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River Corridor Closure Contract

Field Summary Report for Remedial Investigation of Hanford Site Releases to the Columbia River, Hanford Site, Washington

Collection of Surface Water, River Sediments, and Island Soils

September 2009

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Washington Closure Hanford

Prepared for the U.S. Department of Energy, Richland Operations Office
Office of Assistant Manager for River Corridor

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Closure Contract

Field Summary Report for Remedial Investigation of Hanford Site Releases to the Columbia River, Hanford Site, Washington

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Author:
L. C. Hulstrom

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ACRONYMS

CAS	Columbia Analytical Services
CERCLA	*Comprehensive Environmental Response, Compensation, and Liability Act of 1980*
DO	dissolved oxygen
DOE	U.S. Department of Energy
Ecology	Washington Department of Ecology
EPA	U.S. Environmental Protection Agency
GPS	global positioning system
IWCP	Integrated Work Control Program
QA/QC	quality assurance/quality control
RI	remedial investigation
RM	river mile
ROD	record of decision
SAI	sampling and analysis instruction
SAP	sampling and analysis plan
SDG	sample delivery group
SOP	standard operating procedure
WCH	Washington Closure Hanford, LLC

1.0 INTRODUCTION

Cleanup of contaminated upland soil and groundwater at the Hanford Site is currently underway. Through this cleanup, the U.S. Department of Energy (DOE) is attempting to prevent additional contaminants from reaching the Columbia River. Between 1943 and 1989, historic releases of contamination to the Columbia River occurred during the Hanford Site weapons production mission. In addition, waste disposal practices at the Hanford Site also resulted in release of contaminants to the upland soil. Some of the contaminants have moved from the soil into groundwater beneath the Hanford Site. The contaminants then moved via the groundwater into the Columbia River where the groundwater percolates up through the river bottom and mixes with river water and riverine sediments. As a part of the remedial investigation, it is important to understand what contaminants are present, the concentrations of these contaminants, and current contaminant locations because the contamination may have undesirable effects on humans, animals, and plants that use or live in the Columbia River.

1.1 PURPOSE

This report has been prepared in support of the remedial investigation (RI) of Hanford Site Releases to the Columbia River and describes the 2008/2009 data collection efforts. This report documents field activities associated with collection of sediment, river water, and soil in and adjacent to the Columbia River near the Hanford site and in nearby tributaries. Field work was performed by Integral Consulting, Inc., with support from Freestone Environmental Services, Inc., Northwest Underwater Construction, and Gravity Consulting, LLC. The purpose of the report is to describe the sampling locations, identify samples collected, and describe any modifications and additions made to the sampling and analysis plan (SAP), which is Appendix A to the report, *Remedial Investigation Work Plan for Hanford Site Releases to the Columbia River*, Rev. 0, DOE/RL-2008-11 (here after referred to as the “Work Plan”).

Resulting data from the RI sampling efforts will be used by DOE to evaluate the nature and extent of past releases of Hanford Site contaminants to the Columbia River. Results from the sampling efforts will be combined with previously collected environmental data and used to complete a baseline human health and ecological risk assessment prepared in accordance with *Comprehensive Environmental Response, Compensation, and Liability Act of 1980* (CERCLA) guidance. The risk assessment will address current environmental conditions in the Columbia River. The information gained from sampling efforts described in this field summary report and the risk assessment to follow will help regulators make final decisions for cleaning up Hanford Site contamination that exists in and along the Columbia River.

1.2 SCOPE

The field investigation program for the RI was developed by the DOE, the U.S. Environmental Protection Agency (EPA) and the Washington Department of Ecology (Ecology), collectively referred to as the "Tri-Parties." The scope of the sampling program was based on the outcome of the Data Quality Objectives process (WCH-265, 2008) to address the data needs. The rationale for the sampling approach and strategy are detailed in the Work Plan and the resulting RI sampling activities are detailed in the SAP. Requirements for sampling methods, sample handling and custody and analytical methods are detailed in the Sampling and Analysis Instruction (SAI) WCH-286 (2008). The Work Plan, SAP and SAI directed the sample collection methods and locations described in this field summary report.

As shown in Figure 1-1, the primary sample collection area on the Columbia River extended from just above Wanapum Dam (River Mile [RM] 420) to McNary Dam (RM 292). Also included was a limited area immediately upstream of the Bonneville Dam (RM 147). The lateral limits extended from shore to shore. As shown in Figure 1-1, the project area was divided into the following sub-areas based on proximity to the Hanford Site:

- Upriver Sub-Area (RM 420 to RM 388)
- 100 Area Sub-Area (RM 388 to RM 365)
- 300 Area Sub-Area (RM 365 to RM 339)
- Lake Wallula Sub-Area (RM 339 to RM 292)
- Bonneville Dam Pool Sub-Area (RM 150 to RM 144).

Figure 1-1. Columbia River Remedial Investigation Project Area.

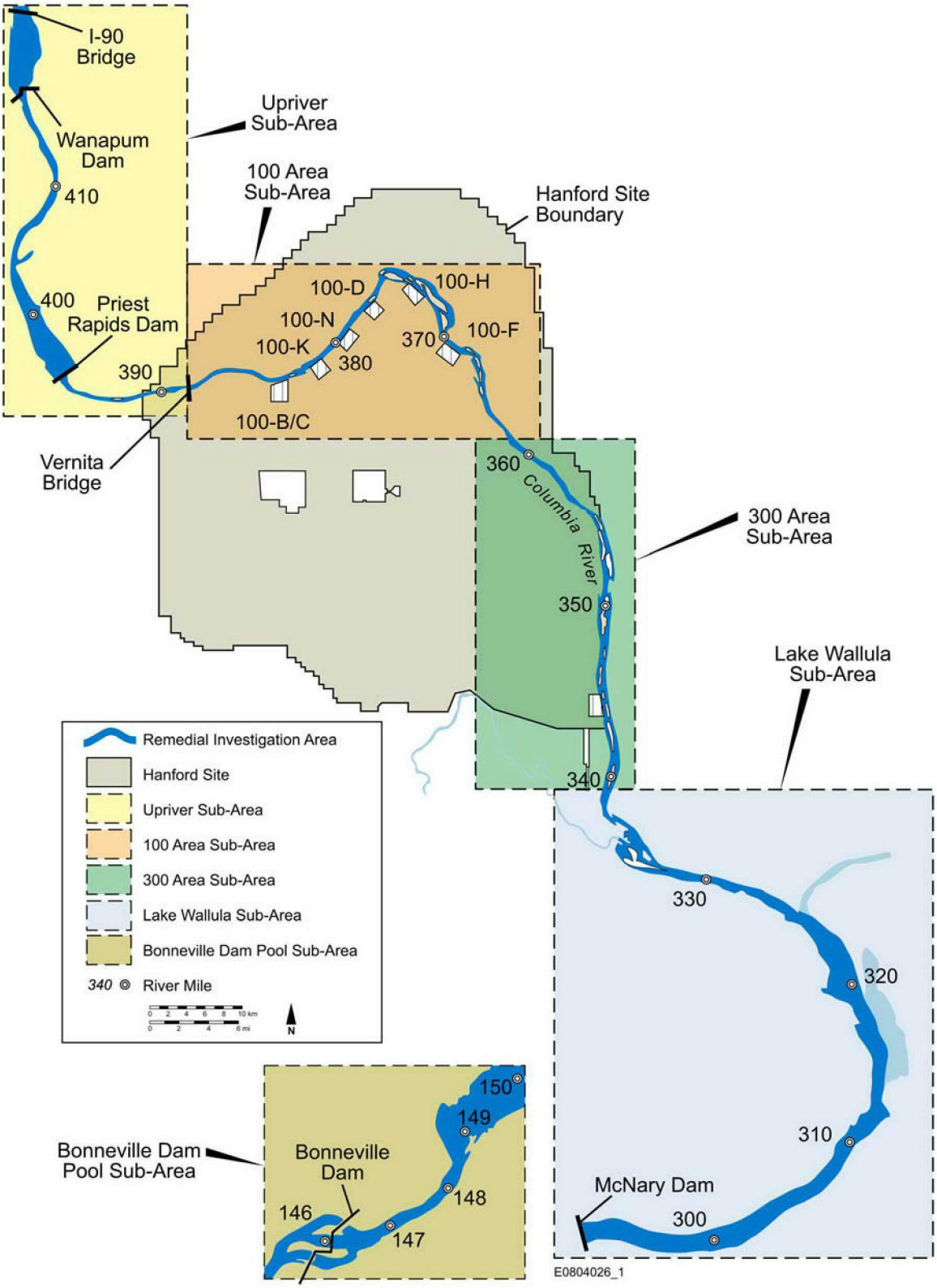


Table 1-1 describes the types of media sampled based on locations specified by the SAP.

Table 1-1. Summary of Characterization and Data Needs.

Area	Characterization and Data Needs
Upriver and non-Hanford Site	- Upriver surface water and sediments
	- Surface water and sediments for irrigation returns along the Hanford Reach
	- Surface water and sediments for other rivers joining the Columbia (i.e., Snake, Yakima, Walla Walla) between Priest Rapids and McNary Dams
100/300 Area reach adjacent to reactor and operational areas	- Sediment cores from river water inlet structures
	- Surface water and sediment in areas of contaminated groundwater upwelling
100/300 Area reach downriver of reactor and operational areas	- Sediments from the sloughs and backwaters on the far shore of the river
	- Island surface water, shallow sediments, and soils
	- Sediments along the far shore
Downriver of the Hanford Site to McNary Dam (Lake Wallula)	- Surface water and shallow sediments from near-shore recreational areas in the Richland area and in Lake Wallula
	- Sediment cores from the head water of Lake Wallula
	- Sediment cores from the Yakima delta and Snake River depositional areas
	- Sediment cores from Lake Wallula and directly behind McNary Dam
Bonneville Dam	- Sediment cores from upstream of the Bonneville Dam.

The types of sample media and their attributes are described for each key location in Table 1-2. The table also summarizes the number of anticipated and actual sample quantities along with a description of key locations and attributes of those locations (See also Figure 1-2 for a visual representation of the categories of sediment samples collected).

Table 1-2. Sampling Program Summary. (2 Pages)

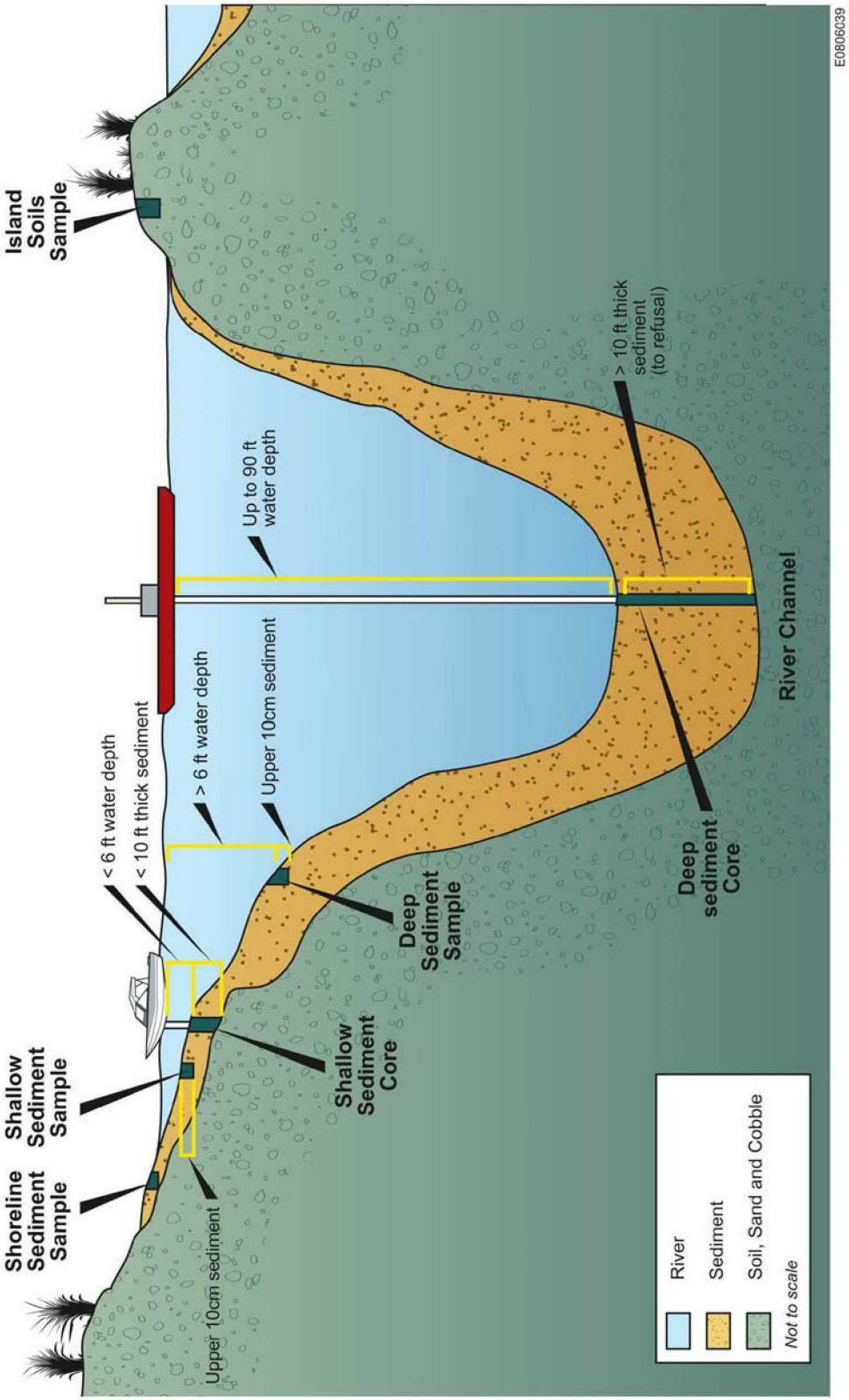
Sample Media	Anticipated Quantity	Sampled Quantity	Key Locations and Attributes
Sediment – shallow	196	168 [a]	Irrigation returns, downriver islands, shoreline, tributary deltas (Yakima, Snake, and Walla Walla), other depositional areas between reactors and McNary Dam. Areas where contaminated groundwater plumes are upwelling. Nominally top 0.2 m (8 in.) (biologically active zone).

Table 1-2. Sampling Program Summary. (2 Pages)

Sample Media	Anticipated Quantity	Sampled Quantity	Key Locations and Attributes
Sediment – deep	6	4 [a]	Potential deep (> 1.8 m [6 ft] water depth) areas of sediment deposits (e.g., 100 B/C Hole) where fish may be affected or areas of sediment accumulation upriver of the Yakima River confluence and downriver of the Walla Walla River confluence.
Sediment – shoreline	312	183	Downriver islands and non-Hanford Site (i.e., left) shoreline. Sediment samples collected from the lower riparian zone, typically the area devoid of terrestrial vegetation.
Sediment – shallow core	60	64	Potential areas containing sediments dating back to reactor operations including 100-B/C, 100-K, 100-N, and 100-D Reactor inlet structures, head of Lake Wallula pool (near the 300 Area), Yakima and Snake River deltas. Up to approximately 3 m (10 ft) deep depending on available sediment deposit. 0.2 m (8 in.) sampling intervals used.
Sediment – deep core	58	45	Areas of thick sediment deposits dating back to reactor operations including Lake Wallula (Port Kelly, Hat Rock, just upriver from McNary Dam) and upriver of Bonneville Dam. Water depths up to 27 m (90 ft) with advancement of cores through unconsolidated sediments to refusal. 0.2 m (8 in.) sampling intervals used.
Soil	80	79	Island soil that may have been transported during high river levels including Island 3, White Bluffs, Locke Island, Homestead Island, Wooded Island, Gull Island, and Johnson Island.
Surface water	60	60	Reactor areas, 300 Area, recreational locations (parks, boat launches), Lake Wallula, McNary Dam, irrigation returns, tributary deltas (Yakima, Snake, Walla Walla).
Surface water - deep	3	3	Directly above the riverbed within Lake Wallula, downriver of the Walla Walla River confluence, and behind McNary Dam.

[a] In reality a number of shallow sediment samples would be designated as deep sediment since the water depth was greater than 1.8 m (6 ft) when the sample was collected. They have been retained as shallow sediments for this table for consistency with the SAP.

Figure 1-2. Categories of Sediment Samples.



2.0 SAMPLING OVERVIEW

Between October 2008 and June 2009, nine field sampling events occurred as summarized in Table 2-1. Each field event was preceded by logistical planning and mobilization. Maps showing the locations of all samples collected are shown in Appendix A as Figures A-1 through Figure A-20.

Table 2-1. Chronology of Major Sampling Events.

Sampling Event	Dates
Surface water sampling (fall event)	10/16/08 to 11/13/08
– wasteway	
– nonwasteway	
Shallow/deep sediment sampling	12/01/08 to 06/10/09
Shoreline sediment sampling	02/04/09 to 02/27/09
Island soil sampling	02/26/09 to 06/11/09
Core sediment sampling	03/23/09 to 04/09/09
Surface water sampling (spring event)	06/01/09 to 06/9/09
– wasteway	
– nonwasteway	
Additional shallow/deep sediment sampling and shoreline sediment sampling	06/08/09 to 06/11/09

Field work was planned and conducted as described in the Integrated Work Control Program (IWCP) used by Washington Closure Hanford (WCH). IWCP work packages were developed to provide the appropriate hazard analysis and instructions for performing each of the major sampling events.

A 30 ft long aluminum boat with twin inboard jet engines was used for surface water sampling and surface sediment sampling using either a van Veen grab or a power grab. The boat had a dedicated captain and was equipped with a hydraulic A-frame mounted at the bow for deployment of sampling equipment, a cabin with a global positioning system (GPS) navigational system, VHF radio, and standard depth sounder. Ample deck space accommodated all sampling equipment and coolers. A power generator provided electric power for ancillary sampling equipment such as peristaltic pumps, stir plates, and lights.

A 32 ft long aluminum boat was used for deploying a vibracorer to collect sediment cores. The boat had a dedicated captain and was equipped with a hydraulic A-frame mounted at the bow for deployment of sampling equipment, a cabin with GPS navigational system, VHF radio, and standard depth sounder. In addition, this boat was also used to collect sediment surface grabs using a van Veen grab or a power grab.

A temporary shore support facility was established in Richland (2417 Robertson Ave, Richland, WA 99354) to provide support for the duration of the field sampling activities. The shore support facility was used for the following activities:

- All health and safety pre-evolutionary safety meetings
- Sample jar preparation
- Sediment core processing
- Temporary sample storage in lockable refrigerators
- Sample packing and shipping to analytical laboratories
- Sampling equipment setup
- Logistical support.

2.1 NAVIGATION

The coordinates for each station were logged using a Trimble Pro-XT GPS unit with an antenna mounted on top of the A-frame and Nobeltec™ navigation software. Target coordinates were provided to the boat pilot before each sampling event and the actual sampling station locations where samples were collected were recorded in the field in datum WGS84. After the sampling event, the data were post-processed to obtain coordinates in Washington State Plane, NAD83, South Zone, in meters.

Coordinates for irrigation wasteways sampling stations were recorded using a handheld Trimble Geo XT unit with TerraSync and Pathfinder Office software. Target coordinates were provided to the sampling team before each sampling event and the actual sampling station locations were recorded in the field in datum WGS84. As with the vessel collected station location data, the data from the land access team were also post-processed to obtain coordinates in Washington State Plane, NAD83s, South Zone, in meters.

2.2 SURFACE WATER SAMPLING METHODS

This work was conducted following the instructions provided in the SAI for collection methods and the task instructions provided in the Work Package. Sample volume, sample containers, and sample preservation for each constituent group are described in the sampling and analysis plan (SAP; DOE/RL-2008-11, Appendix A, Rev. 0). The investigation area, sample identification numbers for chemical and radiological constituents, water quality parameters, requested analyses, and the collection date for each surface water sample collected are listed in Appendix B, Tables B-1 and B-2. Quality assurance and quality control (QA/QC) samples are shown in Appendix B, Table B-3. In addition, specialized procedures (i.e., Integral Standard Operating Procedures [SOPs]) were used in the field for sample collection and during laboratory decontamination of the surface water sampling equipment. These SOPs are provided in Appendix C.

Field notes were kept in log books No. EL-1630 and No. EL-1630-1. Two surface water sampling events were performed:

- Fall Event: October 16, 2008 to November 13, 2008
- Spring Event: June 1, 2009 to June 9, 2009.

A summary of surface water sample types that were collected for this project (as described in the SAP) is provided in Table 2-2.

Table 2-2. Summary of Surface Water Sample Types Collected.

Medium	Sample Type	Description	Use of Data
Surface Water	Surface water samples (river and irrigation wasteways)	Surface water samples collected at approximately 2/3 the depth of the water column. Irrigation wasteway surface water samples were collected approximately 6 in. from surface.	• Site characterization • Support human health risk assessment • Support ecological risk assessment
	Deep surface water samples	Surface water samples collected from directly above the riverbed.	• Site characterization • Support ecological risk assessment

Depending on local water depth conditions, unfiltered and filtered surface water samples were collected at 1/2, 2/3, and 3/4 water depth at most sampling stations. In general, most surface water samples were collected at 2/3 of the water depth. A few deep water samples were collected at 1 ft from the bottom (see Table B-1 for specific water collection depths at each station).

The following two sampling methods were utilized for the collection of surface water and deep surface water samples:

- Peristaltic pump with polycarbonate and glass carboys for sample compositing (Figure 2-1)
- 20-L Teflon™ coated GO-FLO™ bottles for deep surface water samples (Figure 2-2).

Figure 2-1. Peristaltic Pump System Setup for Surface Water Sampling.

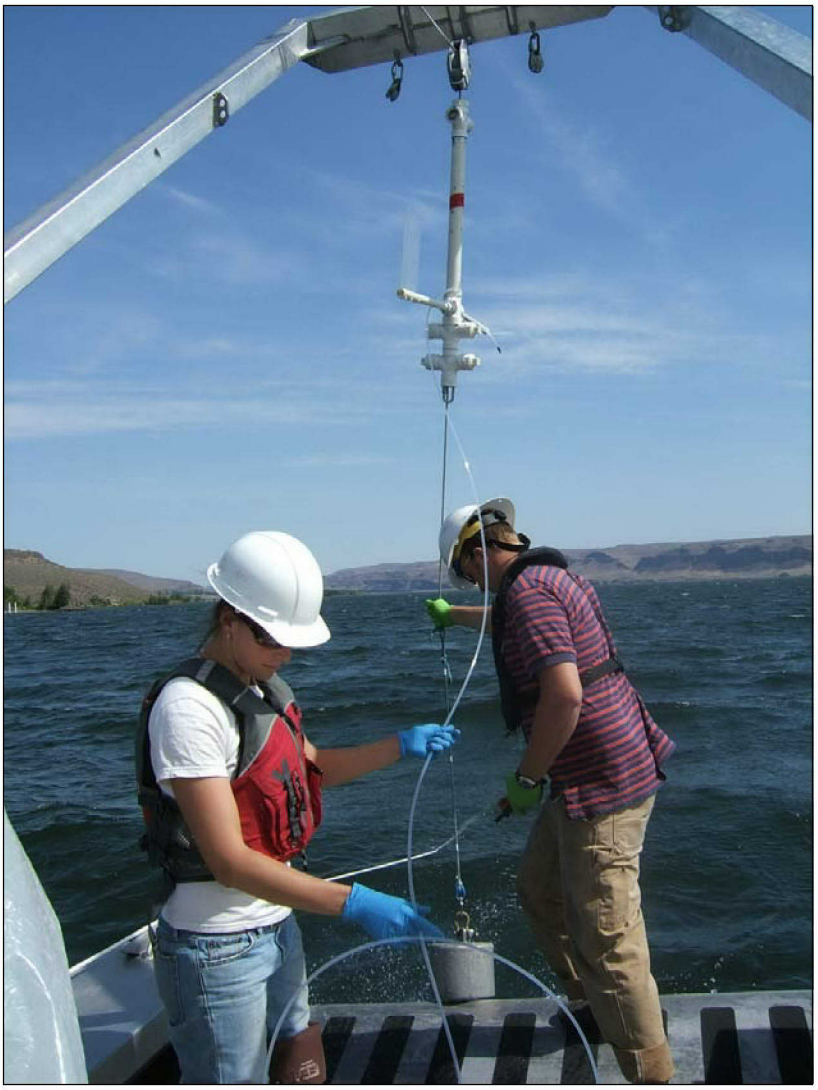
Figure 2-2. Twenty Liter GO-FLO Bottle Setup with Multiprobe Water Quality Meter (White Cylinder) for Surface Water Sampling.

The SOPs for surface water sampling utilizing the peristaltic pump with carboys are described in SOP SW-04 (Appendix C). The SOP for surface water collection using a 20-L GO-FLO™ bottle is described in SOP SW-05 (Appendix C). All surface water samples were collected in accordance with the clean-hands techniques provided in SOP SW-07 (Appendix C).

All sampling equipment (i.e., carboys, Teflon tubing, and GO-FLO™ bottles were decontaminated at Columbia Analytical Services [CAS] in Kelso, Washington using SOP SW-15; Appendix C) before each sampling event. No decontamination occurred in the field. An equipment rinsate blank was collected for both the peristaltic pump/carboy system and for the GO-FLO™ bottle.

Sampling of surface water and a few irrigation waste water returns was performed from a 30-ft aluminum research vessel equipped with a bow-mounted A-frame and winch (Figure 2-3).

Figure 2-3. Deployment of PVC Vane Surface Water Sampler with Attached Teflon™ Tubing.



When surface water was collected with the peristaltic pump system, the intake tubing was attached to a PVC device equipped with a vane pipe that kept the intake tubing facing into the river flow (see SOP SW-04, Appendix C). The tubing was connected to a peristaltic pump and the outflow was split into a polycarbonate carboy, for the analyses of trace metals, radionuclides and conventional water quality parameters (pH, temperature, specific conductivity, and dissolved oxygen), and into a glass carboy for the analyses of organic compounds. A decontaminated, 3-in. long, Teflon™-coated magnetic stir bar was placed at the bottom of each carboy. Each carboy was placed on top of a magnetic stir plate and the magnetic stir bar continually mixed the water within the carboy before sample collection. The entire carboy setup was placed inside a plastic covered processing box to protect the sampling equipment from inclement weather and possible air-borne dust contamination under windy conditions. After the carboys were filled with the required volume of surface water for a given station, the stirred, composited surface water was pumped from the carboys, via a peristaltic pump, into labeled sample containers for chemical analyses.

The same peristaltic pump system was employed when sampling irrigation wasteways that were reached by a van. A portable generator was used to power the pump and stir plates. An aluminum pole was used to extend the tubing into the approximate center of the irrigation canal with the tube intake approximately 6 in. below the water surface.

Sampling of water at deeper stations was performed by lowering a 20-L Teflon™-coated GO-FLO™ bottle to the desired depth and sending a Teflon™-coated messenger down to trigger the closure of the bottle at the desired depth. The water depth of the GO-FLO™ bottle was monitored by attaching a metered cable from the GO-FLO™ bottle to the vessel's deck (Figure 2-2).

Surface water quality parameters were collected using the procedures provided in SOP SW-06 (Appendix C) using a Hydrolab multiprobe. The unit was calibrated every day before sampling and documented in a logbook. A record of expiration dates and lot numbers for all standard solutions was kept in the field log books (No. EL-1630 and No. EL-1630-1).

Table B-1(in Appendix B) summarizes the types of water samples and ancillary individual sample information such as water depth and water quality parameters (i.e., pH, temperature, specific conductivity and dissolved oxygen [DO]).

2.2.1 Approved Modifications to the Sampling and Analysis Plan

Several modifications to the SAP were made during the course of the surface water sampling campaign. Following is a summary of changes made, including a brief description of the rationale for why the changes were needed.

- **October, 17 2008:** New sampling stations (WP-1SW and WP-2SW) were added at Wanapum Dam.

- **October 29, 2008:** The location for sample station PRD-3SW was at exposed river bed, so the sampling location was relocated to the nearest accessible surface water. The revised station location was verbally approved by the EPA and DOE-RL project manager, who were onsite during sample collection.

- **November 3, 2008:** The planned location for sample station IS11-1SW was found to be on shore during low water, so the location was moved to nearest available surface water.

- **November 5, 2008:** The planned sample location at sample station CI-1SW was found to be on shore, so the sample was collected from the nearest accessible surface water. The planned sample location at sample station TR-1SW was found to be on shore. A sample was collected on Lake Wallula at Two Rivers Park near the old concrete boat ramp on November 7, 2008.

- **November 6, 2008:** The planned location of sample station WR-1SW was found to be on shore. Therefore, the sample was collected from the nearest accessible surface water. Water swells at sample station LW-1SW prevented collection of planned "deep water" sample from within an interval strictly within 1 ft of the river bottom. Therefore, water was collected from 2 to 4 ft above the river bottom.

- **November 12, 2008:** Sample station IS8-4SW was relocated to allow for safe collection of surface water in strong river currents and shallow waters. The original coordinate provided for sample station IS8-3SW was located onshore (i.e., low water levels in the river left the station "dry"). Therefore, the sample was collected from the nearest safely accessible location within the river.

- **April 16, 2009:** Additional surface water chemical analyses from the fall sampling event were re-collected at sample stations MDBR-1SW, MDBR-2SW, IS8-5SW, and WI-1SW. In addition, a new groundwater seep sampling station was added to the sampling event at sample station RNLS-1SW.

- **April 22, 2009:** The location for Hat Rock State Park collected in the fall at sample station HR-1SW on November 6, 2008 was relocated to a new station. The new location was designated sample station HRB-1SW at the public boat ramp. An additional sampling station was added to a private marina designated sample station HRM-1SW. Both stations used the same analytical suite as sample station HR-1SW in the SAP.

- **June 2, 2009:** Sampling locations for sample stations PC-1SW and RG-1SW were relocated farther inland to facilitate sample collection in channel flow conditions encountered.

- **June 3, 2009:** During a visual reconnaissance of the vicinity of planned sample station RNLS-1SW, no indication of significant water seep was observed. The apparent water level in the low area north of the river relative to the current high river stage does not suggest that a significant seep is currently present above the water line. The station was eliminated. The location for sample station PE-1SW was relocated farther inland to facilitate sample collection in channel flow conditions encountered.

- **June 8, 2009:** The target location for sample station MDBR-1SW could not be accessed due to barge traffic. Therefore, the sample was collected 54 ft from the target location.

2.3 SHALLOW AND DEEP SURFACE SEDIMENT SAMPLING METHODS

Sample volume, sample containers, and sample preservation for each constituent group are described in the SAP. The investigation area, sample identification numbers for chemical and radiological constituents, requested analyses, and the collection date for each shallow and deep surface sediment sample collected are listed in Appendix B Tables B-4 and B-5. Appendix A, Figures A-1 through Figure A-20 show the locations of the samples collected within the study area.

Figure 1-2 shows the different media and related sample types for sediment and soil sample locations. QA/QC samples are presented in Table B-6. Field notes were kept in log books No. EL-1631, EL-1631-1, and EL-1631-2. The procedures used for grab sampler deployment and retrieval are outlined in the SOP SD-05 provided in Appendix C.

The following two sampling events were conducted:

- Winter Event: December 1 to December 16, 2008; February 4 to April 9, 2009
- Additional Sediment Sampling Event: June 8 to June 10, 2009.

A summary of sample types for surface sediments as described in the SAP is provided in Table 2-3.

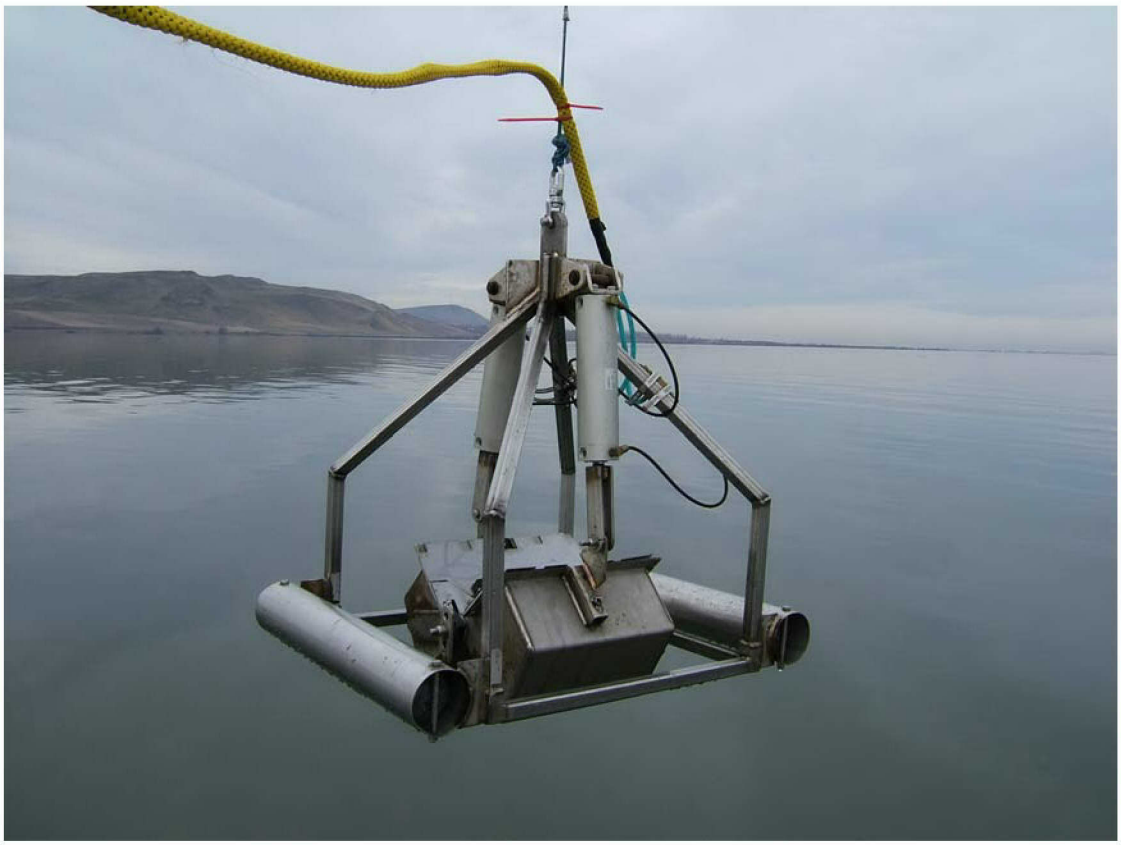
Table 2-3. Summary of Subaqueous Sediment Sample Types Collected.

Medium	Sample Type	Description	Use of Data
Sediment	Shallow sediment samples (i.e., submerged)	Sediments collected from the upper 10 cm (4 in.) of the sediment (e.g., generally submerged)	• Site characterization • Support human health risk assessment • Support ecological risk assessment
	Deep sediment samples	Sediment samples collected in greater than 1.8 m (6 ft) of water	• Site characterization • Support ecological risk assessment

Deep sediment samples were samples collected in greater than 1.8 m (6 ft) of water, and shallow sediment samples were those collected in less than 1.8 m (6 ft) of water.

Surface sediment subsamples were collected in a consistent, repeatable manner with a stainless-steel, 0.2-m^2 pneumatic power-grab sampler (Figure 2-4) provided by the subcontractor. The sampler was attached to the winch cable with a ball-bearing swivel to prevent twisting movements during deployment. The device was raised and lowered through the water column by the vessel's winch at a rate no greater than 20 m/minute. This ensured that the sampler did not flip over on descent and prevented disturbance of the sediment surface upon retrieval. After the sampler was brought on board, it was placed on a stand or table.

Figure 2-4. Stainless-Steel, 0.2-m^2 Pneumatic Power-Grab Sampler.



Access doors covering the top of the sampler allowed visual characterization of the sediment surface in order to assess sample acceptability, which was deemed acceptable when there was at least 10 cm penetration into the sediment and an undisturbed sediment surface. Before characterization, any overlying water in the sampler was removed by siphoning. A single cast of the power grab provided adequate sediment volume for subsampling; therefore, only one power grab sample was collected at each successful target location.

The maximum sediment depth penetration of the power-grab sampler was 20 cm. A minimum penetration of 10 cm constituted an acceptable grab. At a number of stations, adequate grab penetration was difficult or impossible to achieve, resulting in grabs with less than 10 cm penetration but containing adequate sediment for a sample being accepted. At least three consecutive casts of the grab were attempted while trying to achieve the 10 cm minimum penetration. If an acceptable grab could not be attained, the sampling crew attempted new

casts at an alternate location. If an acceptable grab could not be obtained at the alternate station, the station was either abandoned or a sample was collected at adjacent opportunistic sediment which in some cases required sediment to be collected using the same bowl and spoon procedure used during the shoreline sampling outlined in Section 2.4. All conditions and events were logged before continuing on to the next station. Tables B-4 and B-5 list all successful and attempted/abandoned sediment sample locations.

Before processing each grab, the sample surface was photographed. Samples for analysis of volatile organic compounds were immediately taken from the undisturbed sediment surface to minimize potential volatilization of the chemicals. The remaining sediment that was not in contact with the sides of the sampler was placed into a stainless steel bowl and mixed with a stainless steel spoon until the sediment was thoroughly homogenized. Large organisms and pieces of debris were removed and noted in the sample log sheet. Subsequently, sediments were collected for physical (e.g., grain size) and chemical analyses in accordance with the SAP. All sampling equipment was decontaminated in accordance with WCH Procedure ENV-1-2.15 (Field Decontamination of Sampling Equipment).

Tables B-4 and B-5 summarize the types of sediment samples and ancillary individual sample information such as water depth, sample depth, sample time, sample date, location coordinates and requested chemical analyses.

2.3.1 Approved Modifications to the Sampling and Analysis Plan

In this section, the major modifications to the shallow and deep sediment sample collection as described in the SAP are listed by sampling area. Tables B-4 and B-5 list all shallow and deep sediment sampling locations and any modifications that were required. Sites were eliminated or shifted with the concurrence of the Tri-Parties following discussions of the results of sediment mapping efforts that were completed prior to the initiation of field sampling but after approval of the SAP (meeting held on November 19, 2008).

- **Wanapum Dam Pool**: New sampling stations requested by WCH (sample stations WP-1SD to WP-6SD) were added at Wanapum Dam.

- **Reactor B left side**: Sample stations RBLS-1SD to RBLS-10SD were eliminated before initiation of sampling as discussed with the Tri-Parties.

- **Reactor B Trench**: Sample station RB-6SD was eliminated before initiation of sampling as discussed with the Tri-Parties.

- **Reactor K left side**: Sample stations RKLS-1SD to RKLS-10SD were eliminated before initiation of sampling as discussed with the Tri-Parties.

- **Saddle Mountain Wasteway**: Sample stations SM-1SD to SM-3SD were eliminated before initiation of sampling as discussed with the Tri-Parties since the site was no longer actively discharging water.

- **Reactor D downriver**: Sample station RDD-4SD was abandoned due to lack of sediment after multiple attempts at primary and alternate locations.

- **Reactor D downriver**: Sample stations RDD-15SD to RDD-20SD were eliminated before initiation of sampling as discussed with the Tri-Parties.

- **Locke Island west side**: Sample location LI-11SD was changed from a shallow sediment grab to a shoreline sediment sample as discussed with the Tri-Parties.

- **White Bluffs east side**: Sample stations WBT-1SD to WBT-10SD were eliminated before initiation of sampling as discussed with the Tri-Parties.

- **Bottom of H-Slough**: Sample stations HT-1SD, HT-3SD, HT-5SD, and HT-7SD were abandoned due to lack of sediment after multiple attempts at primary and alternate locations. Other sediments in the immediate vicinity at Stations HT-2SD, HT-4SD, HT-6SD, and HT-8SD were successfully recovered.

- **White Bluffs downriver**: Sample stations WBD-1SD to WBD-10SD were eliminated before initiation of sampling as discussed with the Tri-Parties.

- **Reactor F downriver**: Sample stations RFD-3SD to RFD-10SD were eliminated before initiation of sampling as discussed with the Tri-Parties. Sample stations RFD-1SD and RFD-2SD were abandoned due to lack of sediment after multiple attempts at primary and alternate locations.

- **Island 11**: Sample stations IS11-1SD to IS11-5SD were eliminated before initiation of sampling as discussed with the Tri-Parties.

- **Island 13**: Sample station IS13-4SD was abandoned due to lack of sediment after multiple attempts at primary and alternate locations.

- **Island 15**: Sample stations IS15-3SD to IS15-5SD were abandoned due to lack of sediment after multiple attempts at primary and alternate locations.

- **Wooded Island**: Sample stations WI-2SD and WI-4SD were abandoned due to lack of sediment after multiple attempts at primary and alternate locations.

- **300 Area left side**: Sample stations 300LS-1SD to 300LS-5SD were changed to 300LS shoreline samples and JSI shallow sediment samples.

- **Johnson Island**: Sample station JSI-7SD was abandoned due to lack of sediment after multiple attempts at primary and alternate locations.

- **300 Area**: Sample stations 300D-6SD to 300D-10SD were eliminated before initiation of sampling as discussed with the Tri-Parties. Sample stations 300D-1SD and 300D-2SD were abandoned due to lack of sediment after multiple attempts at primary and alternate locations.

- **Yakima River**: Sample stations YR-1SD and YR-2SD were abandoned due to lack of sediment after multiple attempts at primary and alternate locations.

- **Howard Amon City Park**: Sample stations HA-1SD to HA-5SD were abandoned due to lack of sediment after multiple attempts at primary locations and a thorough shallow water and shoreline area reconnaissance.

- **Columbia Point Marina**: Sample station CPM-3SD was abandoned due to lack of sediment after multiple attempts at primary and alternate locations.

- **Confluence of Yakima and Columbia**: Sample station CR-2SD was eliminated before initiation of sampling, as discussed with the Tri-Parties.

- **Toothaker HMU**: Sample stations THMU-1SD and THMU-2SD could not be accessed by boat due to interceding railroad causeway.

- **Columbia Park**: Sample stations CP-4SD and CP-5SD were abandoned due to lack of sediment after multiple attempts at primary and alternate locations.

- **Lake Wallula**: Sample stations LW-2SD and LW-3SD were abandoned due to lack of sediment after multiple attempts at primary and alternate locations.

2.4 SHORELINE SEDIMENT SAMPLING METHODS

Sample volume, sample containers, and sample preservation for each constituent group are described in the SAP. The investigation area, sample identification numbers for chemical and radiological constituents, requested analyses, and the collection date for each shoreline sediment sample collected are listed in Tables B-4 and B-5. QA/QC samples are presented in Table B-6. Field notes were kept in log books No. EL-1631, EL-1631-1, and EL-1631-2.2. Appendix A, Figures A-1 through Figure A-20 show the locations of the samples collected within the study area.

The shoreline sediment samples were collected February 4 to 27, 2009. A description of sample types for shoreline sediment samples that were described in the SAP is provided in Table 2-4.

Table 2-4. Summary of Shoreline Sediment Sample Types Collected.

Medium	Sample Type	Description	Use of Data
Sediment	Shoreline sediment samples	Sediment samples collected from the lower riparian zone, typically the area devoid of terrestrial vegetation.	• Site characterization • Support human health risk assessment • Support ecological risk assessment

Before sampling, target station coordinates were entered into the navigation system and the actual sampling station position was recorded when a suitable sample location was found. When possible, all samples were collected within 20 m of the target or alternate target sampling location. Surface sediment subsamples were collected in a consistent, repeatable manner (Figure 2-5) with a stainless-steel spoon and stainless-steel mixing bowl.

Figure 2-5. Shoreline Sediment Sampling.

If an acceptable sample could not be attained due to field conditions, the sampling crew attempted to collect a sample at the alternate location. If an acceptable grab could not be obtained at the alternate station either the station was abandoned or a sample was collected at adjacent opportunistic sediment. All conditions and events were logged before continuing on to the next station. Tables B-4 and B-5 list all successful and attempted/abandoned sediment sample locations.

Before collection the sample surface was photographed. Samples for analysis of volatile organic compounds were immediately taken from the undisturbed sediment surface to minimize potential volatilization of the chemicals. Then sediment was placed into a stainless steel bowl and mixed with a stainless steel spoon until the sediment was thoroughly homogenized. Large organisms and pieces of debris were removed and noted in the sample log sheet. Subsequently, sediments were collected for physical (e.g., grain size) and chemical analyses in

accordance with the SAP. Decontamination of all sampling equipment was conducted in accordance with WCH procedure ENV-1-2.15.

At two sampling areas, Leslie Groves Park and Two Rivers Park, a *MULTI INCREMENT*® Sampling approach (Figure 2-6) was used to collect shoreline sediment samples. The shoreline beach area was divided into a grid containing 50 equal sized areas. Within each area a position was marked and recorded, and a sample collected as with the other shoreline samples, although a sieve was used to separate the coarser grained material from the sediment sample. After equipment decontamination this process was repeated at each of the 50 cells then the samples were homogenized to produce one sample. The process was repeated 5 times at each sampling area, each time a different position within each of the 50 cells was selected resulting in 5 separate composite samples for each.

Figure 2-6. *MULTI INCREMENT*® Sampling At Leslie Groves Park Shoreline.

Tables B-4 and B-5 summarize the types of sediment samples and ancillary individual sample information such as water depth, sample depth, sample time, sample date, location coordinates, and requested chemical analyses.

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2.4.1 Approved Modifications to the Sampling and Analysis Plan

In this section, the major modifications to the shoreline sediment sample collection as described in the SAP are listed by sampling area. Tables B-4 and B-5 list all shoreline sediment sampling locations and any modifications that were required:

- **Wanapum Dam Pool**: New sample stations (WP-1SSD to WP-2SSD) were added at Wanapum Dam. Sample stations WP-5SSD and WP-10SSD were abandoned due to insufficient sample material at both primary and alternate locations.

- **Below Priest Rapids Dam**: Sample stations WP-5SSD and WP-10SSD were abandoned due to insufficient sample material at both primary and alternate locations.

- **Reactor B left side**: Sample stations RBLS-4SSD to RBLS-6SSD, RBLS-8SSD to RBLS-15SSD, and RBLS17SSD to RBLS-20SSD were abandoned due to insufficient sample material at both primary and alternate locations. All successful RBLS samples were collected over a wide surface area (approximately 12 ft in diameter) and only down to 0.1 ft depth rather than 0.3 ft as outlined in the SAP.

- **Reactor K left side**: Sample stations RKLS-1SSD to RKLS-11SSD and RKLS-16SSd to RKLS-20SSD were abandoned due to insufficient sample material at both primary and alternate locations.

- **Reactor D left side**: Sample stations RNLS-6SSD to RNLS-10SSD were abandoned due to insufficient sample material at both primary and alternate locations. All successful RNLS samples were collected over a wide surface area (approximately 12 ft in diameter) and only down to 0.1 ft depth rather than 0.3 ft as outlined in the SAP.

- **Reactor D downriver**: Sample stations RDD-4SSD to RDD-7SSD and RDD-9SSD were abandoned due to insufficient sample material at both primary and alternate locations.

- **White Bluffs east side**: Sample station RFD-8SSD was abandoned due to insufficient sample material at both primary and alternate locations.

- **Reactor F downriver**: Sample station IS10-9SSD was abandoned due to insufficient sample material at both primary and alternate locations.

- **Island 9**: Sample stations IS9-1SSD, IS9-2SSD, and IS9-4SSD were abandoned due to insufficient sample material at both primary and alternate locations.

- **Island 11**: Sample stations IS11-1SSD, IS11-2SSD, and IS11-7SD to IS11-10SSD were abandoned due to insufficient sample material at both primary and alternate locations.

- **Ringold**: Sample stations RG-6SSD and RG-13SSD were abandoned due to insufficient sample material at both primary and alternate locations.

- **Island 12**: Sample stations IS12-1SSD, IS12-3SSD, and IS12-5SSD to IS12-9SSD were abandoned due to insufficient sample material at both primary and alternate locations.

- **Island 14**: Sample stations IS14-5SSD and IS14-6SSD were abandoned due to insufficient sample material at both primary and alternate locations. Sample station IS14-10SSD was eliminated before initiation of sampling as discussed with the Tri-Parties.

- **Island 15**: Sample stations IS15-1SSD to IS15- 3SSD were abandoned due to insufficient sample material at both primary and alternate locations.

- **Wooded Island**: Sample station WI-1SSD was abandoned due to insufficient sample material at both primary and alternate locations.

- **Island 16**: Sample station IS16-1SSD was abandoned due to insufficient sample material at both primary and alternate locations.

- **Johnson Island**: Sample stations 300ISl-1SSD, 300ISL-4SSD, 300ISL-6SSD, and 300ISL-8SSD to 300ISL-9SSD were abandoned due to insufficient sample material at both primary and alternate locations.

- **300 Area**: Sample station 300D-4SSD was eliminated before initiation of sampling as discussed with the Tri-Parties.

- **Howard Amon City Park**: Sample stations HA-7SSD and HA-9SSD to HA-10SSD were abandoned due to insufficient sample material at both primary and alternate locations.

- **Columbia Point Marina**: Sample stations CPM-1SSD to CPM-5SSD were eliminated before the initiation of sampling as discussed with the Tri-Parties.

- **Bateman Island**: Sample station BL-10SSD was abandoned due to insufficient sample material at both primary and alternate locations.

- **Columbia Park**: Sample stations CP-1SSD to CP-10SSD were eliminated before the initiation of sampling as discussed with the Tri-Parties.

- **Clover Island**: Sample stations CI-1SSD to CI-10SSD were eliminated before the initiation of sampling as discussed with the Tri-Parties.

- **Cascade Marina**: Sample stations CM-1SSD to CM-10SSD were eliminated before the initiation of sampling as discussed with the Tri-Parties.

- **Sacajawea Park**: Sample stations SP-4SSD to SP-8SSD and SP-10SSD were abandoned due to insufficient sample material at both primary and alternate locations.

- **Lake Wallula**: Sample stations LW-1SSD to LW-5SSD were abandoned due to insufficient sample material at both primary and alternate locations.

- **Port Kelley**: Sample stations PK-1SSD to PK-9SSD were abandoned due to insufficient sample material at both primary and alternate locations.

- **Hat Rock**: Sample stations HR-1SSD to HR-4SSD and HR-9SSD to HR-10SSD were abandoned due to insufficient sample material at both primary and alternate locations.

- **McNary Dam**: Sample stations MDBR-1SSD to MDBR-20SSD were eliminated before the initiation of sampling as discussed with the Tri-Parties.

2.5 SEDIMENT CORE SAMPLING METHODS

Sample volume, sample containers, and sample preservation for each constituent group are described in the SAP. The investigation area, sample identification numbers for chemical and radiological constituents, requested analyses, and the collection date for each sediment core sample collected are listed in Appendix B Tables B-4 and B-5. Quality assurance and quality control (QA/QC) samples are presented in Table B-6. Field notes were kept in log books No. EL-1635 and EL-1635-1. Appendix A, Figure A-1 through Figure A-20 show the locations of the samples collected within the study area.

The sediment core samples were collected between March 23 and April 9, 2009. A summary of sample types for sediment cores as described in the SAP is provided in Table 2-5:

Table 2-5. Summary of Sediment Core Samples Collected.

Medium	Sample Type	Description	Use of Data
Sediment	Shallow sediment cores	Cores completed using a vibracorer drilling tool in sediment sequences that are generally thinner than 10 ft thick.[a]	• Site characterization • Support human health risk assessment • Support ecological risk assessment
	Deep sediment cores	Cores completed at water depths of up 90 ft with anticipated thick sediments sequences (greater than 10 ft thick.[a]	• Site characterization • Support ecological risk assessment

[a] Distinction between "shallow" and "deep" core depth changed before subsurface sediment sampling from 10 to 20 ft.

These cores were advanced through the unconsolidated sediments until the core could not be moved farther into the sediment (i.e., refusal). Although planned, no deep sediment cores (i.e., cores in excess of 20 ft) were collected as refusal was met before 20 ft penetration at all locations. Shallow sediment cores (i.e., core less than 20 ft penetration) were divided into separate subsamples (approximately 0.66 ft each). Each subsample resulted in enough material to satisfy the minimum volume required for full physical and chemical testing as outlined in the SAP. Modifications to analyses or volume collected are outlined in Tables B-4 and B-5.

Undisturbed, continuous sediment cores were collected using a vibracorer (Figure 2-7). The vibracorer utilizes a high frequency vibrating head to breakdown the frictional resistance of the sediment and allow the core tube to penetrate into the sediment with minimal disturbance. This method is well suited for collecting continuous, undisturbed cores from soft sediment types. The procedures used for vibracorer deployment and retrieval are outlined in the SOP SD-08 provided in Appendix C.

Figure 2-7. Vibracore Subsurface Core Sample Collection.

Sampling of subsurface sediment was performed on board a 28-ft aluminum research vessel equipped with a bow-mounted A-frame and winch. Before sampling, target station coordinates that were entered into the onboard navigation system. After the sampling equipment was deployed, the actual position was recorded when the equipment was on the riverbed. When possible, all samples were collected within 20 m of the target or alternate target sampling location. Subsurface sediment cores were collected in a consistent, repeatable manner.

After a successful core was collected, the Lexan© cores were capped and cut into manageable lengths (approximately 4-ft lengths), capped and sealed tightly at both ends, and transported in an upright position to the shore support facility for processing (Figure 2-8). Cores awaiting processing were stored upright in a refrigerator. The shore support facility was equipped with a core-cutting table, core-processing tables, a decontamination area, and a storage area with appropriate refrigeration. Appropriate lighting was installed in the core processing area in order to collect consistent, high quality photographs of the opened cores. Care was taken to create a core-processing area that minimized the potential for outside contamination. Ambient blanks were collected to assess any potential contamination associated with the shore support facility.

Figure 2-8. Subsurface Core Field Lab Based Sample Processing.

Due to the extended transit time from sampling location to shore support facility in Richland, the processing of the two cores collected at the Bonneville Dam area was conducted at a temporary field processing area (Figure 2-9), ambient blanks were collected to assess any potential contamination associated with the temporary location setup.

Figure 2-9. Subsurface Core Field Based Processing At Cascade Locks.

Each core tube was cut along the long axis using a circular saw with a decontaminated blade. The tube was rotated 180 degrees and cut again. After each core was cut, the entire core tube was moved to the processing table, which was covered with new aluminum foil, and opened. Sediment for volatile contaminant analyses from each interval was immediately collected to reduce loss of volatile chemicals. Each sediment core was then systematically logged, described, photographed, and subsampled in accordance with WCH procedure ENV-1.2-16 (Soil and Sediment Sampling).

Before processing and logging the core was photographed (Figure 2-10). The sediment that was not in contact with the sides of the core was placed into a stainless steel bowl and mixed with a stainless steel spoon until the sediment was thoroughly homogenized. Large organisms and pieces of debris were removed and noted in the sample log sheet. Subsequently, sediments were collected for physical (e.g., grain size) and chemical analyses in accordance with the SAP. Decontamination of all sampling equipment was conducted in accordance with WCH procedure ENV-1-2.15.

Tables B-4 and B-5 summarize the types of sediment samples and ancillary individual sample information such as water depth, sample depth, sample time, sample date, location coordinates, and analytical summary.

Figure 2-10. Example Photograph of Recovered Core Sample.

2.5.1 Approved Modifications to the Sampling and Analysis Plan

In this section, the major modifications to the shallow sediment core collection procedures outlined in the SAP are listed. Tables B-4 and B-5 list all shallow sediment core sampling locations and any modifications that were required:

- All shallow sediment cores were collected in 0.33-ft (4 in.) diameter core tubes rather than 0.17-ft (2 in.) diameter.
- The core subsections were 0.66 ft (8 in.) rather than 1 ft.
- After multiple attempts at the primary and alternate locations, core 300DC1 was abandoned due to lack of recoverable material.
- Cores BDC1 and BDC2 collected at Bonneville Dam were processed in a temporary outside processing area adjacent to the shoreline. A separate ambient blank sample was collected during processing to establish if there was any outside contamination impacting the samples. All processing procedures were conducted in a consistent, repeatable manner and core subsections were processed immediately after collection.

2.6 ISLAND SOILS SAMPLING METHODS

Island soil samples were collected from the riparian zone and above. Island soils are reworked sediments that currently reside above the high water line. These samples were collected in a similar manner to the shoreline sediment samples (Section 2.4). For purposes of the human health and ecological risk assessments these samples will be treated as soils.

Sample volume, sample containers, and sample preservation for each constituent group are described in the SAP. The investigation area, sample identification numbers for chemical and radiological constituents, requested analyses, and the collection date for each island soil sample collected are listed in Appendix B Tables B-4 and B-5. Quality assurance and quality control samples are presented in Table B-6. Appendix A, Figure A-1 through Figure A-20 show the locations of the samples collected within the study area.

Field notes were kept in log books No. EL-1631, EL-1631-1, and EL-1631-2.
The island soil samples were collected during two sampling events: February 26 to March 6, 2009 and June 8 to 9, 2009. A description of the island soil sample types as described in of the SAP is provided in Table 2-6.

Table 2-6. Summary of Island Soil Sediment Collected.

Medium	Sample Type	Description	Use of Data
Sediment	Island soils (e.g., generally above the high water line)	Island soils collected from the riparian zone of the islands. These samples are reworked sediments that are currently subaerial deposition.	• Site characterization • Support human health risk assessment • Support ecological risk assessment

Sampling of island soil was performed by beach deployment from a 32-ft aluminum research vessel. Before sampling, target station coordinates were entered into the navigation system, and the actual position was recorded when a suitable sample location was found. When possible, all samples were collected within 20 m of the target or alternate target sampling location. Island soil subsamples were collected in a consistent, repeatable manner with a stainless steel spoon and stainless steel mixing bowl (Figure 2-11).

Figure 2-11. Island Soil Sampling Location.

If an acceptable sample could not be obtained due to field conditions, the sampling crew attempted to collect a sample at the provided alternate location. If an acceptable grab could not be obtained at the alternate station, then conditions and events were logged before continuing on to the next station. Tables B-4 and B-5 list all successful and attempted/abandoned soil sample locations.

Before collection, the sample surface was photographed. Samples for analysis of volatile organic compounds were immediately taken from the undisturbed soil to minimize potential volatilization of the chemicals. Then soil was placed into a stainless steel bowl and mixed with a stainless steel spoon until the soil was thoroughly homogenized. Decontamination of all sampling equipment was conducted in accordance with WCH procedure ENV-1-2.15. Large organisms and pieces of debris were removed and noted in the sample log sheet.

Tables B-4 and B-5 summarize the types of soil samples and ancillary individual sample information such as water depth, sample depth, sample time, sample date, location coordinates, and requested chemical analyses.

2.6.1 Approved Modifications to the Sampling and Analysis Plan

In this section, the major modifications to the island soil SAP are listed by sampling area. Tables B-4 and B-5 list all island soil sampling locations and any modifications that were required.

- **Island 3:** Sample station IS-4S was abandoned due to insufficient sample material at both primary and alternate locations.

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ENV-1-2.16; 2007, *Soil and Sediment Sampling*, Rev. 2, Washington Closure Hanford, Richland, Washington.

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APPENDIX A

MAPS OF ACTUAL SAMPLING LOCATIONS

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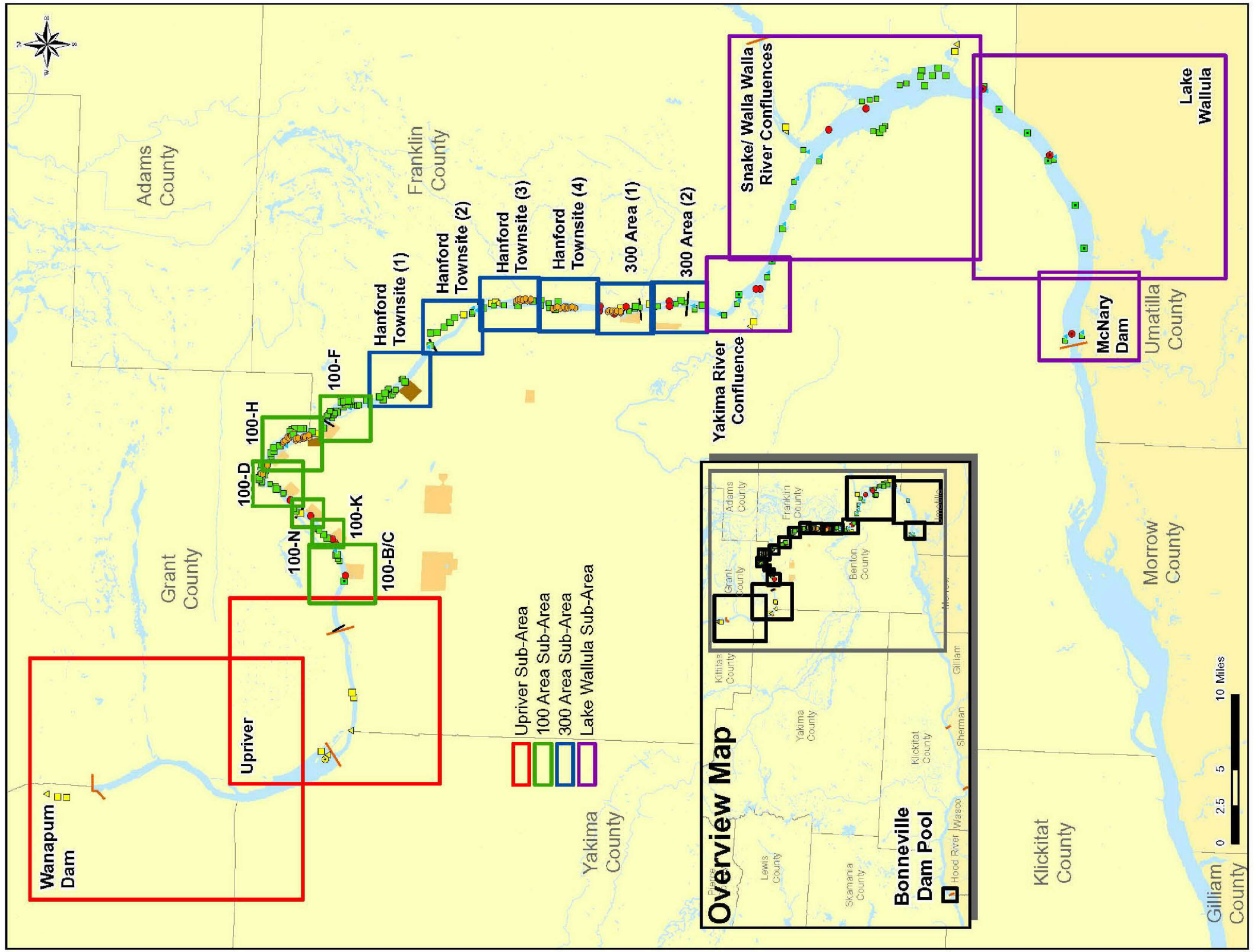
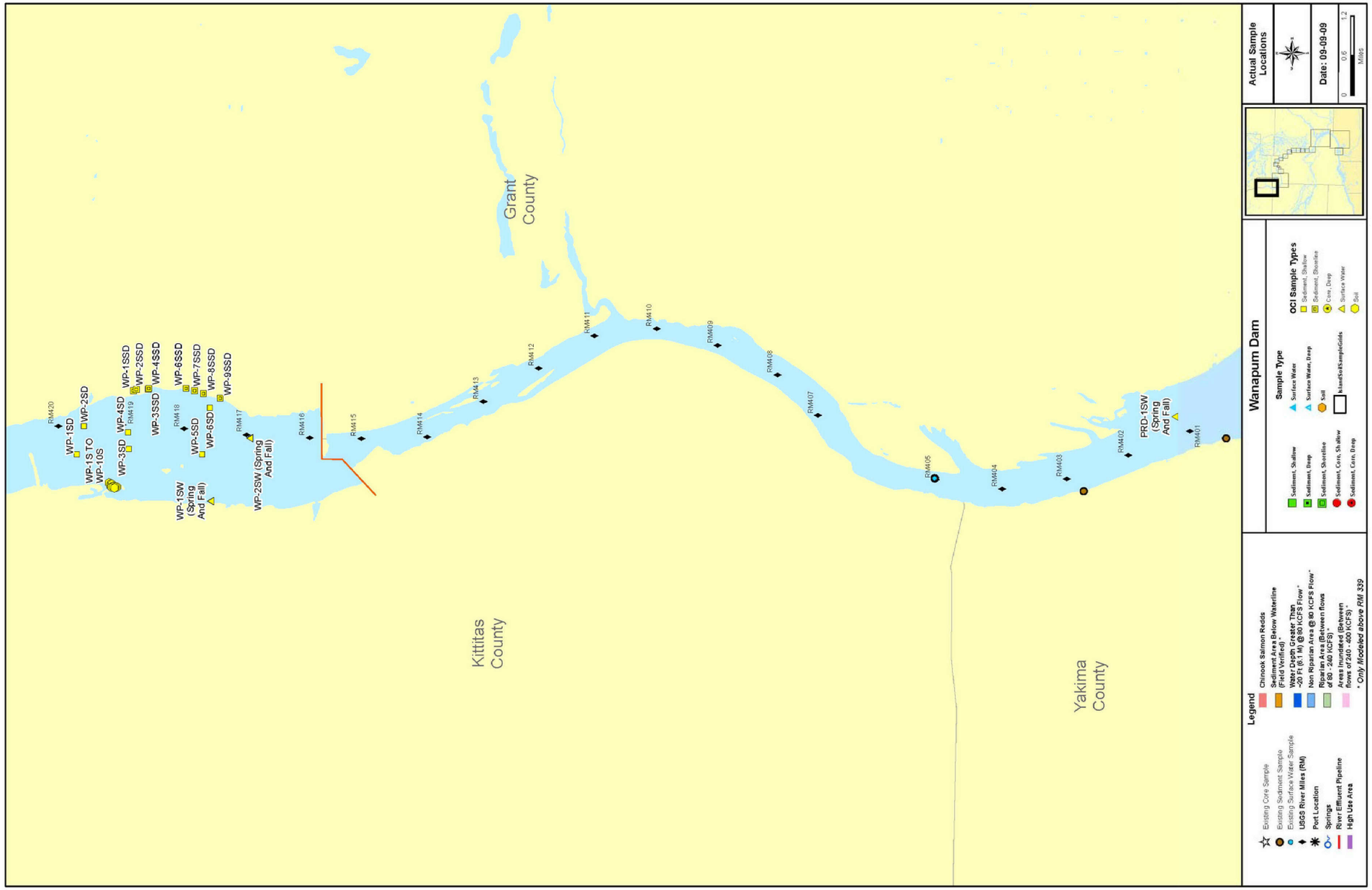
A-1. Study Area Overview Map.

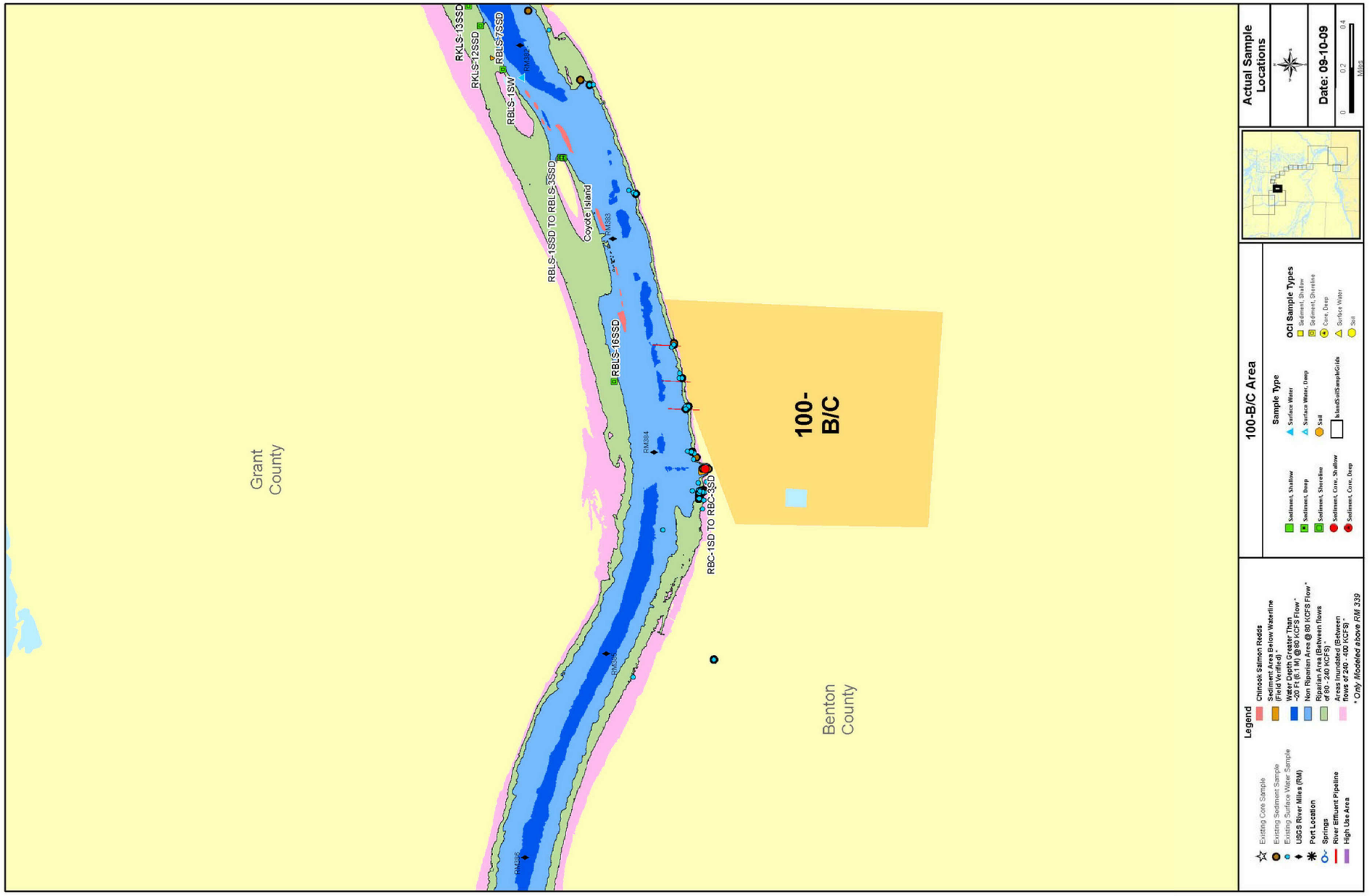


A-2. Actual Sampling Locations – Wanapum Dam.



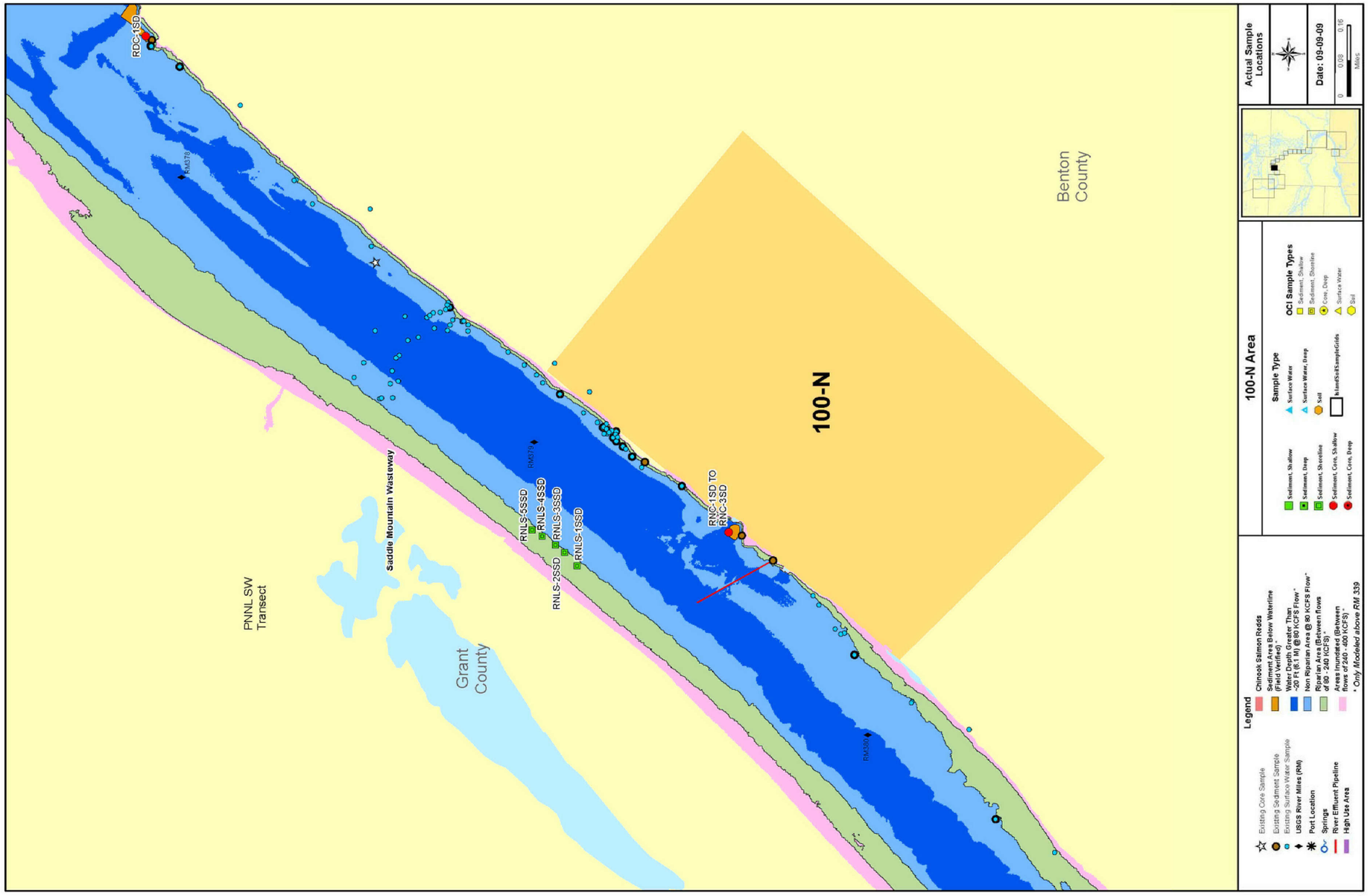
A-3. Actual Sampling Locations – Upriver Sub-Area.

A-4. Actual Sampling Locations – 100 Area Sub-Area (100-B/C).

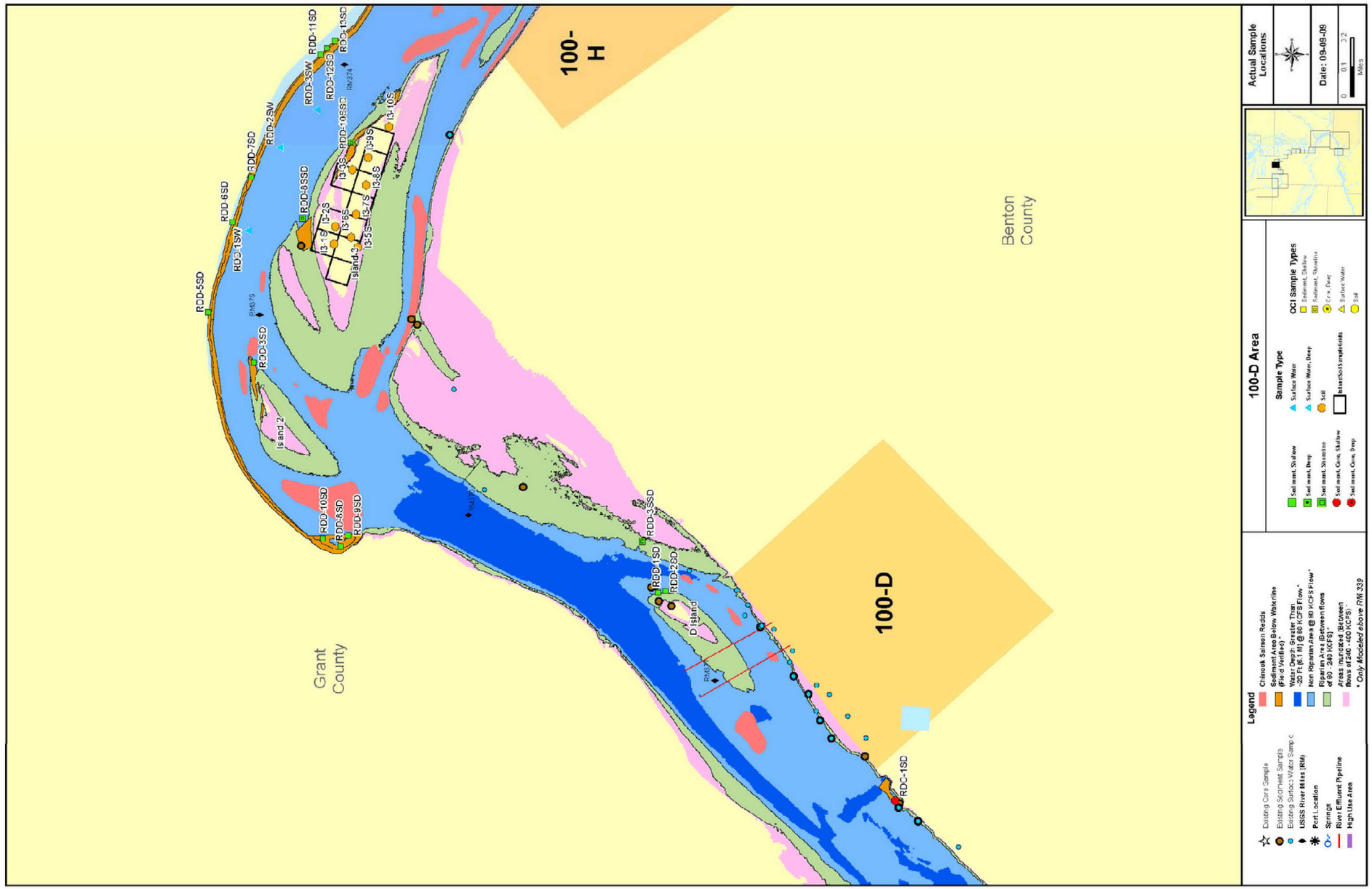


A-5. Actual Sampling Locations – 100 Area Sub-Area (100-K).

