solid	Deep Freezer B-1	MeHg	09/08/09
J194B8	na	2981-200	other solid	Deep Freezer B-1	TIA, HCr	09/08/09
J194C8	na	2981-201	other solid	Deep Freezer B-1	TIA, HCr	09/09/09
J194C9	na	2981-202	other solid	Deep Freezer B-1	TIA, HCr	09/09/09

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-850	Page 1 of 1
Collector M.F.dino	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code 9K	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 17 FILLET		SAF No. RC-118		1/18/09	
Ice Chest No. WCH-DB-0014	Field Logbook No. EL-1638	COA BESCRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/ FDX# 797922488504			
POSSIBLE SAMPLE HAZARDS/REMARKS N/A			Preservation	Freeze			
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"			Type of Container	P			
			No. of Container(s)	1			
			Volume	60mL			
SAMPLE ANALYSIS				Methyl Mercury by EPA 1631M; Mercury - 7473			
Sample No.	Matrix *	Sample Date	Sample Time				
J195T9	2981.185	OTHER SOLID	9/13/09	1045	X		
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From M.F.dino	Date/Time 9/13/09 1045	Received By/Stored In ma	Date/Time 9/13/09 1045	EAS LOCKED STORAGE 2 SHANNAN JOHNSON FDX 09/16/09 1050 01 samples for shipment to lab. Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody			S=Soil SE=Sechment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue Wl=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE 2	Date/Time 9/16/09 100	Received By/Stored In SHANNAN JOHNSON	Date/Time 9/16/09 100				
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time 9/16/09 100	Received By/Stored In FDX	Date/Time 9/16/09 1050				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title		Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

WCH-EE-011

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-851	Page 1 of 1
Collector <i>M. F. dino</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 17 CARCASS		SAF No. RC-118	<i>483105</i>		
Ice Chest No. <i>WCH-08-001-4</i>	Field Logbook No. EL-1638	COA BESCR6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A	Bill of Lading/Air Bill No. FDX 797922488504				
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container P			
				No. of Container(s) 1			
				Volume 60mL			
SAMPLE ANALYSIS				Methyl Mercury by EPA 1630M; Mercury - 7473			
Sample No.	Matrix *	Sample Date	Sample Time				
J195V0 <i>2981.187</i>	OTHER SOLID	<i>9/3/09</i>	<i>1100</i>	<i>X</i>			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>M. F. dino</i>	Date/Time <i>9/3/09 1100</i>	Received By/Stored In <i>EAS LOCKED STORAGE</i>	Date/Time <i>9/3/09 1100</i>	<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>			<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From <i>EAS LOCKED STORAGE</i>	Date/Time <i>9/10/09 1100</i>	Received By/Stored In <i>SHANNAN JOHNSON</i>	Date/Time <i>9/10/09 1100</i>				
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>	Date/Time <i>9/10/09 1100</i>	Received By/Stored In <i>FDX</i>	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In <i>Shannon Johnson</i>	Date/Time <i>9/10/09 1458</i>				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title		Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-779	Page 1 of 1	
Collector M. F. dino		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH	Price Code 9K N NA 81109	Data Turnaround 45 Days
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 17 CARCASS			SAF No. RC-118			
Ice Chest No. WCH-08-001-4		Field Logbook No. EL-1638		COA BESCRC6520		Method of Shipment FED EX		
Shipped To Battelle Marine Sciences		Offsite Property No. N/A			Bill of Lading/Avr Bill No. FD 797922488504			
POSSIBLE SAMPLE HAZARDS/REMARKS N/A				Preservation	Cool 4C	Freeze		
Special Handling and/or Storage FREEZE *MATRIX COMPOSED OF FISH*				Type of Container	P/G	G/P		
				No. of Container(s)	0	1		
				Volume	15mL	60mL		
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M			
Sample No.	Matrix *	Sample Date	Sample Time					
J19477 2981.188	OTHER SOLID	9/3/09	1100	X	X			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS				Matrix *
Relinquished By/Removed From M. F. dino		Date/Time 9/3/09 1100		Sign/Print Names EAS LOCKED STORAGE 2		Date/Time 9/3/09 1100		<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time 9/10/09		Received By/Stored In SHANNAN JOHNSON		Date/Time 9/10/09		
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time 9/10/09		Received By/Stored In EDY		Date/Time 9/10/09		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		
LABORATORY SECTION	Received By			Title			Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method			Disposed By			Date/Time	

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-853	Page 1 of 1
Collector M. F. D. I. N. O.	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code 9K	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 18 CARCASS		SAF No. RC-118	1/18/09		
Ice Chest No. WCH-08-001-4	Field Logbook No. EL-1638	COA BESCRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A	Bill of Lading # FD 797922488504				
POSSIBLE SAMPLE HAZARDS/REMARKS N/A		Preservation	Freeze				
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"		Type of Container	P				
		No. of Container(s)	1				
		Volume	60mL				
SAMPLE ANALYSIS			Methyl Mercury by EPA 1630M; Mercury - 7473				
Sample No.	Matrix *	Sample Date	Sample Time				
J195V2 2981-198	OTHER SOLID	9/3/09	1430	X			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			
Relinquished By/Removed From M. F. D. I. N. O.		Date/Time 9/3/09 1430		Received By/Stored In EAS LOCKED STORAGE		Date/Time 9/3/09	
Relinquished By/Removed From EAS LOCKED STORAGE		Date/Time 9/10/09		Received By/Stored In SHANNAN JOHNSON		Date/Time 9/10/09	
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time 9/10/09		Received By/Stored In FD		Date/Time 9/11/09 1430	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
LABORATORY SECTION		Received By		Title		Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By		Date/Time	

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-852		Page 1 of 1	
Collector M. F. d'ino		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code 9K <i>1/18/09</i>	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 18 FILLET		SAF No. RC-118		Data Turnaround 45 Days			
Ice Chest No WCH-08-001-4		Field Logbook No. EL-1638		COA BESCRC6520		Method of Shipment FED EX			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/Air Bill No. FDY 797922488504					
POSSIBLE SAMPLE HAZARDS/REMARKS N/A		Preservation Freeze							
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"		Type of Container P							
		No. of Container(s) 1							
		Volume 60mL							
		Methyl Mercury by EPA 1630M, Mercury - 7473							
SAMPLE ANALYSIS									
Sample No.	Matrix *	Sample Date	Sample Time						
J195V1 2981.192	OTHER SOLID	9/3/09	1415	X					
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS				Matrix *	
Relinquished By/Removed From M. F. d'ino		Date/Time 9/3/09 1415		Received By/Stored In EAS LOCKED STORAGE 2		Date/Time 9/3/09 1415		<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p> <ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Dry Solids DL=Dry Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other 	
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time 9/10/09		Received By/Stored In SHANNAN JOHNSON		Date/Time 9/10/09			
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time 9/10/09		Received By/Stored In FDY		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
LABORATORY SECTION	Received By		Title				Date/Time		
FINAL SAMPLE DISPOSITION	Disposal Method		Disposed By				Date/Time		

WCH-EE-011

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-855	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 19 CARCASS		SAF No. RC-118	<i>4/10/09</i>		
Ice Chest No. <i>WCH-08-001-4</i>	Field Logbook No. EL-1638	COA BESCRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A	Bill of Lading/Air Bill No. FDY # 797922488504				
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Freeze		
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P		
				No. of Container(s)	1		
				Volume	60mL		
SAMPLE ANALYSIS				Methyl Mercury by EPA 1631M: Mercury - 7473			
Sample No.	Matrix *	Sample Date	Sample Time				
J195V4	<i>2281197</i>	OTHER SOLID	<i>9809</i>	<i>1340</i>	<i>X</i>		
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS		Matrix *	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
<i>Wendy West</i>		<i>1340</i>		<i>Wendy West</i>		<i>1340</i>	
EAS LOCKED STORAGE 2		<i>9/8/09</i>		EAS LOCKED STORAGE 2		<i>9/8/09</i>	
SHANNAN JOHNSON		<i>9/10/09</i>		SHANNAN JOHNSON		<i>9/10/09</i>	
SHANNAN JOHNSON		<i>9/10/09</i>		SHANNAN JOHNSON		<i>9/10/09</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
<i>Wendy West</i>		<i>1340</i>		<i>Wendy West</i>		<i>1340</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
<i>Wendy West</i>		<i>1340</i>		<i>Wendy West</i>		<i>1340</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
<i>Wendy West</i>		<i>1340</i>		<i>Wendy West</i>		<i>1340</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
<i>Wendy West</i>		<i>1340</i>		<i>Wendy West</i>		<i>1340</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
<i>Wendy West</i>		<i>1340</i>		<i>Wendy West</i>		<i>1340</i>	
LABORATORY SECTION	Received By	Title				Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time	

WCH-EE-011

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-854	Page 1 of 1													
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i>	Data Turnaround 45 Days														
Project Designation Columbia River Component of the RCBRA - Tissues		Sample Location STURGEON 19 FILLET		SAF No. RC-118	<i>MD 83109</i>															
Ice Chest No. <i>WCH-DB-001-9</i>	Field Logbook No. EL-1638	COA BESCR6520	Method of Shipment FED EX																	
Shipped To Battelle Marine Sciences		Offsite Property No. N/A	BIN FDMA <i>799922488504</i>																	
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Freeze															
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P															
				No. of Container(s)	1															
				Volume	60mL															
SAMPLE ANALYSIS				Methyl Mercury by EPA 1630M; Mercury - 7473																
Sample No.	Matrix *	Sample Date	Sample Time																	
J195V3 2981.195	OTHER SOLID	9.8.09	1230	X																
CHAIN OF POSSESSION				Sign/Print Names				SPECIAL INSTRUCTIONS						Matrix *						
Relinquished By/Removed From <i>Wendy West</i>		Date/Time 9.8.09 1230		Received By/Stored In <i>Wendy West</i>		Date/Time 9.8.09 1230		<p>EAS LOCKED STORAGE 2</p> <p>SHANNAN JOHNSON</p> <p>FDX</p> <p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>						<ul style="list-style-type: none"> S=Soil SE=Slurries SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WJ=Wipe L=Liquid V=Vegetation X=Other 						
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time 9/10/09		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time 9/10/09														
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time 9/10/09		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time 9/10/09														
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time														
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time														
LABORATORY SECTION		Received By		Title				Date/Time												
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By				Date/Time												

WCH-EE-011

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-856	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 20 FILLET		SAF No. RC-118	<i>11/18/09</i>		
Ice Chest No. <i>WCH-08-001-4</i>	Field Logbook No. EL-1638	COA BESRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A	Bill of Lading # FDX#797922488504				
POSSIBLE SAMPLE HAZARDS/REMARKS N/A		Preservation	Freeze				
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"		Type of Container	P				
		No. of Container(s)	1				
		Volume	60mL				
SAMPLE ANALYSIS			Methyl Mercury by EPA 1631M; Mercury - 7473				
Sample No.	Matrix *	Sample Date	Sample Time				
J195V5 2981-197	OTHER SOLID	9-8-09	1545	X			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			
Relinquished By/Removed From <i>Wendy West</i>		Date/Time 1545		Received By/Stored In EAS LOCKED STORAGE		Date/Time 1545	
Relinquished By/Removed From EAS LOCKED STORAGE		Date/Time 9/8/09		Received By/Stored In <i>Wendy West</i>		Date/Time 29-8-09	
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time 9/10/09		Received By/Stored In SHANNAN JOHNSON		Date/Time 9/18/09	
Relinquished By/Removed From <i>[Signature]</i>		Date/Time 9/11/09		Received By/Stored In <i>[Signature]</i>		Date/Time 09/11/09 HSD	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
LABORATORY SECTION				Received By			
FINAL SAMPLE DISPOSITION				Disposal Method			
				Title			
				Date/Time			
				Disposed By			
				Date/Time			

WCH-EE-011

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-857	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code 9K	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 20 CARCASS		SAF No. RC-118		11/9/09		
Ice Chest No. <i>WCH-08-001-4</i>	Field Logbook No. EL-1638	COA BESCRC6520		Method of Shipment FED EX			
Shipped To Battelle Marine Sciences	Offsite Property No. N/A		Bill of Lading # FE 97922488504				
POSSIBLE SAMPLE HAZARDS/REMARKS N/A							
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"							
				Preservation	Freeze		
				Type of Container	P		
				No. of Container(s)	1		
				Volume	60mL		
				Methyl Mercury by EPA 1630M: Mercury - 1473			
SAMPLE ANALYSIS							
Sample No.	Matrix *	Sample Date	Sample Time				
J195V6 2981.199	OTHER SOLID	9.8.09	1600	X			
CHAIN OF POSSESSION							
Relinquished By/Removed From				Sign/Print Names			
Date/Time 1600		Received By/Stored In		Date/Time 1600		SPECIAL INSTRUCTIONS	
<i>Wendy West</i>		<i>EAS Locksford</i>		<i>Wendy West</i>		Matrix * S=Soil SE= Sediment SO=Solid SL=Sludge W = Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other	
Date/Time 9.8.09		Received By/Stored In		Date/Time 9/11/09			
<i>EAS Locksford</i>		<i>SHANNAN JOHNSON</i>		<i>FOX</i>			
Date/Time 9/11/09		Received By/Stored In		Date/Time 09/11/09			
Date/Time 1450		Received By/Stored In		Date/Time			
Date/Time		Received By/Stored In		Date/Time			
Date/Time		Received By/Stored In		Date/Time		Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab	
Date/Time		Received By/Stored In		Date/Time			
LABORATORY SECTION	Received By	Title				Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time	

WCH-EE-011

Central File #: 2981

Sample No(s): 185-204

Project Manager: Brandenberger

TO BE COMPLETED BY PROJECT MANAGER (prior to sample arrival when possible)

Matrix: _____ WP# _____

Yes No

Navy-type Project (requires high-level sample tracking procedures)

USDA Soils (or overseas, including Hawaii and the U.S. Virgin Islands) See Compliance Agreement Checklist

Filter Samples: Approx. Entire sample Half of sample

Freeze dry sample(s) - samples will be weighed and placed in Ultra-low temp freezer (Lab# 503)

Special instructions: _____

Sample Preservation Instructions: _____

See LIMS for archive/disposal information

TO BE COMPLETED UPON SAMPLE ARRIVAL/LOG-IN

Yes No N/A (Initial appropriate box when completed)

Custody seal present

Custody seal intact

Cooler(s) temperature (acceptable ranges = water: 4±2°C / solid: frozen) 3.7 °C

(if multiple coolers, note temp. of each) _____ °C

Project Manager notified of any discrepancies or if temperature outside acceptable range?

Comments/Remedy: _____

All chain of custody forms signed and dated?

Samples Filtered?

Sample condition(s): Acceptable Other

Container type: Other: Plastic Jars

Notes: _____

Completed By: [Signature]

Date/Time: 09/11/09 1450

SAMPLE PRESERVATION

Sample preserved at MSL

Sample preserved prior to arrival at MSL (noted on CoC / Sample / per PM Instruction)

Random pH checked for ~10% of samples (use dip paper) Sample IDs: _____

Complete pH check required for project (use pH meter and record on pH Record form)

If preservation necessary, record Acid Lot##

Type: 0.2% HNO3 Notes: _____

0.5% HCl (Hg samples) Notes: _____

Refrigerate Notes: _____

Freeze Notes: Outside freezer - to be transferred to per. viats & put in deep freez

Other Notes: _____

Completed By: [Signature]

Date/Time: 09/11/09 1450

SAMPLE LOGIN

Project Manager: Brandenberger
 Date Received: 9/23/2009
 Batch: 17
 Login Designee: Mcgahan

Project: **Washington Closure Hanford**



Marine Sciences Laboratory
 1529 West Sequim Bay Road
 Sequim, Washington 98382
 PH: (360) 681-4565

Sponsor ID	Site Description	Battelle Code	Matrix	Storage Location	Requested Parameters	Collection Date
J19629	na	2981-213a & b	other solid	Deep Freezer C-1	Total Inorganic As, Cr Hex in Solids 1636M, Methyl Hg, Mercury-7473	09/16/09
J19628	na	2981-214a & b	other solid	Deep Freezer C-1	Total Inorganic As, Cr Hex in Solids 1636M, Methyl Hg, Mercury-7473	09/16/09
J19639	na	2981-215	other solid	Deep Freezer C-1	Total Inorganic As, Cr Hex in Solids 1636M	09/16/09
J19698	na	2981-216	other solid	Deep Freezer C-1	Methyl Hg by EPA 1630M; Mercury-7473	09/16/09
J19699	na	2981-217	other solid	Deep Freezer C-1	Methyl Hg by EPA 1630M; Mercury-7473	09/16/09
J19640	na	2981-218	other solid	Deep Freezer C-1	Total Inorganic As, Cr Hex in Solids 1636M	09/16/09
J19650	na	2981-219	other solid	Deep Freezer C-1	Total Inorganic As, Cr Hex in Solids 1636M	09/17/09
J19649	na	2981-220	other solid	Deep Freezer C-1	Total Inorganic As, Cr Hex in Solids 1636M	09/17/09
J19660	na	2981-221	other solid	Deep Freezer C-1	Total Inorganic As, Cr Hex in Solids 1636M	09/17/09
J19659	na	2981-222	other solid	Deep Freezer C-1	Total Inorganic As, Cr Hex in Solids 1636M	09/17/09

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST					RC-118-899		Page 1 of 1			
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K N</i>		Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 27 CARCASS			SAF No. RC-118		<i>AD 9/29</i>					
Ice Chest No. <i>WCH-08003-2</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX						
Shipped To Battelle Marine Sciences		Offsite Property No. N/A			Bill of Lading/Tracking # FDX# 796967152240							
POSSIBLE SAMPLE HAZARDS/REMARKS N/A					Preservation	Cool 4C	Freeze	Freeze				
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"					Type of Container	P/G	P	G/P				
					No. of Container(s)	0	1	1				
					Volume	15mL	60mL	60mL				
SAMPLE ANALYSIS					Total Inorganic Arsenic	Methyl Mercury by EPA 1630M; Mercury - 7473	Chromium Hex in Solids - 1636M					
Sample No.	Matrix *	Sample Date	Sample Time									
J19629 <i>2981-23aeh</i>	OTHER SOLID	<i>9/16/09</i>	<i>1115</i>	X	X	X						
CHAIN OF POSSESSION					SPECIAL INSTRUCTIONS					Matrix *		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		Perform Total Inorganic Arsenic out of Chromium Hex bottle. Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.			S=Soil SE=Seeded SQ=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other	
<i>Wendy West</i>		<i>115</i> <i>9/16/09</i>		EAS LOCKED STORAGE		<i>115</i> <i>9/16/09</i>						
EAS LOCKED STORAGE		<i>112/09</i> <i>100</i>		SHANNAN JOHNSON		<i>127/09</i> <i>100</i>						
SHANNAN JOHNSON		<i>9/21/09</i> <i>100</i>		CFDX		<i>125/09</i> <i>1250</i>						
LABORATORY SECTION	Received By	Title					Date/Time					
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By					Date/Time					

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-898	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 27 FILLET		SAF No. RC-118		<i>11/9/09</i>		
Ice Chest No. <i>WCH-08-003-2</i>	Field Logbook No. EL-1638	COA BESCR6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A		Bill of Lading/Air Bill No. FDA 796967152240				
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze	Freeze
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	P	G/P
				No. of Container(s)	0	1	1
				Volume	15mL	60mL	60mL
SAMPLE ANALYSIS				Total Inorganic Arsenic	Methyl Mercury by EPA 1630M. Mercury - 7473	Chromium Hex in Solids - 1636M	
Sample No.	Matrix *	Sample Date	Sample Time				
J19628 <i>2981.214a5b</i>	OTHER SOLID	<i>9/16/09</i>	<i>1100</i>	X	X	X	
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
<i>Wendy West</i>		<i>9/16/09 1100</i>		<i>Wendy West</i>		<i>9/16/09 1100</i>	
EAS LOCKED STORAGE 2		<i>9/22/09 1100</i>		SHANNAN JOHNSON		<i>9/22/09 1100</i>	
SHANNAN JOHNSON		<i>9/22/09 1100</i>		FDX			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
				<i>Shannon Johnson</i>		<i>09/22/09 1250</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
LABORATORY SECTION				Received By		Title	
FINAL SAMPLE DISPOSITION				Disposal Method		Disposed By	
						Date/Time	
						Date/Time	

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-966	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code 9K N N/A 9009	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 28 FILLET		SAF No. RC-118			
Ice Chest No. <i>WCH-03-003-2</i>	Field Logbook No. EL-1638	COA BESCR6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/Air Bill No. FDX # 796967152240			
POSSIBLE SAMPLE HAZARDS/REMARKS N/A			Preservation	Freeze			
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"			Type of Container	P			
			No. of Container(s)	1			
			Volume	60mL			
SAMPLE ANALYSIS			Methyl Mercury by EPA 1631M; Mercury - 7473				
Sample No.	Matrix *	Sample Date	Sample Time				
J19698 <i>2981-216</i>	OTHER SOLID	<i>9/16/09</i>	<i>1345</i>	X			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>1345 9/16/09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>2 9/16/09</i>	
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>9/22/09</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>9/22/09</i>	
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>9/22/09</i>		Received By/Stored In <i>FDX</i>		Date/Time <i>100</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In <i>09/23/09 1252</i>		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
LABORATORY SECTION	Received By		Title			Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method		Disposed By			Date/Time	

WCH-EE-011

Collector *Wendy West* Company Contact **JOAN KESSNER** Telephone No. **375-4688** Project Coordinator **KESSNER, JH** Price Code **9K** Data Turnaround **45 Days**

Project Designation **Columbia River Component of the RCBRA - Tissues** Sampling Location **STURGEON 28 CARCASS** SAF No. **RC-118**

Ice Chest No. *WCH-08-003-2* Field Logbook No. **EL-1638** COA **BESCRC6520** Method of Shipment **FED EX**

Shipped To **Battelle Marine Sciences** Offsite Property No. **N/A** Bill of Lading # **FDS 796967152240**

POSSIBLE SAMPLE HAZARDS/REMARKS N/A Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"	Preservation	Freez.																		
	Type of Container		P																	
	No. of Container(s)		1																	
	Volume		60mL																	

SAMPLE ANALYSIS					Methyl Mercury by EPA 1630M; Mercury - 7473														
------------------------	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Sample No.	Matrix *	Sample Date	Sample Time																	
J19699 2981.217	OTHER SOLID	9/16/09	1400	X																

CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time	Matrix * S=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue Wt=Wipe L=Liquid V=Vegetation X=Other			
<i>Wendy West</i>	1400 9/16/09	EAS LOCKED STORAGE 2 <i>Wendy West</i>	1400 9/16/09				
EAS LOCKED STORAGE 2	9/22/09 102	SHANNAN JOHNSON <i>Shannan Johnson</i>	9/22/09 102				
SHANNAN JOHNSON	9/23/09 102	FOV <i>Shannan Johnson</i>	9/23/09 120				

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

LOG-IN CHECKLIST

Reference SOP#MSL-A-001

Central File #: 2981

Sample No(s): 213-222

Project Manager: Brandenberg

TO BE COMPLETED BY PROJECT MANAGER: (prior to sample arrival when possible)

Matrix: _____ WP# _____

Yes No

Navy-type Project (requires high-level sample tracking procedures)

USDA Soils (or overseas, including Hawaii and the U.S. Virgin Islands) See Compliance Agreement Checklist

Filter Samples: Amounts Entire sample Half of sample

Freeze dry sample(s) - samples will be weighed and placed in Ultra-low temp freezer (Lab# 503)

Special instructions: _____

Sample Preservation Instructions: _____

****See LIMS for archive/disposal information****

TO BE COMPLETED UPON SAMPLE ARRIVAL/LOG-IN

Yes No N/A (Initial appropriate box when completed)

Custody seal present

Custody seal intact

Cooler(s) temperature (acceptable ranges = water: 4±2°C / solid: frozen) 2.0 °C

(if multiple coolers, note temp. of each) _____ °C

Project Manager notified of any discrepancies or if temperature outside acceptable range?
Comments/Remedy: _____

All chain of custody forms signed and dated?

Samples Filtered?

Sample condition(s): Acceptable Other (explain): _____

Container type: Teflon ~~Plastic~~ Glass Cap. Vial Other: _____

Notes: _____

Completed By: [Signature] Date/Time: 09/23/09 1240

SAMPLE PRESERVATION

Sample preserved at MSL

Sample preserved prior to arrival at MSL (noted on CoC / Sample / per PM Instruction)

Random pH checked for ~10% of samples (use dip paper) Sample IDs: _____

Complete pH check required for project (use pH meter and record on pH Record form)

If preservation necessary, record Acid Lot#

Type: 0.2% HNO3 Notes: _____

0.5% HCl (Hg samples) Notes: _____

Refrigerate Notes: _____

Freeze Notes: Deep freeze C-1

Other Notes: _____

Completed By: [Signature] Date/Time: 09/23/09 1240

**Analytical Chemistry Data Package
Inorganics Analysis**



**Project: Washington Closures Hanford
Chromium VI Analysis of Tissue**

SDG 081409 (b)
SDG 082009
SDG 091109
SDG 091809
SDG 092309
SDG 093009

PNNL Project No. 56166
MSL CF No. 2981



Pacific Northwest
NATIONAL LABORATORY

Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, WA 98382
PM: Jill Brandenberger
(360) 681-4564

SEQ092309

INORGANIC CHEMISTRY ANALYSIS DATA PACKAGE CONTENTS

Chromium VI Analysis in Tissue

Summary Table.....	3
QC Narrative	6

Sample Custody Information

Laboratory Sample Log-In and Chain of Custody Forms for:	
SDG081409	9
SDG082009	27
SDG091109	35
SDG091809	55
SDG092309	67
SDG093009	79

BAITELLE MARINE SCIENCES LABORATORY

1529 West Sequim Bay Road
 Sequim, Washington 98382
 (360) 681-4564

Washington Closures Hanford
 Chromium VI Study in Fish Tissue

SDG081409(b), SDG082009, SDG091109, SDG091809, SDG092309, and SDG093009

MSL Code	Client ID	SDG	Received Date	Collection Date	Analysis Date	Analytical Batch ID	Percent Dry Wt	Cr VI	
								µg/g dry wt.	µg/g wet wt. ¹
<i>Method Detection Limit (MDL)</i>								0.471	0.127
2981-133	J193L2	SDG081409	08/14/09	08/06/09	01/25/10	012510-LCDRC	22.4	0.471 U	0.127 U
2981-134	J193L3	SDG081409	08/14/09	08/06/09	01/25/10	012510-LCDRC	26.1	0.471 U	0.127 U
2981-135	J193M2	SDG081409	08/14/09	08/10/09	01/25/10	012510-LCDRC	28.6	0.471 U	0.127 U
2981-136	J193M3	SDG081409	08/14/09	08/10/09	01/25/10	012510-LCDRC	32.0	0.471 U	0.127 U
2981-137	J193N4	SDG081409	08/14/09	08/11/09	01/25/10	012510-LCDRC	22.3	0.471 U	0.127 U
2981-137R2	J193N4DUP	SDG081409	08/14/09	08/11/09	01/25/10	012510-LCDRC	22.3	0.485	0.108
2981-138	J193N5	SDG081409	08/14/09	08/11/09	01/25/10	012510-LCDRC	25.6	0.471 U	0.127 U
2981-139	J19446	SDG082009	08/20/09	08/12/09	01/25/10	012510-LCDRC	39.4	0.471 U	0.127 U
2981-140	J19447	SDG082009	08/20/09	08/17/09	01/25/10	012510-LCDRC	40.9	0.471 U	0.127 U
2981-141	J19456	SDG082009	08/20/09	08/17/09	01/25/10	012510-LCDRC	22.9	1.06	0.241
2981-142	J19457	SDG082009	08/20/09	08/17/09	01/25/10	012510-LCDRC	26.2	0.471 U	0.127 U
2981-143	J19466	SDG082009	08/20/09	08/17/09	01/25/10	012510-LCDRC	24.1	1.20	0.289
2981-144	J19467	SDG082009	08/20/09	08/17/09	01/25/10	012510-LCDRC	29.1	0.471 U	0.127 U
2981-186	J19476	SDG091109	09/11/09	09/03/09	01/25/10	012510-LCDRC	27.6	0.471 U	0.127 U
2981-188	J19477	SDG091109	09/11/09	09/03/09	01/25/10	012510-LCDRC	30.2	0.471 U	0.127 U
2981-189	J19487	SDG091109	09/11/09	09/03/09	01/25/10	012510-LCDRC	43.4	0.471 U	0.127 U
2981-191	J19486	SDG091109	09/11/09	09/03/09	01/25/10	012510-LCDRC	34.0	0.471 U	0.127 U
2981-193	J19497	SDG091109	09/11/09	09/08/09	01/25/10	012510-LCDRC	34.4	0.471 U	0.127 U
2981-196	J19496	SDG091109	09/11/09	09/08/09	01/25/10	012510-LCDRC	26.6	0.654	0.174
2981-198	J194B7	SDG091109	09/11/09	09/08/09	01/25/10	012510-LCDRC	32.6	0.472	0.154
2981-200	J194B8	SDG091109	09/11/09	09/08/09	01/25/10	012510-LCDRC	39.1	0.471 U	0.127 U
2981-201	J194C8	SDG091109	09/11/09	09/09/09	01/22/10	012210-LCDRC	25.6	0.471 U	0.127 U
2981-202	J194C9	SDG091109	09/11/09	09/09/09	01/22/10	012210-LCDRC	32.6	0.471 U	0.127 U
2981-203	J19503	SDG091809	09/18/09	09/10/09	01/22/10	012210-LCDRC	31.1	0.471 U	0.127 U
2981-204	J19504	SDG091809	09/18/09	09/10/09	01/22/10	012210-LCDRC	37.9	0.471 U	0.127 U
2981-204 R2	J19504DUP	SDG091809	09/18/09	09/10/09	01/22/10	012210-LCDRC	37.9	0.471 U	0.127 U
2981-205	J195R1	SDG091809	09/18/09	09/10/09	01/22/10	012210-LCDRC	42.3	0.471 U	0.127 U
2981-206	J195R0	SDG091809	09/18/09	09/10/09	01/22/10	012210-LCDRC	34.5	0.471 U	0.127 U
2981-207	J195T2	SDG091809	09/18/09	09/14/09	01/22/10	012210-LCDRC	36.7	0.471 U	0.127 U
2981-208	J195T3	SDG091809	09/18/09	09/14/09	01/22/10	012210-LCDRC	40.2	0.471 U	0.127 U
2981-209	J195Y0	SDG091809	09/18/09	09/15/09	01/22/10	012210-LCDRC	37.7	0.471 U	0.127 U
2981-210	J195X9	SDG091809	09/18/09	09/15/09	01/22/10	012210-LCDRC	32.2	0.471 U	0.127 U
2981-211	J19609	SDG091809	09/18/09	09/15/09	01/22/10	012210-LCDRC	32.9	0.471 U	0.127 U
2981-212	J19610	SDG091809	09/18/09	09/15/09	01/22/10	012210-LCDRC	38.7	0.471 U	0.127 U
2981-213	J19629	SDG092309	09/23/09	09/16/09	01/22/10	012210-LCDRC	34.7	0.471 U	0.127 U
2981-214	J19628	SDG092309	09/23/09	09/16/09	01/22/10	012210-LCDRC	28.9	0.497	0.143
2981-215	J19639	SDG092309	09/23/09	09/16/09	01/22/10	012210-LCDRC	23.9	0.471 U	0.127 U
2981-218	J19640	SDG092309	09/23/09	09/16/09	01/22/10	012210-LCDRC	29.7	0.471 U	0.127 U
2981-219	J19650	SDG092309	09/23/09	09/17/09	01/22/10	012210-LCDRC	36.0	0.471 U	0.127 U
2981-220	J19649	SDG092309	09/23/09	09/17/09	01/22/10	012210-LCDRC	29.2	0.471 U	0.127 U
2981-221	J19660	SDG092309	09/23/09	09/17/09	01/22/10	012210-LCDRC	32.0	0.471 U	0.127 U
2981-222	J19659	SDG092309	09/23/09	09/17/09	01/22/10	012210-LCDRC	28.7	0.582	0.167
2981-223	J195W5	SDG093009	09/30/09	09/21/09	01/26/10	012610-LCDRC	21.7	0.471 U	0.127 U
2981-224	J195W6	SDG093009	09/30/09	09/21/09	01/26/10	012610-LCDRC	25.7	0.471 U	0.127 U
2981-225	J195W7	SDG093009	09/30/09	09/21/09	01/26/10	012610-LCDRC	19.3	0.902	0.174
2981-226	J195W8	SDG093009	09/30/09	09/24/09	01/26/10	012610-LCDRC	21.4	1.13	0.242
2981-226R2	J195W8DUP	SDG093009	09/30/09	09/24/09	01/26/10	012610-LCDRC	21.4	0.686	0.147
2981-227	J19666	SDG093009	09/30/09	09/24/09	01/26/10	012610-LCDRC	22.2	0.911	0.202
2981-228	J19665	SDG093009	09/30/09	09/24/09	01/26/10	012610-LCDRC	20.5	1.05	0.215
QUALITY CONTROL SAMPLE RESULTS							<i>Average</i>	30.3	

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Washington Closures Hanford

Chromium VI Study in Fish Tissue

SDG081409(b), SDG082009, SDG091109, SDG091809, SDG092309, and SDG093009

MSL Code	Client ID	SDG	Received Date	Collection Date	Analysis Date	Analytical Batch ID	Percent Dry Wt	Cr VI µg/g dry wt.	Cr VI µg/g wet wt. ¹
Method Detection Limit (MDL)								0.471	0.127
Method Blank									
Blank R1					01/25/10	012510-LCDRC		0.471 U	0.127 U
Blank R2					01/22/10	012210-LCDRC		0.471 U	0.127 U
Blank R3					01/26/10	012610-LCDRC		0.471 U	0.127 U
Laboratory Control Sample									
LCS 1 Cr+6					01/25/10	012510-LCDRC		3.16	--
LCS 2 Cr+6					01/22/10	012210-LCDRC		3.06	--
LCS 3 Cr+6					01/26/10	012610-LCDRC		3.10	--
Spike Concentration								3.00	--
% Recovery								105%	--
% Recovery								102%	--
% Recovery								103%	--
Replicate Analysis Results									
2981-137	J193N4	SDG081409	08/14/09	08/11/09	01/25/10	012510-LCDRC	22.3	0.471 U	0.127 U
2981-137R2	J193N4DUP	SDG081409	08/14/09	08/11/09	01/25/10	012510-LCDRC	22.3	0.485	0.108
RPD								NA	NA
2981-204	J19504	SDG091809	09/18/09	09/10/09	01/22/10	012210-LCDRC	37.9	0.471 U	0.127 U
2981-204 R2	J19504DUP	SDG091809	09/18/09	09/10/09	01/22/10	012210-LCDRC	37.9	0.471 U	0.127 U
RPD								NA	NA
2981-226	J195W8	SDG093009	09/30/09	09/24/09	01/26/10	012610-LCDRC	21.4	1.13	0.242
2981-226R2	J195W8DUP	SDG093009	09/30/09	09/24/09	01/26/10	012610-LCDRC	21.4	0.686	0.147
RPD								NA ²	NA ²
MDLR2	New MDL				01/26/10	012610-LCDRC	30.3	1.52	0.460
MDLR3	New MDL				01/26/10	012610-LCDRC	30.3	1.45	0.439
MDLR4	New MDL				01/26/10	012610-LCDRC	30.3	1.49	0.451
MDLR5	New MDL				01/26/10	012610-LCDRC	30.3	1.37	0.414
MDLR6	New MDL				01/26/10	012610-LCDRC	30.3	1.62	0.490
MDLR7	New MDL				01/26/10	012610-LCDRC	30.3	1.56	0.474
MDLR8	New MDL				01/26/10	012610-LCDRC	30.3	1.57	0.476
Average =								1.51	0.458
Std. Dev. =								0.0846	0.0256
MDL(3.143xSD) =								0.266	0.0806
RSD								5.6%	5.6%
Matrix Spike Accuracy									
2981-133	J193L2	SDG081409	08/14/09	08/06/09	01/25/10	012510-LCDRC	22.4	0.471 U	0.127 U
2981-133 MS (Cr+6)								2.12	--
2981-133 MSD (Cr+6)								2.77	--
Spike Amount, MS								2.90	--
Spike Amount, MSD								2.83	--
% Recovery, MS								73% N	--
% Recovery, MSD								98%	--
RPD								27% *	--

BATTELLE MARINE SCIENCES LABORATORY

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Chromium VI Study in Fish Tissue

SDG081409(b), SDG082009, SDG091109, SDG091809, SDG092309, and SDG093009

MSL Code	Client ID	SDG	Received Date	Collection Date	Analysis Date	Analytical Batch ID	Percent Dry Wt	Cr VI µg/g dry wt.	Cr VI µg/g wet wt. ¹
Method Detection Limit (MDL)									
2981-203	J19503	SDG091809	09/18/09	09/10/09	01/22/10	012210-LCDRC	31.1	0.471	0.127
2981-203 MS (Cr+6)								0.471 U	0.127 U
2981-203 MSD (Cr+6)								2.95	--
Spike Amount, MS								3.26	--
Spike Amount, MSD								3.14	--
% Recovery, MS								2.97	--
% Recovery, MSD								94%	--
RPD								110%	--
2981-223	J195W5	SDG093009	09/30/09	09/21/09	01/26/10	012610-LCDRC	21.7	0.471 U	0.127 U
2981-223 MS (Cr+6)								3.19	--
2981-223 MSD (Cr+6)								2.90	--
Spike Amount, MS								2.91	--
Spike Amount, MSD								2.94	--
% Recovery, MS								110%	--
% Recovery, MSD								99%	--
RPD								10%	--
Standard Reference Material (Liquid)									
SRM 2109					01/25/10	012510-LCDRC		0.111	--
SRM 2109					01/22/10	012210-LCDRC		NA	--
SRM 2109					01/26/10	012610-LCDRC		0.119	--
Certified Value (adjusted for dilution)								0.10	--
% Recovery								111%	--
% Recovery								NA	--
% Recovery								119%	--

Qualifiers:

- ¹ Wet weight detection limit calculated using a percent dry weight of 26.9%.
- ² Concentration less than 3 times MDL
- U Not detected at or above MDL. MDL reported in value field
- N Outside Method DQOs for Blank Spikes (≤ 15%) and MS/MSD (≤ 25%) results
- * Outside Method DQOs for Duplicates (≤ 25%)

QA/QC NARRATIVE

PROJECT: Washington Closures Hanford SDG081409b (partial batch), SDG082009, SDG091109, SDG091809, SDG092309, and SDG093009

PARAMETER: Chromium Speciation – Hexavalent Chromium (Cr VI)

LABORATORY: Pacific Northwest National Laboratory (PNNL) operated by Battelle, Marine Sciences Laboratory (MSL), Sequim, Washington

MATRIX: Tissue Homogenate

SAMPLE CUSTODY AND PROCESSING: The samples addressed in this narrative were received in six separate shipments. Table 1 provides the details for the sample receipt and analysis. A total of 46 tissue samples were received at MSL. All samples were received in good condition (i.e., no sample containers were broken or leaking). Samples were assigned a Battelle Central File (CF) identification number (2981) and were entered into the MSL sample tracking and project management system. This narrative addressed only part of the SDG081409 samples due to an analytical batch size of 20 samples. See note below for sample numbers addressed in this narrative.

Table 1. Sample receipt, extraction, and analysis information.

SDG:	081409b	082009	091109	091809	092309	093009
MSL Sample IDs:	2981*133-138	2981*139-144	2981*185-202 (select)	2981*203-212	2981*213-222	2981*223-228
Collection Date:	08/06/09 08/10/09 08/11/09	08/12/09 08/17/09	09/03/09 09/08/09 09/09/09	09/10/09 09/14/09 09/15/09	09/16/09 09/17/09	09/21/09 09/24/09
Description:	Fish Tissue	Fish Tissue	Fish Tissue	Fish Tissue	Fish Tissue	Fish Tissue
Laboratory Arrival Date:	08/14/09	08/20/09	09/11/09	09/18/09	09/23/09	09/30/09
Cooler Temp.	2.5°C	1.2°C	3.7°C	2.7°C	2.0°C	3.2°C
Extraction Date:	01/24/10	01/24/10	01/24/10 01/21/10	01/21/10	01/21/10	01/26/10
Analysis Date:	01/25/10	01/25/10	01/25/10 01/22/10	01/22/10	01/22/10	01/26/10

METHODS: The tissue homogenate was processed and analyzed for CrVI following a modification from the Environmental Protection Agency (EPA) Method 6800 Elemental and Speciated Isotope Dilution Mass Spectrometry. The modification occurs in the preparation method for the tissue matrix. The tissues were extracted for CrVI following adaptations from Wolf et al. (2007). The extracts were then analyzed following MSL standard operating procedure MSL-I-039 CHROMIUM SPECIATION USING HIGH-PERFORMANCE LIQUID CHROMATOGRAPHY - INDUCTIVELY COUPLED PLASMA MASS SPECTROMETRY (HPLC-ICP-MS) IN AQUEOUS, SEDIMENT, AND TISSUE SAMPLES. The operation manual for chromium explicit SIDMS was provided by Applied Isotope Technologies and is briefly discussed in EPA Method 6800. Peaks are manually integrated for peak area and concentration is entered into the SIDMS software to conduct the isotopic dilution calculations.

Upon arrival at MSL, the wet tissue samples were stored at <-80°C until samples were lyophilized. Approximately 200 mg of dried, homogenized tissue was spiked with enriched isotopes of ⁵²Cr and ⁵³Cr to correct for interferences and potential interconversion between the oxidation states of Cr³⁺ and Cr⁶⁺. The tissues were extracted using a Na₂CO₃ and NaHCO₃ buffer, ultrasonication, and centrifugation. The extracts were then filtered through a 0.45µm Teflon syringe to removal particulates and analyzed by HPLC coupled with the ICP-MS. Analytical results are reported in µg/g dry weight. These concentrations are then converted back to a wet weight concentration using the following formula: wet weight concentration = dry weight concentration * % dry weight / 100.

QA/QC NARRATIVE

HOLDING TIMES: Wet tissue samples were stored at $\leq -80^{\circ}\text{C}$ upon arrival at MSL. Method 6800 does not provide a holding time for CrVI; however, it states that samples collected for speciation analysis must be isotopically spiked as soon as possible. Due to the lipid interference that occurred in the original method, the samples were isotopically spiked several months after collection. However, the storage of samples at $\leq -80^{\circ}\text{C}$ sufficiently inhibits interconversion of the oxidation states over this period of time. The results are not considered significantly impacted by the delay in isotopically spiking the samples.

DATA QUALITY CRITERIA (DQC):

Analyte	Analytical Method	Range of Blank Spike Recovery	Range of MS/MSD Spike Recovery	SRM Percent Recovery	Replicate Precisions (RPD)	Achieved MDL ($\mu\text{g/g}$ dry wt.)	Achieved MDL ($\mu\text{g/g}$ wet wt.) ¹
CrVI	HPLC/ICP-DRC-MS	85-115%	75-125%	NA	$\leq 25\%$	0.471 $\mu\text{g/g}$	0.127 $\mu\text{g/g}$

NA Tissue standard reference materials certified for CrVI are not presently available.

¹ Dry Weight MDL converted to a wet weight MDL using a percent dry weight of 26.9%.

DETECTION LIMITS: Analytical results were reported to the laboratory achieved method detection limits (MDL) as determined from the Annual MDL study. The MDLs were determined according to EPA's "Definition and Procedure for the Determination of the Method Detection Limit - revision 1.11" 40 CFR Part 136, Appendix B. Seven replicates of a fish tissue were used to generate the MDL for the dry weight concentration. The dry weight is then converted to a wet weight concentration using the average sample percent dry weight as discussed above. Data were evaluated and flagged in accordance with the following criteria:

U Undetected at the MDL, MDL reported.

* Duplicates outside the QC sample criterion.

N Spikes outside the QC sample criterion.

METHOD BLANKS: Method blanks were prepared and analyzed with the samples at a frequency of one each per analytical batch. Three analytical batches are reported with no detectable CrVI in the method blanks.

LABORATORY CONTROL SAMPLE (LCS) ACCURACY: Laboratory control samples (LCS) were prepared and analyzed at a frequency of one each per analytical batch. The LCS consists of reagents spiked with the isotopically enriched Cr VI and Cr III standards for ⁵²Cr and ⁵³Cr. The LCS samples were within the QC criterion of 85-115% recovery.

REPLICATE PRECISION: Laboratory duplicates were analyzed at a frequency of one each per 20 field samples or analytical batch. The samples selected for duplication were less than three times the MDL and not appropriate for evaluation of the data set precision. Precision was assessed using the matrix spike duplicates prepared with each analytical batch and with seven replicates of a fish tissue prepared with the third analytical batch.

MATRIX SPIKE ACCURACY: A set of matrix spike duplicates was prepared at a frequency of one each per 20 samples or analytical batch. The matrix spikes were within the QC acceptance criterion of 75-125%, except for one MS in batch 012510-LCDRC at 73%. Acceptable accuracy for Cr VI was demonstrated by the LCS and an aqueous SRM certified for Cr VI. Analytical precision was assessed using the matrix spike duplicates and was within the QC acceptance criterion of $\leq 25\%$ RPD except for the one MS pair (27%). Acceptable precision was demonstrated on the seven replicate analyses on a non-SDG sample.

QA/QC NARRATIVE

**STANDARD
REFERENCE
MATERIAL:**

The aqueous NIST standard reference material (SRM) for Cr VI was used to verify the accuracy of the isotopic dilution method. This is not required in the method, but was added to confirm the quantification of the Cr VI species. Therefore, only two of the three batches contained an analysis of this standard with percent recoveries within 75-125% of the certified value for Cr VI.

REFERENCES:

U.S. EPA, 2007. Method 6800, Revision 0 (February 2007), ELEMENTAL AND SPECIATED ISOTOPE DILUTION MASS SPECTROMETRY, Environmental Protection Agency.

Wolf, Ruth E., J.M. Morrison, and M.B. Goldhaber. (2007). Simultaneous determination of Cr(III) and Cr(VI) using reversed-phased ion-pairing liquid chromatography with dynamic reaction cell inductively coupled plasma mass spectrometry. *J. Anal. At. Spectrom.*, 22: 1051-1060. DOI: 10.1039/b704597b

SAMPLE LOGIN

Project Manager: Brandenberger

Date Received: 8/14/2009

Batch: 11

Login Designee: Mcgahan

Project: **Washington Closure Hanford**



Marine Sciences Laboratory
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Sponsor ID	Site Description	Battelle Code	Matrix	Storage Location	Requested Parameters	Collection Date
J192F1	na	2981-123	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/04/09
J192F2	na	2981-124	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/04/09
J192H2	na	2981-125	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/04/09
J192H3	na	2981-126	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/04/09
J19304	na	2981-127	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/05/09
J19305	na	2981-128	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/05/09
J19314	na	2981-129	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/05/09
J19315	na	2981-130	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/05/09
J19325	na	2981-131	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/06/09
J19326	na	2981-132	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/06/09
J193L2	na	2981-133	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/06/09
J193L3	na	2981-134	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/06/09
J193M2	na	2981-135	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/10/09
J193M3	na	2981-136	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/10/09
J193N4	na	2981-137	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/11/09
J193N5	na	2981-138	other solid	Deep Freezer C-2	Total Inorganic Arsenic, Cr	08/11/09

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-668	Page 1 of 1	
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i>	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 6 FILLET		SAF No. RC-118		<i>NA 72219</i>			
Ice Chest No. <i>EAS 1018 WSBZ</i>	Field Logbook No. EL-1638	COA BESCRC6520	Method of Shipment FED EX		<i>FED 796850726969</i>			
Shipped To Battelle Marine Sciences	Offsite Property No. N/A		Bill of Lading/Air Bill No. <i>N/A</i>					
POSSIBLE SAMPLE HAZARDS/REMARKS N/A								
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"				Preservation	Cool 4C	Freeze		
				Type of Container	P/G	G/P		
				No. of Container(s)	0	1		
				Volume	15mL	60mL		
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M			
Sample No.	Matrix *	Sample Date	Sample Time					
J192F1 <i>281.123</i>	OTHER SOLID	<i>8/4/09</i>	<i>1000</i>	X	X			
CHAIN OF POSSESSION								
Relinquished By/Removed From		Date/Time		Sign/Print Names		SPECIAL INSTRUCTIONS		
<i>Wendy West</i>		<i>1000</i>		<i>Wendy West</i>		<p>Sampler unavailable to relinquish samples from EAS Refrigerator. EAS Custodian removed samples for shipping on <i>8/24/09</i></p>		
Relinquished By/Removed From		Date/Time		Received By/Stored In				
<i>EAS LOCKED STORAGE</i>		<i>8/4/09</i>		<i>SHANNAN JOHNSON</i>				
Relinquished By/Removed From		Date/Time		Received By/Stored In				
<i>SHANNAN JOHNSON</i>		<i>8/24/09</i>		<i>FDX</i>				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Matrix *		
Relinquished By/Removed From		Date/Time		Received By/Stored In		S-Soil SE-Sediment SD-Solid SM-Sudge W-Water O-Oil A-Air DS-Drum Solids DL-Drum Liquids T-Tissue WI-Wipe L-Liquid V-Vegetation X-Other		
Relinquished By/Removed From		Date/Time		Received By/Stored In				
Relinquished By/Removed From		Date/Time		Received By/Stored In				
Relinquished By/Removed From		Date/Time		Received By/Stored In				
LABORATORY SECTION	Received By			Title			Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method			Disposed By			Date/Time	