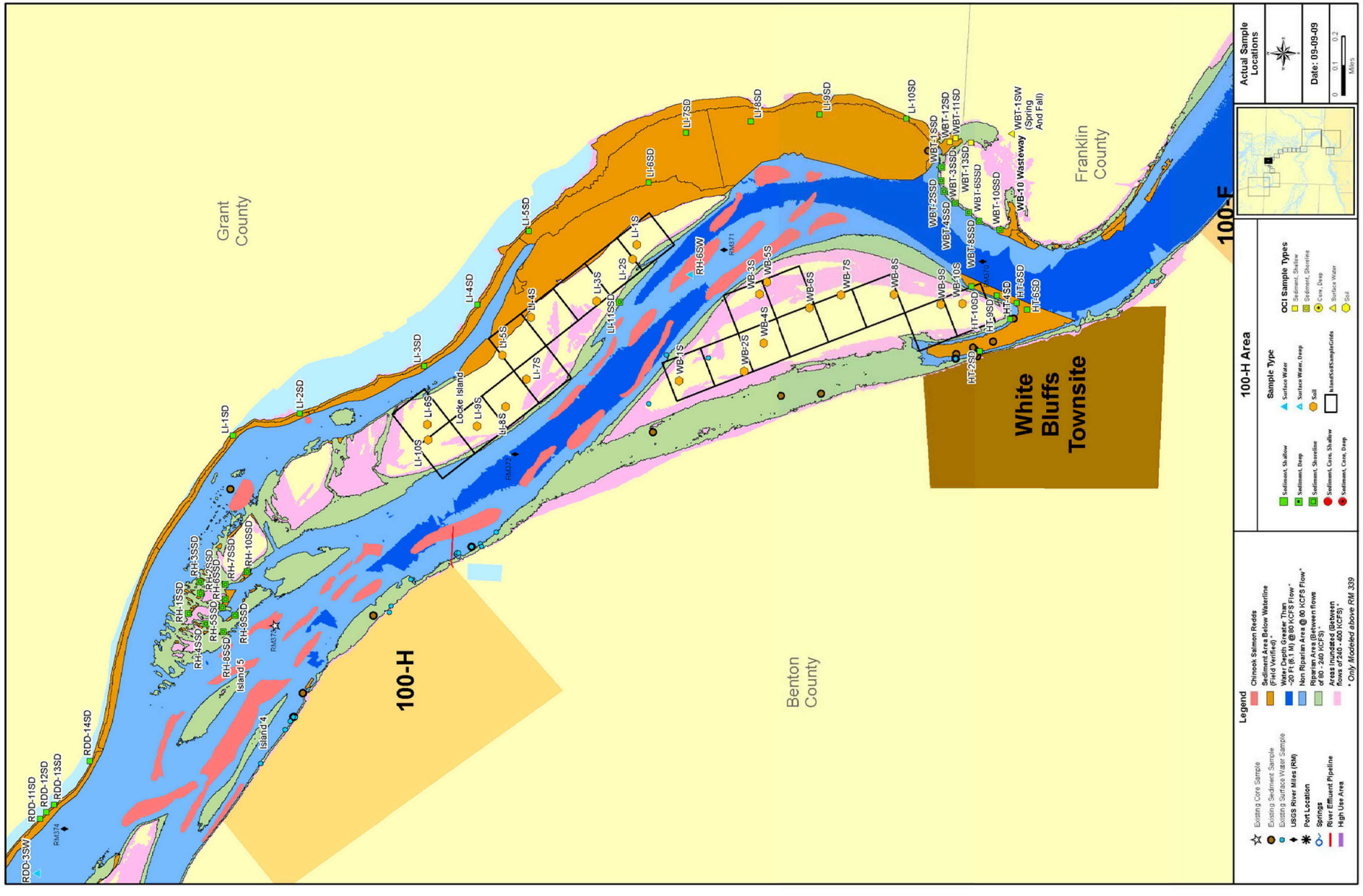
A-6. Actual Sampling Locations – 100 Area Sub-Area (100-N).



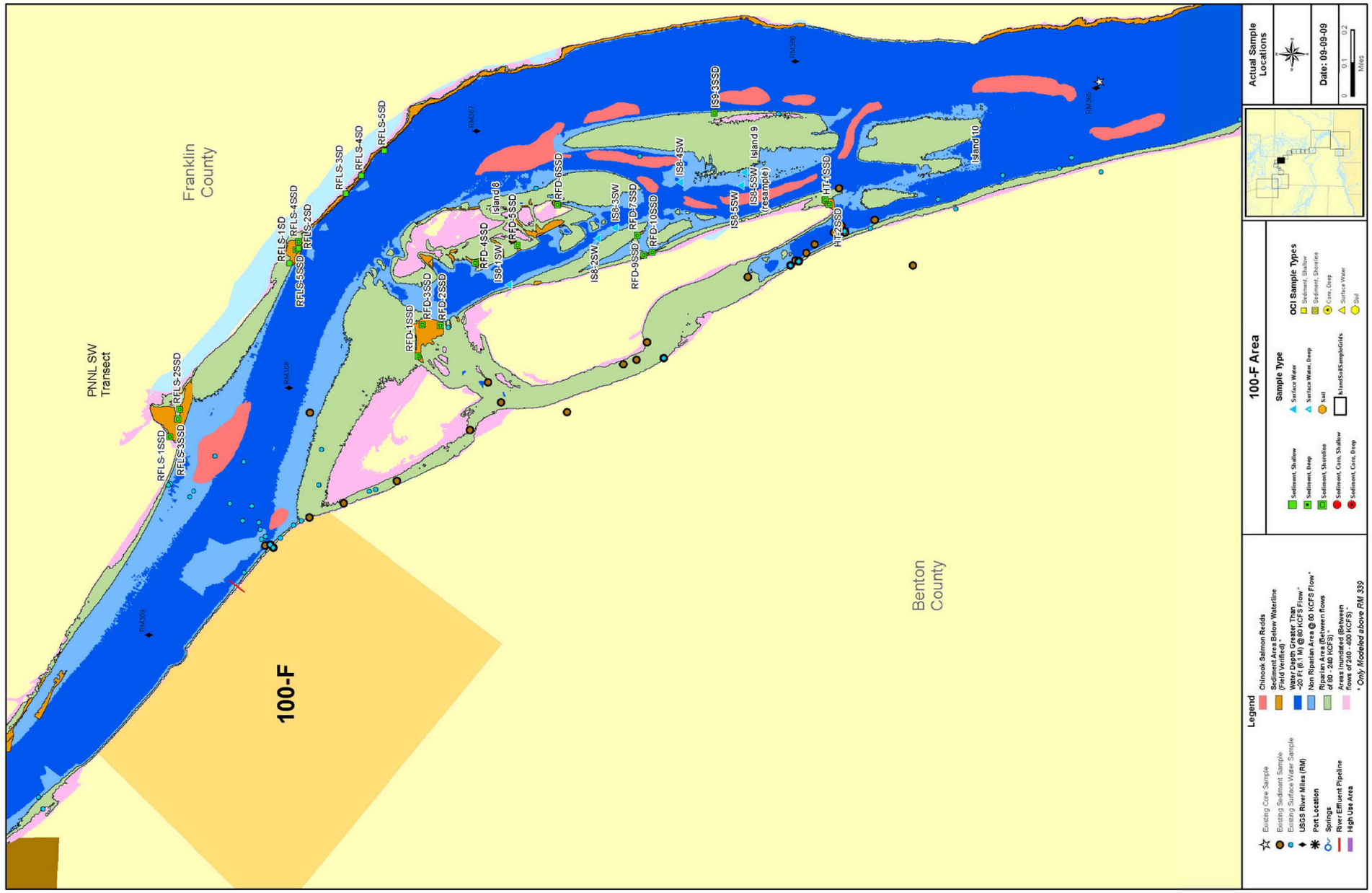
A-7. Actual Sampling Locations – 100 Area Sub-Area (100-D).



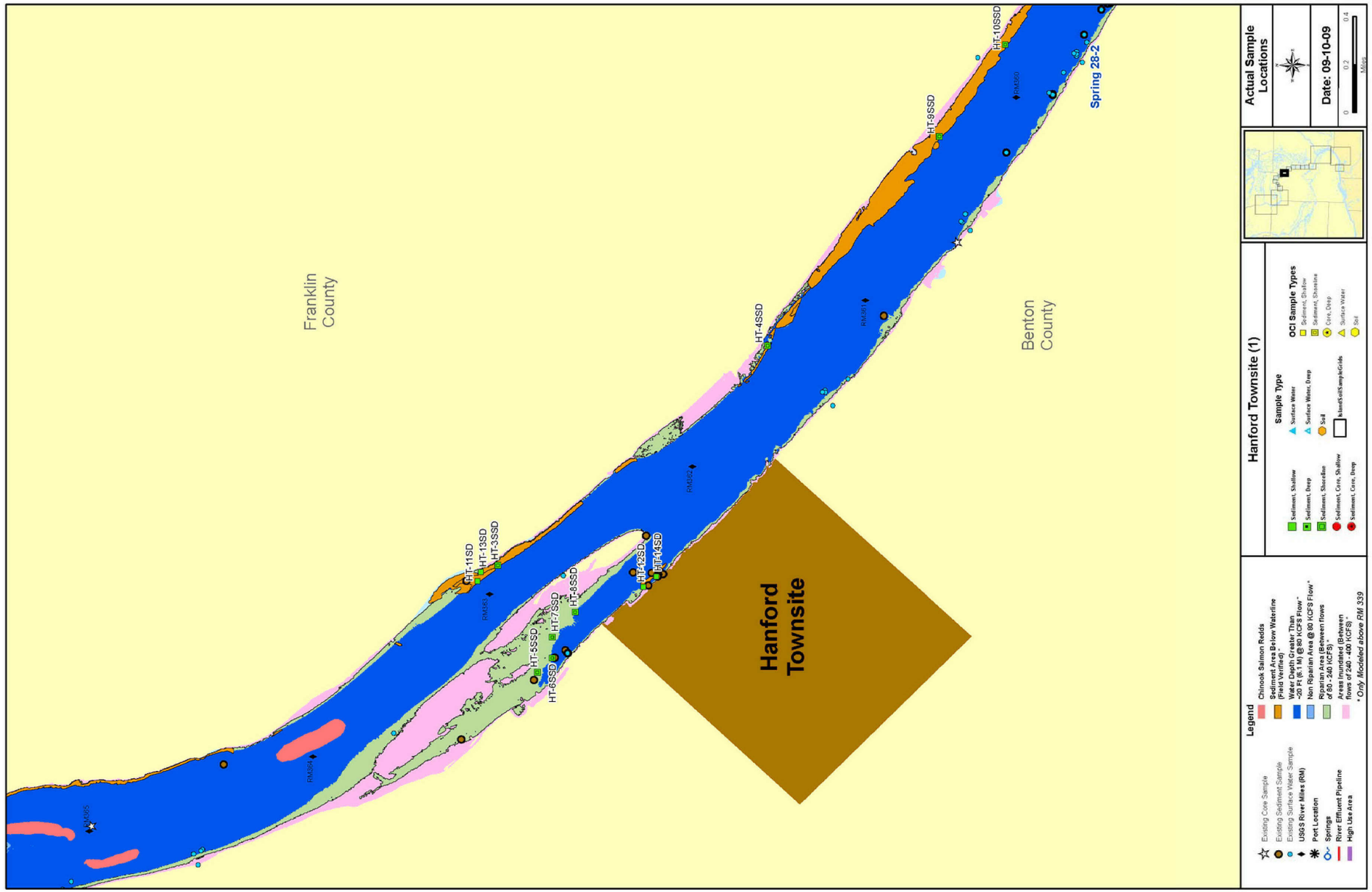
A-8. Actual Sampling Locations – 100 Area Sub-Area (100-H).



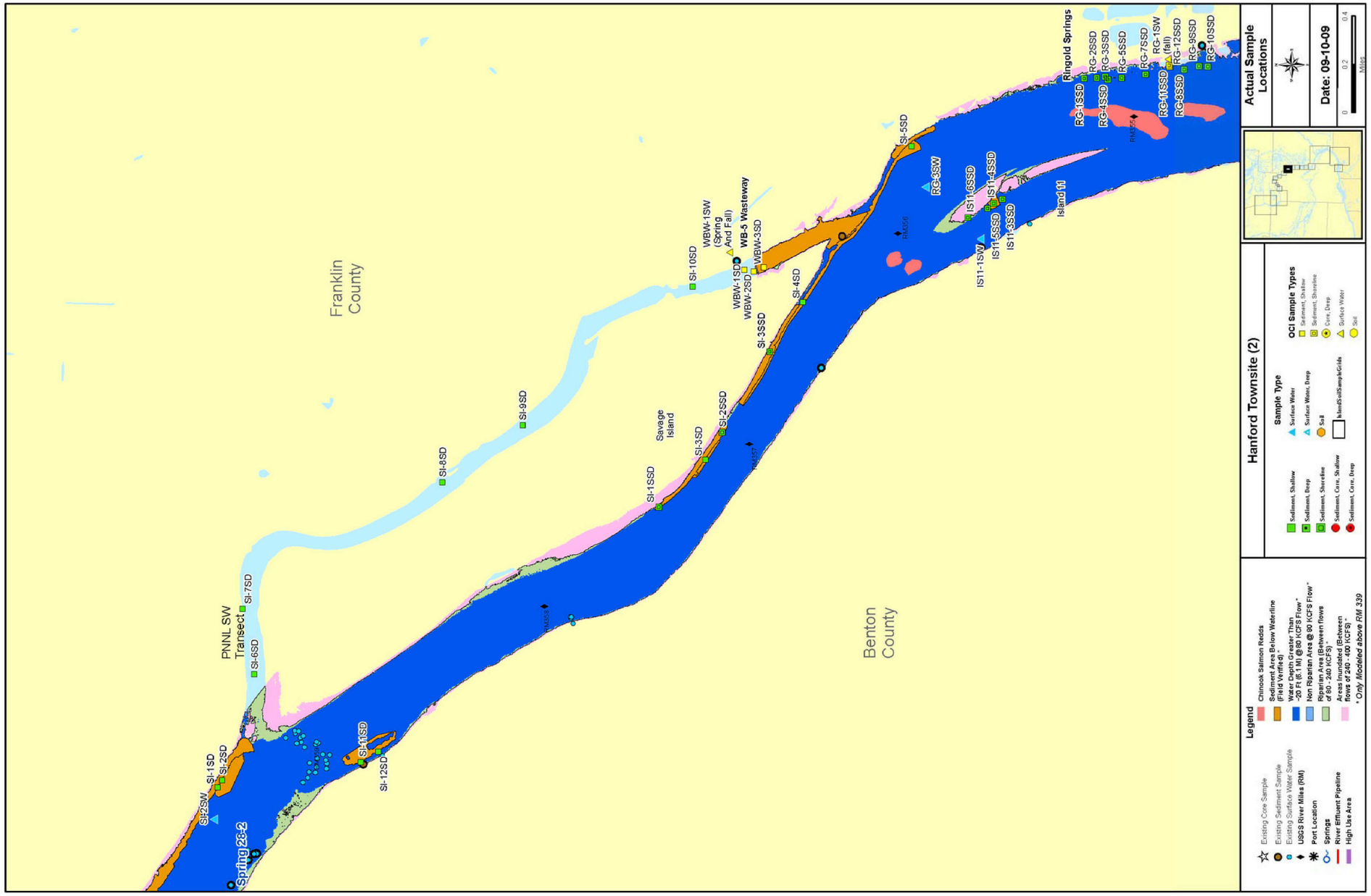
A-9. Actual Sampling Locations – 100 Area Sub-Area (100-F).



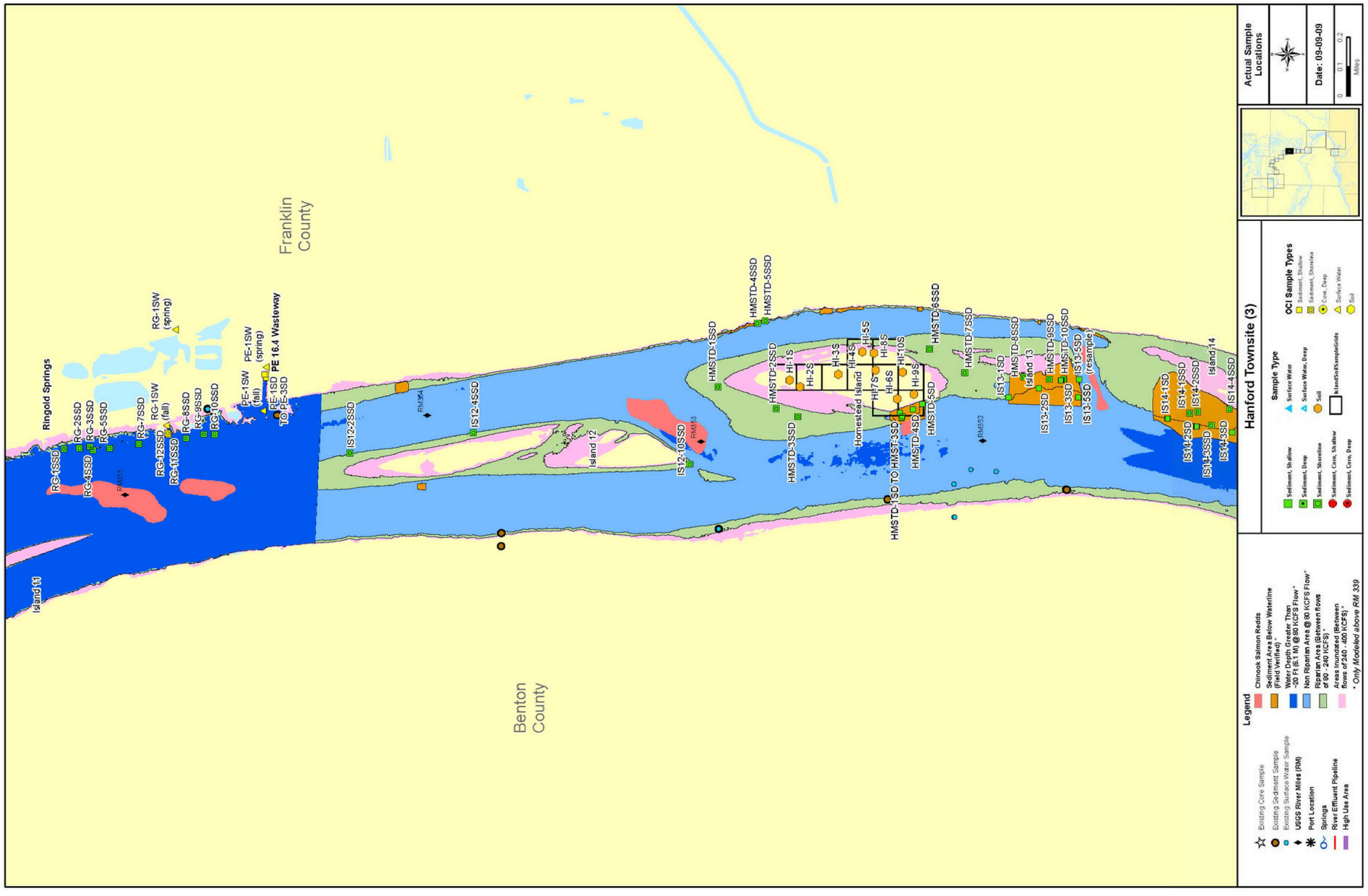
A-10. Actual Sampling Locations – 300 Area Sub-Area (Hanford Townsite (1).



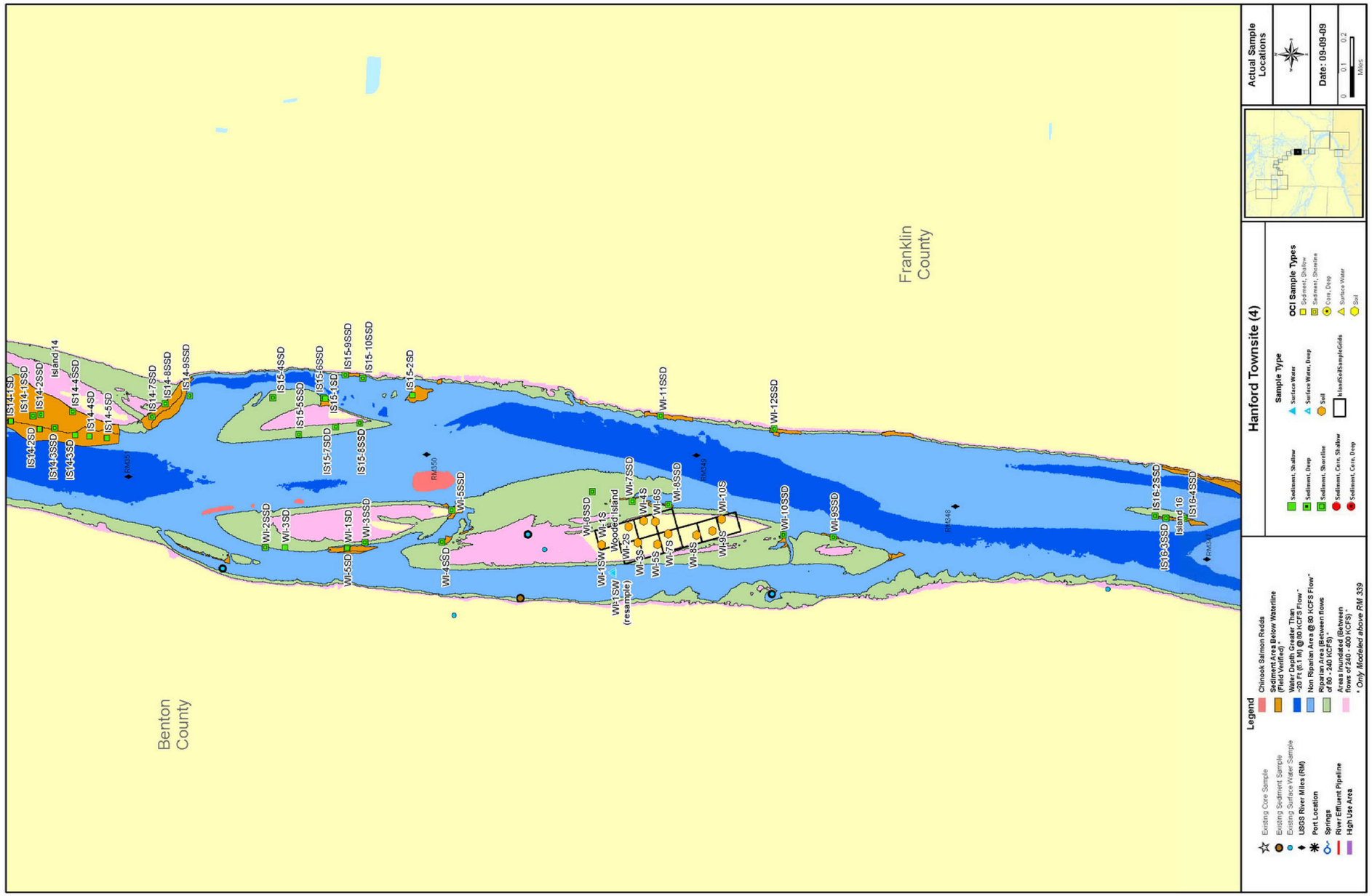
A-11. Actual Sampling Locations – 300 Area Sub-Area (Hanford Townsite (2).



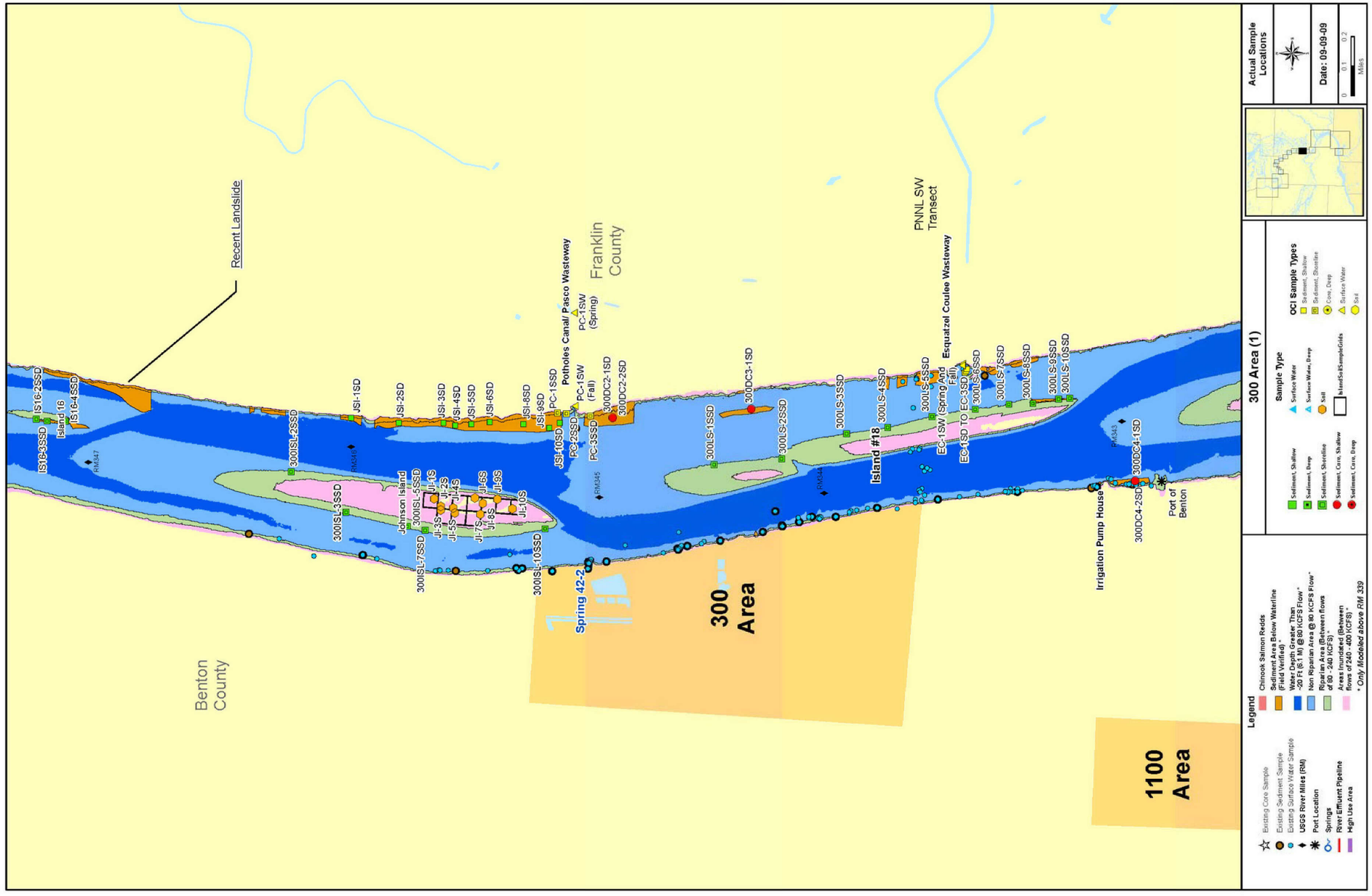
A-12. Actual Sampling Locations – 300 Area Sub-Area (Hanford Townsite (3).



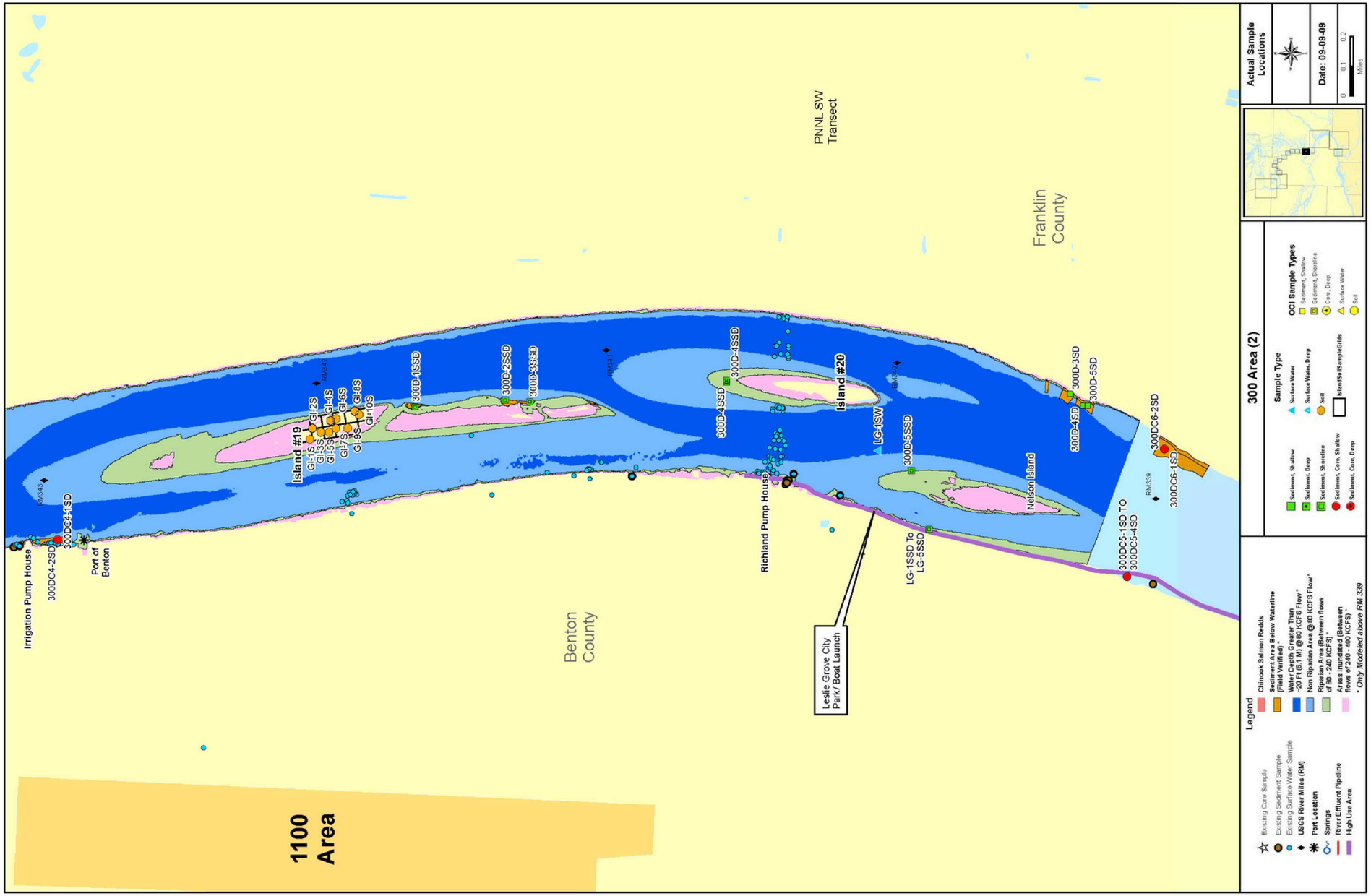
A-13. Actual Sampling Locations – 300 Area Sub-Area (Hanford Townsite (4).



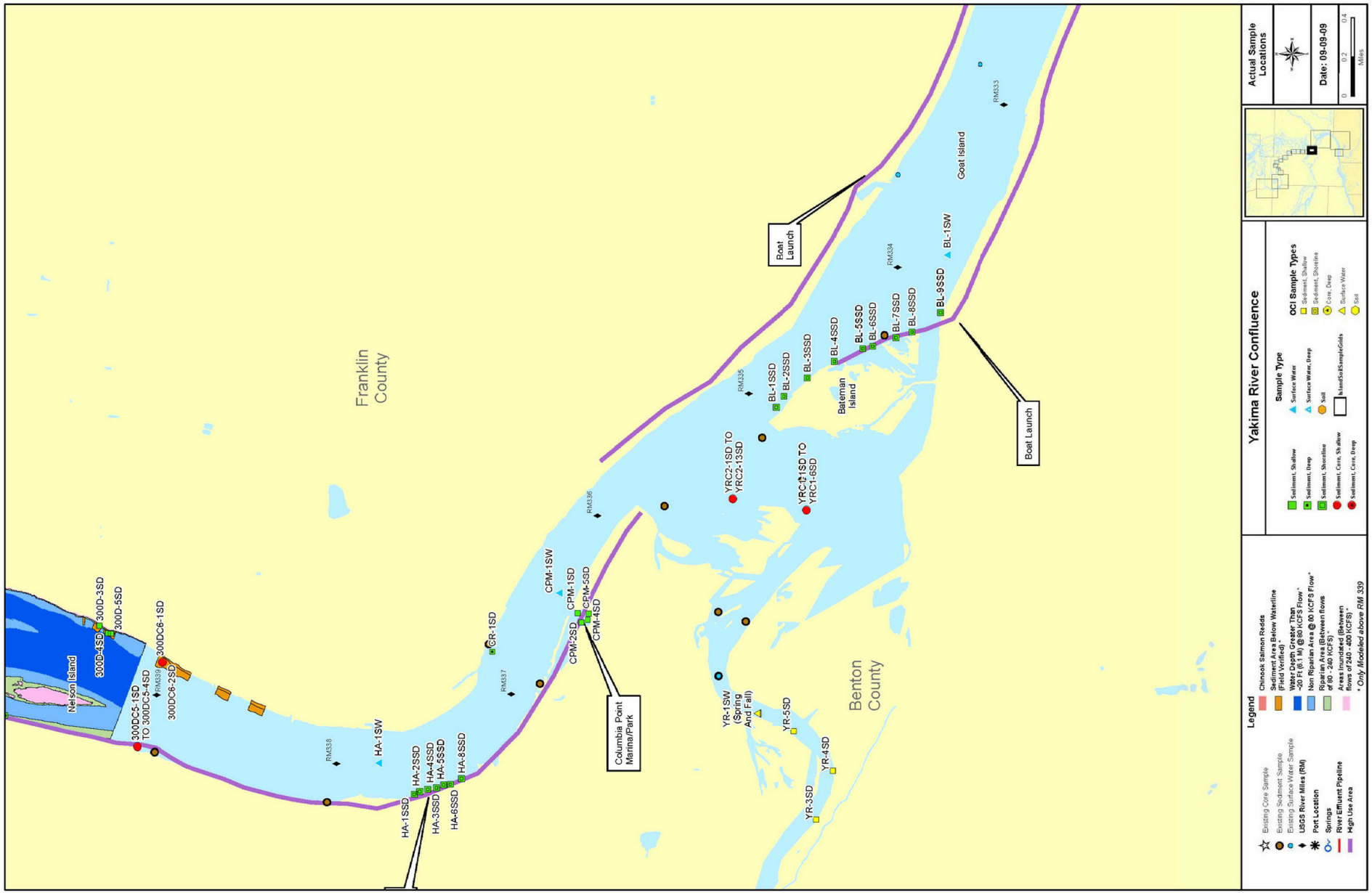
A-14. Actual Sampling Locations –300 Area Sub-Area (1).



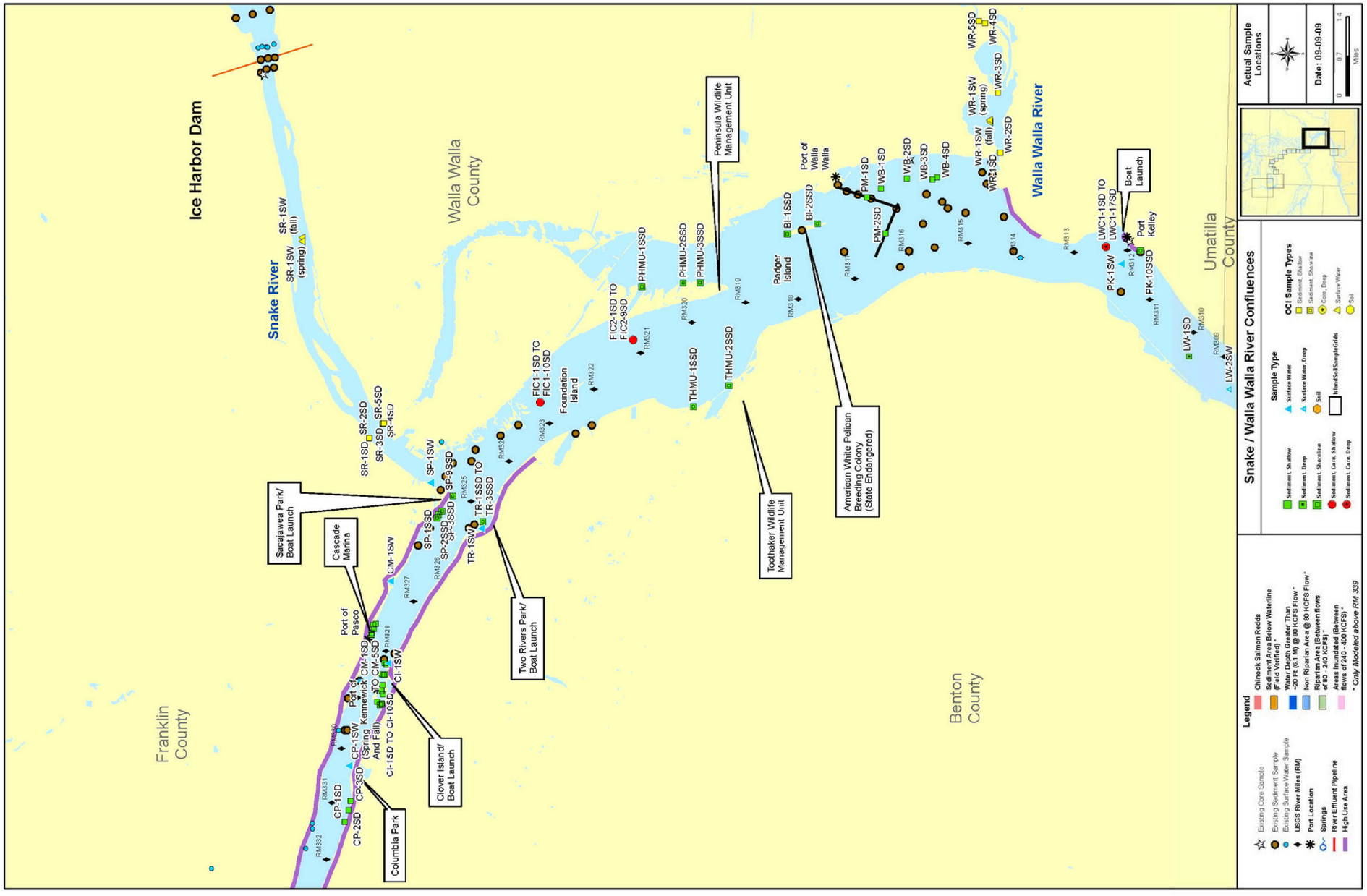
A-15. Actual Sampling Locations –300 Area Sub-Area (2).



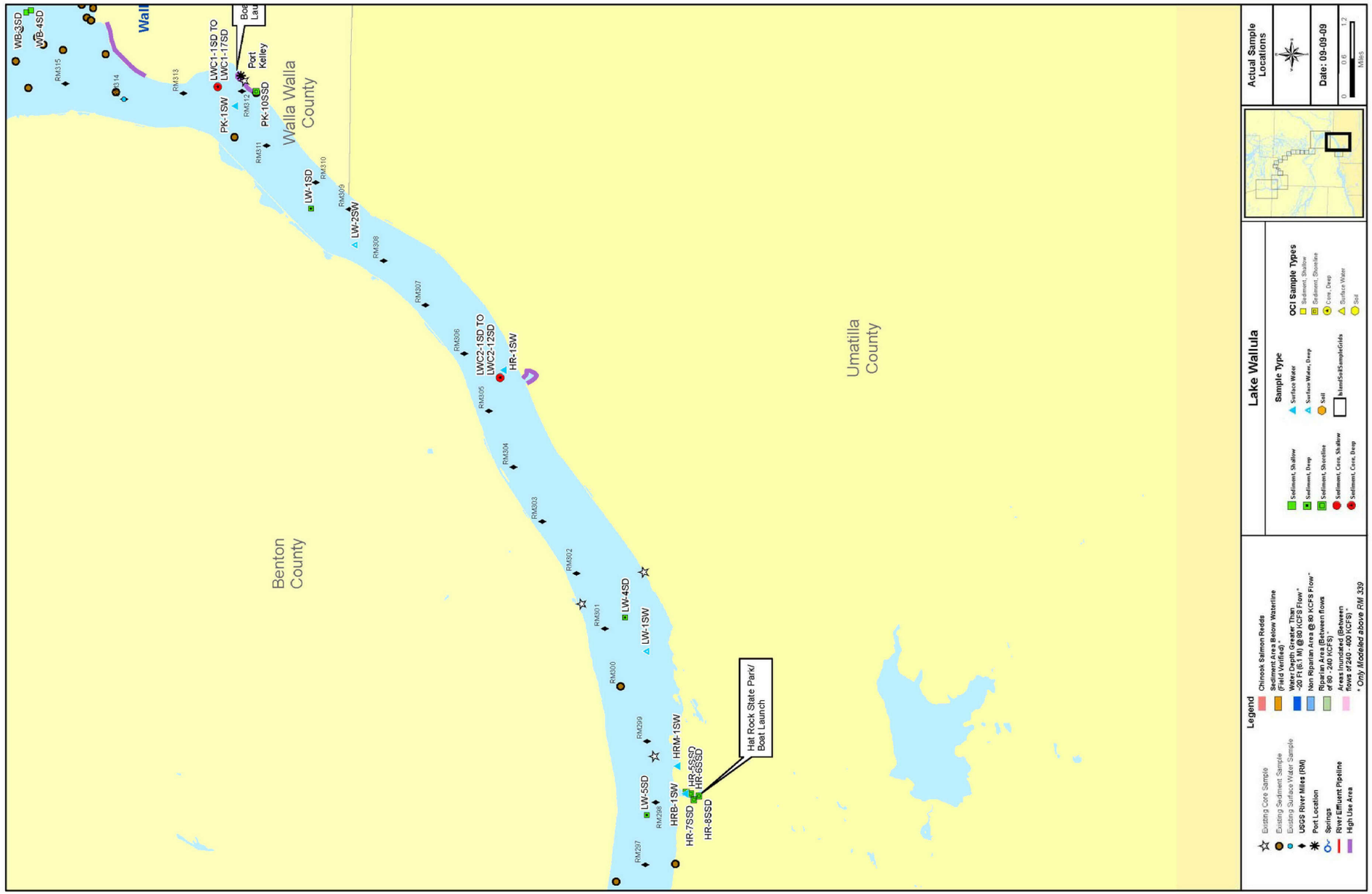
A-16. Actual Sampling Locations – Lake Wallula Sub-Area (Yakima River Confluence).



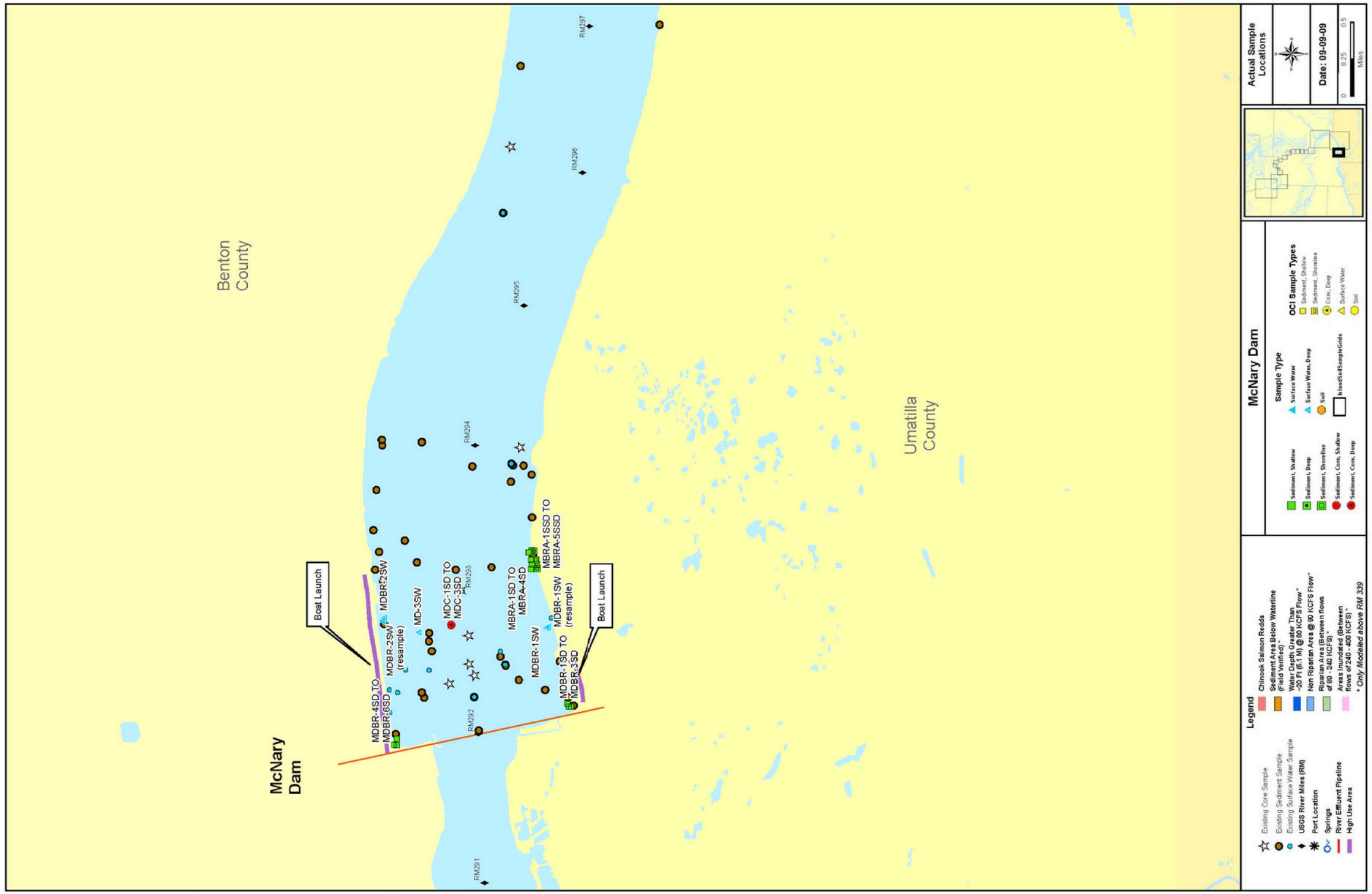
A-17. Actual Sampling Locations – Lake Wallula Sub-Area (Snake/Walla Walla River Confluences).



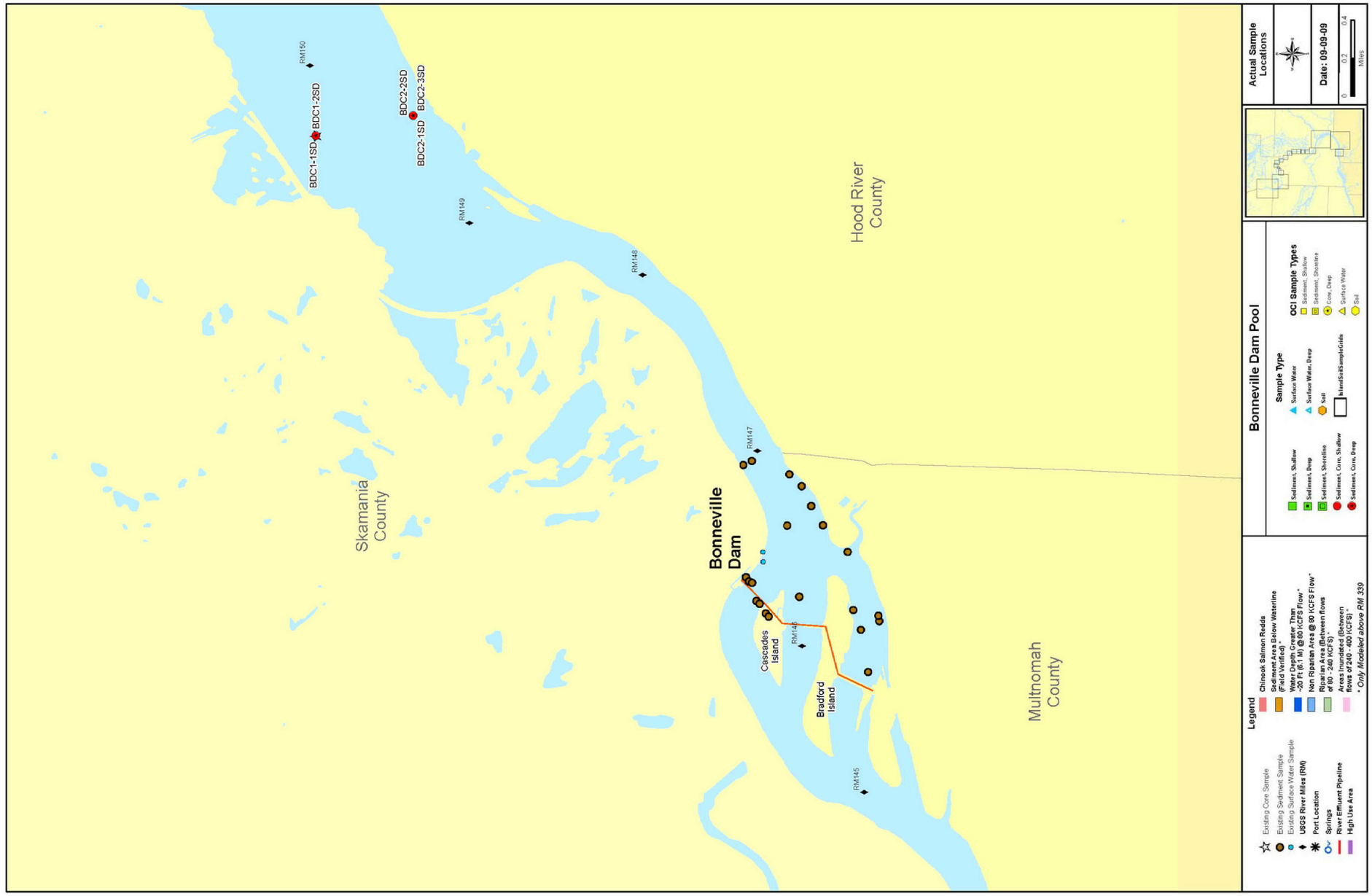
A-18. Actual Sampling Locations – Lake Wallula Sub-Area (Lake Wallula).



A-19. Actual Sampling Locations – Lake Wallula Sub-Area (McNary Dam).



A-20. Actual Sampling Locations – Bonneville Dam Pool Sub-Area.



APPENDIX B

SAMPLING SUMMARY TABLES

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Table B-1. Surface Water Sample Summary - Location Information and Water Quality Parameters. (6 Pages)

Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design	Date	Time	Latitude (Deg. Dec. Min.) WGS 84	Longitude (Deg. Dec. Min.) WGS 84	Northing (Washington State Plane, m, South Zone, NAD83) [a]	Easting (Washington State Plane, m, South Zone, NAD83) [a]	Water Quality Parameters [b]						
											pH	Dissolved Oxygen (mg/L)	Temperature (°C)	Specific Conductivity (mS/cm)	Water Depth (ft)	Sample Depth (ft)	Sample Depth Deviation
Wanapum Dam Pool	WP-1SW (fall)	J17RH7	K1419	Random/ stratified	10/28/08	13:10	46 54.130	-119 59.203	174504.996	539106.460	6.63	9.41	14.15	71.6	12.2	8	2/3 surface water depth
		J17RJ4	K1419														
		J17RK7	J00216														
		J17T02	J00255														
Wanapum Dam Pool	WP-2SW (fall)	J17RH8	K1452	Random/ stratified	11/10/08	14:30	46 53.643	-119 57.973	173613.127	540674.414	7.53	9.02	12.84	135.6	125	94	Yes (3/4 surface water depth)
		J17RJ5	K1452														
		J17RK8	J00231														
Wanapum Dam Pool	WP-1SW (spring) **one duplicate collected**	J18NL6	K1648	Random/ stratified	6/2/09	11:25	46 54.127	-119 59.203	174499.438	539106.496	7.08	10.33	13.19	117.1	23	15	2/3 surface water depth
		J18NL7	K1648														
		J18NL8	J00531														
Wanapum Dam Pool	WP-2SW (spring)	J18NM9	K1648	Random/ stratified	6/2/09	15:05	46 53.640	-119 57.978	173607.526	540668.101	7.37	9.67	12.32	116.8	122.3	80.7	2/3 surface water depth
		J18NN0	K1648														
		J18NN1	J00531														
Priest Rapids Dam	PRD-1SW (fall) **WDOH split collected**	J17RH9	K1452	Random/ stratified	11/10/08	11:35	46 41.493	-119 56.897	151113.567	542198.361	7.55	9.14	12.67	138.5	33.3	25	~25' (3/4 surface water depth)
		J17RJ6	K1452														
		J17RK9	J00229														
Priest Rapids Dam	PRD-2SW (fall)	J17RJ0	K1452	Random/ stratified	1/3/00	9:50	46 39.819	-119 54.838	148031.352	544846.085	7.57	8.72	12.54	134.7	10.6	7.5	~7.5' (3/4 surface water depth)
		J17RJ7	K1452														
		J17RL0	J00229														
		J17RY9	J00255														
Priest Rapids Dam	PRD-1SW (spring)	J18NN5	K1651	Random/ stratified	6/3/09	13:00	46 41.491	-119 56.897	151109.861	542198.387	7.46	10.09	12.63	117.4	37	24.6	2/3 surface water depth
		J18NN6	K1651														
		J18NN7	J00533														
Priest Rapids Dam	PRD-2SW (spring)	J18NN8	K1651	Random/ stratified	6/3/09	11:05	46 39.818	-119 54.836	148029.518	544848.649	5.98	10.21	13.72	117.7	11.4	7.3	2/3 surface water depth
		J18NN9	K1651														
		J18NP0	J00533														
Below Priest Rapids Dam	PRD-3SW (fall) **EPA split collected**	J17RJ2	K1421	Random/ stratified	10/29/08	15:55	46 37.528	-119 49.71	143839.394	551422.389	7.84	10.03	14.01	72.8	4	3	~3' (2/3 surface water depth)
		J17RJ9	K1421														
		J17RL2	J00217														
Below Priest Rapids Dam	PRD-4SW (fall)	J17RJ1	K1421	Random/ stratified	10/29/08	13:40	46 37.572	-119 51.974	143896.996	548532.240	7.7	10.5	13.91	72	22.5	17	~17' (2/3 surface water depth)
		J17RJ8	K1421														
		J17RL1	J00217														
Below Priest Rapids Dam	PRD-3SW (spring) **PCB congener collected**	J18NP1	K1651	Random/ stratified	6/3/09	16:20	46 37.531	-119 49.703	143845.027	551431.275	8.06	10.51	12.94	116	NR	NR	2/3 surface water depth
		J18NP2	K1651														
		J18NP3	J00533														
		J18NK9	J00543														
Below Priest Rapids Dam	PRD-4SW (spring)	J18NP4	K1641	Random/ stratified	6/1/09	15:10	46 37.577	-11951.962	143906.381	548547.481	8	10.5	12.68	119.6	32.4	21.4	2/3 surface water depth
		J18NP5	K1641														
		J18NP6	J00530														
Reactor B left side slough surface water	RBLS-1SW **EPA split collected**	J17RJ3	K1421	Random/ stratified	10/29/08	11:35	46 39.011	-119 36.997	146746.512	567616.708	6.84	10.78	13.59	72.6	11	6	~6' (~2/3 surface water depth)
		J17RK0	K1421														
		J17RL3	J00217														

Table B-1. Surface Water Sample Summary - Location Information and Water Quality Parameters. (6 Pages)

Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design	Date	Time	Latitude (Deg. Dec. Min.) WGS 84	Longitude (Deg. Dec. Min.) WGS 84	Northing (Washington State Plane, m, South Zone, NAD83) [a]	Easting (Washington State Plane, m, South Zone, NAD83) [a]	Water Quality Parameters [b]						
											pH	Dissolved Oxygen (mg/L)	Temperature (°C)	Specific Conductivity (mS/cm)	Water Depth (ft)	Sample Depth (ft)	Sample Depth Deviation
Saddle Mountain Wasteway[c]	SM-1SW (one sample in spring, one sample in fall)	NA	NA	Focused	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Reactor D downriver surface water	RDD-1SW	J17RP5	K1427	Random/ stratified	10/30/08	16:45	46 43.630	-119 30.617	155399.596	567616.708	7.78	10.94	13.81	135.4	35	26	~26' (2/3 surface water depth)
		J17RP7	K1427														
		J17RP9	J00220														
Reactor D downriver surface water	RDD-2SW **WDOH split collected**	J17RP4	K1427	Random/ stratified	10/30/08	15:25	46 43.544	-119 30.253	155246.121	544846.085	7.65	10.15	13.75	135.5	28	21	~21' (2/3 surface water depth)
		J17RP6	K1427														
		J17RP8	J00220														
Reactor D downriver surface water	RDD-3SW **WDOE split collected**	J17RP1	K1427	Random/ stratified	10/30/08	13:55	46 43.437	-119 30.084	155050.630	576331.474	7.63	10.91	13.67	135	17	13	~13' (2/3 surface water depth)
		J17RP2	K1427														
		J17RP3	J00220														
Reactor H surface water	RH-6SW **WDOE & WDOH splits collected**	J17RR1	K1427	Random/ stratified	10/30/08	12:15	46 41.547	-119 27.409	151593.632	579785.468	7.19	9.85	13.59	134.9	5.2	4	~4' (2/3 surface water depth)
		J17RR7	K1427														
		J17RT3	J00220														
Native American cultural site (White Bluffs east side of river)	WBT-1SW (fall)	J17K50	K1401	Random/ stratified	10/17/08	18:10	46 40.600	-119 26.757	149850.436	580639.975	8.2	11.06	11.59	347.5	4	1	NA
		J17K57	K1401														
		J17K64	J00212														
Native American cultural site (White Bluffs east side of river)	WBT-1SW (spring)	J18NT7	K1641	Random/ stratified	6/1/09	14:15	46 40.594	-119 26.753	149839.39	580645.223	7.88	NR	28.9	749.5	NA	NA	NA
		J18NT8	K1641														
		J18NT9	J00529														
Island 8 surface water	IS8-1SW **EPA split collected**	J17RR2	K1455	Random/ stratified	11/12/08	14:40	46 38.986	-119 25.322	146885.378	582510.466	7.69	10.44	12.78	136.5	5	3.5	~3.5' (2/3 surface water depth)
		J17RR8	K1455														
		J17RT4	J00233														
Island 8 surface water	IS8-2SW **WDOH split collected**	J17RR3	K1455	Random/ stratified	11/12/08	13:40	46 38.755	-119 25.135	146460.738	582754.875	7.97	10.91	12.72	137.1	2.7	1	~1' (2/3 surface water depth)
		J17RR9	K1455														
		J17RT5	J00233														
Island 8 surface water	IS8-3SW	J17RR4	K1455	Random/ stratified	11/12/08	12:35	46 38.710	-119 25.094	146378.097	582808.323	7.77	10.52	12.69	137.7	4.5	3	~3' (2/3 surface water depth)
		J17RT0	K1455														
		J17RT6	J00233														
Island 8 surface water	IS8-4SW	J17RR5	K1455	Random/ stratified	11/12/08	11:35	46 38.543	-119 24.911	146071.953	583046.038	7.6	11.35	12.62	136.8	5	3.5	~3.5' (2/3 surface water depth)
		J17RT1	K1455														
		J17RT7	J00233														
Island 8 surface water	IS8-5SW	J17RR6	K1455	Random/ stratified	11/12/08	10:45	46 38.382	-119 24.916	145773.629	583043.76	6.99	10.08	12.58	137	4.5	3	~3' (2/3 surface water depth)
		J17RT2	K1455														
		J17RT8	J00233														
		J17RY8	J00255														
Island 8 surface water[d]	IS8-5SW (additional)	J18P14	K1652	Random/ stratified	6/4/09	10:15	46 38.375	-119 24.866	145761.54	583107.732	6.78	10.52	13.15	115.5	8	5.3	(2/3 surface water depth)
		J18YB2	K1652														

Table B-1. Surface Water Sample Summary - Location Information and Water Quality Parameters. (6 Pages)

Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design	Date	Time	Latitude (Deg. Dec. Min.) WGS 84	Longitude (Deg. Dec. Min.) WGS 84	Northing (Washington State Plane, m, South Zone, NAD83) [a]	Easting (Washington State Plane, m, South Zone, NAD83) [a]	Water Quality Parameters [b]						
											pH	Dissolved Oxygen (mg/L)	Temperature (°C)	Specific Conductivity (mS/cm)	Water Depth (ft)	Sample Depth (ft)	Sample Depth Deviation
WB-5 Wasteway	WBW-1SW (fall)	J17K51	K1401	Focused	10/17/08	13:20	46 32.191	-119 16.791	134457.3	593587.462	6.7	11.78	13.58	279	3	1	NA
		J17K58	K1401														
		J17K65	J00212														
WB-5 Wasteway	WBW-1SW (spring)	J18P17	K1648	Focused	6/2/09	9:42	46 32.195	-119 16.810	134464.333	593563.061	8.55	NR	22.4	461.8	NA	NA	NA
		J18P18	K1648														
		J18P19	J00531														
Depositional area top of Savage Island	SI-2SW **WDOE & WDOH splits collected**	J17RT9	K1430	Random/ stratified	11/3/08	11:05	46 34.001	-119 19.830	137751.186	589653.102	6.87	9.34	13.26	138	16.2	12	~12' (3/4 surface water depth)
		J17RV3	K1430														
		J17RW4	J00221														
Island 11 sloughs surface water	IS11-1SW	J17RV0	K1430	Random/ stratified	11/3/08	15:25	46 31.284	-119 16.684	132779.368	593750.265	7.54	10.56	13.44	135.6	6	4.5	~4.5' (3/4 surface water depth)
		J17RV4	K1430														
		J17RW5	J00221														
Ringold recreational	RG-3SW **WDOH split collected**	J17RV1	K1430	Random/ stratified	11/3/08	13:20	46 31.487	-119 16.422	133160.586	594079.414	7.34	10.07	13.37	136.4	16.419	12	~12' (3/4 surface water depth)
		J17RV5	K1430														
		J17RW6	J00221														
		J17T01	J00255														
Ringold irrigation return	RG-1SW (fall) **Duplicate collected**	J17K52	K1401	Focused	10/17/08	10:40	46 30.623	-119 15.719	131574.236	595003.343	8.06	10.29	15.94	352	1.5	0.5	NA
		J17K59	K1401														
		J17K66	J00212														
Ringold irrigation return	RG-1SW (spring)	J18P20	K1648	Focused	6/2/09	11:50	46 30.601	-119 15.322	131541.476	595511.696	7.64	NR	24.5	827.6	NA	NA	NA
		J18P21	K1648														
		J18P22	J00531														
PE 16.4 Wasteway	PE-1SW (fall)	J17K53	K1399	Focused	10/16/08	16:50	46 30.335	-119 15.644	131042.28	595107.64	8.08	12.96	14.00	273.4	NR	1	NA
		J17K60	K1399														
		J17K67	J00211														
PE 16.4 Wasteway	PE-1SW (spring) **equipment blank collected**	J18P23	K1651	Focused	6/3/09	10:05	46 30.331	-119 15.455	131038.673	595349.484	8.1	NR	23.4	590.3	NA	NA	NA
		J18P24	K1651														
		J18P25	J00533														
Wooded Island	WI-1SW **WDOH split collected**	J17RV2	K1455	Random/ stratified	11/13/08	8:40	46 25.853	119 16.135	122730.461	594609.245	7.74	9.85	12.34	137.2	8.8	6.5	~6.5' (3/4 surface water depth)
		J17RV6	K1455														
		J17RW7	J00234														
Wooded Island[d]	WI-1SW (additional)	J18P13	K1652	Random/ stratified	6/4/09	11:35	46 25.851	-119 16.142	122726.616	594600.338	7.72	10.28	13.42	116.1	13	8.6	2/3 surface water depth
Potholes Canal Wasteway	PC-1SW (fall)	J17K54	K1399	Focused	10/16/08	15:20	46 22.653	-119 15.708	116811.737	595249.173	8.3	10.65	12.61	188.5	1.5	0.5	NA
		J17K61	K1399														
		J17K68	J00209														
Potholes Canal Wasteway	PC-1SW (spring)	J18P26	K1648	Focused	6/2/09	14:27	46 22.671	-119 15.324	116852.827	595740.929	8.51	NR	24.8	321.3	NA	NA	NA
		J18P27	K1648														
		J18P28	J00531														
Esquatzel Coulee Wasteway	EC-1SW (fall)	J17K55	K1399	Focused	10/16/08	11:20	46 21.507	-119 15.482	114693.595	595572.328	6.93	13.04	11.54	262.1	NR	1 ft from surface	NA
		J17K62	K1399														
		J17K69	J00209														

Table B-1. Surface Water Sample Summary - Location Information and Water Quality Parameters. (6 Pages)

Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design	Date	Time	Latitude (Deg. Dec. Min.) WGS 84	Longitude (Deg. Dec. Min.) WGS 84	Northing (Washington State Plane, m, South Zone, NAD83) [a]	Easting (Washington State Plane, m, South Zone, NAD83) [a]	Water Quality Parameters [b]						
											pH	Dissolved Oxygen (mg/L)	Temperature (°C)	Specific Conductivity (mS/cm)	Water Depth (ft)	Sample Depth (ft)	Sample Depth Deviation
Esquatzel Coulee Wasteway	EC-1SW (spring) **PCB congener collected**	J18P29	K1652	Focused	6/4/09	13:35	46 21.509	-119 15.488	114697.178	595564.575	8.68	9.83	14.99	198.1	14	1 ft from surface	NA
		J18P30	K1652														
		J18P31	J00535														
		J18NK8	J00543														
Leslie Grove City Park	LG-1SW **Duplicate & EPA split collected**	J17TJ4	K1428	Focused	10/31/08	9:10	46 18.563	-119 15.482	109240.539	595658.197	6.41	10.1	13.5	135	19	14	~14' (3/4 surface water depth)
		J17TL1	K1428														
		J17TT1	J00219														
Yakima River	YR-1SW (fall) **WDOH split collected**	J17TJ5	K1439	Random/ stratified	11/4/08	8:45	46 15.060	-119 15.656	102748.586	595536.787	7.61	9.79	9.97	289.41	6.1	4.5	~4.5' (3/4 surface water depth)
		J17TL2	K1439														
		J17TT2	J00222														
Yakima River	YR-1SW (spring) **Duplicate sample collected**	J18P32	K1652	Random/ stratified	6/4/09	15:15	46 15.063	-119 15.658	102754.102	595534.13	7.79	8.49	15.6	91.4	9.3	6	2/3 surface water depth
		J18P33	K1652														
		J18P34	J00535														
Howard Amon City Park	HA-1SW **WDOE & WDOH splits collected**	J17TJ6	K1439	Random/ stratified	11/4/08	16:35	46 16.740	-119 16.042	105852.598	594992.16	7.73	9.77	13.24	142.7	38	28.5	~28.5' (2/3 surface water depth)
		J17TL3	K1439														
		J17TT3	J00223														
Columbia Point Marina	CPM-1SW	J17TJ7	K1439	Random/ stratified	11/4/08	14:35	46 15.958	-119 14.925	104426.731	596449.702	7.6	9.79	13.28	142.5	48.7	36	~36' (3/4 surface water depth)
		J17TL4	K1439														
		J17TT4	J00223														
Bateman Island Boat Launch	BL-1SW	J17TJ8	K1439	Random/ stratified	11/4/08	10:25	46 14.277	-119 12.699	101359.17	599360.08	7.69	9.47	13.03	153.8	26	19.5	~19.5' (3/4 surface water depth)
		J17TL5	K1439														
		J17TT5	J00222														
Snake River	SR-1SW (fall) **WDOH split collected**	J17TJ9	K1441	Random/ stratified	11/5/08	8:30	46 14.362	-118 56.745	101886.112	619861.28	7.34	9.57	12.57	283.5	8.8	6.5	~6.5' (3/4 surface water depth)
		J17TL6	K1441														
		J17TT6	J00224														
Snake River	SR-1SW (spring)	J18P35	K1660	Random/ stratified	6/9/09	14:00	46 14.362	-118 56.825	101884.087	619758.469	7.35	10.2	14.14	83.3	13	8.6	2/3 surface water depth
		J18P36	K1660														
		J18P37	J00545														
Walla Walla River	WR-1SW (fall)	J17TK0	K1442	Random/ stratified	11/6/08	9:45	46 3.728	-118 53.809	82266.582	624034.79	7.61	10.13	7.6	281.6	10	7.5	~7.5' (3/4 surface water depth)
		J17TL7	K1442														
		J17TT7	J00226														
Walla Walla River	WR-1SW (spring)	J18P41	K1660	Random/ stratified	6/9/09	10:35	46 03.734	-118 53.760	82278.979	624097.739	6.08	7.39	18.13	128.2	8	5	2/3 surface water depth
		J18P42	K1660														
		J18P43	J00545														
Columbia Park	CP-1SW (fall)	J17TK1	K1439	Random/ stratified	11/4/08	12:30	46 13.431	-119 08.454	99883.78	604842.936	7.77	9.78	13.06	157.5	NR	1 ft below surface	One foot below surface water
		J17TL8	K1439														
		J17TT8	J00223														
Columbia Park	CP-1SW (spring)	J18P44	K1654	Random/ stratified	6/5/09	9:30	46 13.427	-119 08.456	99876.326	604840.492	6.41	9.69	13.77	112.8	33.2	21	2/3 surface water depth
		J18P45	K1654														
		J18P46	J00537														

Table B-1. Surface Water Sample Summary - Location Information and Water Quality Parameters. (6 Pages)

Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design	Date	Time	Latitude (Deg. Dec. Min.) WGS 84	Longitude (Deg. Dec. Min.) WGS 84	Northing (Washington State Plane, m, South Zone, NAD83) [a]	Easting (Washington State Plane, m, South Zone, NAD83) [a]	Water Quality Parameters [b]						
											pH	Dissolved Oxygen (mg/L)	Temperature (°C)	Specific Conductivity (mS/cm)	Water Depth (ft)	Sample Depth (ft)	Sample Depth Deviation
Clover Island	CI-1SW	J17TK2	K1441	Random/ stratified	11/5/08	12:35	46 12.858	-119 06.163	98873.945	607806.952	6.84	9.76	12.34	155.2	15	11	~11' (2/3 surface water depth)
		J17TL9	K1441														
		J17TT9	J00225														
		J17T00	J00255														
Two Rivers Park	TR-1SW **Duplicate collected**	J17TK3	K1447	Random/ stratified	11/7/08	9:45	46 11.465	-119 3.111	96364.677	611778.494	7.89	8.75	10.54	142.6	2	1	~1' (1/2 surface water depth)
		J17TM0	K1447														
		J17TV0	J00228														
Cascade Marina	CM-1SW	J17TK4	K1441	Random/ stratified	11/5/08	14:15	46 12.881	-119 04.330	98958.757	610163.001	6.76	9.27	12.22	160.1	22.6	17	~17' (3/4 surface water depth)
		J17TM1	K1441														
		J17TV1	J00225														
Sacajawea Park	SP-1SW	J17TK5	K1441	Random/ stratified	11/5/08	10:15	46 12.270	-119 02.115	97879.318	613031.963	6.63	9.73	12.38	285.2	11.5	8.6	~8.5' (2/3 surface water depth)
		J17TM2	K1441														
		J17TV2	J00224														
Port Kelley Boat Ramp	PK-1SW	J17TK6	K1442	Random/ stratified	11/6/08	16:40	46 01.646	-118 56.881	78331.279	620149.959	7.79	9.68	11.82	177.7	29	22	~22' (3/4 surface water depth)
		J17TM3	K1442														
		J17TV3	J00227														
Hat Rock State Park	HR-1SW	J17TK7	K1442	Random/ stratified	11/6/08	14:00	45 57.798	-119 02.030	71077.138	613639.567	7.75	10.35	11.98	186.5	60	45	~45' (3/4 surface water depth)
		J17TM4	K1442														
		J17TV4	J00227														
Hat Rock State Park (public boat ramp)[d]	HRB-1SW (additional)	J18P47	K1656	Random/ stratified	6/8/09	13:30	45 55.102	-119 10.400	65892.189	602912.279	6.33	10.21	15.07	166.2	18	12	2/3 surface water depth
		J18P48	K1656														
		J18P49	J00548														
Hat Rock State Park (marina)[d]	HRM-1SW **PCB congener collected**	J18P93	K1656	Random/ stratified	6/8/09	15:05	45 55.222	-119 09.846	66126.542	603624.694	6.21	10.5	15.24	86.1	6	4	2/3 surface water depth
		J18P94	K1656														
		J18P95	J00548														
		J18NK7	J00543														
Lake Wallula SW	LW-1SW	J17V39	K1442	Random/ stratified	11/6/08	12:30	45 55.704	-119 07.573	67069.768	606547.431	7.66	10.84	11.99	179.2	35.8	~ 32.8	~32' (~2 - 4 ft above sediment surface)
		J17V42	K1442														
		J17V45	J00227														
Lake Wallula SW	LW-2SW	J17V40	K1442	Random/ stratified	11/6/08	15:34	45 59.932	-118 59.602	75088.672	616700.174	7.74	9.4	12.23	177.9	61.2	60.2	~60' (~1 ft above sediment surface)
		J17V43	K1442														
		J17V46	J00227														
McNary Dam Boat Ramps	MDBR-1SW **EPA split collected**	J17TK8	K1453	Random/ stratified	11/11/08	9:05	45 55.781	-119 16.924	67013.807	594458.888	6.94	9.55	11.71	177.1	23.1	17	~17' (3/4 surface water depth)
		J17TM5	K1453														
		J17TV5	J00232														
McNary Dam Boat Ramps[d]	MDBR-1SW (additional)	JP18P11	K1656	Random/ stratified	6/8/09	12:34	45 55.772	-119 16.923	66997.157	594460.438	6.24	9.75	14.42	90.1	22.6	14.9	2/3 surface water depth
McNary Dam Boat Ramps	MDBR-2SW	J17TK9	K1453	Random/ stratified	11/11/08	11:50	45 56.747	-119 16.887	68803.809	594479.067	7.55	9.88	11.79	164.3	19.6	14.5	~14.5' (3/4 surface water depth)
		J17TM6	K1453														
		J17TV6	J00232														
McNary Dam Boat Ramps[d]	MDBR-2SW (additional)	J18P12	K1656	Random/ stratified	6/8/09	11:00	45 56.756	-119 16.910	68820.02	594449.09	6.13	9.42	14.62	105.6	19	12.5	2/3 surface water depth

Table B-1. Surface Water Sample Summary - Location Information and Water Quality Parameters. (6 Pages)

Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design	Date	Time	Latitude (Deg. Dec. Min.) WGS 84	Longitude (Deg. Dec. Min.) WGS 84	Northing (Washington State Plane, m, South Zone, NAD83) [a]	Easting (Washington State Plane, m, South Zone, NAD83) [a]	Water Quality Parameters [b]						
											pH	Dissolved Oxygen (mg/L)	Temperature (°C)	Specific Conductivity (mS/cm)	Water Depth (ft)	Sample Depth (ft)	Sample Depth Deviation
McNary Dam SW	MD-3SW	J17V41	K1453	Random/ stratified	11/11/08	10:20	45 56.537	-119 17.000	68412.585	594339.056	7.55	9.76	11.88	165.6	76	75	~75' (~1 ft above sediment surface)
		J17V44	K1453														
		J17V47	J00232														
Seep water recon at RNLS-1SW [e]	RNLS-1SW (additional)	NA	NA	Recon transect in	6/3/09	17:46	46 40.524	-119 34.762	149581.882	570435.088	NA	NA	NA	NA	NA	NA	NA
		NA	NA	Recon transect out	6/3/09	18:16	46 40.956	-119 34.278	150389.379	571042.795	NA	NA	NA	NA	NA	NA	NA

[a] Conversions from WGS84 lat/long coordinates to state plane NAD83 in meters were performed using Corps Com Version 6.
[b] Field parameters for surface water samples are measured in the field and consist of temperature, specific conductivity, dissolved oxygen, and pH using a Hydrolab multimeter.
[c] Eliminated.
[d] Out of scope or new stations.
[e] Station eliminated based on field reconnaissance.