WCH-EE-011

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-669	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 6 CARCASS		SAF No. RC-118		<i>72709</i>		
Ice Chest No. <i>GLCS 028</i>	Field Logbook No. EL-1638	COA BESCRC6520	Method of Shipment FED EX		Bill of Lading/Air Bill No. FDX 796859726969		
Shipped To Battelle Marine Sciences		Offsite Property No. N/A					
POSSIBLE SAMPLE HAZARDS/REMARKS N/A				Preservation	Cool 4C	Freeze	
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"				Type of Container	P/G	G/P	
				No. of Container(s)	0	1	
				Volume	15mL	60mL	
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M		
Sample No.	Matrix *	Sample Date	Sample Time				
J192F2 <i>2981-124</i>	OTHER SOLID	<i>8/14/09</i>	<i>1145</i>	X	X		
CHAIN OF POSSESSION				Sign/Print Names		SPECIAL INSTRUCTIONS	
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>1145 8/14/09</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>1145 8/14/09</i>	EAS LOCKED STORAGE		Matrix * S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Dry Solids DL=Dry Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other	
Relinquished By/Removed From EAS LOCKED STORAGE	Date/Time <i>1000 8/13/09</i>	Received By/Stored In <i>SHANNAN JOHNSON</i>	Date/Time <i>1000 8/13/09</i>	EAS LOCKED STORAGE			
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>	Date/Time <i>1000 8/13/09</i>	Received By/Stored In <i>EDY</i>	Date/Time <i>1000 8/13/09</i>	EAS LOCKED STORAGE			
Relinquished By/Removed From <i>Shannan Johnson</i>	Date/Time <i>08/14/09 1360</i>	Received By/Stored In <i>Shannan Johnson</i>	Date/Time <i>08/14/09 1360</i>	EAS LOCKED STORAGE			
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time	EAS LOCKED STORAGE			
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time	EAS LOCKED STORAGE		sampler unavailable to relinquish samples from EAS Refrigerator. EAS Custodian removed samples for shipping on <i>8/15/09</i> .	
LABORATORY SECTION	Received By	Title		Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-678		Page 1 of 1	
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>8309</i>	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 7 FILLET		SAF No. RC-118		Data Turnaround 45 Days			
Ice Chest No. <i>GLWS 028</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading # FDX # 796859726969					
POSSIBLE SAMPLE HAZARDS/REMARKS N/A		Preservation		Cool 4C	Freeze				
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"		Type of Container		P/G	G/P				
		No. of Container(s)		0	1				
		Volume		15mL	60mL				
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M				
Sample No.	Matrix *	Sample Date	Sample Time						
J192H2 <i>2981-125</i>	OTHER SOLID	<i>8/14/09</i>	<i>1500</i>	X	X				
CHAIN OF POSSESSION		Sign/Print Names				SPECIAL INSTRUCTIONS			
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>1500</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>1500</i>		Matrix *	
Relinquished By/Removed From EAS LOCKED STORAGE		Date/Time <i>1000</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>8/14/09</i>		S= Soil	
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>1000</i>		Received By/Stored In SHANNAN JOHNSON		Date/Time <i>8/14/09</i>		SE= Sediment	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		SO= Solid	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		SI= Sludge	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		W = Water	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		O= Oil	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		A= Air	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		DS= Deum Solids	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		DL= Deum Liquids	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		T= Tissue	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		WI= Wipe	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		L= Liquid	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		V= Vegetation	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		X= Other	
LABORATORY SECTION		Received By		Title				Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By				Date/Time	

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-679	Page 1 of 1	
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9K N NA 9309	Data Turnaround 45 Days			
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 7 CARCASS		SAF No. RC-118					
Ice Chest No. <i>GWS 028</i>	Field Logbook No. EL-1638	COA BESRC6520	Method of Shipment FED EX					
Shipped To Battelle Marine Sciences	Offsite Property No. N/A		Bill of Lading/FBI No. FDX 796859726969					
POSSIBLE SAMPLE HAZARDS/REMARKS N/A				Preservation	Cool 4C	Freeze		
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"				Type of Container	P/G	G/P		
				No. of Container(s)	0	1		
				Volume	15mL	60mL		
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M			
Sample No.	Matrix *	Sample Date	Sample Time					
J192H3 2781-126	OTHER SOLID	8/4/09	1510	X	X			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS				
Relinquished By/Removed From <i>Wendy West</i>	Date/Time 1510 8/4/09	Received By/Stored In <i>Wendy West</i>	Date/Time 1510 8/4/09	<p>EAS LOCKED STORAGE</p> <p>sampler unavailable to relinquish samples from EAS Refrigerator. EAS Custodian removed samples for shipping on 8/13/09.</p>				Matrix *
Relinquished By/Removed From EAS LOCKED STORAGE	Date/Time 1000 2/13/09	Received By/Stored In SHANNAN JOHNSON	Date/Time 1300 2/13/09					
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time 0910 8/13/09	Received By/Stored In <i>[Signature]</i>	Date/Time 1300 8/13/09					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
LABORATORY SECTION	Received By	Title		Date/Time				
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time				

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-688	Page 1 of 1	
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i>	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 8 FILLET	SAF No. RC-118		<i>NA 8309</i>				
Ice Chest No. <i>GL080228</i>	Field Logbook No. EL-1638	COA BESCR6520	Method of Shipment FED EX					
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading/Dr. Bill No. FDX# 796859726969						
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze		
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P		
				No. of Container(s)	0	1		
				Volume	15mL	60mL		
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M			
Sample No.	Matrix *	Sample Date	Sample Time					
J19304 <i>2781-127</i>	OTHER SOLID	<i>8/5/09</i>	<i>0930</i>	X	X			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS				
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>0930</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>0930</i>	EAS LOCKED STORAGE 2 SHANNAN JOHNSON FDX Sampler unavailable to relinquish samples from EAS Refrigerator. EAS Custodian removed samples for shipping on <i>8/13/09</i>				Matrix *
Relinquished By/Removed From EAS LOCKED STORAGE 2	Date/Time <i>8/13/09</i>	Received By/Stored In SHANNAN JOHNSON	Date/Time <i>8/13/09 1000</i>					
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time <i>8/13/09 1000</i>	Received By/Stored In <i>FDX</i>	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In <i>Shannon Johnson</i>	Date/Time <i>8/14/09 1300</i>					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
LABORATORY SECTION	Received By	Title				Date/Time		
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time		

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-689	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 8 CARCASS		SAF No. RC-118	<i>N</i> <i>MS 8309</i>		
Ice Chest No. <i>GLWS 028</i>	Field Logbook No. EL-1638	COA BESRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A	Bill of Lading/Air Bill No. FDX 796859726969				
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze	
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P	
				No. of Container(s)	0	1	
				Volume	15mL	60mL	
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M		
Sample No.	Matrix *	Sample Date	Sample Time				
J19305 <i>2981-128</i>	OTHER SOLID	<i>8/5/09</i>	<i>1000</i>	<i>X</i>	<i>X</i>		
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>1000 8/5/09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>1000 8/5/09</i>	
Relinquished By/Removed From EAS LOCKED STORAGE		Date/Time <i>28/13/09</i>		Received By/Stored In SHANNAN JOHNSON		Date/Time <i>8/13/09 1000</i>	
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>8/13/09 1000</i>		Received By/Stored In <i>FDX</i>		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In <i>Shanna Johnson</i>		Date/Time <i>8/14/09 1300</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
LABORATORY SECTION				Received By			
FINAL SAMPLE DISPOSITION				Disposal Method			
				Disposed By			
				Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-698		Page 1 of 1	
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>AK 8309</i>	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 9 FILLET		SAF No. RC-118		Data Turnaround 45 Days			
Ice Chest No. <i>GWS 028</i>		Field Logbook No. EL-1638		COA BESRC6520		Method of Shipment FED EX			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/Airway Bill FDX 796859726969					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>		Preservation		Cool 4C	Freeze				
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>		Type of Container		P/G	G/P				
		No. of Container(s)		0	1				
		Volume		15mL	60mL				
SAMPLE ANALYSIS		Total Inorganic Arsenic		Chromium Hex in Solids - 1636M					
Sample No.	Matrix *	Sample Date	Sample Time						
J19314 <i>2781-129</i>	OTHER SOLID	<i>8/5/09</i>	<i>1300</i>	X	X				
CHAIN OF POSSESSION		Sign/Print Names				SPECIAL INSTRUCTIONS			
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>8/5/09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>1300</i>		Matrix * S=Soil SE=Sediment SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue W1=Wipe L=Liquid V=Vegetation X=Other	
Relinquished By/Removed From EAS LOCKED STORAGE		Date/Time <i>8/13/09</i>		Received By/Stored In SHANNAN JOHNSON		Date/Time <i>8/13/09 1100</i>			
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>8/13/09 1100</i>		Received By/Stored In FDX		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In <i>[Signature]</i>		Date/Time <i>8/14/09 1300</i>			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		sampler unavailable to relinquish samples from EAS Refrigerator. EAS Custodian removed samples for shipping on <i>8/13/09</i>	
LABORATORY SECTION	Received By	Title				Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-699	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 9 CARCASS		SAF No. RC-118	<i>40 8309</i>			
Ice Chest No. <i>GLDS 028</i>	Field Logbook No. EL-1638	COA BESRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading # FD 796859726969					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>							
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>							
				Preservation	Cool 4C	Freeze	
				Type of Container	P/G	G/P	
				No. of Container(s)	0	1	
				Volume	15mL	60mL	
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M		
Sample No.	Matrix *	Sample Date	Sample Time				
J19315 <i>2781-130</i>	OTHER SOLID	8/5/09	1400	X	X		
CHAIN OF POSSESSION							
Sign/Print Names				SPECIAL INSTRUCTIONS			
Relinquished By/Removed From <i>Wendy West</i>	Date/Time 8/5/09 1400	Received By/Stored In <i>Wendy West</i>	Date/Time 8/5/09 1400	Matrix * S=Soil SE=Sediment SO=Soil SI=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Trash WI=Wgc L=Liquid V=Vegetation X=Other sampler unavailable to relinquish samples from EAS Refrigerator. EAS Custodian removed samples for shipping on <i>8/15/09</i>			
Relinquished By/Removed From EAS LOCKED STORAGE	Date/Time 8/10/09	Received By/Stored In SHANNAN JOHNSON	Date/Time 8/10/09 1000				
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time 8/13/09 1000	Received By/Stored In FDSP	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title		Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-708	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>915</i>	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 10 FILLET	SAF No. RC-118	8309				
Ice Chest No. <i>GLDS 028</i>	Field Logbook No. EL-1638	COA BESCR6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading/Air Bill No. FDX 796859726969					
POSSIBLE SAMPLE HAZARDS/REMARKS N/A		Preservation	Cool 4C	Freeze			
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"		Type of Container	P/G	G/P			
		No. of Container(s)	0	1			
		Volume	15mL	60mL			
SAMPLE ANALYSIS		Total Inorganic Arsenic	Chromium Hex in Solids - 16364				
Sample No.	Matrix *	Sample Date	Sample Time				
J19325 <i>2981-131</i>	OTHER SOLID	<i>8/16/09</i>	<i>0900</i>	X	X		
CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>09/10</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>09/10</i>	SAMPLER UNAVAILABLE TO RELINQUISH SAMPLES FROM EAS REFRIGERATOR. EAS CUSTODIAN REMOVED SAMPLES FOR SHIPPING ON <i>8/16/09</i>			<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WJ=Wipe L=Liquid V=Vegetation X=Other
EAS LOCKED STORAGE 2							
Relinquished By/Removed From EAS LOCKED STORAGE 2	Date/Time <i>8/13/09</i>	Received By/Stored In SHANNAN JOHNSON	Date/Time <i>8/13/09 1000</i>				
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time <i>8/13/09 1000</i>	Received By/Stored In FDX	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In <i>Shannan Johnson</i>	Date/Time <i>8/14/09 1300</i>				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title		Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-709	Page 1 of 1
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 10 CARCASS		SAF No. RC-118		Price Code <i>9K</i> <i>AS 8309</i>	
Ice Chest No. <i>GLAS 028</i>		Field Logbook No. EL-1638		COA BESRC6520		Data Turnaround 45 Days	
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Method of Shipment FED EX		Bill of Lading # <i>FD 796859726909</i>	
POSSIBLE SAMPLE HAZARDS/REMARKS N/A				Preservation	Cool 4C	Freeze	
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P	
				No. of Container(s)	0	1	
				Volume	15mL	60mL	
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M		
Sample No.	Matrix *	Sample Date	Sample Time				
<i>J19326 2981-132</i>	<i>OTHER SOLID</i>	<i>8/16/09</i>	<i>1030</i>	<i>X</i>	<i>X</i>		
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS		Matrix *	
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>8/16/09</i>		Received By/Stored In <i>EAS LOCKED STORAGE 2</i>		Date/Time <i>8/16/09</i>	
Relinquished By/Removed From <i>EAS LOCKED STORAGE 2</i>		Date/Time <i>8/15/09</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>8/13/09</i>	
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>8/15/09 1000</i>		Received By/Stored In <i>[Signature]</i>		Date/Time <i>8/14/09 1300</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
LABORATORY SECTION				Title		Date/Time	
Received By				Disposal Method		Disposed By	
FINAL SAMPLE DISPOSITION				Disposal Method		Date/Time	

WCH-EE-011

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-718		Page 1 of 1		
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>OK</i> <i>N</i> <i>118609</i>		
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 11 FILLET		SAF No. RC-118		Data Turnaround 45 Days				
Ice Chest No. <i>GLWS 028</i>		Field Logbook No. EL-1638		COA BESCRC6520		Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/Air Bill No. FL 796859726969						
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze				
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P				
				No. of Container(s)	0	1				
				Volume	15mL	60mL				
				SAMPLE ANALYSIS	Total Inorganic Arsenic	Chromium Hex in Solids - 1636M				
Sample No.	Matrix *	Sample Date	Sample Time							
<i>J193L2 2981-133</i>	<i>OTHER SOLID</i>	<i>8/16/09</i>	<i>1420</i>	<i>X</i>	<i>X</i>					
CHAIN OF POSSESSION										
Relinquished By/Removed From				Sign/Print Names				SPECIAL INSTRUCTIONS		Matrix *
<i>Wendy West</i>		Date/Time <i>1420</i>		<i>EAS LOCKED STORAGE</i>		Received By/Stored In		Date/Time <i>1420</i>		<ul style="list-style-type: none"> S=Soil SE=Settlement SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Transformer WI=Wipe L=Liquid V=Vegetation X=Other
<i>EAS LOCKED STORAGE</i>		Date/Time <i>2/13/09</i>		<i>SHANNAN JOHNSON</i>		Received By/Stored In		Date/Time <i>8/16/09 1000</i>		
<i>SHANNAN JOHNSON</i>		Date/Time <i>8/13/09 1000</i>		<i>FOF</i>		Received By/Stored In		Date/Time		
<i>FOF</i>		Date/Time		<i>FOF</i>		Received By/Stored In		Date/Time		
<i>FOF</i>		Date/Time		<i>FOF</i>		Received By/Stored In		Date/Time		
<i>FOF</i>		Date/Time		<i>FOF</i>		Received By/Stored In		Date/Time		
LABORATORY SECTION	Received By			Title			Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method			Disposed By			Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-719		Page 1 of 1			
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>NO 8609</i>			
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON II CARCASS			SAF No. RC-118		Data Turnaround 45 Days				
Ice Chest No. <i>GLWS 028</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX					
Shipped To Battelle Marine Sciences		Offsite Property No. N/A			Bill of Lading/BIN No. PDX 796859726969						
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation		Cool 4C		Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container		P/G		G/P			
				No. of Container(s)		0		1			
				Volume		15mL		60mL			
				Total Inorganic Arsenic		Chromium Hex in Solids - 1636M					
SAMPLE ANALYSIS											
Sample No.		Matrix *		Sample Date		Sample Time					
<i>J193L3 2781-134</i>		<i>OTHER SOLID</i>		<i>8/16/09</i>		<i>1430</i>		<i>X X</i>			
CHAIN OF POSSESSION				Sign/Print Names		SPECIAL INSTRUCTIONS					
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>1430 8/16/09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>1430 8/16/09</i>		<p>SAMPLER UNAVAILABLE TO RELINQUISH SAMPLES FROM EAS REFRIGERATOR. EAS CUSTODIAN REMOVED SAMPLES FOR SHIPPING ON <i>8/15/09</i>.</p>			
Relinquished By/Removed From <i>EAS LOCKED STORAGE</i>		Date/Time <i>8/15/09</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>8/15/09 1000</i>					
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>8/15/09 1000</i>		Received By/Stored In <i>EDX</i>		Date/Time					
Relinquished By/Removed From		Date/Time		Received By/Stored In <i>Ed M. Mah</i>		Date/Time <i>08/14/09 1300</i>					
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time					
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time					
LABORATORY SECTION		Received By		Title		Date/Time					
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By		Date/Time					

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-728	Page 1 of 1
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH	Price Code <i>9K</i> <i>N</i> <i>0819609</i>
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 12 FILLET		SAF No. RC-118		Data Turnaround 45 Days	
Ice Chest No. <i>GLWS 028</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX	
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading # FDX 796859726969			
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze	
Special Handling and/or Storage <i>FREEZE *MATRIX COMPOSED OF FISH*</i>				Type of Container	P/G	G/P	
				No. of Container(s)	0	1	
				Volume	15mL	60mL	
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M		
Sample No.	Matrix *	Sample Date	Sample Time				
J193M2 <i>2281-135</i>	OTHER SOLID	8/10/09	1130	X	X		
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>8/10/09 1130</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>8/10/09 1130</i>	
EAS LOCKED STORAGE		EAS LOCKED STORAGE		SHANNAN JOHNSON		8/13/09 1000	
SHANNAN JOHNSON		8/13/09 1000		FDX			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
LABORATORY SECTION		Received By		Title		Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By		Date/Time	

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-738		Page 1 of 1			
Collector <i>Wendy Wait</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> Data Turnaround 45 Days			
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 13 FILLET		SAF No. RC-118		<i>MJ2609</i>					
Ice Chest No. <i>GWS 028</i>		Field Logbook No. EL-1638		COA BESRC6520						Method of Shipment FED EX	
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/ <i>FBI</i> No. 796859726969							
POSSIBLE SAMPLE HAZARDS/REMARKS N/A				Preservation	Cool 4C	Freeze					
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"				Type of Container	P/G	G/P					
				No. of Container(s)	0	1					
				Volume	15mL	60mL					
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M						
Sample No.	Matrix *	Sample Date	Sample Time								
J193N4 <i>2981-137</i>	OTHER SOLID	<i>8/11/09</i>	<i>0900</i>	X	X						
CHAIN OF POSSESSION				Sign/Print Names		SPECIAL INSTRUCTIONS					
Relinquished By/Removed From <i>Wendy Wait</i>		Date/Time <i>8/11/09 0900</i>		Received By/Stored In <i>Wendy Wait</i>		<p>EAS LOCKED STORAGE 2</p> <p>SHANNAN JOHNSON</p> <p>FDY</p> <p><i>08/11/09 1330</i></p> <p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment in lab.</p>					
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time <i>8/12/09</i>		Received By/Stored In SHANNAN JOHNSON						Date/Time <i>8/11/09 0900</i>	
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>8/13/09 1000</i>		Received By/Stored In FDY						Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In <i>[Signature]</i>						Date/Time <i>08/11/09 1330</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In						Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time					
LABORATORY SECTION		Received By		Title				Date/Time			
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By				Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-739	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code 9K N MP 8609	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 13 CARCASS		SAF No. RC-118				
Ice Chest No. <i>GLWS 028</i>	Field Logbook No. EL-1638	COA BESRCR6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading/Air Bill No. FDX # 796859726969					
POSSIBLE SAMPLE HAZARDS/REMARKS N/A				Preservation	Cool 4C	Freeze	
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"				Type of Container	P/G	G/P	
				No. of Container(s)	0	1	
				Volume	15mL	60mL	
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M		
Sample No.	Matrix *	Sample Date	Sample Time				
J193N5 <i>221-138</i>	OTHER SOLID	<i>8/11/09</i>	<i>1030</i>	X	X		
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS		Matrix *	
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>1030</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>1030</i>	SAMPLER UNAVAILABLE TO REMOVE SAMPLES FROM CONTROLLED STORAGE. SHIPPER REMOVED SAMPLES FROM STORAGE LOCATION TAKING CUSTODY OF SAMPLES FOR SHIPMENT TO LAB.		<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SH=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other 	
EAS LOCKED STORAGE		EAS LOCKED STORAGE 2					
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>	Date/Time <i>8/11/09 1000</i>	Received By/Stored In <i>SHANNAN JOHNSON</i>	Date/Time <i>8/11/09 1000</i>				
SHANNAN JOHNSON		FDY					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title		Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

LOG-IN CHECKLIST

Reference SOP# MSL-A-001

Central File #: 2981 Sample No(s): 113-122 Project Manager: Braudenberger

TO BE COMPLETED BY PROJECT MANAGER (prior to arrival when possible)

Matrix: _____ WP# _____

Yes No

Navy-type Project (requires high-level sample tracking procedures)

Filter Samples: Amount: Entire sample Half of sample

Freeze dry sample(s) - samples will be weighed and placed in ultralow temp freezer (Login Lab)

Special instructions: _____

Sample Preservation Instructions: _____

Date To Archive: _____ Date To Dispose: _____

TO BE COMPLETED UPON SAMPLE ARRIVAL/LOG-IN

Yes No N/A Indicate in Appropriate Box

Was a custody seal present?

Was the custody seal intact? *Each sample has a custody seal that was intact. jms*

Was cooler(s) temperature(s) within acceptable range of $4 \pm 2^\circ\text{C}$ or frozen? 2.1 °C
(if multiple coolers, note temp. of each) _____ °C

Was Project Manager notified of any custody/login discrepancies (cooler temp, sponsor codes, etc)?
Comment/Remedy: _____

Were all chain of custody forms signed and dated?

Were samples filtered at MSL?

8/6/09

Sample condition(s):

Acceptable Other (explain): _____

Container type:

Teflon Poly Glass Cap. Vial Other: Plastic jars

Notes: _____

Completed By: [Signature] Date/Time: 08/06/09 1430

SAMPLE PRESERVATION

Sample(s) were preserved at MSL

Sample(s) were preserved prior to arrival at MSL (noted on CoC / Sample / per PM Instruction)

Random pH checked for ~10% of samples (use dip paper) Sample IDs: _____

Complete pH check required for project (use pH meter and record on pH Record form)

If preservation necessary, record Acid Lot#

Type: 0.2% HNO3 Notes: _____

0.5% HCl (Hg samples) Notes: _____

Refrigerate/Freeze Notes: _____

Other Notes: _____

Completed By: [Signature] Date/Time: 08/06/09 1430

Storage Shelf: _____

SAMPLE LOGIN

Project Manager: Brandenberger
Date Received: 8/20/2009
Batch: 12
Login Designee: Csuslick



Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382
PH: (360) 681-4565

Project: **Washington Closure Hanford**

Sponsor ID	Site Description	Battelle Code	Matrix	Storage Location	Requested Parameters	Collection Date
J19446	-	2981-139	TISS	Deep Freezer, Walkin	Total Inorganic As, Hexachrome	12-Aug-09
J19447	-	2981-140	TISS	Deep Freezer, Walkin	Total Inorganic As, Hexachrome	17-Aug-09
J19456	-	2981-141	TISS	Deep Freezer, Walkin	Total Inorganic As, Hexachrome	17-Aug-09
J19457	-	2981-142	TISS	Deep Freezer, Walkin	Total Inorganic As, Hexachrome	17-Aug-09
J19466	-	2981-143	TISS	Deep Freezer, Walkin	Total Inorganic As, Hexachrome	17-Aug-09
J19467	-	2981-144	TISS	Deep Freezer, Walkin	Total Inorganic As, Hexachrome	17-Aug-09

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-748		Page 1 of 1	
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>4181009</i>	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 14 FILLET			SAF No. RC-118		Data Turnaround 45 Days		
Ice Chest No. <i>WCH-08-D62</i>		Field Logbook No. EL-1638		COA BESCRC6520		Method of Shipment FED EX			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A			Bill of Lading/Air Bill No. FDX# 797863010890				
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P			
				No. of Container(s)	0	1			
				Volume	15mL	60mL			
				SAMPLE ANALYSIS		Total Inorganic Arsenic	Chromium Hex in Solids - 1636M		
Sample No.	Matrix *	Sample Date	Sample Time						
J19446 <i>2981-139</i>	OTHER SOLID	<i>8-12-09</i>	<i>0930</i>	X	X				
CHAIN OF POSSESSION					SPECIAL INSTRUCTIONS				
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>8-12-09 0930</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>8-12-09 0930</i>		<p>30 samples for shipment to lab.</p> <p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody</p>	
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time <i>8/12/09</i>		Received By/Stored In SHANNAN JOHNSON		Date/Time <i>8/12/09</i>			
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>8/12/09</i>		Received By/Stored In FDY		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In <i>Shannon Battelle</i>		Date/Time <i>8/20/09 1450</i>			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		<p>Matrix *</p> <p>S=Soil SE=Sequester SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue W=Wipe L=Liquid V=Vegetation X=Other</p>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
LABORATORY SECTION		Received By			Title			Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method			Disposed By			Date/Time	

WCH-EE-011

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-749	Page 1 of 1	
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH	Price Code <i>OK</i>	Data Turnaround 45 Days
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 14 CARCASS		SAF No. RC-118		<i>1/10/09</i>		
Ice Chest No. <i>WCH-08-062</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX		
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading No. FDX 797863010890				
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze		
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P		
				No. of Container(s)	0	1		
				Volume	15mL	60mL		
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M			
Sample No.	Matrix *	Sample Date	Sample Time					
J19447	<i>2981-140</i>	<i>8/17/09</i>	<i>1010</i>	<i>X</i>	<i>X</i>			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS				Matrix *
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>8/17/09</i>		Received By/Stored In <i>EAS LOCKED STORAGE</i>		Date/Time <i>8/17/09</i>		<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SI=Sludge W = Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WL=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From <i>EAS LOCKED STORAGE</i>		Date/Time <i>8/19/09</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>8/19/09</i>		
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>8/19/09</i>		Received By/Stored In <i>FDX</i>		Date/Time		
Relinquished By/Removed From		Date/Time		Received By/Stored In <i>Shannon Battelle MSL</i>		Date/Time <i>8/20/09 1450</i>		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		
LABORATORY SECTION	Received By			Title			Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method			Disposed By			Date/Time	

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-758		Page 1 of 1	
Collector <i>Mason Fidino</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>A/E 8/10/09</i>	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 15 FILLET				SAF No. RC-118		Data Turnaround 45 Days	
Ice Chest No. <i>WCH-08-062</i>		Field Logbook No. EL-1638		COA BESCRC6520		Method of Shipment FED EX			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A				Bill of Lading/Air Bill No. FDX 797863010890			
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>					Preservation	Cool 4C	Freeze		
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>					Type of Container	P/G	G/P		
					No. of Container(s)	0	1		
					Volume	15mL	60mL		
SAMPLE ANALYSIS					Total Inorganic Arsenic	Chromium Hex in Solids - 1636M			
Sample No.	Matrix *	Sample Date	Sample Time						
<i>J19456</i>	<i>2981741</i>	<i>8-17-09</i>	<i>1145</i>	<i>X</i>	<i>X</i>				
CHAIN OF POSSESSION									
Relinquished By/Removed From					Sign/Print Names				
<i>Mason Fidino</i>		Date/Time <i>8-17-09 1145</i>			Received By/Stored In		Date/Time <i>8-17-09 1145</i>		
<i>EAS LOCKED STORAGE 2</i>					<i>EAS LOCKED STORAGE 2</i>				
<i>SHANNAN JOHNSON</i>		Date/Time <i>8/19/09 1245</i>			Received By/Stored In		Date/Time <i>8/19/09 1245</i>		
<i>SHANNAN JOHNSON</i>					<i>FDX</i>				
		Date/Time			Received By/Stored In		Date/Time		
		Date/Time			Received By/Stored In		Date/Time		
		Date/Time			Received By/Stored In		Date/Time		
LABORATORY SECTION					SPECIAL INSTRUCTIONS				
Received By		Title			Date/Time				
FINAL SAMPLE DISPOSITION		Disposal Method			Disposed By				
					Date/Time				

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-759		Page 1 of 1			
Collector <i>Mason Fidino</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>AD 8/10/09</i>			
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 15 CARCASS		SAF No. RC-118		Data Turnaround 45 Days					
Ice Chest No. <i>WCH-08-062</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX					
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/Air Bill No. FDX 797863010890							
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze					
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P					
				No. of Container(s)	0	1					
				Volume	15mL	60mL					
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids 1636M						
Sample No.	Matrix *	Sample Date	Sample Time								
<i>J19457</i>	<i>2981-142</i>	<i>8-17-09</i>	<i>1200</i>	<i>X</i>	<i>X</i>						
CHAIN OF POSSESSION											
Relinquished By/Removed From <i>Mason Fidino</i>				Date/Time <i>8-17-09 1200</i>		Sign/Print Names <i>EAS LOCKED STORAGE</i>				Date/Time <i>8-17-09 1200</i>	
Relinquished By/Removed From <i>EAS LOCKED STORAGE</i>				Date/Time <i>2 8/19/09</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>				Date/Time <i>8/19/09</i>	
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>				Date/Time <i>8/19/09</i>		Received By/Stored In <i>FDX</i>				Date/Time	
Relinquished By/Removed From				Date/Time		Received By/Stored In <i>Upper Bottom HSC</i>				Date/Time <i>8/20/09 1450</i>	
Relinquished By/Removed From				Date/Time		Received By/Stored In				Date/Time	
Relinquished By/Removed From				Date/Time		Received By/Stored In				Date/Time	
LABORATORY SECTION		Received By		Title				Date/Time			
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By				Date/Time			
SPECIAL INSTRUCTIONS											
<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>											
Matrix *											
<ul style="list-style-type: none"> S=Soil SE= Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids F=Tissue WI=Wipe L=Liquid V=Vegetation X=Other 											

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-768		Page 1 of 1		
Collector M.F.dino		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code 9K N NO 41009		
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 16 FILLET			SAF No. RC-118		Data Turnaround 45 Days			
Ice Chest No. WCH-08-062		Field Logbook No. EL-1638		COA BESRCR6520		Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A			Bill of Lading/Air Bill No. FDX # 797863010090					
POSSIBLE SAMPLE HAZARDS/REMARKS N/A				Preservation	Cool 4C	Freeze				
Special Handling and/or Storage FREEZE *MATRIX COMPOSED OF FISH*				Type of Container	P/G	G/P				
				No. of Container(s)	0	1				
				Volume	15mL	60mL				
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M					
Sample No.	Matrix *	Sample Date	Sample Time							
J19466 2981-143	OTHER SOLID	8-17-09	1435	X	X					
CHAIN OF POSSESSION					SPECIAL INSTRUCTIONS					
Relinquished By/Removed From M.F.dino 6h2		Date/Time 8-17-09 1435		Sign/Print Names EAS LOCKED STORAGE		Date/Time 8-17-09 1435		<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>		<p>Matrix *</p> <ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue Wt=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time 1245 8/19/09		Received By/Stored In SHANNAN JOHNSON		Date/Time 1245 8/19/09				
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time 1245 8/19/09		Received By/Stored In FDX		Date/Time				
Relinquished By/Removed From		Date/Time		Received By/Stored In Gunn Battelle MSL		Date/Time 8/21/09 1450				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time				
LABORATORY SECTION	Received By	Title				Date/Time				
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time				

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-769		Page 1 of 1	
Collector M.F. dino		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code 9K N 11881009	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 16 CARCASS		SAF No. RC-118		Data Turnaround 45 Days			
Ice Chest No. WCH-08-062		Field Logbook No. EL-1638		COA BESCRC6520		Method of Shipment FED EX			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/Air Bill # FDX # 797863010890					
POSSIBLE SAMPLE HAZARDS/REMARKS N/A		Preservation		Cool 4C	Freeze				
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"		Type of Container		P/G	G/P				
		No. of Container(s)		0	1				
		Volume		15mL	60mL				
SAMPLE ANALYSIS		Total Inorganic Arsenic		Chromium Hex in Solids - 1636M					
Sample No.	Matrix *	Sample Date	Sample Time						
J19487	2981744	OTHER SOLID	8-17-09	1500	X	X			
CHAIN OF POSSESSION		Sign/Print Names				SPECIAL INSTRUCTIONS			
Relinquished By/Removed From M.F. dino		Date/Time 8-17-09 1500		Received By/Stored In EAS LOCKED STORAGE		Date/Time 8-17-09 1500		Matrix *	
Relinquished By/Removed From EAS LOCKED STORAGE		Date/Time 8/19/09		Received By/Stored In SHANNAN JOHNSON		Date/Time 8/19/09		S=Soil SE=Sediment SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue Wl=Wipe L=Liquid V=Vegetation X=Other	
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time 8/19/09		Received By/Stored In FDX		Date/Time		Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.	
Relinquished By/Removed From		Date/Time		Received By/Stored In Battelle MSL		Date/Time 8/20/09 1450			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
LABORATORY SECTION		Received By				Title			
FINAL SAMPLE DISPOSITION		Disposal Method				Disposed By			
						Date/Time			
						Date/Time			

LOG-IN CHECKLIST

Reference SOP# MSL-A-001

Central File #: 2981

Sample No(s): 139-144

Project Manager: JB

TO BE COMPLETED BY PROJECT MANAGER (prior to arrival when possible)

Matrix: _____ WP# _____

Yes No

Navy-type Project (requires high-level sample tracking procedures)

Filter Samples: Amount: Entire sample Half of sample

Freeze dry sample(s) - samples will be weighed and placed in ultralow temp freezer (Login Lab)

Special instructions: _____

Sample Preservation Instructions: _____

Date To Archive: _____ Date To Dispose: _____

TO BE COMPLETED UPON SAMPLE ARRIVAL/LOG-IN

Yes No N/A Indicate in Appropriate Box

Was a custody seal present? *each jar had intact custody seal*

Was the custody seal intact? *ICE Intact*

Was cooler(s) temperature(s) within acceptable range of 4±2°C or frozen? 1.2 °C
(if multiple coolers, note temp. of each)

Was Project Manager notified of any custody/login discrepancies (cooler temp, sponsor codes, etc)?
Comment/Remedy: _____

Were all chain of custody forms signed and dated?

Were samples filtered at MSL?

Sample condition(s): Acceptable Other (explain): _____

Container type: Teflon Poly Glass Cap. Vial Other: _____

Notes: temp on - should be frozen

Completed By: [Signature] Date/Time: 8/20/09 1450

SAMPLE PRESERVATION

Sample(s) were preserved at MSL *freeze*

Sample(s) were preserved prior to arrival at MSL (noted on CoC / Sample / per PM Instruction)

Random pH checked for ~10% of samples (use dip paper) Sample IDs: _____

Complete pH check required for project (use pH meter and record on pH Record form)

If preservation necessary, record Acid Lot#

Type: 0.2% HNO3 Notes: _____

0.5% HCl (Hg samples) Notes: _____

Refrigerate/Freeze Notes: delivered to KIC for splitting; both freezing

Other Notes: _____

Completed By: [Signature] Date/Time: 8/20/09 1500

Storage Shelf: Clay for / Walkin

SAMPLE LOGIN

Project Manager: Brandenberger

Date Received: 9/11/2009

Batch: 15

Login Designee: Mcgahan

Project: **Washington Closure Hanford**



Manne Sciences Laboratory

1529 West Sequim Bay Road

Sequim, Washington 98382

PH: (360) 681-4565

Sponsor ID	Site Description	Battelle Code	Matrix	Storage Location	Requested Parameters	Collection Date
J195T9	na	2981-185	other solid	Deep Freezer B-1	MeHg	09/03/09
J19476	na	2981-186	other solid	Deep Freezer B-1	TIA,HCr	09/03/09
J195V0	na	2981-187	other solid	Deep Freezer B-1	MeHg	09/03/09
J19477	na	2981-188	other solid	Deep Freezer B-1	TIA,HCr	09/03/09
J19487	na	2981-189	other solid	Deep Freezer B-1	TIA,HCr	09/03/09
J195V2	na	2981-190	other solid	Deep Freezer B-1	MeHg	09/03/09
J19486	na	2981-191	other solid	Deep Freezer B-1	TIA,HCr	09/03/09
J195V1	na	2981-192	other solid	Deep Freezer B-1	MeHg	09/03/09
J19497	na	2981-193	other solid	Deep Freezer B-1	TIA,HCr	09/08/09
J195V4	na	2981-194	other solid	Deep Freezer B-1	MeHg	09/08/09
J195V3	na	2981-195	other solid	Deep Freezer B-1	MeHg	09/08/09
J19496	na	2981-196	other solid	Deep Freezer B-1	TIA,HCr	09/08/09
J195V5	na	2981-197	other solid	Deep Freezer B-1	MeHg	09/08/09
J194B7	na	2981-198	other solid	Deep Freezer B-1	TIA,HCr	09/08/09
J195V6	na	2981-199	other solid	Deep Freezer B-1	MeHg	09/08/09
J194B8	na	2981-200	other solid	Deep Freezer B-1	TIA,HCr	09/08/09
J194C8	na	2981-201	other solid	Deep Freezer B-1	TIA,HCr	09/09/09
J194C9	na	2981-202	other solid	Deep Freezer B-1	TIA,HCr	09/09/09

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-850	Page 1 of 1
Collector <i>M.F. dino</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>9K</i>	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 17 FILLET	SAF No. RC-118	11/8/09				
Ice Chest No. <i>WCH-DB-001-4</i>	Field Logbook No. EL-1638	COA BESCR6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading # FDX# 7979224885 U4					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>		Preservation	Freeze				
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>		Type of Container	P				
		No. of Container(s)	1				
		Volume	60mL				
SAMPLE ANALYSIS		Methyl Mercury by EPA 1631M; Mercury - 7473					
Sample No.	Matrix *	Sample Date	Sample Time				
J195T9	<i>2981.185</i>	<i>9/3/09</i>	<i>1045</i>	X			
CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>M.F. dino</i>	Date/Time <i>9/3/09 1045</i>	Received By/Stored In <i>ana</i>	Date/Time <i>9/3/09 1045</i>	EAS LOCKED STORAGE 2 SHANNAN JOHNSON FDX <i>9/16/09 150</i> <i>9/16/09 150</i> <i>9/16/09 150</i> <i>9/16/09 150</i>			S=Solid SE=Solvent SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Ocean Liquids T=Trash WI=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE 2	Date/Time <i>9/16/09 100</i>	Received By/Stored In SHANNAN JOHNSON	Date/Time <i>9/16/09 100</i>				
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time <i>9/16/09 100</i>	Received By/Stored In FDX	Date/Time <i>9/16/09 150</i>				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title		Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-778		Page 1 of 1		
Collector M.F. dino		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code 9K N 1/8/09		
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 17 FILLET				SAF No. RC-118		Data Turnaround 45 Days		
Ice Chest No. WCH-08-001-4		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A				Bill of Lading/Air Bill No. FDX # 797922488504				
POSSIBLE SAMPLE HAZARDS/REMARKS N/A			Preservation		Cool 4C	Freeze				
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"			Type of Container		P/G	G/P				
			No. of Container(s)		0	1				
			Volume		15mL	60mL				
SAMPLE ANALYSIS			Total Inorganic Arsenic		Chromium Hex in Solids - 1636M					
Sample No.	Matrix *	Sample Date	Sample Time							
J19476	2981-186	OTHER SOLID	9/3/09	1045	X	X				
CHAIN OF POSSESSION					SPECIAL INSTRUCTIONS				Matrix *	
Relinquished By/Removed From M.F. dino		Date/Time 9/3/09 1045		Received By/Stored In EAS LOCKED STORAGE 2		Date/Time 9/3/09 1045		<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of sample for shipment to lab.</p>		<ul style="list-style-type: none"> S=Soil SE=Seawater SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Dry Sorb DL=Dry Liquid T=Tissue W=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time 9/10/09		Received By/Stored In SHANNAN JOHNSON		Date/Time 9/10/09				
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time 9/10/09		Received By/Stored In		Date/Time				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time				
LABORATORY SECTION		Received By		Title				Date/Time		
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By				Date/Time		

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-851	Page 1 of 1	
Collector <i>M. Fidino</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>OK</i>	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 17 CARCASS		SAF No. RC-118	<i>483105</i>			
Ice Chest No. <i>WCH-08-001-4</i>	Field Logbook No. EL-1638	COA BESCR6520	Method of Shipment FED EX					
Shipped To Battelle Marine Sciences		Offsite Property No. N/A	Bill of Lading/Air Bill No. FDX 797922488504					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P			
				No. of Container(s)	1			
				Volume	60mL			
SAMPLE ANALYSIS				Methyl Mercury by EPA 1630M; Mercury - 7473				
Sample No.	Matrix *	Sample Date	Sample Time					
J195V0 <i>2981-187</i>	OTHER SOLID	<i>9/3/09</i>	<i>1100</i>	<i>X</i>				
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *	
Relinquished By/Removed From <i>M. Fidino</i>	Date/Time <i>9/3/09 1100</i>	Sign/Print Names <i>EAS LOCKED STORAGE</i>		Date/Time <i>9/3/09 1100</i>	<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>			<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Dry Solids DL=Dry Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From <i>EAS LOCKED STORAGE</i>	Date/Time <i>9/10/09 1100</i>	Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>9/10/09 1000</i>				
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>	Date/Time <i>9/10/09 1500</i>	Received By/Stored In <i>EAS</i>		Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In <i>Shannon Johnson</i>		Date/Time <i>09/10/09 1458</i>				
Relinquished By/Removed From	Date/Time	Received By/Stored In		Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In		Date/Time				
LABORATORY SECTION	Received By	Title			Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By			Date/Time			

WCH-EE-011

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-779		Page 1 of 1		
Collector M. Fedino		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code 9K N MS 8/109		
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 17 CARCASS				SAF No. RC-118		Data Turnaround 45 Days		
Ice Chest No. WCH-08-001-4		Field Logbook No. EL-1638		COA BESRC6520		Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/Air Bill No. FD 797922488504						
POSSIBLE SAMPLE HAZARDS/REMARKS N/A		Preservation		Cool 4C	Freeze					
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"		Type of Container		P/G	G/P					
		No. of Container(s)		0	1					
		Volume		15mL	60mL					
SAMPLE ANALYSIS		Total Inorganic Arsenic		Chromium Hex in Solids - 1636M						
Sample No.	Matrix *	Sample Date	Sample Time							
J19477 2981.188	OTHER SOLID	9/3/09	1100	X	X					
CHAIN OF POSSESSION		Sign/Print Names				SPECIAL INSTRUCTIONS				
Relinquished By/Removed From M. Fedino		Date/Time 9/3/09 1100		Received By/Stored In EAS LOCKED STORAGE 2		Date/Time 9/3/09 1100		<p>in addition to shipment to lab.</p> <p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>		<p>Matrix *</p> <p>S=Soil SE=Sechuan SO=Soiled SL=Sledge W=Water O=Oil A=Air DS=Dryer Sounds DL=Dryer Liquids T=Tissue W1=Wipe L=Liquid V=Vegetation X=Other</p>
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time 9/10/09		Received By/Stored In SHANNAN JOHNSON		Date/Time 9/10/09				
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time 9/10/09		Received By/Stored In EDY		Date/Time 10/1/09				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time				
LABORATORY SECTION		Received By		Title				Date/Time		
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By				Date/Time		

WCH-EE-011

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-789		Page 1 of 1	
Collector M. F. idino		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code 9K N 11/10/09	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 18 CARCASS				SAF No. RC-118		Data Turnaround 45 Days	
Ice Chest No. WCH-DB-001-4		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A				Bill of Lading/Air Bill No. FDX# 797922488504			
POSSIBLE SAMPLE HAZARDS/REMARKS N/A			Preservation		Cool 4C	Freeze			
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"			Type of Container		P/G	G/P			
			No. of Container(s)		0	1			
			Volume		15mL	60mL			
			Total Inorganic Arsenic			Chromium Hex in Solids - 1636M			
SAMPLE ANALYSIS									
Sample No.	Matrix *	Sample Date	Sample Time						
J19487 2981-189	OTHER SOLID	9/13/09	1430	X	X				
CHAIN OF POSSESSION					SPECIAL INSTRUCTIONS				
Relinquished By/Removed From M. F. idino		Date/Time 9/13/09 1430		Sign/Print Names EAS LOCKED STORAGE 2		Date/Time 9/13/09		<p>in samples for shipment to lab.</p> <p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody</p> <p>Matrix *</p> <p>S=Soil SE=Seaweed SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other</p>	
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time 9/16/09		Received By/Stored In SHANNAN JOHNSON		Date/Time 9/16/09			
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time 9/16/09		Received By/Stored In FDX		Date/Time 9/16/09			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
LABORATORY SECTION		Received By			Title			Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method			Disposed By			Date/Time	

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-853	Page 1 of 1	
Collector M. F. D. I. N. O.	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code 9K	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 18 CARCASS		SAF No. RC-118		N 4/18/09			
Ice Chest No. WCH-08-001-4	Field Logbook No. EL-1638	COA BESCR6520	Method of Shipment FED EX					
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Materials FD: 797922488504						
POSSIBLE SAMPLE HAZARDS/REMARKS N/A		Preservation	Frozen					
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"		Type of Container	P					
		No. of Container(s)	1					
		Volume	60mL					
SAMPLE ANALYSIS		Methyl Mercury by EPA 1630M; Mercury - 7473						
Sample No.	Matrix *	Sample Date	Sample Time					
J195V2 2781.190	OTHER SOLID	9/3/09	1430	X				
CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS				
Relinquished By/Removed From M. F. D. I. N. O.	Date/Time 9/3/09 1430	Received By/Stored In EAS LOCKED STORAGE	Date/Time 9/3/09	<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>				Matrix *
Relinquished By/Removed From EAS LOCKED STORAGE	Date/Time 9/10/09	Received By/Stored In SHANNAN JOHNSON	Date/Time 9/10/09					S-Soil
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time 9/10/09	Received By/Stored In F. D. V.	Date/Time 9/10/09					SE-Sediment
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					SO-Solid
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					SI-Sludge
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time	W-Water				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time	O-Oil				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time	A-Air				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time	DB-Drum Solids				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time	DL-Drum Liquids				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time	T-Tissue				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time	Wj-Wipe				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time	L-Leaflet				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time	V-Vegetation				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time	X-Other				
LABORATORY SECTION	Received By	Title		Date/Time				
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time				

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-788	Page 1 of 1
Collector M. F. idino		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH	Price Code 9K N N/A 8/18/09
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 18 FILLET		SAF No. RC-118		Data Turnaround 45 Days	
Ice Chest No. WCH-03-001-4		Field Logbook No. EL-1638		COA BESRC6520		Method of Shipment FED EX	
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading (Air Bill) No. FDX#797922488504			
POSSIBLE SAMPLE HAZARDS/REMARKS N/A		Preservation	Cool 4C	Freeze			
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"		Type of Container	P/G	G/P			
		No. of Container(s)	0	1			
		Volume	15mL	60mL			
SAMPLE ANALYSIS		Total Inorganic Arsenic	Chromium Hex in Solids - 1636M				
Sample No.	Matrix *	Sample Date	Sample Time				
J19486 2981.191	OTHER SOLID	9/3/09	1415	K	K		
CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From M. F. idino	Date/Time 9/3/09 1415	Received By/Stored In EAS LOCKED STORAGE 2	Date/Time 9/3/09	Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.			S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Dross Solids DL=Dross Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE 2	Date/Time 9/10/09	Received By/Stored In SHANNAN JOHNSON	Date/Time 10/2				
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time 9/10/09	Received By/Stored In FAK	Date/Time 10/2				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By		Title		Date/Time		
FINAL SAMPLE DISPOSITION	Disposal Method		Disposed By		Date/Time		

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-852	Page 1 of 1
Collector M. F. dino		Company Contact JOAN KESSNER		Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9K	Data Turnaround 45 Days
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 18 FILLET		SAF No. RC-118	JH 9/10/09		
Ice Chest No. WCH-08-001-4		Field Logbook No. EL-1638	COA BESCR6520	Method of Shipment FED EX			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/Air Bill No. FDV 797922488504			
POSSIBLE SAMPLE HAZARDS/REMARKS N/A		Preservation	Freeze				
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"		Type of Container	P				
		No. of Container(s)	1				
		Volume	60mL				
SAMPLE ANALYSIS		Methyl Mercury by EPA 1630M; Mercury - 7473					
Sample No.	Matrix *	Sample Date	Sample Time				
J195V1 2981-192	OTHER SOLID	9/3/09	1415	X			
CHAIN OF POSSESSION	Sign/Print Names			SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From M. F. dino	Date/Time 9/3/09	1415	Received By/Stored In EAS LOCKED STORAGE 2	Date/Time 9/3/09	1415	S=Soil	SE=Seawater
Relinquished By/Removed From EAS LOCKED STORAGE 2	Date/Time 9/10/09	Received By/Stored In SHANNAN JOHNSON	Date/Time 9/10/09	Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.			SO=Solid
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time 9/10/09	Received By/Stored In FDX	Date/Time 9/10/09				SI=Sludge
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				W=Water
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				O=Oil
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				A=Air
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time	DS=Drum Solids	DL=Drum Liquids	T=Tissue	WI=Wipe
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time	L=Liquid	V=Vegetation	X=Other	
LABORATORY SECTION	Received By	Title	Date/Time				
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time				