EPA = U.S. Environmental Protection Agency
NA = not available
PCB = polychlorinated biphenyl
SDG = sample delivery group
SW = surface water
WDOE = Washington Department of Ecology
WDOH = Washington State Department of Health
WGS = World Geodetic System

Table B-2. Surface Water Sample Summary - Requested Analyses. (11 Pages)

Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Analyses/EPA Method																							Rationale	Change Control	Field Change Comments
				VOCs - 8260B	SVOCs - 8270C	Metals (Filtered) [a] - 6010/6020/7471	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A [b]	TOC/Grain Size - 9060/ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Nitrate - 300.0	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U	Hardness\DOC\ Alkalinity - 130.1\415.1\310.1	% Lipids	Field Parameters [c]			
Wanapum Dam Pool	WP-1SW (fall)	J17RH7	K1419	√	√	--	√	--	√	√	--	--	--	--	--	√	√	√	√	√	√	√	√	√	--	√	Upriver/background SW samples will be collected from Wanapum Dam (pool). Limited to two samples SW should be well mixed and uniform. Used to augment existing data. Two samples will be collected in the spring, and two will be collected in the fall.		WP-1SW fall taken at 2/3 column depth. Addition of text at 10:55 at EL-1630, P. 9, should read: Sample water at 4 ft from the bottom. Sampled water at 8 ft water depth.
		J17RJ4	K1419	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17RK7	J00216	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17T02	J00255	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Wanapum Dam Pool	WP-2SW (fall)	J17RH8	K1452	√	√	--	√	--	√	√	--	--	--	--	--	√	√	√	O	O	√	O	√	√	--	√			
		J17RJ5	K1452	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17RK8	J00231	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Wanapum Dam Pool	WP-1SW (spring) **one duplicate collected**	J18NL6	K1648	√	√	--	√	--	√	√	--	--	--	--	--	√	√	√	√	√	√	√	√	√	--	√			19 ft from first sample location
		J18NL7	K1648	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J18NL8	J00531	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Wanapum Dam Pool	WP-2SW (spring)	J18NM9	K1648	√	√	--	√	--	√	√	--	--	--	--	--	√	√	√	√	√	√	√	√	√	--	√			27 ft from first sample location
		J18NN0	K1648	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J18NN1	J00531	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Priest Rapids Dam	PRD-1SW (fall) **WDOH split collected**	J17RH9	K1452	√	√	--	√	--	√	√	--	--	--	--	--	√	√	√	√	√	√	√	√	√	--	√	Upriver/background SW samples will be collected from Priest Rapids Dam (pool). Limited to two samples SW should be well mixed and uniform. Used to augment existing data. Two samples will be collected in the spring, and two will be collected in the fall.		
		J17RJ6	K1452	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17RK9	J00229	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Priest Rapids Dam	PRD-2SW (fall)	J17RJ0	K1452	√	√	--	√	--	√	√	--	--	--	--	--	√	√	√	√	√	√	√	√	√	--	√			
		J17RJ7	K1452	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17RL0	J00229	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17RY9	J00255	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Priest Rapids Dam	PRD-1SW (spring)	J18NN5	K1651	√	√	--	√	--	√	√	--	--	--	--	--	√	√	√	√	√	√	√	√	√	--	√			12 ft from first sample location
		J18NN6	K1651	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J18NN7	J00533	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Priest Rapids Dam	PRD-2SW (spring)	J18NN8	K1651	√	√	--	√	--	√	√	--	--	--	--	--	√	√	√	√	√	√	√	√	√	--	√			10 ft from first sample location
		J18NN9	K1651	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J18NP0	J00533	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

Table B-2. Surface Water Sample Summary - Requested Analyses. (11 Pages)

Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Analyses/EPA Method																						Rationale	Change Control	Field Change Comments
				VOCs - 8260B	SVOCs - 8270C	Metals (Filtered) [a] - 6010/6020/7471	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A [b]	TOC/Grain Size - 9060/ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Nitrate - 300.0	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U	Hardness\DOC\ Alkalinity - 130.1\415.1\310.1	% Lipids	Field Parameters [c]			
Below Priest Rapids Dam	PRD-3SW (fall) **EPA split collected**	J17RJ2	K1421	√	√	--	√	--	√	√	--	--	--	--	--	√	√	√	√	√	√	√	√	√	--	√	Upriver/background SW samples (moving water) will be collected. Limited to two samples SW should be well mixed and uniform. Used to augment existing data. Two samples will be collected in the spring, and two will be collected in the fall.		
		J17RJ9	K1421	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17RL2	J00217	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Below Priest Rapids Dam	PRD-4SW (fall)	J17RJ1	K1421	√	√	--	√	--	√	√	--	--	--	--	--	√	√	√	√	√	√	√	√	√	--	√			
		J17RJ8	K1421	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17RL1	J00217	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Below Priest Rapids Dam	PRD-3SW (spring) **PCB congener collected**	J18NP1	K1651	√	√	--	√	--	√	√	--	--	--	--	--	√	√	√	√	√	√	√	√	√	--	√			Difficulties in anchoring, strong current, boat power assist needed. Sample depth not recorded. 34 ft from first sample
		J18NP2	K1651	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J18NP3	J00533	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J18NK9	J00543	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Below Priest Rapids Dam	PRD-4SW (spring)	J18NP4	K1641	√	√	--	√	--	√	√	--	--	--	--	--	√	√	√	√	√	√	√	√	√	--	√			60 ft from first sample, strong currents, difficulty anchoring
		J18NP5	K1641	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J18NP6	J00530	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor B left side slough surface water	RBLS-1SW **EPA split collected**	J17RJ3	K1421	√	√	--	√	--	√	√	--	--	--	--	--	√	√	√	√	√	√	√	√	√	--	√	One SW sample will be collected from far shore to augment near shore RCBRA SW sampling.		
		J17RK0	K1421	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17RL3	J00217	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Saddle Mountain Wasteway[d]	SM-1SW (one sample in spring, one sample in fall)	NA	NA	d	d	d	d	d	d	d	--	--	--	--	--	d	d	d	d	d	d	d	d	d	--	d	Two surface water samples (one each in spring and fall) to augment the evaluation of other contributing influences on the far (left) shore across and downriver from Area 100-N at the Saddle Mountain Wasteway.	(1) Eliminated due to lack of use/flow. Seep sample for vicinity requested by DOE-RL.	Eliminated due to lack of use/flow.

Table B-2. Surface Water Sample Summary - Requested Analyses. (11 Pages)

Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Analyses/EPA Method																							Rationale	Change Control	Field Change Comments
				VOCs - 8260B	SVOCs - 8270C	Metals (Filtered) [a] - 6010/6020/7471	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A [b]	TOC/Grain Size - 9060/ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Nitrate - 300.0	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U	Hardness\DOC\ Alkalinity - 130.1\415.1\310.1	% Lipids	Field Parameters [c]			
Reactor D downriver surface water	RDD-1SW	J17RP5	K1427	--	--	--	√	--	--	--	--	--	--	--	--	√	√	√	√	√	√	√	√	√	--	√	Three surface water samples will be taken between the upriver portion of Island 3 and the far (left) shore to augment near shore RCBRA sampling.	(1) PHC and anions (nitrate) analyses added for one sample in 12/15 changes; not captured during preceding sampling event.	
		J17RP7	K1427	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17RP9	J00220	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor D downriver surface water	RDD-2SW **WDOH split collected**	J17RP4	K1427	--	--	--	√	--	--	--	--	--	--	--	--	√	√	√	√	√	√	√	√	√	--	√			
		J17RP6	K1427	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17RP8	J00220	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor D downriver surface water	RDD-3SW **WDOE split collected**	J17RP1	K1427	√	√	--	√	--	√	√	--	--	O	--	O	√	√	√	√	√	√	√	√	√	--	√			
		J17RP2	K1427	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17RP3	J00220	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor H surface water	RH-6SW **WDOE & WDOH splits collected**	J17RR1	K1427	O	O	--	√	--	O	O	--	--	O	--	--	√	√	√	√	√	√	√	√	√	--	√	One surface water sample will be taken between Locke Island and the near (right) shore to augment near shore RCBRA sampling.	(1) VOC, SVOC, pesticides, PCBs, and PHC analyses added in 12/15 changes; not captured during preceding sampling event.	
		J17RR7	K1427	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17RT3	J00220	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Native American cultural site (White Bluffs east side of river)	WBT-1SW (fall)	J17K50	K1401	√	√	--	√	--	√	√	--	--	√	--	O	√	√	√	√	√	√	√	√	√	--	√	Two surface water samples will be taken near the far (left) shore across from White Bluffs Township, near the WB-10 Wasteway, to augment near shore RCBRA sampling.	(1) SAP convention for Station ID (WBT-2SW) changed to WBT-1SW (spring) for consistency with convention as used elsewhere (included in 12/15 changes). (2) Anions (nitrate) analysis added in 12/15 changes; not captured during preceding sampling event.	
		J17K57	K1401	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17K64	J00212	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Native American cultural site (White Bluffs east side of river)	WBT-1SW (spring)	J18NT7	K1641	√	√	--	√	--	√	√	--	--	--	--	--	√	√	√	√	√	√	√	√	√	--	√			
		J18NT8	K1641	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J18NT9	J00529	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

Table B-2. Surface Water Sample Summary - Requested Analyses. (11 Pages)

Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Analyses/EPA Method																						Rationale	Change Control	Field Change Comments
				VOCs - 8260B	SVOCs - 8270C	Metals (Filtered) [a] - 6010/6020/7471	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A [b]	TOC/Grain Size - 9060/ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Nitrate - 300.0	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U	Hardness\DOC\ Alkalinity - 130.1\415.1\310.1	% Lipids	Field Parameters [c]			
Island 8 surface water	IS8-1SW **EPA split collected**	J17RR2	K1455	--	--	--	√	--	--	--	--	--	--	--	--	√	√	√	√	√	√	√	√	√	--	√	Five surface water samples taken between Island 8 and Island 9 and the near (right) shore to augment near shore RCBRA sampling.	(1) Anions (nitrate) analysis added for one sample in 12/15 changes; not captured during preceding sampling event.	
		J17RR8	K1455	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17RT4	J00233	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Island 8 surface water	IS8-2SW **WDOH split collected**	J17RR3	K1455	--	--	--	√	--	--	--	--	--	--	--	--	√	√	√	√	√	√	√	√	√	--	√			
		J17RR9	K1455	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17RT5	J00233	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Island 8 surface water	IS8-3SW	J17RR4	K1455	--	--	--	√	--	--	--	--	--	--	--	--	√	√	√	√	√	√	√	√	√	--	√			
		J17RT0	K1455	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17RT6	J00233	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Island 8 surface water	IS8-4SW	J17RR5	K1455	--	--	--	√	--	--	--	--	--	--	--	--	√	√	√	√	√	√	√	√	√	--	√			Target station located in shallow water. Sampled 96 ft east of target.
		J17RT1	K1455	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17RT7	J00233	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Island 8 surface water	IS8-5SW	J17RR6	K1455	√	√	--	√	--	√	√	--	--	√	--	O	√	√	√	√	√	√	√	√	√	--	√			
		J17RT2	K1455	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17RT8	J00233	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17RY8	J00255	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Island 8 surface water[e]	IS8-5SW (additional)	J18P14	K1652	--	--	--	--	--	√	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--			
		J18YB2	K1652	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
WB-5 Wasteway	WBW-1SW (fall)	J17K51	K1401	√	√	--	√	--	√	√	--	--	√	--	--	√	√	√	√	√	√	√	√	√	--	√	Two surface water samples will be taken at the WB-5 Wasteway to augment near shore RCBRA sampling and evaluate other contributing influences.	(1) Hardness/DOC/ alkalinity and PHC analyses and field parameters added in 12/15 changes (captured in preceding fall sampling).	Manually adjusted coordinates from handheld global positioning system original 46° 32.193'N 119° 16.810'W
		J17K58	K1401	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17K65	J00212	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
WB-5 Wasteway	WBW-1SW (spring)	J18P17	K1648	√	√	--	√	--	√	√	--	--	--	--	--	√	√	√	√	√	√	√	√	√	--	√			
		J18P18	K1648	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J18P19	J00531	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Depositional area top of Savage Island	SI-2SW **WDOE & WDOH splits collected**	J17RT9	K1430	√	√	--	√	--	√	√	--	--	√	--	--	√	√	√	√	√	√	√	O	√	--	√	One surface water sample will be taken at the upriver end of Savage Island to augment near shore RCBRA sampling.	(1) Isotopic uranium (from interpreted/TPA-approved rad analytical list) analysis sample not collected (inadvertently omitted from initial chains and labels). Attempting to recover using excess from other rad analyses. (2) Hardness/DOC/ alkalinity analyses and field parameters added in 12/15 changes (captured in preceding fall sampling).	
		J17RV3	K1430	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17RW4	J00221	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

Table B-2. Surface Water Sample Summary - Requested Analyses. (11 Pages)

Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Analyses/EPA Method																						Rationale	Change Control	Field Change Comments
				VOCs - 8260B	SVOCs - 8270C	Metals (Filtered) [a] - 6010/6020/7471	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A [b]	TOC/Grain Size - 9060/ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Nitrate - 300.0	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U	Hardness\DOC\ Alkalinity - 130.1\415.1\310.1	% Lipids	Field Parameters [c]			
Island 11 sloughs surface water	IS11-1SW	J17RV0	K1430	√	√	--	√	--	√	√	--	--	√	--	--	√	√	√	√	√	√	√	√	√	--	√	One surface water sample will be taken at the Island 11 sloughs to augment near shore RCBRA sampling.	(1) Hardness/DOC/ alkalinity analyses and field parameters added in 12/15 changes (captured in preceding fall sampling).	
		J17RV4	K1430	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17RW5	J00221	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Ringold recreational	RG-3SW **WDOH split collected**	J17RV1	K1430	√	√	--	√	--	√	√	--	--	√	--	--	√	√	√	√	√	√	√	O	√	--	√	One surface water sample will be taken between Ringold Springs and the WB-5 Wasteway to augment near shore RCBRA sampling.	(1) Isotopic uranium (from interpreted/TPA-approved rad analytical list) analysis sample not collected (inadvertently omitted from initial chains and labels). Attempting to recover using excess from other rad analyses. (2) Hardness/DOC/ alkalinity analyses and field parameters added in 12/15 changes (captured in preceding fall sampling).	
		J17RV5	K1430	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17RW6	J00221	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17T01	J00255	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Ringold irrigation return	RG-1SW (fall) **duplicate collected**	J17K52	K1401	√	√	--	√	--	√	√	--	--	√	--	O	√	√	√	√	√	√	√	√	√	--	√	Two surface water samples (one each in spring and fall) will be taken at the Ringold Irrigation Return to augment near shore RCBRA sampling and evaluate other contributing influences.	(1) Hardness/DOC/ alkalinity and PHC analyses and field parameters added in 12/15 changes (captured in preceding fall sampling). (2) Anions (nitrate) analysis added in 12/15 changes; not captured during preceding fall sampling event.	
		J17K59	K1401	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17K66	J00212	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Ringold irrigation return	RG-1SW (spring)	J18P20	K1648	√	√	--	√	--	√	√	--	--	--	--	--	√	√	√	√	√	√	√	√	√	--	√			
		J18P21	K1648	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J18P22	J00531	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
PE 16.4 Wasteway	PE-1SW (fall)	J17K53		√	√	--	√	--	√	√	--	--	√	--	O	√	√	√	√	√	√	√	√	√	--	√	Two surface water samples (one each in the spring and fall) will be taken at the PE 16.4 Wasteway to augment near shore RCBRA sampling and evaluate other contributing influences.	(1) Hardness/DOC/ alkalinity and PHC analyses and field parameters added in 12/15 changes (captured in preceding fall sampling). (2) Anions (nitrate) analysis added in 12/15 changes; not captured during preceding fall sampling event.	
		J17K60	K1399	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17K67	J00211	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
PE 16.4 Wasteway	PE-1SW (spring) **equipment blank collected**	J18P23	K1651	√	√	--	√	--	√	√	--	--	--	--	--	√	√	√	√	√	√	√	√	√	--	√			
		J18P24	K1651	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J18P25	J00533	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

Table B-2. Surface Water Sample Summary - Requested Analyses. (11 Pages)

Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Analyses/EPA Method																							Rationale	Change Control	Field Change Comments
				VOCs - 8260B	SVOCs - 8270C	Metals (Filtered) [a] - 6010/6020/7471	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A [b]	TOC/Grain Size - 9060/ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Nitrate - 300.0	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U	Hardness\DOC\ Alkalinity - 130.1\415.1\310.1	% Lipids	Field Parameters [c]			
Wooded Island	WI-1SW **WDOH split collected**	J17RV2	K1455	√	√	--	√	--	√	√	--	--	√	--	O	√	√	√	√	√	√	√	√	√	√	--	√	One surface water sample will be taken adjacent to Wooded Island to augment near shore RCBRA sampling.	(1) Hardness/DOC/ alkalinity and field parameters added in 12/15 changes (captured in preceding fall sampling). (2) Anions (nitrate) analysis added in 12/15 changes; not captured during preceding sampling event.	
		J17RV6	K1455	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17RW7	J00234	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Wooded Island[e]	WI-1SW (additional)	J18P13	K1652	--	--	--	--	--	√	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--			Sampled 29.5 ft from first sampling site
Potholes Canal Wasteway	PC-1SW (fall)	J17K54	K1399	√	√	--	√	--	√	√	--	--	X	--	--	√	√	√	√	√	√	√	√	√	√	--	√	Two surface water samples (one each in the spring and fall) will be taken at the Potholes Canal Wasteway to augment near shore RCBRA sampling and evaluate other contributing influences.	(1) Hardness/DOC/ alkalinity analyses and field parameters added in 12/15 changes (captured in preceding fall sampling). () PHC analysis not identified in SAP or subsequent revisions, but requested for fall sample.	Manually corrected coordinates from handheld original position at 46.37763N, -119.26205W
		J17K61	K1399	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17K68	J00209	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Potholes Canal Wasteway	PC-1SW (spring)	J18P26	K1648	√	√	--	√	--	√	√	--	--	--	--	--	√	√	√	√	√	√	√	√	√	√	--	√			
		J18P27	K1648	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J18P28	J00531	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Esquatzel Coulee Wasteway	EC-1SW (fall)	J17K55	K1399	√	√	--	√	--	√	√	--	--	X	--	--	√	√	√	√	√	√	√	√	√	√	--	√	Two surface water samples (one each in the spring and fall) will be taken at the Esquatzel Coulee Wasteway to augment near shore RCBRA sampling and evaluate other contributing influences.	(1) Hardness/DOC/ alkalinity analyses and field parameters added in 12/15 changes (captured in preceding fall sampling). (2) PHC analysis not identified in SAP or subsequent revisions, but requested for fall sample.	
		J17K62	K1399	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17K69	J00209	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Esquatzel Coulee Wasteway	EC-1SW (spring) **PCB congener collected**	J18P29	K1652	√	√	--	√	--	√	√	--	--	√	--	--	√	√	√	√	√	√	√	√	√	√	--	√			
		J18P30	K1652	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J18P31	J00535	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J18NK8	J00543	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Leslie Grove City Park	LG-1SW **duplicate & EPA split collected**	J17TJ4	K1428	√	√	--	√	--	√	√	--	--	√	--	--	√	√	√	√	√	√	√	√	√	√	--	√	One surface water sample will be taken offshore from Leslie Grove City Park/boat launch to augment existing data.	(1) Hardness/DOC/ alkalinity analyses and field parameters added in 12/15 changes (captured in preceding fall sampling).	
		J17TL1	K1428	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17TT1	J00219	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

Table B-2. Surface Water Sample Summary - Requested Analyses. (11 Pages)

Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Analyses/EPA Method																							Rationale	Change Control	Field Change Comments
				VOCs - 8260B	SVOCs - 8270C	Metals (Filtered) [a] - 6010/6020/7471	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A [b]	TOC/Grain Size - 9060/ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Nitrate - 300.0	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U	Hardness\DOC\ Alkalinity - 130.1\415.1\310.1	% Lipids	Field Parameters [c]			
Yakima River	YR-1SW (fall) **WDOH split collected**	J17TJ5	K1439	√	√	--	√	--	√	√	--	--	√	--	O	√	√	√	√	√	√	√	√	√	√	--	√	Two surface water samples will be taken (spring and fall) from the Yakima River to augment existing data and evaluate other contributing influences.	(1) Hardness/DOC/ alkalinity added in 12/15 changes (captured in preceding fall sampling). (2) Anions (nitrate) analysis added in 12/15 changes; not captured during preceding fall sampling event. (3) % Lipids analyses removed in 12/15 changes.	
		J17TL2	K1439	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17TT2	J00222	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Yakima River	YR-1SW (spring) **duplicate sample collected**	J18P32	K1652	√	√	--	√	--	√	√	--	--	--	--	--	√	√	√	√	√	√	√	√	√	√	--	√			Sampled 19 ft from first sampling location
		J18P33	K1652	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J18P34	J00535	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Howard Amon City Park	HA-1SW **WDOE & WDOH splits collected**	J17TJ6	K1439	√	√	--	√	--	√	√	--	--	√	--	O	√	√	√	√	√	√	√	√	√	√	--	√	One surface water sample will be taken from near Howard Amon City Park to augment existing data.	(1) Hardness/DOC/ alkalinity added in 12/15 changes (captured in preceding fall sampling). (2) Anions (nitrate) analysis added in 12/15 changes; not captured during preceding fall sampling event. (3) % Lipids analyses removed in 12/15 changes.	
		J17TL3	K1439	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17TT3	J00223	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Columbia Point Marina	CPM-1SW	J17TJ7	K1439	√	√	--	√	--	√	√	--	--	√	--	O	√	√	√	√	√	√	√	√	√	√	--	√	One surface water sample will be taken from near Columbia Point Marina to augment existing data.	(1) Hardness/DOC/ alkalinity added in 12/15 changes (captured in preceding fall sampling). (2) Anions (nitrate) analysis added in 12/15 changes; not captured during preceding fall sampling event. (3) % Lipids analyses removed in 12/15 changes.	
		J17TL4	K1439	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17TT4	J00223	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Bateman Island boat launch	BL-1SW	J17TJ8	K1439	√	√	--	√	--	√	√	--	--	√	--	O	√	√	√	√	√	√	√	√	√	√	--	√	One surface water sample will be taken from near Bateman Island boat launch to augment existing data.	(1) Hardness/DOC/ alkalinity added in 12/15 changes (captured in preceding fall sampling). (2) Anions (nitrate) analysis added in 12/15 changes; not captured during preceding fall sampling event. (3) % Lipids analyses removed in 12/15 changes.	
		J17TL5	K1439	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17TT5	J00222	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

Table B-2. Surface Water Sample Summary - Requested Analyses. (11 Pages)

Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Analyses/EPA Method																							Rationale	Change Control	Field Change Comments
				VOCs - 8260B	SVOCs - 8270C	Metals (Filtered) [a] - 6010/6020/7471	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A [b]	TOC/Grain Size - 9060/ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Nitrate - 300.0	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U	Hardness\DOC\ Alkalinity - 130.1\415.1\310.1	% Lipids	Field Parameters [c]			
Snake River	SR-1SW (fall) **WDOH split collected**	J17TJ9	K1441	√	√	--	√	--	√	√	--	--	√	--	--	√	√	√	√	√	√	√	O	√	--	√	Two surface water samples taken (spring and fall) from the Snake River to augment existing data and evaluate other contributing influences.	(1) Isotopic uranium (from interpreted/TPA-approved rad analytical list) analysis sample not collected (inadvertently omitted from initial chains and labels). Attempting to recover using excess from other rad analyses. (2) Hardness/DOC/ alkalinity added in 12/15 changes (captured in preceding fall sampling). (3) % Lipids analyses removed in 12/15 changes.	
		J17TL6	K1441	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17TT6	J00224	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Snake River	SR-1SW (spring)	J18P35	K1660	√	√	--	√	--	√	√	--	--	--	--	--	√	√	√	√	√	√	√	√	√	--	√			Strong currents, difficulty anchoring, boat drifted 333 ft from target while sampling
		J18P36	K1660	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J18P37	J00545	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Walla Walla River	WR-1SW (fall)	J17TK0	K1442	√	√	--	√	--	√	√	--	--	√	--	--	√	√	√	√	√	√	√	√	√	--	√	Two surface water samples will be taken (spring and fall) from the Walla Walla River to augment existing data and evaluate other contributing influences.	(1) Hardness/DOC/ alkalinity added in 12/15 changes (captured in preceding fall sampling). (2) % Lipids analyses removed in 12/15 changes.	Coordinates not originally logged in field note book.
		J17TL7	K1442	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17TT7	J00226	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Walla Walla River	WR-1SW (spring)	J18P41	K1660	√	√	--	√	--	√	√	--	--	--	--	--	√	√	√	√	√	√	√	√	√	--	√			
		J18P42	K1660	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J18P43	J00545	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Columbia Park	CP-1SW (fall)	J17TK1	K1439	√	√	--	√	--	√	√	--	--	√	--	--	√	√	√	√	√	√	√	√	√	--	√	Two surface water samples will be taken (one each in the spring and fall) from near Columbia Park to augment existing data.	(1) Rationale text and sample count revised in 12/15 changes to reflect a fall and spring sampling event. (Note: seems inconsistent with spring/fall rationale for other locations, but will be included in spring planning.) (2) Hardness/DOC/ alkalinity added in 12/15 changes (captured in preceding fall sampling). (3) % Lipids analyses removed in 12/15 changes.	
		J17TL8	K1439	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17TT8	J00223	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Columbia Park	CP-1SW (spring)	J18P44	K1654	√	√	--	√	--	√	√	--	--	--	--	--	√	√	√	√	√	√	√	√	√	--	√			Collected 25 ft from first sampling location
		J18P45	K1654	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J18P46	J00537	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Clover Island	CI-1SW	J17TK2	K1441	√	√	--	√	--	√	√	--	--	√	--	--	√	√	√	√	√	√	√	√	√	--	√	One surface water sample will be taken from near Clover Island boat launch to augment existing data.	(1) Hardness/DOC/ alkalinity added in 12/15 changes (captured in preceding fall sampling). (2) % Lipids analyses removed in 12/15 changes.	Target station on land. Repositioned 42 ft due NW of target
		J17TL9	K1441	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17TT9	J00225	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17T00	J00255	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

Table B-2. Surface Water Sample Summary - Requested Analyses. (11 Pages)

Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Analyses/EPA Method																							Rationale	Change Control	Field Change Comments
				VOCs - 8260B	SVOCs - 8270C	Metals (Filtered) [a] - 6010/6020/7471	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A [b]	TOC/Grain Size - 9060/ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Nitrate - 300.0	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U	Hardness\DOC\ Alkalinity - 130.1\415.1\310.1	% Lipids	Field Parameters [c]			
Two Rivers Park	TR-1SW **duplicate collected**	J17TK3	K1447	√	√	--	√	--	√	√	--	--	√	--	--	√	√	√	√	√	√	√	√	√	--	√	One surface water sample will be taken from near Two Rivers Park to augment existing data.	(1) Hardness/DOC/ alkalinity added in 12/15 changes (captured in preceding fall sampling). (2) % Lipids analyses removed in 12/15 changes.	Target station on land. Moved to near shore at Two Rivers Park's recreational area.
		J17TM0	K1447	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17TV0	J00228	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Cascade Marina	CM-1SW	J17TK4	K1441	√	√	--	√	--	√	√	--	--	√	--	--	√	√	√	√	√	√	√	√	√	--	√	One surface water sample will be taken from near Cascade Marina to augment existing data.	(1) Hardness/DOC/ alkalinity added in 12/15 changes (captured in preceding fall sampling). (2) % Lipids analyses removed in 12/15 changes.	
		J17TM1	K1441	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17TV1	J00225	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Sacajawea Park	SP-1SW	J17TK5	K1441	√	√	--	√	--	√	√	--	--	√	--	--	√	√	√	√	√	√	√	√	√	--	√	One surface water sample will be taken from near Sacajawea Park to augment existing data.	(1) Hardness/DOC/ alkalinity added in 12/15 changes (captured in preceding fall sampling). (2) % Lipids analyses removed in 12/15 changes.	
		J17TM2	K1441	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17TV2	J00224	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Port Kelley boat ramp	PK-1SW	J17TK6	K1442	√	√	--	√	--	√	√	--	--	√	--	--	√	√	√	√	√	√	√	√	√	--	√	One surface water sample will be taken from near Port Kelley boat ramp to augment existing data.	(1) Hardness/DOC/ alkalinity added in 12/15 changes (captured in preceding fall sampling). (2) % Lipids analyses removed in 12/15 changes.	
		J17TM3	K1442	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17TV3	J00227	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Hat Rock State Park	HR-1SW	J17TK7	K1442	√	√	--	√	--	√	√	--	--	√	--	--	√	√	√	√	√	√	√	√	√	--	√	One surface water sample will be taken from near Hat Rock State Park/boat launch to augment existing data.	(1) Hardness/DOC/ alkalinity added in 12/15 changes (captured in preceding fall sampling). (2) % Lipids analyses removed in 12/15 changes.	Original coordinates logged as 46 degrees N instead of 45 degrees N.
		J17TM4	K1442	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17TV4	J00227	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Hat Rock State Park (public boat ramp)[e]	HRB-1SW (additional)	J18P47	K1656	√	√	--	√	--	√	√	--	--	√	--	--	√	√	√	√	√	√	√	√	√	--	√	One surface water sample will be taken from near Hat Rock State Park/boat launch (corrected location) to augment existing data.	(1) Sample location place-holder added based on e-mail and verbal discussions; not included in 12/4 or 12/15 revision files.	
		J18P48	K1656	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J18P49	J00548	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Hat Rock State Park (marina)[e]	HRM-1SW **PCB congener collected**	J18P93	K1656	√	√	--	√	--	√	√	--	--	--	--	--	√	√	√	√	√	√	√	√	√	--	√	One surface water sample will be taken from near Hat Rock State Park/boat launch (corrected location) to augment existing data.	(1) Sample location place-holder added based on e-mail and verbal discussions; not included in 12/4 or 12/15 revision files.	
		J18P94	K1656	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J18P95	J00548	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J18NK7	J00543	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

Table B-2. Surface Water Sample Summary - Requested Analyses. (11 Pages)

Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Analyses/EPA Method																							Rationale	Change Control	Field Change Comments
				VOCs - 8260B	SVOCs - 8270C	Metals (Filtered) [a] - 6010/6020/7471	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A [b]	TOC/Grain Size - 9060/ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Nitrate - 300.0	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U	Hardness\DOC\ Alkalinity - 130.1\415.1\310.1	% Lipids	Field Parameters [c]			
Lake Wallula SW	LW-1SW	J17V39	K1442	--	--	√	--	--	--	--	--	--	--	--	--	√	√	√	√	√	√	√	√	√	--	√	One deep water sample will be taken between river mile 300 and river mile 301 to augment existing data.	(1) Hexavalent chromium analysis not identified in SAP Rev. 0 or subsequent revisions, but requested for samples. (2) Hardness/DOC/ alkalinity analyses added in 12/15 changes (captured in preceding fall sampling). (3) % Lipids analyses removed in 12/15 changes.	Sampling depth from bottom was increased between 2 – 4 ft because of large wind-driven swales at surface
		J17V42	K1442	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17V45	J00227	--	--	--	--	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Lake Wallula SW	LW-2SW	J17V40	K1442	--	--	√	--	--	--	--	--	--	--	--	--	√	√	√	√	√	√	√	√	√	--	√			
		J17V43	K1442	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17V46	J00227	--	--	--	--	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
McNary Dam boat ramps	MDBR-1SW **EPA split collected**	J17TK8	K1453	√	√	--	√	--	√	√	--	--	√	--	--	√	√	√	√	√	√	√	√	√	--	√			
		J17TM5	K1453	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17TV5	J00232	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
McNary Dam boat ramps[e]	MDBR-1SW (additional)	J18P11	K1656	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Surface water samples will be collected from the shoreline area of McNary Dam boat ramp.	(1) Hardness/DOC/ alkalinity analyses added in 12/15 changes (captured in preceding sampling). (2) % Lipids analyses removed in 12/15 changes.	Shaver barge loading grain over target area. Sampled 53 ft from target.
McNary Dam boat ramps	MDBR-2SW	J17TK9	K1453	√	√	--	√	--	√	√	--	--	√	--	--	√	√	√	√	√	√	√	√	√	--	√			
		J17TM6	K1453	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17TV6	J00232	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
McNary Dam boat ramps[e]	MDBR-2SW (additional)	J18P12	K1656	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
McNary Dam SW	MD-3SW	J17V41	K1453	--	--	--	√	--	--	--	--	--	--	--	--	√	√	√	√	√	√	√	√	√	--	√	One deep water sample will be taken between river mile 292 and river mile 293 to augment existing data.	(1) Hexavalent chromium analysis not identified in SAP Rev. 0 or subsequent revisions, but requested for samples. (2) Hardness/DOC/ alkalinity analyses added in 12/15 changes (captured in preceding fall sampling). (3) % Lipids analyses removed in 12/15 changes.	
		J17V44	K1453	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		J17V47	J00232	--	--	--	--	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

Table B-2. Surface Water Sample Summary - Requested Analyses. (11 Pages)

Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Analyses/EPA Method																						Rationale	Change Control	Field Change Comments
				VOCs - 8260B	SVOCs - 8270C	Metals (Filtered) [a] - 6010/6020/7471	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A [b]	TOC/Grain Size - 9060/ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Nitrate - 300.0	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U	Hardness\DOC\ Alkalinity - 130.1\415.1\310.1	% Lipids	Field Parameters [c]			
Seep water recon at RNLS-1SW[f]	RNLS-1SW (additional)	NA	NA	f	f	f	f	f	f	f	--	--	--	--	--	f	f	f	f	f	f	f	f	f	--	f			No seeps were found at an area between lowest shoreline berm and river high water level (20.53ft) for 0.6 miles between entry and exit points of reconnaissance trip.

[a] Filtered applies to water only. Solids (i.e., sediment and soil) are not filtered.
[b] Every 10th surface water sample analyzed for PCB Aroclors by 8082 will also be analyzed for PCB congeners.
[c] Field parameters for surface water samples are measured in the field and consist of temperature, specific conductivity, dissolved oxygen, and pH using a Hydrolab multimeter.
[d] Eliminated.
[e] Out of scope or new stations.
[f] Station eliminated based on field reconnaissance.

-- = Sample not analyzed for given parameter.
√ = Analysis identified in SAP (or changes), and confirmed requested.
X = Analysis not identified in SAP (or changes), but requested.
O = Analysis identified in SAP (or changes), but not requested.

AEA = alpha energy analysis
ASTM = American Society for Testing and Materials
AVS/SEM = acid volatile sulfides/simultaneously extracted metals by EPA Method 200.8
BERA = Baseline Ecological Risk Assessment
BHHRA = Baseline Human Health Risk Assessment
Cr+6 = hexavalent chromium by EPA Method 7196A
DOC = dissolved organic carbon
DOE-RL = U.S. Department of Energy, Richland Operations Office
EPA = United States Environmental Protection Agency
GEA = gamma energy analysis
HMU = habitat management unit
HT = Hanford townsite
Metals = by EPA Methods 6010/6020 and 7471
OCI = other contributing influence (i.e., non-Hanford)
NA = not available
PCB = pesticides/polychlorinated biphenyl by EPA Method 8082
PCE = tetrachloroethylene
PHC = petroleum hydrocarbon by EPA Method 8115
Pesticides = by EPA Method 8081
RCBRA = River Corridor Baseline Risk Assessment
SD = sediment
SDG = sample delivery group
SVOC = semivolatile organic compound by EPA Method 8270C
SW = surface water
TOC = total organic carbon by EPA Method 9060
UCL = upper confidence limit
VOCs = volatile organic compounds by EPA Method 8260B
WDOE = Washington Department of Ecology
WDOH = Washington Department of Health

Table B-3. Quality Assurance and Quality Control Samples for Surface Water Sampling. (3 Pages)

Quality Assurance/ Quality Control Category	Sample Number	Sample Delivery Group	Sample Date	Matrixed Samples	Requested Analyses																						
					VOCs - 8260B	SVOCs - 8270C	Metals (Filtered) - 6010/7471	ICP Metals (Unfiltered) - 6010	Mercury (Unfiltered) - 7471	Total Uranium by ICP or KPA	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PHC - 8115	Nitrate - 300.0	Radionuclides - Gross alpha/beta	Radionuclides - GEA	Radionuclides – Isotopic Am	Radionuclides - C-14	Radionuclides – Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides – Isotopic Th	Radionuclides - H-3	Radionuclides – Isotopic U	Hardness\DOC\ Alkalinity - 130.1\415.1\310.1	Comments
Equipment blank	J17K48	K1399	10/16/2008	All surface water	√	√	--	√	√	--	--	√	√	√	--	--	--	--	--	--	--	--	--	--	--	√	DI blank
Equipment blank	J18N26	K1651	6/3/2009	All surface water	√	√	--	√	√	--	--	√	√	√	--	--	--	--	--	--	--	--	--	--	--	√	DI blank
Equipment blank	J18Y96	K1654	6/5/2009	Spring surface water (GO-Flo)	√	√	√	√	√	--	--	√	√	√	√	--	--	--	--	--	--	--	--	--	--	√	DI blank
EPA split	J17RX9 [a]	N/A	10/29/2008	J17RJ2	--	--	--	√	--	--	--	--	--	--	--	√	√	√	--	√	√	--	√	√	√	--	
EPA split	J17TD5 [a]	N/A	10/31/2008	J17TJ4	--	--	--	√	--	--	--	--	--	--	--	√	√	√	--	√	√	--	√	√	√	--	
EPA split	J17TD6 [a]	N/A	11/11/2008	J17TK8	--	--	--	√	--	--	--	--	--	--	--	√	√	√	--	√	√	--	√	√	√	--	
EPA split	J17RY0 [a]	N/A	11/12/2008	J17RR2	--	--	--	√	--	--	--	--	--	--	--	√	√	√	--	√	√	--	√	√	√	--	
WDOE split	J17RX6 [a]	N/A	10/30/2008	J17RR1 & J17RT3	--	√	--	√	√	√	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
WDOE split	J17RX5 [a]	N/A	10/30/2008	J17RP1 & J17RP3	--	√	--	√	√	√	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
WDOE split	J17RX7 [a]	N/A	11/3/2008	J17RT9 & J17RW4	--	√	--	√	√	√	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
WDOE split	J17TD4 [a]	N/A	11/4/2008	J17TJ6 & J17TT3	--	√	--	√	√	√	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
WDOH split	J17RX2 [a]	N/A	10/30/2008	J17RR1	--	--	--	--	--	--	--	--	--	--	--	--	√	--	√	√	√	√	√	√	√	--	
WDOH split	J17RX1 [a]	N/A	10/30/2008	J17RP4	--	--	--	--	--	--	--	--	--	--	--	--	√	--	√	√	√	√	√	√	√	--	
WDOH split	J17RX4 [a]	N/A	11/3/2008	J17RT9	--	--	--	--	--	--	--	--	--	--	--	--	√	--	√	√	√	√	√	√	√	--	
WDOH split	J17TC9 [a]	N/A	11/3/2008	J17RV1	--	--	--	--	--	--	--	--	--	--	--	--	√	--	√	√	√	√	√	√	√	--	
WDOH split	J17TD2 [a]	N/A	11/4/2008	J17TJ5	--	--	--	--	--	--	--	--	--	--	--	--	√	--	√	√	√	√	√	√	√	--	
WDOH split	J17TD1 [a]	N/A	11/4/2008	J17TJ6	--	--	--	--	--	--	--	--	--	--	--	--	√	--	√	√	√	√	√	√	√	--	
WDOH split	J17TD3 [a]	N/A	11/5/2008	J17TJ9	--	--	--	--	--	--	--	--	--	--	--	--	√	--	√	√	√	√	√	√	√	--	
WDOH split	J17RX0 [a]	N/A	11/10/2008	J17RH9	--	--	--	--	--	--	--	--	--	--	--	--	√	--	√	√	√	√	√	√	√	--	
WDOH split	J17RX3 [a]	N/A	11/12/2008	J17RR3	--	--	--	--	--	--	--	--	--	--	--	--	√	--	√	√	√	√	√	√	√	--	
WDOH split	J17TD0 [a]	N/A	11/13/2008	J17RV2	--	--	--	--	--	--	--	--	--	--	--	--	√	--	√	√	√	√	√	√	√	--	
Duplicate	J17R67	K1401	10/17/2008	J17K52	√	√	--	√	√	--	--	√	√	√	--	--	√	--	√	√	√	√	√	√	√	√	
	J17R68	K1401		J17K59	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	J17R69	J00212		J17K66	√	√	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Duplicate	J17RV8	K1428	10/31/2008	J17TJ4	√	√	--	√	√	--	--	√	√	√	--	--	√	--	√	√	√	√	√	√	√	√	
	J17RW0	K1428		J17TL1	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	J17RW9	J00219		J17TT1	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Duplicate	J17TL0	K1447	11/7/2008	J17TK3	√	√	--	√	√	--	--	√	√	√	--	--	√	--	√	√	√	√	√	√	√	√	
	J17TM7	K1447		J17TM0	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	J17TV7	J00228		J17TV0	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Duplicate	J18NF3	K1652	6/4/2009	J18P32	√	√	--	√	√	--	--	√	√	√	--	--	√	--	√	√	√	√	√	√	√	√	Custody lost on sample J18NF5; not submitted for analysis. Not a critical deficiency
	J18NF4	K1652		J18P33	--	--	√	--	--	--	O	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	J18NF5	TBD		J18P34	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

Table B-3. Quality Assurance and Quality Control Samples for Surface Water Sampling. (3 Pages)

Quality Assurance/ Quality Control Category	Sample Number	Sample Delivery Group	Sample Date	Matrixed Samples	Requested Analyses																						
					VOCs - 8260B	SVOCs - 8270C	Metals (Filtered) - 6010/7471	ICP Metals (Unfiltered) - 6010	Mercury (Unfiltered) - 7471	Total Uranium by ICP or KPA	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PHC - 8115	Nitrate - 300.0	Radionuclides - Gross alpha/beta	Radionuclides - GEA	Radionuclides – Isotopic Am	Radionuclides - C-14	Radionuclides – Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides – Isotopic Th	Radionuclides - H-3	Radionuclides – Isotopic U	Hardness\DOC\ Alkalinity - 130.1\415.1\310.1	Comments
Duplicate	J18NN2	K1648	6/2/2009	J18NL6	√	√	--	√	√	--	--	√	√	√	--	--	√	--	√	√	√	√	√	√	√	√	
	J18NN3	K1648		J18NL7	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	J18NN4	J00531		J18NL8	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J17K70	K1399	10/16/2008	J17K53, J17K54, & J17K55	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J17K73	K1401	10/17/2008	J17K52, J17R67, J17K50, & J17K51	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J17K76	K1419	10/28/2008	J17RH7	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J17K75	K1421	10/29/2008	J17RJ3, J17RJ1, & J17RJ2	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J17K74	K1427	10/30/2008	J17RP1	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	J17RR1 also collected on trip, but no VOA requested
Trip blank	J17K79	K1428	10/31/2008	J17TJ4 & J17RV8	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J17TW4	K1430	11/3/2008	J17RT9, J17RV1, & J17RV0	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J17K77	K1439	11/4/2008	J17TJ5, J17TJ8, J17TK1, J17TJ7, & J17TJ6	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J17TV8	K1441	11/5/2008	J17TJ9, J17TK5, J17TK2, & J17TK4	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J17TW5	K1442	11/6/2008	J17TK0, J17TK7, & J17TK6	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	J17V39 & J17V40 also collected on trip, but no VOA requested
Trip blank	J17TW3	K1447	11/7/2008	J17TK3 & J17TL0	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J17TW2	K1452	11/10/2008	J17RJ0, J17RH9, & J17RH8	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J17TW1	K1453	11/11/2008	J17TK8, J17V41, & J17TK9	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J17K81	K1455	11/12/2008	J17RR6, J17RR5, J17RR4, J17RR3, & J17RR2	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J17TW0	K1455	11/13/2008	J17RV2	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J18NL0	K1641	6/1/2009	J18NP4	√																						
Trip blank	J18NL1	K1641	6/1/2009	J18NP4	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J18NL2	K1648	6/2/2009	J18P17, J18P20, & J18P26	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

Table B-3. Quality Assurance and Quality Control Samples for Surface Water Sampling. (3 Pages)

Quality Assurance/ Quality Control Category	Sample Number	Sample Delivery Group	Sample Date	Matrixed Samples	Requested Analyses																						
					VOCs - 8260B	SVOCs - 8270C	Metals (Filtered) - 6010/7471	ICP Metals (Unfiltered) - 6010	Mercury (Unfiltered) - 7471	Total Uranium by ICP or KPA	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PHC - 8115	Nitrate - 300.0	Radionuclides - Gross alpha/beta	Radionuclides - GEA	Radionuclides – Isotopic Am	Radionuclides - C-14	Radionuclides – Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides – Isotopic Th	Radionuclides - H-3	Radionuclides – Isotopic U	Hardness\DOC\ Alkalinity - 130.1\415.1\310.1	Comments
Trip blank	J18NL3	K1648	6/2/2009	J18NL6, J18NN2, & J18NM9	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J18YB3	K1651	6/3/2009	J18NN8, J18NN5, & J18NP1	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J18YB4	K1651	6/3/2009	J18P23 & J18N26	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J18YB2	K1652	6/4/2009	J18P29, J18P32, & J18NF3	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J18YB1	K1654	6/5/2009	J18P44 & J18Y96	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J18NL4	K1656	6/8/2009	J18P47 & J18P93	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J18NL5	K1660	6/9/2009	J18P41 & J18P43	O	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(1) Custody lost on sample during sampling; not sent for analysis and disposed per direction of WCH field supervisor

[a] Regulatory splits have been assigned an HEIS number for tracking during sample collection, but data will not be provided to HEIS.

√ = Appropriate analysis, confirmed requested
O = Analysis identified in SAP (or changes), but not requested

DI = deionized water
DOC = dissolved oxygen content
EPA = U.S. Environmental Protection Agency
GEA = gamma energy analysis
HEIS = Hanford Environmental Information System
ICP = inductively coupled plasma
KPA = kinetic phosphorescence analysis
PCB = polychlorinated biphenyl
PHC = petroleum hydrocarbon
SVOC = semivolatile organic compound
VOA = volatile organic analysis
VOC = volatile organic compound
WDOE = Washington Department of Energy
WDOH = Washington State Department of Health

Table B-4. Sediment and Soil Sampling Summary - Location Information. (48 Pages)

Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
OCI	Soil	Grab	Above Wanapum Dam	WP-1S	J189X5	K1551	Random/ stratified	2/26/09	46.92462	-119.98220	177003.137	539434.19	NA	0 - 0.3
OCI	Soil	Grab	Above Wanapum Dam	WP-2S	J189X6	K1551	Random/ stratified	2/26/09	46.92417	-119.98245	176952.991	539415.479	NA	0 - 0.3
OCI	Soil	Grab	Above Wanapum Dam	WP-3S	J189X9	K1551	Random/ stratified	2/26/09	46.92425	-119.98310	176961.559	539365.919	NA	0 - 0.3
OCI	Soil	Grab	Above Wanapum Dam	WP-4S	J189X7	K1551	Random/ stratified	2/26/09	46.92394	-119.98254	176927.379	539408.793	NA	0 - 0.3
OCI	Soil	Grab	Above Wanapum Dam	WP-5S	J189X8	K1551	Random/ stratified	2/26/09	46.92401	-119.98350	176934.681	539335.631	NA	0 - 0.3
OCI	Soil	Grab	Above Wanapum Dam	WP-5S	J189W3	J00420		2/26/09	46.92401	-119.98350	176934.681	539335.631	NA	0 - 0.3
OCI	Soil	Grab	Above Wanapum Dam	WP-6S	J189X0	K1551	Random/ stratified	2/26/09	46.92355	-119.98317	176883.712	539361.098	NA	0 - 0.3
OCI	Soil	Grab	Above Wanapum Dam	WP-7S	J189X1	K1551	Random/ stratified	2/26/09	46.92368	-119.98335	176898.073	539347.295	NA	0 - 0.3
OCI	Soil	Grab	Above Wanapum Dam	WP-8S	J189X2	K1551	Random/ stratified	2/26/09	46.92318	-119.98341	176842.464	539343.089	NA	0 - 0.3
OCI	Soil	Grab	Above Wanapum Dam	WP-9S	J189X3	K1551	Random/ stratified	2/26/09	46.92343	-119.98378	176870.069	539314.729	NA	0 - 0.3
OCI	Soil	Grab	Above Wanapum Dam	WP-10S	J189X4	K1551	Random/ stratified	2/26/09	46.92289	-119.98332	176810.272	539350.155	NA	0 - 0.3
OCI	Sediment, shoreline	Grab	Wanapum Dam Pool	WP-1SSD	J186C6	K1526	Random/ stratified	2/4/09	46.92001	-119.95255	176505.942	541695.772	NA	0 - 0.3
OCI	Sediment, shoreline	Grab	Wanapum Dam Pool	WP-2SSD	J186C5	K1526	Random/ stratified	2/4/09	46.91940	-119.95210	176438.373	541730.516	NA	0 - 0.3
OCI	Sediment, shoreline	Grab	Wanapum Dam Pool	WP-2SSD	J17W23	J00367		2/4/09	46.91940	-119.95210	176438.373	541730.516	NA	0 - 0.3
OCI	Sediment, shoreline	Grab	Wanapum Dam Pool	WP-3SSD	J186C7	K1526	Random/ stratified	2/4/09	46.91677	-119.95186	176146.152	541750.827	NA	0 - 0.3
OCI	Sediment, shoreline	Grab	Wanapum Dam Pool	WP-4SSD	J186C8	K1526	Random/ stratified	2/4/09	46.91664	-119.95158	176131.849	541772.254	NA	0 - 0.3
OCI [b]	Sediment, shoreline	Grab	Wanapum Dam Pool	WP-5SSD	NA	NA	Random/ stratified	2/4/09	NA	NA	NA	NA	NA	NA
OCI	Sediment, shoreline	Grab	Wanapum Dam Pool	WP-6SSD	J186C3	K1526	Random/ stratified	2/4/09	46.90850	-119.95115	175227.245	541811.302	NA	0 - 0.3
OCI	Sediment, shoreline	Grab	Wanapum Dam Pool	WP-7SSD	J186C1	K1526	Random/ stratified	2/4/09	46.90655	-119.95173	175010.178	541768.625	NA	0 - 0.3
OCI	Sediment, shoreline	Grab	Wanapum Dam Pool	WP-8SSD	J186C0	K1526	Random/ stratified	2/4/09	46.90460	-119.95260	174792.959	541703.852	NA	0 - 0.3
OCI	Sediment, shoreline	Grab	Wanapum Dam Pool	WP-9SSD	J186C2	K1526	Random/ stratified	2/4/09	46.90093	-119.95390	174384.32	541607.637	NA	0 - 0.3
OCI [b]	Sediment, shoreline	Grab	Wanapum Dam Pool	WP-10SSD	NA	NA	Random/ stratified	2/4/09	NA	NA	NA	NA	NA	NA
OCI	Sediment, shallow	Power grab	Wanapum Dam Pool	WP-1SD **Duplicate collected**	J17V87	K1525	Random/ stratified	2/3/09	46.93183	-119.97345	177809.009	540095.205	44	0 - 0.3
OCI	Sediment, shallow	Power grab	Wanapum Dam Pool	WP-1SD **Duplicate collected**	J17V97	J00322		2/3/09	46.93183	-119.97345	177809.009	540095.205	44	0 - 0.3
OCI	Sediment, shallow	Power grab	Wanapum Dam Pool	WP-2SD	J17V88	K1525	Random/ stratified	2/3/09	46.93053	-119.96448	177669.1	540779.214	93	0 - 0.3
OCI	Sediment, shallow	Power grab	Wanapum Dam Pool	WP-2SD	J17V98	J00322		2/3/09	46.93053	-119.96448	177669.1	540779.214	93	0 - 0.3
OCI	Sediment, shallow	Power grab	Wanapum Dam Pool	WP-3SD	J17V89	K1525	Random/ stratified	2/3/09	46.92048	-119.97107	176548.562	540284.893	36	0 - 0.3
OCI	Sediment, shallow	Power grab	Wanapum Dam Pool	WP-3SD	J17V99	J00322		2/3/09	46.92048	-119.97107	176548.562	540284.893	36	0 - 0.3

Table B-4. Sediment and Soil Sampling Summary - Location Information. (48 Pages)

Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
OCI	Sediment, shallow	Power grab	Wanapum Dam Pool	WP-4SD	J17V90	K1525	Random/ stratified	2/3/09	46.92083	-119.96590	176590.121	540678.386	99	0 - 0.3
OCI	Sediment, shallow	Power grab	Wanapum Dam Pool	WP-4SD	J17VB0	J00322		2/3/09	46.92083	-119.96590	176590.121	540678.386	99	0 - 0.3
OCI	Sediment, shallow	Power grab	Wanapum Dam Pool	WP-5SD	J17V91	K1525	Random/ stratified	2/3/09	46.90435	-119.97192	174755.134	540232.159	38	0 - 0.3
OCI	Sediment, shallow	Power grab	Wanapum Dam Pool	WP-5SD	J17VB1	J00322		2/3/09	46.90435	-119.97192	174755.134	540232.159	38	0 - 0.3
OCI	Sediment, shallow	Power grab	Wanapum Dam Pool	WP-6SD	J17V92	K1525	Random/ stratified	2/3/09	46.90305	-119.95703	174618.33	541367.542	58	0 - 0.3
OCI	Sediment, shallow	Power grab	Wanapum Dam Pool	WP-6SD	J17VB2	J00322		2/3/09	46.90305	-119.95703	174618.33	541367.542	58	0 - 0.3
OCI	Sediment, shallow	Power grab	Wanapum Dam Pool	WP-6SD	J18690	J00367		2/3/09	46.90305	-119.95703	174618.33	541367.542	58	0 - 0.3
OCI	Sediment, shallow	Power grab	Priest Rapids Dam	PRD-1SD	J17VC3	K1479	Random/ stratified	12/1/08	46.65017	-119.92104	146529.029	544315.807	58	0 - 0.3
OCI	Sediment, shallow	Power grab	Priest Rapids Dam	PRD-1SD	J17VD6	J00242		12/1/08	46.65017	-119.92104	146529.029	544315.807	58	0 - 0.3
OCI	Sediment, shallow	Power grab	Priest Rapids Dam	PRD-2SD	J17VC2	K1479	Random/ stratified	12/1/08	46.64950	-119.92476	146452.474	544031.612	43	0 - 0.3
OCI	Sediment, shallow	Power grab	Priest Rapids Dam	PRD-2SD	J17VD5	J00242		12/1/08	46.64950	-119.92476	146452.474	544031.612	43	0 - 0.3
OCI	Sediment, shallow	Power grab	Priest Rapids Dam	PRD-3SD	J17VC1	K1479	Random/ stratified	12/1/08	46.64817	-119.92491	146304.559	544021.209	41	0 - 0.3
OCI	Sediment, shallow	Power grab	Priest Rapids Dam	PRD-3SD	J17VD4	J00242		12/1/08	46.64817	-119.92491	146304.559	544021.209	41	0 - 0.3
OCI	Sediment, shallow	Power grab	Priest Rapids Dam	PRD-4SD	J17VC0	K1479	Random/ stratified	12/1/08	46.65044	-119.92071	146559.226	544340.846	60	0 - 0.3
OCI	Sediment, shallow	Power grab	Priest Rapids Dam	PRD-4SD	J17VD3	J00242		12/1/08	46.65044	-119.92071	146559.226	544340.846	60	0 - 0.3
OCI	Sediment, shallow	Power grab	Priest Rapids Dam	PRD-5SD	J17VB9	K1479	Random/ stratified	12/1/08	46.65083	-119.91984	146603.064	544407.119	66.5	0 - 0.3
OCI	Sediment, shallow	Power grab	Priest Rapids Dam	PRD-5SD	J17VD2	J00242		12/1/08	46.65083	-119.91984	146603.064	544407.119	66.5	0 - 0.3
OCI	Sediment, shallow	Power grab	Priest Rapids Dam	PRD-6SD	J17VB7	K1479	Random/ stratified	12/1/08	46.65011	-119.92091	146522.433	544325.807	53	0 - 0.3
OCI	Sediment, shallow	Power grab	Priest Rapids Dam	PRD-6SD	J17VB8	J00242		12/1/08	46.65011	-119.92091	146522.433	544325.807	53	0 - 0.3
OCI	Sediment, shallow	Power grab	Priest Rapids Dam	PRD-7SD	J17VC4	K1479	Random/ stratified	12/1/08	46.64621	-119.92913	146084.355	543699.764	18	0 - 0.3
OCI	Sediment, shallow	Power grab	Priest Rapids Dam	PRD-7SD	J17VD7	J00242		12/1/08	46.64621	-119.92913	146084.355	543699.764	18	0 - 0.3
OCI	Sediment, shallow	Power grab	Priest Rapids Dam	PRD-8SD	J17VC5	K1480	Random/ stratified	12/1/08	46.64633	-119.92827	146098.17	543765.499	34.7	0 - 0.3
OCI	Sediment, shallow	Power grab	Priest Rapids Dam	PRD-8SD	J17VD8	J00244		12/1/08	46.64633	-119.92827	146098.17	543765.499	34.7	0 - 0.3
OCI	Sediment, shallow	Power grab	Priest Rapids Dam	PRD-9SD	J17VC8	K1480	Random/ stratified	12/1/08	46.64722	-119.92673	146197.951	543882.664	51	0 - 0.3
OCI	Sediment, shallow	Power grab	Priest Rapids Dam	PRD-9SD	J17VF1	J00244		12/1/08	46.64722	-119.92673	146197.951	543882.664	51	0 - 0.3
OCI	Sediment, shallow	Power grab	Priest Rapids Dam	PRD-10SD	J17V96	K1479	Random/ stratified	12/1/08	46.65687	-119.90385	147283.546	545625.942	36	0 - 0.3
OCI	Sediment, shallow	Power grab	Priest Rapids Dam	PRD-10SD	J17VB6	J00242		12/1/08	46.65687	-119.90385	147283.546	545625.942	36	0 - 0.3
OCI	Sediment, shallow	Power grab	Priest Rapids Dam	PRD-10SD	J17W22	J00264		12/1/08	46.65687	-119.90385	147283.546	545625.942	36	0 - 0.3
OCI	Sediment, shallow	Power grab	Priest Rapids Dam	PRD-11SD	J17V93	K1479	Random/ stratified	12/1/08	46.65692	-119.90272	147289.757	545712.382	36	0 - 0.3
OCI	Sediment, shallow	Power grab	Priest Rapids Dam	PRD-11SD	J17VB3	J00242		12/1/08	46.65692	-119.90272	147289.757	545712.382	36	0 - 0.3

Table B-4. Sediment and Soil Sampling Summary - Location Information. (48 Pages)

Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
OCI	Sediment, shallow	Power grab	Priest Rapids Dam	PRD-12SD **EPA split collected**	J17V94	K1479	Random/ stratified	12/1/08	46.65567	-119.90668	147148.53	545410.357	50	0 - 0.3
OCI	Sediment, shallow	Power grab	Priest Rapids Dam	PRD-12SD **EPA split collected**	J17VB4	J00242		12/1/08	46.65567	-119.90668	147148.53	545410.357	50	0 - 0.3
OCI	Sediment, shallow	Power grab	Priest Rapids Dam	PRD-13SD	J17V95	K1479	Random/ stratified	12/1/08	46.65535	-119.90798	147112.214	545311.129	21	0 - 0.3
OCI	Sediment, shallow	Power grab	Priest Rapids Dam	PRD-13SD	J17VB5	J00242		12/1/08	46.65535	-119.90798	147112.214	545311.129	21	0 - 0.3
OCI	Sediment, shallow	Power grab	Priest Rapids Dam	PRD-14SD	J17VD1	K1480	Random/ stratified	12/1/08	46.65310	-119.91330	146859.081	544905.823	81	0 - 0.3
OCI	Sediment, shallow	Power grab	Priest Rapids Dam	PRD-14SD	J17VF4	J00244		12/1/08	46.65310	-119.91330	146859.081	544905.823	81	0 - 0.3
OCI	Sediment, shallow	Power grab	Priest Rapids Dam	PRD-15SD	J17VC6	K1480	Random/ stratified	12/1/08	46.65318	-119.91213	146868.64	544995.306	59.5	0 - 0.3
OCI	Sediment, shallow	Power grab	Priest Rapids Dam	PRD-15SD	J17VD9	J00244		12/1/08	46.65318	-119.91213	146868.64	544995.306	59.5	0 - 0.3
OCI	Sediment, shallow	Power grab	Priest Rapids Dam	PRD-16SD	J17VC7	K1480	Random/ stratified	12/1/08	46.65258	-119.91472	146800.475	544797.568	73	0 - 0.3
OCI	Sediment, shallow	Power grab	Priest Rapids Dam	PRD-16SD	J17VF0	J00244		12/1/08	46.65258	-119.91472	146800.475	544797.568	73	0 - 0.3
OCI	Sediment, shallow	Power grab	Priest Rapids Dam	PRD-17SD	J17VC9	K1480	Random/ stratified	12/1/08	46.65242	-119.91505	146782.503	544772.442	75	0 - 0.3
OCI	Sediment, shallow	Power grab	Priest Rapids Dam	PRD-17SD	J17VF2	J00244		12/1/08	46.65242	-119.91505	146782.503	544772.442	75	0 - 0.3
OCI	Sediment, shallow	Power grab	Priest Rapids Dam	PRD-18SD **Duplicate collected**	J17VD0	K1480	Random/ stratified	12/1/08	46.65222	-119.91535	146760.102	544749.645	74	0 - 0.3
OCI	Sediment, shallow	Power grab	Priest Rapids Dam	PRD-18SD **Duplicate collected**	J17VF3	J00244		12/1/08	46.65222	-119.91535	146760.102	544749.645	74	0 - 0.3
OCI	Sediment, shallow	Power grab	Priest Rapids Dam	PRD-18SD **Duplicate collected**	J17W35	J00264		12/1/08	46.65222	-119.91535	146760.102	544749.645	74	0 - 0.3
OCI [b]	Sediment, shoreline	Grab	Below Priest Rapids Dam	SH-1SSD	NA	NA	Random/ stratified	2/5/09	NA	NA	NA	NA	NA	NA
OCI	Sediment, shoreline	Grab	Below Priest Rapids Dam	SH-2SSD **Duplicate collected**	J186D2	K1527	Random/ stratified	2/5/09	46.62887	-119.81794	144224.612	552227.765	NA	0 - 0.3
OCI	Sediment, shoreline	Grab	Below Priest Rapids Dam	SH-3SSD **EPA split collected**	J18KH5	K1557	Random/ stratified	3/4/09	46.62579	-119.87199	143847.898	548091.781	NA	0 - 0.3
OCI	Core, deep (4-in. diameter)	Vibracore	Priest Rapids Dam	PRDC-1SD	J18MW2	K1580	Focused	4/1/09	46.64972	-119.92121	146478.915	544303.162	~56	0 - 0.79
OCI	Core, deep (4-in. diameter)	Vibracore	Priest Rapids Dam	PRDC-2SD	J18MW3	K1580	Focused	4/1/09	46.64972	-119.92121	146478.915	544303.162	~56	0.79 - 1.44
OCI	Core, deep (4-in. diameter)	Vibracore	Priest Rapids Dam	PRDC-3SD	J18MW4	K1580	Focused	4/1/09	46.64972	-119.92121	146478.915	544303.162	~56	1.44 - 2.10
OCI	Core, deep (4-in. diameter)	Vibracore	Priest Rapids Dam	PRDC-4SD	J18MW5	K1580	Focused	4/1/09	46.64972	-119.92121	146478.915	544303.162	~56	2.10 - 2.76
OCI	Core, deep (4-in. diameter)	Vibracore	Priest Rapids Dam	PRDC-5SD	J18MW6	K1580	Focused	4/1/09	46.64972	-119.92121	146478.915	544303.162	~56	2.76 - 3.41
OCI	Core, deep (4-in. diameter)	Vibracore	Priest Rapids Dam	PRDC-6SD	J18MW7	K1580	Focused	4/1/09	46.64972	-119.92121	146478.915	544303.162	~56	3.41 - 4.07
OCI	Core, deep (4-in. diameter)	Vibracore	Priest Rapids Dam	PRDC-7SD	J18MW8	K1580	Focused	4/1/09	46.64972	-119.92121	146478.915	544303.162	~56	4.07 - 4.72
OCI	Core, deep (4-in. diameter)	Vibracore	Priest Rapids Dam	PRDC-8SD	J18MW9	K1580	Focused	4/1/09	46.64972	-119.92121	146478.915	544303.162	~56	4.72 - 4.89
Reactor Area [c]	Sediment, shallow	Power grab	Reactor B left side sediment	RBLS-1SD to RBLS-10SD	NA	NA	Random/ stratified	NA	NA	NA	NA	NA	NA	0 - 0.3 ft
Reactor Area	Sediment, shoreline	Grab	Reactor B left side shoreline sediment	RBLS-1SSD	J186D5	K1537	Random/ stratified	2/10/09	46.64739	-119.62412	146429.635	567045.852	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Reactor B left side shoreline sediment	RBLS-1SSD	J186F5	J00333		2/10/09	46.64739	-119.62412	146429.635	567045.852	NA	0 - 0.3

Table B-4. Sediment and Soil Sampling Summary - Location Information. (48 Pages)

Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
Reactor Area	Sediment, shoreline	Grab	Reactor B left side shoreline sediment	RBLS-2SSD	J186D3	K1537	Random/ stratified	2/10/09	46.64731	-119.62410	146420.76	567047.482	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Reactor B left side shoreline sediment	RBLS-2SSD	J186F3	J00333		2/10/09	46.64731	-119.62410	146420.76	567047.482	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Reactor B left side shoreline sediment	RBLS-3SSD **Duplicate collected**	J186D4	K1537	Random/ stratified	2/10/09	46.64719	-119.62414	146407.388	567044.568	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Reactor B left side shoreline sediment	RBLS-3SSD **Duplicate collected**	J186F4	J00333		2/10/09	46.64719	-119.62414	146407.388	567044.568	NA	0 - 0.3
Reactor Area [b]	Sediment, shoreline	Grab	Reactor B left side shoreline sediment	RBLS-4SSD	NA	NA	Random/ stratified	2/10/09	NA	NA	NA	NA	NA	NA
Reactor Area [b]	Sediment, shoreline	Grab	Reactor B left side shoreline sediment	RBLS-5SSD	NA	NA	Random/ stratified	2/10/09	NA	NA	NA	NA	NA	NA
Reactor Area [b]	Sediment, shoreline	Grab	Reactor B left side shoreline sediment	RBLS-6SSD	NA	NA	Random/ stratified	2/10/09	NA	NA	NA	NA	NA	NA
Reactor Area	Sediment, shoreline	Grab	Reactor B left side shoreline sediment	RBLS-7SSD	J186D6	K1537	Random/ stratified	2/10/09	46.65138	-119.61592	146880.116	567668.539	NA	0 - 0.1
Reactor Area	Sediment, shoreline	Grab	Reactor B left side shoreline sediment	RBLS-7SSD	J186F6	J00333		2/10/09	46.65138	-119.61592	146880.116	567668.539	NA	0 - 0.1
Reactor Area	Sediment, shoreline	Grab	Reactor B left side shoreline sediment	RBLS-7SSD	J18692	J00367		2/10/09	46.65138	-119.61592	146880.116	567668.539	NA	0 - 0.1
Reactor Area [b]	Sediment, shoreline	Grab	Reactor B left side shoreline sediment	RBLS-8SSD	NA	NA	Random/ stratified	2/10/09	NA	NA	NA	NA	NA	NA
Reactor Area [b]	Sediment, shoreline	Grab	Reactor B left side shoreline sediment	RBLS-9SSD	NA	NA	Random/ stratified	2/10/09	NA	NA	NA	NA	NA	NA
Reactor Area [b]	Sediment, shoreline	Grab	Reactor B left side shoreline sediment	RBLS-10SSD	NA	NA	Random/ stratified	2/10/09	NA	NA	NA	NA	NA	NA
Reactor Area [b]	Sediment, shoreline	Grab	Reactor B left side shoreline sediment	RBLS-11SSD	NA	NA	Random/ stratified	2/10/09	NA	NA	NA	NA	NA	NA
Reactor Area [b]	Sediment, shoreline	Grab	Reactor B left side shoreline sediment	RBLS-12SSD	NA	NA	Random/ stratified	2/10/09	NA	NA	NA	NA	NA	NA
Reactor Area [b]	Sediment, shoreline	Grab	Reactor B left side shoreline sediment	RBLS-13SSD	NA	NA	Random/ stratified	2/10/09	NA	NA	NA	NA	NA	NA
Reactor Area [b]	Sediment, shoreline	Grab	Reactor B left side shoreline sediment	RBLS-14SSD	NA	NA	Random/ stratified	2/10/09	NA	NA	NA	NA	NA	NA
Reactor Area [b]	Sediment, shoreline	Grab	Reactor B left side shoreline sediment	RBLS-15SSD	NA	NA	Random/ stratified	2/10/09	NA	NA	NA	NA	NA	NA
Reactor Area	Sediment, shoreline	Grab	Reactor B left side shoreline sediment	RBLS-16SSD	J186F2	K1537	Random/ stratified	2/10/09	46.64335	-119.64525	145962.853	565433.348	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Reactor B left side shoreline sediment	RBLS-16SSD	J186H2	J00333		2/10/09	46.64335	-119.64525	145962.853	565433.348	NA	0 - 0.3
Reactor Area [b]	Sediment, shoreline	Grab	Reactor B left side shoreline sediment	RBLS-17SSD	NA	NA	Random/ stratified	2/10/09	NA	NA	NA	NA	NA	NA
Reactor Area [b]	Sediment, shoreline	Grab	Reactor B left side shoreline sediment	RBLS-18SSD	NA	NA	Random/ stratified	2/10/09	NA	NA	NA	NA	NA	NA
Reactor Area [b]	Sediment, shoreline	Grab	Reactor B left side shoreline sediment	RBLS-19SSD	NA	NA	Random/ stratified	2/10/09	NA	NA	NA	NA	NA	NA
Reactor Area [b]	Sediment, shoreline	Grab	Reactor B left side shoreline sediment	RBLS-20SSD	NA	NA	Random/ stratified	2/10/09	NA	NA	NA	NA	NA	NA
Reactor Area [c]	Sediment, Deep	Power grab	Reactor B Trench	RB-6SD	NA	NA	Random/ stratified	NA	NA	NA	NA	NA	NA	0 - 0.3 ft
Reactor Area	Core, shallow(4-in. diameter)	Vibracore	Reactor B inlet structures	RBC-1SD	J18M19	K1574	Focused	3/26/09	46.63716	-119.65325	145267.996	564828.469	~19	0 - 0.79
Reactor Area	Core, shallow (4-in. diameter)	Vibracore	Reactor B inlet structures	RBC-1SD	J18M30	J00424		3/26/09	46.63716	-119.65325	145267.996	564828.469	~19	0 - 0.79
Reactor Area	Core, shallow (4-in. diameter)	Vibracore	Reactor B inlet structures	RBC-1SD	J18M31	SEQ041409		3/26/09	46.63716	-119.65325	145267.996	564828.469	~19	0 - 0.79

Table B-4. Sediment and Soil Sampling Summary - Location Information. (48 Pages)

Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
Reactor Area	Core, shallow (4-in. diameter)	Vibracore	Reactor B inlet structures	RBC-2SD	J18M20	K1574	Focused	3/26/09	46.63716	-119.65325	145267.996	564828.469	~19	0.79 - 1.44
Reactor Area	Core, shallow (4-in. diameter)	Vibracore	Reactor B inlet structures	RBC-2SD	J18M26	J00424		3/26/09	46.63716	-119.65325	145267.996	564828.469	~19	0.79 - 1.44
Reactor Area	Core, shallow (4-in. diameter)	Vibracore	Reactor B inlet structures	RBC-3SD	J18M21	K1574	Focused	3/26/09	46.63716	-119.65325	145267.996	564828.469	~19	1.44 - 1.97
Reactor Area	Core, shallow (4-in. diameter)	Vibracore	Reactor B inlet structures	RBC-3SD	J18M27	J00424		3/26/09	46.63716	-119.65325	145267.996	564828.469	~19	1.44 - 1.97
Reactor Area [c]	Sediment, shallow	Power grab	Reactor K left side sediment	RKLS-1SD to RKLS-10SD	NA	NA	Random/ stratified	NA	NA	NA	NA	NA	NA	0 - 0.3 ft
Reactor Area [b]	Sediment, shoreline	Grab	Reactor K left side shoreline sediment	RKLS-1SSD	NA	NA	Random/ stratified	2/10/09	NA	NA	NA	NA	NA	NA
Reactor Area [b]	Sediment, shoreline	Grab	Reactor K left side shoreline sediment	RKLS-2SSD	NA	NA	Random/ stratified	2/10/09	NA	NA	NA	NA	NA	NA
Reactor Area [b]	Sediment, shoreline	Grab	Reactor K left side shoreline sediment	RKLS-3SSD	NA	NA	Random/ stratified	2/10/09	NA	NA	NA	NA	NA	NA
Reactor Area [b]	Sediment, shoreline	Grab	Reactor K left side shoreline sediment	RKLS-4SSD	NA	NA	Random/ stratified	2/10/09	NA	NA	NA	NA	NA	NA
Reactor Area [b]	Sediment, shoreline	Grab	Reactor K left side shoreline sediment	RKLS-5SSD	NA	NA	Random/ stratified	2/10/09	NA	NA	NA	NA	NA	NA
Reactor Area [b]	Sediment, shoreline	Grab	Reactor K left side shoreline sediment	RKLS-6SSD	NA	NA	Random/ stratified	2/10/09	NA	NA	NA	NA	NA	NA
Reactor Area [b]	Sediment, shoreline	Grab	Reactor K left side shoreline sediment	RKLS-7SSD	NA	NA	Random/ stratified	2/10/09	NA	NA	NA	NA	NA	NA
Reactor Area [b]	Sediment, shoreline	Grab	Reactor K left side shoreline sediment	RKLS-8SSD	NA	NA	Random/ stratified	2/10/09	NA	NA	NA	NA	NA	NA
Reactor Area [b]	Sediment, shoreline	Grab	Reactor K left side shoreline sediment	RKLS-9SSD	NA	NA	Random/ stratified	2/10/09	NA	NA	NA	NA	NA	NA
Reactor Area [b]	Sediment, shoreline	Grab	Reactor K left side shoreline sediment	RKLS-10SSD	NA	NA	Random/ stratified	2/10/09	NA	NA	NA	NA	NA	NA
Reactor Area [b]	Sediment, shoreline	Grab	Reactor K left side shoreline sediment	RKLS-11SSD	NA	NA	Random/ stratified	2/10/09	NA	NA	NA	NA	NA	NA
Reactor Area	Sediment, shoreline	Grab	Reactor K left side shoreline sediment	RKLS-12SSD **Duplicate & EPA split collected**	J186X2	K1537	Random/ stratified	2/10/09	46.65295	-119.61185	147058.118	567978.084	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Reactor K left side shoreline sediment	RKLS-12SSD **Duplicate & EPA split collected**	J186Y2	J00334		2/10/09	46.65295	-119.61185	147058.118	567978.084	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Reactor K left side shoreline sediment	RKLS-13SSD	J186X6	K1537	Random/ stratified	2/10/09	46.65380	-119.61001	147154.18	568117.844	NA	0 - 0.07
Reactor Area	Sediment, shoreline	Grab	Reactor K left side shoreline sediment	RKLS-13SSD	J186Y6	J00334		2/10/09	46.65380	-119.61001	147154.18	568117.844	NA	0 - 0.07
Reactor Area	Sediment, shoreline	Grab	Reactor K left side shoreline sediment	RKLS-14SSD	J18702	K1537	Random/ stratified	2/10/09	46.65743	-119.60387	147562.967	568583.181	NA	0 - 0.07
Reactor Area	Sediment, shoreline	Grab	Reactor K left side shoreline sediment	RKLS-14SSD	J18712	J00334		2/10/09	46.65743	-119.60387	147562.967	568583.181	NA	0 - 0.07
Reactor Area	Sediment, shoreline	Grab	Reactor K left side shoreline sediment	RKLS-15SSD	J186X3	K1537	Random/ stratified	2/10/09	46.65522	-119.60738	147314.285	568317.343	NA	Not recorded
Reactor Area	Sediment, shoreline	Grab	Reactor K left side shoreline sediment	RKLS-15SSD	J186Y3	J00334		2/10/09	46.65522	-119.60738	147314.285	568317.343	NA	Not recorded
Reactor Area	Sediment, shoreline	Grab	Reactor K left side shoreline sediment	RKLS-15SSD	J186B1	J00367		2/10/09	46.65522	-119.60738	147314.285	568317.343	NA	Not recorded
Reactor Area [b]	Sediment, shoreline	Grab	Reactor K left side shoreline sediment	RKLS-16SSD	NA	NA	Random/ stratified	2/10/09	NA	NA	NA	NA	NA	NA
Reactor Area [b]	Sediment, shoreline	Grab	Reactor K left side shoreline sediment	RKLS-17SSD	NA	NA	Random/ stratified	2/10/09	NA	NA	NA	NA	NA	NA
Reactor Area [b]	Sediment, shoreline	Grab	Reactor K left side shoreline sediment	RKLS-18SSD	NA	NA	Random/ stratified	2/10/09	NA	NA	NA	NA	NA	NA

Table B-4. Sediment and Soil Sampling Summary - Location Information. (48 Pages)

Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
Reactor Area [b]	Sediment, shoreline	Grab	Reactor K left side shoreline sediment	RKLS-19SSD	NA	NA	Random/ stratified	2/10/09	NA	NA	NA	NA	NA	NA
Reactor Area [b]	Sediment, shoreline	Grab	Reactor K left side shoreline sediment	RKLS-20SSD	NA	NA	Random/ stratified	2/10/09	NA	NA	NA	NA	NA	NA
Reactor Area	Core, shallow (4-in. diameter)	Vibracore	Reactor K north inlet structures	RKC1-1SD	J18MH2	K1574	Focused	3/27/09	46.65013	-119.60841	146747.652	568244.91	~24.75	0 - 0.79
Reactor Area	Core, shallow (4-in. diameter)	Vibracore	Reactor K north inlet structures	RKC1-1SD	J18MH3	J00424		3/27/09	46.65013	-119.60841	146747.652	568244.91	~24.75	0 - 0.79
Reactor Area	Core, shallow (4-in. diameter)	Vibracore	Reactor K north inlet structures	RKC1-1SD	J18MH4	SEQ041409		3/27/09	46.65013	-119.60841	146747.652	568244.91	~24.75	0 - 0.79
Reactor Area	Core, shallow (4-in. diameter)	Vibracore	Reactor K north inlet structures	RKC1-2SD	J18MH5	K1574	Focused	3/27/09	46.65013	-119.60841	146747.652	568244.91	~24.75	0.79 - 1.44
Reactor Area	Core, shallow (4-in. diameter)	Vibracore	Reactor K north inlet structures	RKC1-2SD	J18MJ0	J00424		3/27/09	46.65013	-119.60841	146747.652	568244.91	~24.75	0.79 - 1.44
Reactor Area	Core, shallow (4-in. diameter)	Vibracore	Reactor K north inlet structures	RKC1-3SD	J18MH6	K1574	Focused	3/27/09	46.65013	-119.60841	146747.652	568244.91	~24.75	1.44 - 2.10
Reactor Area	Core, shallow (4-in. diameter)	Vibracore	Reactor K north inlet structures	RKC1-3SD	J18MJ1	J00424		3/27/09	46.65013	-119.60841	146747.652	568244.91	~24.75	1.44 - 2.10
Reactor Area	Core, shallow (4-in. diameter)	Vibracore	Reactor K south inlet structures	RKC2-1SD	J18MJ5	K1574	Focused	3/27/09	46.65316	-119.60192	147090.064	568737.817	~21.5	0 - 0.79
Reactor Area	Core, shallow (4-in. diameter)	Vibracore	Reactor K south inlet structures	RKC2-1SD	J18MJ6	J00425		3/27/09	46.65316	-119.60192	147090.064	568737.817	~21.5	0 - 0.79
Reactor Area	Core, shallow (4-in. diameter)	Vibracore	Reactor K south inlet structures	RKC2-1SD	J18MJ7	SEQ041409		3/27/09	46.65316	-119.60192	147090.064	568737.817	~21.5	0 - 0.79
Reactor Area	Core, shallow(4-in. diameter)	Vibracore	Reactor K south inlet structures	RKC2-2SD	J18MJ8	K1574	Focused	3/27/09	46.65316	-119.60192	147090.064	568737.817	~21.5	0.79 - 1.44
Reactor Area	Core, shallow (4-in. diameter)	Vibracore	Reactor K south inlet structures	RKC2-2SD	J18MK3	J00425		3/27/09	46.65316	-119.60192	147090.064	568737.817	~21.5	0.79 - 1.44
Reactor Area	Core, shallow (4-in. diameter)	Vibracore	Reactor K south inlet structures	RKC2-3SD	J18MJ9	K1574	Focused	3/27/09	46.65316	-119.60192	147090.064	568737.817	~21.5	1.44 - 2.10
Reactor Area	Core, shallow (4-in. diameter)	Vibracore	Reactor K south inlet structures	RKC2-3SD	J18MK4	J00425		3/27/09	46.65316	-119.60192	147090.064	568737.817	~21.5	1.44 - 2.10
Reactor Area	Core, shallow (4-in. diameter)	Vibracore	Reactor K south inlet structures	RKC2-4SD	J18MK0	K1574	Focused	3/27/09	46.65316	-119.60192	147090.064	568737.817	~21.5	2.10 - 2.76
Reactor Area	Core, shallow (4-in. diameter)	Vibracore	Reactor K south inlet structures	RKC2-4SD	J18MK5	J00425		3/27/09	46.65316	-119.60192	147090.064	568737.817	~21.5	2.10 - 2.76
Reactor Area	Core, shallow (4-in. diameter)	Vibracore	Reactor K south inlet structures	RKC2-5SD	J18MK1	K1574	Focused	3/27/09	46.65316	-119.60192	147090.064	568737.817	~21.5	2.76 - 3.31
Reactor Area	Core, shallow (4-in. diameter)	Vibracore	Reactor K south inlet structures	RKC2-5SD	J18MK6	J00425		3/27/09	46.65316	-119.60192	147090.064	568737.817	~21.5	2.76 - 3.31
OCI [c]	Sediment, shallow	Power grab	Saddle Mountain Wasteway	SM-1SD to SM-3SD	NA	NA	Focused	NA	NA	NA	NA	NA	NA	0 - 0.3 ft
Reactor Area	Sediment, shoreline	Grab	Reactor N left side shoreline sediment	RNLS-1SSD	J18KH7	K1557	Modified	3/4/09	46.67950	-119.57434	150042.088	570814.299	NA	0 - 0.25
Reactor Area	Sediment, shoreline	Grab	Reactor N left side shoreline sediment	RNLS-1SSD	J18KJ1	J00368		3/4/09	46.67950	-119.57434	150042.088	570814.299	NA	0 - 0.25
Reactor Area	Sediment, shoreline	Grab	Reactor N left side shoreline sediment	RNLS-2SSD	J18KH8	K1557	Modified	3/4/09	46.67992	-119.57373	150089.318	570860.414	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Reactor N left side shoreline sediment	RNLS-2SSD	J18KJ2	J00368		3/4/09	46.67992	-119.57373	150089.318	570860.414	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Reactor N left side shoreline sediment	RNLS-2SSD	J18081	J00419		3/4/09	46.67992	-119.57373	150089.318	570860.414	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Reactor N left side shoreline sediment	RNLS-3SSD	J18KJ5	K1557	Modified	3/4/09	46.68023	-119.57339	150124.079	570886.019	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Reactor N left side shoreline sediment	RNLS-3SSD	J18KJ8	J00368		3/4/09	46.68023	-119.57339	150124.079	570886.019	NA	0 - 0.3

Table B-4. Sediment and Soil Sampling Summary - Location Information. (48 Pages)

Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
Reactor Area	Sediment, shoreline	Grab	Reactor N left side shoreline sediment	RNLS-4SSD	J18KJ4	K1557	Modified	3/4/09	46.68067	-119.57298	150173.352	570916.808	NA	0 - 0.1
Reactor Area	Sediment, shoreline	Grab	Reactor N left side shoreline sediment	RNLS-4SSD	J18KJ7	J00368		3/4/09	46.68067	-119.57298	150173.352	570916.808	NA	0 - 0.1
Reactor Area	Sediment, shoreline	Grab	Reactor N left side shoreline sediment	RNLS-5SSD	J18KJ3	K1557	Modified	3/4/09	46.68101	-119.57270	150211.394	570937.782	NA	0 - 0.13
Reactor Area	Sediment, shoreline	Grab	Reactor N left side shoreline sediment	RNLS-5SSD	J18KJ6	J00368		3/4/09	46.68101	-119.57270	150211.394	570937.782	NA	0 - 0.13
Reactor Area [b]	Sediment, shoreline	Grab	Reactor N left side shoreline sediment	RNLS-6SSD	NA	NA	Random/ stratified	3/4/09	NA	NA	NA	NA	NA	NA
Reactor Area [b]	Sediment, shoreline	Grab	Reactor N left side shoreline sediment	RNLS-7SSD	NA	NA	Random/ stratified	3/4/09	NA	NA	NA	NA	NA	NA
Reactor Area [b]	Sediment, shoreline	Grab	Reactor N left side shoreline sediment	RNLS-8SSD	NA	NA	Random/ stratified	3/4/09	NA	NA	NA	NA	NA	NA
Reactor Area [b]	Sediment, shoreline	Grab	Reactor N left side shoreline sediment	RNLS-9SSD	NA	NA	Random/ stratified	3/4/09	NA	NA	NA	NA	NA	NA
Reactor Area [b]	Sediment, shoreline	Grab	Reactor N left side shoreline sediment	RNLS-10SSD	NA	NA	Random/ stratified	3/4/09	NA	NA	NA	NA	NA	NA
Reactor Area	Core, shallow (4-in. diameter)	Vibracore	Reactor N inlet structures	RNC-1SD	J18MR6	K1580	Focused	4/2/09	46.67453	-119.57250	149491.338	570961.551	~18	0 - 0.72
Reactor Area	Core, shallow (4-in. diameter)	Vibracore	Reactor N inlet structures	RNC-1SD	J18MR7	J00431		4/2/09	46.67453	-119.57250	149491.338	570961.551	~18	0 - 0.72
Reactor Area	Core, shallow (4-in. diameter)	Vibracore	Reactor N inlet structures	RNC-1SD	J18MR8	SEQ041409		4/2/09	46.67453	-119.57250	149491.338	570961.551	~18	0 - 0.72
Reactor Area	Core, shallow (4-in. diameter)	Vibracore	Reactor N inlet structures	RNC-2SD	J18MR9	K1580	Focused	4/2/09	46.67453	-119.57250	149491.338	570961.551	~18	0.72 - 1.38
Reactor Area	Core, shallow (4-in. diameter)	Vibracore	Reactor N inlet structures	RNC-2SD	J18MT4	J00431		4/2/09	46.67453	-119.57250	149491.338	570961.551	~18	0.72 - 1.38
Reactor Area	Core, shallow (4-in. diameter)	Vibracore	Reactor N inlet structures	RNC-3SD	J18MT0	K1580	Focused	4/2/09	46.67453	-119.57250	149491.338	570961.551	~18	1.38 - 1.61
Reactor Area	Core, shallow (4-in. diameter)	Vibracore	Reactor N inlet structures	RNC-3SD	J18MT5	J00431		4/2/09	46.67453	-119.57250	149491.338	570961.551	~18	1.38 - 1.61
Reactor Area	Sediment, shallow	Power grab	Reactor D downriver sediment	RDD-1SD	J17WD4	K1480	Random/ stratified	12/2/08	46.70631	-119.53538	153057.659	573758.204	0	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Reactor D downriver sediment	RDD-1SD	J17WF4	J00244		12/2/08	46.70631	-119.53538	153057.659	573758.204	0	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Reactor D downriver sediment	RDD-1SD	J17WH4	SEQ2981		12/3/08	46.70631	-119.53538	153057.659	573758.204	0	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Reactor D downriver sediment	RDD-2SD	J17WD3	K1480	Random/ stratified	12/3/08	46.70596	-119.53525	153018.879	573768.62	0	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Reactor D downriver sediment	RDD-2SD	J17WF3	J00244		12/3/08	46.70596	-119.53525	153018.879	573768.62	0	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Reactor D downriver sediment	RDD-2SD	J17WH3	SEQ2981		12/3/08	46.70596	-119.53525	153018.879	573768.62	0	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Reactor D downriver sediment	RDD-3SD	J17WB6	K1482	Random/ stratified	12/3/08	46.72665	-119.51977	155333.115	574923.642	10	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Reactor D downriver sediment	RDD-3SD	J17WC6	J00246		12/3/08	46.72665	-119.51977	155333.115	574923.642	10	0 - 0.3
Reactor Area [b]	Sediment, shallow	Power grab	Reactor D downriver sediment	RDD-4SD	NA	NA	Random/ stratified	12/3/08	NA	NA	NA	NA	NA	NA
Reactor Area	Sediment, shallow	Power grab	Reactor D downriver sediment	RDD-5SD **WDOE split collected**	J17WB0	K1482	Random/ stratified	12/3/08	46.72898	-119.51627	155595.42	575187.92	0	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Reactor D downriver sediment	RDD-5SD **WDOE split collected**	J17WC0	J00246		12/3/08	46.72898	-119.51627	155595.42	575187.92	0	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Reactor D downriver sediment	RDD-5SD **WDOE split collected**	J17WD0	SEQ2981		12/3/08	46.72898	-119.51627	155595.42	575187.92	0	0 - 0.3

Table B-4. Sediment and Soil Sampling Summary - Location Information. (48 Pages)

Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
Reactor Area	Sediment, shallow	Power grab	Reactor D downriver sediment	RDD-6SD	J17W98	K1482	Random/ stratified	12/3/08	46.72790	-119.50970	155481.664	575691.555	0	0 - 0.25
Reactor Area	Sediment, shallow	Power grab	Reactor D downriver sediment	RDD-6SD	J17WB8	J00246		12/3/08	46.72790	-119.50970	155481.664	575691.555	0	0 - 0.25
Reactor Area	Sediment, shallow	Power grab	Reactor D downriver sediment	RDD-6SD	J17WC8	SEQ2981		12/3/08	46.72790	-119.50970	155481.664	575691.555	0	0 - 0.25
Reactor Area	Sediment, shallow	Power grab	Reactor D downriver sediment	RDD-7SD	J17WF1	K1482	Random/ stratified	12/3/08	46.72708	-119.50642	155393.676	575943.39	0	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Reactor D downriver sediment	RDD-7SD	J17WH1	J00248		12/3/08	46.72708	-119.50642	155393.676	575943.39	0	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Reactor D downriver sediment	RDD-7SD	J17W25	J00264		12/3/08	46.72708	-119.50642	155393.676	575943.39	0	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Reactor D downriver sediment	RDD-8SD	J17WB1	K1480	Random/ stratified	12/3/08	46.72204	-119.53278	154808.447	573935.559	0	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Reactor D downriver sediment	RDD-8SD	J17WC1	J00244		12/3/08	46.72204	-119.53278	154808.447	573935.559	0	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Reactor D downriver sediment	RDD-8SD	J17WD1	SEQ2981		12/2/08	46.72204	-119.53278	154808.447	573935.559	0	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Reactor D downriver sediment	RDD-9SD **WDOH split collected**	J17W99	K1480	Random/ stratified	12/2/08	46.72168	-119.53202	154769.146	573994.143	12	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Reactor D downriver sediment	RDD-9SD **WDOH split collected**	J17WB9	J00244		12/2/08	46.72168	-119.53202	154769.146	573994.143	12	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Reactor D downriver sediment	RDD-9SD **WDOH split collected**	J17WC9	SEQ2981		12/2/08	46.72168	-119.53202	154769.146	573994.143	12	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Reactor D downriver sediment	RDD-10SD	J17WF0	K1480	Random/ stratified	12/2/08	46.72298	-119.53228	154913.395	573972.496	4	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Reactor D downriver sediment	RDD-10SD	J17WH0	J00244		12/2/08	46.72298	-119.53228	154913.395	573972.496	4	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Reactor D downriver sediment	RDD-11SD	J17WB7	K1482	Random/ stratified	12/3/08	46.72384	-119.49744	155042.243	576634.309	0	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Reactor D downriver sediment	RDD-11SD	J17WC7	J00246		12/3/08	46.72384	-119.49744	155042.243	576634.309	0	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Reactor D downriver sediment	RDD-12SD	J17WB5	K1482	Random/ stratified	12/3/08	46.72355	-119.49697	155010.467	576670.643	0	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Reactor D downriver sediment	RDD-12SD	J17WC5	J00246		12/3/08	46.72355	-119.49697	155010.467	576670.643	0	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Reactor D downriver sediment	RDD-13SD	J17WB4	K1482	Random/ stratified	12/3/08	46.72316	-119.49642	154967.655	576713.234	0	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Reactor D downriver sediment	RDD-13SD	J17WC4	J00246		12/3/08	46.72316	-119.49642	154967.655	576713.234	0	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Reactor D downriver sediment	RDD-14SD	J17WB2	K1482	Random/ stratified	12/3/08	46.72146	-119.49318	154781.861	576963.297	0	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Reactor D downriver sediment	RDD-14SD	J17WC2	J00246		12/3/08	46.72146	-119.49318	154781.861	576963.297	0	0 - 0.3
Reactor Area [c]	Sediment, shallow	Power grab	Reactor D downriver sediment	RDD-15SD to RDD-20SD	NA	NA	Random/ stratified	NA	NA	NA	NA	NA	NA	NA
Reactor Area [b]	Sediment, shoreline	Grab	Reactor D downriver shoreline sediment	RDD-1SSD	NA	NA	Random/ stratified	2/11/09	NA	NA	NA	NA	NA	NA
Reactor Area [b]	Sediment, shoreline	Grab	Reactor D downriver shoreline sediment	RDD-2SSD	NA	NA	Random/ stratified	2/11/09	NA	NA	NA	NA	NA	NA
Reactor Area	Sediment, shoreline	Grab	Reactor D downriver shoreline sediment	RDD-3SSD	J18763	K1539	Random/ stratified	2/11/09	46.70719	-119.53175	153158.87	574034.552	NA	0 - 0.15
Reactor Area	Sediment, shoreline	Grab	Reactor D downriver shoreline sediment	RDD-3SSD	J18773	J00335		2/11/09	46.70719	-119.53175	153158.87	574034.552	NA	0 - 0.15
Reactor Area [b]	Sediment, shoreline	Grab	Reactor D downriver shoreline sediment	RDD-4SSD	NA	NA	Random/ stratified	2/11/09	NA	NA	NA	NA	NA	NA
Reactor Area [b]	Sediment, shoreline	Grab	Reactor D downriver shoreline sediment	RDD-5SSD	NA	NA	Random/ stratified	2/11/09	NA	NA	NA	NA	NA	NA

Table B-4. Sediment and Soil Sampling Summary - Location Information. (48 Pages)

Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
Reactor Area [b]	Sediment, shoreline	Grab	Reactor D downriver shoreline sediment	RDD-6SSD	NA	NA	Random/ stratified	2/11/09	NA	NA	NA	NA	NA	NA
Reactor Area [b]	Sediment, shoreline	Grab	Reactor D downriver shoreline sediment	RDD-7SSD	NA	NA	Random/ stratified	2/11/09	NA	NA	NA	NA	NA	NA
Reactor Area	Sediment, shoreline	Grab	Reactor D downriver shoreline sediment	RDD-8SSD	J18764	K1539	Random/ stratified	2/11/09	46.72448	-119.50928	155101.942	575728.43	NA	0 - 0.15
Reactor Area	Sediment, shoreline	Grab	Reactor D downriver shoreline sediment	RDD-8SSD	J18774	J00335		2/11/09	46.72448	-119.50928	155101.942	575728.43	NA	0 - 0.15
Reactor Area [b]	Sediment, shoreline	Grab	Reactor D downriver shoreline sediment	RDD-9SSD	NA	NA	Random/ stratified	2/11/09	NA	NA	NA	NA	NA	NA
Reactor Area	Sediment, shoreline	Grab	Reactor D downriver shoreline sediment	RDD-10SSD	J18766	K1539	Random/ stratified	2/11/09	46.72217	-119.50370	154850.564	576158.174	NA	0 - 0.26
Reactor Area	Sediment, shoreline	Grab	Reactor D downriver shoreline sediment	RDD-10SSD	J18776	J00335		2/11/09	46.72217	-119.50370	154850.564	576158.174	NA	0 - 0.26
Reactor Area	Soil	Grab	Island 3 soil	I3-1S	J189Y0	K1554	Random/ stratified	3/2/09	46.72288	-119.51104	154922.418	575596.137	NA	0 - 0.26
Reactor Area	Soil	Grab	Island 3 soil	I3-2S	J189Y1	K1554	Random/ stratified	3/2/09	46.72285	-119.50980	154920.273	575690.959	NA	0 - 0.3
Reactor Area	Soil	Grab	Island 3 soil	I3-3S	J189Y7	K1554	Random/ stratified	3/2/09	46.72207	-119.50565	154837.568	576009.262	NA	0 - 0.3
Reactor Area [b]	Soil	Grab	Island 3 soil	I3-4S	NA	NA	Random/ stratified	3/2/09	NA	NA	NA	NA	NA	NA
Reactor Area	Soil	Grab	Island 3 soil	I3-5S	J189Y3	K1554	Random/ stratified	3/2/09	46.72168	-119.51124	154788.849	575582.522	NA	0 - 0.3
Reactor Area	Soil	Grab	Island 3 soil	I3-6S	J189Y9	K1554	Random/ stratified	3/2/09	46.72204	-119.51051	154829.562	575637.819	NA	0 - 0.26
Reactor Area	Soil	Grab	Island 3 soil	I3-7S	J189Y5	K1554	Random/ stratified	3/2/09	46.72184	-119.50885	154808.926	575764.984	NA	0 - 0.3
Reactor Area	Soil	Grab	Island 3 soil	I3-8S	J189Y6	K1554	Random/ stratified	3/2/09	46.72138	-119.50672	154759.846	575928.44	NA	0 - 0.3
Reactor Area	Soil	Grab	Island 3 soil	I3-8S	J18HX0	None		3/2/09	46.72138	-119.50672	154759.846	575928.44	NA	0 - 0.3
Reactor Area	Soil	Grab	Island 3 soil	I3-9S	J189Y8	K1554	Random/ stratified	3/2/09	46.72132	-119.50474	154755.085	576079.871	NA	0 - 0.3
Reactor Area	Soil	Grab	Island 3 soil	I3-10S	J189Y4	K1554	Random/ stratified	3/2/09	46.72035	-119.50245	154649.484	576256.278	NA	0 - 0.3
Reactor Area	Core, shallow (4-in. diameter)	Vibracore	Reactor D inlet structures	RDC-1SD	J18MT9	K1580	Focused	4/2/09	46.69429	-119.54981	151708.272	572670.985	~3.5	0 - 0.75
Reactor Area	Core, shallow (4-in. diameter)	Vibracore	Reactor D inlet structures	RDC-1SD	J18MV0	J00431		4/2/09	46.69429	-119.54981	151708.272	572670.985	~3.5	0 - 0.75
Reactor Area	Core, shallow (4-in. diameter)	Vibracore	Reactor D inlet structures	RDC-1SD	J18MV1	SEQ041409		4/2/09	46.69429	-119.54981	151708.272	572670.985	~3.5	0 - 0.75
Reactor Area	Sediment, shallow	Power grab	Locke Island sediments	LI-1SD	J17WH9	K1482	Random/ stratified	12/3/08	46.71487	-119.46943	154072.851	578788.262	10	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Locke Island sediments	LI-1SD	J17WJ9	J00246		12/3/08	46.71487	-119.46943	154072.851	578788.262	10	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Locke Island sediments	LI-1SD	J17WK9	SEQ2981		12/3/08	46.71487	-119.46943	154072.851	578788.262	10	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Locke Island sediments	LI-1SD	J17W26	J00264		12/3/08	46.71487	-119.46943	154072.851	578788.262	10	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Locke Island sediments	LI-2SD **EPA split collected**	J17WJ3	K1482	Random/ stratified	12/3/08	46.71160	-119.46770	153711.132	578925.272	0	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Locke Island sediments	LI-2SD **EPA split collected**	J17WK3	J00246		12/3/08	46.71160	-119.46770	153711.132	578925.272	0	0 - 0.3

Table B-4. Sediment and Soil Sampling Summary - Location Information. (48 Pages)

Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
Reactor Area	Sediment, shallow	Power grab	Locke Island sediments	LI-3SD	J17WH6	K1482	Random/ stratified	12/3/08	46.70547	-119.46402	153033.494	579215.562	0	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Locke Island sediments	LI-3SD	J17WJ6	J00246		12/3/08	46.70547	-119.46402	153033.494	579215.562	0	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Locke Island sediments	LI-3SD	J17WK6	SEQ2981		12/3/08	46.70547	-119.46402	153033.494	579215.562	0	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Locke Island sediments	LI-4SD	J17WH8	K1482	Random/ stratified	12/3/08	46.70292	-119.45947	152754.65	579567.194	0	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Locke Island sediments	LI-4SD	J17WJ8	J00248		12/3/08	46.70292	-119.45947	152754.65	579567.194	0	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Locke Island sediments	LI-4SD	J17WK8	SEQ2981		12/3/08	46.70292	-119.45947	152754.65	579567.194	0	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Locke Island sediments	LI-5SD	J17WH7	K1482	Random/ stratified	12/3/08	46.70050	-119.45407	152491.139	579983.663	0	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Locke Island sediments	LI-5SD	J17WJ7	J00248		12/3/08	46.70050	-119.45407	152491.139	579983.663	0	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Locke Island sediments	LI-5SD	J17WK7	SEQ2981		12/3/08	46.70050	-119.45407	152491.139	579983.663	0	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Locke Island sediments	LI-6SD	J17WJ2	K1482	Random/ stratified	12/3/08	46.69460	-119.45028	151839.228	580282.2	3	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Locke Island sediments	LI-6SD	J17WK2	J00248		12/3/08	46.69460	-119.45028	151839.228	580282.2	3	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Locke Island sediments	LI-7SD	J17WJ0	K1482	Random/ stratified	12/1/08	46.69283	-119.44663	151646.222	580563.962	10	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Locke Island sediments	LI-7SD	J17WK0	J00248		12/1/08	46.69283	-119.44663	151646.222	580563.962	10	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Locke Island sediments	LI-8SD	J17WJ5	K1482	Random/ stratified	12/3/08	46.68963	-119.44567	151291.537	580642.135	Not recorded	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Locke Island sediments	LI-8SD	J17WK5	J00248		12/3/08	46.68963	-119.44567	151291.537	580642.135	Not recorded	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Locke Island sediments	LI-9SD	J17WJ1	K1484	Random/ stratified	12/4/08	46.68619	-119.44500	150909.882	580698.492	0	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Locke Island sediments	LI-9SD	J17WK1	J00249		12/4/08	46.68619	-119.44500	150909.882	580698.492	0	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Locke Island sediments	LI-10SD	J17WJ4	K1484	Random/ stratified	12/4/08	46.6819	-119.4451	150432.966	580697.22	0	0 - 0.3
Reactor Area	Sediment, shallow	Power grab	Locke Island sediments	LI-10SD	J17WK4	J00249		12/4/08	46.6819	-119.4451	150432.966	580697.22	0	0 - 0.3
Reactor Area [c]	Sediment, shallow	Power grab	Locke Island sediment west side	LI-11SD	NA	NA	Random/ stratified	NA	NA	NA	NA	NA	NA	0 - 0.3 ft
Reactor Area	Sediment, shoreline	Grab	Locke Island sediment west side	LI-11SSD	J18779	K1540	Random/ stratified	2/12/09	46.69587	-119.45897	151971.575	579615.768	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Locke Island sediment west side	LI-11SSD	J18781	J00338		2/12/09	46.69587	-119.45897	151971.575	579615.768	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Locke Island sediment west side	LI-11SSD	J18782	SEQ022709		2/12/09	46.69587	-119.45897	151971.575	579615.768	NA	0 - 0.3
Reactor Area [c]	Sediment, shallow	Power grab	Native American cultural site (White Bluffs east side of river)	WBT-1SD to WBT-10SD	NA	NA	Random/ stratified	NA	NA	NA	NA	NA	NA	0 - 0.3 ft
Reactor Area	Sediment, shoreline	Grab	Native American cultural site (White Bluffs east side of river)	WBT-1SSD	J18796	K1540	Random/ stratified	2/12/09	46.68007	-119.44852	150226.076	580438.326	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Native American cultural site (White Bluffs east side of river)	WBT-1SSD	J187B6	J00337		2/12/09	46.68007	-119.44852	150226.076	580438.326	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Native American cultural site (White Bluffs east side of river)	WBT-1SSD	J187D0	SEQ022709		2/12/09	46.68007	-119.44852	150226.076	580438.326	NA	0 - 0.3

Table B-4. Sediment and Soil Sampling Summary - Location Information. (48 Pages)

Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
Reactor Area	Sediment, shoreline	Grab	Native American cultural site (White Bluffs east side of river)	WBT-2SSD	J18797	K1540	Random/ stratified	2/12/09	46.68007	-119.44951	150225.067	580362.595	NA	0 - 0.2
Reactor Area	Sediment, shoreline	Grab	Native American cultural site (White Bluffs east side of river)	WBT-2SSD	J187B7	J00337		2/12/09	46.68007	-119.44951	150225.067	580362.595	NA	0 - 0.2
Reactor Area	Sediment, shoreline	Grab	Native American cultural site (White Bluffs east side of river)	WBT-2SSD	J187D1	SEQ022709		2/12/09	46.68007	-119.44951	150225.067	580362.595	NA	0 - 0.2
Reactor Area	Sediment, shoreline	Grab	Native American cultural site (White Bluffs east side of river)	WBT-3SSD	J18798	K1540	Random/ stratified	2/12/09	46.67992	-119.45026	150207.632	580305.446	NA	0 - 0.13
Reactor Area	Sediment, shoreline	Grab	Native American cultural site (White Bluffs east side of river)	WBT-3SSD	J187B8	J00337		2/12/09	46.67992	-119.45026	150207.632	580305.446	NA	0 - 0.13
Reactor Area	Sediment, shoreline	Grab	Native American cultural site (White Bluffs east side of river)	WBT-4SSD	J18799	K1540	Random/ stratified	2/12/09	46.67935	-119.45109	150143.434	580242.797	NA	0 - 0.13
Reactor Area	Sediment, shoreline	Grab	Native American cultural site (White Bluffs east side of river)	WBT-4SSD	J187B9	J00337		2/12/09	46.67935	-119.45109	150143.434	580242.797	NA	0 - 0.13
Reactor Area [b]	Sediment, shoreline	Grab	Native American cultural site (White Bluffs east side of river)	WBT-5SSD	NA	NA	Random/ stratified	2/12/09	NA	NA	NA	NA	NA	NA
Reactor Area	Sediment, shoreline	Grab	Native American cultural site (White Bluffs east side of river)	WBT-6SSD	J18794	K1540	Random/ stratified	2/12/09	46.67867	-119.45173	150067.204	580194.843	NA	0 - 0.16
Reactor Area	Sediment, shoreline	Grab	Native American cultural site (White Bluffs east side of river)	WBT-6SSD	J187B4	J187B4		2/12/09	46.67867	-119.45173	150067.204	580194.843	NA	0 - 0.16
Reactor Area	Sediment, shoreline	Grab	Native American cultural site (White Bluffs east side of river)	WBT-6SSD	J187C8	SEQ022709		2/12/09	46.67867	-119.45173	150067.204	580194.843	NA	0 - 0.16
Reactor Area	Sediment, shoreline	Grab	Native American cultural site (White Bluffs east side of river)	WBT-6SSD	J18689	J00364		2/12/09	46.67867	-119.45173	150067.204	580194.843	NA	0 - 0.16
Reactor Area [b]	Sediment, shoreline	Grab	Native American cultural site (White Bluffs east side of river)	WBT-7SSD	NA	NA	Random/ stratified	2/12/09	NA	NA	NA	NA	NA	NA
Reactor Area	Sediment, shoreline	Grab	Native American cultural site (White Bluffs east side of river)	WBT-8SSD	J187B0	K1540	Random/ stratified	2/12/09	46.67811	-119.45234	150004.343	580149.007	NA	0 - 0.23
Reactor Area	Sediment, shoreline	Grab	Native American cultural site (White Bluffs east side of river)	WBT-8SSD	J187C0	J00337		2/12/09	46.67811	-119.45234	150004.343	580149.007	NA	0 - 0.23
Reactor Area [b]	Sediment, shoreline	Grab	Native American cultural site (White Bluffs east side of river)	WBT-9SSD	NA	NA	Random/ stratified	2/12/09	NA	NA	NA	NA	NA	NA
Reactor Area	Sediment, shoreline	Grab	Native American cultural site (White Bluffs east side of river)	WBT-10SSD **Duplicate collected**	J18795	K1540	Random/ stratified	2/12/09	46.67706	-119.45291	149887.061	580106.952	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Native American cultural site (White Bluffs east side of river)	WBT-10SSD **Duplicate collected**	J187B5	J00337		2/12/09	46.67706	-119.45291	149887.061	580106.952	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Native American cultural site (White Bluffs east side of river)	WBT-10SSD **Duplicate collected**	J187C9	SEQ022709		2/12/09	46.67706	-119.45291	149887.061	580106.952	NA	0 - 0.3

Table B-4. Sediment and Soil Sampling Summary - Location Information. (48 Pages)

Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
OCI	Sediment, shallow	Power grab	WB-10 Wasteway	WBT-11SD	J17X01	K1484	Focused	12/4/08	46.67943	-119.44641	150157.097	580600.682	6	0 - 0.3
OCI	Sediment, shallow	Power grab	WB-10 Wasteway	WBT-11SD	J17X04	J00249		12/4/08	46.67943	-119.44641	150157.097	580600.682	6	0 - 0.3
OCI	Sediment, shallow	Power grab	WB-10 Wasteway	WBT-12SD	J17X02	K1484	Focused	12/4/08	46.67970	-119.44668	150186.831	580579.627	6	0 - 0.3
OCI	Sediment, shallow	Power grab	WB-10 Wasteway	WBT-12SD	J17X05	J00249		12/4/08	46.67970	-119.44668	150186.831	580579.627	6	0 - 0.3
OCI	Sediment, shallow	Power grab	WB-10 Wasteway	WBT-13SD	J17X03	K1540	Focused	12/4/08	46.67865	-119.44672	150070.087	580578.126	0	0 - 0.16
OCI	Sediment, shallow	Power grab	WB-10 Wasteway	WBT-13SD	J17X06	J00337		12/4/08	46.67865	-119.44672	150070.087	580578.126	0	0 - 0.16
Reactor Area	Sediment, shoreline	Grab	Reactor H island shoreline sediment	RH-1SSD **Duplicate collected**	J187D3	K1539	Random/ stratified	2/11/09	46.71682	-119.48237	154276.743	577796.243	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Reactor H island shoreline sediment	RH-1SSD **Duplicate collected**	J187F3	J00335		2/11/09	46.71682	-119.48237	154276.743	577796.243	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Reactor H island shoreline sediment	RH-2SSD	J187F0	K1540	Random/ stratified	2/12/09	46.71623	-119.48085	154212.667	577913.285	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Reactor H island shoreline sediment	RH-2SSD	J187H0	J00337		2/12/09	46.71623	-119.48085	154212.667	577913.285	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Reactor H island shoreline sediment	RH-3SSD	J187D8	K1540	Random/ stratified	2/12/09	46.71627	-119.48003	154217.923	577975.913	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Reactor H island shoreline sediment	RH-3SSD	J187F8	J00337		2/12/09	46.71627	-119.48003	154217.923	577975.913	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Reactor H island shoreline sediment	RH-4SSD	J187D4	K1540	Random/ stratified	2/12/09	46.71592	-119.48303	154176.06	577747.08	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Reactor H island shoreline sediment	RH-4SSD	J187F4	J00337		2/12/09	46.71592	-119.48303	154176.06	577747.08	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Reactor H island shoreline sediment	RH-4SSD	J18693	J00364		2/12/09	46.71592	-119.48303	154176.06	577747.08	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Reactor H island shoreline sediment	RH-5SSD	J187D6	K1540	Random/ stratified	2/12/09	46.71513	-119.48183	154089.438	577839.948	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Reactor H island shoreline sediment	RH-5SSD	J187F6	J00338		2/12/09	46.71513	-119.48183	154089.438	577839.948	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Reactor H island shoreline sediment	RH-6SSD	J187D9	K1540	Random/ stratified	2/12/09	46.71500	-119.48122	154075.591	577886.767	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Reactor H island shoreline sediment	RH-6SSD	J187F9	J00338		2/12/09	46.71500	-119.48122	154075.591	577886.767	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Reactor H island shoreline sediment	RH-7SSD	J187D7	K1540	Random/ stratified	2/12/09	46.71502	-119.48017	154078.851	577967.007	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Reactor H island shoreline sediment	RH-7SSD	J187F7	J00338		2/12/09	46.71502	-119.48017	154078.851	577967.007	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Reactor H island shoreline sediment	RH-8SSD	J187D2	K1540	Random/ stratified	2/12/09	46.71505	-119.48358	154078.821	577706.281	NA	0 - 0.23
Reactor Area	Sediment, shoreline	Grab	Reactor H island shoreline sediment	RH-8SSD	J187F2	J00337		2/12/09	46.71505	-119.48358	154078.821	577706.281	NA	0 - 0.23
Reactor Area	Sediment, shoreline	Grab	Reactor H island shoreline sediment	RH-9SSD	J187D5	K1540	Random/ stratified	2/12/09	46.71448	-119.48238	154016.65	577798.834	NA	0 - 0.16
Reactor Area	Sediment, shoreline	Grab	Reactor H island shoreline sediment	RH-9SSD	J187F5	J00337		2/12/09	46.71448	-119.48238	154016.65	577798.834	NA	0 - 0.16
Reactor Area	Sediment, shoreline	Grab	Reactor H island shoreline sediment	RH-10SSD	J187F1	K1540	Random/ stratified	2/12/09	46.71395	-119.47920	153960.884	578042.7	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Reactor H island shoreline sediment	RH-10SSD	J187H1	J00337		2/12/09	46.71395	-119.47920	153960.884	578042.7	NA	0 - 0.3
Reactor Area	Soil	Grab	Locke Island soil	LI-1S	J18B03	K1554	Random/ stratified	3/2/09	46.69511	-119.45479	151891.332	579936.546	NA	0 - 0.3
Reactor Area	Soil	Grab	Locke Island soil	LI-2S	J18B09	K1554	Random/ stratified	3/2/09	46.69529	-119.45583	151910.285	579856.748	NA	0 - 0.3

Table B-4. Sediment and Soil Sampling Summary - Location Information. (48 Pages)

Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
Reactor Area	Soil	Grab	Locke Island soil	LI-3S **Duplicate collected**	J18B00	K1554	Random/ stratified	3/2/09	46.69702	-119.45893	152099.434	579617.14	NA	0 - 0.3
Reactor Area	Soil	Grab	Locke Island soil	LI-4S	J18B08	K1554	Random/ stratified	3/2/09	46.70025	-119.46025	152457.104	579511.464	NA	0 - 0.3
Reactor Area	Soil	Grab	Locke Island soil	LI-5S	J18B07	K1554	Random/ stratified	3/2/09	46.70162	-119.46303	152606.575	579296.883	NA	0 - 0.3
Reactor Area	Soil	Grab	Locke Island soil	LI-6S	J18B02	K1554	Random/ stratified	3/2/09	46.70522	-119.46819	153001.527	578897.087	NA	0 - 0.3
Reactor Area	Soil	Grab	Locke Island soil	LI-7S	J18B04	K1554	Random/ stratified	3/2/09	46.70038	-119.46472	152467.057	579169.466	NA	0 - 0.3
Reactor Area	Soil	Grab	Locke Island soil	LI-8S	J18B01	K1554	Random/ stratified	3/2/09	46.70137	-119.46673	152575.076	579014.325	NA	0 - 0.3
Reactor Area	Soil	Grab	Locke Island soil	LI-8S	J18HW9	K1554		3/2/09	46.70137	-119.46673	152575.076	579014.325	NA	0 - 0.3
Reactor Area	Soil	Grab	Locke Island soil	LI-9S	J18B05	K1554	Random/ stratified	3/2/09	46.70275	-119.46821	152726.976	578899.149	NA	0 - 0.3
Reactor Area	Soil	Grab	Locke Island soil	LI-10S	J18B06	K1554	Random/ stratified	3/2/09	46.70516	-119.46928	152993.769	578813.833	NA	0 - 0.3
White Bluffs Townsite [b]	Sediment, shallow	Power grab	Bottom of H-Slough shallow sediment	HT-1SD	NA	NA	Random/ stratified	12/4/08	NA	NA	NA	NA	NA	NA
White Bluffs Townsite	Sediment, shallow	Power grab	Bottom of H-Slough shallow sediment	HT-2SD	J17YB4	K1484	Random/ stratified	12/4/08	46.67788	-119.46167	149969.341	579435.613	11	0 - 0.3
White Bluffs Townsite	Sediment, shallow	Power grab	Bottom of H-Slough shallow sediment	HT-2SD	J17YD4	J00249		12/4/08	46.67788	-119.46167	149969.341	579435.613	11	0 - 0.3
White Bluffs Townsite [b]	Sediment, shallow	Power grab	Bottom of H-Slough shallow sediment	HT-3SD	NA	NA	Random/ stratified	12/4/08	NA	NA	NA	NA	NA	NA
White Bluffs Townsite	Sediment, shallow	Power grab	Bottom of H-Slough shallow sediment	HT-4SD	J17Y97	K1484	Random/ stratified	12/4/08	46.67643	-119.45932	149810.549	579617.511	5	0 - 0.3
White Bluffs Townsite	Sediment, shallow	Power grab	Bottom of H-Slough shallow sediment	HT-4SD	J17YC7	J00249		12/4/08	46.67643	-119.45932	149810.549	579617.511	5	0 - 0.3
White Bluffs Townsite	Sediment, shallow	Power grab	Bottom of H-Slough shallow sediment	HT-4SD	J17YC3	SEQ2981		12/4/08	46.67643	-119.45932	149810.549	579617.511	5	0 - 0.3
White Bluffs Townsite [b]	Sediment, shallow	Power grab	Bottom of H-Slough shallow sediment	HT-5SD	NA	NA	Random/ stratified	12/4/08	NA	NA	NA	NA	NA	NA
White Bluffs Townsite	Sediment, shallow	Power grab	Bottom of H-Slough shallow sediment	HT-6SD **WDOE split collected**	J17Y96	K1484	Random/ stratified	12/4/08	46.67560	-119.45858	149719.046	579675.34	9	0 - 0.3
White Bluffs Townsite	Sediment, shallow	Power grab	Bottom of H-Slough shallow sediment	HT-6SD **WDOE split collected**	J17YC6	J00249		12/4/08	46.67560	-119.45858	149719.046	579675.34	9	0 - 0.3
White Bluffs Townsite	Sediment, shallow	Power grab	Bottom of H-Slough shallow sediment	HT-6SD **WDOE split collected**	J17YC2	SEQ2981		12/4/08	46.67560	-119.45858	149719.046	579675.34	9	0 - 0.3
White Bluffs Townsite [b]	Sediment, shallow	Power grab	Bottom of H-Slough shallow sediment	HT-7SD	NA	NA	Random/ stratified	12/4/08	NA	NA	NA	NA	NA	NA
White Bluffs Townsite	Sediment, shallow	Power grab	Bottom of H-Slough shallow sediment	HT-8SD	J17YB5	K1484	Random/ stratified	12/4/08	46.67613	-119.45812	149778.418	579709.753	30	0 - 0.3
White Bluffs Townsite	Sediment, shallow	Power grab	Bottom of H-Slough shallow sediment	HT-8SD	J17YD5	J00250		12/4/08	46.67613	-119.45812	149778.418	579709.753	30	0 - 0.3
White Bluffs Townsite	Sediment, shallow	Power grab	Bottom of H-Slough shallow sediment	HT-9SD	J17Y98	K1484	Random/ stratified	12/4/08	46.67713	-119.45763	149890.059	579745.769	5	0 - 0.3
White Bluffs Townsite	Sediment, shallow	Power grab	Bottom of H-Slough shallow sediment	HT-9SD	J17YC8	J00250		12/4/08	46.67713	-119.45763	149890.059	579745.769	5	0 - 0.3
White Bluffs Townsite	Sediment, shallow	Power grab	Bottom of H-Slough shallow sediment	HT-9SD	J17YC4	NA		12/4/08	46.67713	-119.45763	149890.059	579745.769	5	0 - 0.3
White Bluffs Townsite	Sediment, shallow	Power grab	Bottom of H-Slough shallow sediment	HT-10SD	J17Y99	K1484	Random/ stratified	12/4/08	46.67840	-119.45705	150031.8	579788.273	6	0 - 0.3
White Bluffs Townsite	Sediment, shallow	Power grab	Bottom of H-Slough shallow sediment	HT-10SD	J17YC9	J00250		12/4/08	46.67840	-119.45705	150031.8	579788.273	6	0 - 0.3
White Bluffs Townsite	Sediment, shallow	Power grab	Bottom of H-Slough shallow sediment	HT-10SD	J17YC5	SEQ2981		12/4/08	46.67840	-119.45705	150031.8	579788.273	6	0 - 0.3

Table B-4. Sediment and Soil Sampling Summary - Location Information. (48 Pages)

Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
Reactor Area [c]	Sediment, shallow	Power grab	Hanford townsite left side sediments	HT-1SD	NA	NA	Random/ stratified	NA	NA	NA	NA	NA	NA	0 - 0.3 ft
HT	Sediment, shallow	Power grab	Reactor F left side sediments	RFLS-1SD	J17X12	K1484	Random/ stratified	12/4/08	46.65938	-119.42111	147954.811	582566.521	0.5	0 - 0.25
HT	Sediment, shallow	Power grab	Reactor F left side sediments	RFLS-1SD	J17X17	J00250		12/4/08	46.65938	-119.42111	147954.811	582566.521	0.5	0 - 0.25
HT	Sediment, shallow	Power grab	Reactor F left side sediments	RFLS-1SD	J17X24	SEQ2981		12/4/08	46.65938	-119.42111	147954.811	582566.521	0.5	0 - 0.25
HT	Sediment, shallow	Power grab	Reactor F left side sediments	RFLS-2SD	J17X16	K1484	Random/ stratified	12/4/08	46.65900	-119.42015	147913.582	582640.562	4	0 - 0.3
HT	Sediment, shallow	Power grab	Reactor F left side sediments	RFLS-2SD	J17X21	J00250		12/4/08	46.65900	-119.42015	147913.582	582640.562	4	0 - 0.3
HT	Sediment, shallow	Power grab	Reactor F left side sediments	RFLS-3SD **Duplicate collected**	J17X13	K1484	Random/ stratified	12/4/08	46.65701	-119.41657	147696.161	582917.56	0.5	0 - 0.3
HT	Sediment, shallow	Power grab	Reactor F left side sediments	RFLS-3SD **Duplicate collected**	J17X18	J00250		12/4/08	46.65701	-119.41657	147696.161	582917.56	0.5	0 - 0.3
HT	Sediment, shallow	Power grab	Reactor F left side sediments	RFLS-3SD **Duplicate collected**	J17X25	SEQ2981		12/4/08	46.65701	-119.41657	147696.161	582917.56	0.5	0 - 0.3
HT	Sediment, shallow	Power grab	Reactor F left side sediments	RFLS-4SD	J17X15	K1484	Random/ stratified	12/4/08	46.65636	-119.41538	147625.148	583008.09	0.5	0 - 0.3
HT	Sediment, shallow	Power grab	Reactor F left side sediments	RFLS-4SD	J17X20	J00250		12/4/08	46.65636	-119.41538	147625.148	583008.09	0.5	0 - 0.3
HT	Sediment, shallow	Power grab	Reactor F left side sediments	RFLS-5SD	J17X14	K1484	Random/ stratified	12/4/08	46.65538	-119.41375	147517.965	583135.863	0.5	0 - 0.3
HT	Sediment, shallow	Power grab	Reactor F left side sediments	RFLS-5SD	J17X19	J00250		12/4/08	46.65538	-119.41375	147517.965	583135.863	0.5	0 - 0.3
Reactor Area [c]	Sediment, shallow	Power grab	White Bluffs downriver sediments	WBD-1SD to WBD-10SD	NA	NA	Random/ stratified	NA	NA	NA	NA	NA	NA	0 - 0.3 ft
Reactor Area	Soil	Grab	White Bluffs island soil	WB-1S	J18B19	K1554	Random/ stratified	3/2/09	46.69281	-119.46449	151625.912	579198.1	NA	0 - 0.3
Reactor Area	Soil	Grab	White Bluffs island soil	WB-2S	J18B18	K1554	Random/ stratified	3/2/09	46.68959	-119.46364	151268.876	579267.808	NA	0 - 0.3
Reactor Area	Soil	Grab	White Bluffs island soil	WB-3S	J18B17	K1554	Random/ stratified	3/2/09	46.68895	-119.45806	151203.365	579695.519	NA	0 - 0.3
Reactor Area	Soil	Grab	White Bluffs island soil	WB-4S	J18B16	K1554	Random/ stratified	3/2/09	46.68866	-119.46158	151167.582	579426.723	NA	0 - 0.3
Reactor Area	Soil	Grab	White Bluffs island soil	WB-5S	J18B15	K1554	Random/ stratified	3/2/09	46.68860	-119.45717	151165.364	579764.104	NA	0 - 0.3
Reactor Area	Soil	Grab	White Bluffs island soil	WB-6S	J18B10	K1556	Random/ stratified	3/2/09	46.68642	-119.45895	150921.268	579631.161	NA	0 - 0.3
Reactor Area	Soil	Grab	White Bluffs island soil	WB-6S	J18HW7	J00419		3/2/09	46.68642	-119.45895	150921.268	579631.161	NA	0 - 0.3
Reactor Area	Soil	Grab	White Bluffs island soil	WB-7S	J18B12	K1556	Random/ stratified	3/2/09	46.68488	-119.45793	150751.133	579711.439	NA	0 - 0.3
Reactor Area	Soil	Grab	White Bluffs island soil	WB-8S **Duplicate collected**	J18B11	K1556	Random/ stratified	3/2/09	46.68224	-119.45777	150457.871	579727.554	NA	0 - 0.3
Reactor Area	Soil	Grab	White Bluffs island soil	WB-9S	J18B13	K1556	Random/ stratified	3/2/09	46.67991	-119.45842	150198.245	579681.254	NA	0 - 0.3
Reactor Area	Soil	Grab	White Bluffs island soil	WB-10S	J18B14	K1556	Random/ stratified	3/2/09	46.67884	-119.4583	150079.44	579692.004	NA	0 - 0.3
Reactor Area [b]	Sediment, shallow	Power grab	Reactor F downriver sediments	RFD-1SD	NA	NA	Random/ stratified	12/4/08	NA	NA	NA	NA	NA	NA
Reactor Area [b]	Sediment, shallow	Power grab	Reactor F downriver sediments	RFD-2SD	NA	NA	Random/ stratified	12/4/08	NA	NA	NA	NA	NA	NA
Reactor Area [c]	Sediment, shallow	Power grab	Reactor F downriver sediments	RFD-3SD to RFD-10SD	NA	NA	Random/ stratified	NA	NA	NA	NA	NA	NA	0 - 0.3 ft

Table B-4. Sediment and Soil Sampling Summary - Location Information. (48 Pages)

Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
HT	Sediment, shoreline	Grab	Hanford townsite shoreline sediments	HT-1SSD	J187Y2	K1540	Random/ stratified	2/16/09	46.63595	-119.41604	145356.026	582990.288	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Hanford townsite shoreline sediments	HT-1SSD	J18800	J00338		2/16/09	46.63595	-119.41604	145356.026	582990.288	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Hanford townsite shoreline sediments	HT-1SSD	J18698	J00364		2/16/09	46.63595	-119.41604	145356.026	582990.288	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Hanford townsite shoreline sediments	HT-2SSD	J187Y5	K1540	Random/ stratified	2/16/09	46.63577	-119.41632	145335.725	582969.127	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Hanford townsite shoreline sediments	HT-2SSD	J18803	J00338		2/16/09	46.63577	-119.41632	145335.725	582969.127	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Reactor F downriver shoreline sediments	RFD-1SSD	J187P9	K1542	Random/ stratified	2/16/09	46.65361	-119.42675	147307.619	582143.65	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Reactor F downriver shoreline sediments	RFD-1SSD	J187R9	J00340		2/16/09	46.65361	-119.42675	147307.619	582143.65	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Reactor F downriver shoreline sediments	RFD-2SSD	J187P7	K1542	Random/ stratified	2/16/09	46.65268	-119.42476	147206.329	582297.359	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Reactor F downriver shoreline sediments	RFD-2SSD	J187R7	J00340		2/16/09	46.65268	-119.42476	147206.329	582297.359	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Reactor F downriver shoreline sediments	RFD-3SSD	J187R0	K1542	Random/ stratified	2/16/09	46.65347	-119.42474	147294.154	582297.692	NA	0 - 0.16
Reactor Area	Sediment, shoreline	Grab	Reactor F downriver shoreline sediments	RFD-3SSD	J187T0	J00340		2/16/09	46.65347	-119.42474	147294.154	582297.692	NA	0 - 0.16
Reactor Area	Sediment, shoreline	Grab	Reactor F downriver shoreline sediments	RFD-4SSD	J187P6	K1542	Random/ stratified	2/16/09	46.65124	-119.42072	147050.505	582608.745	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Reactor F downriver shoreline sediments	RFD-4SSD	J187R6	J00340		2/16/09	46.65124	-119.42072	147050.505	582608.745	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Reactor F downriver shoreline sediments	RFD-5SSD	J187R1	K1542	Random/ stratified	2/16/09	46.64941	-119.41952	146848.368	582703.375	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Reactor F downriver shoreline sediments	RFD-5SSD	J187T1	J00340		2/16/09	46.64941	-119.41952	146848.368	582703.375	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Reactor F downriver shoreline sediments	RFD-6SSD	J187P5	K1542	Random/ stratified	2/16/09	46.64773	-119.41687	146664.428	582908.766	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Reactor F downriver shoreline sediments	RFD-6SSD	J187R5	J00340		2/16/09	46.64773	-119.41687	146664.428	582908.766	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Reactor F downriver shoreline sediments	RFD-7SSD	J187R2	K1542	Random/ stratified	2/16/09	46.64417	-119.41865	146266.886	582777.948	NA	0 - 0.07
Reactor Area	Sediment, shoreline	Grab	Reactor F downriver shoreline sediments	RFD-7SSD	J187T2	J00340		2/16/09	46.64417	-119.41865	146266.886	582777.948	NA	0 - 0.07
Reactor Area [b]	Sediment, shoreline	Grab	Reactor F downriver shoreline sediments	RFD-8SSD	NA	NA	Random/ stratified	2/16/09	NA	NA	NA	NA	NA	NA
Reactor Area	Sediment, shoreline	Grab	Reactor F downriver shoreline sediments	RFD-9SSD	J187R3	K1542	Random/ stratified	2/16/09	46.64384	-119.41988	146228.918	582684.299	NA	0 - 0.16
Reactor Area	Sediment, shoreline	Grab	Reactor F downriver shoreline sediments	RFD-9SSD	J187T3	J00340		2/16/09	46.64384	-119.41988	146228.918	582684.299	NA	0 - 0.16
Reactor Area	Sediment, shoreline	Grab	Reactor F downriver shoreline sediments	RFD-10SSD **EPA split collected**	J187P8	K1542	Random/ stratified	2/16/09	46.64348	-119.41969	146189.106	582699.391	NA	0 - 0.3
Reactor Area	Sediment, shoreline	Grab	Reactor F downriver shoreline sediments	RFD-10SSD **EPA split collected**	J187R8	J00340		2/16/09	46.64348	-119.41969	146189.106	582699.391	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Reactor F left side shoreline sediments	RFLS-1SSD	J187K7	K1540	Random/ stratified	2/12/09	46.66442	-119.43237	148503.255	581697.273	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Reactor F left side shoreline sediments	RFLS-1SSD	J187L2	J00338		2/12/09	46.66442	-119.43237	148503.255	581697.273	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Reactor F left side shoreline sediments	RFLS-1SSD	J187L9	SEQ022709		2/12/09	46.66442	-119.43237	148503.255	581697.273	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Reactor F left side shoreline sediments	RFLS-1SSD	J18699	J00367		2/12/09	46.66442	-119.43237	148503.255	581697.273	NA	0 - 0.3

Table B-4. Sediment and Soil Sampling Summary - Location Information. (48 Pages)

Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
HT	Sediment, shoreline	Grab	Reactor F left side shoreline sediments	RFLS-2SSD	J187K6	K1540	Random/ stratified	2/12/09	46.66402	-119.43059	148460.642	581834.077	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Reactor F left side shoreline sediments	RFLS-2SSD	J187L1	J00338		2/12/09	46.66402	-119.43059	148460.642	581834.077	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Reactor F left side shoreline sediments	RFLS-2SSD	J187L8	SEQ022709		2/12/09	46.66402	-119.43059	148460.642	581834.077	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Reactor F left side shoreline sediments	RFLS-3SSD	J187L0	K1540	Random/ stratified	2/12/09	46.66410	-119.43122	148468.88	581785.75	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Reactor F left side shoreline sediments	RFLS-3SSD	J187L5	J00338		2/12/09	46.66410	-119.43122	148468.88	581785.75	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Reactor F left side shoreline sediments	RFLS-4SSD	J187K9	K1540	Random/ stratified	2/12/09	46.65903	-119.41972	147917.366	582673.422	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Reactor F left side shoreline sediments	RFLS-4SSD	J187L4	J00338		2/12/09	46.65903	-119.41972	147917.366	582673.422	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Reactor F left side shoreline sediments	RFLS-5SSD	J187K8	K1540	Random/ stratified	2/12/09	46.65912	-119.42023	147926.835	582634.258	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Reactor F left side shoreline sediments	RFLS-5SSD	J187L3	J00338		2/12/09	46.65912	-119.42023	147926.835	582634.258	NA	0 - 0.3
Island 9 [b]	Sediment, shoreline	Grab	Island 9	IS9-1SSD	NA	NA	Random/ stratified	2/16/09	NA	NA	NA	NA	NA	NA
Island 9 [b]	Sediment, shoreline	Grab	Island 9	IS9-2SSD	NA	NA	Random/ stratified	2/16/09	NA	NA	NA	NA	NA	NA
Island 9	Sediment, shoreline	Grab	Island 9	IS9-3SSD	J187W8	K1542	Random/ stratified	2/16/09	46.64094	-119.41072	145916.244	583389.913	NA	0 - 0.26
Island 9	Sediment, shoreline	Grab	Island 9	IS9-3SSD	J187X2	J00340		2/16/09	46.64094	-119.41072	145916.244	583389.913	NA	0 - 0.26
Island 9 [b]	Sediment, shoreline	Grab	Island 9	IS9-4SSD	NA	NA	Random/ stratified	2/16/09	NA	NA	NA	NA	NA	NA
Island 10 [b]	Sediment, shoreline	Grab	Reactor F downriver shoreline sediments	IS10-1SSD	NA	NA	Random/ stratified	2/16/09	NA	NA	NA	NA	NA	NA
Island 10 [b]	Sediment, shoreline	Grab	Reactor F downriver shoreline sediments	IS10-2SSD	NA	NA	Random/ stratified	2/16/09	NA	NA	NA	NA	NA	NA
Island 10 [b]	Sediment, shoreline	Grab	Reactor F downriver shoreline sediments	IS10-3SSD	NA	NA	Random/ stratified	2/16/09	NA	NA	NA	NA	NA	NA
HT	Sediment, shoreline	Grab	Hanford townsite shoreline sediments	HT-3SSD	J187Y7	K1542	Random/ stratified	2/16/09	46.60001	-119.38410	141395.655	585492.037	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Hanford townsite shoreline sediments	HT-3SSD	J18805	J00340		2/16/09	46.60001	-119.38410	141395.655	585492.037	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Hanford townsite shoreline sediments	HT-4SSD	J187Y6	K1542	Random/ stratified	2/16/09	46.58409	-119.36418	139648.06	587043.537	NA	0 - 0.13
HT	Sediment, shoreline	Grab	Hanford townsite shoreline sediments	HT-4SSD	J18804	J00340		2/16/09	46.58409	-119.36418	139648.06	587043.537	NA	0 - 0.13
HT	Sediment, shoreline	Grab	Hanford townsite shoreline sediments	HT-5SSD	J187P1	K1542	Random/ stratified	2/16/09	46.59741	-119.39334	141096.71	584788.237	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Hanford townsite shoreline sediments	HT-5SSD	J187P3	J00340		2/16/09	46.59741	-119.39334	141096.71	584788.237	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Hanford townsite shoreline sediments	HT-6SSD	J187P2	K1542	Random/ stratified	2/16/09	46.59654	-119.39202	141001.436	584890.723	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Hanford townsite shoreline sediments	HT-6SSD	J187P4	J00340		2/16/09	46.59654	-119.39202	141001.436	584890.723	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Hanford townsite shoreline sediments	HT-7SSD **Duplicate collected**	J187Y1	K1542	Random/ stratified	2/16/09	46.59658	-119.39020	141007.842	585030.095	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Hanford townsite shoreline sediments	HT-7SSD **Duplicate collected**	J187Y9	J00340		2/16/09	46.59658	-119.39020	141007.842	585030.095	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Hanford townsite shoreline sediments	HT-8SSD	J187Y4	K1542	Random/ stratified	2/16/09	46.59526	-119.38795	140863.562	585204.541	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Hanford townsite shoreline sediments	HT-8SSD	J18802	J00340		2/16/09	46.59526	-119.38795	140863.562	585204.541	NA	0 - 0.3

Table B-4. Sediment and Soil Sampling Summary - Location Information. (48 Pages)

Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
HT	Sediment, shoreline	Grab	Hanford townsite shoreline sediments	HT-9SSD	J187Y8	K1542	Random/ stratified	2/16/09	46.57410	-119.34549	138558.553	588491.995	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Hanford townsite shoreline sediments	HT-9SSD	J18806	J00340		2/16/09	46.57410	-119.34549	138558.553	588491.995	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Hanford townsite shoreline sediments	HT-10SSD	J187Y3	K1542	Random/ stratified	2/16/09	46.57028	-119.33727	138143.25	589128.263	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Hanford townsite shoreline sediments	HT-10SSD	J18801	J00340		2/16/09	46.57028	-119.33727	138143.25	589128.263	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Hanford townsite shoreline sediments	HT-10SSD	J18695	J00364		2/16/09	46.57028	-119.33727	138143.25	589128.263	NA	0 - 0.3
HT	Sediment, shallow	Power grab	Hanford townsite left side sediments	HT-11SD	J17XJ1	K1486	Focused	12/5/08	46.60119	-119.38552	141525.265	585381.401	0.5	0 - 0.3
HT	Sediment, shallow	Power grab	Hanford townsite left side sediments	HT-11SD	J17XJ5	J00251		12/5/08	46.60119	-119.38552	141525.265	585381.401	0.5	0 - 0.3
HT	Sediment, shallow	Power grab	Hanford townsite left side sediments	HT-11SD	J17XK0	SEQ2981		12/5/08	46.60119	-119.38552	141525.265	585381.401	0.5	0 - 0.3
HT	Sediment, shallow	Power grab	Hanford townsite left side sediments	HT-11SD	J17W24	J00264		12/5/08	46.60119	-119.38552	141525.265	585381.401	0.5	0 - 0.3
HT	Sediment, shallow	Power grab	Hanford townsite left side sediments	HT-12SD	J17XJ3	K1486	Focused	12/5/08	46.59116	-119.38561	140410.409	585390.257	0	0 - 0.25
HT	Sediment, shallow	Power grab	Hanford townsite left side sediments	HT-12SD	J17XJ7	J00251		12/5/08	46.59116	-119.38561	140410.409	585390.257	0	0 - 0.25
HT	Sediment, shallow	Power grab	Hanford townsite left side sediments	HT-13SD	J17XJ2	K1486	Focused	12/5/08	46.60100	-119.38473	141505.003	585442.218	0	0 - 0.2
HT	Sediment, shallow	Power grab	Hanford townsite left side sediments	HT-13SD	J17XJ6	J00251		12/5/08	46.60100	-119.38473	141505.003	585442.218	0	0 - 0.2
HT	Sediment, shallow	Power grab	Hanford townsite left side sediments	HT-14SD	J17XJ4	K1486	Focused	12/5/08	46.59040	-119.38466	140326.97	585464.241	12	0 - 0.3
HT	Sediment, shallow	Power grab	Hanford townsite left side sediments	HT-14SD	J17XJ8	J00251		12/5/08	46.59040	-119.38466	140326.97	585464.241	12	0 - 0.3
HT [b]	Sediment, shoreline	Grab	Island 11 shoreline sediment	IS11-1SSD	NA	NA	Random/ stratified	2/17/09	NA	NA	NA	NA	NA	NA
HT [b]	Sediment, shoreline	Grab	Island 11 shoreline sediment	IS11-2SSD	NA	NA	Random/ stratified	2/17/09	NA	NA	NA	NA	NA	NA
HT	Sediment, shoreline	Grab	Island 11 shoreline sediment	IS11-3SSD	J18810	K1542	Random/ stratified	2/17/09	46.52015	-119.27458	132644.595	594019.909	NA	0 - 0.26
HT	Sediment, shoreline	Grab	Island 11 shoreline sediment	IS11-3SSD	J18820	J00343		2/17/09	46.52015	-119.27458	132644.595	594019.909	NA	0 - 0.26
HT	Sediment, shoreline	Grab	Island 11 shoreline sediment	IS11-4SSD	J18809	K1542	Random/ stratified	2/17/09	46.52065	-119.27496	132699.711	593989.893	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Island 11 shoreline sediment	IS11-4SSD	J18819	J00342		2/17/09	46.52065	-119.27496	132699.711	593989.893	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Island 11 shoreline sediment	IS11-5SSD	J18808	K1542	Random/ stratified	2/17/09	46.52101	-119.27542	132739.173	593953.981	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Island 11 shoreline sediment	IS11-5SSD	J18818	J00342		2/17/09	46.52101	-119.27542	132739.173	593953.981	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Island 11 shoreline sediment	IS11-6SSD	J18807	K1542	Random/ stratified	2/17/09	46.52221	-119.27626	132871.539	593887.469	NA	0 - 0.26
HT	Sediment, shoreline	Grab	Island 11 shoreline sediment	IS11-6SSD	J18817	J00342		2/17/09	46.52221	-119.27626	132871.539	593887.469	NA	0 - 0.26
HT	Sediment, shoreline	Grab	Island 11 shoreline sediment	IS11-6SSD	J18696	J00364		2/17/09	46.52221	-119.27626	132871.539	593887.469	NA	0 - 0.26
HT [b]	Sediment, shoreline	Grab	Island 11 shoreline sediment	IS11-7SSD	NA	NA	Random/ stratified	2/17/09	NA	NA	NA	NA	NA	NA
HT [b]	Sediment, shoreline	Grab	Island 11 shoreline sediment	IS11-8SSD	NA	NA	Random/ stratified	2/17/09	NA	NA	NA	NA	NA	NA
HT [b]	Sediment, shoreline	Grab	Island 11 shoreline sediment	IS11-9SSD	NA	NA	Random/ stratified	2/17/09	NA	NA	NA	NA	NA	NA

Table B-4. Sediment and Soil Sampling Summary - Location Information. (48 Pages)

Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
HT [b]	Sediment, shoreline	Grab	Island 11 shoreline sediment	IS11-10SSD	NA	NA	Random/ stratified	2/17/09	NA	NA	NA	NA	NA	NA
HT	Sediment, shoreline	Grab	Savage Island shoreline sediment	SI-1SSD	J18828	K1542	Random/ stratified	3/5/09	46.54036	-119.30222	134858.147	591865.293	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Savage Island shoreline sediment	SI-1SSD	J18831	J00343		3/5/09	46.54036	-119.30222	134858.147	591865.293	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Savage Island shoreline sediment	SI-2SSD	J18829	K1542	Random/ stratified	3/5/09	46.53667	-119.29554	134455.845	592383.848	NA	0 - 0.16
HT	Sediment, shoreline	Grab	Savage Island shoreline sediment	SI-2SSD	J18832	J00343		3/5/09	46.53667	-119.29554	134455.845	592383.848	NA	0 - 0.16
HT	Sediment, shoreline	Grab	Savage Island shoreline sediment	SI-3SSD	J18827	K1542	Random/ stratified	3/5/09	46.53392	-119.28842	134158.576	592934.614	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Savage Island shoreline sediment	SI-3SSD	J18830	J00343		3/5/09	46.53392	-119.28842	134158.576	592934.614	NA	0 - 0.3
HT	Sediment, shallow	Power grab	Depositional area top of Savage Island	SI-1SD	J17XK5	K1486	Random/ stratified	12/5/08	46.56652	-119.32773	137736.185	589865.703	6	0 - 0.3
HT	Sediment, shallow	Power grab	Depositional area top of Savage Island	SI-1SD	J17XL2	J00251		12/5/08	46.56652	-119.32773	137736.185	589865.703	6	0 - 0.3
HT	Sediment, shallow	Power grab	Depositional area top of Savage Island	SI-1SD	J17XL8	SEQ2981		12/5/08	46.56652	-119.32773	137736.185	589865.703	6	0 - 0.3
HT	Sediment, shallow	Power grab	Depositional area top of Savage Island	SI-2SD	J17XK9	K1486	Random/ stratified	12/5/08	46.56623	-119.32708	137704.695	589916.007	5	0 - 0.3
HT	Sediment, shallow	Power grab	Depositional area top of Savage Island	SI-2SD	J17XL6	J00251		12/5/08	46.56623	-119.32708	137704.695	589916.007	5	0 - 0.3
HT	Sediment, shallow	Power grab	Depositional area top of Savage Island	SI-3SD	J17XK6	K1489	Random/ stratified	12/8/08	46.53762	-119.29798	134558.572	592195.102	3	0 - 0.3
HT	Sediment, shallow	Power grab	Depositional area top of Savage Island	SI-3SD	J17XL3	J00252		12/8/08	46.53762	-119.29798	134558.572	592195.102	3	0 - 0.3
HT	Sediment, shallow	Power grab	Depositional area top of Savage Island	SI-4SD	J17XK7	K1489	Random/ stratified	12/8/08	46.53200	-119.28402	133950.382	593275.381	4.5	0 - 0.3
HT	Sediment, shallow	Power grab	Depositional area top of Savage Island	SI-4SD	J17XL4	J00252		12/8/08	46.53200	-119.28402	133950.382	593275.381	4.5	0 - 0.3
HT	Sediment, shallow	Power grab	Depositional area top of Savage Island	SI-5SD	J17XK8	K1489	Random/ stratified	12/8/08	46.52572	-119.27020	133268.867	594346.283	6	0 - 0.3
HT	Sediment, shallow	Power grab	Depositional area top of Savage Island	SI-5SD	J17XL5	J00252		12/8/08	46.52572	-119.27020	133268.867	594346.283	6	0 - 0.3
HT	Sediment, shallow	Power grab	Savage Island	SI-6SD	J17XM4	K1558	Random/ stratified	3/5/09	46.56449	-119.31780	137521.932	590630.257	0	0 - 0.3
HT	Sediment, shallow	Power grab	Savage Island	SI-6SD	J17XM9	J00371		3/5/09	46.56449	-119.31780	137521.932	590630.257	0	0 - 0.3
HT	Sediment, shallow	Power grab	Savage Island	SI-7SD	J17XM5	K1558	Random/ stratified	3/5/09	46.56532	-119.31212	137620.72	591064.277	0	0 - 0.3
HT	Sediment, shallow	Power grab	Savage Island	SI-7SD	J17XN0	J00371		3/5/09	46.56532	-119.31212	137620.72	591064.277	0	0 - 0.3
HT	Sediment, shallow	Power grab	Savage Island	SI-8SD	J17XM1	K1558	Random/ stratified	3/5/09	46.55347	-119.30061	136317.065	591966.608	0	0 - 0.3
HT	Sediment, shallow	Power grab	Savage Island	SI-8SD	J17XM6	J00371		3/5/09	46.55347	-119.30061	136317.065	591966.608	0	0 - 0.3
HT	Sediment, shallow	Power grab	Savage Island	SI-8SD	J17XN2	SEQ041409		3/5/09	46.55347	-119.30061	136317.065	591966.608	0	0 - 0.3
HT	Sediment, shallow	Power grab	Savage Island	SI-9SD	J17XM3	K1558	Random/ stratified	3/5/09	46.54872	-119.29543	135795.204	592371.831	0	0 - 0.3
HT	Sediment, shallow	Power grab	Savage Island	SI-9SD	J17XM8	J00371		3/5/09	46.54872	-119.29543	135795.204	592371.831	0	0 - 0.3
HT	Sediment, shallow	Power grab	Savage Island	SI-10SD	J17XM2	K1558	Random/ stratified	3/5/09	46.53870	-119.28292	134696.315	593348.262	0	0 - 0.3
HT	Sediment, shallow	Power grab	Savage Island	SI-10SD	J17XM7	J00371		3/5/09	46.53870	-119.28292	134696.315	593348.262	0	0 - 0.3

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Sample Description								Date Sampled/Attempted	Sample Location					
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HT	Sediment, shallow	Power grab	Right side across from head of Savage Island	SI-11SD	J17YF2	K1486	Random/ stratified	12/4/08	46.55790	-119.32515	136781.097	590077.741	7	0 - 0.3
HT	Sediment, shallow	Power grab	Right side across from head of Savage Island	SI-11SD	J17YF5	J00251		12/4/08	46.55790	-119.32515	136781.097	590077.741	7	0 - 0.3
HT	Sediment, shallow	Power grab	Right side across from head of Savage Island	SI-11SD	J17YF6	SEQ2981		12/4/08	46.55790	-119.32515	136781.097	590077.741	7	0 - 0.3
HT	Sediment, shallow	Power grab	Right side across from head of Savage Island	SI-11SD	J17W27	J00264		12/4/08	46.55790	-119.32515	136781.097	590077.741	7	0 - 0.3
HT	Sediment, shallow	Power grab	Right side across from head of Savage Island	SI-12SD	J17YF3	K1486	Random/ stratified	12/4/08	46.55687	-119.32420	136667.708	590152.28	6	0 - 0.3
HT	Sediment, shallow	Power grab	Right side across from head of Savage Island	SI-12SD	J17YF7	J00251		12/4/08	46.55687	-119.32420	136667.708	590152.28	6	0 - 0.3
OCI	Sediment, shallow	Power grab	WB-5 Wasteway	WBW-1SD	J17XP1	K1542	Focused	2/17/09	46.53562	-119.28133	134355.89	593475.493	0	0 - 0.3
OCI	Sediment, shallow	Power grab	WB-5 Wasteway	WBW-1SD	J17XP4	J00342		2/17/09	46.53562	-119.28133	134355.89	593475.493	0	0 - 0.3
OCI	Sediment, shallow	Power grab	WB-5 Wasteway	WBW-2SD	J17XP2	K1542	Focused	2/17/09	46.53503	-119.28149	134290.128	593464.234	0	0 - 0.3
OCI	Sediment, shallow	Power grab	WB-5 Wasteway	WBW-2SD	J17XP5	J00342		2/17/09	46.53503	-119.28149	134290.128	593464.234	0	0 - 0.3
OCI	Sediment, shallow	Power grab	WB-5 Wasteway	WBW-3SD	J17XP3	K1542	Focused	2/17/09	46.53443	-119.28107	134223.943	593497.478	0	0 - 0.3
OCI	Sediment, shallow	Power grab	WB-5 Wasteway	WBW-3SD	J17XP6	J00342		2/17/09	46.53443	-119.28107	134223.943	593497.478	0	0 - 0.3
HT	Sediment, shoreline	Grab	Ringold recreational	RG-1SSD	J18846	K1542	Random/ stratified	2/17/09	46.51541	-119.26389	132130.597	594848.284	NA	0 - 0.16
HT	Sediment, shoreline	Grab	Ringold recreational	RG-1SSD	J18856	J00342		2/17/09	46.51541	-119.26389	132130.597	594848.284	NA	0 - 0.16
HT	Sediment, shoreline	Grab	Ringold recreational	RG-2SSD	J18845	K1542	Random/ stratified	2/17/09	46.51466	-119.26379	132047.363	594857.263	NA	0 - 0.1
HT	Sediment, shoreline	Grab	Ringold recreational	RG-2SSD	J18855	J00342		2/17/09	46.51466	-119.26379	132047.363	594857.263	NA	0 - 0.1
HT	Sediment, shoreline	Grab	Ringold recreational	RG-2SSD	J186B0	J00364		2/17/09	46.51466	-119.26379	132047.363	594857.263	NA	0 - 0.1
HT	Sediment, shoreline	Grab	Ringold recreational	RG-3SSD	J18847	K1542	Random/ stratified	2/17/09	46.51414	-119.26367	131989.716	594867.377	NA	0 - 0.07
HT	Sediment, shoreline	Grab	Ringold recreational	RG-3SSD	J18857	J00342		2/17/09	46.51414	-119.26367	131989.716	594867.377	NA	0 - 0.07
HT	Sediment, shoreline	Grab	Ringold recreational	RG-4SSD	J18848	K1542	Random/ stratified	2/17/09	46.51398	-119.26392	131971.633	594848.474	NA	0 - 0.07
HT	Sediment, shoreline	Grab	Ringold recreational	RG-4SSD	J18858	J00342		2/17/09	46.51398	-119.26392	131971.633	594848.474	NA	0 - 0.07
HT	Sediment, shoreline	Grab	Ringold recreational	RG-5SSD	J18849	K1542	Random/ stratified	2/17/09	46.51315	-119.26373	131879.616	594864.498	NA	0 - 0.07
HT	Sediment, shoreline	Grab	Ringold recreational	RG-5SSD	J18859	J00342		2/17/09	46.51315	-119.26373	131879.616	594864.498	NA	0 - 0.07
HT [b]	Sediment, shoreline	Grab	Ringold recreational	RG-6SSD	NA	NA	Random/ stratified	2/17/09	NA	NA	NA	NA	NA	NA
HT	Sediment, shoreline	Grab	Ringold recreational	RG-7SSD	J18844	K1542	Random/ stratified	2/17/09	46.51171	-119.26337	131720.01	594894.629	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Ringold recreational	RG-7SSD	J18854	J00342		2/17/09	46.51171	-119.26337	131720.01	594894.629	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Ringold recreational	RG-8SSD	J18850	K1542	Random/ stratified	2/17/09	46.50940	-119.26286	131463.895	594937.788	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Ringold recreational	RG-8SSD	J18860	J00342		2/17/09	46.50940	-119.26286	131463.895	594937.788	NA	0 - 0.3