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-799		Page 1 of 1					
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>81109</i>		Data Turnaround 45 Days			
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 19 CARCASS				SAF No. RC-118							
Ice Chest No. <i>WCH-08-001-4</i>		Field Logbook No. EL-1638		COA BESRC6520		Method of Shipment FED EX							
Shipped To Battelle Marine Sciences		Offsite Property No. N/A				Bill of Lading/Alp Bill No. FDW-797922488504							
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>			Preservation		Cool 4C	Freeze							
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>			Type of Container		P/G	G/P							
			No. of Container(s)		0	1							
			Volume		15mL	60mL							
SAMPLE ANALYSIS			Total Inorganic Arsenic		Chromium Hex in Solids - 1636M								
Sample No.	Matrix *	Sample Date	Sample Time										
J19497 <i>2981-193</i>	OTHER SOLID	<i>9-8-09</i>	<i>1340</i>	X	X								
CHAIN OF POSSESSION				Sign/Print Names				SPECIAL INSTRUCTIONS					
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>1340</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>1340</i>		<p>SAMPLER UNAVAILABLE TO REMOVE SAMPLES FROM CONTROLLED STORAGE. SHIPPER REMOVED SAMPLES FROM STORAGE LOCATION TAKING CUSTODY OF SAMPLES FOR SHIPMENT TO LAB.</p>				Matrix * S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Trame WI=Wipe L=Liquid V=Vegetation X=Other	
EAS LOCKED STORAGE 2		<i>9/8/09</i>		SHANNAN JOHNSON		<i>9/8/09</i>							
SHANNAN JOHNSON		<i>9/11/09</i>		T.D.		<i>9/11/09</i>							
LABORATORY SECTION		Received By				Title				Date/Time			
FINAL SAMPLE DISPOSITION		Disposal Method				Disposed By				Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-855	Page 1 of 1	
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH	Price Code <i>9K</i>	Data Turnaround 45 Days
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 19 CARCASS			SAF No. RC-118		<i>MS09</i>	
Ice Chest No. <i>WCH-08-001-4</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX		
Shipped To Battelle Marine Sciences		Offsite Property No. N/A			Bill of Lading/Air Bill No. FDY # 797922488504			
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>		Preservation	Freeze					
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>		Type of Container	P					
		No. of Container(s)	1					
		Volume	60mL					
SAMPLE ANALYSIS				Methyl Mercury by EPA 1630M: Mercury - 7473				
Sample No.	Matrix *	Sample Date	Sample Time					
J195V4 <i>2981.197</i>	OTHER SOLID	<i>9.8.09</i>	<i>1340</i>	<i>X</i>				
CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS				Matrix *
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>1340 9.8.09</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>1340 9.8.09</i>	<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>				<ul style="list-style-type: none"> S=Soil SE= Sediment SO= Solid SL= Sludge W= Water O= Oil A= Air DS= Drum Solids DL= Drum Liquids T= Tissue W= Wipe L= Liquid V= Vegetation X= Other
Relinquished By/Removed From EAS LOCKED STORAGE 2	Date/Time <i>9/10/09</i>	Received By/Stored In <i>SHANNAN JOHNSON</i>	Date/Time <i>9/10/09</i>					
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time <i>10/10/09</i>	Received By/Stored In <i>EDY</i>	Date/Time <i>10/10/09</i>					
Relinquished By/Removed From <i>EDY</i>	Date/Time <i>10/10/09</i>	Received By/Stored In <i>EDY</i>	Date/Time <i>10/10/09</i>					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
LABORATORY SECTION	Received By		Title		Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method		Disposed By		Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-854	Page 1 of 1	
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9K ND 8/10/09	Data Turnaround 45 Days			
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 19 FILLET		SAF No. RC-118					
Ice Chest No. <i>WCH-DB-001-4</i>	Field Logbook No. EL-1638	COA BESCR6520	Method of Shipment FED EX					
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill # FDX # 97922488504						
POSSIBLE SAMPLE HAZARDS/REMARKS N/A				Preservation	Freeze			
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"				Type of Container	P			
				No. of Container(s)	1			
				Volume	60mL			
SAMPLE ANALYSIS				Methyl Mercury by EPA 1631M; Mercury - 7473				
Sample No.	Matrix *	Sample Date	Sample Time					
J195V3 2981.195	OTHER SOLID	9.8.09	1230	X				
CHAIN OF POSSESSION				Sign/Print Names		SPECIAL INSTRUCTIONS		
Relinquished By/Removed From <i>Wendy West</i>	Date/Time 9.8.09 1230	Received By/Stored In <i>Wendy West</i>	Date/Time 9.8.09 1230	Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.				Matrix * S=Soil SE=Seiments SO=Solid SH=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tracer WJ=Water L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE 2	Date/Time 9/16/09	Received By/Stored In <i>Shannan Johnson</i>	Date/Time 9/16/09					
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time 9/16/09	Received By/Stored In <i>FDX</i>	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In <i>Shannan Johnson</i>	Date/Time 9/16/09 1430					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
LABORATORY SECTION	Received By	Title		Date/Time				
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time				

WCH-EE-011

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-798		Page 1 of 1	
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>81109</i>	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 19 FILLET				SAF No. RC-118		Data Turnaround 45 Days	
Ice Chest No. <i>WCH-08-001-4</i>		Field Logbook No. EL-1638		COA BESRC6520		Method of Shipment FED EX			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A				Bill of Lading/Air Bill No. FDX# 797922488504			
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>		Preservation		Cool 4C	Freeze				
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>		Type of Container		P/G	G/P				
		No. of Container(s)		0	1				
		Volume		15mL	60mL				
		SAMPLE ANALYSIS		Total Inorganic Arsenic	Chromium Hex in Solids - 1636M				
Sample No.	Matrix *	Sample Date	Sample Time						
J19496 2981.196	OTHER SOLID	9.8.09	1230	X	X				
CHAIN OF POSSESSION					SPECIAL INSTRUCTIONS				
Relinquished By/Removed From <i>Wendy West</i>		Date/Time 1230		Sign/Print Names EAS LOCKED STORAGE 2		Date/Time 1230		<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p> <p>Matrix *</p> <ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue Wl=Wipe L=Liquid V=Vegetation X=Other 	
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time 9/8/09		Received By/Stored In <i>Wendy West</i>		Date/Time 9.8.09			
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time 9/10/09		Received By/Stored In SHANNAN JOHNSON		Date/Time 9/10/09			
Relinquished By/Removed From		Date/Time 9/10/09		Received By/Stored In <i>FDX</i>		Date/Time 120			
Relinquished By/Removed From		Date/Time		Received By/Stored In <i>Shannon Johnson</i>		Date/Time 9/11/09 1450			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
LABORATORY SECTION		Received By		Title		Date/Time			
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By		Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-856		Page 1 of 1		
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>11/23/09</i>		
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 20 FILLET			SAF No. RC-118		Data Turnaround 45 Days			
Ice Chest No. <i>WCH-08-001-4</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A			Bill of Lading # FDX#797922488504					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Freeze					
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P					
				No. of Container(s)	1					
				Volume	60mL					
SAMPLE ANALYSIS					Methyl Mercury by EPA 1630M; Mercury - 7473					
Sample No.	Matrix *	Sample Date	Sample Time							
J195V5	2981-197	OTHER SOLID	9809	1545	X					
CHAIN OF POSSESSION					SPECIAL INSTRUCTIONS					
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>1545</i>		Received By/Stored In <i>EAS LOCKED STORAGE</i>		Date/Time <i>1545</i>		Matrix *		
Relinquished By/Removed From <i>EAS LOCKED STORAGE</i>		Date/Time <i>9/8/09</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>9/18/09</i>		<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid Sl=Sludge W = Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue W1=Wipe L=Liquid V=Vegetation X=Other 		
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>9/18/09</i>		Received By/Stored In <i>[Signature]</i>		Date/Time <i>09/18/09</i>				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time				
LABORATORY SECTION		Received By		Title		Date/Time				
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By		Date/Time				

WCH-EE-011

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-808		Page 1 of 1					
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>448109</i>		Data Turnaround 45 Days			
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 20 FILLET		SAF No. RC-118									
Ice Chest No. <i>WCH-08-001-4</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX							
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading No. FDX# 797922488504									
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation		Cool 4C		Freeze					
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container		P/G		G/P					
				No. of Container(s)		0		1					
				Volume		15mL		60mL					
				Total Inorganic Arsenic		Chromium Hex in Solids - 1636M							
SAMPLE ANALYSIS													
Sample No.		Matrix *		Sample Date		Sample Time							
<i>J194B7 2981.198</i>		<i>OTHER SOLID</i>		<i>9.8.09</i>		<i>1545</i>		<i>X</i>		<i>X</i>			
CHAIN OF POSSESSION				Sign/Print Names				SPECIAL INSTRUCTIONS					
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>1545</i> <i>9.8.09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>1545</i> <i>9.8.09</i>		<p>EAS LOCKED STORAGE 2</p> <p>SHANNAN JOHNSON</p> <p>FDX</p> <p><i>Shannan Johnson 09/11/09 1450</i></p> <p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>					
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time <i>9/11/09</i>		Received By/Stored In <i>Shannan Johnson</i>		Date/Time <i>1545</i> <i>9/11/09</i>							
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>9/11/09</i>		Received By/Stored In <i>FDX</i>		Date/Time <i>1545</i> <i>9/11/09</i>							
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time							
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time							
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time							
LABORATORY SECTION		Received By		Title				Date/Time					
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By				Date/Time					

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-857	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>9K</i>	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 20 CARCASS	SAF No. RC-118	Date <i>11/03/09</i>				
Ice Chest No. <i>WCH-08-001-4</i>	Field Logbook No. EL-1638	COA BESCR6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading # FE 2449 97922488504					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>			Preservation	Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>			Type of Container	P			
			No. of Container(s)	1			
			Volume	60mL			
SAMPLE ANALYSIS			Methyl Mercury by EPA 1631M: Mercury - i473				
Sample No.	Matrix *	Sample Date	Sample Time				
J195V6	2981.199	OTHER SOLID	9.8.09	1600	X		
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>Wendy West</i>	Date/Time 9.8.09	Received By/Stored In <i>Wendy West</i>	Date/Time 9.8.09	Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment in lab			S=Soil
Relinquished By/Removed From <i>EAS LOCKS</i>	Date/Time 9/10/09	Received By/Stored In <i>SHANNAN JOHNSON</i>	Date/Time 9/10/09				SE=Sludges
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>	Date/Time 9/10/09	Received By/Stored In <i>FOX</i>	Date/Time				SO=Solid
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				SI=Sludge
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				W=Water
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				O=Oil
LABORATORY SECTION				Received By			A=Air
FINAL SAMPLE DISPOSITION				Disposal Method			DS=Drum Solids
				Disposed By			DL=Drum Liquids
				Date/Time			T=Timber
				Date/Time			WJ=Wipe
				Date/Time			L=Liquid
				Date/Time			V=Vegetation
				Date/Time			X=Other

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-809	Page 1 of 1		
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH	Price Code <i>9K</i> <i>N</i> <i>AD5109</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 20 CARCASS			SAF No. RC-118				
Ice Chest No. <i>WCH-DB-001-4</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A			Bill of Lading FDX# 797922488504				
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P			
				No. of Container(s)	0	1			
				Volume	15mL	60mL			
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M				
Sample No.	Matrix *	Sample Date	Sample Time						
<i>J194B8 2987-200</i>	<i>OTHER SOLID</i>	<i>9.8.09</i>	<i>1400</i>	<i>X</i>	<i>X</i>				
CHAIN OF POSSESSION				Sign/Print Names				SPECIAL INSTRUCTIONS	Matrix *
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>9.8.09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>9.8.09</i>		Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab	S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue W1=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time <i>9/10/09</i>		Received By/Stored In SHANNAN JOHNSON		Date/Time <i>9/10/09</i>			
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>9/10/09</i>		Received By/Stored In FDX		Date/Time <i>10/1/09</i>			
Relinquished By/Removed From		Date/Time		Received By/Stored In <i>Shannon Johnson</i>		Date/Time <i>09/11/09 1450</i>			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
LABORATORY SECTION	Received By			Title			Date/Time		
FINAL SAMPLE DISPOSITION	Disposal Method			Disposed By			Date/Time		

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-818	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>9K</i> <i>N</i> <i>4/8/09</i>	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 21 FILLET		SAF No. RC-118				
Ice Chest No. <i>WCH-08-001-A</i>	Field Logbook No. EL-1638	COA BESCR6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading # FDX# 797922488504					
POSSIBLE SAMPLE HAZARDS/REMARKS N/A				Preservation	Cool 4C	Freeze	
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"				Type of Container	P/G	G/P	
				No. of Container(s)	0	1	
				Volume	15mL	60mL	
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M		
Sample No.	Matrix *	Sample Date	Sample Time				
J194C8 2981-201	OTHER SOLID	9.9.09	1045	X	X		
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>Wendy West</i>	Date/Time 10/45	Received By/Stored In <i>Wendy West</i>	Date/Time 10/45	<p>EAS LOCKED STORAGE 2</p> <p>SHANNAN JOHNSON</p> <p>EDX</p> <p>09/11/09 1430</p> <p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>			<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SH=Sludge W = Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T= Tissue WT=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE 2	Date/Time 9/10/09	Received By/Stored In <i>Shannan Johnson</i>	Date/Time 9/10/09				
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time 9/10/09	Received By/Stored In <i>EDX</i>	Date/Time 9/10/09				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title				Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time	

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-819	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>9K</i>	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 21 CARCASS	SAF No. RC-118	<i>9/11/09</i> 				
Ice Chest No. <i>WCH-08-001-4</i>	Field Logbook No. EL-1638	COA BESRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading # FDX# 79792248504					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool +C	Freeze	
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P	
				No. of Container(s)	0	1	
				Volume	15mL	60mL	
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M		
Sample No.	Matrix *	Sample Date	Sample Time				
J194C9 2981-202	OTHER SOLID	9.9.09	10:55	X	X		
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>10:55</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>10:55</i>	Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.			S=Soil SE=Sealment SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue W1=W pc L=Liquid V=Vegetation X=Other
EAS LOCKED STORAGE 29.9.09							
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>	Date/Time <i>9/10/09</i>	Received By/Stored In <i>SHANNAN JOHNSON</i>	Date/Time <i>9/10/09</i>				
FDX							
Relinquished By/Removed From <i>Shannon Johnson</i>	Date/Time <i>9/11/09</i>	Received By/Stored In <i>Shannon Johnson</i>	Date/Time <i>1450</i>				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title	Date/Time				
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time				

LOG-IN CHECKLIST

Reference SOP#MSL-A-001

Central File #: 2981

Sample No(s): 185-204

Project Manager: Brandenberger

TO BE COMPLETED BY PROJECT MANAGER (prior to sample arrival when possible)

Matrix: _____ WP# _____

Yes No

Navy-type Project (requires high-level sample tracking procedures)

USDA Soils (or overseas, including Hawaii and the U.S. Virgin Islands) See Compliance Agreement Checklist

Filter Samples: Aluminum Entire sample Half of sample

Freeze dry sample(s) - samples will be weighed and placed in Ultra-low temp freezer (Lab# 503)

Special instructions: _____

Sample Preservation Instructions: _____

See LIMS for archive/disposal information

TO BE COMPLETED UPON SAMPLE ARRIVAL/LOG-IN

Yes No N/A (Initial appropriate box when completed)

Custody seal present

Custody seal intact

Cooler(s) temperature (acceptable ranges = water: 4±2°C / solid: frozen) 3.7 °C

(if multiple coolers, note temp. of each) _____ °C

Project Manager notified of any discrepancies or if temperature outside acceptable range?

Comments/Remedy: _____

All chain of custody forms signed and dated?

Samples Filtered?

Sample condition(s): Aspirated Q10

Container type: glass plastic jars

Notes: _____

Completed By: [Signature]

Date/Time: 09/11/09 1450

SAMPLE PRESERVATION

Sample preserved at MSL

Sample preserved prior to arrival at MSL (noted on CoC / Sample / per PM Instruction)

Random pH checked for ~10% of samples (use dip paper) Sample IDs: _____

Complete pH check required for project (use pH meter and record on pH Record form)

If preservation necessary, record Acid Lot#

Type: 0.2% HNO3 Notes: _____

0.5% HCl (Hg samples) Notes: _____

Refrigerate Notes: _____

Freeze Notes: Outside freezer - to be transferred to per. vials & put in deep freez

Other Notes: _____

Completed By: [Signature]

Date/Time: 09/11/09 1450

SAMPLE LOGIN

Project Manager: Brandenberger
 Date Received: 9/18/2009 ✓
 Batch: 16
 Login Designee: Mcgahan

Project: **Washington Closure Hanford**



Manne Sciences Laboratory
 1529 West Sequim Bay Road
 Sequim, Washington 98382
 PH: (360) 681-4565

Sponsor ID	Site Description	Battelle Code	Matrix	Storage Location	Requested Parameters	Collection Date
J19503 ✓	na	2981-203 ✓	other solid	Deep Freezer D-1	Total Inorganic As, Cr Hex in Solids 1636M ✓	09/10/09 ✓
J19504 ✓	na	2981-204	other solid	Deep Freezer D-1	Total Inorganic As, Cr Hex in Solids 1636M	09/10/09
J195R1 ✓	na	2981-205	other solid	Deep Freezer D-1	Total Inorganic As, Cr Hex in Solids 1636M	09/10/09
J195R0 ✓	na	2981-206	other solid	Deep Freezer D-1	Total Inorganic As, Cr Hex in Solids 1636M	09/10/09
J195T2 ✓	na	2981-207	other solid	Deep Freezer D-1	Total Inorganic As, Cr Hex in Solids 1636M	09/14/09 ✓
J195T3 ✓	na	2981-208	other solid	Deep Freezer D-1	Total Inorganic As, Cr Hex in Solids 1636M	09/14/09
J195Y0 ✓	na	2981-209	other solid	Deep Freezer D-1	Total Inorganic As, Cr Hex in Solids 1636M	09/15/09 ✓
J195X9 ✓	na	2981-210	other solid	Deep Freezer D-1	Total Inorganic As, Cr Hex in Solids 1636M	09/15/09
J19609 ✓	na	2981-211	other solid	Deep Freezer D-1	Total Inorganic As, Cr Hex in Solids 1636M	09/15/09
J19610 ✓	na	2981-212 ✓	other solid	Deep Freezer D-1	Total Inorganic As, Cr Hex in Solids 1636M	09/15/09 ✓

✓ J19503

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-828		Page 1 of 1	
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>91K</i> <i>ND 526A</i>	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 22 FILLET		SAF No. RC-118		Data Turnaround 45 Days			
Ice Chest No. <i>AES-04-04</i>		Field Logbook No. EL-1638		COA BESCRC6520		Method of Shipment FED EX			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading # FDX# 797941463127					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation		Cool 4C		Freeze	
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container		P/G		G/P	
				No. of Container(s)		0		1	
				Volume		15mL		60mL	
SAMPLE ANALYSIS				Total Inorganic Arsenic		Chromium Hex in Solids - 1636M			
Sample No.		Matrix *		Sample Date		Sample Time			
<i>J19503 2981-203</i>		<i>OTHER SOLID</i>		<i>9/10/09</i>		<i>1100</i>		<i>X X</i>	
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS				Matrix *	
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>9/10/09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>9/10/09</i>		<p>EAS LOCKED STORAGE</p> <p>SHANNAN JOHNSON</p> <p>FDX</p> <p><i>07/15/09 1233</i></p> <p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to let.</p>	
Relinquished By/Removed From EAS LOCKED STORAGE		Date/Time <i>9/17/09</i>		Received By/Stored In SHANNAN JOHNSON		Date/Time <i>9/17/09</i>			
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>9/17/09</i>		Received By/Stored In FDX		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
LABORATORY SECTION		Received By		Title				Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By				Date/Time	

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-829		Page 1 of 1	
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>OK</i> <i>N</i> <i>4/22/09</i>	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 22 CARCASS				SAF No. RC-118		Data Turnaround 45 Days	
Ice Chest No. <i>AFS-04-041</i>		Field Logbook No. EL-1638		COA BESRCR6520		Method of Shipment FED EX			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading # FDX# 97941463127					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P			
				No. of Container(s)	0	1			
				Volume	15mL	60mL			
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M				
Sample No.	Matrix *	Sample Date	Sample Time						
J19504	<i>2981.204</i>	OTHER SOLID	<i>9/10/09</i>	<i>1130</i>	X	X			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS				Matrix *	
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>9/10/09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>9/10/09</i>		<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p> <ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Trace WI=Wipe L=Liquid V=Vegetation X=Other 	
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time <i>9/17/09</i>		Received By/Stored In SHANNAN JOHNSON		Date/Time <i>9/17/09</i>			
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>9/17/09</i>		Received By/Stored In FDX		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In <i>Shanna Johnson</i>		Date/Time <i>9/18/09 1230</i>			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
LABORATORY SECTION	Received By	Title				Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-839		Page 1 of 1	
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i>	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 23 CARCASS		SAF No. RC-118		Data Turnaround 45 Days		<i>1182709</i>	
Ice Chest No. <i>AFS-04-041</i>		Field Logbook No. EL-1638		COA BESCRC6520		Method of Shipment FED EX		Bill of Lading/Air Bill No. FDX# 7979 4 14 63 1 27	
Shipped To Battelle Marine Sciences		Offsite Property No. N/A							
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>		Preservation		Cool 4C	Freeze				
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>		Type of Container		P/G	G/P				
		No. of Container(s)		0	1				
		Volume		15mL	60mL				
SAMPLE ANALYSIS		Total Inorganic Arsenic		Chromium Hex in Solids - 1636M					
Sample No.	Matrix *	Sample Date	Sample Time						
J195R1 <i>2981.205</i>	OTHER SOLID	<i>9/10/09</i>	<i>1515</i>	X	X				
CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS				Matrix *	
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>1515 9/10/09</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>1515 9/10/09</i>	<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>				<ul style="list-style-type: none"> S=Soil SE= Sediment SO= Solid Sl= Sludge W= Water O= Oil A= Air DS= Drum Solids DL= Drum Liquids T= Time W= Wipe L= Liquid V= Vegetation X= Other 	
EAS LOCKED STORAGE 2	<i>9/17/09 950</i>	SHANNAN JOHNSON	<i>9/17/09 950</i>						
SHANNAN JOHNSON	<i>9/17/09 950</i>	FDX							
		<i>Shannan Johnson</i>	<i>09/18/09 1230</i>						
LABORATORY SECTION	Received By	Title		Date/Time					
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time					

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-838		Page 1 of 1	
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>OK</i>	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 23 FILLET		SAF No. RC-118		Data Turnaround 45 Days		<i>N</i> <i>1/18/09</i>	
Ice Chest No. <i>AFS-04-041</i>		Field Logbook No. EL-1638		COA BESRC6520		Method of Shipment FED EX		Bill of Lading/Air Bill No. FDX# 797941463127	
Shipped To Battelle Marine Sciences		Offsite Property No. N/A							
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool +C	Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P			
				No. of Container(s)	0	1			
				Volume	15mL	60mL			
				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M				
SAMPLE ANALYSIS									
Sample No.	Matrix *	Sample Date	Sample Time						
<i>J195R0 2981-206</i>	<i>OTHER SOLID</i>	<i>9/10/09</i>	<i>1500</i>	<i>X</i>	<i>X</i>				
CHAIN OF POSSESSION									
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		SPECIAL INSTRUCTIONS	
<i>Wendy West</i>		<i>1500 9/10/09</i>		<i>EAS LOCKED STORAGE 2</i>		<i>1500 9/10/09</i>		<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>	
<i>EAS LOCKED STORAGE 2</i>		<i>9/17/09 950</i>		<i>SHANNAN JOHNSON</i>		<i>9/17/09 950</i>			
<i>SHANNAN JOHNSON</i>		<i>9/17/09 950</i>		<i>FDX</i>					
				<i>Shannan Johnson</i>		<i>9/18/09 1230</i>			
LABORATORY SECTION	Received By	Title	Date/Time						
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time						

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-848	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>OK</i> <i>N</i> <i>MD 23109</i>	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 24 FILLET	SAF No. RC-118					
Ice Chest No. <i>AFS-04-041</i>	Field Logbook No. EL-1638	COA BESCRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading # FDX# 797941463127					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>							
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Preservation	Cool 4C	Freeze	
				Type of Container	P/G	G/P	
				No. of Container(s)	0	1	
				Volume	15mL	60mL	
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M		
Sample No.	Matrix *	Sample Date	Sample Time				
J195T2 <i>2981-207</i>	OTHER SOLID	<i>9/14/09</i> <i>9/17/09</i>	<i>1130</i>	X	X		
CHAIN OF POSSESSION							
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
<i>Wendy West</i>		<i>9/14/09 1130</i>		<i>EAS LOCKED STORAGE 2</i>		<i>9/14/09 1130</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
<i>EAS LOCKED STORAGE 2</i>		<i>9/17/09 950</i>		<i>SHANNAN JOHNSON</i>		<i>9/17/09 950</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
<i>SHANNAN JOHNSON</i>		<i>9/17/09 950</i>		<i>FDX</i>		<i>9/18/09 1230</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
LABORATORY SECTION				Received By			
FINAL SAMPLE DISPOSITION				Disposal Method			
				Disposed By			
				Date/Time			

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-849	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>9M</i>	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 24 CARCASS	SAF No. RC-118	N <i>11/8/09</i>				
Ice Chest No. <i>AFS-04-04</i>	Field Logbook No. EL-1638	COA BESCRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading/Air Bill No. FDX# 797941463127					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>			Preservation	Cool 4C	Freeze		
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>			Type of Container	P/G	G/P		
			No. of Container(s)	0	1		
			Volume	15mL	60mL		
SAMPLE ANALYSIS			Total Inorganic Arsenic	Chromium Hex in Solids - 1636M			
Sample No.	Matrix *	Sample Date	Sample Time				
J195T3 <i>2981-208</i>	OTHER SOLID	<i>9-13-09</i> <i>9-14-09</i>	<i>1200</i>	X	X		
CHAIN OF POSSESSION			Sign/Print Names		SPECIAL INSTRUCTIONS		Matrix *
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>9-14-09 1200</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>9-14-09 1200</i>	EAS LOCKED STORAGE 2		Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.	<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Trash WI=Wgc L=Liquid V=Vegetation X=Other
Relinquished By/Removed From <i>EAS LOCKED STORAGE 2</i>	Date/Time <i>9/17/09</i>	Received By/Stored In <i>SHANNAN JOHNSON</i>	Date/Time <i>9/17/09</i>	FDX			
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>	Date/Time <i>9/17/09</i>	Received By/Stored In <i>FDX</i>	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title		Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-879	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code 9K	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 25 CARCASS		SAF No. RC-118	Method of Shipment FED EX		Bill of Lading/Air Bill No. 707941463127	
Ice Chest No. <i>AFS-04-04</i>	Field Logbook No. EL-1638	COA BESCRC6520	Shipped To Battelle Marine Sciences				
POSSIBLE SAMPLE HAZARDS/REMARKS N/A		Offsite Property No. N/A	Special Handling and/or Storage FREEZE *MATRIX COMPOSED OF FISH*				
SAMPLE ANALYSIS			Preservation	Cool 4C	Freeze		
			Type of Container	P/G	G/P		
			No. of Container(s)	0	1		
			Volume	15mL	60mL		
			Total Inorganic Arsenic	Chromium Hex in Solids - 1636M			
Sample No.	Matrix *	Sample Date	Sample Time				
J195Y0 <i>2981-209</i>	OTHER SOLID	<i>9.15.09</i>	<i>1130</i>	X	X		
CHAIN OF POSSESSION							
Relinquished By/Removed From		Date/Time	Sign/Print Names		SPECIAL INSTRUCTIONS		
<i>Wendy West</i>		<i>1130</i>	<i>Wendy West</i>		<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>		
EAS LOCKED STORAGE 2		<i>9.15.09</i>	<i>Wendy West</i>				
SHANNAN JOHNSON		<i>9.17.09</i>	<i>SHANNAN JOHNSON</i>				
SHANNAN JOHNSON		<i>9.17.09</i>	<i>SHANNAN JOHNSON</i>				
SHANNAN JOHNSON		<i>9.17.09</i>	<i>SHANNAN JOHNSON</i>				
Relinquished By/Removed From		Date/Time	Received By/Stored In		Matrix *		
<i>Wendy West</i>		<i>1130</i>	<i>Wendy West</i>		S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Dissolved Solids DL=Dissolved Liquids T=Tissue WJ=Wipe L=Liquid V=Vegetation X=Other		
SHANNAN JOHNSON		<i>9.17.09</i>	<i>SHANNAN JOHNSON</i>				
Relinquished By/Removed From		Date/Time	Received By/Stored In				
<i>Wendy West</i>		<i>09/15/09</i>	<i>Wendy West</i>				
Relinquished By/Removed From		Date/Time	Received By/Stored In				
<i>Wendy West</i>		<i>09/15/09</i>	<i>Wendy West</i>				
LABORATORY SECTION		Received By		Title		Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By		Date/Time	

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-878	Page 1 of 1													
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>OK</i>	Data Turnaround 45 Days														
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 25 FILLET		SAF No. RC-118		<i>1/18/09</i>															
Ice Chest No. <i>AFS-04-041</i>	Field Logbook No. EL-1638	COA BESCR6520	Method of Shipment FED EX																	
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading # <i>FDX# 797941463127</i>																		
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>																				
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Preservation	Cool 4C	Freeze														
				Type of Container	P/G	G/P														
				No. of Container(s)	0	1														
				Volume	15mL	60mL														
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M															
Sample No.	Matrix *	Sample Date	Sample Time																	
J195X9	<i>2981-210</i>	OTHER SOLID	<i>9.15.09</i>	<i>1100</i>	X	X														
CHAIN OF POSSESSION								SPECIAL INSTRUCTIONS				Matrix *								
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for analysis to lab.</p>				<ul style="list-style-type: none"> S=Soil SE=Seawater SO=Solid SH=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other 								
<i>Wendy West</i>		<i>9.15.09 1100</i>		<i>Wendy West</i>		<i>9.15.09 1100</i>														
EAS LOCKED STORAGE 2		<i>9.15.09 950</i>		SHANNAN JOHNSON		<i>9.15.09 950</i>														
SHANNAN JOHNSON		<i>9.15.09 950</i>		FOY		<i>9.15.09 950</i>														
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time														
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for analysis to lab.</p>				<ul style="list-style-type: none"> S=Soil SE=Seawater SO=Solid SH=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other 								
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time														
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time														
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time														
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time														
LABORATORY SECTION	Received By			Title			Date/Time													
FINAL SAMPLE DISPOSITION	Disposal Method			Disposed By			Date/Time													

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-888		Page 1 of 1		
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> Data Turnaround <i>MS 9/10/9</i> 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 26 FILLET		SAF No. RC-118						
Ice Chest No. <i>AFS-04-041</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Materials # <i>FDX# 707941463121</i>						
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze	Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	P	G/P			
				No. of Container(s)	0	1	1			
				Volume	15mL	60mL	60mL			
SAMPLE ANALYSIS				Total Inorganic Arsenic	Methyl Mercury by EPA 1631M: Mercury-7473	Chromium Hex in Solids - 1636M				
Sample No.	Matrix *	Sample Date	Sample Time							
J19609	<i>2781-211</i>	OTHER SOLID	<i>9/15/09</i>	<i>1410</i>	X	X	X			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS				Matrix *		
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>9/15/09 1410</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>9/15/09 1410</i>		Perform Total Inorganic Arsenic out of Chromium Hex bottle. Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.		S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE		Date/Time <i>9/17/09 950</i>		Received By/Stored In SHANNAN JOHNSON		Date/Time <i>9/17/09 950</i>				
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>9/17/09 950</i>		Received By/Stored In FDY		Date/Time				
Relinquished By/Removed From <i>[Signature]</i>		Date/Time <i>09/18/09 1230</i>		Received By/Stored In <i>[Signature]</i>		Date/Time				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time				
LABORATORY SECTION		Received By		Title				Date/Time		
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By				Date/Time		

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		RC-118-889	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>9K</i>	Data Turnaround
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 26 CARCASS		SAF No. RC-118	<i>N</i>	45 Days
Ice Chest No. <i>AFS-04-041</i>	Field Logbook No. EL-1638	COA BESCR6520	Method of Shipment FED EX		
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading/Air Bill No. FDX# 797941463127			

POSSIBLE SAMPLE HAZARDS/REMARKS N/A Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"	Preservation	Cocci 4C	Fruita	Freeze															
	Type of Container	P/G	P	G/P															
	No. of Container(s)	0	1	1															
	Volume	15mL	60mL	60mL															

SAMPLE ANALYSIS				Total Inorganic Arsenic	Methyl Mercury by EPA 1631M; Mercury - 7473	Chromium Hex in Solids - 1636M													
Sample No.	Matrix *	Sample Date	Sample Time																
J19610	2981-212	OTHER SOLID	9.15.09	1430	X	X	X												

CHAIN OF POSSESSION		Signature/Print Names		SPECIAL INSTRUCTIONS		Matrix * S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Trash WJ=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From <i>Wendy West</i>	Date/Time 9.15.09	Received By/Stored In <i>Wendy West</i>	Date/Time 9.15.09	Perform Total Inorganic Arsenic out of Chromium Hex bottle.		
Relinquished By/Removed From EAS LOCKED STORAGE 2	Date/Time 9/17/09	Received By/Stored In SHANNAN JOHNSON	Date/Time 9/17/09			
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time 9/17/09	Received By/Stored In FDX	Date/Time			
Relinquished By/Removed From	Date/Time	Received By/Stored In <i>Shannan Johnson</i>	Date/Time 09/18/09			

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

Central File #: 2981 Sample No(s): 203-212 Project Manager: Brandenberger

TO BE COMPLETED BY PROJECT MANAGER: (prior to sample arrival when possible)

Matrix: _____ WP# _____

Yes No

Navy-type Project (requires high-level sample tracking procedures)

USDA Soils (or overseas, including Hawaii and the U.S. Virgin Islands) See Compliance Agreement Checklist

Filter Samples: Amount: Entire sample Half of sample

Freeze dry sample(s) - samples will be weighed and placed in Ultra-low temp freezer (Lab# 503)

Special instructions: _____

Sample Preservation Instructions: _____

See LIMS for archive/disposal information

TO BE COMPLETED UPON SAMPLE ARRIVAL/LOG-IN

Yes No N/A (Initial appropriate box when completed)

Custody seal present

Custody seal intact

Cooler(s) temperature (acceptable ranges = water: 4±2°C / solid: frozen) 27 °C

(if multiple coolers, note temp. of each) _____ °C

Project Manager notified of any discrepancies or if temperature outside acceptable range?
Comments/Remedy: _____

All chain of custody forms signed and dated?

Samples Filtered?

Sample condition(s): Acceptable Other (explain): _____

Container type: Teflon Poly Glass Cap. Vial Other Plastic

Notes: _____

Completed By: [Signature]

Date/Time: 09/18/09 1225

SAMPLE PRESERVATION

Sample preserved at MSL

Sample preserved prior to arrival at MSL (noted on CoC / Sample / per PM Instruction)

Random pH checked for ~10% of samples (use dip paper) Sample IDs: _____

Complete pH check required for project (use pH meter and record on pH Record form)

If preservation necessary, record Acid Lot#

Type: 0.2% HNO3 Notes: _____

0.5% HCl (Hg samples) Notes: _____

Refrigerate Notes: _____

Freeze Notes: Deep freezer D-1

Other Notes: _____

Completed By: [Signature]

Date/Time: 09/18/09 1225

SAMPLE LOGIN

Project Manager: Brandenberger
 Date Received: 9/23/2009
 Batch: 17
 Login Designee: Mcgahan



Marine Sciences Laboratory
 1529 West Sequim Bay Road
 Sequim, Washington 98382
 PH: (360) 681-4565

Project: **Washington Closure Hanford**

Sponsor ID	Site Description	Battelle Code	Matrix	Storage Location	Requested Parameters	Collection Date
J19629	na	2981-213a & b	other solid	Deep Freezer C-1	Total Inorganic As, Cr Hex in Solids 1636M, Methyl Hg, Mercury-7473	09/16/09
J19628	na	2981-214a & b	other solid	Deep Freezer C-1	Total Inorganic As, Cr Hex in Solids 1636M, Methyl Hg, Mercury-7473	09/16/09
J19639	na	2981-215	other solid	Deep Freezer C-1	Total Inorganic As, Cr Hex in Solids 1636M	09/16/09
J19698	na	2981-216	other solid	Deep Freezer C-1	Methyl Hg by EPA 1630M; Mercury-7473	09/16/09
J19699	na	2981-217	other solid	Deep Freezer C-1	Methyl Hg by EPA 1630M; Mercury-7473	09/16/09
J19640	na	2981-218	other solid	Deep Freezer C-1	Total Inorganic As, Cr Hex in Solids 1636M	09/16/09
J19650	na	2981-219	other solid	Deep Freezer C-1	Total Inorganic As, Cr Hex in Solids 1636M	09/17/09
J19649	na	2981-220	other solid	Deep Freezer C-1	Total Inorganic As, Cr Hex in Solids 1636M	09/17/09
J19660	na	2981-221	other solid	Deep Freezer C-1	Total Inorganic As, Cr Hex in Solids 1636M	09/17/09
J19659	na	2981-222	other solid	Deep Freezer C-1	Total Inorganic As, Cr Hex in Solids 1636M	09/17/09

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-899	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code 9K N 9809	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 27 CARCASS		SAF No. RC-118			
Ice Chest No. <i>WCH-08-003-2</i>		Field Logbook No. EL-1638	COA BESCRC6520		Method of Shipment FED EX		
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/Trailer No. FDX# 796967152240			
POSSIBLE SAMPLE HAZARDS/REMARKS N/A				Preservation	Cool 4C	Freeze	Freeze
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"				Type of Container	P/G	P	G/P
				No. of Container(s)	0	1	1
				Volume	15mL	60mL	60mL
SAMPLE ANALYSIS				Total Inorganic Arsenic	Methyl Mercury by EPA 1630M; Mercury - 7473	Chromium Hex in Solids - 1636M	
Sample No.	Matrix *	Sample Date	Sample Time				
J19629 <i>2981-213a6h</i>	OTHER SOLID	<i>9/16/09</i>	<i>1115</i>	X	X	X	
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>9/16/09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>9/16/09</i>	
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time <i>9/22/09</i>		Received By/Stored In SHANNAN JOHNSON		Date/Time <i>9/22/09</i>	
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>9/24/09</i>		Received By/Stored In FOX		Date/Time <i>9/24/09</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
LABORATORY SECTION				Received By			
FINAL SAMPLE DISPOSITION				Disposal Method			
				Title			
				Date/Time			
				Disposed By			
				Date/Time			

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-898	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code 9K	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 27 FILLET		SAF No. RC-118		<i>N</i> <i>11/9/09</i>		
Ice Chest No. <i>WCH-08-003-2</i>	Field Logbook No. EL-1638	COA BESCRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading/Air Bill No. FDX 77 796967152240					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze	Freeze
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	P	G/P
				No. of Container(s)	0	1	1
				Volume	15mL	60mL	60mL
SAMPLE ANALYSIS				Total Inorganic Arsenic	Methyl Mercury by EPA 1630M; Mercury - 7473	Chromium Hex in Solids - 1636M	
Sample No.	Matrix *	Sample Date	Sample Time				
J19628 <i>2981.2145b</i>	OTHER SOLID	<i>9/16/09</i>	<i>1100</i>	X	X	X	
CHAIN OF POSSESSION				Sign/Print Names		SPECIAL INSTRUCTIONS	
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>1100 9/16/09</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>1100 9/16/09</i>	Perform Total Inorganic Arsenic out of Chromium Hex bottle.		Matrix *	
Relinquished By/Removed From EAS LOCKED STORAGE 2	Date/Time <i>100 9/22/09</i>	Received By/Stored In SHANNAN JOHNSON	Date/Time <i>100 9/22/09</i>			S=Soil SE=Sediment SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue W=Wipe L=Liquid V=Vegetation X=Other	
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time <i>100 9/22/09</i>	Received By/Stored In FDX	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title		Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-908	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9K	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 28 FILLET	SAF No. RC-118	Method of Shipment FED EX		Bill of Lading # FDX# 796967152240		
Ice Chest No. <i>WCH-08-003-2</i>	Field Logbook No. EL-1638	COA BESCR6520	Offsite Property No. N/A				
Shipped To Battelle Marine Sciences	POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>						
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>	Preservation	Cool 4C	Freeze				
	Type of Container	P/G	G/P				
	No. of Container(s)	0	1				
	Volume	15mL	60mL				
SAMPLE ANALYSIS		Total Inorganic Arsenic	Chromium Hex in Solids - 1636M				
Sample No.	Matrix *	Sample Date	Sample Time				
J19639 <i>2981.215</i>	OTHER SOLID	<i>9/10/09</i>	<i>1345</i>	X	X		
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
<i>Wendy West</i>		<i>1345 9/10/09</i>		<i>EAS LOCKED STORAGE 2</i>		<i>1345 9/10/09</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
<i>EAS LOCKED STORAGE 2</i>		<i>9/22/09</i>		<i>SHANNAN JOHNSON</i>		<i>9/22/09</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
<i>SHANNAN JOHNSON</i>		<i>9/22/09</i>		<i>FDX</i>		<i>9/23/09</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
LABORATORY SECTION		Received By		Title		Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By		Date/Time	

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Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-966	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 28 FILLET	SAF No. RC-118	<i>N</i> <i>NA 9009</i>				
Ice Chest No. <i>WCH-DB-003-2</i>	Field Logbook No. EL-1638	COA BESCRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading/Air Bill No. FDX # 796967152240					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>			Preservation	Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>			Type of Container	P			
			No. of Container(s)	1			
			Volume	60mL			
SAMPLE ANALYSIS			Methyl Mercury by EPA 1630M; Mercury - 7473				
Sample No.	Matrix *	Sample Date	Sample Time				
J19698	<i>281-216</i>	<i>9/16/09</i>	<i>1345</i>	<i>X</i>			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>1345</i> <i>9/16/09</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>1345</i> <i>9/16/09</i>	EAS LOCKED STORAGE Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.			S=Soil SE=Sediment SO=Solid SG=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids F=Filter W/W=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE	Date/Time <i>9/22/09</i>	Received By/Stored In SHANNAN JOHNSON	Date/Time <i>100</i> <i>9/22/09</i>				
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time <i>100</i> <i>9/22/09</i>	Received By/Stored In EDY	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In <i>EDY</i>	Date/Time <i>09/23/09 1252</i>				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title		Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-967	Page 1 of 1	
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>9K</i>	Data Turnaround 45 Days			
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 28 CARCASS		SAF No. RC-118	<i>N</i> <i>AP 9/22/09</i>				
Ice Chest No. <i>WCH-08-063-2</i>	Field Logbook No. EL-1638	COA BESCRC6520	Method of Shipment FED EX					
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading/Tr. BIL No. FDX 796967152240						
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>		Preservation	Freeze					
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>		Type of Container	P					
		No. of Container(s)	1					
		Volume	60mL					
SAMPLE ANALYSIS			Methyl Mercury by EPA 1630M; Mercury - 7473					
Sample No.	Matrix *	Sample Date	Sample Time					
J19699 2981-217	OTHER SOLID	9/16/09	1400	X				
CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS				Matrix *
Relinquished By/Removed From <i>Wendy West</i>	Date/Time 9/16/09 1400	Received By/Stored In <i>Wendy West</i>	Date/Time 9/16/09 1400	Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.				S=Soil SE=Soil/Sediment SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Dry Solid DL=Dry Liquid L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE 2	Date/Time 9/22/09 100	Received By/Stored In SHANNAN JOHNSON	Date/Time 9/22/09 100					
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time 9/22/09 100	Received By/Stored In <i>[Signature]</i>	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In <i>[Signature]</i>	Date/Time 9/23/09 1200					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
LABORATORY SECTION	Received By	Title		Date/Time				
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time				

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-909	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>9K</i>	Data Turnaround 45 Days		
Project Destination Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 28 CARCASS	SAF No. RC-118	Method of Shipment FED EX <i>MA 9809</i> Bill of Lading # FDX# 796967152240				
Ice Chest No. <i>WCH-08-003-2</i>	Field Logbook No. EL-1638	COA BESCR6520					
Shipped To Battelle Marine Sciences	Offsite Property No. N/A						
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>			Preservation	Cool 4C	Freeze		
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>			Type of Container	P/G	G/P		
			No. of Container(s)	0	1		
			Volume	15mL	60mL		
SAMPLE ANALYSIS			Total Inorganic Arsenic	Chromium Hex in Solids - 1636M			
Sample No.	Matrix *	Sample Date	Sample Time				
J19640 2981.218	OTHER SOLID	<i>9/11/09</i>	<i>1400</i>	X	X		
CHAIN OF POSSESSION							
Relinquished By/Removed From			Date/Time		Sign/Print Names		
<i>Wendy West</i>			<i>1400</i>		<i>Wendy West</i>		
EAS LOCKED STORAGE 2			<i>9/22/09</i>		<i>SHANNAN JOHNSON</i>		
SHANNAN JOHNSON			<i>100</i>		FDX		
Relinquished By/Removed From			Date/Time		Received By/Stored In		
			<i>09/23/09 1250</i>		<i>[Signature]</i>		
Relinquished By/Removed From			Date/Time		Received By/Stored In		
Relinquished By/Removed From			Date/Time		Received By/Stored In		
LABORATORY SECTION			Received By		Title		
FINAL SAMPLE DISPOSITION			Disposal Method		Disposed By		

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-919	Page 1 of 1
Collector <i>Woody West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>OK</i>	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 29 CARCASS	SAF No. RC-118	Method of Shipment FED EX		MA 9909		
Ice Chest No. <i>West-08-063-2</i>	Field Logbook No. EL-1638	COA BESCR6520	Bill of Lading/Air Bill No. FDX# 796967152240				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A						
POSSIBLE SAMPLE HAZARDS/REMARKS N/A			Preservation	Cool 4C	Freeze		
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"			Type of Container	P/G	G/P		
			No. of Container(s)	0	1		
			Volume	15mL	60mL		
SAMPLE ANALYSIS			Total Inorganic Arsenic	Chromium Hex in Solids - 1636M			
Sample No.	Matrix *	Sample Date	Sample Time				
J19650 2981-219	OTHER SOLID	9/17/09	1215	X	X		
CHAIN OF POSSESSION			Sign/Print Names		SPECIAL INSTRUCTIONS		Matrix *
Relinquished By/Removed From <i>Woody West</i>	Date/Time 9/17/09	Received By/Stored In <i>Woody West</i>	Date/Time 9/17/09	EAS LOCKED STORAGE 2		Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.	S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue W1=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE 2	Date/Time 9/22/09	Received By/Stored In <i>SHANNAN JOHNSON</i>	Date/Time 9/22/09	FDX			
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>	Date/Time 9/22/09	Received By/Stored In <i>Shannon Johnson</i>	Date/Time 09/23/09 1250				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title		Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-918	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>9K</i>	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 29 FILLET	SAF No. RC-118	<i>9/12/09</i> Method of Shipment FED EX				
Ice Chest No. <i>WCH-08-003-2</i>	Field Logbook No. EL-1638	COA BESRC6520	Bill of Lading/Air FDX# 796967.152240				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A						
POSSIBLE SAMPLE HAZARDS/REMARKS N/A		Preservation	Cool 4C	Freeze			
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"		Type of Container	P/G	G/P			
		No. of Container(s)	0	1			
		Volume	15mL	60mL			
SAMPLE ANALYSIS		Total Inorganic Arsenic	Chromium Hex in Solids - 1636M				
Sample No.	Matrix *	Sample Date	Sample Time				
J19649 2981-220	OTHER SOLID	9/17/09	1200	X	K		
CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS		Matrix *	
Relinquished By/Removed From <i>Wendy West</i>	Date/Time 9/17/09	Received By/Stored In <i>Wendy West</i>	Date/Time 9/17/09	Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.		S-Sediment SO-Solid SI-Sludge W-Water O-Oil A-Air DS-Drum Solids DL-Drum Liquids T-Tissue WI-Wipe L-Liquid V-Vegetation X-Other	
Relinquished By/Removed From EAS LOCKED STORAGE 2	Date/Time 9/22/09	Received By/Stored In SHANNAN JOHNSON	Date/Time 9/22/09				
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time 9/22/09	Received By/Stored In FDX	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In <i>Shannan Johnson</i>	Date/Time 09/23/09 1250				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title		Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-929	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code 9K	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 30 CARCASS		SAF No. RC-118		<i>N</i> <i>8/29/09</i>		
Ice Chest No. <i>WCH-08-003-2</i>	Field Logbook No. EL-1638	COA BESCR6520	Method of Shipment FED EX		Bill of Lading # <i>FDX# 796967152240</i>		
Shipped To Battelle Marine Sciences		Offsite Property No. N/A					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze	
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P	
				No. of Container(s)	0	1	
				Volume	15mL	60mL	
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids 1636M		
Sample No.	Matrix *	Sample Date	Sample Time				
J19660 2981-221	OTHER SOLID	9/17/09	1500	X	X		
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>Wendy West</i>		Date/Time 1500 9/17/09		Received By/Stored In <i>Wendy West</i>		Date/Time 1500 9/17/09	
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time 9/22/09		Received By/Stored In SHANNAN JOHNSON		Date/Time 1221 10/22/09	
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time 9/22/09		Received By/Stored In FOX		Date/Time 100	
Relinquished By/Removed From		Date/Time		Received By/Stored In <i>[Signature]</i>		Date/Time 09/23/09 1250	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
LABORATORY SECTION	Received By	Title				Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time	

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-928	Page 1 of 1	
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH	Price Code <i>OK</i> <i>N</i> <i>44989</i>	Data Turnaround 45 Days
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 30 FILLET			SAF No. RC-118			
Ice Chest No. <i>WCH-DB-003-2</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX		
Shipped To Battelle Marine Sciences		Offsite Property No. N/A			Bill of Lading/Airway Bill FDX # 796967152240			
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C	Freeze		
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G	G/P		
				No. of Container(s)	0	1		
				Volume	15mL	60mL		
SAMPLE ANALYSIS				Total Inorganic Arsenic	Chromium Hex in Solids - 1636M			
Sample No.	Matrix *	Sample Date	Sample Time					
J19659 <i>2981 222</i>	OTHER SOLID	<i>9/17/09</i>	<i>1445</i>	X	X			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS				Matrix *
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>9/17/09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>9/17/09</i>		<p>EAS LOCKED STORAGE 2</p> <p>SHANNAN JOHNSON</p> <p>FDX</p> <p><i>09/23/09 1250</i></p> <p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time <i>9/22/09</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>9/22/09</i>		
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>9/22/09</i>		Received By/Stored In <i>FDX</i>		Date/Time <i>100</i>		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		
LABORATORY SECTION	Received By			Title			Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method			Disposed By			Date/Time	

LOG-IN CHECKLIST

Reference SOP#MSL-A-001

Central File #: 2981

Sample No(s): 213-222

Project Manager: Brandenberger

TO BE COMPLETED BY PROJECT MANAGER (prior to sample arrival when possible)

Matrix: _____ WP# _____

- Yes No Navy-type Project (requires high-level sample tracking procedures)
- Yes No USDA Soils (or overseas, including Hawaii and the U.S. Virgin Islands) See Compliance Agreement Checklist
- Yes No Filter Samples: Amount Entire sample Half of sample
- Yes No Freeze dry sample(s) - samples will be weighed and placed in Ultra-low temp freezer (Lab# 503)
- Yes No Special instructions: _____

Sample Preservation Instructions: _____
See LIMS for archive/disposal information

TO BE COMPLETED UPON SAMPLE ARRIVAL/LOG-IN

Yes No N/A (Initial appropriate box when completed)

- Yes No N/A Custody seal present
- Yes No N/A Custody seal intact
- Yes No N/A Cooler(s) temperature (acceptable ranges = water: 4±2°C / solid: frozen) 2.0 °C
(if multiple coolers, note temp. of each)
- Yes No N/A Project Manager notified of any discrepancies or if temperature outside acceptable range?
Comments/Remedy: _____
- Yes No N/A All chain of custody forms signed and dated?
- Yes No N/A Samples Filtered?