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HT	Sediment, shoreline	Grab	Ringold recreational	RG-9SSD	J18851	K1542	Random/ stratified	2/17/09	46.50851	-119.26253	131365.379	594964.662	NA	0 - 0.26
HT	Sediment, shoreline	Grab	Ringold recreational	RG-9SSD	J18861	J00342		2/17/09	46.50851	-119.26253	131365.379	594964.662	NA	0 - 0.26
HT	Sediment, shoreline	Grab	Ringold recreational	RG-10SSD	J18852	K1542	Random/ stratified	2/17/09	46.50797	-119.26254	131305.352	594964.837	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Ringold recreational	RG-10SSD	J18862	J00342		2/17/09	46.50797	-119.26254	131305.352	594964.837	NA	0 - 0.3
HT [b]	Sediment, shoreline	Grab	Island 12 shoreline sediment	IS12-1SSD	NA	NA	Random/ stratified	2/17/09	NA	NA	NA	NA	NA	NA
HT	Sediment, shoreline	Grab	Island 12 shoreline sediment	IS12-2SSD **Duplicate collected**	J18864	K1542	Random/ stratified	2/17/09	46.50125	-119.26359	130557.241	594895.972	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Island 12 shoreline sediment	IS12-2SSD **Duplicate collected**	J18874	J00342		2/17/09	46.50125	-119.26359	130557.241	594895.972	NA	0 - 0.3
HT [b]	Sediment, shoreline	Grab	Island 12 shoreline sediment	IS12-3SSD	NA	NA	Random/ stratified	2/17/09	NA	NA	NA	NA	NA	NA
HT	Sediment, shoreline	Grab	Island 12 shoreline sediment	IS12-4SSD	J18865	K1542	Random/ stratified	2/17/09	46.49516	-119.26188	129882.469	595037.831	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Island 12 shoreline sediment	IS12-4SSD	J18875	J00342		2/17/09	46.49516	-119.26188	129882.469	595037.831	NA	0 - 0.3
HT [b]	Sediment, shoreline	Grab	Island 12 shoreline sediment	IS12-5SSD	NA	NA	Random/ stratified	2/17/09	NA	NA	NA	NA	NA	NA
HT [b]	Sediment, shoreline	Grab	Island 12 shoreline sediment	IS12-6SSD	NA	NA	Random/ stratified	2/17/09	NA	NA	NA	NA	NA	NA
HT [b]	Sediment, shoreline	Grab	Island 12 shoreline sediment	IS12-7SSD	NA	NA	Random/ stratified	2/17/09	NA	NA	NA	NA	NA	NA
HT [b]	Sediment, shoreline	Grab	Island 12 shoreline sediment	IS12-8SSD	NA	NA	Random/ stratified	2/17/09	NA	NA	NA	NA	NA	NA
HT [b]	Sediment, shoreline	Grab	Island 12 shoreline sediment	IS12-9SSD	NA	NA	Random/ stratified	2/17/09	NA	NA	NA	NA	NA	NA
HT	Sediment, shoreline	Grab	Island 12 shoreline sediment	IS12-10SSD	J18867	K1542	Random/ stratified	2/17/09	46.48439	-119.26368	128683.347	594918.438	NA	0 - 0.13
HT	Sediment, shoreline	Grab	Island 12 shoreline sediment	IS12-10SSD	J18877	J00343		2/17/09	46.48439	-119.26368	128683.347	594918.438	NA	0 - 0.13
HT	Sediment, shoreline	Grab	Homestead Island	HMSTD-1SSD	J17YT7	K1543	Random/ stratified	2/18/09	46.48310	-119.25811	128546.697	595348.296	NA	0 - 0.16
HT	Sediment, shoreline	Grab	Homestead Island	HMSTD-1SSD	J17YV2	J00349		2/18/09	46.48310	-119.25811	128546.697	595348.296	NA	0 - 0.16
HT	Sediment, shoreline	Grab	Homestead Island	HMSTD-2SSD	J18884	K1543	Random/ stratified	2/18/09	46.48019	-119.25953	128221.571	595244.369	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Homestead Island	HMSTD-2SSD	J18892	J00348		2/18/09	46.48019	-119.25953	128221.571	595244.369	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Homestead Island	HMSTD-3SSD	J18889	K1543	Random/ stratified	2/18/09	46.47910	-119.26006	128099.791	595205.583	NA	0 - 0.16
HT	Sediment, shoreline	Grab	Homestead Island	HMSTD-3SSD	J18897	J00349		2/18/09	46.47910	-119.26006	128099.791	595205.583	NA	0 - 0.16
HT	Sediment, shoreline	Grab	Homestead Island	HMSTD-6SSD	J188B3	K1543	Random/ stratified	2/18/09	46.47269	-119.25495	127393.58	595609.154	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Homestead Island	HMSTD-6SSD	J188B5	J00348		2/18/09	46.47269	-119.25495	127393.58	595609.154	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Homestead Island	HMSTD-7SSD	J18885	K1543	Random/ stratified	2/18/09	46.47091	-119.25660	127193.757	595485.578	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Homestead Island	HMSTD-7SSD	J18893	J00348		2/18/09	46.47091	-119.25660	127193.757	595485.578	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Homestead Island	HMSTD-8SSD	J18887	K1543	Random/ stratified	2/18/09	46.46797	-119.25677	126866.807	595477.674	NA	0 - 0.26
HT	Sediment, shoreline	Grab	Homestead Island	HMSTD-8SSD	J18895	J00348		2/18/09	46.46797	-119.25677	126866.807	595477.674	NA	0 - 0.26

Table B-4. Sediment and Soil Sampling Summary - Location Information. (48 Pages)

Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
HT	Sediment, shoreline	Grab	Homestead Island	HMSTD-9SSD	J18886	K1543	Random/ stratified	2/18/09	46.46670	-119.25687	126725.542	595472.22	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Homestead Island	HMSTD-9SSD	J18894	J00349		2/18/09	46.46670	-119.25687	126725.542	595472.22	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Homestead Island	HMSTD-10SSD	J18890	K1543	Random/ stratified	2/18/09	46.46598	-119.25682	126645.583	595477.321	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Homestead Island	HMSTD-10SSD	J18898	J00349		2/18/09	46.46598	-119.25682	126645.583	595477.321	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Homestead Island	HMSTD-4SSD	J188B2	K1543	Random/ stratified	2/18/09	46.48124	-119.25347	128345.6	595707.778	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Homestead Island	HMSTD-4SSD	J188B4	J00349		2/18/09	46.48124	-119.25347	128345.6	595707.778	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Homestead Island	HMSTD-4SSD	J188B7	SEQ022709		2/18/09	46.48124	-119.25347	128345.6	595707.778	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Homestead Island	HMSTD-5SSD	J18888	K1543	Random/ stratified	2/18/09	46.48087	-119.25327	128304.722	595723.783	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Homestead Island	HMSTD-5SSD	J18896	J00348		2/18/09	46.48087	-119.25327	128304.722	595723.783	NA	0 - 0.3
HT [c]	Sediment, shallow	Power grab	Island 11 sediment	IS11-1SD to IS11-5SD	NA	NA	Random/ stratified	NA	NA	NA	NA	NA	NA	0 - 0.3 ft
HT	Sediment, shallow	Power grab	Homestead Island	HMSTD-1SD	J17YT5	K1489	Random/ stratified	12/8/08	46.47397	-119.25993	127529.812	595224.528	2.5	0 - 0.3
HT	Sediment, shallow	Power grab	Homestead Island	HMSTD-1SD	J17YV0	J00252		12/8/08	46.47397	-119.25993	127529.812	595224.528	2.5	0 - 0.3
HT	Sediment, shallow	Power grab	Homestead Island	HMSTD-1SD	J17YV7	SEQ2981		12/8/08	46.47397	-119.25993	127529.812	595224.528	2.5	0 - 0.3
HT	Sediment, shallow	Power grab	Homestead Island	HMSTD-1SD	J18X05	K1663		6/8/09	46.47395	-119.25995	127527.55	595223.22	7.5	0 - 0.3
HT	Sediment, shallow	Power grab	Homestead Island	HMSTD-2SD **WDOE split collected**	J17YT4	K1489	Random/ stratified	12/8/08	46.47392	-119.25978	127524.436	595236.133	2	0 - 0.3
HT	Sediment, shallow	Power grab	Homestead Island	HMSTD-2SD **WDOE split collected**	J17YT9	J00253		12/8/08	46.47392	-119.25978	127524.436	595236.133	2	0 - 0.3
HT	Sediment, shallow	Power grab	Homestead Island	HMSTD-2SD **WDOE split collected**	J17YV6	SEQ2981		12/8/08	46.47392	-119.25978	127524.436	595236.133	2	0 - 0.3
HT	Sediment, shallow	Power grab	Homestead Island	HMSTD-2SD	J18X06	K1663		6/8/09	46.47393	-119.25979	127525.459	595235.17	7.2	0 - 0.3
HT	Sediment, shallow	Power grab	Homestead Island	HMSTD-3SD	J17YT8	K1543	Random/ stratified	12/8/08	46.47404	-119.25957	127538.026	595252.048	0	0 - 0.3
HT	Sediment, shallow	Power grab	Homestead Island	HMSTD-3SD	J17YV3	J00348		12/8/08	46.47404	-119.25957	127538.026	595252.048	0	0 - 0.3
HT	Sediment, shallow	Power grab	Homestead Island	HMSTD-4SD	J18891	K1543	Random/ stratified	12/8/08	46.47341	-119.25931	127468.324	595273.113	0	0 - 0.3
HT	Sediment, shallow	Power grab	Homestead Island	HMSTD-4SD	J18899	J00348		12/8/08	46.47341	-119.25931	127468.324	595273.113	0	0 - 0.3
HT	Sediment, shallow	Power grab	Homestead Island	HMSTD-5SD	J17YT6	K1543	Random/ stratified	12/8/08	46.47296	-119.25890	127418.807	595305.381	0	0 - 0.3
HT	Sediment, shallow	Power grab	Homestead Island	HMSTD-5SD	J17YV1	J00349		12/8/08	46.47296	-119.25890	127418.807	595305.381	0	0 - 0.3
HT	Sediment, shallow	Power grab	Island 13	IS13-1SD	J17YW0 & J17YW0-A	K1489 & K1491	Random/ stratified	12/8/08	46.46869	-119.25824	126945.048	595363.531	0	0 - 0.15
HT	Sediment, shallow	Power grab	Island 13	IS13-1SD	J17YW5	J00252		12/8/08	46.46869	-119.25824	126945.048	595363.531	0	0 - 0.15
HT	Sediment, shallow	Power grab	Island 13	IS13-2SD	J17YW2	K1489	Random/ stratified	12/8/08	46.46719	-119.25753	126779.2	595420.678	0	0 - 0.15
HT	Sediment, shallow	Power grab	Island 13	IS13-2SD	J17YW7	J00252		12/8/08	46.46719	-119.25753	126779.2	595420.678	0	0 - 0.15

Table B-4. Sediment and Soil Sampling Summary - Location Information. (48 Pages)

Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
HT	Sediment, shallow	Power grab	Island 13	IS13-3SD	J17YV8	K1489	Random/ stratified	12/8/08	46.46610	-119.25691	126658.811	595470.199	2	0 - 0.3
HT	Sediment, shallow	Power grab	Island 13	IS13-3SD	J17YW3	J00252		12/8/08	46.46610	-119.25691	126658.811	595470.199	2	0 - 0.3
HT	Sediment, shallow	Power grab	Island 13	IS13-3SD	J17YX0	SEQ2981		12/8/08	46.46610	-119.25691	126658.811	595470.199	2	0 - 0.3
HT	Sediment, shallow	Power grab	Island 13	IS13-3SD	J17W30	J00264		12/8/08	46.46610	-119.25691	126658.811	595470.199	2	0 - 0.3
HT	Sediment, shallow	Power grab	Island 13	IS13-3SD	J18X07	K1663		6/8/09	46.46612	-119.25692	126661.486	595469.504	8.1	0 - 0.3
HT [b]	Sediment, shallow	Power grab	Island 13	IS13-4SD	NA	NA	Random/ stratified	12/8/08	NA	NA	NA	NA	NA	NA
HT	Sediment, shallow	Power grab	Island 13	IS13-5SD	J17YV9	K1489	Random/ stratified	12/8/08	46.46523	-119.25811	126560.669	595379.568	2.5	0 - 0.3
HT	Sediment, shallow	Power grab	Island 13	IS13-5SD	J17YW4	J00252		12/8/08	46.46523	-119.25811	126560.669	595379.568	2.5	0 - 0.3
HT	Sediment, shallow	Power grab	Island 13	IS13-5SD	J17YX1	SEQ2981		12/8/08	46.46523	-119.25811	126560.669	595379.568	2.5	0 - 0.3
HT	Sediment, shallow	Power grab	Island 13	IS13-5SD	J18X08	K1663		6/8/09	46.46523	-119.25680	126561.827	595480.075	6.6	0 - 0.3
OCI	Sediment, shoreline	Power grab	Ringold irrigation return	RG-11SSD	J188F0	K1542	Modified	2/17/09	46.51027	-119.26262	131560.874	594954.687	NA	0 - 0.3
OCI	Sediment, shoreline	Power grab	Ringold irrigation return	RG-11SSD	J188F3	J00342		2/17/09	46.51027	-119.26262	131560.874	594954.687	NA	0 - 0.3
OCI	Sediment, shoreline	Power grab	Ringold irrigation return	RG-12SSD	J188F1	K1542	Modified	2/17/09	46.51030	-119.26253	131564.316	594961.541	NA	0 - 0.3
OCI	Sediment, shoreline	Power grab	Ringold irrigation return	RG-12SSD	J188F4	J00342		2/17/09	46.51030	-119.26253	131564.316	594961.541	NA	0 - 0.3
OCI [b]	Sediment, shoreline	Power grab	Ringold irrigation return	RG-13SSD	NA	NA	Modified	2/17/09	NA	NA	NA	NA	NA	NA
OCI	Sediment, shallow	Power grab	PE 16.4 Wasteway	PE-1SD	J17YY6	K1565	Modified	2/26/09	46.50549	-119.25837	131034.759	595289.162	0 - 1	0 - 0.1
OCI	Sediment, shallow	Power grab	PE 16.4 Wasteway	PE-1SD	J17YY9	J00360		2/26/09	46.50549	-119.25837	131034.759	595289.162	0 - 1	0 - 0.1
OCI	Sediment, shallow	Power grab	PE 16.4 Wasteway	PE-2SD	J17YY8	K1565	Modified	2/26/09	46.50550	-119.25813	131036.16	595307.562	0 - 1	0 - 0.16
OCI	Sediment, shallow	Power grab	PE 16.4 Wasteway	PE-2SD	J18001	J00360		2/26/09	46.50550	-119.25813	131036.16	595307.562	0 - 1	0 - 0.16
OCI	Sediment, shallow	Power grab	PE 16.4 Wasteway	PE-3SD	J17YY7	K1565	Modified	2/26/09	46.50557	-119.25813	131043.94	595307.44	0 - 1	0 - 0.23
OCI	Sediment, shallow	Power grab	PE 16.4 Wasteway	PE-3SD	J17800	J00360		2/26/09	46.50557	-119.25813	131043.94	595307.44	0 - 1	0 - 0.23
HT	Soil	Grab	Homestead Island soil	HI-1S	J18B20	K1556	Random/ stratified	3/3/09	46.47957	-119.25746	128155.167	595404.378	NA	0 - 0.3
HT	Soil	Grab	Homestead Island soil	HI-1S	J18HW8	J00419		3/3/09	46.47957	-119.25746	128155.167	595404.378	NA	0 - 0.3
HT	Soil	Grab	Homestead Island soil	HI-2S	J18B23	K1556	Random/ stratified	3/3/09	46.47906	-119.25790	128097.955	595371.489	NA	0 - 0.3
HT	Soil	Grab	Homestead Island soil	HI-3S	J18B21	K1556	Random/ stratified	3/3/09	46.47718	-119.25693	127890.189	595449.255	NA	0 - 0.3
HT	Soil	Grab	Homestead Island soil	HI-4S	J18B22	K1556	Random/ stratified	3/3/09	46.47620	-119.25697	127781.226	595447.901	NA	0 - 0.3
HT	Soil	Grab	Homestead Island soil	HI-5S	J18B25	K1556	Random/ stratified	3/3/09	46.47602	-119.25529	127763.256	595577.207	NA	0 - 0.3
HT	Soil	Grab	Homestead Island soil	HI-6S	J18B24	K1556	Random/ stratified	3/3/09	46.47421	-119.25858	127558.116	595327.766	NA	0 - 0.3
HT	Soil	Grab	Homestead Island soil	HI-7S	J18B29	K1556	Random/ stratified	3/3/09	46.47532	-119.25657	127683.909	595480.154	NA	0 - 0.3

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Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
HT	Soil	Grab	Homestead Island soil	HI-8S	J18B27	K1556	Random/ stratified	3/3/09	46.47544	-119.25535	127698.723	595573.617	NA	0 - 0.3
HT	Soil	Grab	Homestead Island soil	HI-9S	J18B26	K1556	Random/ stratified	3/3/09	46.47341	-119.25821	127469.653	595357.575	NA	0 - 0.3
HT	Soil	Grab	Homestead Island soil	HI-10S	J18B28	K1556	Random/ stratified	3/3/09	46.47399	-119.25666	127535.988	595475.574	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Island 14	IS14-1SSD	J188H0	K1536	Random/ stratified	2/9/09	46.45970	-119.25900	125945.004	595320.891	NA	0 - 0.16
HT	Sediment, shoreline	Grab	Island 14	IS14-1SSD	J188H9	J00327		2/9/09	46.45970	-119.25900	125945.004	595320.891	NA	0 - 0.16
HT	Sediment, shoreline	Grab	Island 14	IS14-2SSD	J188F8	K1536	Random/ stratified	2/9/09	46.45932	-119.25890	125902.893	595329.236	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Island 14	IS14-2SSD	J188H7	J00327		2/9/09	46.45932	-119.25890	125902.893	595329.236	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Island 14	IS14-3SSD	J188F7	K1536	Random/ stratified	2/9/09	46.45862	-119.25983	125823.973	595259.031	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Island 14	IS14-3SSD	J188H6	J00327		2/9/09	46.45862	-119.25983	125823.973	595259.031	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Island 14	IS14-4SSD	J188F9	K1536	Random/ stratified	2/9/09	46.45775	-119.25862	125728.746	595353.487	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Island 14	IS14-4SSD	J188H8	J00327		2/9/09	46.45775	-119.25862	125728.746	595353.487	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Island 14	IS14-4SSD	J186B2	J00367		2/9/09	46.45775	-119.25862	125728.746	595353.487	NA	0 - 0.3
HT [b]	Sediment, shoreline	Grab	Island 14	IS14-5SSD	NA	NA	Random/ stratified	2/9/09	NA	NA	NA	NA	NA	NA
HT [b]	Sediment, shoreline	Grab	Island 14	IS14-6SSD	NA	NA	Random/ stratified	2/9/09	NA	NA	NA	NA	NA	NA
HT	Sediment, shoreline	Grab	Island 14	IS14-7SSD	J188H2	K1536	Random/ stratified	2/9/09	46.45383	-119.25885	125292.81	595342.677	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Island 14	IS14-7SSD	J188J1	J00327		2/9/09	46.45383	-119.25885	125292.81	595342.677	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Island 14	IS14-8SSD	J188H3	K1536	Random/ stratified	2/9/09	46.45320	-119.25788	125223.966	595418.287	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Island 14	IS14-8SSD	J188J2	J00327		2/9/09	46.45320	-119.25788	125223.966	595418.287	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Island 14	IS14-9SSD	J188H1	K1536	Random/ stratified	2/9/09	46.45199	-119.25727	125090.059	595467.072	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Island 14	IS14-9SSD	J188J0	J00327		2/9/09	46.45199	-119.25727	125090.059	595467.072	NA	0 - 0.3
HT [c]	Sediment, shoreline	Grab	Island 14	IS14-10SSD	NA	NA	Random/ stratified	NA	NA	NA	NA	NA	NA	0 - 0.3 ft
HT [b]	Sediment, shoreline	Grab	Island 15	IS15-1SSD	NA	NA	Random/ stratified	2/9/09	NA	NA	NA	NA	NA	NA
HT [b]	Sediment, shoreline	Grab	Island 15	IS15-2SSD	NA	NA	Random/ stratified	2/9/09	NA	NA	NA	NA	NA	NA
HT [b]	Sediment, shoreline	Grab	Island 15	IS15-3SSD	NA	NA	Random/ stratified	2/9/09	NA	NA	NA	NA	NA	NA
HT	Sediment, shoreline	Grab	Island 15	IS15-4SSD	J188K4	K1536	Random/ stratified	2/9/09	46.44788	-119.25725	124633.479	595475.995	NA	0 - 0.2
HT	Sediment, shoreline	Grab	Island 15	IS15-4SSD	J188L4	J00330		2/9/09	46.44788	-119.25725	124633.479	595475.995	NA	0 - 0.2
HT	Sediment, shoreline	Grab	Island 15	IS15-5SSD	J188J8	K1536	Random/ stratified	2/9/09	46.44655	-119.25978	124482.607	595283.965	NA	0 - 0.16
HT	Sediment, shoreline	Grab	Island 15	IS15-5SSD	J188K8	J00327		2/9/09	46.44655	-119.25978	124482.607	595283.965	NA	0 - 0.16

Table B-4. Sediment and Soil Sampling Summary - Location Information. (48 Pages)

Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
HT	Sediment, shoreline	Grab	Island 15	IS15-6SSD **Duplicate collected**	J188J5	K1536	Random/ stratified	2/9/09	46.44538	-119.25713	124355.781	595489.592	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Island 15	IS15-6SSD **Duplicate collected**	J188K5	J00330		2/9/09	46.44538	-119.25713	124355.781	595489.592	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Island 15	IS15-7SDD	J188K1	K1536	Random/ stratified	2/9/09	46.44473	-119.25918	124281.063	595333.24	NA	0 - 0.07
HT	Sediment, shoreline	Grab	Island 15	IS15-7SDD	J188L1	J00330		2/9/09	46.44473	-119.25918	124281.063	595333.24	NA	0 - 0.07
HT	Sediment, shoreline	Grab	Island 15	IS15-8SSD	J188K2	K1536	Random/ stratified	2/9/09	46.44357	-119.25885	124152.543	595360.621	NA	0 - 0.07
HT	Sediment, shoreline	Grab	Island 15	IS15-8SSD	J188L2	J00330		2/9/09	46.44357	-119.25885	124152.543	595360.621	NA	0 - 0.07
HT	Sediment, shoreline	Grab	Island 15	IS15-9SSD	J188J6	K1536	Random/ stratified	2/9/09	46.44433	-119.25547	124241.099	595618.961	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Island 15	IS15-9SSD	J188K6	J00330		2/9/09	46.44433	-119.25547	124241.099	595618.961	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Island 15	IS15-9SSD	J186B3	J00367		2/9/09	46.44433	-119.25547	124241.099	595618.961	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Island 15	IS15-10SSD	J188J7	K1536	Random/ stratified	2/9/09	46.44347	-119.25568	124145.266	595604.335	NA	0 - 0.1
HT	Sediment, shoreline	Grab	Island 15	IS15-10SSD	J188K7	J00330		2/9/09	46.44347	-119.25568	124145.266	595604.335	NA	0 - 0.1
HT [b]	Sediment, shoreline	Grab	Wooded Island	WI-1SSD	NA	NA	Random/ stratified	2/13/09	NA	NA	NA	NA	NA	NA
HT	Sediment, shoreline	Grab	Wooded Island	WI-2SSD	J18907	K1542	Random/ stratified	2/13/09	46.44805	-119.26792	124639.512	594656.03	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Wooded Island	WI-2SSD	J18919	J00339		2/13/09	46.44805	-119.26792	124639.512	594656.03	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Wooded Island	WI-3SSD	J18906	K1542	Random/ stratified	2/13/09	46.44313	-119.26735	124093.401	594708.363	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Wooded Island	WI-3SSD	J18918	J00339		2/13/09	46.44313	-119.26735	124093.401	594708.363	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Wooded Island	WI-4SSD	J18909	K1542	Random/ stratified	2/13/09	46.43932	-119.26715	123670.208	594730.347	NA	0 - 0.26
HT	Sediment, shoreline	Grab	Wooded Island	WI-4SSD	J18921	J00339		2/13/09	46.43932	-119.26715	123670.208	594730.347	NA	0 - 0.26
HT	Sediment, shoreline	Grab	Wooded Island	WI-5SSD	J18905	K1542	Random/ stratified	2/13/09	46.43888	-119.26487	123624.049	594906.29	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Wooded Island	WI-5SSD	J18917	J00339		2/13/09	46.43888	-119.26487	123624.049	594906.29	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Wooded Island	WI-5SSD	J18697	J00364		2/13/09	46.43888	-119.26487	123624.049	594906.29	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Wooded Island	WI-6SSD	J18908	K1542	Random/ stratified	2/13/09	46.43195	-119.26327	122855.795	595041.3	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Wooded Island	WI-6SSD	J18920	J00339		2/13/09	46.43195	-119.26327	122855.795	595041.3	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Wooded Island	WI-7SSD	J18903	K1542	Random/ stratified	2/13/09	46.42998	-119.26388	122636.562	594997.666	NA	0 - 0.13
HT	Sediment, shoreline	Grab	Wooded Island	WI-7SSD	J18915	J00339		2/13/09	46.42998	-119.26388	122636.562	594997.666	NA	0 - 0.13
HT	Sediment, shoreline	Grab	Wooded Island	WI-8SSD	J18902	K1542	Random/ stratified	2/13/09	46.42819	-119.26403	122437.005	594989.448	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Wooded Island	WI-8SSD	J18914	J00339		2/13/09	46.42819	-119.26403	122437.005	594989.448	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Wooded Island	WI-9SSD **Duplicate collected**	J18904	K1542	Random/ stratified	2/13/09	46.41999	-119.26601	121523.299	594851.547	NA	0 - 0.16
HT	Sediment, shoreline	Grab	Wooded Island	WI-9SSD **Duplicate collected**	J18916	J00339		2/13/09	46.41999	-119.26601	121523.299	594851.547	NA	0 - 0.16

Table B-4. Sediment and Soil Sampling Summary - Location Information. (48 Pages)

Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
HT	Sediment, shoreline	Grab	Wooded Island	WI-10SSD	J18913	K1542	Random/ stratified	2/13/09	46.42246	-119.26596	121797.868	594851.095	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Wooded Island	WI-10SSD	J18925	J00339		2/13/09	46.42246	-119.26596	121797.868	594851.095	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Wooded Island	WI-11SSD	J18910	K1542	Random/ stratified	2/13/09	46.42870	-119.25772	122501.303	595473.465	NA	0 - 0.2
HT	Sediment, shoreline	Grab	Wooded Island	WI-11SSD	J18922	J00339		2/13/09	46.42870	-119.25772	122501.303	595473.465	NA	0 - 0.2
HT	Sediment, shoreline	Grab	Wooded Island	WI-12SSD **Duplicate collected**	J18911	K1542	Random/ stratified	2/13/09	46.42308	-119.25842	121875.867	595429.504	NA	0 - 0.3
HT	Sediment, shoreline	Grab	Wooded Island	WI-12SSD **Duplicate collected**	J18923	J00339		2/13/09	46.42308	-119.25842	121875.867	595429.504	NA	0 - 0.3
HT	Sediment, shallow	Power grab	Island 14	IS14-1SD **Duplicate collected**	J18003	K1489	Random/ stratified	12/8/08	46.46079	-119.25945	126065.6	595284.424	0	0 - 0.25
HT	Sediment, shallow	Power grab	Island 14	IS14-1SD **Duplicate collected**	J18008	J00253		12/8/08	46.46079	-119.25945	126065.6	595284.424	0	0 - 0.25
HT	Sediment, shallow	Power grab	Island 14	IS14-1SD **Duplicate collected**	J18015	SEQ2981		12/8/08	46.46079	-119.25945	126065.6	595284.424	0	0 - 0.25
HT	Sediment, shallow	Power grab	Island 14	IS14-1SD	J18X09	K1663		6/8/09	46.46076	-119.25945	126062.526	595284.536	8	0 - 0.3
HT	Sediment, shallow	Power grab	Island 14	IS14-2SD	J18002	K1489	Random/ stratified	12/8/08	46.45936	-119.25994	125906.082	595249.29	0	0 - 0.25
HT	Sediment, shallow	Power grab	Island 14	IS14-2SD	J18007	J00253		12/8/08	46.45936	-119.25994	125906.082	595249.29	0	0 - 0.25
HT	Sediment, shallow	Power grab	Island 14	IS14-2SD	J18014	SEQ2981		12/8/08	46.45936	-119.25994	125906.082	595249.29	0	0 - 0.25
HT	Sediment, shallow	Power grab	Island 14	IS14-2SD	J18X10	K1663		6/8/09	46.45934	-119.25994	125903.328	595249.717	8.6	0 - 0.3
HT	Sediment, shallow	Power grab	Island 14	IS14-3SD	J18004	K1489	Random/ stratified	12/8/08	46.45758	-119.26028	125707.847	595226.286	0	0 - 0.3
HT	Sediment, shallow	Power grab	Island 14	IS14-3SD	J18009	J00253		12/8/08	46.45758	-119.26028	125707.847	595226.286	0	0 - 0.3
HT	Sediment, shallow	Power grab	Island 14	IS14-4SD	J18005	K1489	Random/ stratified	12/8/08	46.45688	-119.26035	125629.966	595222.132	3	0 - 0.3
HT	Sediment, shallow	Power grab	Island 14	IS14-4SD	J18010	J00253		12/8/08	46.45688	-119.26035	125629.966	595222.132	3	0 - 0.3
HT	Sediment, shallow	Power grab	Island 14	IS14-5SD	J18006	K1489	Random/ stratified	12/8/08	46.45601	-119.26044	125533.168	595216.739	2.5	0 - 0.3
HT	Sediment, shallow	Power grab	Island 14	IS14-5SD	J18011	J00253		12/8/08	46.45601	-119.26044	125533.168	595216.739	2.5	0 - 0.3
HT	Sediment, shallow	Power grab	Island 15	IS15-1SD	J18017	K1489	Random/ stratified	12/8/08	46.44528	-119.25720	124344.583	595484.39	3	0 - 0.3
HT	Sediment, shallow	Power grab	Island 15	IS15-1SD	J18026	J00253		12/8/08	46.44528	-119.25720	124344.583	595484.39	3	0 - 0.3
HT	Sediment, shallow	Power grab	Island 15	IS15-1SD	J18024	SEQ2981		12/8/08	46.44528	-119.25720	124344.583	595484.39	3	0 - 0.3
HT	Sediment, shallow	Power grab	Island 15	IS15-1SD	J18X11	K1663		6/8/09	46.44528	-119.25720	124344.693	595484.324	8.7	0 - 0.3
HT	Sediment, shallow	Power grab	Island 15	IS15-2SD	J18016	K1489	Random/ stratified	12/8/08	46.44097	-119.25678	123866.091	595524.206	6	0 - 0.3
HT	Sediment, shallow	Power grab	Island 15	IS15-2SD	J18025	J00253		12/8/08	46.44097	-119.25678	123866.091	595524.206	6	0 - 0.3
HT	Sediment, shallow	Power grab	Island 15	IS15-2SD	J18023	SEQ2981		12/8/08	46.44097	-119.25678	123866.091	595524.206	6	0 - 0.3
HT	Sediment, shallow	Power grab	Island 15	IS15-2SD	J17W28	J00264		12/8/08	46.44097	-119.25678	123866.091	595524.206	6	0 - 0.3
HT	Sediment, shallow	Power grab	Island 15	IS15-2SD	J18X12	K1663		6/8/09	46.44097	-119.25677	123865.543	595524.676	20	0 - 0.3

Table B-4. Sediment and Soil Sampling Summary - Location Information. (48 Pages)

Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
HT [b]	Sediment, shallow	Power grab	Island 15	IS15-3SD	NA	NA	Random/ stratified	12/8/08	NA	NA	NA	NA	NA	NA
HT [b]	Sediment, shallow	Power grab	Island 15	IS15-4SD	NA	NA	Random/ stratified	12/8/08	NA	NA	NA	NA	NA	NA
HT [b]	Sediment, shallow	Power grab	Island 15	IS15-5SD	NA	NA	Random/ stratified	12/8/08	NA	NA	NA	NA	NA	NA
HT [b]	Sediment, shoreline	Power grab	Island 16	IS16-1SSD	NA	NA	Random/ stratified	2/18/09	NA	NA	NA	NA	NA	NA
HT	Sediment, shoreline	Power grab	Island 16	IS16-2SSD	J18966	K1543	Random/ stratified	2/18/09	46.40413	-119.26385	119763.271	595045.19	NA	0 - 0.3
HT	Sediment, shoreline	Power grab	Island 16	IS16-2SSD	J18970	J00348		2/18/09	46.40413	-119.26385	119763.271	595045.19	NA	0 - 0.3
HT	Sediment, shoreline	Power grab	Island 16	IS16-2SSD	J18976	SEQ022709		2/18/09	46.40413	-119.26385	119763.271	595045.19	NA	0 - 0.3
HT	Sediment, shoreline	Power grab	Island 16	IS16-2SSD	J18691	J00364		2/18/09	46.40413	-119.26385	119763.271	595045.19	NA	0 - 0.3
HT	Sediment, shoreline	Power grab	Island 16	IS16-3SSD	J18965	K1543	Random/ stratified	2/18/09	46.40361	-119.26397	119705.335	595036.87	NA	0 - 0.3
HT	Sediment, shoreline	Power grab	Island 16	IS16-3SSD	J18969	J00348		2/18/09	46.40361	-119.26397	119705.335	595036.87	NA	0 - 0.3
HT	Sediment, shoreline	Power grab	Island 16	IS16-3SSD	J18975	SEQ022709		2/18/09	46.40361	-119.26397	119705.335	595036.87	NA	0 - 0.3
HT	Sediment, shoreline	Power grab	Island 16	IS16-4SSD	J18968	K1543	Random/ stratified	2/18/09	46.40270	-119.26396	119604.213	595039.223	NA	0 - 0.26
HT	Sediment, shoreline	Power grab	Island 16	IS16-4SSD	J18972	J00348		2/18/09	46.40270	-119.26396	119604.213	595039.223	NA	0 - 0.26
HT	Sediment, shallow	Power grab	Wooded Island	WI-1SD	J18032	K1491	Random/ stratified	12/9/08	46.44398	-119.26774	124187.399	594676.924	0	0 - 0.15
HT	Sediment, shallow	Power grab	Wooded Island	WI-1SD	J18041	J00254		12/9/08	46.44398	-119.26774	124187.399	594676.924	0	0 - 0.15
HT [b]	Sediment, shallow	Power grab	Wooded Island	WI-2SD	NA	NA	Random/ stratified	12/9/08	NA	NA	NA	NA	NA	NA
HT	Sediment, shallow	Power grab	Wooded Island	WI-3SD	J18031	K1491	Random/ stratified	12/9/08	46.44707	-119.26785	124530.682	594663.109	0	0 - 0.3
HT	Sediment, shallow	Power grab	Wooded Island	WI-3SD	J18040	J00254		12/9/08	46.44707	-119.26785	124530.682	594663.109	0	0 - 0.3
HT	Sediment, shallow	Power grab	Wooded Island	WI-3SD	J18038	SEQ2981		12/9/08	46.44707	-119.26785	124530.682	594663.109	0	0 - 0.3
HT [b]	Sediment, shallow	Power grab	Wooded Island	WI-4SD	NA	NA	Random/ stratified	12/9/08	NA	NA	NA	NA	NA	NA
HT	Sediment, shallow	Power grab	Wooded Island	WI-5SD	J18030	K1491	Random/ stratified	12/9/08	46.44403	-119.26782	124192.86	594670.692	0	0 - 0.1
HT	Sediment, shallow	Power grab	Wooded Island	WI-5SD	J18039	J00254		12/9/08	46.44403	-119.26782	124192.86	594670.692	0	0 - 0.1
HT	Sediment, shallow	Power grab	Wooded Island	WI-5SD	J18037	SEQ2981		12/9/08	46.44403	-119.26782	124192.86	594670.692	0	0 - 0.1
HT	Soil	Grab	Wooded Island soil	WI-1S	J18B41	K1556	Random/ stratified	2/26/09	46.43142	-119.26699	122792.417	594756.366	NA	0 - 0.3
HT	Soil	Grab	Wooded Island soil	WI-2S	J18B32	K1556	Random/ stratified	2/26/09	46.43012	-119.26567	122649.526	594860.06	NA	0 - 0.3
HT	Soil	Grab	Wooded Island soil	WI-3S	J18B34	K1556	Random/ stratified	2/26/09	46.42965	-119.26679	122595.945	594774.81	NA	0 - 0.3
HT	Soil	Grab	Wooded Island soil	WI-3S	J18HX1	J00419		2/26/09	46.42965	-119.26679	122595.945	594774.81	NA	0 - 0.3
HT	Soil	Grab	Wooded Island soil	WI-4S	J18B36	K1556	Random/ stratified	2/26/09	46.42939	-119.26523	122568.925	594895.142	NA	0 - 0.3
HT	Soil	Grab	Wooded Island soil	WI-5S	J18B38	K1556	Random/ stratified	2/26/09	46.42868	-119.26686	122488.058	594771.117	NA	Not recorded

Table B-4. Sediment and Soil Sampling Summary - Location Information. (48 Pages)

Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
HT	Soil	Grab	Wooded Island soil	WI-6S **Duplicate collected**	J18B33	K1556	Random/ stratified	2/26/09	46.42881	-119.26527	122504.417	594893.078	NA	0 - 0.3
HT	Soil	Grab	Wooded Island soil	WI-7S	J18B35	K1556	Random/ stratified	2/26/09	46.42816	-119.26608	122431.204	594831.962	NA	0 - 0.3
HT	Soil	Grab	Wooded Island soil	WI-7S	J189W5	J00420		2/26/09	46.42816	-119.26608	122431.204	594831.962	NA	0 - 0.3
HT	Soil	Grab	Wooded Island soil	WI-8S	J18B37	K1556	Random/ stratified	2/26/09	46.42675	-119.26613	122274.441	594830.571	NA	0 - 0.3
HT	Soil	Grab	Wooded Island soil	WI-9S	J18B39	K1556	Random/ stratified	2/26/09	46.42598	-119.26580	122189.262	594857.27	NA	0 - 0.3
HT	Soil	Grab	Wooded Island soil	WI-10S	J18B40	K1556	Random/ stratified	2/26/09	46.42555	-119.26495	122142.496	594923.342	NA	0 - 0.3
300 Area [b]	Sediment, shoreline	Grab	300 Area island (Johnson Island)	300ISL-1SSD	NA	NA	Random/ stratified	2/13/09	NA	NA	NA	NA	NA	NA
300 Area	Sediment, shoreline	Grab	300 Area island (Johnson Island)	300ISL-2SSD **WDOH split collected**	J188C4	K1542	Random/ stratified	2/13/09	46.39148	-119.26707	118353.518	594819.607	NA	0 - 0.1
300 Area	Sediment, shoreline	Grab	300 Area island (Johnson Island)	300ISL-2SSD **WDOH split collected**	J188D4	J00339		2/13/09	46.39148	-119.26707	118353.518	594819.607	NA	0 - 0.1
300 Area	Sediment, shoreline	Grab	300 Area island (Johnson Island)	300ISL-3SSD	J188B8	K1543	Random/ stratified	2/18/09	46.38871	-119.26985	118042.331	594610.628	NA	0 - 0.23
300 Area	Sediment, shoreline	Grab	300 Area island (Johnson Island)	300ISL-3SSD	J188C8	J00349		2/18/09	46.38871	-119.26985	118042.331	594610.628	NA	0 - 0.23
300 Area [b]	Sediment, shoreline	Grab	300 Area island (Johnson Island)	300ISL-4SSD	NA	NA	Random/ stratified	2/18/09	NA	NA	NA	NA	NA	NA
300 Area	Sediment, shoreline	Grab	300 Area island (Johnson Island)	300ISL-5SSD	J188B9	K1543	Random/ stratified	2/18/09	46.38566	-119.27072	117702.322	594549.005	NA	0 - 0.13
300 Area	Sediment, shoreline	Grab	300 Area island (Johnson Island)	300ISL-5SSD	J188C9	J00349		2/18/09	46.38566	-119.27072	117702.322	594549.005	NA	0 - 0.13
300 Area [b]	Sediment, shoreline	Grab	300 Area island (Johnson Island)	300ISL-6SSD	NA	NA	Random/ stratified	2/18/09	NA	NA	NA	NA	NA	NA
300 Area	Sediment, shoreline	Grab	300 Area island (Johnson Island)	300ISL-7SSD	J188C0	K1543	Random/ stratified	2/18/09	46.38478	-119.27096	117604.234	594532.071	NA	0 - 0.13
300 Area	Sediment, shoreline	Grab	300 Area island (Johnson Island)	300ISL-7SSD	J188D0	J00349		2/18/09	46.38478	-119.27096	117604.234	594532.071	NA	0 - 0.13
300 Area [b]	Sediment, shoreline	Grab	300 Area island (Johnson Island)	300ISL-8SSD	NA	NA	Random/ stratified	2/18/09	NA	NA	NA	NA	NA	NA
300 Area [b]	Sediment, shoreline	Grab	300 Area island (Johnson Island)	300ISL-9SSD	NA	NA	Random/ stratified	2/18/09	NA	NA	NA	NA	NA	NA
300 Area	Sediment, shoreline	Grab	300 Area island (Johnson Island)	300ISL-10SSD	J188C1	K1543	Random/ stratified	2/18/09	46.37886	-119.27061	116946.725	594569.245	NA	0 - 0.1
300 Area	Sediment, shoreline	Grab	300 Area island (Johnson Island)	300ISL-10SSD	J188D1	J00349		2/18/09	46.37886	-119.27061	116946.725	594569.245	NA	0 - 0.1
300 Area [c]	Sediment, shallow	Power grab	300 Area left side	300LS-1SD to 300LS-5SD	NA	NA	Random/ stratified	NA	NA	NA	NA	NA	NA	0 - 0.3 ft
300 Area	Sediment, shoreline	Power grab	300 Area left side	300LS-1SSD	J18936	K1527	Random/ stratified	2/6/09	46.37059	-119.26572	116033.503	594959.754	NA	0 - 0.3
300 Area	Sediment, shoreline	Power grab	300 Area left side	300LS-1SSD	J18946	J00325		2/6/09	46.37059	-119.26572	116033.503	594959.754	NA	0 - 0.3
300 Area	Sediment, shoreline	Power grab	300 Area left side	300LS-2SSD	J18932	K1527	Random/ stratified	2/6/09	46.36727	-119.26516	115665.205	595008.612	NA	0 - 0.2
300 Area	Sediment, shoreline	Power grab	300 Area left side	300LS-2SSD	J18942	J00325		2/6/09	46.36727	-119.26516	115665.205	595008.612	NA	0 - 0.2
300 Area	Sediment, shoreline	Power grab	300 Area left side	300LS-2SSD	J18957	SEQ002709		2/6/09	46.36727	-119.26516	115665.205	595008.612	NA	0 - 0.2

Table B-4. Sediment and Soil Sampling Summary - Location Information. (48 Pages)

Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
300 Area	Sediment, shoreline	Power grab	300 Area left side	300LS-3SSD	J18929	K1527	Random/ stratified	2/6/09	46.36410	-119.26325	115315.206	595161.079	NA	0 - 0.16
300 Area	Sediment, shoreline	Power grab	300 Area left side	300LS-3SSD	J18939	J00325		2/6/09	46.36410	-119.26325	115315.206	595161.079	NA	0 - 0.16
300 Area	Sediment, shoreline	Power grab	300 Area left side	300LS-3SSD	J18954	SEQ002709		2/6/09	46.36410	-119.26325	115315.206	595161.079	NA	0 - 0.16
300 Area	Sediment, shoreline	Power grab	300 Area left side	300LS-4SSD	J18931	K1527	Random/ stratified	2/6/09	46.36208	-119.26272	115091.351	595205.378	NA	0 - 0.16
300 Area	Sediment, shoreline	Power grab	300 Area left side	300LS-4SSD	J18941	J00325		2/6/09	46.36208	-119.26272	115091.351	595205.378	NA	0 - 0.16
300 Area	Sediment, shoreline	Power grab	300 Area left side	300LS-4SSD	J18956	SEQ002709		2/6/09	46.36208	-119.26272	115091.351	595205.378	NA	0 - 0.16
300 Area	Sediment, shoreline	Power grab	300 Area left side	300LS-5SSD	J18928	K1527	Random/ stratified	2/6/09	46.35990	-119.26186	114850.112	595275.351	NA	0 - 0.16
300 Area	Sediment, shoreline	Power grab	300 Area left side	300LS-5SSD	J18938	J00325		2/6/09	46.35990	-119.26186	114850.112	595275.351	NA	0 - 0.16
300 Area	Sediment, shoreline	Power grab	300 Area left side	300LS-5SSD	J18953	SEQ002709		2/6/09	46.35990	-119.26186	114850.112	595275.351	NA	0 - 0.16
300 Area	Sediment, shoreline	Power grab	300 Area left side	300LS-6SSD	J18930	K1527	Random/ stratified	2/6/09	46.35777	-119.26124	114614.142	595326.774	NA	0 - 0.3
300 Area	Sediment, shoreline	Power grab	300 Area left side	300LS-6SSD	J18940	J00325		2/6/09	46.35777	-119.26124	114614.142	595326.774	NA	0 - 0.3
300 Area	Sediment, shoreline	Power grab	300 Area left side	300LS-6SSD	J18955	SEQ002709		2/6/09	46.35777	-119.26124	114614.142	595326.774	NA	0 - 0.3
300 Area	Sediment, shoreline	Power grab	300 Area left side	300LS-7SSD	J18934	K1527	Random/ stratified	2/6/09	46.35611	-119.26082	114430.164	595361.991	NA	0 - 0.3
300 Area	Sediment, shoreline	Power grab	300 Area left side	300LS-7SSD	J18944	J00325		2/6/09	46.35611	-119.26082	114430.164	595361.991	NA	0 - 0.3
300 Area	Sediment, shoreline	Power grab	300 Area left side	300LS-8SSD	J18933	K1527	Random/ stratified	2/6/09	46.35491	-119.26070	114296.946	595373.32	NA	0 - 0.07
300 Area	Sediment, shoreline	Power grab	300 Area left side	300LS-8SSD	J18943	J00325		2/6/09	46.35491	-119.26070	114296.946	595373.32	NA	0 - 0.07
300 Area	Sediment, shoreline	Power grab	300 Area left side	300LS-9SSD	J18937	K1527	Random/ stratified	2/6/09	46.35367	-119.26035	114159.56	595402.419	NA	0 - 0.1
300 Area	Sediment, shoreline	Power grab	300 Area left side	300LS-9SSD	J18947	J00325		2/6/09	46.35367	-119.26035	114159.56	595402.419	NA	0 - 0.1
300 Area	Sediment, shoreline	Power grab	300 Area left side	300LS-10SSD	J18935	K1527	Random/ stratified	2/6/09	46.35311	-119.26026	114097.433	595410.323	NA	0 - 0.07
300 Area	Sediment, shoreline	Power grab	300 Area left side	300LS-10SSD	J18945	J00325		2/6/09	46.35311	-119.26026	114097.433	595410.323	NA	0 - 0.07
300 Area	Sediment, shoreline	Power grab	300 Area left side	300LS-10SSD	J186B4	J00367		2/6/09	46.35311	-119.26026	114097.433	595410.323	NA	0 - 0.07
OCI	Sediment, shoreline	Grab	Potholes Canal Wasteway	PC-1SSD	J18978	K1543	Random/ stratified	2/18/09	46.37842	-119.26236	116907.75	595204.581	NA	0 - 0.3
OCI	Sediment, shoreline	Grab	Potholes Canal Wasteway	PC-1SSD	J18981	J00348		2/18/09	46.37842	-119.26236	116907.75	595204.581	NA	0 - 0.3
OCI	Sediment, shoreline	Grab	Potholes Canal Wasteway	PC-2SSD	J18977	K1543	Random/ stratified	2/18/09	46.37798	-119.26240	116858.802	595202.271	NA	0 - 0.3
OCI	Sediment, shoreline	Grab	Potholes Canal Wasteway	PC-2SSD	J18980	J00348		2/18/09	46.37798	-119.26240	116858.802	595202.271	NA	0 - 0.3
OCI	Sediment, shoreline	Grab	Potholes Canal Wasteway	PC-3SSD	J18979	K1543	Random/ stratified	2/18/09	46.37675	-119.26251	116721.971	595195.955	NA	0 - 0.3
OCI	Sediment, shoreline	Grab	Potholes Canal Wasteway	PC-3SSD	J18982	J00348		2/18/09	46.37675	-119.26251	116721.971	595195.955	NA	0 - 0.3
300 Area	Sediment, shallow	Power grab	Johnson Island	JSI-1SD **Duplicate collected**	J18097	K1491	Random/ stratified	12/9/08	46.38858	-119.26312	118035.978	595128.415	0	0 - 0.15
300 Area	Sediment, shallow	Power grab	Johnson Island	JSI-1SD **Duplicate collected**	J180B7	J00256		12/9/08	46.38858	-119.26312	118035.978	595128.415	0	0 - 0.15

Table B-4. Sediment and Soil Sampling Summary - Location Information. (48 Pages)

Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
300 Area	Sediment, shallow	Power grab	Johnson Island	JSI-2SD	J18096	K1491	Random/ stratified	12/9/08	46.38622	-119.26338	117773.383	595112.533	0	0 - 0.3
300 Area	Sediment, shallow	Power grab	Johnson Island	JSI-2SD	J180B6	J00256		12/9/08	46.38622	-119.26338	117773.383	595112.533	0	0 - 0.3
300 Area	Sediment, shallow	Power grab	Johnson Island	JSI-3SD	J18092	K1491	Random/ stratified	12/9/08	46.38401	-119.26329	117527.88	595123.306	1	0 - 0.3
300 Area	Sediment, shallow	Power grab	Johnson Island	JSI-3SD	J180B2	J00256		12/9/08	46.38401	-119.26329	117527.88	595123.306	1	0 - 0.3
300 Area	Sediment, shallow	Power grab	Johnson Island	JSI-4SD	J18098	K1491	Random/ stratified	12/9/08	46.38344	-119.26346	117464.327	595111.224	2.5	0 - 0.3
300 Area	Sediment, shallow	Power grab	Johnson Island	JSI-4SD	J180B8	J00256		12/9/08	46.38344	-119.26346	117464.327	595111.224	2.5	0 - 0.3
300 Area	Sediment, shallow	Power grab	Johnson Island	JSI-5SD	J18093	K1491	Random/ stratified	12/9/08	46.38265	-119.26332	117376.698	595123.368	0.5	0 - 0.3
300 Area	Sediment, shallow	Power grab	Johnson Island	JSI-5SD	J180B3	J00256		12/9/08	46.38265	-119.26332	117376.698	595123.368	0.5	0 - 0.3
300 Area	Sediment, shallow	Power grab	Johnson Island	JSI-6SD	J180B1	K1491	Random/ stratified	12/9/08	46.38173	-119.26313	117274.682	595139.585	3	0 - 0.3
300 Area	Sediment, shallow	Power grab	Johnson Island	JSI-6SD	J180C1	J00256		12/9/08	46.38173	-119.26313	117274.682	595139.585	3	0 - 0.3
300 Area [b]	Sediment, shallow	Power grab	Johnson Island	JSI-7SD	NA	NA	Random/ stratified	12/9/08	NA	NA	NA	NA	NA	NA
300 Area	Sediment, shallow	Power grab	Johnson Island	JSI-8SD	J18095	K1491	Random/ stratified	12/9/08	46.38007	-119.26322	117090.087	595135.556	3	0 - 0.3
300 Area	Sediment, shallow	Power grab	Johnson Island	JSI-8SD	J180B5	J00256		12/9/08	46.38007	-119.26322	117090.087	595135.556	3	0 - 0.3
300 Area	Sediment, shallow	Power grab	Johnson Island	JSI-9SD **EPA split collected**	J180B0	K1491	Random/ stratified	12/9/08	46.37880	-119.26342	116948.703	595122.386	2.5	0 - 0.3
300 Area	Sediment, shallow	Power grab	Johnson Island	JSI-9SD **EPA split collected**	J180C0	J00254		12/9/08	46.37880	-119.26342	116948.703	595122.386	2.5	0 - 0.3
300 Area	Sediment, shallow	Power grab	Johnson Island	JSI-10SD	J18094	K1491	Random/ stratified	12/9/08	46.37828	-119.26307	116891.334	595150.213	2	0 - 0.3
300 Area	Sediment, shallow	Power grab	Johnson Island	JSI-10SD	J180B4	J00254		12/9/08	46.37828	-119.26307	116891.334	595150.213	2	0 - 0.3
OCI	Sediment, shallow	Power grab	Esquatzel Coulee Wasteway	EC-1SD	J18046	K1495	Focused	12/10/08	46.35833	-119.25866	114679.499	595524.318	3.5	0 - 0.3
OCI	Sediment, shallow	Power grab	Esquatzel Coulee Wasteway	EC-1SD	J18049	J00257		12/10/08	46.35833	-119.25866	114679.499	595524.318	3.5	0 - 0.3
OCI	Sediment, shallow	Power grab	Esquatzel Coulee Wasteway	EC-2SD	J18045	K1495	Focused	12/10/08	46.35828	-119.25856	114674.064	595532.1	3.5	0 - 0.3
OCI	Sediment, shallow	Power grab	Esquatzel Coulee Wasteway	EC-2SD	J18048	J00257		12/10/08	46.35828	-119.25856	114674.064	595532.1	3.5	0 - 0.3
OCI	Sediment, shallow	Power grab	Esquatzel Coulee Wasteway	EC-3SD	J18047	K1495	Focused	12/10/08	46.35824	-119.25839	114669.824	595545.251	4	0 - 0.3
OCI	Sediment, shallow	Power grab	Esquatzel Coulee Wasteway	EC-3SD	J18050	J00257		12/10/08	46.35824	-119.25839	114669.824	595545.251	4	0 - 0.3
300 Area	Soil	Grab	Johnson Island soil	JI-1S	J18B50	K1554	Random/ stratified	2/27/09	46.38439	-119.26870	117563.602	594706.562	NA	0 - 0.3
300 Area	Soil	Grab	Johnson Island soil	JI-1S	J189W4	J00420		2/27/09	46.38439	-119.26870	117563.602	594706.562	NA	0 - 0.3
300 Area	Soil	Grab	Johnson Island soil	JI-2S	J18B47	K1554	Random/ stratified	2/27/09	46.38404	-119.26921	117524.092	594667.945	NA	0 - 0.3
300 Area	Soil	Grab	Johnson Island soil	JI-3S	J18B48	K1554	Random/ stratified	2/27/09	46.38405	-119.26950	117524.855	594645.624	NA	0 - 0.3
300 Area	Soil	Grab	Johnson Island soil	JI-4S **Duplicate collected**	J18B49	K1554	Random/ stratified	2/27/09	46.38344	-119.26931	117457.29	594661.295	NA	0 - 0.3
300 Area	Soil	Grab	Johnson Island soil	JI-5S	J18B52	K1554	Random/ stratified	2/27/09	46.38334	-119.26966	117445.756	594634.549	NA	0 - 0.3

Table B-4. Sediment and Soil Sampling Summary - Location Information. (48 Pages)

Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
300 Area	Soil	Grab	Johnson Island soil	JI-6S	J18B54	K1554	Random/ stratified	2/27/09	46.38239	-119.26856	117341.497	594720.8	NA	0 - 0.3
300 Area	Soil	Grab	Johnson Island soil	JI-7S	J18B51	K1554	Random/ stratified	2/27/09	46.38208	-119.26970	117305.676	594633.657	NA	0 - 0.3
300 Area	Soil	Grab	Johnson Island soil	JI-8S	J18B53	K1554	Random/ stratified	2/27/09	46.38198	-119.26893	117295.487	594693.054	NA	0 - 0.3
300 Area	Soil	Grab	Johnson Island soil	JI-9S	J18B55	K1554	Random/ stratified	2/27/09	46.38128	-119.26859	117218.099	594720.419	NA	0 - 0.3
300 Area	Soil	Grab	Johnson Island soil	JI-10S	J18B56	K1554	Random/ stratified	2/27/09	46.38051	-119.26925	117131.732	594670.991	NA	0 - 0.3
300 Area	Soil	Grab	Johnson Island soil	JI-6S **Duplicate collected**	J18X63	K1668	Random/ stratified	2/27/09	46.38238	-119.26856	117340.385	594720.818	NA	0 - 0.3
300 Area	Soil	Grab	Johnson Island soil	JI-8S	J18X64	K1668	Random/ stratified	2/27/09	46.38198	-119.26892	117295.499	594693.823	NA	0 - 0.3
300 Area	Soil	Grab	Johnson Island soil	JI-10S	J18X65	K1668	Random/ stratified	2/27/09	46.38051	-119.26925	117131.732	594670.991	NA	0 - 0.3
300 Area [b]	Core, shallow (4-in. diameter)	Vibracore	300 Area downriver	300DC1-1SD to 3SD	NA	NA	Focused	3/30/09	NA	NA	NA	NA	NA	0 - Refusal (8-in. subsamples)
300 Area	Core, shallow (4-in. diameter)	Vibracore	300 Area downriver	300DC2-1SD	J18MM9	K1580	Focused	3/30/09	46.37566	-119.26258	116600.748	595192.471	~3.25	0 - 0.75
300 Area	Core, shallow (4-in. diameter)	Vibracore	300 Area downriver	300DC2-1SD	J18MN0	J00426		3/30/09	46.37566	-119.26258	116600.748	595192.471	~3.25	0 - 0.75
300 Area	Core, shallow (4-in. diameter)	Vibracore	300 Area downriver	300DC2-1SD	J18MN1	SEQ041409		3/30/09	46.37566	-119.26258	116600.748	595192.471	~3.25	0 - 0.75
300 Area	Core, shallow (4-in. diameter)	Vibracore	300 Area downriver	300DC2-2SD	J18MN2	K1580	Focused	3/30/09	46.37566	-119.26258	116600.748	595192.471	~3.25	0.75 - 1.44
300 Area	Core, shallow (4-in. diameter)	Vibracore	300 Area downriver	300DC2-2SD	J18MN7	J00426		3/30/09	46.37566	-119.26258	116600.748	595192.471	~3.25	0.75 - 1.44
300 Area	Core, shallow (4-in. diameter)	Vibracore	300 Area downriver	300DC3-1SD	J18ML6	K1580	Focused	3/30/09	46.36883	-119.26169	115842.763	595272.849	~2.5	0 - 0.66
300 Area	Core, shallow (4-in. diameter)	Vibracore	300 Area downriver	300DC3-1SD	J18ML7	J00426		3/30/09	46.36883	-119.26169	115842.763	595272.849	~2.5	0 - 0.66
300 Area	Core, shallow (4-in. diameter)	Vibracore	300 Area downriver	300DC3-1SD	J18ML8	SEQ041409		3/30/09	46.36883	-119.26169	115842.763	595272.849	~2.5	0 - 0.66
300 Area	Core, shallow (4-in. diameter)	Vibracore	300 Area downriver	300DC4-1SD	J18KY3	K1573	Focused	3/30/09	46.34976	-119.26601	113718.188	594973.664	~7	0 - 0.79
300 Area	Core, shallow (4-in. diameter)	Vibracore	300 Area downriver	300DC4-1SD	J18KY4	J00421		3/30/09	46.34976	-119.26601	113718.188	594973.664	~7	0 - 0.79
300 Area	Core, shallow (4-in. diameter)	Vibracore	300 Area downriver	300DC4-1SD	J18KY5	SEQ041409		3/30/09	46.34976	-119.26601	113718.188	594973.664	~7	0 - 0.79
300 Area	Core, shallow (4-in. diameter)	Vibracore	300 Area downriver	300DC4-2SD	J18KY6	K1573	Focused	3/30/09	46.34976	-119.26601	113718.188	594973.664	~7	0.79 - 1.44
300 Area	Core, shallow (4-in. diameter)	Vibracore	300 Area downriver	300DC4-2SD	J18L01	J00421		3/30/09	46.34976	-119.26601	113718.188	594973.664	~7	0.79 - 1.44
300 Area	Sediment, shoreline	Grab	300 Area downriver	300D-1SSD	J189D7	K1543	Random/ stratified	2/18/09	46.33228	-119.25588	111787.784	595783.896	NA	0 - 0.3
300 Area	Sediment, shoreline	Grab	300 Area downriver	300D-1SSD	J189F2	J00349		2/18/09	46.33228	-119.25588	111787.784	595783.896	NA	0 - 0.3
300 Area	Sediment, shoreline	Grab	300 Area downriver	300D-1SSD	J189F9	SEQ022709		2/18/09	46.33228	-119.25588	111787.784	595783.896	NA	0 - 0.3
300 Area	Sediment, shoreline	Grab	300 Area downriver	300D-2SSD	J189D6	K1543	Random/ stratified	2/18/09	46.32785	-119.25522	111296.256	595842.475	NA	0 - 0.3
300 Area	Sediment, shoreline	Grab	300 Area downriver	300D-2SSD	J189F1	J00349		2/18/09	46.32785	-119.25522	111296.256	595842.475	NA	0 - 0.3
300 Area	Sediment, shoreline	Grab	300 Area downriver	300D-2SSD	J189F8	SEQ022709		2/18/09	46.32785	-119.25522	111296.256	595842.475	NA	0 - 0.3

Table B-4. Sediment and Soil Sampling Summary - Location Information. (48 Pages)

Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
300 Area	Sediment, shoreline	Grab	300 Area downriver	300D-3SSD	J189D8	K1544	Random/ stratified	2/18/09	46.32662	-119.25528	111159.486	595840.013	NA	0 - 0.23
300 Area	Sediment, shoreline	Grab	300 Area downriver	300D-3SSD	J189F3	J00350		2/18/09	46.32662	-119.25528	111159.486	595840.013	NA	0 - 0.23
300 Area [c]	Sediment, shoreline	Grab	300 Area downriver	300D-4SSD	J189D9-A	NA	NA	2/18/09	NA	NA	NA	NA	NA	NA
300 Area	Sediment, shoreline	Grab	300 Area downriver	300D-4SSD	J189F4	J00350	Random/ stratified	2/18/09	46.31695	-119.25349	110086.983	595994.812	NA	0 - 0.13
300 Area	Sediment, shoreline	Grab	300 Area downriver	300D-4SSD	J189D9	K1555		2/18/09	46.31697	-119.25337	110089.352	596004.017	NA	0 - 0.3
300 Area	Sediment, shoreline	Grab	300 Area downriver	300D-4SSD	J18J52	J00361		2/18/09	46.31697	-119.25337	110089.352	596004.017	NA	0 - 0.3
300 Area	Sediment, shoreline	Grab	300 Area downriver	300D-5SSD	J189F0	K1544	Random/ stratified	2/18/09	46.30768	-119.25937	109049.619	595558.231	NA	0 - 0.16
300 Area	Sediment, shoreline	Grab	300 Area downriver	300D-5SSD	J189F5	J00350		2/18/09	46.30768	-119.25937	109049.619	595558.231	NA	0 - 0.16
300 Area [b]	Sediment, shallow	Power grab	300 Area	300D-1SD	NA	NA	Random/ stratified	12/10/08	NA	NA	NA	NA	NA	NA
300 Area [b]	Sediment, shallow	Power grab	300 Area	300D-2SD	NA	NA	Random/ stratified	12/10/08	NA	NA	NA	NA	NA	NA
300 Area	Sediment, shallow	Power grab	300 Area	300D-3SD	J180H5	K1495	Random/ stratified	12/10/08	46.29992	-119.25363	108194.179	596013.94	2	0 - 0.3
300 Area	Sediment, shallow	Power grab	300 Area	300D-3SD	J180J0	J00257		12/10/08	46.29992	-119.25363	108194.179	596013.94	2	0 - 0.3
300 Area	Sediment, shallow	Power grab	300 Area	300D-3SD	J180J8	SEQ2981		12/10/08	46.29992	-119.25363	108194.179	596013.94	2	0 - 0.3
300 Area	Sediment, shallow	Power grab	300 Area	300D-4SD **WDOH split collected**	J180H6	K1495	Random/ stratified	12/10/08	46.29928	-119.25441	108122.104	595954.981	3	0 - 0.3
300 Area	Sediment, shallow	Power grab	300 Area	300D-4SD **WDOH split collected**	J180J1	J00257		12/10/08	46.29928	-119.25441	108122.104	595954.981	3	0 - 0.3
300 Area	Sediment, shallow	Power grab	300 Area	300D-4SD **WDOH split collected**	J180J9	SEQ2981		12/10/08	46.29928	-119.25441	108122.104	595954.981	3	0 - 0.3
300 Area	Sediment, shallow	Power grab	300 Area	300D-4SD **WDOH split collected**	J18088	J00264		12/10/08	46.29928	-119.25441	108122.104	595954.981	3	0 - 0.3
300 Area	Sediment, shallow	Power grab	300 Area	300D-5SD	J180H7	K1495	Random/ stratified	12/10/08	46.29905	-119.25442	108096.53	595954.615	3	0 - 0.3
300 Area	Sediment, shallow	Power grab	300 Area	300D-5SD	J180J2	J00257		12/10/08	46.29905	-119.25442	108096.53	595954.615	3	0 - 0.3
300 Area [c]	Sediment, shallow	Power grab	300 Area	300D-6SD to 300D-10SD	NA	NA	Random/ stratified	NA	NA	NA	NA	NA	NA	0 - 0.3 ft
300 Area	Sediment, shoreline	Grab	Leslie Grove City Park (5 replicate)	LG-1SSD	J18J23 -> J18J29/J18J29-A	K1566/TBD	MIS	3/4/09	46.30673	-119.26349	108939.057	595242.573	NA	0 - 0.5
				LG-2SSD	J18J24 -> J18J30/J18J30-A	K1566/TBD		3/4/09						
				LG-3SSD	J18J25 -> J18J31/J18J31-A	K1566/TBD		3/4/09						
				LG-4SSD	J18J26 -> J18J32/J18J32-A	K1566/TBD		3/4/09						
				LG-5SSD	J18J27 -> J18J33/J18J33-A	K1566/TBD		3/4/09						
300 Area	Soil	Grab	Gull Island	GI-1S	J18B60	K1554	Random/ stratified	2/27/09	46.33745	-119.25838	112359.323	595582.394	NA	0 - 0.3
300 Area	Soil	Grab	Gull Island	GI-2S	J18B59	K1554	Random/ stratified	2/27/09	46.33734	-119.25761	112348.031	595641.858	NA	0 - 0.3
300 Area	Soil	Grab	Gull Island	GI-3S	J18B65	K1554	Random/ stratified	2/27/09	46.33692	-119.25785	112301.063	595624.119	NA	0 - 0.3
300 Area	Soil	Grab	Gull Island	GI-4S	J18B58	K1554	Random/ stratified	2/27/09	46.33646	-119.25703	112250.935	595688.045	NA	0 - 0.3

Table B-4. Sediment and Soil Sampling Summary - Location Information. (48 Pages)

Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
300 Area	Soil	Grab	Gull Island	GI-5S	J18B62	K1554	Random/ stratified	2/27/09	46.33652	-119.25783	112256.633	595626.358	NA	0 - 0.3
300 Area	Soil	Grab	Gull Island	GI-6S	J18B57	K1554	Random/ stratified	2/27/09	46.33618	-119.25688	112219.999	595700.082	NA	0 - 0.3
300 Area	Soil	Grab	Gull Island	GI-6S	J189W2	J00420		2/27/09	46.33618	-119.25688	112219.999	595700.082	NA	0 - 0.3
300 Area	Soil	Grab	Gull Island	GI-7S	J18B61	K1554	Random/ stratified	2/27/09	46.33618	-119.25756	112219.175	595647.737	NA	0 - 0.3
300 Area	Soil	Grab	Gull Island	GI-8S	J18B63	K1554	Random/ stratified	2/27/09	46.33529	-119.25628	112121.817	595747.828	NA	0 - 0.3
300 Area	Soil	Grab	Gull Island	GI-9S	J18B64	K1554	Random/ stratified	2/27/09	46.33563	-119.25748	112158.147	595654.858	NA	0 - 0.3
300 Area	Soil	Grab	Gull Island	GI-10S	J18B66	K1554	Random/ stratified	2/27/09	46.33505	-119.25652	112094.853	595729.774	NA	0 - 0.3
300 Area	Soil	Grab	Gull Island	GI-2S	J18X66	K1668	Random/ stratified	2/27/09	46.33735	-119.25759	112349.167	595643.38	NA	0 - 0.3
300 Area	Soil	Grab	Gull Island	GI-4S	J18X67	K1668	Random/ stratified	2/27/09	46.33646	-119.25702	112250.948	595688.815	NA	0 - 0.3
300 Area	Soil	Grab	Gull Island	GI-6S	J18X68	K1668	Random/ stratified	2/27/09	46.33618	-119.25687	112220.012	595700.852	NA	0 - 0.3
300 Area	Soil	Grab	Gull Island	GI-8S	J18X69	K1668	Random/ stratified	2/27/09	46.33529	-119.25628	112121.817	595747.828	NA	0 - 0.3
300 Area	Soil	Grab	Gull Island	GI-10S	J18X70	K1668	Random/ stratified	2/27/09	46.33505	-119.25651	112094.865	595730.544	NA	0 - 0.3
300 Area	Core, shallow (4-in. diameter)	Vibracore	300 Area downriver	300DC5-1SD	J18KM9	K1573	Focused	3/25/09	46.29687	-119.26642	107839.727	595034.046	~4	0 - 0.79
300 Area	Core, shallow (4-in. diameter)	Vibracore	300 Area downriver	300DC5-1SD	J18KN3	J00421		3/25/09	46.29687	-119.26642	107839.727	595034.046	~4	0 - 0.79
300 Area	Core, shallow (4-in. diameter)	Vibracore	300 Area downriver	300DC5-1SD	J18KN2	SEQ041409		3/25/09	46.29687	-119.26642	107839.727	595034.046	~4	0 - 0.79
300 Area	Core, shallow (4-in. diameter)	Vibracore	300 Area downriver	300DC5-2SD	J18KN9	K1573	Focused	3/25/09	46.29687	-119.26642	107839.727	595034.046	~4	0.79 - 1.44
300 Area	Core, shallow (4-in. diameter)	Vibracore	300 Area downriver	300DC5-2SD	J18KN4	J00421		3/25/09	46.29687	-119.26642	107839.727	595034.046	~4	0.79 - 1.44
300 Area	Core, shallow (4-in. diameter)	Vibracore	300 Area downriver	300DC5-3SD	J18KP0	K1573	Focused	3/25/09	46.29687	-119.26642	107839.727	595034.046	~4	1.44 - 2.10
300 Area	Core, shallow (4-in. diameter)	Vibracore	300 Area downriver	300DC5-3SD	J18KN5	J00421		3/25/09	46.29687	-119.26642	107839.727	595034.046	~4	1.44 - 2.10
300 Area	Core, shallow (4-in. diameter)	Vibracore	300 Area downriver	300DC5-4SD	J18KP1	K1573	Focused	3/25/09	46.29687	-119.26642	107839.727	595034.046	~4	2.10 - 2.26
300 Area	Core, shallow (4-in. diameter)	Vibracore	300 Area downriver	300DC5-4SD	J18KN6	J00421		3/25/09	46.29687	-119.26642	107839.727	595034.046	~4	2.10 - 2.26
300 Area	Core, shallow (4-in. diameter)	Vibracore	300 Area downriver	300DC6-1SD	J18KP4	K1573	Focused	3/25/09	46.29522	-119.25734	107667.334	595736.394	~6	0 - 0.79
300 Area	Core, shallow (4-in. diameter)	Vibracore	300 Area downriver	300DC6-1SD	J18KP5	J00422		3/25/09	46.29522	-119.25734	107667.334	595736.394	~6	0 - 0.79
300 Area	Core, shallow (4-in. diameter)	Vibracore	300 Area downriver	300DC6-1SD	J18KP6	SEQ041409		3/25/09	46.29522	-119.25734	107667.334	595736.394	~6	0 - 0.79
300 Area	Core, shallow (4-in. diameter)	Vibracore	300 Area downriver	300DC6-2SD	J18KR2	K1573	Focused	3/25/09	46.29522	-119.25734	107667.334	595736.394	~6	0.79 - 1.44
300 Area	Core, shallow (4-in. diameter)	Vibracore	300 Area downriver	300DC6-2SD	J18KP7	J00422		3/25/09	46.29522	-119.25734	107667.334	595736.394	~6	0.79 - 1.44
OCI [b]	Sediment, shallow	Power grab	Yakima River	YR-1SD	NA	NA	Random/ stratified	12/10/08	NA	NA	NA	NA	NA	NA
OCI [b]	Sediment, shallow	Power grab	Yakima River	YR-2SD	NA	NA	Random/ stratified	12/10/08	NA	NA	NA	NA	NA	NA

Table B-4. Sediment and Soil Sampling Summary - Location Information. (48 Pages)

Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
OCI	Sediment, shallow	Power grab	Yakima River	YR-3SD	J180N0	K1495	Random/ stratified	12/10/08	46.24640	-119.27203	102223.984	594689.221	0	Not recorded
OCI	Sediment, shallow	Power grab	Yakima River	YR-3SD	J180N5	J00257		12/10/08	46.24640	-119.27203	102223.984	594689.221	0	Not recorded
OCI	Sediment, shallow	Power grab	Yakima River	YR-3SD	J17W29	J00264		12/10/08	46.24640	-119.27203	102223.984	594689.221	0	Not recorded
OCI	Sediment, shallow	Power grab	Yakima River	YR-4SD	J180N1	K1495	Random/ stratified	12/10/08	46.24530	-119.26682	102108.003	595092.844	1	0 - 0.3
OCI	Sediment, shallow	Power grab	Yakima River	YR-4SD	J180N6	J00257		12/10/08	46.24530	-119.26682	102108.003	595092.844	1	0 - 0.3
OCI	Sediment, shallow	Power grab	Yakima River	YR-5SD	J180N2	K1495	Random/ stratified	12/10/08	46.24827	-119.26273	102443.013	595403.028	0.5	0 - 0.3
OCI	Sediment, shallow	Power grab	Yakima River	YR-5SD	J180N7	J00257		12/10/08	46.24827	-119.26273	102443.013	595403.028	0.5	0 - 0.3
Recreational	Sediment, shoreline	Grab	Howard Amon City Park	HA-1SSD	J18991	K1544	Random/ stratified	2/19/09	46.27625	-119.27061	105543.075	594746.999	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	Howard Amon City Park	HA-1SSD	J189B1	J00350		2/19/09	46.27625	-119.27061	105543.075	594746.999	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	Howard Amon City Park	HA-2SSD	J18985	K1544	Random/ stratified	2/19/09	46.27583	-119.27029	105496.783	594772.386	NA	0 - 0.16
Recreational	Sediment, shoreline	Grab	Howard Amon City Park	HA-2SSD	J18995	J00350		2/19/09	46.27583	-119.27029	105496.783	594772.386	NA	0 - 0.16
Recreational	Sediment, shoreline	Grab	Howard Amon City Park	HA-3SSD	J18990	K1544	Random/ stratified	2/19/09	46.27527	-119.27002	105434.871	594794.164	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	Howard Amon City Park	HA-3SSD	J189B0	J00350		2/19/09	46.27527	-119.27002	105434.871	594794.164	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	Howard Amon City Park	HA-4SSD	J18986	K1544	Random/ stratified	2/19/09	46.27462	-119.26986	105362.826	594807.621	NA	0 - 0.2
Recreational	Sediment, shoreline	Grab	Howard Amon City Park	HA-4SSD	J18996	J00350		2/19/09	46.27462	-119.26986	105362.826	594807.621	NA	0 - 0.2
Recreational	Sediment, shoreline	Grab	Howard Amon City Park	HA-5SSD	J18992	K1544	Random/ stratified	2/19/09	46.27407	-119.26951	105302.122	594835.547	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	Howard Amon City Park	HA-5SSD	J189B2	J00350		2/19/09	46.27407	-119.26951	105302.122	594835.547	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	Howard Amon City Park	HA-6SSD	J18987	K1544	Random/ stratified	2/19/09	46.27358	-119.26943	105247.762	594842.562	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	Howard Amon City Park	HA-6SSD	J18997	J00350		2/19/09	46.27358	-119.26943	105247.762	594842.562	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	Howard Amon City Park	HA-6SSD	J18694	J00364		2/19/09	46.27358	-119.26943	105247.762	594842.562	NA	0 - 0.3
Recreational [b]	Sediment, shoreline	Grab	Howard Amon City Park	HA-7SSD	NA	NA	Random/ stratified	2/19/09	NA	NA	NA	NA	NA	NA
Recreational	Sediment, shoreline	Grab	Howard Amon City Park	HA-8SSD	J18988	K1544	Random/ stratified	2/19/09	46.27279	-119.26879	105160.735	594893.254	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	Howard Amon City Park	HA-8SSD	J18998	J00350		2/19/09	46.27279	-119.26879	105160.735	594893.254	NA	0 - 0.3
Recreational [b]	Sediment, shoreline	Grab	Howard Amon City Park	HA-9SSD	NA	NA	Random/ stratified	2/19/09	NA	NA	NA	NA	NA	NA
Recreational [b]	Sediment, shoreline	Grab	Howard Amon City Park	HA-10SSD	NA	NA	Random/ stratified	2/19/09	NA	NA	NA	NA	NA	NA
Recreational [b]	Sediment, shallow	Grab	Howard Amon City Park	HA-1SD	NA	NA	Random/ stratified	12/11/08	NA	NA	NA	NA	NA	NA
Recreational [b]	Sediment, shallow	Grab	Howard Amon City Park	HA-2SD	NA	NA	Random/ stratified	12/11/08	NA	NA	NA	NA	NA	NA
Recreational [b]	Sediment, shallow	Grab	Howard Amon City Park	HA-3SD	NA	NA	Random/ stratified	12/11/08	NA	NA	NA	NA	NA	NA
Recreational [b]	Sediment, shallow	Grab	Howard Amon City Park	HA-4SD	NA	NA	Random/ stratified	12/11/08	NA	NA	NA	NA	NA	NA

Table B-4. Sediment and Soil Sampling Summary - Location Information. (48 Pages)

Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
Recreational [b]	Sediment, shallow	Grab	Howard Amon City Park	HA-5SD	NA	NA	Random/ stratified	12/11/08	NA	NA	NA	NA	NA	NA
Recreational [c]	Sediment, shoreline	Grab	Columbia Point Marina	CPM-1SSD to CPM-5SSD	NA	NA	Random/ stratified	NA	NA	NA	NA	NA	NA	0 - 0.3 ft
Recreational	Sediment, shallow	Grab	Columbia Point Marina	CPM-1SD	J180P4	K1495	Random/ stratified	12/10/08	46.26455	-119.25084	104266.736	596291.107	16	0 - 0.3
Recreational	Sediment, shallow	Grab	Columbia Point Marina	CPM-1SD	J180P9	J00258		12/10/08	46.26455	-119.25084	104266.736	596291.107	16	0 - 0.3
Recreational	Sediment, shallow	Grab	Columbia Point Marina	CPM-2SD	J180P3	K1495	Random/ stratified	12/10/08	46.26426	-119.25180	104233.336	596217.622	17	0 - 0.3
Recreational	Sediment, shallow	Grab	Columbia Point Marina	CPM-2SD	J180P8	J00258		12/10/08	46.26426	-119.25180	104233.336	596217.622	17	0 - 0.3
Recreational [b]	Sediment, shallow	Grab	Columbia Point Marina	CPM-3SD	NA	NA	Random/ stratified	12/10/08	NA	NA	NA	NA	NA	NA
Recreational	Sediment, shallow	Grab	Columbia Point Marina	CPM-4SD	J180P0	K1495	Random/ stratified	12/10/08	46.26376	-119.25151	104178.122	596240.854	14	Not recorded
Recreational	Sediment, shallow	Grab	Columbia Point Marina	CPM-4SD	J180P5	J00258		12/10/08	46.26376	-119.25151	104178.122	596240.854	14	Not recorded
Recreational	Sediment, shallow	Grab	Columbia Point Marina	CPM-5SD	J180P1	K1495	Random/ stratified	12/10/08	46.26370	-119.25084	104172.272	596292.603	14	0 - 0.3
Recreational	Sediment, shallow	Grab	Columbia Point Marina	CPM-5SD	J180P6	J00258		12/10/08	46.26370	-119.25084	104172.272	596292.603	14	0 - 0.3
Recreational	Sediment, shoreline	Grab	Bateman Island boat launch	BL-1SSD	J189C1	K1544	Random/ stratified	2/19/09	46.25029	-119.22835	102709.665	598050.144	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	Bateman Island boat launch	BL-1SSD	J189D1	J00350		2/19/09	46.25029	-119.22835	102709.665	598050.144	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	Bateman Island boat launch	BL-2SSD	J189C0	K1544	Random/ stratified	2/19/09	46.24972	-119.22714	102647.823	598144.455	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	Bateman Island boat launch	BL-2SSD	J189D0	J00350		2/19/09	46.24972	-119.22714	102647.823	598144.455	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	Bateman Island boat launch	BL-3SSD	J189B5	K1544	Random/ stratified	2/19/09	46.24800	-119.22512	102459.188	598303.285	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	Bateman Island boat launch	BL-3SSD	J189C5	J00350		2/19/09	46.24800	-119.22512	102459.188	598303.285	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	Bateman Island boat launch	BL-4SSD	J189C4	K1544	Random/ stratified	2/19/09	46.24605	-119.22330	102244.747	598447.117	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	Bateman Island boat launch	BL-4SSD	J189D4	J00350		2/19/09	46.24605	-119.22330	102244.747	598447.117	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	Bateman Island boat launch	BL-4SSD	J18080	J00364		2/19/09	46.24605	-119.22330	102244.747	598447.117	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	Bateman Island boat launch	BL-5SSD	J189B6	K1544	Random/ stratified	2/19/09	46.24397	-119.22186	102015.386	598561.892	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	Bateman Island boat launch	BL-5SSD	J189C6	J00350		2/19/09	46.24397	-119.22186	102015.386	598561.892	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	Bateman Island boat launch	BL-6SSD	J189C3	K1544	Random/ stratified	2/19/09	46.24324	-119.22155	101934.646	598587.11	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	Bateman Island boat launch	BL-6SSD	J189D3	J00350		2/19/09	46.24324	-119.22155	101934.646	598587.11	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	Bateman Island boat launch	BL-7SSD	J189B9	K1544	Random/ stratified	2/19/09	46.24155	-119.22056	101748.067	598666.494	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	Bateman Island boat launch	BL-7SSD	J189C9	J00351		2/19/09	46.24155	-119.22056	101748.067	598666.494	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	Bateman Island boat launch	BL-8SSD	J189B8	K1544	Random/ stratified	2/19/09	46.24036	-119.21992	101616.619	598717.991	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	Bateman Island boat launch	BL-8SSD	J189C8	J00351		2/19/09	46.24036	-119.21992	101616.619	598717.991	NA	0 - 0.3

Table B-4. Sediment and Soil Sampling Summary - Location Information. (48 Pages)

Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
Recreational	Sediment, shoreline	Grab	Bateman Island boat launch	BL-9SSD	J189B7	K1544	Random/ stratified	2/19/09	46.23831	-119.21777	101391.488	598887.485	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	Bateman Island boat launch	BL-9SSD	J189C7	J00351		2/19/09	46.23831	-119.21777	101391.488	598887.485	NA	0 - 0.3
Recreational [b]	Sediment, shoreline	Grab	Bateman Island boat launch	BL-10SSD	NA	NA	Random/ stratified	2/19/09	NA	NA	NA	NA	NA	NA
Yakima River	Sediment, Deep	Power grab	Above confluence of Yakima and Columbia (deep Columbia River sediment)	CR-1SD **WDOH split collected**	J17XP7	K1495	Random/ stratified	12/10/08	46.27078	-119.25517	104953.83	595946.43	5	0 - 0.3
Yakima River	Sediment, Deep	Power grab	Above confluence of Yakima and Columbia (deep Columbia River sediment)	CR-1SD **WDOH split collected**	J17XP9	J00257		12/10/08	46.27078	-119.25517	104953.83	595946.43	5	0 - 0.3
Yakima River	Sediment, Deep	Power grab	Above confluence of Yakima and Columbia (deep Columbia River sediment)	CR-1SD **WDOH split collected**	J17XR3	SEQ2981		12/10/08	46.27078	-119.25517	104953.83	595946.43	5	0 - 0.3
Yakima River [c]	Sediment, Deep	Power grab	Below confluence of Yakima and Columbia (deep Columbia River sediment)	CR-2SD	NA	NA	Random/ stratified	NA	NA	NA	NA	NA	NA	0 - 0.3 ft
Yakima River	Core, shallow (4-in. diameter)	Vibracore	Yakima delta cores	YRC1-1SD	J18KR7	K1574	Focused	3/26/09	46.24779	-119.23921	102418.387	597217.301	~2.5	0 - 0.79
Yakima River	Core, shallow (4-in. diameter)	Vibracore	Yakima delta cores	YRC1-1SD	J18KR8	J00423		3/26/09	46.24779	-119.23921	102418.387	597217.301	~2.5	0 - 0.79
Yakima River	Core, shallow (4-in. diameter)	Vibracore	Yakima delta cores	YRC1-1SD	J18KR9	SEQ041409		3/26/09	46.24779	-119.23921	102418.387	597217.301	~2.5	0 - 0.79
Yakima River	Core, shallow (4-in. diameter)	Vibracore	Yakima delta cores	YRC1-2SD	J18KT0	K1574	Focused	3/26/09	46.24779	-119.23921	102418.387	597217.301	~2.5	0.79 - 1.44
Yakima River	Core, shallow (4-in. diameter)	Vibracore	Yakima delta cores	YRC1-2SD	J18KT5	J00423		3/26/09	46.24779	-119.23921	102418.387	597217.301	~2.5	0.79 - 1.44
Yakima River	Core, shallow (4-in. diameter)	Vibracore	Yakima delta cores	YRC1-3SD	J18KT1	K1574	Focused	3/26/09	46.24779	-119.23921	102418.387	597217.301	~2.5	1.44 - 2.10
Yakima River	Core, shallow (4-in. diameter)	Vibracore	Yakima delta cores	YRC1-3SD	J18KT6	J00423		3/26/09	46.24779	-119.23921	102418.387	597217.301	~2.5	1.44 - 2.10
Yakima River	Core, shallow (4-in. diameter)	Vibracore	Yakima delta cores	YRC1-4SD	J18KT2	K1574	Focused	3/26/09	46.24779	-119.23921	102418.387	597217.301	~2.5	2.10 - 2.76
Yakima River	Core, shallow (4-in. diameter)	Vibracore	Yakima delta cores	YRC1-4SD	J18KT7	J00423		3/26/09	46.24779	-119.23921	102418.387	597217.301	~2.5	2.10 - 2.76
Yakima River	Core, shallow (4-in. diameter)	Vibracore	Yakima delta cores	YRC1-5SD	J18KT3	K1574	Focused	3/26/09	46.24779	-119.23921	102418.387	597217.301	~2.5	2.76 - 3.41
Yakima River	Core, shallow (4-in. diameter)	Vibracore	Yakima delta cores	YRC1-5SD	J18KT8	J00423		3/26/09	46.24779	-119.23921	102418.387	597217.301	~2.5	2.76 - 3.41
Yakima River	Core, shallow (4-in. diameter)	Vibracore	Yakima delta cores	YRC1-6SD	J18KT4	K1574	Focused	3/26/09	46.24779	-119.23921	102418.387	597217.301	~2.5	3.41 - 3.61
Yakima River	Core, shallow (4-in. diameter)	Vibracore	Yakima delta cores	YRC1-6SD	J18KT9	J00423		3/26/09	46.24779	-119.23921	102418.387	597217.301	~2.5	3.41 - 3.61
Yakima River	Core, shallow (4-in. diameter)	Vibracore	Yakima delta cores	YRC2-1SD	J18KW9	K1573	Focused	3/25/09	46.25331	-119.23822	103033.069	597283.817	~1.5	0 - 0.79
Yakima River	Core, shallow (4-in. diameter)	Vibracore	Yakima delta cores	YRC2-1SD	J18KX0	J00422		3/25/09	46.25331	-119.23822	103033.069	597283.817	~1.5	0 - 0.79
Yakima River	Core, shallow (4-in. diameter)	Vibracore	Yakima delta cores	YRC2-1SD	J18KX1	SEQ041409		3/25/09	46.25331	-119.23822	103033.069	597283.817	~1.5	0 - 0.79
Yakima River	Core, shallow (4-in. diameter)	Vibracore	Yakima delta cores	YRC2-2SD	J18KX2	K1573	Focused	3/25/09	46.25331	-119.23822	103033.069	597283.817	~1.5	0.79 - 1.44
Yakima River	Core, shallow (4-in. diameter)	Vibracore	Yakima delta cores	YRC2-2SD	J18KX7	J00422		3/25/09	46.25331	-119.23822	103033.069	597283.817	~1.5	0.79 - 1.44
Yakima River	Core, shallow (4-in. diameter)	Vibracore	Yakima delta cores	YRC2-3SD	J18KX3	K1573	Focused	3/25/09	46.25331	-119.23822	103033.069	597283.817	~1.5	1.44 - 2.10
Yakima River	Core, shallow (4-in. diameter)	Vibracore	Yakima delta cores	YRC2-3SD	J18KX8	J00422		3/25/09	46.25331	-119.23822	103033.069	597283.817	~1.5	1.44 - 2.10

Table B-4. Sediment and Soil Sampling Summary - Location Information. (48 Pages)

Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
Yakima River	Core, shallow (4-in. diameter)	Vibracore	Yakima delta cores	YRC2-4SD	J18KX4	K1573	Focused	3/25/09	46.25331	-119.23822	103033.069	597283.817	~1.5	2.10 - 2.76
Yakima River	Core, shallow (4-in. diameter)	Vibracore	Yakima delta cores	YRC2-4SD	J18KX9	J00422		3/25/09	46.25331	-119.23822	103033.069	597283.817	~1.5	2.10 - 2.76
Yakima River	Core, shallow (4-in. diameter)	Vibracore	Yakima delta cores	YRC2-5SD	J18KX5	K1573	Focused	3/25/09	46.25331	-119.23822	103033.069	597283.817	~1.5	2.76 - 3.41
Yakima River	Core, shallow (4-in. diameter)	Vibracore	Yakima delta cores	YRC2-5SD	J18KY0	J00422		3/25/09	46.25331	-119.23822	103033.069	597283.817	~1.5	2.76 - 3.41
Yakima River	Core, shallow (4-in. diameter)	Vibracore	Yakima delta cores	YRC2-6SD	J18KX6	K1573	Focused	3/25/09	46.25331	-119.23822	103033.069	597283.817	~1.5	3.41 - 4.07
Yakima River	Core, shallow (4-in. diameter)	Vibracore	Yakima delta cores	YRC2-6SD	J18KY1	J00422		3/25/09	46.25331	-119.23822	103033.069	597283.817	~1.5	3.41 - 4.07
Yakima River	Core, shallow (4-in. diameter)	Vibracore	Yakima delta cores	YRC2-7SD	J18LC0	K1573	Focused	3/25/09	46.25331	-119.23822	103033.069	597283.817	~1.5	4.07 - 4.72
Yakima River	Core, shallow (4-in. diameter)	Vibracore	Yakima delta cores	YRC2-7SD	J18LF0	J00422		3/25/09	46.25331	-119.23822	103033.069	597283.817	~1.5	4.07 - 4.72
Yakima River	Core, shallow (4-in. diameter)	Vibracore	Yakima delta cores	YRC2-8SD	J18LB9	K1573	Focused	3/25/09	46.25331	-119.23822	103033.069	597283.817	~1.5	4.72 - 5.38
Yakima River	Core, shallow (4-in. diameter)	Vibracore	Yakima delta cores	YRC2-8SD	J18LD9	J00422		3/25/09	46.25331	-119.23822	103033.069	597283.817	~1.5	4.72 - 5.38
Yakima River	Core, shallow (4-in. diameter)	Vibracore	Yakima delta cores	YRC2-9SD	J18LB4	K1573	Focused	3/25/09	46.25331	-119.23822	103033.069	597283.817	~1.5	5.38 - 6.04
Yakima River	Core, shallow (4-in. diameter)	Vibracore	Yakima delta cores	YRC2-9SD	J18LD4	J00422		3/25/09	46.25331	-119.23822	103033.069	597283.817	~1.5	5.38 - 6.04
Yakima River	Core, shallow (4-in. diameter)	Vibracore	Yakima delta cores	YRC2-10SD	J18LB5	K1573	Focused	3/25/09	46.25331	-119.23822	103033.069	597283.817	~1.5	6.04 - 6.69
Yakima River	Core, shallow (4-in. diameter)	Vibracore	Yakima delta cores	YRC2-10SD	J18LD5	J00422		3/25/09	46.25331	-119.23822	103033.069	597283.817	~1.5	6.04 - 6.69
Yakima River	Core, shallow (4-in. diameter)	Vibracore	Yakima delta cores	YRC2-11SD	J18LB6	K1573	Focused	3/25/09	46.25331	-119.23822	103033.069	597283.817	~1.5	6.69 - 7.35
Yakima River	Core, shallow (4-in. diameter)	Vibracore	Yakima delta cores	YRC2-11SD	J18LD6	J00422		3/25/09	46.25331	-119.23822	103033.069	597283.817	~1.5	6.69 - 7.35
Yakima River	Core, shallow (4-in. diameter)	Vibracore	Yakima delta cores	YRC2-12SD	J18LB7	K1573	Focused	3/25/09	46.25331	-119.23822	103033.069	597283.817	~1.5	7.35 - 8.01
Yakima River	Core, shallow (4-in. diameter)	Vibracore	Yakima delta cores	YRC2-12SD	J18LD7	J00422		3/25/09	46.25331	-119.23822	103033.069	597283.817	~1.5	7.35 - 8.01
Yakima River	Core, shallow (4-in. diameter)	Vibracore	Yakima delta cores	YRC2-13SD	J18LB8	K1573	Focused	3/25/09	46.25331	-119.23822	103033.069	597283.817	~1.5	8.01 - 8.66
Yakima River	Core, shallow (4-in. diameter)	Vibracore	Yakima delta cores	YRC2-13SD	J18LD8	J00422		3/25/09	46.25331	-119.23822	103033.069	597283.817	~1.5	8.01 - 8.66
McNary Dam	Sediment, shoreline	Grab	Peninsula HMU	PHMU-1SSD	J189J2	K1547	Random/ stratified	2/23/09	46.15112	-118.96096	92056.52	618879.829	NA	0 - 0.3
McNary Dam	Sediment, shoreline	Grab	Peninsula HMU	PHMU-2SSD	J189J1	K1547	Random/ stratified	2/23/09	46.14046	-118.95907	90874.76	619048.945	NA	0 - 0.3
McNary Dam	Sediment, shoreline	Grab	Peninsula HMU	PHMU-3SSD	J189J3	K1547	Random/ stratified	2/23/09	46.13608	-118.95889	90388.297	619072.361	NA	0 - 0.3
McNary Dam	Sediment, shoreline	Grab	Toothaker HMU	THMU-1SSD	J189J4	K1547	Random/ stratified	2/23/09	46.13707	-119.00488	90429.923	615517.335	NA	0 - 0.3
McNary Dam	Sediment, shoreline	Grab	Toothaker HMU	THMU-2SSD	J189J5	K1547	Random/ stratified	2/23/09	46.12807	-118.99670	89441.786	616168.333	NA	0 - 0.3
McNary Dam	Sediment, shoreline	Grab	Badger Island	BI-1SSD	J189J7	K1547	Random/ stratified	2/23/09	46.11376	-118.94005	87936.577	620576.886	NA	0 - 0.3
McNary Dam	Sediment, shoreline	Grab	Badger Island	BI-2SSD	J189J6	K1547	Random/ stratified	2/23/09	46.10602	-118.93601	87082.646	620906.176	NA	0 - 0.3

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Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
McNary Dam	Sediment, shallow	Power grab	Paper Mill Channel	PM-1SD	J180W8	K1524	Random/ stratified	2/2/09	46.09342	-118.92582	85698.134	621721.77	16	0 - 0.3
McNary Dam	Sediment, shallow	Power grab	Paper Mill Channel	PM-1SD	J180X0	J00319		2/2/09	46.09342	-118.92582	85698.134	621721.77	16	0 - 0.3
McNary Dam	Sediment, shallow	Power grab	Paper Mill Channel	PM-1SD	J180X2	SEQ021309		2/2/09	46.09342	-118.92582	85698.134	621721.77	16	0 - 0.3
McNary Dam	Sediment, shallow	Power grab	Paper Mill Channel	PM-2SD	J180W9	K1524	Random/ stratified	2/2/09	46.08840	-118.93892	85120.15	620720.001	18	Not recorded
McNary Dam	Sediment, shallow	Power grab	Paper Mill Channel	PM-2SD	J180X1	J00319		2/2/09	46.08840	-118.93892	85120.15	620720.001	18	Not recorded
McNary Dam	Sediment, shallow	Power grab	Paper Mill Channel	PM-2SD	J180X3	SEQ021309		2/2/09	46.08840	-118.93892	85120.15	620720.001	18	Not recorded
McNary Dam [b]	Sediment, shallow	Power grab	Toothaker HMU	THMU-1SD	NA	NA	Random/ stratified	2/2/09	NA	NA	NA	NA	NA	NA
McNary Dam [b]	Sediment, shallow	Power grab	Toothaker HMU	THMU-2SD	NA	NA	Random/ stratified	2/2/09	NA	NA	NA	NA	NA	NA
McNary Dam	Sediment, shallow	Power grab	"Wallula Bay"	WB-1SD	J18158	K1524	Random/ stratified	2/2/09	46.08978	-118.92257	85298.658	621981.129	14	Not recorded
McNary Dam	Sediment, shallow	Power grab	"Wallula Bay"	WB-1SD	J18162	SEQ021309		2/2/09	46.08978	-118.92257	85298.658	621981.129	14	Not recorded
McNary Dam	Sediment, shallow	Power grab	"Wallula Bay"	WB-2SD	J18157	K1524	Random/ stratified	2/2/09	46.08325	-118.91857	84579.203	622304.955	12	Not recorded
McNary Dam	Sediment, shallow	Power grab	"Wallula Bay"	WB-2SD	J18161	SEQ021309		2/2/09	46.08325	-118.91857	84579.203	622304.955	12	Not recorded
McNary Dam	Sediment, shallow	Power grab	"Wallula Bay"	WB-2SD	J18090	J00367		2/2/09	46.08325	-118.91857	84579.203	622304.955	12	Not recorded
McNary Dam	Sediment, shallow	Power grab	"Wallula Bay"	WB-3SD	J18159	K1524	Random/ stratified	2/2/09	46.07660	-118.91855	83840.25	622321.32	3.5	Not recorded
McNary Dam	Sediment, shallow	Power grab	"Wallula Bay"	WB-4SD	J18160	K1524	Random/ stratified	2/2/09	46.07552	-118.91777	83721.445	622384.05	2.5	0 - 0.26
OCI	Sediment, shallow	Power grab	Snake River	SR-1SD	J18164	K1497	Random/ stratified	12/12/08	46.22065	-119.01949	99696.753	614214.299	2	0 - 0.3
OCI	Sediment, shallow	Power grab	Snake River	SR-1SD	J18169	J00263		12/12/08	46.22065	-119.01949	99696.753	614214.299	2	0 - 0.3
OCI	Sediment, shallow	Power grab	Snake River	SR-1SD	J18X13	K1665		6/9/09	46.22070	-119.01952	99701.796	614211.517	7.3	0 - 0.3
OCI	Sediment, shallow	Power grab	Snake River	SR-1SD	J18X18	J00544		6/9/09	46.22070	119.01952	99701.796	614211.517	7.3	0 - 0.3
OCI	Sediment, shallow	Power grab	Snake River	SR-2SD	J18166	K1497	Random/ stratified	12/12/08	46.22066	-119.01944	99697.936	614218.135	3	0 - 0.3
OCI	Sediment, shallow	Power grab	Snake River	SR-2SD	J18171	J00263		12/12/08	46.22066	-119.01944	99697.936	614218.135	3	0 - 0.3
OCI	Sediment, shallow	Power grab	Snake River	SR-2SD	J18X14	K1665		6/9/09	46.22062	-119.01944	99693.92	614218.352	7.1	0 - 0.3
OCI	Sediment, shallow	Power grab	Snake River	SR-2SD	J18X19	J00544		6/9/09	46.22062	-119.01944	99693.92	614218.352	7.1	0 - 0.3
OCI	Sediment, shallow	Power grab	Snake River	SR-3SD	J18168	K1497	Random/ stratified	12/12/08	46.21728	-119.01413	99330.025	614634.804	6	0 - 0.3
OCI	Sediment, shallow	Power grab	Snake River	SR-3SD	J180X7	J00263		12/12/08	46.21728	-119.01413	99330.025	614634.804	6	0 - 0.3
OCI	Sediment, shallow	Power grab	Snake River	SR-3SD	J18X15	K1665		6/9/09	46.21731	-119.01428	99333.471	614622.997	9	0 - 0.3
OCI	Sediment, shallow	Power grab	Snake River	SR-3SD	J18X20	J00544		6/9/09	46.21731	-119.01428	99333.471	614622.997	9	0 - 0.3

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Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
OCI	Sediment, shallow	Power grab	Snake River	SR-4SD	J18165	K1497	Random/ stratified	12/12/08	46.21720	-119.01399	99321.338	614645.772	3	0 - 0.3
OCI	Sediment, shallow	Power grab	Snake River	SR-4SD	J18170	J00263		12/12/08	46.21720	-119.01399	99321.338	614645.772	3	0 - 0.3
OCI	Sediment, shallow	Power grab	Snake River	SR-4SD	J18X16	K1665		6/9/09	46.21716	-119.01402	99316.501	614643.741	6.9	0 - 0.3
OCI	Sediment, shallow	Power grab	Snake River	SR-4SD	J18X21	J00544		6/9/09	46.21716	-119.01402	99316.501	614643.741	6.9	0 - 0.3
OCI	Sediment, shallow	Power grab	Snake River	SR-5SD	J18167	K1497	Random/ stratified	12/12/08	46.21720	-119.01392	99321.439	614651.171	2	0 - 0.3
OCI	Sediment, shallow	Power grab	Snake River	SR-5SD	J180X6	J00263		12/12/08	46.21720	-119.01392	99321.439	614651.171	2	0 - 0.3
OCI	Sediment, shallow	Power grab	Snake River	SR-5SD	J18X17	K1665		6/9/09	46.21705	-119.01384	99305.037	614657.783	4	0 - 0.3
OCI	Sediment, shallow	Power grab	Snake River	SR-5SD	J18X22	J00544		6/9/09	46.21705	-119.01384	99305.037	614657.783	4	0 - 0.3
OCI	Sediment, shallow	Power grab	Walla Walla River	WR-1SD	J180M4	K1547	Random/ stratified	2/23/09	46.05938	-118.90819	81942.796	623161.155	25	0 - 0.3
OCI	Sediment, shallow	Power grab	Walla Walla River	WR-1SD	J180M9	J00355		2/23/09	46.05938	-118.90819	81942.796	623161.155	25	0 - 0.3
OCI	Sediment, shallow	Power grab	Walla Walla River	WR-2SD	J180M3	K1547	Random/ stratified	2/23/09	46.05911	-118.90816	81912.839	623164.082	8	0 - 0.3
OCI	Sediment, shallow	Power grab	Walla Walla River	WR-2SD	J180M8	J00355		2/23/09	46.05911	-118.90816	81912.839	623164.082	8	0 - 0.3
OCI	Sediment, shallow	Power grab	Walla Walla River	WR-3SD	J180M0	K1547	Random/ stratified	2/23/09	46.06019	-118.88605	82067.618	624872.087	8	0 - 0.3
OCI	Sediment, shallow	Power grab	Walla Walla River	WR-3SD	J180M5	J00355		2/23/09	46.06019	-118.88605	82067.618	624872.087	8	0 - 0.3
OCI	Sediment, shallow	Power grab	Walla Walla River	WR-3SD	J17W32	J00364		2/23/09	46.06019	-118.88605	82067.618	624872.087	8	0 - 0.3
OCI	Sediment, shallow	Power grab	Walla Walla River	WR-4SD	J180M2	K1547	Random/ stratified	2/23/09	46.06388	-118.86031	82518.739	626854.793	0	0 - 0.3
OCI	Sediment, shallow	Power grab	Walla Walla River	WR-4SD	J180M7	J00355		2/23/09	46.06388	-118.86031	82518.739	626854.793	0	0 - 0.3
OCI	Sediment, shallow	Power grab	Walla Walla River	WR-5SD	J180M1	K1547	Random/ stratified	2/23/09	46.06557	-118.85964	82707.615	626902.714	0	0 - 0.3
OCI	Sediment, shallow	Power grab	Walla Walla River	WR-5SD	J180M6	J00355		2/23/09	46.06557	-118.85964	82707.615	626902.714	0	0 - 0.3
Recreational [c]	Sediment, shoreline	Grab	Columbia Park	CP-1SSD to CP-10SSD	NA	NA	Random/ stratified	NA	NA	NA	NA	NA	NA	0 - 0.3 ft
Recreational	Sediment, shallow	Power grab	Columbia Park	CP-1SD	J180R3	K1495	Random/ stratified	12/10/08	46.22440	-119.16193	99917.166	603219.771	9	0 - 0.3
Recreational	Sediment, shallow	Power grab	Columbia Park	CP-1SD	J180R8	J00258		12/10/08	46.22440	-119.16193	99917.166	603219.771	9	0 - 0.3
Recreational	Sediment, shallow	Power grab	Columbia Park	CP-2SD **WDOE split collected**	J180R0	K1495	Random/ stratified	12/10/08	46.22348	-119.15750	99820.731	603563.212	21	0 - 0.3
Recreational	Sediment, shallow	Power grab	Columbia Park	CP-2SD **WDOE split collected**	J180R5	J00258		12/10/08	46.22348	-119.15750	99820.731	603563.212	21	0 - 0.3
Recreational	Sediment, shallow	Power grab	Columbia Park	CP-3SD	J180R4	K1495	Random/ stratified	12/10/08	46.22307	-119.15410	99779.636	603826.247	Not recorded	0 - 0.3
Recreational	Sediment, shallow	Power grab	Columbia Park	CP-3SD	J180R9	J00258		12/10/08	46.22307	-119.15410	99779.636	603826.247	Not recorded	0 - 0.3
Recreational [b]	Sediment, shallow	Power grab	Columbia Park	CP-4SD	NA	NA	Random/ stratified	12/10/08	NA	NA	NA	NA	NA	NA
Recreational [b]	Sediment, shallow	Power grab	Columbia Park	CP-5SD	NA	NA	Random/ stratified	12/10/08	NA	NA	NA	NA	NA	NA
Recreational [c]	Sediment, shoreline	Grab	Clover Island	CI-1SSD to CI-10SSD	NA	NA	Random/ stratified	NA	NA	NA	NA	NA	NA	0 - 0.3 ft

Table B-4. Sediment and Soil Sampling Summary - Location Information. (48 Pages)

Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
Recreational	Sediment, shallow	Grab	Clover Island	CI-1SD **Duplicate collected**	J180K6	K1495	Random/ stratified	12/11/08	46.21623	-119.11818	99067.411	606610.248	9	0 - 0.3
Recreational	Sediment, shallow	Grab	Clover Island	CI-1SD **Duplicate collected**	J180L6	J00259		12/11/08	46.21623	-119.11818	99067.411	606610.248	9	0 - 0.3
Recreational	Sediment, shallow	Grab	Clover Island	CI-1SD **Duplicate collected**	J18X23	K1667		6/10/09	46.21622	-119.11825	99065.847	606604.539	11	0 - 0.3
Recreational	Sediment, shallow	Grab	Clover Island	CI-1SD **Duplicate collected**	J18X33	J00546		6/10/09	46.21622	-119.11825	99065.847	606604.539	11	0 - 0.3
Recreational	Sediment, shallow	Grab	Clover Island	CI-2SD	J180K0	K1495	Random/ stratified	12/11/08	46.21683	-119.11705	99135.617	606696.252	11	0 - 0.3
Recreational	Sediment, shallow	Grab	Clover Island	CI-2SD	J180L0	J00259		12/11/08	46.21683	-119.11705	99135.617	606696.252	11	0 - 0.3
Recreational	Sediment, shallow	Grab	Clover Island	CI-2SD	J18X24	K1667		6/10/09	46.21684	-119.11705	99136.434	606696.34	14	0 - 0.3
Recreational	Sediment, shallow	Grab	Clover Island	CI-2SD	J18X34	J00546		6/10/09	46.21684	-119.11705	99136.434	606696.34	14	0 - 0.3
Recreational	Sediment, shallow	Grab	Clover Island	CI-3SD	J180K9	K1495	Random/ stratified	12/11/08	46.21565	-119.11776	99003.522	606643.778	9	0 - 0.3
Recreational	Sediment, shallow	Grab	Clover Island	CI-3SD	J180L9	J00259		12/11/08	46.21565	-119.11776	99003.522	606643.778	9	0 - 0.3
Recreational	Sediment, shallow	Grab	Clover Island	CI-3SD	J18X25	K1667		6/10/09	46.21571	-119.11751	99010.677	606662.997	10	0 - 0.3
Recreational	Sediment, shallow	Grab	Clover Island	CI-3SD	J18X35	J00546		6/10/09	46.21571	-119.11751	99010.677	606662.997	10	0 - 0.3
Recreational	Sediment, shallow	Grab	Clover Island	CI-4SD	J180K5	K1495	Random/ stratified	12/11/08	46.21532	-119.11415	98971.736	606922.916	13	0 - 0.3
Recreational	Sediment, shallow	Grab	Clover Island	CI-4SD	J180L5	J00259		12/11/08	46.21532	-119.11415	98971.736	606922.916	13	0 - 0.3
Recreational	Sediment, shallow	Grab	Clover Island	CI-4SD	J18X26	K1667		6/10/09	46.21532	-119.11416	98971.637	606922.519	16	0 - 0.3
Recreational	Sediment, shallow	Grab	Clover Island	CI-4SD	J18X36	J00546		6/10/09	46.21532	-119.11416	98971.637	606922.519	16	0 - 0.3
Recreational	Sediment, shallow	Grab	Clover Island	CI-5SD	J180K4	K1495	Random/ stratified	12/11/08	46.21578	-119.11293	99024.511	607016.134	16	0 - 0.3
Recreational	Sediment, shallow	Grab	Clover Island	CI-5SD	J180L4	J00259		12/11/08	46.21578	-119.11293	99024.511	607016.134	16	0 - 0.3
Recreational	Sediment, shallow	Grab	Clover Island	CI-5SD	J18X27	K1667		6/10/09	46.21584	-119.11289	99031.406	607019.421	16	0 - 0.3
Recreational	Sediment, shallow	Grab	Clover Island	CI-5SD	J18X37	J00546		6/10/09	46.21584	-119.11289	99031.406	607019.421	16	0 - 0.3
Recreational	Sediment, shallow	Grab	Clover Island	CI-6SD	J180K7	K1495	Random/ stratified	12/11/08	46.21558	-119.11083	99005.136	607178.53	15	0 - 0.3
Recreational	Sediment, shallow	Grab	Clover Island	CI-6SD	J180L7	J00259		12/11/08	46.21558	-119.11083	99005.136	607178.53	15	0 - 0.3
Recreational	Sediment, shallow	Grab	Clover Island	CI-6SD	J18X28	K1665		6/10/09	46.21558	-119.11083	99005.318	607178.346	16	0 - 0.3
Recreational	Sediment, shallow	Grab	Clover Island	CI-6SD	J18X38	J00544		6/10/09	46.21558	-119.11083	99005.318	607178.346	16	0 - 0.3
Recreational	Sediment, shallow	Grab	Clover Island	CI-7SD	J180K2	K1495	Random/ stratified	12/11/08	46.21528	-119.10692	98977.117	607480.755	14	0 - 0.3
Recreational	Sediment, shallow	Grab	Clover Island	CI-7SD	J180L2	J00259		12/11/08	46.21528	-119.10692	98977.117	607480.755	14	0 - 0.3
Recreational	Sediment, shallow	Grab	Clover Island	CI-7SD	J18X29	K1665		6/10/09	46.21497	-119.10672	98942.956	607496.715	20	0 - 0.3
Recreational	Sediment, shallow	Grab	Clover Island	CI-7SD	J18X39	J00544		6/10/09	46.21497	-119.10672	98942.956	607496.715	20	0 - 0.3

Table B-4. Sediment and Soil Sampling Summary - Location Information. (48 Pages)

Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
Recreational	Sediment, shallow	Grab	Clover Island	CI-8SD	J180K1	K1495	Random/ stratified	12/11/08	46.21583	-119.10665	99038.607	607500.504	17	0 - 0.3
Recreational	Sediment, shallow	Grab	Clover Island	CI-8SD	J180L1	J00259		12/11/08	46.21583	-119.10665	99038.607	607500.504	17	0 - 0.3
Recreational	Sediment, shallow	Grab	Clover Island	CI-8SD	J18X30	K1665		6/10/09	46.21584	119.10665	99039.663	607500.46	16	0 - 0.3
Recreational	Sediment, shallow	Grab	Clover Island	CI-8SD	J18X40	J00544		6/10/09	46.21584	119.10665	99039.663	607500.46	16	0 - 0.3
Recreational	Sediment, shallow	Grab	Clover Island	CI-9SD	J180K8	K1495	Random/ stratified	12/11/08	46.21474	-119.10332	98922.019	607759.541	23	0 - 0.3
Recreational	Sediment, shallow	Grab	Clover Island	CI-9SD	J180L8	J00259		12/11/08	46.21474	-119.10332	98922.019	607759.541	23	0 - 0.3
Recreational	Sediment, shallow	Grab	Clover Island	CI-9SD	J18X31	K1665		6/10/09	46.21477	-119.10322	98925.605	607767.464	24	0 - 0.3
Recreational	Sediment, shallow	Grab	Clover Island	CI-9SD	J18X41	J00544		6/10/09	46.21477	-119.10322	98925.605	607767.464	24	0 - 0.3
Recreational	Sediment, shallow	Grab	Clover Island	CI-10SD	J180K3	K1495	Random/ stratified	12/11/08	46.21525	-119.10273	98979.502	607804.053	21	0 - 0.3
Recreational	Sediment, shallow	Grab	Clover Island	CI-10SD	J180L3	J00259		12/11/08	46.21525	-119.10273	98979.502	607804.053	21	0 - 0.3
Recreational	Sediment, shallow	Grab	Clover Island	CI-10SD	J18X32	K1665		6/10/09	46.21526	-119.10274	98980.101	607803.361	16	0 - 0.3
Recreational	Sediment, shallow	Grab	Clover Island	CI-10SD	J18X42	J00544		6/10/09	46.21526	-119.10274	98980.101	607803.361	16	0 - 0.3
Recreational	Sediment, shoreline	Grab	Two Rivers Park (5 replicates)	TR-1SSD	J18J44 -> J18J34/J18J34-A	K1566/TBD	MIS	3/5/09	46.19070	-119.04928	96325.723	611977.626	NA	0 - 0.5
				TR-2SSD	J18J45 -> J18J35/J18J35-A	K1566/TBD		3/5/09	46.19070	-119.04928	96325.723	611977.626		
				TR-3SSD	J18J46 -> J18J36/J18J36-A	K1566/TBD		3/5/09	46.19070	-119.04928	96325.723	611977.626		
				TR-4SSD [b]	NA	NA		3/5/09	NA	NA	NA	NA	NA	NA
				TR-5SSD [b]	NA	NA		3/5/09	NA	NA	NA	NA	NA	NA
Recreational [c]	Sediment, shoreline	Grab	Cascade Marina	CM-1SSD to CM-10SSD	NA	NA	Random/ stratified	NA	NA	NA	NA	NA	NA	0 - 0.3 ft
Recreational	Sediment, shallow	Power grab	Cascade Marina	CM-1SD	J180T9	K1495	Random/ stratified	12/11/08	46.21868	-119.09234	99374.933	608598.788	21	0 - 0.3
Recreational	Sediment, shallow	Power grab	Cascade Marina	CM-1SD	J180V4	J00262		12/11/08	46.21868	-119.09234	99374.933	608598.788	21	0 - 0.3
Recreational	Sediment, shallow	Power grab	Cascade Marina	CM-1SD	J18X46	K1665		6/9/09	46.21867	-119.09239	99373.921	608595.012	24	0 - 0.3
Recreational	Sediment, shallow	Power grab	Cascade Marina	CM-1SD	J18X51	J00544		6/9/09	46.21867	-119.09239	99373.921	608595.012	24	0 - 0.3
Recreational	Sediment, shallow	Power grab	Cascade Marina	CM-2SD **Duplicate collected**	J180T6	K1495	Random/ stratified	12/11/08	46.21875	-119.09168	12236578.51	1132057.088	16	0 - 0.3
Recreational	Sediment, shallow	Power grab	Cascade Marina	CM-2SD **Duplicate collected**	J180V1	J00262		12/11/08	46.21875	-119.09168	12236578.51	1132057.088	16	0 - 0.3
Recreational	Sediment, shallow	Power grab	Cascade Marina	CM-2SD **Duplicate collected**	J18089	J00264		12/11/08	46.21875	-119.09168	12236578.51	1132057.088	16	0 - 0.3
Recreational	Sediment, shallow	Power grab	Cascade Marina	CM-2SD **Duplicate collected**	J18X47	K1665		6/9/09	46.21875	-119.09166	99383.904	608650.894	11	0 - 0.3
Recreational	Sediment, shallow	Power grab	Cascade Marina	CM-2SD **Duplicate collected**	J18X52	J00544		6/9/09	46.21875	-119.09166	99383.904	608650.894	11	0 - 0.3

Table B-4. Sediment and Soil Sampling Summary - Location Information. (48 Pages)

Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
Recreational	Sediment, shallow	Power grab	Cascade Marina	CM-3SD	J180T8	K1495	Random/ stratified	12/11/08	46.21825	-119.09014	99330.178	608769.351	21	0 - 0.3
Recreational	Sediment, shallow	Power grab	Cascade Marina	CM-3SD	J180V3	J00262		12/11/08	46.21825	-119.09014	99330.178	608769.351	21	0 - 0.3
Recreational	Sediment, shallow	Power grab	Cascade Marina	CM-3SD	J18X48	K1665		6/9/09	46.21824	-119.09018	99329.339	608765.945	26	0 - 0.3
Recreational	Sediment, shallow	Power grab	Cascade Marina	CM-3SD	J18X53	J00544		6/9/09	46.21824	-119.09018	99329.339	608765.945	26	0 - 0.3
Recreational	Sediment, shallow	Power grab	Cascade Marina	CM-4SD	J180T5	K1495	Random/ stratified	12/11/08	46.21842	-119.08872	99351.029	608878.553	25	0 - 0.3
Recreational	Sediment, shallow	Power grab	Cascade Marina	CM-4SD	J180V0	J00262		12/11/08	46.21842	-119.08872	99351.029	608878.553	25	0 - 0.3
Recreational	Sediment, shallow	Power grab	Cascade Marina	CM-4SD	J18X49	K1665		6/9/09	46.21840	-119.08871	99348.93	608879.259	28	0 - 0.3
Recreational	Sediment, shallow	Power grab	Cascade Marina	CM-4SD	J18X54	J00544		6/9/09	46.21840	-119.08871	99348.93	608879.259	28	0 - 0.3
Recreational	Sediment, shallow	Power grab	Cascade Marina	CM-5SD	J180T7	K1495	Random/ stratified	12/11/08	46.21782	-119.08813	99285.166	608925.259	7	0 - 0.3
Recreational	Sediment, shallow	Power grab	Cascade Marina	CM-5SD	J180V2	J00262		12/11/08	46.21782	-119.08813	99285.166	608925.259	7	0 - 0.3
Recreational	Sediment, shallow	Power grab	Cascade Marina	CM-5SD	J18X50	K1665		6/9/09	46.21783	-119.08814	99286.702	608924.151	14	0 - 0.3
Recreational	Sediment, shallow	Power grab	Cascade Marina	CM-5SD	J18X55	J00544		6/9/09	46.21783	-119.08814	99286.702	608924.151	14	0 - 0.3
Recreational	Sediment, shoreline	Grab	Sacajawea Park	SP-1SSD	J189K2	K1544	Random/ stratified	12/11/08	46.20260	-119.04835	97649.483	612025.062	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	Sacajawea Park	SP-1SSD	J189L2	J00351		12/11/08	46.20260	-119.04835	97649.483	612025.062	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	Sacajawea Park	SP-2SSD	J189J9	K1544	Random/ stratified	12/11/08	46.20214	-119.04717	97600.04	612117.055	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	Sacajawea Park	SP-2SSD	J189K9	J00351		12/11/08	46.20214	-119.04717	97600.04	612117.055	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	Sacajawea Park	SP-3SSD	J189K5	K1544	Random/ stratified	12/11/08	46.20134	-119.04592	97512.914	612215.147	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	Sacajawea Park	SP-3SSD	J189L5	J00351		12/11/08	46.20134	-119.04592	97512.914	612215.147	NA	0 - 0.3
Recreational [b]	Sediment, shoreline	Grab	Sacajawea Park	SP-4SSD	NA	NA	Random/ stratified	2/19/09	NA	NA	NA	NA	NA	NA
Recreational [b]	Sediment, shoreline	Grab	Sacajawea Park	SP-5SSD	NA	NA	Random/ stratified	2/19/09	NA	NA	NA	NA	NA	NA
Recreational [b]	Sediment, shoreline	Grab	Sacajawea Park	SP-6SSD	NA	NA	Random/ stratified	2/19/09	NA	NA	NA	NA	NA	NA
Recreational [b]	Sediment, shoreline	Grab	Sacajawea Park	SP-7SSD	NA	NA	Random/ stratified	2/19/09	NA	NA	NA	NA	NA	NA
Recreational [b]	Sediment, shoreline	Grab	Sacajawea Park	SP-8SSD	NA	NA	Random/ stratified	2/19/09	NA	NA	NA	NA	NA	NA
Recreational	Sediment, shoreline	Grab	Sacajawea Park	SP-9SSD	J189K4	K1544	Random/ stratified	2/19/09	46.19858	-119.04005	97214.566	612673.777	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	Sacajawea Park	SP-9SSD	J189L4	J00351		2/19/09	46.19858	-119.04005	97214.566	612673.777	NA	0 - 0.3
Recreational [b]	Sediment, shoreline	Grab	Sacajawea Park	SP-10SSD	NA	NA	Random/ stratified	2/19/09	NA	NA	NA	NA	NA	NA
McNary Dam	Core, shallow (4-in. diameter)	Vibracore	Foundation Island (Snake River sediment)	FIC1-1SD	J18M06	K1574	Focused	3/26/09	46.17671	-119.00473	94835.256	615445.405	~2	0 - 0.79
McNary Dam	Core, shallow (4-in. diameter)	Vibracore	Foundation Island (Snake River sediment)	FIC1-1SD	J18M07	J00423		3/26/09	46.17671	-119.00473	94835.256	615445.405	~2	0 - 0.79
McNary Dam	Core, shallow (4-in. diameter)	Vibracore	Foundation Island (Snake River sediment)	FIC1-1SD	J18M08	SEQ041409		3/26/09	46.17671	-119.00473	94835.256	615445.405	~2	0 - 0.79

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Sample Description								Date Sampled/Attempted	Sample Location					
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McNary Dam	Core, shallow (4-in. diameter)	Vibracore	Foundation Island (Snake River sediment)	FIC1-2SD	J18M09	K1574	Focused	3/26/09	46.17671	-119.00473	94835.256	615445.405	~2	0.79 - 1.44
McNary Dam	Core, shallow (4-in. diameter)	Vibracore	Foundation Island (Snake River sediment)	FIC1-2SD	J18M14	J00423		3/26/09	46.17671	-119.00473	94835.256	615445.405	~2	0.79 - 1.44
McNary Dam	Core, shallow (4-in. diameter)	Vibracore	Foundation Island (Snake River sediment)	FIC1-3SD	J18M10	K1574	Focused	3/26/09	46.17671	-119.00473	94835.256	615445.405	~2	1.44 - 2.10
McNary Dam	Core, shallow (4-in. diameter)	Vibracore	Foundation Island (Snake River sediment)	FIC1-3SD	J18M15	J00423		3/26/09	46.17671	-119.00473	94835.256	615445.405	~2	1.44 - 2.10
McNary Dam	Core, shallow (4-in. diameter)	Vibracore	Foundation Island (Snake River sediment)	FIC1-4SD	J18M11	K1574	Focused	3/26/09	46.17671	-119.00473	94835.256	615445.405	~2	2.10 - 2.76
McNary Dam	Core, shallow (4-in. diameter)	Vibracore	Foundation Island (Snake River sediment)	FIC1-4SD	J18M16	J00423		3/26/09	46.17671	-119.00473	94835.256	615445.405	~2	2.10 - 2.76
McNary Dam	Core, shallow (4-in. diameter)	Vibracore	Foundation Island (Snake River sediment)	FIC1-5SD	J18KY9	K1574	Focused	3/26/09	46.17671	-119.00473	94835.256	615445.405	~2	2.76 - 3.41
McNary Dam	Core, shallow (4-in. diameter)	Vibracore	Foundation Island (Snake River sediment)	FIC1-5SD	J18L04	J00423		3/26/09	46.17671	-119.00473	94835.256	615445.405	~2	2.76 - 3.41
McNary Dam	Core, shallow (4-in. diameter)	Vibracore	Foundation Island (Snake River sediment)	FIC1-6SD	J18M13	K1574	Focused	3/26/09	46.17671	-119.00473	94835.256	615445.405	~2	3.41 - 4.07
McNary Dam	Core, shallow (4-in. diameter)	Vibracore	Foundation Island (Snake River sediment)	FIC1-6SD	J18M18	J00423		3/26/09	46.17671	-119.00473	94835.256	615445.405	~2	3.41 - 4.07
McNary Dam	Core, shallow (4-in. diameter)	Vibracore	Foundation Island (Snake River sediment)	FIC1-7SD	J18KY8	K1574	Focused	3/26/09	46.17671	-119.00473	94835.256	615445.405	~2	4.07 - 4.72
McNary Dam	Core, shallow (4-in. diameter)	Vibracore	Foundation Island (Snake River sediment)	FIC1-7SD	J18L03	J00424		3/26/09	46.17671	-119.00473	94835.256	615445.405	~2	4.07 - 4.72
McNary Dam	Core, shallow (4-in. diameter)	Vibracore	Foundation Island (Snake River sediment)	FIC1-8SD	J18M12	K1574	Focused	3/26/09	46.17671	-119.00473	94835.256	615445.405	~2	4.72 - 5.38
McNary Dam	Core, shallow (4-in. diameter)	Vibracore	Foundation Island (Snake River sediment)	FIC1-8SD	J18M17	J00424		3/26/09	46.17671	-119.00473	94835.256	615445.405	~2	4.72 - 5.38
McNary Dam	Core, shallow (4-in. diameter)	Vibracore	Foundation Island (Snake River sediment)	FIC1-9SD	J18LB1	K1574	Focused	3/26/09	46.17671	-119.00473	94835.256	615445.405	~2	5.38 - 6.04
McNary Dam	Core, shallow (4-in. diameter)	Vibracore	Foundation Island (Snake River sediment)	FIC1-9SD	J18LD1	J00424		3/26/09	46.17671	-119.00473	94835.256	615445.405	~2	5.38 - 6.04
McNary Dam	Core, shallow (4-in. diameter)	Vibracore	Foundation Island (Snake River sediment)	FIC1-10SD	J18LB0	K1574	Focused	3/26/09	46.17671	-119.00473	94835.256	615445.405	~2	6.04 - 6.59
McNary Dam	Core, shallow (4-in. diameter)	Vibracore	Foundation Island (Snake River sediment)	FIC1-10SD	J18LD0	J00423		3/26/09	46.17671	-119.00473	94835.256	615445.405	~2	6.04 - 6.59
McNary Dam	Core, shallow (4-in. diameter)	Vibracore	Foundation Island (Snake River sediment)	FIC2-1SD	J18MP2	K1583	Focused	4/7/09	46.15299	-118.98061	92234.902	617358.193	~7	0 - 0.79
McNary Dam	Core, shallow (4-in. diameter)	Vibracore	Foundation Island (Snake River sediment)	FIC2-1SD	J18MP3	J00435		4/7/09	46.15299	-118.98061	92234.902	617358.193	~7	0 - 0.79
McNary Dam	Core, shallow (4-in. diameter)	Vibracore	Foundation Island (Snake River sediment)	FIC2-1SD	J18MP4	SEQ041409		4/7/09	46.15299	-118.98061	92234.902	617358.193	~7	0 - 0.79
McNary Dam	Core, shallow (4-in. diameter)	Vibracore	Foundation Island (Snake River sediment)	FIC2-2SD	J18L20	K1583	Focused	4/7/09	46.15299	-118.98061	92234.902	617358.193	~7	0.79 - 1.44
McNary Dam	Core, shallow (4-in. diameter)	Vibracore	Foundation Island (Snake River sediment)	FIC2-2SD	J18L26	J00435		4/7/09	46.15299	-118.98061	92234.902	617358.193	~7	0.79 - 1.44
McNary Dam	Core, shallow (4-in. diameter)	Vibracore	Foundation Island (Snake River sediment)	FIC2-3SD	J18L21	K1583	Focused	4/7/09	46.15299	-118.98061	92234.902	617358.193	~7	1.44 - 2.10
McNary Dam	Core, shallow (4-in. diameter)	Vibracore	Foundation Island (Snake River sediment)	FIC2-3SD	J18L27	J00435		4/7/09	46.15299	-118.98061	92234.902	617358.193	~7	1.44 - 2.10
McNary Dam	Core, shallow (4-in. diameter)	Vibracore	Foundation Island (Snake River sediment)	FIC2-4SD	J18L22	K1583	Focused	4/7/09	46.15299	-118.98061	92234.902	617358.193	~7	2.10 - 2.76
McNary Dam	Core, shallow (4-in. diameter)	Vibracore	Foundation Island (Snake River sediment)	FIC2-4SD	J18L28	J00435		4/7/09	46.15299	-118.98061	92234.902	617358.193	~7	2.10 - 2.76
McNary Dam	Core, shallow (4-in. diameter)	Vibracore	Foundation Island (Snake River sediment)	FIC2-5SD	J18L23	K1583	Focused	4/7/09	46.15299	-118.98061	92234.902	617358.193	~7	2.76 - 3.41
McNary Dam	Core, shallow (4-in. diameter)	Vibracore	Foundation Island (Snake River sediment)	FIC2-5SD	J18L29	J00435		4/7/09	46.15299	-118.98061	92234.902	617358.193	~7	2.76 - 3.41

Table B-4. Sediment and Soil Sampling Summary - Location Information. (48 Pages)

Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
McNary Dam	Core, shallow (4-in. diameter)	Vibracore	Foundation Island (Snake River sediment)	FIC2-6SD	J18L24	K1583	Focused	4/7/09	46.15299	-118.98061	92234.902	617358.193	~7	3.41 - 4.07
McNary Dam	Core, shallow (4-in. diameter)	Vibracore	Foundation Island (Snake River sediment)	FIC2-6SD	J18L30	J00435		4/7/09	46.15299	-118.98061	92234.902	617358.193	~7	3.41 - 4.07
McNary Dam	Core, shallow (4-in. diameter)	Vibracore	Foundation Island (Snake River sediment)	FIC2-7SD	J18M71-A	K1583	Focused	4/7/09	46.15299	-118.98061	92234.902	617358.193	~7	4.07 - 4.72
McNary Dam	Core, shallow (4-in. diameter)	Vibracore	Foundation Island (Snake River sediment)	FIC2-7SD	J18MC1-A	J00436		4/7/09	46.15299	-118.98061	92234.902	617358.193	~7	4.07 - 4.72
McNary Dam	Core, shallow (4-in. diameter)	Vibracore	Foundation Island (Snake River sediment)	FIC2-8SD	J18M60	K1583	Focused	4/7/09	46.15299	-118.98061	92234.902	617358.193	~7	4.72 - 5.38
McNary Dam	Core, shallow (4-in. diameter)	Vibracore	Foundation Island (Snake River sediment)	FIC2-8SD	J18MB0	J00436		4/7/09	46.15299	-118.98061	92234.902	617358.193	~7	4.72 - 5.38
McNary Dam	Core, shallow (4-in. diameter)	Vibracore	Foundation Island (Snake River sediment)	FIC2-9SD	J18M59	K1583	Focused	4/7/09	46.15299	-118.98061	92234.902	617358.193	~7	5.38 - 6.10
McNary Dam	Core, shallow (4-in. diameter)	Vibracore	Foundation Island (Snake River sediment)	FIC2-9SD	J18M99	J00436		4/7/09	46.15299	-118.98061	92234.902	617358.193	~7	5.38 - 6.10
McNary Dam [b]	Sediment, shoreline	Grab	Lake Wallula shoreline sediments	LW-1SSD	NA	NA	Random/ stratified	2/2/09	NA	NA	NA	NA	NA	NA
McNary Dam [b]	Sediment, shoreline	Grab	Lake Wallula shoreline sediments	LW-2SSD	NA	NA	Random/ stratified	2/2/09	NA	NA	NA	NA	NA	NA
McNary Dam [b]	Sediment, shoreline	Grab	Lake Wallula shoreline sediments	LW-3SSD	NA	NA	Random/ stratified	2/2/09	NA	NA	NA	NA	NA	NA
McNary Dam [b]	Sediment, shoreline	Grab	Lake Wallula shoreline sediments	LW-4SSD	NA	NA	Random/ stratified	2/2/09	NA	NA	NA	NA	NA	NA
McNary Dam [b]	Sediment, shoreline	Grab	Lake Wallula shoreline sediments	LW-5SSD	NA	NA	Random/ stratified	2/2/09	NA	NA	NA	NA	NA	NA
Recreational [b]	Sediment, shoreline	Grab	Port Kelley boat ramp	PK-1SSD	NA	NA	Focused	2/2/09	NA	NA	NA	NA	NA	NA
Recreational [b]	Sediment, shoreline	Grab	Port Kelley boat ramp	PK-2SSD	NA	NA	Focused	2/2/09	NA	NA	NA	NA	NA	NA
Recreational [b]	Sediment, shoreline	Grab	Port Kelley boat ramp	PK-3SSD	NA	NA	Focused	2/2/09	NA	NA	NA	NA	NA	NA
Recreational [b]	Sediment, shoreline	Grab	Port Kelley boat ramp	PK-4SSD	NA	NA	Focused	2/2/09	NA	NA	NA	NA	NA	NA
Recreational [b]	Sediment, shoreline	Grab	Port Kelley boat ramp	PK-5SSD	NA	NA	Focused	2/2/09	NA	NA	NA	NA	NA	NA
Recreational [b]	Sediment, shoreline	Grab	Port Kelley boat ramp	PK-6SSD	NA	NA	Focused	2/2/09	NA	NA	NA	NA	NA	NA
Recreational [b]	Sediment, shoreline	Grab	Port Kelley boat ramp	PK-7SSD	NA	NA	Focused	2/2/09	NA	NA	NA	NA	NA	NA
Recreational [b]	Sediment, shoreline	Grab	Port Kelley boat ramp	PK-8SSD	NA	NA	Focused	2/2/09	NA	NA	NA	NA	NA	NA
Recreational [b]	Sediment, shoreline	Grab	Port Kelley boat ramp	PK-9SSD	NA	NA	Focused	2/2/09	NA	NA	NA	NA	NA	NA
Recreational	Sediment, shoreline	Grab	Port Kelley boat ramp	PK-10SSD	J189M8	K1557	Focused	3/4/09	46.02250	-118.94298	77790.742	620550.656	NA	0 - 0.13
Recreational	Sediment, shoreline	Grab	Port Kelley boat ramp	PK-10SSD	J189N8	J00368		3/4/09	46.02250	-118.94298	77790.742	620550.656	NA	0 - 0.13
Recreational [b]	Sediment, shoreline	Grab	Hat Rock State Park	HR-1SSD	NA	NA	Focused	2/20/09	NA	NA	NA	NA	NA	NA
Recreational [b]	Sediment, shoreline	Grab	Hat Rock State Park	HR-2SSD	NA	NA	Focused	2/20/09	NA	NA	NA	NA	NA	NA
Recreational [b]	Sediment, shoreline	Grab	Hat Rock State Park	HR-3SSD	NA	NA	Focused	2/20/09	NA	NA	NA	NA	NA	NA
Recreational [b]	Sediment, shoreline	Grab	Hat Rock State Park	HR-4SSD	NA	NA	Focused	2/20/09	NA	NA	NA	NA	NA	NA

Table B-4. Sediment and Soil Sampling Summary - Location Information. (48 Pages)

Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
Recreational	Sediment, shoreline	Grab	Hat Rock State Park	HR-5SSD	J189P6	K1547	Focused	2/20/09	45.91800	-119.17282	65852.111	602952.781	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	Hat Rock State Park	HR-5SSD	J189R6	J00352		2/20/09	45.91800	-119.17282	65852.111	602952.781	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	Hat Rock State Park	HR-6SSD	J189R0	K1547	Focused	2/20/09	45.91691	-119.17339	65730.233	602910.606	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	Hat Rock State Park	HR-6SSD	J189T0	J00352		2/20/09	45.91691	-119.17339	65730.233	602910.606	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	Hat Rock State Park	HR-7SSD	J189P5	K1547	Focused	2/20/09	45.91618	-119.17527	65646.656	602766.143	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	Hat Rock State Park	HR-7SSD	J189R5	J00352		2/20/09	45.91618	-119.17527	65646.656	602766.143	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	Hat Rock State Park	HR-7SSD	J18083	J00364		2/20/09	45.91618	-119.17527	65646.656	602766.143	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	Hat Rock State Park	HR-8SSD	J189R1	K1547	Focused	2/20/09	45.91499	-119.17398	65516.09	602868.429	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	Hat Rock State Park	HR-8SSD	J189T1	J00352		2/20/09	45.91499	-119.17398	65516.09	602868.429	NA	0 - 0.3
Recreational [b]	Sediment, shoreline	Grab	Hat Rock State Park	HR-9SSD	NA	NA	Focused	2/20/09	NA	NA	NA	NA	NA	NA
Recreational [b]	Sediment, shoreline	Grab	Hat Rock State Park	HR-10SSD	NA	NA	Focused	2/20/09	NA	NA	NA	NA	NA	NA
McNary Dam	Sediment, Deep	Power grab	Lake Wallula sediments	LW-1SD	J17XR5	K1524	Focused	2/2/09	46.00907	-118.98153	76240.119	617595.07	46	0 - 0.3
McNary Dam	Sediment, Deep	Power grab	Lake Wallula sediments	LW-1SD	J17XT5	J00319		2/2/09	46.00907	-118.98153	76240.119	617595.07	46	0 - 0.3
McNary Dam	Sediment, Deep	Power grab	Lake Wallula sediments	LW-1SD	J17XV0	SEQ021309		2/2/09	46.00907	-118.98153	76240.119	617595.07	46	0 - 0.3
McNary Dam [b]	Sediment, Deep	Power grab	Lake Wallula sediments	LW-2SD	NA	NA	Focused	2/2/09	NA	NA	NA	NA	NA	NA
McNary Dam [b]	Sediment, Deep	Power grab	Lake Wallula sediments	LW-3SD	NA	NA	Focused	2/2/09	NA	NA	NA	NA	NA	NA
McNary Dam	Sediment, Deep	Power grab	Lake Wallula sediments	LW-4SD **WDOH split collected**	J17XR8	K1524	Focused	2/2/09	45.93329	-119.11508	67628.3	607401.534	38	0 - 0.3
McNary Dam	Sediment, Deep	Power grab	Lake Wallula sediments	LW-4SD **WDOH split collected**	J17XT8	J00319		2/2/09	45.93329	-119.11508	67628.3	607401.534	38	0 - 0.3
McNary Dam	Sediment, Deep	Power grab	Lake Wallula sediments	LW-4SD **WDOH split collected**	J17XV3	SEQ021309		2/2/09	45.93329	-119.11508	67628.3	607401.534	38	0 - 0.3
McNary Dam	Sediment, Deep	Power grab	Lake Wallula sediments	LW-5SD **WDOE split collected**	J17XR9	K1524	Focused	2/2/09	45.92702	-119.18069	66844.281	602325.574	76	0 - 0.3
McNary Dam	Sediment, Deep	Power grab	Lake Wallula sediments	LW-5SD **WDOE split collected**	J17XT9	J00319		2/2/09	45.92702	-119.18069	66844.281	602325.574	76	0 - 0.3
McNary Dam	Sediment, Deep	Power grab	Lake Wallula sediments	LW-5SD **WDOE split collected**	J17XV4	SEQ021309		2/2/09	45.92702	-119.18069	66844.281	602325.574	76	0 - 0.3
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC1-1SD	J18L19	K1583	Focused	4/6/09	46.03141	-118.94184	78782.617	620619.346	56	0 - 0.79
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC1-1SD	J18L25	J00435		4/6/09	46.03141	-118.94184	78782.617	620619.346	56	0 - 0.79
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC1-2SD	J18L09	K1583	Focused	4/6/09	46.03141	-118.94184	78782.617	620619.346	56	0.79 - 1.44
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC1-2SD	J18L14	J00435		4/6/09	46.03141	-118.94184	78782.617	620619.346	56	0.79 - 1.44
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC1-3SD	J18L10	K1583	Focused	4/6/09	46.03141	-118.94184	78782.617	620619.346	56	1.44 - 2.10
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC1-3SD	J18L15	J00436		4/6/09	46.03141	-118.94184	78782.617	620619.346	56	1.44 - 2.10

Table B-4. Sediment and Soil Sampling Summary - Location Information. (48 Pages)

Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC1-4SD	J18L11	K1583	Focused	4/6/09	46.03141	-118.94184	78782.617	620619.346	56	2.10 - 2.76
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC1-4SD	J18L16	J00436		4/6/09	46.03141	-118.94184	78782.617	620619.346	56	2.10 - 2.76
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC1-5SD	J18L12	K1583	Focused	4/6/09	46.03141	-118.94184	78782.617	620619.346	56	2.76 - 3.41
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC1-5SD	J18L17	J00436		4/6/09	46.03141	-118.94184	78782.617	620619.346	56	2.76 - 3.41
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC1-6SD	J18L13	K1583	Focused	4/6/09	46.03141	-118.94184	78782.617	620619.346	56	3.41 - 4.07
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC1-6SD	J18L18	J00435		4/6/09	46.03141	-118.94184	78782.617	620619.346	56	3.41 - 4.07
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC1-7SD	J18M71	K1583	Focused	4/6/09	46.03141	-118.94184	78782.617	620619.346	56	4.07 - 4.72
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC1-7SD	J18MC1	J00436		4/6/09	46.03141	-118.94184	78782.617	620619.346	56	4.07 - 4.72
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC1-8SD	J18M70	K1583	Focused	4/6/09	46.03141	-118.94184	78782.617	620619.346	56	4.72 - 5.38
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC1-8SD	J18MC0	J00436		4/6/09	46.03141	-118.94184	78782.617	620619.346	56	4.72 - 5.38
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC1-9SD	J18M69	K1583	Focused	4/6/09	46.03141	-118.94184	78782.617	620619.346	56	5.38 - 6.04
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC1-9SD	J18MB9	J00436		4/6/09	46.03141	-118.94184	78782.617	620619.346	56	5.38 - 6.04
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC1-10SD	J18M68	K1583	Focused	4/6/09	46.03141	-118.94184	78782.617	620619.346	56	6.04 - 6.69
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC1-10SD	J18MB8	J00435		4/6/09	46.03141	-118.94184	78782.617	620619.346	56	6.04 - 6.69
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC1-11SD	J18M67	K1583	Focused	4/6/09	46.03141	-118.94184	78782.617	620619.346	56	6.69 - 7.35
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC1-11SD	J18MB7	J00436		4/6/09	46.03141	-118.94184	78782.617	620619.346	56	6.69 - 7.35
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC1-12SD	J18M66	K1583	Focused	4/6/09	46.03141	-118.94184	78782.617	620619.346	56	7.35 - 8.01
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC1-12SD	J18MB6	J00436		4/6/09	46.03141	-118.94184	78782.617	620619.346	56	7.35 - 8.01
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC1-13SD	J18M65	K1583	Focused	4/6/09	46.03141	-118.94184	78782.617	620619.346	56	8.01 - 8.66
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC1-13SD	J18MB5	J00436		4/6/09	46.03141	-118.94184	78782.617	620619.346	56	8.01 - 8.66
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC1-14SD	J18M64	K1583	Focused	4/6/09	46.03141	-118.94184	78782.617	620619.346	56	8.66 - 9.32
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC1-14SD	J18MB4	J00435		4/6/09	46.03141	-118.94184	78782.617	620619.346	56	8.66 - 9.32
McNary Dam	Core, deep(4-in. diameter)	Vibracore	Lake Wallula	LWC1-15SD	J18M63	K1583	Focused	4/6/09	46.03141	-118.94184	78782.617	620619.346	56	9.32 - 9.97
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC1-15SD	J18MB3	J00435		4/6/09	46.03141	-118.94184	78782.617	620619.346	56	9.32 - 9.97
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC1-16SD	J18M62	K1583	Focused	4/6/09	46.03141	-118.94184	78782.617	620619.346	56	9.97 - 10.63
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC1-16SD	J18MB2	J00436		4/6/09	46.03141	-118.94184	78782.617	620619.346	56	9.97 - 10.63
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC1-17SD	J18M61	K1583	Focused	4/6/09	46.03141	-118.94184	78782.617	620619.346	56	10.63 - 11.35
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC1-17SD	J18MB1	J00435		4/6/09	46.03141	-118.94184	78782.617	620619.346	56	10.63 - 11.35

Table B-4. Sediment and Soil Sampling Summary - Location Information. (48 Pages)

Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC2-1SD	J18L31	K1584	Focused	4/8/09	45.96392	-119.03647	71142.242	613433.95	~56	0 - 0.79
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC2-1SD	J18L37	J00438		4/8/09	45.96392	-119.03647	71142.242	613433.95	~56	0 - 0.79
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC2-2SD	J18L32	K1584	Focused	4/8/09	45.96392	-119.03647	71142.242	613433.95	~56	0.79 - 1.44
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC2-2SD	J18L38	J00438		4/8/09	45.96392	-119.03647	71142.242	613433.95	~56	0.79 - 1.44
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC2-3SD	J18L33	K1584	Focused	4/8/09	45.96392	-119.03647	71142.242	613433.95	~56	1.44 - 2.10
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC2-3SD	J18L39	J00438		4/8/09	45.96392	-119.03647	71142.242	613433.95	~56	1.44 - 2.10
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC2-4SD	J18L34	K1584	Focused	4/8/09	45.96392	-119.03647	71142.242	613433.95	~56	2.10 - 2.76
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC2-4SD	J18L40	J00438		4/8/09	45.96392	-119.03647	71142.242	613433.95	~56	2.10 - 2.76
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC2-5SD	J18L35	K1584	Focused	4/8/09	45.96392	-119.03647	71142.242	613433.95	~56	2.76 - 3.41
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC2-5SD	J18L41	J00438		4/8/09	45.96392	-119.03647	71142.242	613433.95	~56	2.76 - 3.41
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC2-6SD	J18L36	K1584	Focused	4/8/09	45.96392	-119.03647	71142.242	613433.95	~56	3.41 - 4.07
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC2-6SD	J18L42	J00438		4/8/09	45.96392	-119.03647	71142.242	613433.95	~56	3.41 - 4.07
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC2-7SD	J18M58	K1584	Focused	4/8/09	45.96392	-119.03647	71142.242	613433.95	~56	4.07 - 4.72
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC2-7SD	J18M98	J00438		4/8/09	45.96392	-119.03647	71142.242	613433.95	~56	4.07 - 4.72
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC2-8SD	J18M70-A	K1584	Focused	4/8/09	45.96392	-119.03647	71142.242	613433.95	~56	4.72 - 5.38
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC2-8SD	J18MC0-A	J00438		4/8/09	45.96392	-119.03647	71142.242	613433.95	~56	4.72 - 5.38
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC2-9SD	J18M69-A	K1584	Focused	4/8/09	45.96392	-119.03647	71142.242	613433.95	~56	5.38 - 6.04
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC2-9SD	J18MB9-A	J00438		4/8/09	45.96392	-119.03647	71142.242	613433.95	~56	5.38 - 6.04
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC2-10SD	J18M68-A	K1584	Focused	4/8/09	45.96392	-119.03647	71142.242	613433.95	~56	6.04 - 6.69
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC2-10SD	J18MB8-A	J00438		4/8/09	45.96392	-119.03647	71142.242	613433.95	~56	6.04 - 6.69
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC2-11SD	J18M67-A	K1584	Focused	4/8/09	45.96392	-119.03647	71142.242	613433.95	~56	6.69 - 7.35
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC2-11SD	J18MB7-A	J00438		4/8/09	45.96392	-119.03647	71142.242	613433.95	~56	6.69 - 7.35
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC2-12SD	J18M66-A	K1584	Focused	4/8/09	45.96392	-119.03647	71142.242	613433.95	~56	7.35 - 8.01
McNary Dam	Core, deep (4-in. diameter)	Vibracore	Lake Wallula	LWC2-12SD	J18MB6-A	J00438		4/8/09	45.96392	-119.03647	71142.242	613433.95	~56	7.35 - 8.01
Recreational [c]	Sediment, shoreline	Grab	McNary Dam boat ramps	MDBR-1SSD to MDBR-20SSD	NA	NA	Random/ stratified	NA	NA	NA	NA	NA	NA	0 - 0.3 ft
McNary Dam	Core, deep (4-in. diameter)	Vibracore	McNary Dam	MDC-1SD	J18L51	K1584	Focused	4/7/09	45.93901	-119.28218	68050.185	594434.094	~79.5	0 - 0.79
McNary Dam	Core, deep (4-in. diameter)	Vibracore	McNary Dam	MDC-1SD	J18L71	J00438		4/7/09	45.93901	-119.28218	68050.185	594434.094	~79.5	0 - 0.79
McNary Dam	Core, deep (4-in. diameter)	Vibracore	McNary Dam	MDC-2SD	J18L52	K1584	Focused	4/7/09	45.93901	-119.28218	68050.185	594434.094	~79.5	0.79 - 1.44
McNary Dam	Core, deep (4-in. diameter)	Vibracore	McNary Dam	MDC-2SD	J18L72	J00438		4/7/09	45.93901	-119.28218	68050.185	594434.094	~79.5	0.79 - 1.44

Table B-4. Sediment and Soil Sampling Summary - Location Information. (48 Pages)

Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
McNary Dam	Core, deep (4-in. diameter)	Vibracore	McNary Dam	MDC-3SD	J18L53	K1584	Focused	4/7/09	45.93901	-119.28218	68050.185	594434.094	~79.5	1.44 - 1.97
McNary Dam	Core, deep (4-in. diameter)	Vibracore	McNary Dam	MDC-3SD	J18L73	J00438		4/7/09	45.93901	-119.28218	68050.185	594434.094	~79.5	1.44 - 1.97
Recreational	Sediment, shoreline	Grab	McNary Beach Recreational Area	MBRA-1SSD	J189T7	K1547	Random/ stratified	2/20/09	45.93067	-119.27385	67133.333	595094.39	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	McNary Beach Recreational Area	MBRA-1SSD	J189V2	J00352		2/20/09	45.93067	-119.27385	67133.333	595094.39	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	McNary Beach Recreational Area	MBRA-2SSD **EPA split collected**	J189T8	K1547	Random/ stratified	2/20/09	45.93075	-119.27328	67142.911	595138.454	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	McNary Beach Recreational Area	MBRA-2SSD **EPA split collected**	J189V3	J00352		2/20/09	45.93075	-119.27328	67142.911	595138.454	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	McNary Beach Recreational Area	MBRA-3SSD **Duplicate collected**	J189T4	K1547	Random/ stratified	2/20/09	45.93087	-119.27264	67157.019	595187.878	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	McNary Beach Recreational Area	MBRA-3SSD **Duplicate collected**	J189T9	J00352		2/20/09	45.93087	-119.27264	67157.019	595187.878	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	McNary Beach Recreational Area	MBRA-4SSD	J189T6	K1547	Random/ stratified	2/20/09	45.93103	-119.27138	67176.322	595285.312	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	McNary Beach Recreational Area	MBRA-4SSD	J189V1	J00352		2/20/09	45.93103	-119.27138	67176.322	595285.312	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	McNary Beach Recreational Area	MBRA-5SSD	J189T5	K1547	Random/ stratified	2/20/09	45.93125	-119.27134	67200.82	595288.033	NA	0 - 0.3
Recreational	Sediment, shoreline	Grab	McNary Beach Recreational Area	MBRA-5SSD	J189V0	J00352		2/20/09	45.93125	-119.27134	67200.82	595288.033	NA	0 - 0.3
Recreational	Sediment, shallow	Power grab	McNary Beach Recreational Area	MBRA-1SD	J18173	K1524	Random/ stratified	2/20/09	45.93128	-119.27393	67201.028	595087.132	8	0 - 0.3
Recreational	Sediment, shallow	Power grab	McNary Beach Recreational Area	MBRA-1SD	J18179	J00319		2/20/09	45.93128	-119.27393	67201.028	595087.132	8	0 - 0.3
Recreational	Sediment, shallow	Power grab	McNary Beach Recreational Area	MBRA-1SD	J18091	J00367		2/20/09	45.93128	-119.27393	67201.028	595087.132	8	0 - 0.3
Recreational	Sediment, shallow	Power grab	McNary Beach Recreational Area	MBRA-2SD	J18176	K1524	Random/ stratified	2/20/09	45.93118	-119.27328	67190.698	595137.711	4.5	0 - 0.3
Recreational	Sediment, shallow	Power grab	McNary Beach Recreational Area	MBRA-2SD	J18180	J00319		2/20/09	45.93118	-119.27328	67190.698	595137.711	4.5	0 - 0.3
Recreational	Sediment, shallow	Power grab	McNary Beach Recreational Area	MBRA-3SD	J18172	K1524	Random/ stratified	2/20/09	45.93130	-119.27262	67204.831	595188.685	3	0 - 0.3
Recreational	Sediment, shallow	Power grab	McNary Beach Recreational Area	MBRA-3SD	J18178	J00319		2/20/09	45.93130	-119.27262	67204.831	595188.685	3	0 - 0.3
Recreational	Sediment, shallow	Power grab	McNary Beach Recreational Area	MBRA-4SD **Duplicate collected**	J18177	K1525	Random/ stratified	2/20/09	45.93156	-119.27156	67235.005	595270.436	4	0 - 0.3
Recreational	Sediment, shallow	Power grab	McNary Beach Recreational Area	MBRA-4SD **Duplicate collected**	J18181	J00322		2/20/09	45.93156	-119.27156	67235.005	595270.436	4	0 - 0.3
Recreational	Sediment, shallow	Power grab	McNary Dam boat ramp Oregon side	MDBR-1SD **EPA split collected**	J181B1	K1525	Focused	2/3/09	45.92731	-119.2928	66737.239	593629.773	20	0 - 0.3
Recreational	Sediment, shallow	Power grab	McNary Dam boat ramp Oregon side	MDBR-1SD **EPA split collected**	J181B7	J00322		2/3/09	45.92731	-119.2928	66737.239	593629.773	20	0 - 0.3
Recreational	Sediment, shallow	Power grab	McNary Dam boat ramp Oregon side	MDBR-2SD	J181B2	K1525	Focused	2/3/09	45.92719	-119.29317	66723.475	593602.058	20	0 - 0.3
Recreational	Sediment, shallow	Power grab	McNary Dam boat ramp Oregon side	MDBR-2SD	J181B8	J00322		2/3/09	45.92719	-119.29317	66723.475	593602.058	20	0 - 0.3
Recreational	Sediment, shallow	Power grab	McNary Dam boat ramp Oregon side	MDBR-3SD	J181B3	K1525	Focused	2/3/09	45.92694	-119.29315	66695.715	593604.034	20	0 - 0.3
Recreational	Sediment, shallow	Power grab	McNary Dam boat ramp Oregon side	MDBR-3SD	J181B9	J00322		2/3/09	45.92694	-119.29315	66695.715	593604.034	20	0 - 0.3
Recreational	Sediment, shallow	Power grab	McNary Dam boat ramp Washington side	MDBR-4SD	J18199	K1525	Focused	2/3/09	45.94435	-119.29922	68623.386	593103.82	4	0 - 0.3
Recreational	Sediment, shallow	Power grab	McNary Dam boat ramp Washington side	MDBR-4SD	J181B5	J00322		2/3/09	45.94435	-119.29922	68623.386	593103.82	4	0 - 0.3

Table B-4. Sediment and Soil Sampling Summary - Location Information. (48 Pages)

Sample Description								Date Sampled/Attempted	Sample Location					
Designation	Sample Type	Collection Method	Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	Sample Design		Latitude (WGS 84) (Dec. Deg.)	Longitude (WGS 84) (Dec. Deg.)	Northing (Washington State Plane, South Zone, NAD83) (m) [a]	Easting (Washington State Plane, South Zone, NAD83) (m) [a]	Water Depth (ft)	Sample Depth (ft)
Recreational	Sediment, shallow	Power grab	McNary Dam boat ramp Washington side	MDBR-5SD	J181B0	K1525	Focused	2/3/09	45.94399	-119.29931	68583.272	593097.451	5	0 - 0.3
Recreational	Sediment, shallow	Power grab	McNary Dam boat ramp Washington side	MDBR-5SD	J181B6	J00322		2/3/09	45.94399	-119.29931	68583.272	593097.451	5	0 - 0.3
Recreational	Sediment, shallow	Power grab	McNary Dam boat ramp Washington side	MDBR-6SD	J18198	K1525	Focused	2/3/09	45.94400	-119.29838	68585.481	593169.538	10	0 - 0.3
Recreational	Sediment, shallow	Power grab	McNary Dam boat ramp Washington side	MDBR-6SD	J181B4	J00322		2/3/09	45.94400	-119.29838	68585.481	593169.538	10	0 - 0.3
Bonneville Dam	Core, deep (4-in. diameter)	Vibracore	Bonneville Dam	BDC1-1SD	J18MY2	K1584	Focused	4/9/09	45.68399	-121.89091	39931.511	391645.387	~32	0 - 0.79
Bonneville Dam	Core, deep (4-in. diameter)	Vibracore	Bonneville Dam	BDC1-2SD	J18MY3	K1584	Focused	4/9/09	45.68399	-121.89091	39931.511	391645.387	~32	0.79 - 1.41
Bonneville Dam	Core, deep (4-in. diameter)	Vibracore	Bonneville Dam	BDC2-1SD	J18MY8	K1584	Focused	4/9/09	45.67660	-121.88811	39106.403	391849.035	~31	0 - 0.75
Bonneville Dam	Core, deep (4-in. diameter)	Vibracore	Bonneville Dam	BDC2-2SD	J18MY9	K1584	Focused	4/9/09	45.67660	-121.88811	39106.403	391849.035	~31	0.75 - 1.41
Bonneville Dam	Core, deep (4-in. diameter)	Vibracore	Bonneville Dam	BDC2-3SD	J18N00	K1584	Focused	4/9/09	45.67660	-121.88811	39106.403	391849.035	~31	1.41 - 1.90