Sample condition(s): Acceptable Other (explain):

Container type: Teflon Roll Glass Cap Vial Other

Notes: _____

Completed By: [Signature]

Date/Time: 09/23/09 12:40

SAMPLE PRESERVATION

- Sample preserved at MSL
- Sample preserved prior to arrival at MSL (noted on CoC / Sample / per PM Instruction)
- Random pH checked for ~10% of samples (use dip paper) Sample IDs: _____
- Complete pH check required for project (use pH meter and record on pH Record form)

If preservation necessary, record Acid Lot#

- Type: 0.2% HNO3 Notes: _____
- 0.5% HCl (Hg samples) Notes: _____
- Refrigerate Notes: _____
- Freeze Notes: Deep freeze C-1
- Other Notes: _____

Completed By: [Signature]

Date/Time: 09/23/09 12:40

SAMPLE LOGIN

Project Manager: Brandenberger
 Date Received: 9/30/2009
 Batch: 18
 Login Designee: Mcgahan



Marine Sciences Laboratory
 1529 West Sequim Bay Road
 Sequim, Washington 98382
 PH: (360) 681-4565

Project: **Washington Closure Hanford**

Sponsor ID	Site Description	Battelle Code	Matrix	Storage Location	Requested Parameters	Collection Date
J195W5 ✓	na	2981-223 ✓	other solid	Deep Freezer B-1	Total Inorganic Cr Hex in Solids 1636M	09/21/09 ✓
J195W6 ✓	na	2981-224	other solid	Deep Freezer B-1	Total Inorganic Cr Hex in Solids 1636M	09/21/09
J195W7 ✓	na	2981-225	other solid	Deep Freezer B-1	Total Inorganic Cr Hex in Solids 1636M	09/21/09
J195W8 ✓	na	2981-226	other solid	Deep Freezer B-1	Total Inorganic Cr Hex in Solids 1636M	0924/09 ✓
J19666 ✓	na	2981-227	other solid	Deep Freezer B-1	Total Inorganic Cr Hex in Solids 1636M	0924/09
J19665 ✓	na	2981-228 ✓	other solid	Deep Freezer B-1	Total Inorganic Cr Hex in Solids 1636M	0924/09
J19752 ✓	na	2981-229 ✓	other solid	Deep Freezer B-1	✓ Total Inorganic As	0924/09 ✓
J19751 ✓	na	2981-230	other solid	Deep Freezer B-1	Total Inorganic As	0924/09
J18X99 ✓	na	2981-231	other solid	Deep Freezer B-1	Total Inorganic As	0924/09
J18X96 ✓	na	2981-232	other solid	Deep Freezer B-1	Total Inorganic As	0924/09
J18XJ3 ✓	na	2981-233	other solid	Deep Freezer B-1	Total Inorganic As	0924/09
J18XC9 ✓	na	2981-234	other solid	Deep Freezer B-1	Total Inorganic As	0924/09
J18XB0 ✓	na	2981-235	other solid	Deep Freezer B-1	Total Inorganic As	0924/09
J18XF3 ✓	na	2981-236 ✓	other solid	Deep Freezer B-1	Total Inorganic As	0924/09 ✓

✓ X3
10/1/09

SAMPLE LOGIN

Project Manager: Brandenberger
 Date Received: 9/30/2009
 Batch: 18
 Login Designee: Mcgahan

Project: **Washington Closure Hanford**



Marine Sciences Laboratory
 1529 West Sequim Bay Road
 Sequim, Washington 98382
 PH: (360) 681-4565

Sponsor ID	Site Description	Battelle Code	Matrix	Storage Location	Requested Parameters	Collection Date
J18XF2 ✓	na	2981-237 ✓	other solid	Deep Freezer B-1	Total Inorganic As	0924/09 ✓
J18XF1 ✓	na	2981-238	other solid	Deep Freezer B-1	Total Inorganic As	0924/09
J18XC6 ✓	na	2981-239	other solid	Deep Freezer B-1	Total Inorganic As	0924/09
J18XJ1 ✓	na	2981-240	other solid	Deep Freezer B-1	Total Inorganic As	0924/09
J18XD0 ✓	na	2981-241	other solid	Deep Freezer B-1	Total Inorganic As	0924/09
J18XJ2 ✓	na	2981-242	other solid	Deep Freezer B-1	Total Inorganic As	0924/09
J18X97 ✓	na	2981-243	other solid	Deep Freezer B-1	Total Inorganic As	0924/09
J18XC7 ✓	na	2981-244 ✓	other solid	Deep Freezer B-1	Total Inorganic As	0925/09 ✓
J18XF5 ✓	na	2981-245	other solid	Deep Freezer B-1	Total Inorganic As	0925/09
J18XJ5 ✓	na	2981-246	other solid	Deep Freezer B-1	Total Inorganic As	0925/09
J18XC8 ✓	na	2981-247	other solid	Deep Freezer B-1	Total Inorganic As	0925/09
J18X98 ✓	na	2981-248	other solid	Deep Freezer B-1	Total Inorganic As	0925/09
J18XF4 ✓	na	2981-249	other solid	Deep Freezer B-1	Total Inorganic As	0925/09
J19XJ4 ✓	na	2981-250 ✓	other solid	Deep Freezer B-1	Total Inorganic As	0925/09 ✓

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-866	Page 1 of 1	
Collector <i>Rylie Barron</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9K	Data Turnaround 45 Days			
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location STURGEON 17 VISCERA		SAF No. RC-118	N/A 83101				
Ice Chest No. <i>APS-04-041</i>	Field Logbook No. EL-1638	COA BESCRC6520	Method of Shipment FED EX					
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading # FDX# 796986356875						
POSSIBLE SAMPLE HAZARDS/REMARKS N/A		Preservation Freeze						
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>		Type of Container G/P						
		No. of Container(s) 1						
		Volume 60mL						
SAMPLE ANALYSIS		Chromium Hex in Solids - 1636M						
Sample No.	Matrix *	Sample Date	Sample Time					
J195W5 <i>2981-223</i>	OTHER SOLID	<i>9/21/09</i>	<i>1420</i>	X				
CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS				Matrix *
Relinquished By/Removed From <i>Rylie Barron R.R.</i>	Date/Time <i>9/21/09 1420</i>	Received By/Stored In <i>Rylie Barron R.R.</i>	Date/Time <i>9/21/09 1420</i>	<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>				<ul style="list-style-type: none"> S=Soil SE=Seawater SO=Solid SH=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From <i>EAS LOCKED STORAGE 2</i>	Date/Time <i>9/29/09 1045</i>	Received By/Stored In <i>SHANNAN JOHNSON</i>	Date/Time <i>9/29/09 1045</i>					
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>	Date/Time <i>9/29/09 1045</i>	Received By/Stored In <i>FDX</i>	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
LABORATORY SECTION	Received By	Title		Date/Time				
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time				

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-867	Page 1 of 1
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH	
Protect Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 18 VISCERA		SAF No. RC-118		Price Code <i>9K</i> <i>N</i> <i>1083109</i>	
Ice Chest No. <i>AFS-04-041</i>		Field Logbook No. EL-1638		COA BESCRC6520		Method of Shipment FED EX	
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading # FDX# 796986356875			
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Freeze		
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	G/P		
				No. of Container(s)	1		
				Volume	60mL		
SAMPLE ANALYSIS				Chromium Hex in Solids - 1636M			
Sample No.	Matrix *	Sample Date	Sample Time				
J195W6 <i>2981-224</i>	OTHER SOLID	<i>9/21/09</i>	<i>1500</i>	<i>X</i>			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>9/21/09 1500</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>9/21/09 1500</i>	
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time <i>9/29/09 1045</i>		Received By/Stored In SHANNAN JOHNSON		Date/Time <i>9/29/09 1045</i>	
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>9/29/09 1045</i>		Received By/Stored In <i>[Signature]</i>		Date/Time <i>9/29/09 1500</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
LABORATORY SECTION		Received By		Title		Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By		Date/Time	

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-868		Page 1 of 1		
Collector Rylie Barron		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code 9K Date Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 19 VISCERA		SAF No. RC-118		N 1/18/09				
Ice Chest No. APS-04-041		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading # FDX 796986356875						
POSSIBLE SAMPLE HAZARDS/REMARKS N/A				Preservation		Freeze				
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"				Type of Container		G/P				
				No. of Container(s)		1				
				Volume		60mL				
SAMPLE ANALYSIS				Chromium Hex in Solids - 1636M						
Sample No.		Matrix *		Sample Date		Sample Time				
J195W7 2981-225		OTHER SOLID		9/21/09		1620		X		
CHAIN OF POSSESSION				Sign/Print Names				SPECIAL INSTRUCTIONS		Matrix *
Relinquished By/Removed From Rylie Barron		Date/Time 9/21/09 1620		Received By/Stored In Rylie Barron		Date/Time 9/21/09 1620		<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>		<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Dry Solids DL=Dry Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE		Date/Time 9/21/09 1245		Received By/Stored In SHANNAN JOHNSON		Date/Time 9/21/09 1045				
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time 9/21/09 1545		Received By/Stored In EDX		Date/Time				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time				
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time				
LABORATORY SECTION		Received By				Title				Date/Time
FINAL SAMPLE DISPOSITION		Disposal Method				Disposed By				Date/Time

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-869	Page 1 of 1
Collector <i>Windy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 20 VISCERA		SAF No. RC-118	<i>NA 8309</i>		
Ice Chest No. <i>AFS-04-041</i>	Field Logbook No. EL-1638	COA BESCRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences		Offsite Property No. N/A	Bill of Lading/ <i>FDX</i> <i>796986356875</i>				
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>			Preservation	Freeze			
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>			Type of Container	G/P			
			No. of Container(s)	1			
			Volume	60mL			
SAMPLE ANALYSIS				Chromium Hex in Solids - 1636M			
Sample No.	Matrix *	Sample Date	Sample Time				
J195W8 <i>2281-226</i>	OTHER SOLID	<i>9/24/09</i>	<i>1745</i>	<i>X</i>			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS		Matrix *	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
<i>Windy West</i>		<i>9/24/09 1745</i>		<i>EAS LOCKED STORAGE 2</i>		<i>9/24/09 1745</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
<i>EAS LOCKED STORAGE 2</i>		<i>9/24/09 1045</i>		<i>SHANNAN JOHNSON</i>		<i>9/24/09 1045</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
<i>SHANNAN JOHNSON</i>		<i>9/24/09 1045</i>		<i>FDX</i>			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
				<i>[Signature]</i>		<i>9/30/09 1500</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
LABORATORY SECTION	Received By	Title				Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time	

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-935		Page 1 of 1				
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>AD9229</i>		Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location STURGEON 27 VICERA				SAF No. RC-118						
Ice Chest No. <i>AFS-04-041</i>		Field Logbook No. EL-1638		COA BESRC6520		Method of Shipment FED EX						
Shipped To Battelle Marine Sciences		Offsite Property No. N/A				Bill of Lading # FDX# 796986356879						
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>			Preservation		Freeze							
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>			Type of Container		G/P							
			No. of Container(s)		1							
			Volume		60mL							
SAMPLE ANALYSIS			Chromium Hex in Solids - 1636M									
Sample No.		Matrix *	Sample Date	Sample Time								
<i>J19666 2981-227</i>		<i>OTHER SOLID</i>	<i>9/24/09</i>	<i>1800</i>	<i>X</i>							
CHAIN OF POSSESSION		Sign/Print Names				SPECIAL INSTRUCTIONS						
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>9/24/09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>9/24/09</i>		<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>				Matrix * S=Soil SE=Sediment SO=Solid SF=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Trash WJ=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time <i>9/29/09</i>		Received By/Stored In SHANNAN JOHNSON		Date/Time <i>9/29/09</i>						
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>9/29/09</i>		Received By/Stored In <i>FDX</i>		Date/Time <i>9/30/09</i>						
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time						
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time						
LABORATORY SECTION		Received By				Title				Date/Time		
FINAL SAMPLE DISPOSITION		Disposal Method				Disposed By				Date/Time		

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-934	Page 1 of 1
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH	Price Code <i>9K</i> <i>N</i> <i>ADA 9909</i>
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location <i>28 Apr 1909</i> STURGEON 26 VICERA			SAF No. RC-118		Data Turnaround 45 Days
Ice Chest No. <i>APS-04-041</i>		Field Logbook No. EL-1638		COA BESCR6520		Method of Shipment FED EX	
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading # <i>FLY 796986356875</i>			
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Freeze		
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	G/P		
				No. of Container(s)	1		
				Volume	60mL		
SAMPLE ANALYSIS				Chromium Hex in Solids - 1636M			
Sample No.	Matrix *	Sample Date	Sample Time				
J19665 <i>2981-228</i>	OTHER SOLID	<i>9/24/09</i>	<i>1810</i>	X			
CHAIN OF POSSESSION				Sign/Print Names		SPECIAL INSTRUCTIONS	
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>1810</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>1810</i>	
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time <i>9/24/09</i>		Received By/Stored In SHANNAN JOHNSON		Date/Time <i>9/24/09</i>	
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>9/24/09</i>		Received By/Stored In <i>FDX</i>		Date/Time <i>1045</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In <i>[Signature]</i>		Date/Time <i>9/30/09 1500</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
LABORATORY SECTION		Received By		Title		Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By		Date/Time	

Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab

- Matrix *
- S=Soil
 - SE=Sediment
 - SO=Solid
 - SI=Sludge
 - W=Water
 - O=Oil
 - A=Air
 - DS=Dry Solids
 - DL=Dry Liquids
 - T=Trace
 - WI=Wipe
 - L=Liquid
 - V=Vegetation
 - X=Other

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-1079	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location 100SA-WAL 6 CARCASS		SAF No. RC-118	<i>MD 91709</i>		
Ice Chest No. <i>AFS-D4-041</i>	Field Logbook No. EL-1638	COA BESRC6520	Method of Shipment FED EX		Bill of Lading # FDA# 796986356879		
Shipped To Battelle Marine Sciences		Offsite Property No. N/A					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>		Preservation	Cool 4C				
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>		Type of Container	P/G				
		No. of Container(s)	1				
		Volume	15mL				
		Total Inorganic Arsenic					
SAMPLE ANALYSIS							
Sample No.	Matrix *	Sample Date	Sample Time				
J19752 <i>2981-229</i>	OTHER SOLID	<i>9/24/09</i>	<i>1130</i>	<i>X</i>			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
<i>Wendy West</i>		<i>9/24/09 1130</i>		<i>EAS LOCKED STORAGE 2</i>		<i>9/24/09</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
<i>EAS LOCKED STORAGE 2</i>		<i>9/29/09 1545</i>		<i>SHANNAN JOHNSON</i>		<i>9/29/09 1545</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
<i>SHANNAN JOHNSON</i>		<i>9/29/09 1545</i>		<i>EDX</i>			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
		<i>9/29/09 1500</i>					
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
LABORATORY SECTION				Received By _____ Title _____ Date/Time _____			
FINAL SAMPLE DISPOSITION				Disposal Method _____ Disposed By _____ Date/Time _____			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-1078	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location 100SA-WAL 6 FILLET		SAF No. RC-118		<i>N</i> <i>MS 9/20/09</i>		
Ice Chest No. <i>AFS-04-041</i>	Field Logbook No. EL-1638	COA BESCRC6520	Method of Shipment FED EX		Bill of Lading No. FDX 796986356879		
Shipped To Battelle Marine Sciences		Offsite Property No. N/A					
POSSIBLE SAMPLE HAZARDS/REMARKS <i>N/A</i>				Preservation	Cool 4C		
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G		
				No. of Container(s)	1		
				Volume	15mL		
SAMPLE ANALYSIS				Total Inorganic Arsenic			
Sample No.	Matrix *	Sample Date	Sample Time				
J19751 <i>2881-230</i>	OTHER SOLID	<i>9/24/09</i>	<i>1115</i>	X			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS		Matrix *	
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>11/5</i>		Received By/Stored In <i>EAS LOCKED STORAGE 2</i>		Date/Time <i>11/5</i>	
Relinquished By/Removed From <i>EAS LOCKED STORAGE 2</i>		Date/Time <i>9/29/09</i>		Received By/Stored In <i>SHANNAN JOHNSON</i>		Date/Time <i>9/29/09</i>	
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>		Date/Time <i>10/15</i>		Received By/Stored In <i>FDX</i>		Date/Time <i>10/15</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
LABORATORY SECTION				Received By		Title	
FINAL SAMPLE DISPOSITION				Disposal Method		Disposed By	
						Date/Time	

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-199	Page 1 of 1	
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>J/S 5/18/09</i>	Data Turnaround 45 Days		
Project Destination Columbia River Component of the RCBRA - Tissues		Sampling Location 100SA-WALA-FILLET		SAF No. RC-118				
Ice Chest No. <i>AFS-04-041</i>	Field Logbook No. 1633	COA BESCRC6520	Method of Shipment FED EX					
Shipped To Battelle Marine Sciences		Offsite Property No. N/A	Bill of Lading # FDA# 796986356875					
POSSIBLE SAMPLE HAZARDS/REMARKS				Preservation	Cool 4C			
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"				Type of Container	P/G			
				No. of Container(s)	1			
				Volume	15mL			
SAMPLE ANALYSIS				Total Inorganic Arsenic				
Sample No.	Matrix *	Sample Date	Sample Time					
J18X99 <i>2981-231</i>	OTHER SOLID	<i>9/24/09</i>	<i>1400</i>	<i>X</i>				
CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS				Matrix *
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>1400</i> <i>9/24/09</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>1400</i> <i>9/24/09</i>	Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab				<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Timber WJ=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE	Date/Time <i>1645</i> <i>9/29/09</i>	Received By/Stored In SHANNAN JOHNSON	Date/Time <i>1045</i> <i>9/29/09</i>					
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time <i>1045</i> <i>9/29/09</i>	Received By/Stored In EDJ	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
LABORATORY SECTION	Received By	Title		Date/Time				
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time				

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-196	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i>	Data Turnaround <i>45 Days</i>	
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location 100SA-WALI-FILLET		SAF No. RC-118		<i>N</i> <i>1/25/09</i>		
Ice Chest No. <i>AFS-04-041</i>	Field Logbook No. 1633	COA BESRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading # <i>FDX# 796986356R75</i>					
POSSIBLE SAMPLE HAZARDS/REMARKS				Preservation	Cool 4C		
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>				Type of Container	P/G		
				No. of Container(s)	1		
				Volume	15mL		
SAMPLE ANALYSIS				Total Inorganic Arsenic			
Sample No.	Matrix *	Sample Date	Sample Time				
J18X96 <i>2981-232</i>	OTHER SOLID	<i>9/24/09</i>	<i>1300</i>	X			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
<i>Wendy West</i>		<i>9/24/09 1300</i>		<i>EAS LOCKED STORAGE 2</i>		<i>9/24/09 1300</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
<i>EAS LOCKED STORAGE 2</i>		<i>9/24/09 1045</i>		<i>SHANNAN JOHNSON</i>		<i>9/24/09 1045</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
<i>SHANNAN JOHNSON</i>		<i>9/24/09 1045</i>		<i>EDJ</i>			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
				<i>[Signature]</i>		<i>09/24/09 1300</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
LABORATORY SECTION	Received By	Title				Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time	

Matrix *

- S=Soil
- SE=Sediment
- SO=Solid
- SL=Sludge
- W=Water
- O=Oil
- A=Air
- DS=Drum Solids
- DL=Drum Liquids
- T=Tissue
- WI=Wipe
- L=Liquid
- V=Vegetation
- X=Other

Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment in lab

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-253	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code 9K	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location 300SA-WAL3, CARCASS		SAF No. RC-118		N 4/8519 09		
Ice Chest No. AFS-04-041	Field Logbook No. EL-1633	COA BESCRC6520		Method of Shipment FED EX			
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading/ALB # FDX # 796986356875					
POSSIBLE SAMPLE HAZARDS/REMARKS		Preservation	Cool 4C				
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"		Type of Container	P/G				
		No. of Container(s)	1				
		Volume	15mL				
		Total Inorganic Arsenic					
SAMPLE ANALYSIS							
Sample No.	Matrix *	Sample Date	Sample Time				
J18XJ3 2981-233	OTHER SOLID	9/24/09	1045	X			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			
Relinquished By/Removed From <i>Wendy West</i>		Date/Time 1045		Received By/Stored In EAS LOCKED STORAGE 2		Date/Time 1045	
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time 9/24/09		Received By/Stored In <i>Wendy West</i>		Date/Time 9/24/09	
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time 1045		Received By/Stored In SHANNAN JOHNSON		Date/Time 1045	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
LABORATORY SECTION				Title			
Received By				Date/Time			
FINAL SAMPLE DISPOSITION				Disposal Method			
Disposal Method				Disposed By			
				Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-219	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code 9K N 451809	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location 100SA-WAL4-CARCASS		SAF No. RC-118			
Ice Chest No. AFS-04-041	Field Logbook No. 1633	COA BESCRC6520		Method of Shipment FED EX			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading/ FDX# 796986356875			
POSSIBLE SAMPLE HAZARDS/REMARKS			Preservation	Cool 4C			
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"			Type of Container	P/G			
			No. of Container(s)	1			
			Volume	15mL			
			Total Inorganic Arsenic				
SAMPLE ANALYSIS							
Sample No.	Matrix *	Sample Date	Sample Time				
J18XC9 2981-234	OTHER SOLID	9/24/09	1430	X			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			
Relinquished By/Removed From <i>Wendy West</i>		Date/Time 9/24/09	Received By/Stored In EAS LOCKED STORAGE 2		Date/Time 9/24/09	<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>	
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time 9/29/09	Received By/Stored In SHANNAN JOHNSON		Date/Time 10/15		
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time 9/29/09	Received By/Stored In FDX		Date/Time 10/15		
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time		
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time		
Relinquished By/Removed From		Date/Time	Received By/Stored In		Date/Time		
LABORATORY SECTION		Received By	Title				Date/Time
FINAL SAMPLE DISPOSITION		Disposal Method	Disposed By				Date/Time

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-200	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code 9K	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location 100SA-WALS-FILLET		SAF No. RC-118		N 4/18 5/16/09		
Ice Chest No. AFS-04-041	Field Logbook No. 1633	COA BESCRC6520		Method of Shipment FED EX			
Shipped To Battelle Marine Sciences	Offsite Property No. N/A		Bill of Lading/Invoice No. FDX 796986356875				
POSSIBLE SAMPLE HAZARDS/REMARKS				Preservation	Cool 4C		
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"				Type of Container	P/G		
				No. of Container(s)	1		
				Volume	15mL		
				Total Inorganic Arsenic			
SAMPLE ANALYSIS							
Sample No.	Matrix *	Sample Date	Sample Time				
J18XB0 297-235	OTHER SOLID	9/24/09	1515	X			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
<i>Wendy West</i>		1515 9/24/09		EAS LOCKED STORAGE 2		1515 9/24/09	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
EAS LOCKED STORAGE 2		9/29/09 1245		SHANNAN JOHNSON		9/29/09 1245	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
SHANNAN JOHNSON		9/29/09 1245		EAS		9/30/09 1500	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
LABORATORY SECTION				Title			
Received By		Date/Time		Disposed By		Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method					