[a] Conversions from WGS 84 lat/long coordinates to state plane NAD 83 in meters were performed using Corps Com Version 6.
[b] Station eliminated based on field reconnaissance
[c] Eliminated based on sediment sonar surveys

Core = sediment core
EPA = U.S. Environmental Protection Agency
HMU = habitat management unit
HT = Hanford townsite
NA = not analyzed
OCI = other contributing influence (i.e., non-Hanford)
SD = shallow sediment
SSD = shoreline sediment
WDOE = Washington Department of Ecology
WDOH = Washington State Department of Health
WGS = World Geodetic System

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Above Wanapum Dam	WP-1S	J189X5	K1551	--	X	√	--	√	√	--	X	--	--	√	√	√	√	√	√	X	√	Surface soil samples will be taken from an island above Wanapum Dam (TBD). The samples will supplement previous sampling events and provide additional data for ecological and human evaluations. The samples will be collected from a random/stratified grid.	(1) SVOA not identified in SAP or subsequent revisions, but requested for all samples. (2) TOC and grain size analyses not identified in SAP or subsequent revisions, but requested for all samples. (3) Tritium not identified as target analyte in work plan, SAP, or subsequent revisions, but requested for all samples. (4) Samples collected to a maximum depth of 0.3 ft below surface (SAP specifies 0.5 ft).	
Above Wanapum Dam	WP-2S	J189X6	K1551	--	X	√	--	√	√	--	X	--	--	√	√	√	√	√	√	X	√			
Above Wanapum Dam	WP-3S	J189X9	K1551	--	X	√	--	√	√	--	X	--	--	√	√	√	√	√	√	X	√			
Above Wanapum Dam	WP-4S	J189X7	K1551	--	X	√	--	√	√	--	X	--	--	√	√	√	√	√	√	X	√			
Above Wanapum Dam	WP-5S	J189X8	K1551	--	X	√	--	√	√	--	X	--	--	√	√	√	√	√	√	X	√			
Above Wanapum Dam	WP-5S	J189W3	J00420	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--			
Above Wanapum Dam	WP-6S	J189X0	K1551	--	X	√	--	√	√	--	X	--	--	√	√	√	√	√	√	X	√			
Above Wanapum Dam	WP-7S	J189X1	K1551	--	X	√	--	√	√	--	X	--	--	√	√	√	√	√	√	X	√			
Above Wanapum Dam	WP-8S	J189X2	K1551	--	X	√	--	√	√	--	X	--	--	√	√	√	√	√	√	X	√			
Above Wanapum Dam	WP-9S	J189X3	K1551	--	X	√	--	√	√	--	X	--	--	√	√	√	√	√	√	X	√			
Above Wanapum Dam	WP-10S	J189X4	K1551	--	X	√	--	√	√	--	X	--	--	√	√	√	√	√	√	X	√			
Wanapum Dam Pool	WP-1SSD	J186C6	K1526	√	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√	Upriver/background sediment samples will be collected from the lower riparian zone to provide background data for site characterization and the impacts to ecological receptors and humans.	(1) Increased from 6 to 10 samples in 12/4 changes.	(1) Wood fragments identified in material collected at WP-3SD.
Wanapum Dam Pool	WP-2SSD	J186C5	K1526	√	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√			
Wanapum Dam Pool	WP-2SSD	J17W23	J00367	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--			
Wanapum Dam Pool	WP-3SSD	J186C7	K1526	√	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√			
Wanapum Dam Pool	WP-4SSD	J186C8	K1526	√	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√			
Wanapum Dam Pool[b]	WP-5SSD	NA	NA	O	O	O	--	O	O	--	O	--	--	O	O	O	O	O	O	--	O			
Wanapum Dam Pool	WP-6SSD	J186C3	K1526	√	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√			
Wanapum Dam Pool	WP-7SSD	J186C1	K1526	√	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√			
Wanapum Dam Pool	WP-8SSD	J186C0	K1526	√	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√			
Wanapum Dam Pool	WP-9SSD	J186C2	K1526	√	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√			
Wanapum Dam Pool[b]	WP-10SSD	NA	NA	O	O	O	--	O	O	--	O	--	--	O	O	O	O	O	O	--	O			
Wanapum Dam Pool	WP-1SD **Duplicate collected**	J17V87	K1525	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	X	√	Upriver/background shallow sediment samples will be collected. Locations to be determined after fine-grained sediment survey.	(1) Tritium not identified as target analyte in work plan, SAP, or subsequent revisions, but requested for all samples.	
Wanapum Dam Pool	WP-1SD **Duplicate collected**	J17V97	J00322	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Wanapum Dam Pool	WP-2SD	J17V88	K1525	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	X	√			
Wanapum Dam Pool	WP-2SD	J17V98	J00322	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Wanapum Dam Pool	WP-3SD	J17V89	K1525	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	X	√			
Wanapum Dam Pool	WP-3SD	J17V99	J00322	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Wanapum Dam Pool	WP-4SD	J17V90	K1525	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	X	√			
Wanapum Dam Pool	WP-4SD	J17VB0	J00322	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Wanapum Dam Pool	WP-5SD	J17V91	K1525	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	X	√			
Wanapum Dam Pool	WP-5SD	J17VB1	J00322	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Wanapum Dam Pool	WP-6SD	J17V92	K1525	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	X	√			
Wanapum Dam Pool	WP-6SD	J17VB2	J00322	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Wanapum Dam Pool	WP-6SD	J18690	J00367	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Priest Rapids Dam	PRD-1SD	J17VC3	K1479	--	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√	Upriver/background shallow sediment samples will be collected. Locations to be determined after fine-grained sediment survey. Eighteen samples to develop robust 95% UCL values.		
Priest Rapids Dam	PRD-1SD	J17VD6	J00242	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Priest Rapids Dam	PRD-2SD	J17VC2	K1479	--	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√			
Priest Rapids Dam	PRD-2SD	J17VD5	J00242	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Priest Rapids Dam	PRD-3SD	J17VC1	K1479	--	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√			
Priest Rapids Dam	PRD-3SD	J17VD4	J00242	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Priest Rapids Dam	PRD-4SD	J17VC0	K1479	--	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√			
Priest Rapids Dam	PRD-4SD	J17VD3	J00242	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Priest Rapids Dam	PRD-5SD	J17VB9	K1479	--	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√			
Priest Rapids Dam	PRD-5SD	J17VD2	J00242	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Priest Rapids Dam	PRD-6SD	J17VB7	K1479	--	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√			
Priest Rapids Dam	PRD-6SD	J17VB8	J00242	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Priest Rapids Dam	PRD-7SD	J17VC4	K1479	--	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√			
Priest Rapids Dam	PRD-7SD	J17VD7	J00242	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Priest Rapids Dam	PRD-8SD	J17VC5	K1480	--	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√			
Priest Rapids Dam	PRD-8SD	J17VD8	J00244	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Priest Rapids Dam	PRD-9SD	J17VC8	K1480	--	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√			
Priest Rapids Dam	PRD-9SD	J17VF1	J00244	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Priest Rapids Dam	PRD-10SD	J17V96	K1479	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Priest Rapids Dam	PRD-10SD	J17VB6	J00242	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Priest Rapids Dam	PRD-10SD	J17W22	J00264	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--			
Priest Rapids Dam	PRD-11SD	J17V93	K1479	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Priest Rapids Dam	PRD-11SD	J17VB3	J00242	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Priest Rapids Dam	PRD-12SD **EPA split collected**	J17V94	K1479	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Priest Rapids Dam	PRD-12SD **EPA split collected**	J17VB4	J00242	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Priest Rapids Dam	PRD-13SD	J17V95	K1479	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Priest Rapids Dam	PRD-13SD	J17VB5	J00242	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Priest Rapids Dam	PRD-14SD	J17VD1	K1480	--	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√			
Priest Rapids Dam	PRD-14SD	J17VF4	J00244	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Priest Rapids Dam	PRD-15SD	J17VC6	K1480	--	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√			
Priest Rapids Dam	PRD-15SD	J17VD9	J00244	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Priest Rapids Dam	PRD-16SD	J17VC7	K1480	--	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√			
Priest Rapids Dam	PRD-16SD	J17VF0	J00244	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Priest Rapids Dam	PRD-17SD	J17VC9	K1480	--	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√			
Priest Rapids Dam	PRD-17SD	J17VF2	J00244	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Priest Rapids Dam	PRD-18SD **Duplicate collected**	J17VD0	K1480	--	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√			
Priest Rapids Dam	PRD-18SD **Duplicate collected**	J17VF3	J00244	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Priest Rapids Dam	PRD-18SD **Duplicate collected**	J17W35	J00264	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Below Priest Rapids Dam[b]	SH-1SSD	NA	NA	O	O	O	--	O	O	--	O	--	--	O	O	O	O	O	O	--	O	Upriver/background sediment samples will be collected from the lower riparian zone to provide background data for site characterization and the impacts to ecological receptors and humans.	(1) Increased from two to three samples in 11/25 changes reviewed w/ Tri-Parties.	(1) Insufficient sample material available at SH-1SSD primary/alternate location vicinities. (No suite variation--all planned analyses requested for samples collected.) (2) Sample collected at SH-2SSD initially misidentified as SH-1SSD (corrections applied to logbook, but not chain of custody and sample labels).
Below Priest Rapids Dam	SH-2SSD **Duplicate collected**	J186D2	K1527	√	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√			
Below Priest Rapids Dam	SH-3SSD **EPA split collected**	J18KH5	K1557	√	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√			
Priest Rapids Dam	PRDC-1SD	J18MW2	K1580	--	--	√	--	--	--	--	X	--	--	√	√	√	√	√	√	--	√	Based on the findings of the sonar survey, single core will be collected in area of deep sediment. Estimate 15 ft of sediment, one sample every 8 in. Estimated sample mass of approximately 2,400 grams per sample interval. Used to supplement existing core data.	(1) Depth changed from "1 to refusal" to "0 to refusal" in 12-15 changes. (2) Analysis corrected from filtered to unfiltered metals in 12-4 changes. (3) TOC/grain size analysis removed in 12-4 changes; analyses still requested for samples collected. (4) Rad analyses added in 12-4 changes. (5) Location adjusted based on sediment mapping in 11/25 changes.	(1) Approximately 243 cm drive (including cutter head); field recovery estimated at 188 cm; available sediment sampling length of 149 cm.
Priest Rapids Dam	PRDC-2SD	J18MW3	K1580	--	--	√	--	--	--	--	X	--	--	√	√	√	√	√	√	--	√			
Priest Rapids Dam	PRDC-3SD	J18MW4	K1580	--	--	√	--	--	--	--	X	--	--	√	√	√	√	√	√	--	√			
Priest Rapids Dam	PRDC-4SD	J18MW5	K1580	--	--	√	--	--	--	--	X	--	--	√	√	√	√	√	√	--	√			
Priest Rapids Dam	PRDC-5SD	J18MW6	K1580	--	--	√	--	--	--	--	X	--	--	√	√	√	√	√	√	--	√			
Priest Rapids Dam	PRDC-6SD	J18MW7	K1580	--	--	√	--	--	--	--	X	--	--	√	√	√	√	√	√	--	√			
Priest Rapids Dam	PRDC-7SD	J18MW8	K1580	--	--	√	--	--	--	--	X	--	--	√	√	√	√	√	√	--	√			
Priest Rapids Dam	PRDC-8SD	J18MW9	K1580	--	--	√	--	--	--	--	X	--	--	√	√	√	√	√	√	--	√			
Reactor B left side sediment[c]	RBLS-1SD to RBLS-10SD	NA	NA	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	Based on sonar survey results, 10 samples will be collected on a sample grid on the far shore directly downriver of Coyote Island as a potential depositional area for 100-B/C Reactor releases.	(1) Eliminated in 11/25 changes discussed with Tri-Parties.	

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Reactor B left side shoreline sediment	RBLS-1SSD	J186D5	K1537	√	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√	Based on an ecological habitat survey, 10 samples will be collected on a sample grid on the far shore upriver of Coyote Island as a potential depositional area for 100-B/C Reactor releases.	(1) Locations adjusted based on sediment mapping in 11/25 changes.	(1) Insufficient sample material available at RBLS-4SSD, RBLS-5SSD, RBLS-6SSD, RBLS-8SSD, RBLS-9SSD, and RBLS-10SSD primary/alternate location vicinities. (All stipulated full suite samples collected.) (2) Sampling area is predominantly gravels/cobbles with only very sparsely available sediments.
Reactor B left side shoreline sediment	RBLS-1SSD	J186F5	J00333	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor B left side shoreline sediment	RBLS-2SSD	J186D3	K1537	√	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor B left side shoreline sediment	RBLS-2SSD	J186F3	J00333	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor B left side shoreline sediment	RBLS-3SSD **Duplicate collected**	J186D4	K1537	√	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor B left side shoreline sediment	RBLS-3SSD **Duplicate collected**	J186F4	J00333	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor B left side shoreline sediment [b]	RBLS-4SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Reactor B left side shoreline sediment [b]	RBLS-5SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Reactor B left side shoreline sediment [b]	RBLS-6SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Reactor B left side shoreline sediment	RBLS-7SSD	J186D6	K1537	√	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor B left side shoreline sediment	RBLS-7SSD	J186F6	J00333	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor B left side shoreline sediment	RBLS-7SSD	J18692	J00367	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--			
Reactor B left side shoreline sediment [b]	RBLS-8SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Reactor B left side shoreline sediment [b]	RBLS-9SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Reactor B left side shoreline sediment [b]	RBLS-10SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Reactor B left side shoreline sediment [b]	RBLS-11SSD	NA	NA	O	O	O	O	O	O	--	O	--	--	O	O	O	O	O	O	--	O	Relocation/change for eliminated shallow sediment samples.	(1) Samples added in 11/25 changes discussed with Tri-Parties. (2) Analyses added in 12/4 changes.	(1) Insufficient sample material available at all planned primary/alternate location vicinities except for station RBLS-16SSD. (Single sample collected as partial suite due to limited material availability.) (2) Sampling area is predominantly gravels/cobbles with only very sparsely available sediments.
Reactor B left side shoreline sediment [b]	RBLS-12SSD	NA	NA	O	O	O	O	O	O	--	O	--	--	O	O	O	O	O	O	--	O			
Reactor B left side shoreline sediment [b]	RBLS-13SSD	NA	NA	O	O	O	O	O	O	--	O	--	--	O	O	O	O	O	O	--	O			
Reactor B left side shoreline sediment [b]	RBLS-14SSD	NA	NA	O	O	O	O	O	O	--	O	--	--	O	O	O	O	O	O	--	O			
Reactor B left side shoreline sediment [b]	RBLS-15SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Reactor B left side shoreline sediment	RBLS-16SSD	J186F2	K1537	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor B left side shoreline sediment	RBLS-16SSD	J186H2	J00333	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor B left side shoreline sediment [b]	RBLS-17SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Reactor B left side shoreline sediment [b]	RBLS-18SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Reactor B left side shoreline sediment [b]	RBLS-19SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Reactor B left side shoreline sediment [b]	RBLS-20SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Reactor B Trench [c]	RB-6SD	NA	NA	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	One deep sediment sample will be taken from 100-B/C Hole. The upper 4 in. will be used for evaluating ecological impacts.	(1) Eliminated in 11/25 changes discussed with Tri-Parties.	
Reactor B inlet structures	RBC-1SD	J18M19	K1574	√	√	√	--	O	√	--	√	√	--	√	√	√	√	√	√	--	√	One core will be completed within the water intake trench/structure. Samples will be divided into six 1 ft samples (2 in. core = ~ 600 gms per 1 ft). Evaluate historic deposition of Hanford contaminants (e.g., sediment trap).	(1) Temporary identification numbering adjusted in 12/4 changes. (2) Changed to use of 4 in. core with 8 in. subsamples in field planning. (3) Location adjusted based on field reconnaissance and trial coring to achieve greater sediment recovery. (4) Pesticide analysis not identified as requested for top-most stratum (as identified in the SAP); investigating further.	(1) Approximately 114 cm drive (including cutter head); field recovery estimated at 73 cm; available sediment sampling length of 60 cm.
Reactor B inlet structures	RBC-1SD	J18M30	J00424	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor B inlet structures	RBC-1SD	J18M31	SEQ041409	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Reactor B inlet structures	RBC-2SD	J18M20	K1574	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor B inlet structures	RBC-2SD	J18M26	J00424	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor B inlet structures	RBC-3SD	J18M21	K1574	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor B inlet structures	RBC-3SD	J18M27	J00424	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor K left side sediment [c]	RKLS-1SD to RKLS-10SD	NA	NA	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	Based on sonar survey results, 10 samples will be collected on a sample grid on the far shore across from and downriver of 100-K as a potential depositional area for reactor releases.	(1) Eliminated in 11/25 changes discussed with Tri-Parties.	

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Reactor K left side shoreline sediment [b]	RKLS-1SSD	NA	NA	O	O	O	O	O	O	--	O	--	--	O	O	O	O	O	O	--	O	Based on an ecological habitat survey, 10 samples will be collected on a sample grid on the far shore downriver of 100-K as a potential depositional area for 100-K Reactor releases.		(1) Insufficient sample material at all planned station primary/alternate location vicinities. (Very sparse sediments may be available for collection over a wide single-sample area.)
Reactor K left side shoreline sediment [b]	RKLS-2SSD	NA	NA	O	O	O	O	O	O	--	O	--	--	O	O	O	O	O	O	--	O			
Reactor K left side shoreline sediment [b]	RKLS-3SSD	NA	NA	O	O	O	O	O	O	--	O	--	--	O	O	O	O	O	O	--	O			
Reactor K left side shoreline sediment [b]	RKLS-4SSD	NA	NA	O	O	O	O	O	O	--	O	--	--	O	O	O	O	O	O	--	O			
Reactor K left side shoreline sediment [b]	RKLS-5SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Reactor K left side shoreline sediment [b]	RKLS-6SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Reactor K left side shoreline sediment [b]	RKLS-7SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Reactor K left side shoreline sediment [b]	RKLS-8SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Reactor K left side shoreline sediment [b]	RKLS-9SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Reactor K left side shoreline sediment [b]	RKLS-10SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Reactor K left side shoreline sediment [b]	RKLS-11SSD	NA	NA	O	O	O	O	O	O	--	O	--	--	O	O	O	O	O	O	--	O	Relocation/change for eliminated shallow sediment samples.	(1) Samples added in 11/25 changes discussed with Tri-Parties. (2) Analyses added in 12/4 changes.	(1) Insufficient sample material available at RKLS-11SSD and RKLS-16SSD through RKLS-20SSD primary/alternate location vicinities. (2) Sampling area is predominantly gravels/cobbles with only very sparsely available sediments.
Reactor K left side shoreline sediment	RKLS-12SSD **Duplicate & EPA split collected**	J186X2	K1537	√	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor K left side shoreline sediment	RKLS-12SSD **Duplicate & EPA split collected**	J186Y2	J00334	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor K left side shoreline sediment	RKLS-13SSD	J186X6	K1537	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor K left side shoreline sediment	RKLS-13SSD	J186Y6	J00334	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor K left side shoreline sediment	RKLS-14SSD	J18702	K1537	√	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor K left side shoreline sediment	RKLS-14SSD	J18712	J00334	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor K left side shoreline sediment	RKLS-15SSD	J186X3	K1537	√	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor K left side shoreline sediment	RKLS-15SSD	J186Y3	J00334	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor K left side shoreline sediment	RKLS-15SSD	J186B1	J00367	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--			
Reactor K left side shoreline sediment [b]	RKLS-16SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Reactor K left side shoreline sediment [b]	RKLS-17SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Reactor K left side shoreline sediment [b]	RKLS-18SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Reactor K left side shoreline sediment [b]	RKLS-19SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Reactor K left side shoreline sediment [b]	RKLS-20SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Reactor K north inlet structures	RKC1-1SD	J18MH2	K1574	√	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√	One core will be completed within the water intake trench/structure. Samples will be divided into six 1 ft samples (2 in. core = ~ 600 gms per 1 ft). Used to evaluate historic deposition of Hanford contaminants (e.g., sediment trap).	(1) Core temporary labeling scheme adjusted in field planning to prevent confusion with separate second 100-K Area core. (2) Changed to use of 4 in. core with 8 in. subsamples in field planning.	(1) Approximately 132 cm drive (including cutter head); field recovery estimated at 81 cm; available sediment sampling length of 64 cm.
Reactor K north inlet structures	RKC1-1SD	J18MH3	J00424	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor K north inlet structures	RKC1-1SD	J18MH4	SEQ041409	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Reactor K north inlet structures	RKC1-2SD	J18MH5	K1574	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor K north inlet structures	RKC1-2SD	J18MJ0	J00424	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor K north inlet structures	RKC1-3SD	J18MH6	K1574	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor K north inlet structures	RKC1-3SD	J18MJ1	J00424	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor K south inlet structures	RKC2-1SD	J18MJ5	K1574	√	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√	One core will be completed within the water intake trench/structure. Samples will be divided into six 1 ft samples (2 in. core = ~ 600 gms per 1 ft). Used to evaluate historic deposition of Hanford contaminants (e.g., sediment trap).	(1) Core temporary labeling scheme adjusted in field planning to prevent confusion with separate first 100-K Area core. (2) Changed to use of 4 in. core with 8 in. subsamples in field planning.	(1) Approximately 168 cm drive (including cutter head); field recovery estimated at 119 cm; available sediment sampling length of 101 cm.
Reactor K south inlet structures	RKC2-1SD	J18MJ6	J00425	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor K south inlet structures	RKC2-1SD	J18MJ7	SEQ041409	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Reactor K south inlet structures	RKC2-2SD	J18MJ8	K1574	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor K south inlet structures	RKC2-2SD	J18MK3	J00425	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor K south inlet structures	RKC2-3SD	J18MJ9	K1574	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor K south inlet structures	RKC2-3SD	J18MK4	J00425	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor K south inlet structures	RKC2-4SD	J18MK0	K1574	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor K south inlet structures	RKC2-4SD	J18MK5	J00425	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor K south inlet structures	RKC2-5SD	J18MK1	K1574	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor K south inlet structures	RKC2-5SD	J18MK6	J00425	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Saddle Mountain Wasteway[c]	SM-1SD to SM-3SD	NA	NA	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	Three samples will be collected on the far shore down river of 100-N and at Saddle Mountain Wasteway to evaluate potential reactor depositions as well as other contributing influences.	(1) Eliminated based on lack of usage of return channel.	

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Reactor N left side shoreline sediment	RNLS-1SSD	J18KH7	K1557	√	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√	Based on an ecological habitat survey, 10 samples will be collected on a sample grid on the far shore downriver of 100-N as a potential depositional area for 100-N Reactor releases.	(1) PHC analysis removed in 12/15 changes.)2) Only sparse pockets of sediment found to be available. Collected five samples from smaller area with the most available sediment in consultation with the Tri-Parties.	(1) Per change control item 2, only five samples were collected (two full suite, three partial suite) at locations determined based on sediment availability. (2) Samples from stations RNLS-1SSD and RNLS-3SSD were collected by gathering sediment from an approximately 10 ft by 10 ft area (separate areas for the two stations). 3) Samples from station RNLS-2SSD were collected by gathering sediment from an approximately 5 ft by 5 ft area. (4) Samples from stations RNLS-4SSD and RNLS-5SSD were collected as relatively discrete grabs comparable to other shoreline sediment samples.
Reactor N left side shoreline sediment	RNLS-1SSD	J18KJ1	J00368	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor N left side shoreline sediment	RNLS-2SSD	J18KH8	K1557	√	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor N left side shoreline sediment	RNLS-2SSD	J18KJ2	J00368	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor N left side shoreline sediment	RNLS-2SSD	J18081	J00419	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--			
Reactor N left side shoreline sediment	RNLS-3SSD	J18KJ5	K1557	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor N left side shoreline sediment	RNLS-3SSD	J18KJ8	J00368	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor N left side shoreline sediment	RNLS-4SSD	J18KJ4	K1557	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor N left side shoreline sediment	RNLS-4SSD	J18KJ7	J00368	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor N left side shoreline sediment	RNLS-5SSD	J18KJ3	K1557	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor N left side shoreline sediment	RNLS-5SSD	J18KJ6	J00368	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor N left side shoreline sediment [b]	RNLS-6SSD	NA	NA	O	O	O	O	O	O	--	O	--	--	O	O	O	O	O	O	--	O			
Reactor N left side shoreline sediment [b]	RNLS-7SSD	NA	NA	O	O	O	O	O	O	--	O	--	--	O	O	O	O	O	O	--	O			
Reactor N left side shoreline sediment [b]	RNLS-8SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Reactor N left side shoreline sediment [b]	RNLS-9SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Reactor N left side shoreline sediment [b]	RNLS-10SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Reactor N inlet structures	RNC-1SD	J18MR6	K1580	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	One core will be completed within the water intake trench/structure. Samples will be divided into six 1 ft samples (2 in. core = ~ 600 gms per 1 ft). Used to evaluate historic deposition of Hanford contaminants (e.g., sediment trap).	(1) Changed to use of 4 in. core with 8 in. subsamples in field planning. (2) Station location adjusted slightly due to restrictions around intake structure.	(1) Approximately 160 cm drive (including cutter head); field recovery estimated at 64 cm; available sediment sampling length of 49 cm. (2) Insufficient sample material available in final interval (RNC-3SD) for all planned analyses; TOC analysis not requested.
Reactor N inlet structures	RNC-1SD	J18MR7	J00431	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor N inlet structures	RNC-1SD	J18MR8	SEQ041409	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Reactor N inlet structures	RNC-2SD	J18MR9	K1580	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor N inlet structures	RNC-2SD	J18MT4	J00431	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor N inlet structures	RNC-3SD	J18MT0	K1580	--	--	√	--	--	--	--	O	--	--	√	√	√	√	√	√	--	√			
Reactor N inlet structures	RNC-3SD	J18MT5	J00431	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Reactor D downriver sediment	RDD-1SD	J17WD4	K1480	X	X	√	--	X	X	--	√	X	--	√	√	√	√	√	√	--	√	Based on sonar survey results, two samples will be collected from the shallow area downriver and adjacent to D Island; another two samples will be collected from the shallow area downriver and adjacent to Island 2; the remaining samples will be collected from the shallow area on the far (left) side of Island 3.	(1) Locations adjusted based on sediment mapping in 11/25 changes. (2) PHC analysis not identified in SAP or subsequent revisions, but requested for RDD-1SD & RDD-2SD samples. (3) SAP/revisions identified full suite analysis for 4 of 10 planned samples, but full suite analysis for 4 of 10 planned samples, but full suite analysis was requested for 6 samples. Note: Items 2 & 3 resulted from addressing all 14 RDD-series stations as one data set rather than 2 sets with separate requirements.	(1) Insufficient sample material available at RDD-4SD primary/alternate location vicinities. (All stipulated full suite samples collected.) (2) Sample for PCB congeners analysis collected at station RDD-7SD, but no sample was collected for PCB analysis (partial suite station).
Reactor D downriver sediment	RDD-1SD	J17WF4	J00244	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor D downriver sediment	RDD-1SD	J17WH4	SEQ2981	--	--	--	--	--	--	--	--	--	X	--	--	--	--	--	--	--	--			
Reactor D downriver sediment	RDD-2SD	J17WD3	K1480	X	X	√	--	X	X	--	√	X	--	√	√	√	√	√	√	--	√			
Reactor D downriver sediment	RDD-2SD	J17WF3	J00244	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor D downriver sediment	RDD-2SD	J17WH3	SEQ2981	--	--	--	--	--	--	--	--	--	X	--	--	--	--	--	--	--	--			
Reactor D downriver sediment	RDD-3SD	J17WB6	K1482	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor D downriver sediment	RDD-3SD	J17WC6	J00246	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor D downriver sediment[b]	RDD-4SD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Reactor D downriver sediment	RDD-5SD **WDOE split collected**	J17WB0	K1482	√	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor D downriver sediment	RDD-5SD **WDOE split collected**	J17WC0	J00246	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor D downriver sediment	RDD-5SD **WDOE split collected**	J17WD0	SEQ2981	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Reactor D downriver sediment	RDD-6SD	J17W98	K1482	√	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor D downriver sediment	RDD-6SD	J17WB8	J00246	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor D downriver sediment	RDD-6SD	J17WC8	SEQ2981	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Reactor D downriver sediment	RDD-7SD	J17WF1	K1482	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor D downriver sediment	RDD-7SD	J17WH1	J00248	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor D downriver sediment	RDD-7SD	J17W25	J00264	--	--	--	--	--	--	X	--	--	--	--	--	--	--	--	--	--	--			
Reactor D downriver sediment	RDD-8SD	J17WB1	K1480	√	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor D downriver sediment	RDD-8SD	J17WC1	J00244	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor D downriver sediment	RDD-8SD	J17WD1	SEQ2981	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Reactor D downriver sediment	RDD-9SD **WDOH split collected**	J17W99	K1480	√	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor D downriver sediment	RDD-9SD **WDOH split collected**	J17WB9	J00244	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Reactor D downriver sediment	RDD-9SD **WDOH split collected**	J17WC9	SEQ2981	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Reactor D downriver sediment	RDD-10SD	J17WF0	K1480	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor D downriver sediment	RDD-10SD	J17WH0	J00244	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor D downriver sediment	RDD-11SD	J17WB7	K1482	O	O	√	--	O	O	--	√	O	O	√	√	√	√	√	√	--	√	Based on sonar survey results, four samples will be collected on the far (left) shore across from Island 3 and in the shore area of WB Hole 1	(1) Analytical suites clarified in 12/15 changes to account for prior elimination of six samples in set (10:4 ratio changed to 4:2). (2) Full suite analysis was not requested for two samples as specified (Note: this resulted from addressing RDD-1SD through 14SD were instead applied to RDD-1SD and RDD-2SD).	
Reactor D downriver sediment	RDD-11SD	J17WC7	J00246	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor D downriver sediment	RDD-12SD	J17WB5	K1482	O	O	√	--	O	O	--	√	O	O	√	√	√	√	√	√	--	√			
Reactor D downriver sediment	RDD-12SD	J17WC5	J00246	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor D downriver sediment	RDD-13SD	J17WB4	K1482	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor D downriver sediment	RDD-13SD	J17WC4	J00246	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor D downriver sediment	RDD-14SD	J17WB2	K1482	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor D downriver sediment	RDD-14SD	J17WC2	J00246	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor D downriver sediment[c]	RDD-15SD to RDD-20SD	NA	NA	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	Based on sonar survey results, 10 samples will be collected on the far (left) shore across from Island 3 and in the shore area of WB Hole 1	(1) Eliminated in 11/25 changes discussed with Tri-Parties.	

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Reactor D downriver shoreline sediment [b]	RDD-1SSD	NA	NA	O	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O	Based on an ecological habitat survey, 10 samples will be collected. Two samples will be collected from the shallow area upriver and adjacent to D Island; two more samples will be collected from the shallow area on the near shore (right) downriver from D Island; two samples will be collected from the shallow area upriver and adjacent to Island 2; the remaining samples will be collected upriver and adjacent to Island 3 on the near-shore side.		(1) Insufficient sample material available in upper 10 cm at RDD-1SSD, RDD-2SSD, RD-4SSD through RD-7SSD, and RDD-9SSD primary/alternate location vicinities. (No full suite samples collected due to limited sample volume availability at stations sampled.)
Reactor D downriver shoreline sediment [b]	RDD-2SSD	NA	NA	O	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O			
Reactor D downriver shoreline sediment	RDD-3SSD	J18763	K1539	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor D downriver shoreline sediment	RDD-3SSD	J18773	J00335	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor D downriver shoreline sediment [b]	RDD-4SSD	NA	NA	O	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O			
Reactor D downriver shoreline sediment [b]	RDD-5SSD	NA	NA	O	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O			
Reactor D downriver shoreline sediment [b]	RDD-6SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Reactor D downriver shoreline sediment [b]	RDD-7SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Reactor D downriver shoreline sediment	RDD-8SSD	J18764	K1539	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor D downriver shoreline sediment	RDD-8SSD	J18774	J00335	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor D downriver shoreline sediment [b]	RDD-9SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Reactor D downriver shoreline sediment	RDD-10SSD	J18766	K1539	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor D downriver shoreline sediment	RDD-10SSD	J18776	J00335	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Island 3 soil	I3-1S	J189Y0	K1554	--	√	√	√	√	√	--	√	√	--	√	√	√	√	√	√	X	√	Surface soil samples will be randomly taken from Island 3 from a 10 cell grid. The samples will supplement previous sampling events and provide additional data for ecological and human evaluations.	(1) Metals analysis changed from unfiltered to filtered in 12/15 changes. Change not incorporated. (2) Samples collected to a maximum depth of 0.3 ft below surface (SAP specifies 0.5 ft), or as limited by field soil conditions. (3) Tritium not identified as target analyte in work plan, SAP, or subsequent revisions, but requested for all samples.	(1) Sample J18HX0 for PCB congeners analysis initially collected at I3-8S (partial suite location). Sample was not sent for analysis. (2) Insufficient sample material available at I3-4S primary/alternate location vicinities. (Three of four stipulated full stipulated full suite samples collected.) (3) Primary/alternate locations for station I3-10S found to be on sand dune; sample intentionally relocated to other island soils.
Island 3 soil	I3-2S	J189Y1	K1554	--	√	√	√	√	√	--	√	√	--	√	√	√	√	√	√	X	√			
Island 3 soil	I3-3S	J189Y7	K1554	--	--	√	√	--	--	--	√	--	--	√	√	√	√	√	√	X	√			
Island 3 soil [b]	I3-4S	NA	NA	--	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O			
Island 3 soil	I3-5S	J189Y3	K1554	--	√	√	√	√	√	--	√	√	--	√	√	√	√	√	√	X	√			
Island 3 soil	I3-6S	J189Y9	K1554	--	--	√	√	--	--	--	√	--	--	√	√	√	√	√	√	X	√			
Island 3 soil	I3-7S	J189Y5	K1554	--	--	√	√	--	--	--	√	--	--	√	√	√	√	√	√	X	√			
Island 3 soil	I3-8S	J189Y6	K1554	--	--	√	√	--	--	--	√	--	--	√	√	√	√	√	√	X	√			
Island 3 soil	I3-8S	J18HX0	None	--	--	--	--	--	--	X	--	--	--	--	--	--	--	--	--	--	--			
Island 3 soil	I3-9S	J189Y8	K1554	--	--	√	√	--	--	--	√	--	--	√	√	√	√	√	√	X	√			
Island 3 soil	I3-10S	J189Y4	K1554	--	--	√	√	--	--	--	√	--	--	√	√	√	√	√	√	X	√			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Reactor D inlet structures	RDC-1SD	J18MT9	K1580	√	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√	One core will be completed within the water intake trench/structure. Samples will be divided into six 1 ft samples (2 in. core = ~ 600 gms per 1 ft). Used to evaluate historic deposition of Hanford contaminants (e.g., sediment trap).	(1) Changed to use of 4 in. core with 8 in. subsamples in field planning.	(1) Core collected near original target station (upstream of 100-D intake). (2) Approximately 71 cm drive (including cutter head); field recovery estimated at 36 cm; available sediment sampling length of 23 cm.
Reactor D inlet structures	RDC-1SD	J18MV0	J00431	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor D inlet structures	RDC-1SD	J18MV1	SEQ041409	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Locke Island sediments	LI-1SD	J17WH9	K1482	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Based on sonar survey results, four samples will be collected from the shallow area upriver and adjacent to Locke Island and across from area 100-H ; the remaining six samples will be collected from the shallow area on the far (left) side of the river. Three samples will be on the far (left) side of the river across from the downriver half of Locke Island with the remaining three continuing downriver of Locke Island along the same side.		
Locke Island sediments	LI-1SD	J17WJ9	J00246	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Locke Island sediments	LI-1SD	J17WK9	SEQ2981	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Locke Island sediments	LI-1SD	J17W26	J00264	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--			
Locke Island sediments	LI-2SD **EPA split collected**	J17WJ3	K1482	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Locke Island sediments	LI-2SD **EPA split collected**	J17WK3	J00246	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Locke Island sediments	LI-3SD	J17WH6	K1482	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Locke Island sediments	LI-3SD	J17WJ6	J00246	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Locke Island sediments	LI-3SD	J17WK6	SEQ2981	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Locke Island sediments	LI-4SD	J17WH8	K1482	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Locke Island sediments	LI-4SD	J17WJ8	J00248	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Locke Island sediments	LI-4SD	J17WK8	SEQ2981	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Locke Island sediments	LI-5SD	J17WH7	K1482	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Locke Island sediments	LI-5SD	J17WJ7	J00248	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Locke Island sediments	LI-5SD	J17WK7	SEQ2981	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Locke Island sediments	LI-6SD	J17WJ2	K1482	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Locke Island sediments	LI-6SD	J17WK2	J00248	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Locke Island sediments	LI-7SD	J17WJ0	K1482	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Locke Island sediments	LI-7SD	J17WK0	J00248	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Locke Island sediments	LI-8SD	J17WJ5	K1482	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Locke Island sediments	LI-8SD	J17WK5	J00248	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Locke Island sediments	LI-9SD	J17WJ1	K1484	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Locke Island sediments	LI-9SD	J17WK1	J00249	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Locke Island sediments	LI-10SD	J17WJ4	K1484	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Locke Island sediments	LI-10SD	J17WK4	J00249	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Locke Island sediment west side[c]	LI-11SD			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	One shallow sediment sample was added on the west side of Locke Island.	(1) Eliminated in 11/25 changes presented to Tri-parites (presented as a shoreline, rather than shallow, sample). (11/25 change file does not explicitly identify this as a change.)	

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Locke Island sediment west side	LI-11SSD	J18779	K1540	--	--	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Sediment sample was added on the west side of Locke Island.	(1) Added (changed from shallow sediment) in 11/25 changes presented to Tri-Parties. (11/25 change file does not explicitly identify this as a change.) (2) Corrected to grab sample (from ponar) in 12/15 changes.	
Locke Island sediment west side	LI-11SSD	J18781	J00338	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Locke Island sediment west side	LI-11SSD	J18782	SEQ022709	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Native American cultural site (White Bluffs east side of river)[c]	WBT-1SD to WBT-10SD			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	Based on sonar survey results, 10 samples will be collected from a shallow area on the far (left) shore across from White Bluffs townsite and at the WB-10 Wasteway.	(1) Eliminated in 11/25 changes discussed with Tri-Parties.	
Native American cultural site (White Bluffs east side of river)	WBT-1SSD	J18796	K1540	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Added due to lack of shallow sediments.	(1) Added in 11/25 changes discussed with Tri-Parties. (2) Analyses clarified in 12/4 changes (consistent with previously planned shallow sediment samples).	(1) Insufficient sediment sample material available at WBT-4SSD, WBT-7SSD, and WBT-9SSD primary/alternate location vicinities. (All stipulated full suite samples collected.)
Native American cultural site (White Bluffs east side of river)	WBT-1SSD	J187B6	J00337	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Native American cultural site (White Bluffs east side of river)	WBT-1SSD	J187D0	SEQ022709	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Native American cultural site (White Bluffs east side of river)	WBT-2SSD	J18797	K1540	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Native American cultural site (White Bluffs east side of river)	WBT-2SSD	J187B7	J00337	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Native American cultural site (White Bluffs east side of river)	WBT-2SSD	J187D1	SEQ022709	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Native American cultural site (White Bluffs east side of river)	WBT-3SSD	J18798	K1540	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Native American cultural site (White Bluffs east side of river)	WBT-3SSD	J187B8	J00337	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Native American cultural site (White Bluffs east side of river)	WBT-4SSD	J18799	K1540	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																				
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U	Rationale	Change Control	Other Notes/Comments
Native American cultural site (White Bluffs east side of river)	WBT-4SSD	J187B9	J00337	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Native American cultural site (White Bluffs east side of river)[b]	WBT-5SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Native American cultural site (White Bluffs east side of river)	WBT-6SSD	J18794	K1540	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Native American cultural site (White Bluffs east side of river)	WBT-6SSD	J187B4	J187B4	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Native American cultural site (White Bluffs east side of river)	WBT-6SSD	J187C8	SEQ022709	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Native American cultural site (White Bluffs east side of river)	WBT-6SSD	J18689	J00364	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--			
Native American cultural site (White Bluffs east side of river)[b]	WBT-7SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Native American cultural site (White Bluffs east side of river)	WBT-8SSD	J187B0	K1540	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Native American cultural site (White Bluffs east side of river)	WBT-8SSD	J187C0	J00337	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Native American cultural site (White Bluffs east side of river)[b]	WBT-9SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Native American cultural site (White Bluffs east side of river)	WBT-10SSD **Duplicate collected**	J18795	K1540	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Native American cultural site (White Bluffs east side of river)	WBT-10SSD **Duplicate collected**	J187B5	J00337	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Native American cultural site (White Bluffs east side of river)	WBT-10SSD **Duplicate collected**	J187C9	SEQ022709	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
WB-10 Wasteway	WBT-11SD	J17X01	K1484	√	√	√	--	√	√	--	√	--	--	--	--	--	--	--	--	--	--	Three samples will be collected from the shallow sediments downriver of the WB-10 Wasteway to evaluate other contributing influences.		
WB-10 Wasteway	WBT-11SD	J17X04	J00249	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
WB-10 Wasteway	WBT-12SD	J17X02	K1484	√	√	√	--	√	√	--	√	--	--	--	--	--	--	--	--	--	--			
WB-10 Wasteway	WBT-12SD	J17X05	J00249	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
WB-10 Wasteway	WBT-13SD	J17X03	K1540	√	√	√	--	√	√	--	√	--	--	--	--	--	--	--	--	--	--			
WB-10 Wasteway	WBT-13SD	J17X06	J00337	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Reactor H Island shoreline sediment	RH-1SSD **Duplicate collected**	J187D3	K1539	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Based on an ecological habitat survey, 10 samples will be collected. Five samples will be collected from the shallow area upriver and adjacent to Island 5; another five samples will be collected from the shallow area on the downriver portion of Island 5	(1) Locations adjusted based on sediment mapping in 11/25 changes.	
Reactor H Island shoreline sediment	RH-1SSD **Duplicate collected**	J187F3	J00335	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor H Island shoreline sediment	RH-2SSD	J187F0	K1540	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor H Island shoreline sediment	RH-2SSD	J187H0	J00337	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor H Island shoreline sediment	RH-3SSD	J187D8	K1540	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor H Island shoreline sediment	RH-3SSD	J187F8	J00337	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor H Island shoreline sediment	RH-4SSD	J187D4	K1540	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Reactor H Island shoreline sediment	RH-4SSD	J187F4	J00337	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor H Island shoreline sediment	RH-4SSD	J18693	J00364	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--			
Reactor H Island shoreline sediment	RH-5SSD	J187D6	K1540	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor H Island shoreline sediment	RH-5SSD	J187F6	J00338	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor H Island shoreline sediment	RH-6SSD	J187D9	K1540	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor H Island shoreline sediment	RH-6SSD	J187F9	J00338	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor H Island shoreline sediment	RH-7SSD	J187D7	K1540	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor H Island shoreline sediment	RH-7SSD	J187F7	J00338	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor H Island shoreline sediment	RH-8SSD	J187D2	K1540	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Reactor H Island shoreline sediment	RH-8SSD	J187F2	J00337	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor H Island shoreline sediment	RH-9SSD	J187D5	K1540	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Reactor H Island shoreline sediment	RH-9SSD	J187F5	J00337	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor H Island shoreline sediment	RH-10SSD	J187F1	K1540	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor H Island shoreline sediment	RH-10SSD	J187H1	J00337	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Locke Island soil	LI-1S	J18B03	K1554	--	√	√	√	√	√	--	√	√	--	√	√	√	√	√	√	X	√	Ten surface soil samples will be randomly taken from Locke Island using a 10 cell grid to minimize cultural impacts. The samples will supplement previous sampling events and provide additional data for ecological and human evaluations.	(1) Sample depth interval corrected to 0.5 ft in 12/15 changes. (2) Samples collected to a depth of 0.3 ft below surface. (3) Tritium not identified as target analyte in work plan, SAP, or subsequent revisions, but requested for all samples.	(1) Sample for station LI-8S collected at altered location specified by cultural resources monitors.
Locke Island soil	LI-2S	J18B09	K1554	--	--	√	√	--	--	--	√	--	--	√	√	√	√	√	√	X	√			
Locke Island soil	LI-3S **Duplicate collected**	J18B00	K1554	--	√	√	√	√	√	--	√	√	--	√	√	√	√	√	√	X	√			
Locke Island soil	LI-4S	J18B08	K1554	--	--	√	√	--	--	--	√	--	--	√	√	√	√	√	√	X	√			
Locke Island soil	LI-5S	J18B07	K1554	--	--	√	√	--	--	--	√	--	--	√	√	√	√	√	√	X	√			
Locke Island soil	LI-6S	J18B02	K1554	--	√	√	√	√	√	--	√	√	--	√	√	√	√	√	√	X	√			
Locke Island soil	LI-7S	J18B04	K1554	--	--	√	√	--	--	--	√	--	--	√	√	√	√	√	√	X	√			
Locke Island soil	LI-8S	J18B01	K1554	--	√	√	√	√	√	--	√	√	--	√	√	√	√	√	√	X	√			
Locke Island soil	LI-8S	J18HW9	K1554	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--			
Locke Island soil	LI-9S	J18B05	K1554	--	--	√	√	--	--	--	√	--	--	√	√	√	√	√	√	X	√			
Locke Island soil	LI-10S	J18B06	K1554	--	--	√	√	--	--	--	√	--	--	√	√	√	√	√	√	X	√			
Bottom of H-Slough shallow sediment[b]	HT-1SD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O	New area of shallow sediment not previously identified.	(1) Samples added in 11/25 changes discussed with Tri-Parties. (2) Analyses added in 12/15 changes. (3) AVS/SEM analysis not identified in SAP or subsequent revisions, but requested for full suite samples (HT-4SD, HT-6SD, HT-9SD, and HT-10SD). Analytical request cancelled for J17YC4 (collected at HT-9SD). Note: Item 3 resulted from clarifying analyses for these added samples after the samples were collected.	(1) Insufficient sample material available at HT-1SD, HT-3SD, HT-5SD, and HT-5SD primary/alternate location vicinities. (All stipulated full suite samples collected.)
Bottom of H-Slough shallow sediment	HT-2SD	J17YB4	K1484	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Bottom of H-Slough shallow sediment	HT-2SD	J17YD4	J00249	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Bottom of H-Slough shallow sediment[b]	HT-3SD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Bottom of H-Slough shallow sediment	HT-4SD	J17Y97	K1484	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Bottom of H-Slough shallow sediment	HT-4SD	J17YC7	J00249	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Bottom of H-Slough shallow sediment	HT-4SD	J17YC3	SEQ2981	--	--	--	--	--	--	--	--	--	X	--	--	--	--	--	--	--	--			
Bottom of H-Slough shallow sediment[b]	HT-5SD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Bottom of H-Slough shallow sediment	HT-6SD **WDOE split collected**	J17Y96	K1484	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Bottom of H-Slough shallow sediment	HT-6SD **WDOE split collected**	J17YC6	J00249	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Bottom of H-Slough shallow sediment	HT-6SD **WDOE split collected**	J17YC2	SEQ2981	--	--	--	--	--	--	--	--	--	X	--	--	--	--	--	--	--	--			
Bottom of H-Slough shallow sediment[b]	HT-7SD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Bottom of H-Slough shallow sediment	HT-8SD	J17YB5	K1484	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Bottom of H-Slough shallow sediment	HT-8SD	J17YD5	J00250	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Bottom of H-Slough shallow sediment	HT-9SD	J17Y98	K1484	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Bottom of H-Slough shallow sediment	HT-9SD	J17YC8	J00250	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Bottom of H-Slough shallow sediment	HT-9SD	J17YC4	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Bottom of H-Slough shallow sediment	HT-10SD	J17Y99	K1484	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Bottom of H-Slough shallow sediment	HT-10SD	J17YC9	J00250	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Bottom of H-Slough shallow sediment	HT-10SD	J17YC5	SEQ2981	--	--	--	--	--	--	--	--	--	X	--	--	--	--	--	--	--	--			
Hanford townsite left side sediments[c]	HT-1SD			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	Based on sonar survey results, one sample will be collected from the shallow area on the far (left) side and downriver of Island 10.	(1) Eliminated in 11/25 changes discussed with Tri-Parties (based on sediment surveys).	
Reactor F Left Side Sediments	RFLS-1SD	J17X12	K1484	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Based on sonar survey results, five samples will be collected from the shallow area on the far (left) side of the river and downriver of Island 8 extending downriver with the last sample across from Island 9.		
Reactor F Left Side Sediments	RFLS-1SD	J17X17	J00250	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor F Left Side Sediments	RFLS-1SD	J17X24	SEQ2981	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Reactor F Left Side Sediments	RFLS-2SD	J17X16	K1484	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor F Left Side Sediments	RFLS-2SD	J17X21	J00250	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor F Left Side Sediments	RFLS-3SD **Duplicate collected**	J17X13	K1484	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Reactor F Left Side Sediments	RFLS-3SD **Duplicate collected**	J17X18	J00250	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor F Left Side Sediments	RFLS-3SD **Duplicate collected**	J17X25	SEQ2981	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Reactor F Left Side Sediments	RFLS-4SD	J17X15	K1484	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor F Left Side Sediments	RFLS-4SD	J17X20	J00250	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor F Left Side Sediments	RFLS-5SD	J17X14	K1484	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor F Left Side Sediments	RFLS-5SD	J17X19	J00250	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
White Bluffs downriver sediments[c]	WBD-1SD to WBD-10SD			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	Based on sonar survey results, 10 samples will be collected from the shallow area adjacent to Area 100-F.	(1) Eliminated in 11/25 changes discussed with Tri-Parties (based on sediment surveys).	

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																				
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U	Rationale	Change Control	Other Notes/Comments
White Bluffs island soil	WB-1S	J18B19	K1554	--	--	√	√	--	--	--	√	--	--	√	√	√	√	√	√	X	√	Ten surface soil samples will be randomly taken from the island across from White Bluffs townsite using a 10 cell grid to minimize cultural impacts. The samples will supplement previous sampling events and provide additional data for ecological and human evaluations.	(1) Location description added in 12/15 changes. (2) Sample depth interval corrected in 12/15 changes. (3) Samples collected to a maximum depth of 0.3 ft below surface (SAP specifies 0.5 ft). (4) Tritium not identified as target analyte in work plan, SAP, or subsequent revisions, but requested for all samples.	
White Bluffs island soil	WB-2S	J18B18	K1554	--	--	√	√	--	--	--	√	--	--	√	√	√	√	√	√	X	√			
White Bluffs island soil	WB-3S	J18B17	K1554	--	--	√	√	--	--	--	√	--	--	√	√	√	√	√	√	X	√			
White Bluffs island soil	WB-4S	J18B16	K1554	--	--	√	√	--	--	--	√	--	--	√	√	√	√	√	√	X	√			
White Bluffs island soil	WB-5S	J18B15	K1554	--	--	√	√	--	--	--	√	--	--	√	√	√	√	√	√	X	√			
White Bluffs island soil	WB-6S	J18B10	K1556	--	√	√	√	√	√	--	√	√	--	√	√	√	√	√	√	X	√			
White Bluffs island soil	WB-6S	J18HW7	J00419	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--			
White Bluffs island soil	WB-7S	J18B12	K1556	--	√	√	√	√	√	--	√	√	--	√	√	√	√	√	√	X	√			
White Bluffs island soil	WB-8S **Duplicate collected**	J18B11	K1556	--	√	√	√	√	√	--	√	√	--	√	√	√	√	√	√	X	√			
White Bluffs island soil	WB-9S	J18B13	K1556	--	√	√	√	√	√	--	√	√	--	√	√	√	√	√	√	X	√			
White Bluffs island soil	WB-10S	J18B14	K1556	--	--	√	√	--	--	--	√	--	--	√	√	√	√	√	√	X	√			
Reactor F downriver sediments [b]	RFD-1SD	NA	NA	O	O	O	O	O	O	--	O	O	O	O	O	O	O	O	O	--	O	Based on sonar survey results, samples will be collected from the shallow area between the upriver end of Island 8 and the near (right) shore.	(1) Rationale adjusted in 11/25 changes to allow for eliminating RFD-3SD to 10SD. (2) Analytical suites clarified in 12/15 changes to account for prior elimination of eight samples in set (10:4 ratio changed to 2:1, VOA & SVOA increased to full suite).	(1) Insufficient sample material available at RFD-1SD and RFD-2SD primary/alternate locations.
Reactor F downriver sediments [b]	RFD-2SD	NA	NA	O	O	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Reactor F downriver sediments [c]	RFD-3SD to RFD-10SD	NA	NA	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	Eliminated based on sediment surveys	(1) Eliminated in 11/25 changes discussed with Tri-Parties.	
Hanford Townsite shoreline sediments	HT-1SSD	J187Y2	K1540	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Based on an ecological habitat survey, two samples will be collected from the riparian area upriver and adjacent to Island 10.		
Hanford Townsite shoreline sediments	HT-1SSD	J18800	J00338	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Hanford Townsite shoreline sediments	HT-1SSD	J18698	J00364	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--			
Hanford Townsite shoreline sediments	HT-2SSD	J187Y5	K1540	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Hanford Townsite shoreline sediments	HT-2SSD	J18803	J00338	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Reactor F downriver shoreline sediments	RFD-1SSD	J187P9	K1542	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√	Based on an ecological habitat survey, 10 samples will be collected from riparian areas; 3 just upriver of Island 8; 1 sample between the upriver portion of Island 8 and the near (right) shore; 2 downriver and adjacent to Island 8; 2 upriver of Island 9 and 2 adjacent to Island 9 on its near (right) shore side.		(1) Insufficient sample material available at RFD-8SSD primary/alternate location vicinities. (All stipulated full suite samples collected.)
Reactor F downriver shoreline sediments	RFD-1SSD	J187R9	J00340	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor F downriver shoreline sediments	RFD-2SSD	J187P7	K1542	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Reactor F downriver shoreline sediments	RFD-2SSD	J187R7	J00340	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor F downriver shoreline sediments	RFD-3SSD	J187R0	K1542	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor F downriver shoreline sediments	RFD-3SSD	J187T0	J00340	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor F downriver shoreline sediments	RFD-4SSD	J187P6	K1542	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Reactor F downriver shoreline sediments	RFD-4SSD	J187R6	J00340	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor F downriver shoreline sediments	RFD-5SSD	J187R1	K1542	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor F downriver shoreline sediments	RFD-5SSD	J187T1	J00340	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor F downriver shoreline sediments	RFD-6SSD	J187P5	K1542	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Reactor F downriver shoreline sediments	RFD-6SSD	J187R5	J00340	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor F downriver shoreline sediments	RFD-7SSD	J187R2	K1542	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor F downriver shoreline sediments	RFD-7SSD	J187T2	J00340	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor F downriver shoreline sediments [b]	RFD-8SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Reactor F downriver shoreline sediments	RFD-9SSD	J187R3	K1542	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor F downriver shoreline sediments	RFD-9SSD	J187T3	J00340	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor F downriver shoreline sediments	RFD-10SSD **EPA split collected**	J187P8	K1542	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Reactor F downriver shoreline sediments	RFD-10SSD **EPA split collected**	J187R8	J00340	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Reactor F Left Side shoreline sediments	RFLS-1SSD	J187K7	K1540	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Based on an ecological habitat survey, five samples will be collected from the riparian area just downriver of Area 100-F and on the far (left) shore.	(1) Designation changed from "Reactor Area" to "HT" in 11/25 changes. (2) Location description changed in 12/4 changes to "Reactor F." Change not incorporated. (3) AVS/SEM analysis added for full suite in 12/4 changes.	
Reactor F Left Side shoreline sediments	RFLS-1SSD	J187L2	J00338	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor F Left Side shoreline sediments	RFLS-1SSD	J187L9	SEQ022709	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Reactor F Left Side shoreline sediments	RFLS-1SSD	J18699	J00367	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--			
Reactor F Left Side shoreline sediments	RFLS-2SSD	J187K6	K1540	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Reactor F Left Side shoreline sediments	RFLS-2SSD	J187L1	J00338	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor F Left Side shoreline sediments	RFLS-2SSD	J187L8	SEQ022709	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Reactor F Left Side shoreline sediments	RFLS-3SSD	J187L0	K1540	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor F Left Side shoreline sediments	RFLS-3SSD	J187L5	J00338	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor F Left Side shoreline sediments	RFLS-4SSD	J187K9	K1540	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor F Left Side shoreline sediments	RFLS-4SSD	J187L4	J00338	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Reactor F Left Side shoreline sediments	RFLS-5SSD	J187K8	K1540	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Reactor F Left Side shoreline sediments	RFLS-5SSD	J187L3	J00338	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Island 9[b]	IS9-1SSD	NA	NA	O	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O	Added based on sediment surveys.	(1) Added in 11/25 changes discussed with Tri-Parties. (2) Analyses added in 12/4 changes.	(1) Insufficient sample material available at IS9-1SSD, IS9-2SSD, and IS9-4SSD primary/alternate location vicinities. (No full suite samples collected due to limited material availability.)
Island 9[b]	IS9-2SSD	NA	NA	O	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O			
Island 9	IS9-3SSD	J187W8	K1542	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Island 9	IS9-3SSD	J187X2	J00340	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Island 9[b]	IS9-4SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Reactor F downriver shoreline sediments[b]	IS10-1SSD	NA	NA	O	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O	Added based on sediment surveys.	(1) Added in 11/25 changes discussed with Tri-Parties. (2) Analyses added in 12/4 changes.	(1) Only gravel/cobble identified throughout Island 10 area; insufficient sample material at all planned primary/alternate location vicinities.
Reactor F downriver shoreline sediments[b]	IS10-2SSD	NA	NA	O	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O			
Reactor F downriver shoreline sediments[b]	IS10-3SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Hanford Townsite shoreline sediments	HT-3SSD	J187Y7	K1542	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√	Based on sonar survey results, eight samples will be collected.		
Hanford Townsite shoreline sediments	HT-3SSD	J18805	J00340	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Hanford Townsite shoreline sediments	HT-4SSD	J187Y6	K1542	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Hanford Townsite shoreline sediments	HT-4SSD	J18804	J00340	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Hanford Townsite shoreline sediments	HT-5SSD	J187P1	K1542	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Hanford Townsite shoreline sediments	HT-5SSD	J187P3	J00340	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Hanford Townsite shoreline sediments	HT-6SSD	J187P2	K1542	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Hanford Townsite shoreline sediments	HT-6SSD	J187P4	J00340	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Hanford Townsite shoreline sediments	HT-7SSD **Duplicate collected**	J187Y1	K1542	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Hanford Townsite shoreline sediments	HT-7SSD **Duplicate collected**	J187Y9	J00340	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Hanford Townsite shoreline sediments	HT-8SSD	J187Y4	K1542	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Hanford Townsite shoreline sediments	HT-8SSD	J18802	J00340	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Hanford Townsite shoreline sediments	HT-9SSD	J187Y8	K1542	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Hanford Townsite shoreline sediments	HT-9SSD	J18806	J00340	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Hanford Townsite shoreline sediments	HT-10SSD	J187Y3	K1542	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Hanford Townsite shoreline sediments	HT-10SSD	J18801	J00340	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Hanford Townsite shoreline sediments	HT-10SSD	J18695	J00364	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Hanford townsite left side sediments	HT-11SD	J17XJ1	K1486	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Based on sonar survey results, four samples will be collected from the shallow area; one sample from the near shore in front of the Hanford townsite; one sample from the near (right) shore just downriver from river mile 384; two samples from the far (left) shore around river mile 384.	(1) Station ID label series changed from HT-2SD - 5SD to HT-11SD - 14SD with 11/25 changes. (2) Locations adjusted based on sediment surveys (discussed with Tri-Parties in 11/25 changes). (3) Sample design type changed in 12/4 changes.	(1) Rusted metal debris observed near HT-12SD.
Hanford townsite left side sediments	HT-11SD	J17XJ5	J00251	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Hanford townsite left side sediments	HT-11SD	J17XK0	SEQ2981	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Hanford townsite left side sediments	HT-11SD	J17W24	J00264	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--			
Hanford townsite left side sediments	HT-12SD	J17XJ3	K1486	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Hanford townsite left side sediments	HT-12SD	J17XJ7	J00251	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Hanford townsite left side sediments	HT-13SD	J17XJ2	K1486	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Hanford townsite left side sediments	HT-13SD	J17XJ6	J00251	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Hanford townsite left side sediments	HT-14SD	J17XJ4	K1486	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Hanford townsite left side sediments	HT-14SD	J17XJ8	J00251	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Island 11 shoreline sediment[b]	IS11-1SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O	Based on an ecological habitat survey, 10 samples will be collected from the riparian area; samples are from the upriver end of Island 11 just downriver from the WB-5 Wasteway.		(1) Insufficient sample material available at IS11-1SSD, IS11-2SSD, IS11-7SSD, IS11-8SSD, IS11-9SSD, and IS11-10SSD primary/alternate location vicinities. (All stipulated full suite samples collected.)
Island 11 shoreline sediment[b]	IS11-2SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Island 11 shoreline sediment	IS11-3SSD	J18810	K1542	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Island 11 shoreline sediment	IS11-3SSD	J18820	J00343	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Island 11 shoreline sediment	IS11-4SSD	J18809	K1542	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Island 11 shoreline sediment	IS11-4SSD	J18819	J00342	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Island 11 shoreline sediment	IS11-5SSD	J18808	K1542	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Island 11 shoreline sediment	IS11-5SSD	J18818	J00342	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Island 11 shoreline sediment	IS11-6SSD	J18807	K1542	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Island 11 shoreline sediment	IS11-6SSD	J18817	J00342	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Island 11 shoreline sediment	IS11-6SSD	J18696	J00364	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--			
Island 11 shoreline sediment[b]	IS11-7SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Island 11 shoreline sediment[b]	IS11-8SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Island 11 shoreline sediment[b]	IS11-9SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Island 11 shoreline sediment[b]	IS11-10SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Savage Island shoreline sediment	SI-1SSD	J18828	K1542	X	X	√	--	X	X	--	√	X	--	√	√	√	√	√	√	--	√	Samples will be collected from the riparian area on the left shore at Savage Island	(1) SAP designates only one of the three locations for full suite analysis, but two samples listed as full suite in SDT. Potentially an SDT error.	
Savage Island shoreline sediment	SI-1SSD	J18831	J00343	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Savage Island shoreline sediment	SI-2SSD	J18829	K1542	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Savage Island shoreline sediment	SI-2SSD	J18832	J00343	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Savage Island shoreline sediment	SI-3SSD	J18827	K1542	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Savage Island shoreline sediment	SI-3SSD	J18830	J00343	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Depositional area top of Savage Island	SI-1SD	J17XK5	K1486	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Based on sonar survey results, five samples will be collected from the shallow area on the far (left) shore just upriver from river mile 359.	(1) Locations adjusted based on sediment mapping (discussed with Tri-Parties in 11/25 changes).	
Depositional area top of Savage Island	SI-1SD	J17XL2	J00251	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Depositional area top of Savage Island	SI-1SD	J17XL8	SEQ2981	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Depositional area top of Savage Island	SI-2SD	J17XK9	K1486	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Depositional area top of Savage Island	SI-2SD	J17XL6	J00251	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Depositional area top of Savage Island	SI-3SD	J17XK6	K1489	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Depositional area top of Savage Island	SI-3SD	J17XL3	J00252	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Depositional area top of Savage Island	SI-4SD	J17XK7	K1489	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Depositional area top of Savage Island	SI-4SD	J17XL4	J00252	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Depositional area top of Savage Island	SI-5SD	J17XK8	K1489	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Depositional area top of Savage Island	SI-5SD	J17XL5	J00252	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Savage Island	SI-6SD	J17XM4	K1558	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√	Five shallow sediment samples have been added behind Savage Island.	(1) Designation typo corrected in 12/4 changes.	
Savage Island	SI-6SD	J17XM9	J00371	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Savage Island	SI-7SD	J17XM5	K1558	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Savage Island	SI-7SD	J17XN0	J00371	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Savage Island	SI-8SD	J17XM1	K1558	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Savage Island	SI-8SD	J17XM6	J00371	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Savage Island	SI-8SD	J17XN2	SEQ041409	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Savage Island	SI-9SD	J17XM3	K1558	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Savage Island	SI-9SD	J17XM8	J00371	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Savage Island	SI-10SD	J17XM2	K1558	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Savage Island	SI-10SD	J17XM7	J00371	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																				
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U	Rationale	Change Control	Other Notes/Comments
Right side across from head of Savage Island	SI-11SD	J17YF2	K1486	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Two shallow sediment samples have been added across from head of Savage Island.	(1) Added in 11/25 changes discussed with Tri-Parties. (2) Analyses added in 12/4 changes.	
Right side across from head of Savage Island	SI-11SD	J17YF5	J00251	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Right side across from head of Savage Island	SI-11SD	J17YF6	SEQ2981	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Right side across from head of Savage Island	SI-11SD	J17W27	J00264	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--			
Right side across from head of Savage Island	SI-12SD	J17YF3	K1486	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Right side across from head of Savage Island	SI-12SD	J17YF7	J00251	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
WB-5 Wasteway	WBW-1SD	J17XP1	K1542	√	√	√	--	√	√	--	√	--	--	--	--	--	--	--	--	--	--	Three samples will be collected from the shallow area on the far (left) shore just upriver from river mile 356 in the WB-5 Wasteway to evaluate other contributing influences.		
WB-5 Wasteway	WBW-1SD	J17XP4	J00342	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
WB-5 Wasteway	WBW-2SD	J17XP2	K1542	√	√	√	--	√	√	--	√	--	--	--	--	--	--	--	--	--	--			
WB-5 Wasteway	WBW-2SD	J17XP5	J00342	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
WB-5 Wasteway	WBW-3SD	J17XP3	K1542	√	√	√	--	√	√	--	√	--	--	--	--	--	--	--	--	--	--			
WB-5 Wasteway	WBW-3SD	J17XP6	J00342	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Ringold recreational	RG-1SSD	J18846	K1542	O	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Ten new samples will be collected from shoreline sediment in the Ringold Recreational Area.	(1) Changed from soil to shoreline sediment (with corresponding station label and rationale changes) in 11/25 changes (presented as new samples without explicitly identifying "eliminated" soil samples). (2) L. Hulstrom requested addition of VOA on full suite samples with 1st change to be consistent with other shoreline sediment samples. Addition was not captured in sampling paperwork	(1) Insufficient sample material available at RG-6SSD primary/alternate location vicinities. (Three of four stipulated full suite samples collected.)
Ringold recreational	RG-1SSD	J18856	J00342	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Ringold recreational	RG-2SSD	J18845	K1542	O	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Ringold recreational	RG-2SSD	J18855	J00342	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Ringold recreational	RG-2SSD	J186B0	J00364	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--			
Ringold recreational	RG-3SSD	J18847	K1542	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Ringold recreational	RG-3SSD	J18857	J00342	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Ringold recreational	RG-4SSD	J18848	K1542	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Ringold recreational	RG-4SSD	J18858	J00342	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Ringold recreational	RG-5SSD	J18849	K1542	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Ringold recreational	RG-5SSD	J18859	J00342	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Ringold recreational [b]	RG-6SSD	NA	NA	O	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O			
Ringold recreational	RG-7SSD	J18844	K1542	O	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Ringold recreational	RG-7SSD	J18854	J00342	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Ringold recreational	RG-8SSD	J18850	K1542	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Ringold recreational	RG-8SSD	J18860	J00342	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Ringold recreational	RG-9SSD	J18851	K1542	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Ringold recreational	RG-9SSD	J18861	J00342	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Ringold recreational	RG-10SSD	J18852	K1542	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Ringold recreational	RG-10SSD	J18862	J00342	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Island 12 shoreline sediment [b]	IS12-1SSD	NA	NA	O	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O	Based on an ecological habitat survey, 10 samples will be collected from the riparian area. Samples taken include five samples on the upriver end of Island 12 and five samples near the middle and on the near (right) shore side of Island 12.		(1) Insufficient sample material available at IS12-1SSD, IS12 3SSD, and IS12-5SSD through IS12-9SSD primary/alternate location vicinities. (Two of four stipulated full suite samples collected.)
Island 12 shoreline sediment	IS12-2SSD **Duplicate collected**	J18864	K1542	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Island 12 shoreline sediment	IS12-2SSD **Duplicate collected**	J18874	J00342	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Island 12 shoreline sediment [b]	IS12-3SSD	NA	NA	O	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O			
Island 12 shoreline sediment	IS12-4SSD	J18865	K1542	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Island 12 shoreline sediment	IS12-4SSD	J18875	J00342	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Island 12 shoreline sediment [b]	IS12-5SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Island 12 shoreline sediment [b]	IS12-6SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Island 12 shoreline sediment [b]	IS12-7SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Island 12 shoreline sediment [b]	IS12-8SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Island 12 shoreline sediment [b]	IS12-9SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Island 12 shoreline sediment	IS12-10SSD	J18867	K1542	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Island 12 shoreline sediment	IS12-10SSD	J18877	J00343	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Homestead Island	HMSTD-1SSD	J17YT7	K1543	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√	Based on an ecological habitat survey, 10 samples will be collected from the riparian area. Samples taken include five samples near the upriver end of Homestead Island and five samples near the downriver end of Homestead Island.	(1) HMSTD-4SSD and 5SSD relocated in 11/25 changes discussed with Tri-Parties; differentiated into different set in 12/4 changes (no change on count for partial suite analyses in remaining eight samples).	
Homestead Island	HMSTD-1SSD	J17YV2	J00349	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Homestead Island	HMSTD-2SSD	J18884	K1543	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Homestead Island	HMSTD-2SSD	J18892	J00348	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Homestead Island	HMSTD-3SSD	J18889	K1543	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Homestead Island	HMSTD-3SSD	J18897	J00349	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Homestead Island	HMSTD-6SSD	J188B3	K1543	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Homestead Island	HMSTD-6SSD	J188B5	J00348	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Homestead Island	HMSTD-7SSD	J18885	K1543	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Homestead Island	HMSTD-7SSD	J18893	J00348	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Homestead Island	HMSTD-8SSD	J18887	K1543	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Homestead Island	HMSTD-8SSD	J18895	J00348	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Homestead Island	HMSTD-9SSD	J18886	K1543	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Homestead Island	HMSTD-9SSD	J18894	J00349	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Homestead Island	HMSTD-10SSD	J18890	K1543	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Homestead Island	HMSTD-10SSD	J18898	J00349	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Homestead Island	HMSTD-4SSD	J188B2	K1543	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Relocate two shoreline sediment samples to left shore	(1) HMSTD-4SSD and HMSTD-5SSD considered as separate set from other HMSTD-SSD samples (11/25 changes). (2) Additional full suite sample added for this set in 12/4 changes (after separation from other HMSTD-SSD samples). (3) AVS/SEM analysis added in 12/4 changes.	
Homestead Island	HMSTD-4SSD	J188B4	J00349	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Homestead Island	HMSTD-4SSD	J188B7	SEQ022709	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Homestead Island	HMSTD-5SSD	J18888	K1543	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Homestead Island	HMSTD-5SSD	J18896	J00348	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Island 11 sediment[c]	IS11-1SD to IS11-5SD	NA	NA	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	Based on sonar survey results, five samples will be collected from the shallow area from the downriver end of Island 11 across from Ringold Springs.	(1) Eliminated in 11/25 changes discussed with Tri-Parties (11/25 file references Figure 2-11).	