- Matrix *
- S=Soil
 - SE=Sludges
 - SO=Solid
 - SL=Sludge
 - W=Water
 - O=Oil
 - A=Air
 - DS=Drum Solids
 - DL=Drum Liquids
 - T=Tissue
 - WL=Wipe
 - L=Liquid
 - V=Vegetation
 - X=Other

Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-233	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>9K</i> <i>N</i>	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location 300SA-WAL3, FILLET	SAF No. RC-118	<i>410 51809</i>				
Ice Chest No. <i>AFS-04-041</i>	Field Logbook No. 1633	COA BESCRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading/Air Bill No. FDX# 796986356875					
POSSIBLE SAMPLE HAZARDS/REMARKS		Preservation	Cool 4C				
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"		Type of Container	P/G				
		No. of Container(s)	1				
		Volume	15mL				
SAMPLE ANALYSIS		Total Inorganic Arsenic					
Sample No.	Matrix *	Sample Date	Sample Time				
J18XF3 <i>2981-236</i>	OTHER SOLID	<i>9/24/09</i>	<i>1030</i>	<i>X</i>			
CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>9/24/09</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>9/24/09</i>	<p><i>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</i></p>			<ul style="list-style-type: none"> S-Soil SE-Sediment SD-Solid SL-Sludge W-Water O-Oil A-Air DS-Drum Solids DL-Drum Liquids T-Tissue Wl-Wipe L-Liquid V-Vegetation X-Other
Relinquished By/Removed From EAS LOCKED STORAGE 2	Date/Time <i>9/29/09</i>	Received By/Stored In SHANNAN JOHNSON	Date/Time <i>10/25</i>				
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time <i>10/25</i>	Received By/Stored In FDX	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In <i>Shannon Johnson</i>	Date/Time <i>9/30/09 1520</i>				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title		Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-232	Page 1 of 1	
Collector <i>Wendy West</i>		Company Contact JOAN KESSNER		Telephone No. 375-4688		Project Coordinator KESSNER, JH	Price Code <i>9K</i>	Data Turnaround <i>45 Days</i>
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location 300SA-WAL2, FILLET		SAF No. RC-118		<i>JAS 51609</i>		
Ice Chest No. <i>AFS-04-041</i>		Field Logbook No. 1633		COA BESCRC6520		Method of Shipment FED EX		
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading # <i>FDX# 796986356875</i>				
POSSIBLE SAMPLE HAZARDS/REMARKS			Preservation	Cool 4C				
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"			Type of Container	P/G				
			No. of Container(s)	1				
			Volume	15mL				
SAMPLE ANALYSIS			Total Inorganic Arsenic					
Sample No.	Matrix *	Sample Date	Sample Time					
J18XF2 <i>2981-237</i>	OTHER SOLID	<i>9/24/09</i>	<i>0945</i>	<i>X</i>				
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS				Matrix *
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>9/24/09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>9/24/09</i>		S=Soil
Relinquished By/Removed From EAS LOCKED STORAGE 2		Date/Time <i>9/29/09</i>		Received By/Stored In SHANNAN JOHNSON		Date/Time <i>10/4/09</i>		SE=Sediment
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>9/29/09</i>		Received By/Stored In FDX		Date/Time		SO=Solid
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		SI=Sludge
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		W=Water
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		O=Oil
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		A=Air
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		DS=Dross Solids
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		DL=Dross Liquids
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		T=Tissue
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		W1=Wipe
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		L=Liquid
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		V=Vegetation
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		X=Other
LABORATORY SECTION		Received By		Title		Date/Time		
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By		Date/Time		

Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			RC-118-231	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9K N 810 5109	Data Turnaround 45 Days	
Project Description Columbia River Component of the RCBRA - Tissues	Sampling Location 300SA-WALI, FILLET	SAF No. RC-118	Method of Shipment FED EX			
Ice Chest No. <i>APS-04-041</i>	Field Logbook No. 1633	COA BESCRC6520	Bill of Lading/Tracking No. // FDX 796986356875			
Shipped To Battelle Marine Sciences	Offsite Property No. N/A					
POSSIBLE SAMPLE HAZARDS/REMARKS		Preservation	Cool 4C			
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"		Type of Container	P/G			
		No. of Container(s)	1			
		Volume	15mL			
		Total Inorganic Arsenic				
SAMPLE ANALYSIS						
Sample No.	Matrix *	Sample Date	Sample Time			
J18XF1 <i>2981-238</i>	OTHER SOLID	<i>9/24/09</i>	<i>0900</i>	X		
CHAIN OF POSSESSION			Sign/Print Names		SPECIAL INSTRUCTIONS	
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>9/24/09</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>0900</i>	<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment in lab</p>		
Relinquished By/Removed From EAS LOCKED STORAGE 2	Date/Time <i>9/29/09</i>	Received By/Stored In <i>SHANNAN JOHNSON</i>	Date/Time <i>1045</i>			
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time <i>9/29/09</i>	Received By/Stored In <i>FDX</i>	Date/Time <i>1045</i>			
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time			
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time			
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time			
LABORATORY SECTION	Received By	Title		Date/Time		
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time		

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-216	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>9K</i> <i>N</i> <i>LPS 57809</i>	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location 100SA-WALI-CARCASS		SAF No. RC-118				
Ice Chest No. <i>AFS-04-041</i>	Field Logbook No. 1633	COA BESCR6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading No. FDX# 796986356875					
POSSIBLE SAMPLE HAZARDS/REMARKS				Preservation	Cool 4C		
Special Handling and/or Storage FREEZE *MATRIX COMPOSED OF FISH*				Type of Container	P/G		
				No. of Container(s)	1		
				Volume	15mL		
SAMPLE ANALYSIS				Total Inorganic Arsenic			
Sample No.	Matrix *	Sample Date	Sample Time				
J18XC6 <i>2981-239</i>	OTHER SOLID	<i>9/24/09</i>	<i>1330</i>	<i>X</i>			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From		Date/Time		Sign/Print Names		Date/Time	
<i>Wendy West</i>		<i>1330</i> <i>9/24/09</i>		<i>Wendy West</i>		<i>1330</i> <i>9/24/09</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
<i>EAS LOCKED STORAGE2</i>		<i>1745</i> <i>9/29/09</i>		<i>SHANNAN JOHNSON</i>		<i>1745</i> <i>9/29/09</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
<i>SHANNAN JOHNSON</i>		<i>1745</i> <i>9/29/09</i>		<i>FDX</i>			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
				<i>Shannon Johnson</i>		<i>1620</i> <i>9/30/09</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
LABORATORY SECTION	Received By	Title				Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time	

Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment in lab

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-251	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>9K</i>	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location 300SA-WALI, CARCASS	SAF No. RC-118	N <i>11/5/09</i>				
Ice Chest No. <i>APS-04-041</i>	Field Logbook No. EL-1633	COA BESCRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading No. FDX#796986356875					
POSSIBLE SAMPLE HAZARDS/REMARKS		Preservation	Cool 4C				
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"		Type of Container	P/G				
		No. of Container(s)	1				
		Volume	15mL				
SAMPLE ANALYSIS		Total Inorganic Arsenic					
Sample No.	Matrix *	Sample Date	Sample Time				
J18XJ1 <i>2981.240</i>	OTHER SOLID	<i>9/24/09</i>	<i>0915</i>	X			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>0915</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>0915</i>	Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab			<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue W=Wipe L=Liquid V=Vegetation X=Other
		EAS LOCKED STORAGE 2	<i>9/24/09</i>				
Relinquished By/Removed From <i>EAS LOCKED STORAGE 2</i>	Date/Time <i>9/29/09</i>	Received By/Stored In <i>SHANNAN JOHNSON</i>	Date/Time <i>10/15</i>				
Relinquished By/Removed From <i>SHANNAN JOHNSON</i>	Date/Time <i>10/15</i>	Received By/Stored In <i>FDX</i>	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In <i>Shannon Johnson</i>	Date/Time <i>9/24/09 1500</i>				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title		Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-220	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location 100SA-WALS-CARCASS		SAF No. RC-118		<i>N</i> <i>4451609</i>		
Ice Chest No. <i>AFS-04-041</i>	Field Logbook No. 1633	COA BESCRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading # FDX# 796986356A75					
POSSIBLE SAMPLE HAZARDS/REMARKS				Preservation	Cool 4C		
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"				Type of Container	P/G		
				No. of Container(s)	1		
				Volume	15mL		
SAMPLE ANALYSIS				Total Inorganic Arsenic			
Sample No.	Matrix *	Sample Date	Sample Time				
J18XD0 <i>2981-241</i>	OTHER SOLID	<i>9/24/09</i>	<i>1545</i>	<i>X</i>			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
<i>Wendy West</i>		<i>9/24/09</i>		EAS LOCKED STORAGE		<i>29/24/09</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
EAS LOCKED STORAGE 2		<i>9/29/09</i>		SHANNAN JOHNSON		<i>9/29/09</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
SHANNAN JOHNSON		<i>9/29/09</i>		FDV		<i>9/29/09</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
				<i>[Signature]</i>		<i>9/29/09 1800</i>	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
LABORATORY SECTION	Received By	Title				Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date/Time	

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-252	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>9K</i> <i>N</i> <i>445709</i>	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location 300SA-WAL2, CARCASS		SAF No. RC-118				
Ice Chest No. <i>AFS-04-041</i>	Field Logbook No. EL-1633	COA BESRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading # FDX# 796986356875					
POSSIBLE SAMPLE HAZARDS/REMARKS		Preservation	Cool 4C				
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"		Type of Container	P/G				
		No. of Container(s)	1				
		Volume	15mL				
		Total Inorganic Arsenic					
SAMPLE ANALYSIS							
Sample No.	Matrix *	Sample Date	Sample Time				
J18XJ2 <i>2981-292</i>	OTHER SOLID	<i>9/24/09</i>	<i>1000</i>	<i>X</i>			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			
Relinquished By/Removed From <i>Wendy West</i>		Date/Time <i>1000</i> <i>9/24/09</i>		Received By/Stored In <i>Wendy West</i>		Date/Time <i>1000</i> <i>9/24/09</i>	
Relinquished By/Removed From FAS LOCKED STORAGE 2		Date/Time <i>1245</i> <i>9/29/09</i>		Received By/Stored In SHANNAN JOHNSON		Date/Time <i>1245</i> <i>9/29/09</i>	
Relinquished By/Removed From SHANNAN JOHNSON		Date/Time <i>1525</i> <i>9/29/09</i>		Received By/Stored In FDX		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time	
LABORATORY SECTION				Title			
Received By				Date/Time			
FINAL SAMPLE DISPOSITION				Disposal Method			
Disposal Method				Disposed By			
				Date/Time			

Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment in lab.

- Matrix *
- S=Soil
 - SE=Sediment
 - SO=Solid
 - SL=Sludge
 - W=Water
 - O=Oil
 - A=Air
 - DS=Drum Solids
 - DL=Drum Liquids
 - T=Timber
 - W=Wipe
 - L=Liquid
 - V=Vegetation
 - X=Other

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-197	Page 1 of 1	
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9K N JAS 5/18/09	Data Turnaround 45 Days			
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location 100SA-WAL2-FILLET	SAF No. RC-118					
Ice Chest No. AFS-04-041	Field Logbook No. 1633	COA BESCRC6520	Method of Shipment FED EX					
Shipped To Battelle Marine Sciences		Offsite Property No. N/A	Bill of Lading # FDX# 796986356875					
POSSIBLE SAMPLE HAZARDS/REMARKS			Preservation	Cool AC				
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"			Type of Container	P/G				
			No. of Container(s)	1				
			Volume	15mL				
			Total Inorganic Arsenic					
SAMPLE ANALYSIS								
Sample No.	Matrix *	Sample Date	Sample Time					
J18X97 2981-243	OTHER SOLID	9/25/09	1100	X				
CHAIN OF POSSESSION			Sign/Print Names		SPECIAL INSTRUCTIONS			
Relinquished By/Removed From <i>Wendy West</i>	Date/Time 9/25/09	Received By/Stored In <i>Wendy West</i>	Date/Time 9/25/09	EAS LOCKED STORAGE				
Relinquished By/Removed From EAS LOCKED STORAGE	Date/Time 9/29/09	Received By/Stored In SHANNAN JOHNSON	Date/Time 9/29/09					
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time 9/29/09	Received By/Stored In <i>[Signature]</i>	Date/Time 9/29/09					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time	Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
LABORATORY SECTION	Received By	Title		Date/Time				
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time				

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-217	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location 100SA-WAL2-CARCASS		SAF No. RC-118	<i>JAS/809</i>		
Ice Chest No. <i>AFS-04-041</i>	Field Logbook No. 1633	COA BESCRC6520	Method of Shipment FED EX		Bill of Lading/ <i>FDX</i> # 796986356875		
Shipped To Battelle Marine Sciences		Offsite Property No. N/A					
POSSIBLE SAMPLE HAZARDS/REMARKS		Preservation	Cool 4C				
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"		Type of Container	P/G				
		No. of Container(s)	1				
		Volume	15mL				
SAMPLE ANALYSIS		Total Inorganic Arsenic					
Sample No.	Matrix *	Sample Date	Sample Time				
J18XC7 <i>2981-244</i>	OTHER SOLID	<i>9/25/09</i>	<i>1130</i>	X			
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>1130</i> <i>9/25/09</i>	Received By/Stored In <i>EAS LOCKED STORAGE 2</i>	Date/Time <i>1130</i> <i>9/25/09</i>	Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.			<ul style="list-style-type: none"> S=Soil SE=Sediment SO=Solid SI=Sedigr W=Water O=Oil A=Air DG=Dioxin Solids DL=Dioxin Liquids T=Timber WJ=Wage L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE 2	Date/Time <i>10/25</i> <i>10/25</i>	Received By/Stored In SHANNAN JOHNSON	Date/Time <i>1130</i> <i>10/25</i>				
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time <i>1/29/09</i> <i>10/25</i>	Received By/Stored In EDY	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title		Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-235	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9K N J1051809	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location 300SA-WALS, FILLET		SAF No. RC-118				
Ice Chest No. AFS-04-041	Field Logbook No. 1633	COA BESCR6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Materials FDX # 796986356875					
POSSIBLE SAMPLE HAZARDS/REMARKS		Preservation	Cool 4C				
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"		Type of Container	P/G				
		No. of Container(s)	1				
		Volume	15mL				
SAMPLE ANALYSIS		Total Inorganic Arsenic					
Sample No.	Matrix *	Sample Date	Sample Time				
J18XF52981.245	OTHER SOLID	9/23/09	1130	X			
CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS			
Relinquished By/Removed From <i>Wendy West</i>	Date/Time 9/23/09 1630	Received By/Stored In <i>Wendy West</i>	Date/Time 9/23/09 1630	<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>			
Relinquished By/Removed From EAS LOCKED STORAGE 2	Date/Time 9/23/09 1045	Received By/Stored In SHANNAN JOHNSON	Date/Time 9/23/09 1045				
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time 9/23/09 1045	Received By/Stored In FOX	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title		Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

- Matrix *
- S-Soil
 - SE-Sediment
 - SO-Solid
 - SH-Sludge
 - W-Water
 - O-Oil
 - A-Air
 - DS-Drum Solids
 - DL-Drum Liquids
 - T-Tissue
 - WI-Wipe
 - L-Liquid
 - V-Vegetation
 - X-Other

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-255	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>OK</i> <i>N</i> <i>4/5 5/19/09</i>	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location 300SA-WAL5, CARCASS	SAF No. RC-118					
Ice Chest No. <i>AFS-04-041</i>	Field Logbook No. EL-1633	COA BESRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading # FDX# 796986356875					
POSSIBLE SAMPLE HAZARDS/REMARKS		Preservation	Cool 4C				
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"		Type of Container	P/G				
		No. of Container(s)	1				
		Volume	15mL				
SAMPLE ANALYSIS		Total Inorganic Arsenic					
Sample No.	Matrix *	Sample Date	Sample Time				
J18XJ5 <i>2981.246</i>	OTHER SOLID	<i>9/25/09</i>	<i>1700</i>	<i>X</i>			
CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>1700</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>1700</i>	Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.			S=Soil SE=Seaweed SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue W/W=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE 2	Date/Time <i>9/25/09</i>	Received By/Stored In SHANNAN JOHNSON	Date/Time <i>1700</i>				
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time <i>10/5/09</i>	Received By/Stored In FDX	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title		Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-218	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>9K</i> <i>N</i> <i>4/10 5/16/09</i>	Data Turnaround 45 Days		
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location 100SA-WAL3-CARCASS	SAF No. RC-118					
Ice Chest No. <i>AFS-04-041</i>	Field Logbook No. 1633	COA BESRC6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A	Bill of Lading Bill No. 796986356875					
POSSIBLE SAMPLE HAZARDS/REMARKS		Preservation	Cool 4C				
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"		Type of Container	P/G				
		No. of Container(s)	1				
		Volume	15mL				
SAMPLE ANALYSIS		Total Inorganic Arsenic					
Sample No.	Matrix *	Sample Date	Sample Time				
J18XC8 <i>2981-247</i>	OTHER SOLID	<i>9/25/09</i>	<i>1230</i>	<i>X</i>			
CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>1230</i> <i>9/25/09</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>1230</i> <i>9/25/09</i>	Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.			S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue Wl=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE 2	Date/Time <i>1045</i> <i>9/29/09</i>	Received By/Stored In SHANNAN JOHNSON	Date/Time <i>1215</i> <i>9/29/09</i>				
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time <i>1045</i> <i>9/29/09</i>	Received By/Stored In FDV	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In <i>Shannon Johnson</i>	Date/Time <i>09/30/09 1500</i>				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title		Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-198	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i> <i>N</i> <i>49 57809</i>	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location 100SA-WAL3-FILLET	SAF No. RC-118	Method of Shipment FED EX				
Ice Chest No. <i>AFS-04-041</i>	Field Logbook No. 1633	COA BESCRC6520	Bill of Lading/Trk Bldg No. FD...796986356875				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A						
POSSIBLE SAMPLE HAZARDS/REMARKS		Preservation	Cool 4C				
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"		Type of Container	P/G				
		No. of Container(s)	1				
		Volume	15mL				
SAMPLE ANALYSIS		Total Inorganic Arsenic					
Sample No.	Matrix *	Sample Date	Sample Time				
J18X98 <i>2981.248</i>	OTHER SOLID	<i>9/25/09</i>	<i>1200</i>	<i>X</i>			
CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS			
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>9/25/09 1200</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>9/25/09 1200</i>	<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>			
Relinquished By/Removed From EAS LOCKED STORAGE 2	Date/Time <i>9/29/09 1045</i>	Received By/Stored In SHANNAN JOHNSON	Date/Time <i>9/29/09 1045</i>				
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time <i>9/29/09 1045</i>	Received By/Stored In <i>EDY</i>	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title		Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-234	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code <i>9K</i>	Data Turnaround <i>N</i> <i>JAS 51809</i> 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues	Sampling Location 300SA-WALA, FILLET		SAF No. RC-118				
Ice Chest No. <i>APS-04-041</i>	Field Logbook No. 1633	COA BESCR6520	Method of Shipment FED EX				
Shipped To Battelle Marine Sciences	Offsite Property No. N/A		Bill of Lading # <i>796986356875</i>				
POSSIBLE SAMPLE HAZARDS/REMARKS							
Special Handling and/or Storage <i>FREEZE "MATRIX COMPOSED OF FISH"</i>							
SAMPLE ANALYSIS							
Sample No.	Matrix *	Sample Date	Sample Time	Total Inorganic Arsenic			
J18XF4 <i>2981-249</i>	OTHER SOLID	<i>9/25/09</i>	<i>1400</i>	X			
CHAIN OF POSSESSION							
Relinquished By/Removed From		Date/Time		Sign/Print Names		Received By/Stored In	
<i>Wendy West</i>		<i>9/25/09</i>		<i>Wendy West</i>		<i>EAS LOCKED STORAGE 2</i>	
Relinquished By/Removed From		Date/Time		Sign/Print Names		Received By/Stored In	
<i>EAS LOCKED STORAGE 2</i>		<i>9/29/09</i>		<i>SHANNAN JOHNSON</i>		<i>SHANNAN JOHNSON</i>	
Relinquished By/Removed From		Date/Time		Sign/Print Names		Received By/Stored In	
<i>SHANNAN JOHNSON</i>		<i>9/29/09</i>		<i>FOX</i>		<i>FOX</i>	
Relinquished By/Removed From		Date/Time		Sign/Print Names		Received By/Stored In	
<i>SHANNAN JOHNSON</i>		<i>9/30/09</i>		<i>SHANNAN JOHNSON</i>		<i>SHANNAN JOHNSON</i>	
Relinquished By/Removed From		Date/Time		Sign/Print Names		Received By/Stored In	
<i>SHANNAN JOHNSON</i>		<i>9/30/09</i>		<i>SHANNAN JOHNSON</i>		<i>SHANNAN JOHNSON</i>	
Relinquished By/Removed From		Date/Time		Sign/Print Names		Received By/Stored In	
<i>SHANNAN JOHNSON</i>		<i>9/30/09</i>		<i>SHANNAN JOHNSON</i>		<i>SHANNAN JOHNSON</i>	
SPECIAL INSTRUCTIONS							
Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.							
Matrix *							
S=Seal SE=Sediment SO=Soil SL=Sludge W=Water O=Oil A=Air DS=Dry Solids DL=Dry Liquids T=Trace WI=Wipe L=Liquid V=Vegetation X=Other							
LABORATORY SECTION	Received By		Title			Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method		Disposed By			Date/Time	

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-118-254	Page 1 of 1
Collector <i>Wendy West</i>	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH		Price Code 9K N DAS 519 09	Data Turnaround 45 Days	
Project Designation Columbia River Component of the RCBRA - Tissues		Sampling Location 300SA-WAL4, CARCASS		SAF No. RC-118			
Ice Chest No. <i>AFS-04-041</i>	Field Logbook No. EL-1633	COA BESCRC6520		Method of Shipment FED EX			
Shipped To Battelle Marine Sciences		Offsite Property No. N/A		Bill of Lading Bill No. <i>796906356875</i>			
POSSIBLE SAMPLE HAZARDS/REMARKS			Preservation	Cool 4C			
Special Handling and/or Storage FREEZE "MATRIX COMPOSED OF FISH"			Type of Container	P/G			
			No. of Container(s)	1			
			Volume	15mL			
SAMPLE ANALYSIS			Total Inorganic Arsenic				
Sample No.	Matrix *	Sample Date	Sample Time				
J18XJ4 <i>2981-250</i>	OTHER SOLID	<i>9/25/09</i>	<i>1415</i>	X			
CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From <i>Wendy West</i>	Date/Time <i>9/25/09</i>	Received By/Stored In <i>Wendy West</i>	Date/Time <i>9/25/09</i>	<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>			S=Soil SE=Sediment SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Dryen Solids DL=Dryen Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From EAS LOCKED STORAGE 2	Date/Time <i>9/29/09</i>	Received By/Stored In SHANNAN JOHNSON	Date/Time <i>9/29/09</i>				
Relinquished By/Removed From SHANNAN JOHNSON	Date/Time <i>9/29/09</i>	Received By/Stored In FOX	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title		Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time			

LOG-IN CHECKLIST

Reference SOP# MSL-A-001

Central File #: 2981 Sample No(s): 223-250
Project Name: WA Closure Hanford

Batch: 18
Project Manager: Brandenberger

TO BE COMPLETED BY PROJECT MANAGER (prior to arrival when possible)

Matrix: _____ WP# _____

Yes No
 Navy-type Project (requires high-level sample tracking procedures)
 USDA Samples (see Compliance Agreement Checklist) PM Verification: _____

Filter Samples: Amount: Entire sample Half of sample
 Freeze dry sample(s) - samples will be weighed and placed in ultralow temp freezer (Login Lab)
 Special instructions: _____

Sample Preservation Instructions: _____
 See LIMS for archive/disposal information

TO BE COMPLETED UPON SAMPLE ARRIVAL/LOG-IN

Yes No N/A Indicate in Appropriate Box

Custody seal present Seal intact? YES NO
 Cooler temperature (acceptable range: 4±2°C or solids:frozen) 3.2 °C
 (if multiple coolers, note temp. of each) _____ °C

Project Manager notified of any custody/login discrepancies (cooler temp, sponsor codes, etc)
 Comment/Remedy: _____

Were all chain of custody forms signed and dated?
 Were samples filtered at MSL?

Sample condition(s): _____ Other (specify): _____

Container type: _____ Other

Notes: _____

Completed By: [Signature] Date/Time: 09/30/09 1500

SAMPLE PRESERVATION

Sample(s) were preserved prior to arrival at MSL (noted on CoC / Sample / per PM Instruction)

Random pH checked for ~10% of samples (use dip paper) Sample IDs: _____

Complete pH check required for project (use pH meter and record on pH Record form)

Sample(s) were preserved at MSL

Type: 0.2% HNO3 Notes: _____ Lot# _____
 0.5% HCl (Hg samples) Notes: _____ Lot# _____
 Refrigerated/Freeze Notes: deep freeze B-1
 Other Notes: _____

Completed By: [Signature] Date/Time: 1530 09/30/09
 Storage Shelf: B-1