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Homestead Island	HMSTD-1SD	J17YT5	K1489	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Based on sonar survey results, five samples will be collected from the shallow area between the near (right) shore and Homestead Island.		(1) Samples collected for HMSTD-3SD, HMSTD-4SD, and HMSTD-5SD were intentionally relocated to adjacent shoreline (at extreme low water stage) areas due to limited available sample material. (2) Pesticide analyses for HMSTD-1SD & HMSTD-2SD exceeded 2 times the holding time requirement at the laboratory; expect that some data will be rejected. Replacement samples (for pesticides only) planned for spring campaign.
Homestead Island	HMSTD-1SD	J17YV0	J00252	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Homestead Island	HMSTD-1SD	J17YV7	SEQ2981	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Homestead Island	HMSTD-1SD	J18X05	K1663	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	Return visit to collect pesticides (8081)		
Homestead Island	HMSTD-2SD **WDOE split collected**	J17YT4	K1489	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Based on sonar survey results, five samples will be collected from the shallow area between the near (right) shore and Homestead Island.		
Homestead Island	HMSTD-2SD **WDOE split collected**	J17YT9	J00253	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Homestead Island	HMSTD-2SD **WDOE split collected**	J17YV6	SEQ2981	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Homestead Island	HMSTD-2SD	J18X06	K1663	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	Return visit to collect pesticides (8081)		
Homestead Island	HMSTD-3SD	J17YT8	K1543	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√	Based on sonar survey results, five samples will be collected from the shallow area between the near (right) shore and Homestead Island.		
Homestead Island	HMSTD-3SD	J17YV3	J00348	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Homestead Island	HMSTD-4SD	J18891	K1543	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Homestead Island	HMSTD-4SD	J18899	J00348	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Homestead Island	HMSTD-5SD	J17YT6	K1543	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Homestead Island	HMSTD-5SD	J17YV1	J00349	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Island 13	IS13-1SD	J17YW0 & J17YW0-A	K1489 & K1491	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√	Based on sonar survey results, five samples will be collected from the shallow area just downriver on the near (right) shore side of Island 13.		(1) Insufficient sample material available at IS13-4SD primary/alternate location vicinities. (All stipulated full suite samples collected.) (2) General rad/chem analytical data for IS13-1SD may be reported under both J17YW0 and J17YW0-A. This is a result of inadvertent laboratory split in sample delivery group batching across the sample. (3) Pesticide analyses for IS13-3SD & IS13-5SD exceeded 2 times the holding time requirement at the laboratory; expect that some data will be rejected. Replacement samples (for pesticides only) planned for spring campaign.
Island 13	IS13-1SD	J17YW5	J00252	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Island 13	IS13-2SD	J17YW2	K1489	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Island 13	IS13-2SD	J17YW7	J00252	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Island 13	IS13-3SD	J17YV8	K1489	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Island 13	IS13-3SD	J17YW3	J00252	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Island 13	IS13-3SD	J17YX0	SEQ2981	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Island 13	IS13-3SD	J17W30	J00264	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--			
Island 13	IS13-3SD	J18X07	K1663	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	Return visit to collect pesticides (8081)		
Island 13[b]	IS13-4SD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O	Based on sonar survey results, five samples will be collected from the shallow area just downriver on the near (right) shore side of Island 13.		
Island 13	IS13-5SD	J17YV9	K1489	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Island 13	IS13-5SD	J17YW4	J00252	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Island 13	IS13-5SD	J17YX1	SEQ2981	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Island 13	IS13-5SD	J18X08	K1663	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	Return visit to collect pesticides (8081)		

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Ringold irrigation return	RG-11SSD	J188F0	K1542	√	√	√	--	√	√	--	√	--	--	X	X	X	X	X	X	--	X	Three samples will be collected from shoreline sediment downriver of the Ringold irrigation return area to evaluate other contributing influences.	(1) Changed from shallow to shoreline sediment samples in 12/4 changes. (2) Label sequence changed from 1-3 to 11-13 in 12/4 changes. (3) Sample design description changed in 12/4 changes to "Random/Stratified". (4)Radionuclide analyses not specified by SAP (or subsequent changes), but requested for samples collected. (5) Rationale changed in 12/4 changes. Change not incorporated (obvious cut and paste error). Self-change of "shallow sediment" to "shoreline sediment".	(1) Planned locations for all stations found to be significantly outside of wasteway. Samples were relocated to available shoreline sediments on return channel; insufficient available material was present for three discrete sample locations.
Ringold irrigation return	RG-11SSD	J188F3	J00342	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Ringold irrigation return	RG-12SSD	J188F1	K1542	√	√	√	--	√	√	--	√	--	--	X	X	X	X	X	X	--	X			
Ringold irrigation return	RG-12SSD	J188F4	J00342	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Ringold irrigation return[b]	RG-13SSD	NA	NA	O	O	O	O	O	O	--	O	--	--	--	--	--	--	--	--	--	--			
PE 16.4 Wasteway	PE-1SD	J17YY6	K1565	√	√	√	--	√	√	--	√	--	--	--	--	--	--	--	--	--	--	Three samples will be collected from shallow sediment downriver of the PE 16.4 Wasteway area to evaluate other contributing influences.		(1) Samples could not be collected as shallow sediment grabs as planned (insufficient available material). Samples were collected along the shoreline/water interface in the return channel by gathering sediment from an approximately 8-ft square area for each sample.
PE 16.4 Wasteway	PE-1SD	J17YY9	J00360	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
PE 16.4 Wasteway	PE-2SD	J17YY8	K1565	√	√	√	--	√	√	--	√	--	--	--	--	--	--	--	--	--	--			
PE 16.4 Wasteway	PE-2SD	J18001	J00360	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
PE 16.4 Wasteway	PE-3SD	J17YY7	K1565	√	√	√	--	√	√	--	√	--	--	--	--	--	--	--	--	--	--			
PE 16.4 Wasteway	PE-3SD	J17800	J00360	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Homestead Island soil	HI-1S	J18B20	K1556	--	√	√	√	√	√	--	√	√	--	√	√	√	√	√	√	X	√	Surface soil samples will be taken from Homestead Island. The samples will supplement previous sampling events and provide additional data for ecological and human evaluations. The samples will be collected from a 10 cell random/stratified grid.	(1) Tritium not identified as target analyte in work plan, SAP, or subsequent revisions, but requested for all samples. (2) Samples collected to a maximum depth of 0.3 ft below surface (SAP specifies 0.5 ft).	
Homestead Island soil	HI-1S	J18HW8	J00419	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--			
Homestead Island soil	HI-2S	J18B23	K1556	--	√	√	√	√	√	--	√	√	--	√	√	√	√	√	√	X	√			
Homestead Island soil	HI-3S	J18B21	K1556	--	√	√	√	√	√	--	√	√	--	√	√	√	√	√	√	X	√			
Homestead Island soil	HI-4S	J18B22	K1556	--	√	√	√	√	√	--	√	√	--	√	√	√	√	√	√	X	√			
Homestead Island soil	HI-5S	J18B25	K1556	--	--	√	√	--	--	--	√	--	--	√	√	√	√	√	√	X	√			
Homestead Island soil	HI-6S	J18B24	K1556	--	--	√	√	--	--	--	√	--	--	√	√	√	√	√	√	X	√			
Homestead Island soil	HI-7S	J18B29	K1556	--	--	√	√	--	--	--	√	--	--	√	√	√	√	√	√	X	√			
Homestead Island soil	HI-8S	J18B27	K1556	--	--	√	√	--	--	--	√	--	--	√	√	√	√	√	√	X	√			
Homestead Island soil	HI-9S	J18B26	K1556	--	--	√	√	--	--	--	√	--	--	√	√	√	√	√	√	X	√			
Homestead Island soil	HI-10S	J18B28	K1556	--	--	√	√	--	--	--	√	--	--	√	√	√	√	√	√	X	√			

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Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Island 14	IS14-1SSD	J188H0	K1536	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Based on an ecological habitat survey, samples will be collected from the riparian area; samples are from between the far (left) shore and Island 14.		(1) Insufficient sample material available at IS14-5SSD and IS14-6SSD primary/alternate location vicinities. (All stipulated full suite samples collected.)
Island 14	IS14-1SSD	J188H9	J00327	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Island 14	IS14-2SSD	J188F8	K1536	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Island 14	IS14-2SSD	J188H7	J00327	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Island 14	IS14-3SSD	J188F7	K1536	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Island 14	IS14-3SSD	J188H6	J00327	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Island 14	IS14-4SSD	J188F9	K1536	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Island 14	IS14-4SSD	J188H8	J00327	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Island 14	IS14-4SSD	J186B2	J00367	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--			
Island 14[b]	IS14-5SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Island 14[b]	IS14-6SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Island 14	IS14-7SSD	J188H2	K1536	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Island 14	IS14-7SSD	J188J1	J00327	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Island 14	IS14-8SSD	J188H3	K1536	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Island 14	IS14-8SSD	J188J2	J00327	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Island 14	IS14-9SSD	J188H1	K1536	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Island 14	IS14-9SSD	J188J0	J00327	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Island 14[c]	IS14-10SSD			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	Based on an ecological habitat survey, samples will be collected from the riparian area; samples are from between the far (left) shore and Island 14.	(1) Eliminated in 11/25 changes discussed with Tri-Parties.	
Island 15[b]	IS15-1SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O	Based on an ecological habitat survey, 10 samples will be collected from the riparian area; samples are from the upriver end of Island 15.		(1) Insufficient sample material available at IS15-1SSD, IS15-2SSD, and IS15-3SSD primary/alternate location vicinities. (All stipulated full suite samples collected.)
Island 15[b]	IS15-2SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Island 15[b]	IS15-3SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Island 15	IS15-4SSD	J188K4	K1536	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Island 15	IS15-4SSD	J188L4	J00330	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Island 15	IS15-5SSD	J188J8	K1536	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Island 15	IS15-5SSD	J188K8	J00327	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Island 15	IS15-6SSD **Duplicate collected**	J188J5	K1536	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Island 15	IS15-6SSD **Duplicate collected**	J188K5	J00330	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Island 15	IS15-7SDD	J188K1	K1536	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Island 15	IS15-7SDD	J188L1	J00330	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Island 15	IS15-8SSD	J188K2	K1536	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Island 15	IS15-8SSD	J188L2	J00330	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Island 15	IS15-9SSD	J188J6	K1536	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Island 15	IS15-9SSD	J188K6	J00330	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Island 15	IS15-9SSD	J186B3	J00367	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--			
Island 15	IS15-10SSD	J188J7	K1536	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Island 15	IS15-10SSD	J188K7	J00330	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

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Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Wooded Island[b]	WI-1SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O	Based on an ecological habitat survey, 10 samples will be collected from the riparian area; five samples are from the upriver end of Wooded Island and five samples are from the mid-area of the island on the far (left) shore side.	(1) Two samples added in 12/4 changes and subsequent coordinate files (rationale not updated). (2) Analytical suites updated corresponding to first change (10:4 became 12:5)	(1) Insufficient sample material available at WI-1SSD primary/alternate location vicinities. (All stipulated full suite samples collected.)
Wooded Island	WI-2SSD	J18907	K1542	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Wooded Island	WI-2SSD	J18919	J00339	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Wooded Island	WI-3SSD	J18906	K1542	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Wooded Island	WI-3SSD	J18918	J00339	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Wooded Island	WI-4SSD	J18909	K1542	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Wooded Island	WI-4SSD	J18921	J00339	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Wooded Island	WI-5SSD	J18905	K1542	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Wooded Island	WI-5SSD	J18917	J00339	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Wooded Island	WI-5SSD	J18697	J00364	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--			
Wooded Island	WI-6SSD	J18908	K1542	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Wooded Island	WI-6SSD	J18920	J00339	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Wooded Island	WI-7SSD	J18903	K1542	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Wooded Island	WI-7SSD	J18915	J00339	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Wooded Island	WI-8SSD	J18902	K1542	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Wooded Island	WI-8SSD	J18914	J00339	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Wooded Island	WI-9SSD **Duplicate collected**	J18904	K1542	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Wooded Island	WI-9SSD **Duplicate collected**	J18916	J00339	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Wooded Island	WI-10SSD	J18913	K1542	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Wooded Island	WI-10SSD	J18925	J00339	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Wooded Island	WI-11SSD	J18910	K1542	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Wooded Island	WI-11SSD	J18922	J00339	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Wooded Island	WI-12SSD **Duplicate collected**	J18911	K1542	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Wooded Island	WI-12SSD **Duplicate collected**	J18923	J00339	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Island 14	IS14-1SD **Duplicate collected**	J18003	K1489	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Based on sonar survey results, five samples will be collected from shallow sediment between Island 14 and the near (right) shore.		(1) Pesticide analyses for IS14-1SD & IS14-2SD exceeded 2 times the holding time requirement at the laboratory; expect that some data will be rejected. Replacement samples (for pesticides only) planned for spring campaign.
Island 14	IS14-1SD **Duplicate collected**	J18008	J00253	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Island 14	IS14-1SD **Duplicate collected**	J18015	SEQ2981	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Island 14	IS14-1SD	J18X09	K1663	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	Return visit to collect pesticides (8081)		
Island 14	IS14-2SD	J18002	K1489	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Based on sonar survey results, five samples will be collected from shallow sediment between Island 14 and the near (right) shore.		
Island 14	IS14-2SD	J18007	J00253	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Island 14	IS14-2SD	J18014	SEQ2981	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Island 14	IS14-2SD	J18X10	K1663	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	Return visit to collect pesticides (8081)		
Island 14	IS14-3SD	J18004	K1489	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√	Based on sonar survey results, five samples will be collected from shallow sediment between Island 14 and the near (right) shore.		
Island 14	IS14-3SD	J18009	J00253	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Island 14	IS14-4SD	J18005	K1489	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Island 14	IS14-4SD	J18010	J00253	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Island 14	IS14-5SD	J18006	K1489	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Island 14	IS14-5SD	J18011	J00253	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Island 15	IS15-1SD	J18017	K1489	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Based on sonar survey results, five samples will be collected from shallow sediment downriver of Island 15 on the far (left) shore.		(1) Insufficient sample material available at IS15-3SD, IS15-4SD, & IS15-5SD primary/alternate location vicinities. (All stipulated full suite samples collected.) (2) Pesticide analyses for IS15-1SD & IS15-2SD exceeded 2 times the holding time requirement at the laboratory; expect that some data will be rejected. Replacement samples (for pesticides only) planned for spring campaign.
Island 15	IS15-1SD	J18026	J00253	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Island 15	IS15-1SD	J18024	SEQ2981	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Island 15	IS15-1SD	J18X11	K1663	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	Return visit to collect pesticides (8081)		
Island 15	IS15-2SD	J18016	K1489	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Based on sonar survey results, five samples will be collected from shallow sediment downriver of Island 15 on the far (left) shore.		
Island 15	IS15-2SD	J18025	J00253	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Island 15	IS15-2SD	J18023	SEQ2981	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Island 15	IS15-2SD	J17W28	J00264	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--			
Island 15	IS15-2SD	J18X12	K1663	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	Return visit to collect pesticides (8081)		
Island 15[b]	IS15-3SD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Island 15[b]	IS15-4SD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Island 15[b]	IS15-5SD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Island 16[b]	IS16-1SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O	Based on sonar survey results, new samples will be collected from Island 16.	(1) Added in 11/25 changes discussed with Tri-Parties. (2) Analyses added in 12/4 changes.	(1) Insufficient sample material available at IS16-1SSD primary/alternate location vicinities. (All stipulated full suite samples collected.)
Island 16	IS16-2SSD	J18966	K1543	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Island 16	IS16-2SSD	J18970	J00348	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Island 16	IS16-2SSD	J18976	SEQ022709	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Island 16	IS16-2SSD	J18691	J00364	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--			
Island 16	IS16-3SSD	J18965	K1543	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Island 16	IS16-3SSD	J18969	J00348	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Island 16	IS16-3SSD	J18975	SEQ022709	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Island 16	IS16-4SSD	J18968	K1543	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Island 16	IS16-4SSD	J18972	J00348	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Wooded Island	WI-1SD	J18032	K1491	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√	Based on sonar survey results, five samples will be collected from shallow sediment between Wooded Island and the near (right) shore.		(1) Insufficient sample material available at WI-2SD and WI-4SD primary/alternate location vicinities (except for overlap with other stations sampled). (All stipulated full suite samples collected.)
Wooded Island	WI-1SD	J18041	J00254	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Wooded Island[b]	WI-2SD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Wooded Island	WI-3SD	J18031	K1491	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Wooded Island	WI-3SD	J18040	J00254	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Wooded Island	WI-3SD	J18038	SEQ2981	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Wooded Island[b]	WI-4SD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Wooded Island	WI-5SD	J18030	K1491	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Wooded Island	WI-5SD	J18039	J00254	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Wooded Island	WI-5SD	J18037	SEQ2981	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Wooded Island soil	WI-1S	J18B41	K1556	--	--	√	√	--	--	--	√	--	--	√	√	√	√	√	√	X	√	Surface soil samples will be taken from Wooded Island. The samples will supplement previous sampling events and provide additional data for ecological and human evaluations. The samples will be collected from a 10 cell random/stratified grid.	(1) Samples collected to a maximum depth of 0.3 ft below surface (SAP specifies 0.5 ft). (2) Tritium not identified as target analyte in work plan, SAP, or subsequent revisions, but requested for all samples.	
Wooded Island soil	WI-2S	J18B32	K1556	--	√	√	√	√	√	--	√	√	--	√	√	√	√	√	√	X	√			
Wooded Island soil	WI-3S	J18B34	K1556	--	√	√	√	√	√	--	√	√	--	√	√	√	√	√	√	X	√			
Wooded Island soil	WI-3S	J18HX1	J00419	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--			
Wooded Island soil	WI-4S	J18B36	K1556	--	--	√	√	--	--	--	√	--	--	√	√	√	√	√	√	X	√			
Wooded Island soil	WI-5S	J18B38	K1556	--	--	√	√	--	--	--	√	--	--	√	√	√	√	√	√	X	√			
Wooded Island soil	WI-6S **Duplicate collected**	J18B33	K1556	--	√	√	√	√	√	--	√	√	--	√	√	√	√	√	√	X	√			
Wooded Island soil	WI-7S	J18B35	K1556	--	√	√	√	√	√	--	√	√	--	√	√	√	√	√	√	X	√			
Wooded Island soil	WI-7S	J189W5	J00420	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--			
Wooded Island soil	WI-8S	J18B37	K1556	--	--	√	√	--	--	--	√	--	--	√	√	√	√	√	√	X	√			
Wooded Island soil	WI-9S	J18B39	K1556	--	--	√	√	--	--	--	√	--	--	√	√	√	√	√	√	X	√			
Wooded Island soil	WI-10S	J18B40	K1556	--	--	√	√	--	--	--	√	--	--	√	√	√	√	√	√	X	√			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
300 Area island (Johnson Island)[b]	300ISL-1SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O	Based on an ecological habitat survey, 10 samples will be collected from the riparian area; three samples are from the upriver end of 300 Island; 3 samples are from the upper third of the island; the remaining samples from the mid-area of the island on the far (left) shore side.	(1) Sample location description expanded in 12/4 changes. (2) VOC and SVOC analysis reduced to partial suite (from 10 samples to 4) in 12/15 changes. Change is consistent with partial suite logic for other shoreline sediments.	(1) Insufficient sample material available at 300ISL-1SSD, 300ISL-4SSD, 300ISL-6SSD, 300ISL-8SSD, and 300ISL-9SSD primary/alternate location vicinities. (All stipulated full suite samples collected.)
300 Area island (Johnson Island)	300ISL-2SSD **WDOH split collected**	J188C4	K1542	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
300 Area island (Johnson Island)	300ISL-2SSD **WDOH split collected**	J188D4	J00339	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
300 Area island (Johnson Island)	300ISL-3SSD	J188B8	K1543	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
300 Area island (Johnson Island)	300ISL-3SSD	J188C8	J00349	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
300 Area island (Johnson Island)[b]	300ISL-4SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
300 Area island (Johnson Island)	300ISL-5SSD	J188B9	K1543	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
300 Area island (Johnson Island)	300ISL-5SSD	J188C9	J00349	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
300 Area island (Johnson Island)[b]	300ISL-6SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
300 Area island (Johnson Island)	300ISL-7SSD	J188C0	K1543	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
300 Area island (Johnson Island)	300ISL-7SSD	J188D0	J00349	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
300 Area island (Johnson Island)[b]	300ISL-8SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
300 Area island (Johnson Island)[b]	300ISL-9SSD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
300 Area island (Johnson Island)	300ISL-10SSD	J188C1	K1543	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
300 Area island (Johnson Island)	300ISL-10SSD	J188D1	J00349	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
300 Area left side[c]	300LS-1SD to 300LS-5SD			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	Based on sonar survey results, five samples will be collected from shallow sediment on the far (left) shore across from 300 Island.	(1) Samples eliminated in 11/25 change file (replaced with 300LS shoreline sediment series and JSI-series shallow sediments). Change not explicitly identified to Tri-Parties.	

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																				
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U	Rationale	Change Control	Other Notes/Comments
300 Area left side	300LS-1SSD	J18936	K1527	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√	Based on sonar survey results, samples will be collected from shallow sediment on the far (left) shore across from 300 Island.	(1) Implied sample addition in 11/25 change file (ambiguous replacement of 300LS shallow sediments, confirmed by updated coordinate files). Not explicitly identified to Tri-Parties. (2) Analyses added in 12/4 changes; corrected in 12/15 changes.	(1) Sample for PCB congeners analysis collected at station 300LS-10SSD, but no sample was collected for PCB analysis (partial suite station).
300 Area left side	300LS-1SSD	J18946	J00325	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
300 Area left side	300LS-2SSD	J18932	K1527	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
300 Area left side	300LS-2SSD	J18942	J00325	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
300 Area left side	300LS-2SSD	J18957	SEQ022709	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
300 Area left side	300LS-3SSD	J18929	K1527	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
300 Area left side	300LS-3SSD	J18939	J00325	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
300 Area left side	300LS-3SSD	J18954	SEQ022709	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
300 Area left side	300LS-4SSD	J18931	K1527	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
300 Area left side	300LS-4SSD	J18941	J00325	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
300 Area left side	300LS-4SSD	J18956	SEQ022709	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
300 Area left side	300LS-5SSD	J18928	K1527	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
300 Area left side	300LS-5SSD	J18938	J00325	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
300 Area left side	300LS-5SSD	J18953	SEQ022709	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
300 Area left side	300LS-6SSD	J18930	K1527	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
300 Area left side	300LS-6SSD	J18940	J00325	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
300 Area left side	300LS-6SSD	J18955	SEQ022709	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
300 Area left side	300LS-7SSD	J18934	K1527	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
300 Area left side	300LS-7SSD	J18944	J00325	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
300 Area left side	300LS-8SSD	J18933	K1527	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
300 Area left side	300LS-8SSD	J18943	J00325	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
300 Area left side	300LS-9SSD	J18937	K1527	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
300 Area left side	300LS-9SSD	J18947	J00325	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
300 Area left side	300LS-10SSD	J18935	K1527	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
300 Area left side	300LS-10SSD	J18945	J00325	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
300 Area left side	300LS-10SSD	J186B4	J00367	--	--	--	--	--	--	X	--	--	--	--	--	--	--	--	--	--	--			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Potholes Canal Wasteway	PC-1SSD	J18978	K1543	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√	Three samples will be collected from shallow sediment downriver of the Potholes Canal/Pasco Wasteway area to evaluate other contributing influences.	(1) Implied change from shallow to shoreline sediments in 11/25 change file; confirmed by coordinate files. (2) Designation changed from "OCI" to "300 Area" in 12/15 changes. Change not incorporated. (3) Sample design changed from "Focused" to "Random/Stratified" in 12/15 changes. (4) VOC, SVOC, pesticide, and PCB analyses reduced from full to partial suite (3 changed to 1) in 12/15 changes. (5) PHC (partial suite) and radionuclide analyses (full suite) added in 12/15 changes. Likely artifact of pseudo-change in sample designation. (6) Rationale changed in 12/15 changes (matching change from OCI samples). Change not incorporated.	
Potholes Canal Wasteway	PC-1SSD	J18981	J00348	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Potholes Canal Wasteway	PC-2SSD	J18977	K1543	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Potholes Canal Wasteway	PC-2SSD	J18980	J00348	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Potholes Canal Wasteway	PC-3SSD	J18979	K1543	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Potholes Canal Wasteway	PC-3SSD	J18982	J00348	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																				
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U	Rationale	Change Control	Other Notes/Comments
Johnson Island	JSI-1SD **Duplicate collected**	J18097	K1491	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	New samples added in the vicinity of Potholes Canal Wasteway to evaluate both biota and human exposure to shallow sediment	(1) Added in 11/25 changes; not explicitly identified to Tri-Parties. (Effectively a replacement for eliminated 300LS-series shallow sediments.) (2) Self-change on sample location description-identified as "Potholes Canal Wasteway" through 12/15 changes. (3) Analyses added in 12/4 changes; corrected in 12/15 changes. (4) Full suite analysis requested for all samples collected (rather than for only four samples, as identified in the 12/15 table changes). Note: Item 4 resulted from clarifying analyses for these added samples after the samples were collected (changes received on 12/4 identified full suite analysis for all samples in series).	(1) Insufficient sample material available at JSI-7SD primary/alternate location vicinities. (All stipulated full suite samples collected.)
Johnson Island	JSI-1SD **Duplicate collected**	J180B7	J00256	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Johnson Island	JSI-2SD	J18096	K1491	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Johnson Island	JSI-2SD	J180B6	J00256	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Johnson Island	JSI-3SD	J18092	K1491	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Johnson Island	JSI-3SD	J180B2	J00256	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Johnson Island	JSI-4SD	J18098	K1491	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Johnson Island	JSI-4SD	J180B8	J00256	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Johnson Island	JSI-5SD	J18093	K1491	X	X	√	--	X	X	--	√	X	--	√	√	√	√	√	√	--	√			
Johnson Island	JSI-5SD	J180B3	J00256	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Johnson Island	JSI-6SD	J180B1	K1491	X	X	√	--	X	X	--	√	X	--	√	√	√	√	√	√	--	√			
Johnson Island	JSI-6SD	J180C1	J00256	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Johnson Island[b]	JSI-7SD	NA	NA	--	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Johnson Island	JSI-8SD	J18095	K1491	X	X	√	--	X	X	--	√	X	--	√	√	√	√	√	√	--	√			
Johnson Island	JSI-8SD	J180B5	J00256	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Johnson Island	JSI-9SD **EPA split collected**	J180B0	K1491	X	X	√	--	X	X	--	√	X	--	√	√	√	√	√	√	--	√			
Johnson Island	JSI-9SD **EPA split collected**	J180C0	J00254	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Johnson Island	JSI-10SD	J18094	K1491	X	X	√	--	X	X	--	√	X	--	√	√	√	√	√	√	--	√			
Johnson Island	JSI-10SD	J180B4	J00254	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Esquatzel Coulee Wasteway	EC-1SD	J18046	K1495	√	√	√	--	√	√	--	√	--	--	--	--	--	--	--	--	--	--	Three samples will be collected from shallow sediment downriver of the Esquatzel Coulee Wasteway area to evaluate other contributing influences.		
Esquatzel Coulee Wasteway	EC-1SD	J18049	J00257	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Esquatzel Coulee Wasteway	EC-2SD	J18045	K1495	√	√	√	--	√	√	--	√	--	--	--	--	--	--	--	--	--	--			
Esquatzel Coulee Wasteway	EC-2SD	J18048	J00257	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Esquatzel Coulee Wasteway	EC-3SD	J18047	K1495	√	√	√	--	√	√	--	√	--	--	--	--	--	--	--	--	--	--			
Esquatzel Coulee Wasteway	EC-3SD	J18050	J00257	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Johnson Island soil	JI-1S	J18B50	K1554	--	√	√	√	√	√	--	√	√	--	√	√	√	√	√	√	X	√	Surface soil samples will be taken from Johnson Island. The samples will supplement previous sampling events and provide additional data for ecological and human evaluations. The samples will be collected randomly from a 10 cell grid.	(1) SVOC analysis reduced to partial suite (10 samples to 4 samples) in 12/15 changes. (2) Samples collected to a maximum depth of 0.3 ft below surface (SAP specifies 0.5 ft). (3) Tritium not identified as target analyte in work plan, SAP, or subsequent revisions, but requested for all samples.	(1) Hexavalent chromium samples collected for JI-6S, JI-8S, and JI-10S were not correctly transferred to the analytical laboratory; resampling (for hexavalent chromium and metals) planned for spring campaign.
Johnson Island soil	JI-1S	J189W4	J00420	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--			
Johnson Island soil	JI-2S	J18B47	K1554	--	√	√	√	√	√	--	√	√	--	√	√	√	√	√	√	X	√			
Johnson Island soil	JI-3S	J18B48	K1554	--	√	√	√	√	√	--	√	√	--	√	√	√	√	√	√	X	√			
Johnson Island soil	JI-4S **Duplicate collected**	J18B49	K1554	--	√	√	√	√	√	--	√	√	--	√	√	√	√	√	√	X	√			
Johnson Island soil	JI-5S	J18B52	K1554	--	--	√	√	--	--	--	√	--	--	√	√	√	√	√	√	X	√			
Johnson Island soil	JI-6S	J18B54	K1554	--	--	√	O	--	--	--	√	--	--	√	√	√	√	√	√	X	√			
Johnson Island soil	JI-7S	J18B51	K1554	--	--	√	√	--	--	--	√	--	--	√	√	√	√	√	√	X	√			
Johnson Island soil	JI-8S	J18B53	K1554	--	--	√	O	--	--	--	√	--	--	√	√	√	√	√	√	X	√			
Johnson Island soil	JI-9S	J18B55	K1554	--	--	√	√	--	--	--	√	--	--	√	√	√	√	√	√	X	√			
Johnson Island soil	JI-10S	J18B56	K1554	--	--	√	O	--	--	--	√	--	--	√	√	√	√	√	√	X	√			
Johnson Island soil	JI-6S **Duplicate collected**	J18X63	K1668	--	--	√	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Return visit to collect samples for metals (6010/7471) including Cr+6 (7196A) analyses		
Johnson Island soil	JI-8S	J18X64	K1668	--	--	√	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Johnson Island soil	JI-10S	J18X65	K1668	--	--	√	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																				
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U	Rationale	Change Control	Other Notes/Comments
300 Area downriver[b]	300DC1-1SD to 3SD	NA	NA	O	O	Of	Of	O	O	--	Of	--	O	Of	Of	Of	Of	Of	Of	--	Of	Four locations to characterize: both sides of river above Johnson Island; adjacent to (right side) of Johnson Island; downriver of Johnson Island (left side); downriver of Potholes Canal/Pasco Wasteway. These were placed at the head of the Wallua Pool to evaluate potential depositional area.	(1) Core temporary labeling scheme adjusted in field planning to prevent confusion with other 300 Area cores. (2) Changed to use of 4 in. core with 8 in. subsamples in field planning.	(1) Only gravel/cobble identified within approximately 200 m of planned sample location; no coring attempted.
300 Area downriver	300DC2-1SD	J18MM9	K1580	√	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√		(1) Core temporary labeling scheme adjusted in field planning to prevent confusion with other 300 Area cores. (2) Changed to use of 4 in. core with 8 in. subsamples in field planning.	(1) Approximately 84 cm drive (including cutter head); field recovery estimated at 55 cm; available sediment sampling length of 44 cm.
300 Area downriver	300DC2-1SD	J18MN0	J00426	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
300 Area downriver	300DC2-1SD	J18MN1	SEQ041409	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
300 Area downriver	300DC2-2SD	J18MN2	K1580	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
300 Area downriver	300DC2-2SD	J18MN7	J00426	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
300 Area downriver	300DC3-1SD	J18ML6	K1580	√	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√		(1) Core temporary labeling scheme adjusted in field planning to prevent confusion with other 300 Area cores. (2) Changed to use of 4 in. core with 8 in. subsamples in field planning. (3) Target station and surroundings observed to be poor area for sediment deposition based on current and morphology.	(1) Approximately 61 cm drive (including cutter head); field recovery estimated at 25 cm; available sediment sampling length of 10 cm.
300 Area downriver	300DC3-1SD	J18ML7	J00426	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
300 Area downriver	300DC3-1SD	J18ML8	SEQ041409	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
300 Area downriver	300DC4-1SD	J18KY3	K1573	√	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√		(1) Core temporary labeling scheme adjusted in field planning to prevent confusion with other 300 Area cores. (2) Changed to use of 4 in. core with 8 in. subsamples in field planning. (3) Minimal sediment recovery at original target location; station adjusted slightly upstream to better deposition area; rusted small-diameter	(1) Approximately 122 cm drive (including cutter head); field recovery estimated at 64 cm; available sediment sampling length of 44 cm.
300 Area downriver	300DC4-1SD	J18KY4	J00421	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
300 Area downriver	300DC4-1SD	J18KY5	SEQ041409	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
300 Area downriver	300DC4-2SD	J18KY6	K1573	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
300 Area downriver	300DC4-2SD	J18L01	J00421	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
																							cast-iron pipeline observed at adjacent shore.	
300 Area downriver	300D-1SSD	J189D7	K1543	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Based on an ecological habitat survey, five samples will be collected from the riparian area; two samples are from the upriver end of the Island at river mile 342; one sample is from the lower end of that island; one sample is from the upriver end of the island across from the Richland pump house; and the remaining sample is from the upriver end of Nelson Island.	(1) VOA was treated as a full-suite analysis rather than the partial suite specified--VOA was not requested for 3 of the 5 samples.	(1) Custody and temperature were lost on the general rad/chem sample collected for 300D-4SSD on 2/19/09. Sample was redesignated as J189D9-A and disposed, but the paired hexavalent chromium sample (J189F4) was not halted. A full replacement sample (including analysis for hexavalent chromium) was collected on 2/27/09.
300 Area downriver	300D-1SSD	J189F2	J00349	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
300 Area downriver	300D-1SSD	J189F9	SEQ022709	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
300 Area downriver	300D-2SSD	J189D6	K1543	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
300 Area downriver	300D-2SSD	J189F1	J00349	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
300 Area downriver	300D-2SSD	J189F8	SEQ022709	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
300 Area downriver	300D-3SSD	J189D8	K1544	O	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
300 Area downriver	300D-3SSD	J189F3	J00350	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
300 Area downriver[c]	300D-4SSD	J189D9-A	NA	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*			
300 Area downriver	300D-4SSD	J189F4	J00350	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
300 Area downriver	300D-4SSD	J189D9	K1555	O	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
300 Area downriver	300D-4SSD	J18J52	J00361	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
300 Area downriver	300D-5SSD	J189F0	K1544	O	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
300 Area downriver	300D-5SSD	J189F5	J00350	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
300 Area[b]	300D-1SD	NA	NA	O	O	O	O	O	O	--	O	O	O	O	O	O	O	O	O	--	O	Based on sonar survey results, samples will be collected from shallow areas near the far (left) shore just downriver from river mile 341.	(1) Analytical suites clarified in 12/4 changes to account for prior elimination of 5 samples in set (10:4 ratio changed to 5:3).	(1) Insufficient sample material available at 300D-1SD and 300D-2SD primary/alternate location vicinities. (Two of three stipulated full suite samples collected.) (2) Small outflow channel and debris observed adjacent to 300D-5SD sample location.
300 Area[b]	300D-2SD	NA	NA	O	--	O	O	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
300 Area	300D-3SD	J180H5	K1495	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
300 Area	300D-3SD	J180J0	J00257	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
300 Area	300D-3SD	J180J8	SEQ2981	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
300 Area	300D-4SD **WDOH split collected**	J180H6	K1495	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
300 Area	300D-4SD **WDOH split collected**	J180J1	J00257	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
300 Area	300D-4SD **WDOH split collected**	J180J9	SEQ2981	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
300 Area	300D-4SD **WDOH split collected**	J18088	J00264	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--			
300 Area	300D-5SD	J180H7	K1495	√	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
300 Area	300D-5SD	J180J2	J00257	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
300 Area[c]	300D-6SD to 300D-10SD	NA	NA	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	Based on sonar survey results, samples will be collected from shallow areas near the far (left) shore just downriver from river mile 341.	(1) Eliminated in 11/25 changes discussed with Tri-Parties.	

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																				
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U	Rationale	Change Control	Other Notes/Comments
Leslie Grove City Park (5 replicate)	LG-1SSD	J18J23 -> J18J29/J18J29-A	K1566/TBD	√	√	√	√	√	√	--	√	√	--	√	√	√	√	√	√	--	√	MIS samples will be collected from shoreline area of Leslie Grove City Park. These samples will be collected as 5 replicates.	(1) Labeling scheme adjusted in 11/25 change file.	(1) Collected samples are assigned different HEIS numbers after MIS laboratory preparation has been completed, but prior to analysis; original and secondary sample numbers are listed. (2) Coordinate location provided is general vicinity coordinate, as provided in target coordinate file.
	LG-2SSD	J18J24 -> J18J30/J18J30-A	K1566/TBD	√	√	√	√	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
	LG-3SSD	J18J25 -> J18J31/J18J31-A	K1566/TBD	√	√	√	√	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
	LG-4SSD	J18J26 -> J18J32/J18J32-A	K1566/TBD	√	√	√	√	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
	LG-5SSD	J18J27 -> J18J33/J18J33-A	K1566/TBD	√	√	√	√	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Gull Island	GI-1S	J18B60	K1554	--	√	√	√	√	√	--	√	√	O	√	√	√	√	√	√	X	√	Ten sediment samples will be randomly collected from Gull Island from a 10 cell grid.	(1) Full suite VOC analysis removed entirely in 12/15 changes. (2) Samples collected to a maximum depth of 0.3 ft below surface (SAP specifies 0.5 ft). (3) Tritium not identified as target analyte in work plan, SAP, or subsequent revisions, but requested for all samples. (4) AVS/SEM analysis specified in SAP for full suite samples, but analysis not requested.	(1) Hexavalent chromium samples collected for GI-2S, GI-4S, GI-6S, GI-8S, and GI-10S were not correctly transferred to the analytical laboratory; resampling (for hexavalent chromium and metals) planned for spring campaign.
Gull Island	GI-2S	J18B59	K1554	--	√	√	O	√	√	--	√	√	O	√	√	√	√	√	√	X	√			
Gull Island	GI-3S	J18B65	K1554	--	--	√	√	--	--	--	√	--	--	√	√	√	√	√	√	X	√			
Gull Island	GI-4S	J18B58	K1554	--	√	√	O	√	√	--	√	√	O	√	√	√	√	√	√	X	√			
Gull Island	GI-5S	J18B62	K1554	--	--	√	√	--	--	--	√	--	--	√	√	√	√	√	√	X	√			
Gull Island	GI-6S	J18B57	K1554	--	√	√	O	√	√	--	√	√	O	√	√	√	√	√	√	X	√			
Gull Island	GI-6S	J189W2	J00420	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--			
Gull Island	GI-7S	J18B61	K1554	--	--	√	√	--	--	--	√	--	--	√	√	√	√	√	√	X	√			
Gull Island	GI-8S	J18B63	K1554	--	--	√	O	--	--	--	√	--	--	√	√	√	√	√	√	X	√			
Gull Island	GI-9S	J18B64	K1554	--	--	√	√	--	--	--	√	--	--	√	√	√	√	√	√	X	√			
Gull Island	GI-10S	J18B66	K1554	--	--	√	O	--	--	--	√	--	--	√	√	√	√	√	√	X	√			
Gull Island	GI-2S	J18X66	K1668	--	--	√	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Return visit to collect samples for metals (6010/7471) including Cr+6 (7196A) analyses		
Gull Island	GI-4S	J18X67	K1668	--	--	√	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Gull Island	GI-6S	J18X68	K1668	--	--	√	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Gull Island	GI-8S	J18X69	K1668	--	--	√	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Gull Island	GI-10S	J18X70	K1668	--	--	√	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																				
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U	Rationale	Change Control	Other Notes/Comments
300 Area downriver	300DC5-1SD	J18KM9	K1573	√	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√	Characterize the sediments ~ 1/2 way between the Port of Benton and the Richland pump house on both sides of island. Data to be used in the ecological evaluation.	(1) Hexavalent chromium analysis increased to full suite in 12/15 changes. (2) Core temporary labeling scheme adjusted in field planning to prevent confusion with other 300 Area cores. (3) Changed to use of 4 in. core with 8 in. subsamples in field planning. (4) No sediment recovery at original target station; station adjusted upstream and shoreward to better deposition area.	(1) Approximately 84 cm drive (including cutter head); field recovery estimated at 75 cm; available sediment sampling length of 69 cm. (2) Insufficient sample material available in final interval (300DC5-4SD) for all planned analyses; TOC analysis not requested.
300 Area downriver	300DC5-1SD	J18KN3	J00421	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
300 Area downriver	300DC5-1SD	J18KN2	SEQ041409	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
300 Area downriver	300DC5-2SD	J18KN9	K1573	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
300 Area downriver	300DC5-2SD	J18KN4	J00421	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
300 Area downriver	300DC5-3SD	J18KP0	K1573	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
300 Area downriver	300DC5-3SD	J18KN5	J00421	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
300 Area downriver	300DC5-4SD	J18KP1	K1573	--	--	√	--	--	--	--	O	--	--	√	√	√	√	√	√	--	√			
300 Area downriver	300DC5-4SD	J18KN6	J00421	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
300 Area downriver	300DC6-1SD	J18KP4	K1573	√	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√	Characterize the sediments ~ 1/2 way between the Port of Benton and the Richland Pump House on both sides of island. Data to be used in the ecological evaluation.	(1) Hexavalent chromium analysis increased to full suite in 12/15 changes. (2) Core temporary labeling scheme adjusted in field planning to prevent confusion with other 300 Area cores. (3) Changed to use of 4 in. core with 8 in. subsamples in field planning.	(1) Approximately 61 cm drive (including cutter head); field recovery estimated at 56 cm; available sediment sampling length of 44 cm.
300 Area downriver	300DC6-1SD	J18KP5	J00422	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
300 Area downriver	300DC6-1SD	J18KP6	SEQ041409	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
300 Area downriver	300DC6-2SD	J18KR2	K1573	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
300 Area downriver	300DC6-2SD	J18KP7	J00422	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Yakima River [b]	YR-1SD	NA	NA	--	O	O	O	O	O	--	O	--	--	O	O	O	O	O	O	--	O	Based on sonar survey results, five samples will be collected from shallow sediments in the Yakima River prior to its confluence with the Columbia River to evaluate other contributing influences.		(1) Insufficient sample material available at YR-1SD and YR-2SD primary/alternate location vicinities (YR-1SD alternate location vicinity largely too shallow to safely access). (Single stipulated full suite sample collected.)
Yakima River [b]	YR-2SD	NA	NA	--	O	O	O	O	O	--	O	--	--	O	O	O	O	O	O	--	O			
Yakima River	YR-3SD	J180N0	K1495	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Yakima River	YR-3SD	J180N5	J00257	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Yakima River	YR-3SD	J17W29	J00264	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--			
Yakima River	YR-4SD	J180N1	K1495	--	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√			
Yakima River	YR-4SD	J180N6	J00257	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Yakima River	YR-5SD	J180N2	K1495	--	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√			
Yakima River	YR-5SD	J180N7	J00257	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Howard Amon City Park	HA-1SSD	J18991	K1544	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Ten sediment samples will be randomly collected from the shoreline area of Howard Amon City Park from a 10 cell grid.		(1) Insufficient sample material available at HA-7SSD, HA-9SSD, and HA-10SSD primary/alternate location vicinities. (No suite variance in planned sample set.) (2) Glass shards observed in sediments collected at HA-3SSD.
Howard Amon City Park	HA-1SSD	J189B1	J00350	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Howard Amon City Park	HA-2SSD	J18985	K1544	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Howard Amon City Park	HA-2SSD	J18995	J00350	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Howard Amon City Park	HA-3SSD	J18990	K1544	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Howard Amon City Park	HA-3SSD	J189B0	J00350	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Howard Amon City Park	HA-4SSD	J18986	K1544	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Howard Amon City Park	HA-4SSD	J18996	J00350	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Howard Amon City Park	HA-5SSD	J18992	K1544	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Howard Amon City Park	HA-5SSD	J189B2	J00350	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Howard Amon City Park	HA-6SSD	J18987	K1544	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Howard Amon City Park	HA-6SSD	J18997	J00350	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Howard Amon City Park	HA-6SSD	J18694	J00364	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--			
Howard Amon City Park[b]	HA-7SSD	NA	NA	√	√	√	√	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Howard Amon City Park	HA-8SSD	J18988	K1544	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Howard Amon City Park	HA-8SSD	J18998	J00350	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Howard Amon City Park[b]	HA-9SSD	NA	NA	√	√	√	√	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Howard Amon City Park[b]	HA-10SSD	NA	NA	√	√	√	√	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Howard Amon City Park[b]	HA-1SD	NA	NA	O	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O	Five shallow sediment samples have been added within Howard Amon boat ramp.	(1) Added in 11/25 changes discussed with Tri-Parties. (2) Analyses added in 12/4 changes.	(1) Insufficient sample material available at all planned primary/alternate location vicinities. (Excessive milfoil observed throughout sampling area.)
Howard Amon City Park[b]	HA-2SD	NA	NA	O	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O			
Howard Amon City Park[b]	HA-3SD	NA	NA	O	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O			
Howard Amon City Park[b]	HA-4SD	NA	NA	O	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O			
Howard Amon City Park[b]	HA-5SD	NA	NA	O	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O			
Columbia Point Marina[c]	CPM-1SSD to CPM-5SSD			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	Five sediment samples will be randomly collected from the shoreline area of Columbia Point Marina from a five cell grid.	(1) Eliminated in 11/25 change file (replaced with five shallow sediment samples); elimination/ substitution was not explicitly identified to Tri-Parties.	
Columbia Point Marina	CPM-1SD	J180P4	K1495	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√		(1) Implied addition in 11/25 change file (replacement of CPM-1SSD to CP-5SSD series); not explicitly identified to Tri-Parties. (2) Rationale in 12/15 changes still references "shoreline"--text removed.	(1) Insufficient sample material available at CPM-3SD primary/alternate location vicinities. (No suite variation--all planned analyses requested for samples collected.)
Columbia Point Marina	CPM-1SD	J180P9	J00258	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Columbia Point Marina	CPM-2SD	J180P3	K1495	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Columbia Point Marina	CPM-2SD	J180P8	J00258	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Columbia Point Marina[b]	CPM-3SD	NA	NA	O	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O			
Columbia Point Marina	CPM-4SD	J180P0	K1495	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Columbia Point Marina	CPM-4SD	J180P5	J00258	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Columbia Point Marina	CPM-5SD	J180P1	K1495	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Columbia Point Marina	CPM-5SD	J180P6	J00258	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Bateman Island boat launch	BL-1SSD	J189C1	K1544	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Sediment samples will be randomly collected from the shoreline area of Bateman Island boat launch from a 10 cell grid.		(1) Insufficient sample material available at BL-10SSD primary/alternate location vicinities. (No suite variation--all planned analyses requested for samples collected.) (2) General municipal refuse observed in immediate vicinity of BL-6SSD.
Bateman Island boat launch	BL-1SSD	J189D1	J00350	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Bateman Island boat launch	BL-2SSD	J189C0	K1544	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Bateman Island boat launch	BL-2SSD	J189D0	J00350	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Bateman Island boat launch	BL-3SSD	J189B5	K1544	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Bateman Island boat launch	BL-3SSD	J189C5	J00350	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Bateman Island boat launch	BL-4SSD	J189C4	K1544	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Bateman Island boat launch	BL-4SSD	J189D4	J00350	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Bateman Island boat launch	BL-4SSD	J18080	J00364	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--			
Bateman Island boat launch	BL-5SSD	J189B6	K1544	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Bateman Island boat launch	BL-5SSD	J189C6	J00350	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Bateman Island boat launch	BL-6SSD	J189C3	K1544	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Bateman Island boat launch	BL-6SSD	J189D3	J00350	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Bateman Island boat launch	BL-7SSD	J189B9	K1544	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Bateman Island boat launch	BL-7SSD	J189C9	J00351	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Bateman Island boat launch	BL-8SSD	J189B8	K1544	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Bateman Island boat launch	BL-8SSD	J189C8	J00351	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Bateman Island boat launch	BL-9SSD	J189B7	K1544	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Bateman Island boat launch	BL-9SSD	J189C7	J00351	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Bateman Island boat launch [b]	BL-10SSD	NA	NA	O	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O			
Above confluence of Yakima and Columbia (deep Columbia River sediment)	CR-1SD **WDOH split collected**	J17XP7	K1495	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Based on sonar survey results, one deep sediment sample will be collected at the confluence of Yakima and Columbia Rivers.	(1) Location adjusted in 11/25 changes discussed with Tri-Parties.	
Above confluence of Yakima and Columbia (deep Columbia River sediment)	CR-1SD **WDOH split collected**	J17XP9	J00257	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Above confluence of Yakima and Columbia (deep Columbia River sediment)	CR-1SD **WDOH split collected**	J17XR3	SEQ2981	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Below confluence of Yakima and Columbia (deep Columbia River sediment)[c]	CR-2SD			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	Based on sonar survey results, one deep core sample will be collected from the Columbia River (in the vicinity of river mile 333) below its confluence with the Yakima River. The upper 10 in. of the core will be used to evaluate ecological impacts.	(1) Eliminated in 11/25 changes discussed with Tri-Parties.	
Yakima delta cores	YRC1-1SD	J18KR7	K1574	√	√	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√	Characterize sediments adjacent to the western shore of Bateman Island. Utilize data to evaluate historic deposition and potential ecological impacts.	(1) Core temporary labeling scheme adjusted in field planning to prevent confusion with separate second Yakima River core. (2) Changed to use of 4 in. core with 8 in. subsamples in field planning. (3)L ow sediment recovery at original target location; station adjusted towards headland for better depositional environment.	(1) Approximately 274 cm drive (including cutter head); field recovery estimated at 145 cm; available sediment sampling length of 110 cm. (2) Minimum sample mass submitted for GEA for J18KR7 (YRC1-1SD). (3) Insufficient sample material available in final interval (YRC1-6SD) for all planned analyses; TOC analysis not requested.
Yakima delta cores	YRC1-1SD	J18KR8	J00423	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Yakima delta cores	YRC1-1SD	J18KR9	SEQ041409	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Yakima delta cores	YRC1-2SD	J18KT0	K1574	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Yakima delta cores	YRC1-2SD	J18KT5	J00423	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Yakima delta cores	YRC1-3SD	J18KT1	K1574	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Yakima delta cores	YRC1-3SD	J18KT6	J00423	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Yakima delta cores	YRC1-4SD	J18KT2	K1574	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Yakima delta cores	YRC1-4SD	J18KT7	J00423	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Yakima delta cores	YRC1-5SD	J18KT3	K1574	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Yakima delta cores	YRC1-5SD	J18KT8	J00423	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Yakima delta cores	YRC1-6SD	J18KT4	K1574	--	--	√	--	--	--	--	O	--	--	√	√	√	√	√	√	--	√			
Yakima delta cores	YRC1-6SD	J18KT9	J00423	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Yakima delta cores	YRC2-1SD	J18KW9	K1573	√	√	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√	Characterize sediments adjacent to the western shore of Bateman Island. Utilize data to evaluate historic deposition and potential ecological impacts.	(1) Core temporary labeling scheme adjusted in field planning to prevent confusion with separate first Yakima River core. (2) Changed to use of 4 in. core with 8 in. subsamples in field planning. (3) Original target station inaccessible at low water stage; station adjusted to nearest accessible sediment.	(1) Near-minimum sample mass submitted for GEA and SVOA for J18KW9 (YRC2-1SD). (2) Approximately 274 cm drive (including cutter head); field recovery estimated at 269 cm; available sediment sampling length of 264 cm.
Yakima delta cores	YRC2-1SD	J18KX0	J00422	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Yakima delta cores	YRC2-1SD	J18KX1	SEQ041409	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Yakima delta cores	YRC2-2SD	J18KX2	K1573	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Yakima delta cores	YRC2-2SD	J18KX7	J00422	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Yakima delta cores	YRC2-3SD	J18KX3	K1573	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Yakima delta cores	YRC2-3SD	J18KX8	J00422	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Yakima delta cores	YRC2-4SD	J18KX4	K1573	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Yakima delta cores	YRC2-4SD	J18KX9	J00422	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Yakima delta cores	YRC2-5SD	J18KX5	K1573	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Yakima delta cores	YRC2-5SD	J18KY0	J00422	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Yakima delta cores	YRC2-6SD	J18KX6	K1573	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Yakima delta cores	YRC2-6SD	J18KY1	J00422	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Yakima delta cores	YRC2-7SD	J18LC0	K1573	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Yakima delta cores	YRC2-7SD	J18LF0	J00422	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Yakima delta cores	YRC2-8SD	J18LB9	K1573	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Yakima delta cores	YRC2-8SD	J18LD9	J00422	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Yakima delta cores	YRC2-9SD	J18LB4	K1573	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Yakima delta cores	YRC2-9SD	J18LD4	J00422	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Yakima delta cores	YRC2-10SD	J18LB5	K1573	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Yakima delta cores	YRC2-10SD	J18LD5	J00422	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Yakima delta cores	YRC2-11SD	J18LB6	K1573	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Yakima delta cores	YRC2-11SD	J18LD6	J00422	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Yakima delta cores	YRC2-12SD	J18LB7	K1573	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Yakima delta cores	YRC2-12SD	J18LD7	J00422	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Yakima delta cores	YRC2-13SD	J18LB8	K1573	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Yakima delta cores	YRC2-13SD	J18LD8	J00422	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Peninsula HMU	PHMU-1SSD	J189J2	K1547	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√	Based on an ecological habitat survey, three samples will be collected from the riparian area; spaced along the Peninsula Wildlife Management Unit Area which is on the far (left) shore.	(1) VOA not specified in SAP (or subsequent changes), but requested for single full suite sample collected at PHMU-2SSD.	
Peninsula HMU	PHMU-2SSD	J189J1	K1547	X	√	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Peninsula HMU	PHMU-3SSD	J189J3	K1547	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Toothaker HMU	THMU-1SSD	J189J4	K1547	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√	Based on an ecological habitat survey, two samples will be collected from the riparian area; spaced along the Toothaker Wildlife Management Unit Area which is on the near (right) shore.		(1) Samples collected on the river-side of causeway, not within WMU proper.
Toothaker HMU	THMU-2SSD	J189J5	K1547	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																				
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U	Rationale	Change Control	Other Notes/Comments
Badger Island	BI-1SSD	J189J7	K1547	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√	Based on an ecological habitat survey, two samples will be collected from the riparian area on Badger Island.		
Badger Island	BI-2SSD	J189J6	K1547	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Paper Mill Channel	PM-1SD	J180W8	K1524	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Based on sonar survey results, two samples will be collected from shallow sediments in the Paper Mill Channel to evaluate potential future dredging impacts on upland human exposure.		
Paper Mill Channel	PM-1SD	J180X0	J00319	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Paper Mill Channel	PM-1SD	J180X2	SEQ021309	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Paper Mill Channel	PM-2SD	J180W9	K1524	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Paper Mill Channel	PM-2SD	J180X1	J00319	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Paper Mill Channel	PM-2SD	J180X3	SEQ021309	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Toothaker HMU[b]	THMU-1SD	NA	NA	--	--	O	--	--	--	--	O	--	O	O	O	O	O	O	O	--	O	Based on sonar survey results, two samples will be collected from shallow areas from the near (right) shore in the area of Toothaker Wildlife Management Unit.		(1) Planned Toothaker HMU sediment sampling locations could not be accessed by boat due to interceding railroad causeway.
Toothaker HMU[b]	THMU-2SD	NA	NA	--	--	O	--	--	--	--	O	--	O	O	O	O	O	O	O	--	O			
"Wallula Bay"	WB-1SD	J18158	K1524	--	√	√	--	--	√	--	√	--	--	√	√	√	√	√	√	--	√	Based on sonar survey results, four samples will be collected from shallow areas from the far (left) shore between the Port of Wall Walla and the confluence with the Walla Walla River.		
"Wallula Bay"	WB-1SD	J18162	SEQ021309	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
"Wallula Bay"	WB-2SD	J18157	K1524	--	√	√	--	--	√	--	√	--	--	√	√	√	√	√	√	--	√			
"Wallula Bay"	WB-2SD	J18161	SEQ021309	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
"Wallula Bay"	WB-2SD	J18090	J00367	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--			
"Wallula Bay"	WB-3SD	J18159	K1524	--	--	√	--	--	√	--	√	--	--	√	√	√	√	√	√	--	√			
"Wallula Bay"	WB-4SD	J18160	K1524	--	--	√	--	--	√	--	√	--	--	√	√	√	√	√	√	--	√			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																				
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U	Rationale	Change Control	Other Notes/Comments
Snake River	SR-1SD	J18164	K1497	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Based on sonar survey results, five samples will be collected from shallow sediments in the Snake River prior to its confluence with the Columbia River to evaluate other contributing influences.		(1) SVOA, pesticide, and hexavalent chromium analyses for all original SR-XSD samples exceeded 2 times the holding time requirement at the laboratory; PHC analysis for original SR-1SD sample exceeded 2 times the holding time requirement at the laboratory; expect that some data will be rejected. Replacement samples (for PHC on SR-1SD and for SVOA, pesticides, hexavalent chromium, and metals on all stations) planned for spring campaign.
Snake River	SR-1SD	J18169	J00263	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																				
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U	Rationale	Change Control	Other Notes/Comments
Snake River	SR-1SD	J18X13	K1665	--	√	√	--	√	--	--	--	√	--	--	--	--	--	--	--	--	--	Revisit to collect SVOC (8270C), Metals (6010 & 7471), Cr6+ (7196A), pesticides (8081) and PHC (8115)		
Snake River	SR-1SD	J18X18	J00544	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Snake River	SR-2SD	J18166	K1497	--	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√	Based on sonar survey results, five samples will be collected from shallow sediments in the Snake River prior to its confluence with the Columbia River to evaluate other contributing influences.		
Snake River	SR-2SD	J18171	J00263	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Snake River	SR-2SD	J18X14	K1665	--	√	√	--	√	--	--	--	√	--	--	--	--	--	--	--	--	--	Revisit to collect SVOC (8270C), Metals (6010 & 7471), Cr6+ (7196A), pesticides (8081) and PHC (8115)		
Snake River	SR-2SD	J18X19	J00544	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Snake River	SR-3SD	J18168	K1497	--	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√	Based on sonar survey results, five samples will be collected from shallow sediments in the Snake River prior to its confluence with the Columbia River to evaluate other contributing influences.		
Snake River	SR-3SD	J180X7	J00263	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Snake River	SR-3SD	J18X15	K1665	--	√	√	--	√	--	--	--	√	--	--	--	--	--	--	--	--	--	Revisit to collect SVOC (8270C), Metals (6010 & 7471), Cr6+ (7196A), pesticides (8081) and PHC (8115)		
Snake River	SR-3SD	J18X20	J00544	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Snake River	SR-4SD	J18165	K1497	--	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√	Based on sonar survey results, five samples will be collected from shallow sediments in the Snake River prior to its confluence with the Columbia River to		
Snake River	SR-4SD	J18170	J00263	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
																						evaluate other contributing influences.		
Snake River	SR-4SD	J18X16	K1665	--	√	√	--	√	--	--	--	√	--	--	--	--	--	--	--	--	--	Revisit to collect SVOC (8270C), Metals (6010 & 7471), Cr6+ (7196A), pesticides (8081) and PHC (8115)		
Snake River	SR-4SD	J18X21	J00544	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Snake River	SR-5SD	J18167	K1497	--	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√	Based on sonar survey results, five samples will be collected from shallow sediments in the Snake River prior to its confluence with the Columbia River to evaluate other contributing influences.		
Snake River	SR-5SD	J180X6	J00263	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Snake River	SR-5SD	J18X17	K1665	--	√	√	--	√	--	--	--	√	--	--	--	--	--	--	--	--	--	Revisit to collect SVOC (8270C), Metals (6010 & 7471), Cr6+ (7196A), pesticides (8081) and PHC (8115)		
Snake River	SR-5SD	J18X22	J00544	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Walla Walla River	WR-1SD	J180M4	K1547	--	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√	Based on sonar survey results, five samples will be collected from shallow sediments in the Walla Walla River prior to its confluence with the Columbia River to evaluate other contributing influences.	(1) Self-change on rationale for cut and paste error (referenced Snake River).	
Walla Walla River	WR-1SD	J180M9	J00355	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Walla Walla River	WR-2SD	J180M3	K1547	--	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√			
Walla Walla River	WR-2SD	J180M8	J00355	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Walla Walla River	WR-3SD	J180M0	K1547	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Walla Walla River	WR-3SD	J180M5	J00355	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Walla Walla River	WR-3SD	J17W32	J00364	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--			
Walla Walla River	WR-4SD	J180M2	K1547	--	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√			
Walla Walla River	WR-4SD	J180M7	J00355	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Walla Walla River	WR-5SD	J180M1	K1547	--	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√			
Walla Walla River	WR-5SD	J180M6	J00355	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Columbia Park [c]	CP-1SSD to CP-10SSD			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	Ten sediment samples will be randomly collected from the shoreline area of Columbia Park from a 10 cell grid.	1) Eliminated in 11/25 change file (replaced with five shallow sediment samples); elimination was not explicitly identified to Tri-Parties.	

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																				
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U	Rationale	Change Control	Other Notes/Comments
Columbia Park	CP-1SD	J180R3	K1495	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Sediment samples will be randomly collected from the Columbia Park boat basin.	(1) Implied addition in 11/25 change file (replacement of CP-1SSD to CP-10SSD series); not explicitly identified to Tri-Parties. Full suite analysis retained for same constituent groups.	(1) Insufficient sample material available at CP-4SD and CP-5SD primary/alternate location vicinities. (No suite variation--all planned analyses requested for samples collected.)
Columbia Park	CP-1SD	J180R8	J00258	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Columbia Park	CP-2SD **WDOE split collected**	J180R0	K1495	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Columbia Park	CP-2SD **WDOE split collected**	J180R5	J00258	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Columbia Park	CP-3SD	J180R4	K1495	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Columbia Park	CP-3SD	J180R9	J00258	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Columbia Park [b]	CP-4SD	NA	NA	O	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O			
Columbia Park [b]	CP-5SD	NA	NA	O	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O			
Clover Island [c]	CI-1SSD to CI-10SSD	NA	NA	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	Ten sediment samples will be randomly collected from the shoreline area of Clover Island from a 10 cell grid.	(1) Eliminated in 11/25 changes discussed with Tri-Parties.	
Clover Island	CI-1SD **Duplicate collected**	J180K6	K1495	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Ten sediment samples will be randomly collected: three from upriver of causeway and seven from within boat basin.	(1) Increased from 3 to 10 samples in 11/25 changes discussed with Tri-Parties (presented as 10 entirely new samples). Analyses not changed (uniformly increased from 3 full suite to 10 full suite.) (2) Rationale changed for consistency with change #1.	(1) Hexavalent chromium analyses for all original CI-XSD samples exceeded 2 times the holding time requirement at the laboratory due to a time-stamp documentation issue; expect that some data will be rejected. Replacement samples (for hexavalent chromium and metals on all stations) planned for spring campaign.
Clover Island	CI-1SD **Duplicate collected**	J180L6	J00259	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Clover Island	CI-1SD **Duplicate collected**	J18X23	K1667	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Return visit to collect samples for metals (6010/7471) including Cr+6 (7196A) analyses		
Clover Island	CI-1SD **Duplicate collected**	J18X33	J00546	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Clover Island	CI-2SD	J180K0	K1495	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Ten sediment samples will be randomly collected: three from upriver of causeway and seven from within boat basin.		
Clover Island	CI-2SD	J180L0	J00259	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Clover Island	CI-2SD	J18X24	K1667	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Return visit to collect samples for metals (6010/7471) including Cr+6 (7196A) analyses		
Clover Island	CI-2SD	J18X34	J00546	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Clover Island	CI-3SD	J180K9	K1495	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Ten sediment samples will be randomly collected: three from upriver of causeway and seven from within boat basin.		
Clover Island	CI-3SD	J180L9	J00259	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Clover Island	CI-3SD	J18X25	K1667	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Return visit to collect samples for metals (6010/7471) including Cr+6 (7196A) analyses		
Clover Island	CI-3SD	J18X35	J00546	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Clover Island	CI-4SD	J180K5	K1495	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Ten sediment samples will be randomly collected: three from upriver of causeway and seven from within boat basin.		
Clover Island	CI-4SD	J180L5	J00259	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Clover Island	CI-4SD	J18X26	K1667	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Return visit to collect samples for metals (6010/7471) including Cr+6 (7196A) analyses		
Clover Island	CI-4SD	J18X36	J00546	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Clover Island	CI-5SD	J180K4	K1495	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Ten sediment samples will be randomly collected: three from upriver of causeway and seven from within boat basin.		
Clover Island	CI-5SD	J180L4	J00259	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Clover Island	CI-5SD	J18X27	K1667	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Return visit to collect samples for metals (6010/7471) including Cr+6 (7196A) analyses		
Clover Island	CI-5SD	J18X37	J00546	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Clover Island	CI-6SD	J180K7	K1495	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Ten sediment samples will be randomly collected: three from upriver of causeway and seven from within boat basin.		
Clover Island	CI-6SD	J180L7	J00259	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Clover Island	CI-6SD	J18X28	K1665	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Return visit to collect samples for metals (6010/7471) including Cr+6 (7196A) analyses		
Clover Island	CI-6SD	J18X38	J00544	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Clover Island	CI-7SD	J180K2	K1495	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Ten sediment samples will be randomly collected: three from upriver of causeway and seven from within boat basin.		
Clover Island	CI-7SD	J180L2	J00259	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Clover Island	CI-7SD	J18X29	K1665	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Return visit to collect samples for metals (6010/7471) including Cr+6 (7196A) analyses		
Clover Island	CI-7SD	J18X39	J00544	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Clover Island	CI-8SD	J180K1	K1495	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Ten sediment samples will be randomly collected: three from upriver of causeway and seven from within boat		
Clover Island	CI-8SD	J180L1	J00259	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
																						basin.		
Clover Island	CI-8SD	J18X30	K1665	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Return visit to collect samples for metals (6010/7471) including Cr+6 (7196A) analyses		
Clover Island	CI-8SD	J18X40	J00540	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Clover Island	CI-9SD	J180K8	K1495	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Ten sediment samples will be randomly collected: three from upriver of causeway and seven from within boat basin.		
Clover Island	CI-9SD	J180L8	J00259	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Clover Island	CI-9SD	J18X31	K1665	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Return visit to collect samples for metals (6010/7471) including Cr+6 (7196A) analyses		
Clover Island	CI-9SD	J18X41	J00544	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Clover Island	CI-10SD	J180K3	K1495	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Ten sediment samples will be randomly collected: three from upriver of causeway and seven from within boat basin.		
Clover Island	CI-10SD	J180L3	J00259	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Clover Island	CI-10SD	J18X32	K1665	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Return visit to collect samples for metals (6010/7471) including Cr+6 (7196A) analyses		
Clover Island	CI-10SD	J18X42	J00544	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Two Rivers Park (5 replicates)	TR-1SSD	J18J44 -> J18J34/J18J34-A	K1566/TBD	√	√	√	√	√	√	--	√	√	--	√	√	√	√	√	√	--	√	One MIS sample will be collected at five replicate from the shoreline area of Two Rivers Park.	(1) Labeling scheme adjusted in 11/25 change file. (2) Analytical count increased from 1 to 5 in 12/4 changes to match adjustment in labeling scheme.	(1) Collected samples are assigned different HEIS numbers after MIS laboratory preparation has been completed, but prior to analysis; original and secondary sample numbers are listed. (2) Coordinate location provided is general vicinity coordinate, as provided is general vicinity coordinate, as provided in target coordinate file. (3) TR-4SSD and TR-5SSD could not be collected due to sustained elevated pool stage (sampling area completely submerged). (4) J18J39, J18J40, and J18J41 initially assigned for PCB congener analyses; cancelled due to lack of MIS-appropriate analytical capability.
	TR-2SSD	J18J45 -> J18J35/J18J35-A	K1566/TBD	√	√	√	√	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
	TR-3SSD	J18J46 -> J18J36/J18J36-A	K1566/TBD	√	√	√	√	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
	TR-4SSD[b]	NA	NA	O	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O			
	TR-5SSD[b]	NA	NA	O	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O			
Cascade Marina[c]	CM-1SSD to CM-10SSD	NA	NA	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	Ten sediment samples will be randomly collected from the shoreline area of Cascade Marina from a 10 cell grid.	(1) Eliminated in 11/25 changes discussed with Tri-Parties.	

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Cascade Marina	CM-1SD	J180T9	K1495	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Samples will be randomly collected from the marina basin.	(1) Added in 11/25 changes discussed with Tri-Parties. (2) Analyses added in 12/4 changes. (Consistent with originally planned shoreline sediment samples.)	(1) Miscellaneous outfall pipe observed adjacent to CM-5SD sampling location. (2) Hexavalent chromium analyses for all original CM-XSD samples exceeded 2 times the holding time requirement at the laboratory due to a time-stamp documentation issue; expect that some data will be rejected. Replacement samples (for hexavalent chromium and metals on all stations) planned for spring campaign.
Cascade Marina	CM-1SD	J180V4	J00262	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Cascade Marina	CM-1SD	J18X46	K1665	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Return visit to collect samples for metals (6010/7471) including Cr+6 (7196A) analyses		
Cascade Marina	CM-1SD	J18X51	J00544	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Cascade Marina	CM-2SD **Duplicate collected**	J180T6	K1495	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Samples will be randomly collected from the marina basin.		
Cascade Marina	CM-2SD **Duplicate collected**	J180V1	J00262	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Cascade Marina	CM-2SD **Duplicate collected**	J18089	J00264	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--			
Cascade Marina	CM-2SD **Duplicate collected**	J18X47	K1665	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Return visit to collect samples for metals (6010/7471) including Cr+6 (7196A) analyses		
Cascade Marina	CM-2SD **Duplicate collected**	J18X52	J00544	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Cascade Marina	CM-3SD	J180T8	K1495	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Samples will be randomly collected from the marina basin.		
Cascade Marina	CM-3SD	J180V3	J00262	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Cascade Marina	CM-3SD	J18X48	K1665	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Return visit to collect samples for metals (6010/7471) including Cr+6 (7196A) analyses		
Cascade Marina	CM-3SD	J18X53	J00544	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Cascade Marina	CM-4SD	J180T5	K1495	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Samples will be randomly collected from the marina basin.		
Cascade Marina	CM-4SD	J180V0	J00262	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Cascade Marina	CM-4SD	J18X49	K1665	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Return visit to collect samples for metals (6010/7471) including Cr+6 (7196A) analyses		
Cascade Marina	CM-4SD	J18X54	J00544	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Cascade Marina	CM-5SD	J180T7	K1495	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Samples will be randomly collected from the marina basin.		
Cascade Marina	CM-5SD	J180V2	J00262	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Cascade Marina	CM-5SD	J18X50	K1665	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Return visit to collect samples for metals (6010/7471) including Cr+6 (7196A) analyses		
Cascade Marina	CM-5SD	J18X55	J00544	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Sacajawea Park	SP-1SSD	J189K2	K1544	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Ten sediment samples will be randomly collected from the shoreline area of Sacajawea Park from a 10 cell grid.		(1) Insufficient sample material available at SP-4SSD, SP-5SSD, SP-6SSD, SP-7SSD, SP-8SSD, and SP-10SSD primary/alternate location vicinities. (No suite variation--all planned analyses requested for samples collected.)
Sacajawea Park	SP-1SSD	J189L2	J00351	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Sacajawea Park	SP-2SSD	J189J9	K1544	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Sacajawea Park	SP-2SSD	J189K9	J00351	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Sacajawea Park	SP-3SSD	J189K5	K1544	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Sacajawea Park	SP-3SSD	J189L5	J00351	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Sacajawea Park[b]	SP-4SSD	NA	NA	O	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O			
Sacajawea Park[b]	SP-5SSD	NA	NA	O	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O			
Sacajawea Park[b]	SP-6SSD	NA	NA	O	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O			
Sacajawea Park[b]	SP-7SSD	NA	NA	O	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O			
Sacajawea Park[b]	SP-8SSD	NA	NA	O	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O			
Sacajawea Park	SP-9SSD	J189K4	K1544	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Sacajawea Park	SP-9SSD	J189L4	J00351	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Sacajawea Park[b]	SP-10SSD	NA	NA	O	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O			
Foundation Island (Snake River sediment)	FIC1-1SD	J18M06	K1574	√	√	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√	Characterize sediments (left side) downriver of the confluence of the Snake and Columbia Rivers. Used to evaluate potential historic deposition of Hanford releases.	(1) Core temporary labeling scheme adjusted in field planning to prevent confusion with separate second Foundation Island core. (2) Changed to use of 4 in. core with 8 in. subsamples in field planning. (3) Location of FIC1 core adjusted in 11/25 changes discussed with Tri-Parties. (4) VOC, SVOC, and AVS/SEM analyses increased from one FIC core to both cores in 12/4 changes. (5) Hexavalent chromium analysis (full suite) added in 12/15 changes.	(1) Approximately 284 cm drive (including cutter head); field recovery estimated at 224 cm; available sediment sampling length of 201 cm.
Foundation Island (Snake River sediment)	FIC1-1SD	J18M07	J00423	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Foundation Island (Snake River sediment)	FIC1-1SD	J18M08	SEQ041409	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Foundation Island (Snake River sediment)	FIC1-2SD	J18M09	K1574	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Foundation Island (Snake River sediment)	FIC1-2SD	J18M14	J00423	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Foundation Island (Snake River sediment)	FIC1-3SD	J18M10	K1574	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Foundation Island (Snake River sediment)	FIC1-3SD	J18M15	J00423	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Foundation Island (Snake River sediment)	FIC1-4SD	J18M11	K1574	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Foundation Island (Snake River sediment)	FIC1-4SD	J18M16	J00423	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Foundation Island (Snake River sediment)	FIC1-5SD	J18KY9	K1574	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Foundation Island (Snake River sediment)	FIC1-5SD	J18L04	J00423	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Foundation Island (Snake River sediment)	FIC1-6SD	J18M13	K1574	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Foundation Island (Snake River sediment)	FIC1-6SD	J18M18	J00423	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Foundation Island (Snake River sediment)	FIC1-7SD	J18KY8	K1574	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Foundation Island (Snake River sediment)	FIC1-7SD	J18L03	J00424	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Foundation Island (Snake River sediment)	FIC1-8SD	J18M12	K1574	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Foundation Island (Snake River sediment)	FIC1-8SD	J18M17	J00424	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Foundation Island (Snake River sediment)	FIC1-9SD	J18LB1	K1574	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Foundation Island (Snake River sediment)	FIC1-9SD	J18LD1	J00424	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Foundation Island (Snake River sediment)	FIC1-10SD	J18LB0	K1574	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Foundation Island (Snake River sediment)	FIC1-10SD	J18LD0	J00423	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Foundation Island (Snake River sediment)	FIC2-1SD	J18MP2	K1583	√	√	√	--	X	X	--	√	--	--	√	√	√	√	√	√	--	√	Characterize sediments (left side) downriver of the confluence of the Snake and Columbia Rivers. Used to evaluate potential historic deposition of Hanford releases.	(1) Core temporary labeling scheme adjusted in field planning to prevent confusion with separate first Foundation Island core. (2) Changed to use of 4-in. core with 8 in. subsamples in field planning. (3) VOC, SVOC, and AVS/SEM analyses increased from one FIC core to both cores in 12/4 changes. (4) Hexavalent chromium analysis (full suite) added in 12/15 changes. (5) Pesticide and PCB analyses not specified in SAP (or subsequent revisions), but requested for first interval.	(1) Approximately 297 cm drive (including cutter head); field recovery estimated at 190 cm; available sediment sampling length of 186 cm. (2) Metals, TOC, and grain size analyses listed for all intervals in SAP, but not reported as requested for FIC2-7SD. Confirmed database error only.
Foundation Island (Snake River sediment)	FIC2-1SD	J18MP3	J00435	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Foundation Island (Snake River sediment)	FIC2-1SD	J18MP4	SEQ041409	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Foundation Island (Snake River sediment)	FIC2-2SD	J18L20	K1583	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Foundation Island (Snake River sediment)	FIC2-2SD	J18L26	J00435	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Foundation Island (Snake River sediment)	FIC2-3SD	J18L21	K1583	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Foundation Island (Snake River sediment)	FIC2-3SD	J18L27	J00435	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Foundation Island (Snake River sediment)	FIC2-4SD	J18L22	K1583	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Foundation Island (Snake River sediment)	FIC2-4SD	J18L28	J00435	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Foundation Island (Snake River sediment)	FIC2-5SD	J18L23	K1583	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Foundation Island (Snake River sediment)	FIC2-5SD	J18L29	J00435	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Foundation Island (Snake River sediment)	FIC2-6SD	J18L24	K1583	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Foundation Island (Snake River sediment)	FIC2-6SD	J18L30	J00435	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Foundation Island (Snake River sediment)	FIC2-7SD	J18M71-A	K1583	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Foundation Island (Snake River sediment)	FIC2-7SD	J18MC1-A	J00436	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Foundation Island (Snake River sediment)	FIC2-8SD	J18M60	K1583	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Foundation Island (Snake River sediment)	FIC2-8SD	J18MB0	J00436	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Foundation Island (Snake River sediment)	FIC2-9SD	J18M59	K1583	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Foundation Island (Snake River sediment)	FIC2-9SD	J18M99	J00436	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Lake Wallula shoreline sediments [b]	LW-1SSD	NA	NA	--	--	O	--	--	--	--	O	--	--	O	O	O	O	O	O	--	O	Based on an ecological habitat survey, five samples will be collected from the riparian area; spaced along the Lake Wallula shoreline.		1)No areas of sufficient sample material could be located in the defined sampling area.
Lake Wallula shoreline sediments [b]	LW-2SSD	NA	NA	--	--	O	--	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Lake Wallula shoreline sediments [b]	LW-3SSD	NA	NA	--	--	O	--	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Lake Wallula shoreline sediments [b]	LW-4SSD	NA	NA	--	--	O	--	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Lake Wallula shoreline sediments [b]	LW-5SSD	NA	NA	--	--	O	--	--	--	--	O	--	--	O	O	O	O	O	O	--	O			
Port Kelley boat ramp [b]	PK-1SSD	NA	NA	O	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O	Ten sediment samples will be randomly collected from the shoreline area of Port Kelley boat ramp from a 10 cell grid.	(1) Sample design type changed (from random/stratified) in 12/15 changes. (2) Rationale changed in 12/15 changes: using a 10 cell grid instead of two 5 cell grids.	(1) Insufficient sample material available at PK-1SSD through PK-9SSD primary/alternate location vicinities.
Port Kelley boat ramp [b]	PK-2SSD	NA	NA	O	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O			
Port Kelley boat ramp [b]	PK-3SSD	NA	NA	O	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O			
Port Kelley boat ramp [b]	PK-4SSD	NA	NA	O	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O			
Port Kelley boat ramp [b]	PK-5SSD	NA	NA	O	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O			
Port Kelley boat ramp [b]	PK-6SSD	NA	NA	O	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O			
Port Kelley boat ramp [b]	PK-7SSD	NA	NA	O	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O			
Port Kelley boat ramp [b]	PK-8SSD	NA	NA	O	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O			
Port Kelley boat ramp [b]	PK-9SSD	NA	NA	O	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O			
Port Kelley boat ramp	PK-10SSD	J189M8	K1557	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Port Kelley boat ramp	PK-10SSD	J189N8	J00368	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Hat Rock State Park [b]	HR-1SSD	NA	NA	O	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O	Ten sediment samples will be randomly collected from the shoreline area of Hat Rock State Park from a 10 cell grid.	(1) Locations corrected to actual Hat Rock State Park vicinity with 11/25 changes discussed with Tri-Parties. (2) Sample design type changed (from random/stratified) in 12/15 changes.	(1) Planned primary/alternate locations for HR 1SSD, HR-2SSD, HR-3SSD, and HR-4SSD found to be substantially removed from shoreline area; insufficient shoreline sediment sample material was present at nearest shoreline locations (2) Insufficient sample material available at HR-9SSD and HR-10SSD primary/alternate location vicinities.
Hat Rock State Park [b]	HR-2SSD	NA	NA	O	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O			
Hat Rock State Park [b]	HR-3SSD	NA	NA	O	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O			
Hat Rock State Park [b]	HR-4SSD	NA	NA	O	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O			
Hat Rock State Park	HR-5SSD	J189P6	K1547	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Hat Rock State Park	HR-5SSD	J189R6	J00352	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Hat Rock State Park	HR-6SSD	J189R0	K1547	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Hat Rock State Park	HR-6SSD	J189T0	J00352	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Hat Rock State Park	HR-7SSD	J189P5	K1547	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Hat Rock State Park	HR-7SSD	J189R5	J00352	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Hat Rock State Park	HR-7SSD	J18083	J00364	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--			
Hat Rock State Park	HR-8SSD	J189R1	K1547	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
Hat Rock State Park	HR-8SSD	J189T1	J00352	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Hat Rock State Park [b]	HR-9SSD	NA	NA	O	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O			
Hat Rock State Park [b]	HR-10SSD	NA	NA	O	O	O	O	O	O	--	O	O	--	O	O	O	O	O	O	--	O			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Lake Wallula sediments	LW-1SD	J17XR5	K1524	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√	Based on sonar survey results, five deep grab samples will be collected from Lake Wallula; one between river mile 310 and 311; one in the area off shore from Hat Rock State Park/boat launch; one near river mile 302 and one between river mile 298 and 299. The upper 10 in. of the cores will be used to evaluate ecological impacts.	(1) Sample design type changed (from random/stratified) in 12/15 changes. (2) Self-change rationale to reference five grabs rather than five cores. Reference to Hat Rock State Park vicinity likely erroneous based on misplacement of the park for other samples.	(1) Insufficient sample material available at LW-2SD & LW-3SD primary/alternate location vicinities. (No suite variation--all planned analyses requested for samples collected.)
Lake Wallula sediments	LW-1SD	J17XT5	J00319	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Lake Wallula sediments	LW-1SD	J17XV0	SEQ021309	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Lake Wallula sediments [b]	LW-2SD	NA	NA	--	--	O	O	--	--	--	O	--	O	O	O	O	O	O	O	--	O			
Lake Wallula sediments [b]	LW-3SD	NA	NA	--	--	O	O	--	--	--	O	--	O	O	O	O	O	O	O	--	O			
Lake Wallula sediments	LW-4SD **WDOH split collected**	J17XR8	K1524	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Lake Wallula sediments	LW-4SD **WDOH split collected**	J17XT8	J00319	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Lake Wallula sediments	LW-4SD**WDOH split collected**	J17XV3	SEQ021309	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			
Lake Wallula sediments	LW-5SD **WDOE split collected**	J17XR9	K1524	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Lake Wallula sediments	LW-5SD **WDOE split collected**	J17XT9	J00319	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Lake Wallula sediments	LW-5SD **WDOE split collected**	J17XV4	SEQ021309	--	--	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Lake Wallula	LWC1-1SD	J18L19	K1583	√	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√	Characterize sediments just upriver of Port Kelley and a boat launch (left side). Used to augment existing core data. Upper portion of sample to be used to evaluate ecological impacts.	(1) AVS/SEM analysis (on one sample) removed in 12/4 changes. (2) Core temporary labeling scheme adjusted in field planning to prevent confusion with separate second Lake Wallula core. (3) SAP (and subsequent revisions) specify hexavalent chromium analysis only for first interval; analysis inadvertently included for all sample intervals.	(1) Approximately 391 cm drive (including cutter head); field recovery estimated at 333 cm; available sediment sampling length of 346 cm (full core tube--obvious error in field measurement).
Lake Wallula	LWC1-1SD	J18L25	J00435	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Lake Wallula	LWC1-2SD	J18L09	K1583	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Lake Wallula	LWC1-2SD	J18L14	J00435	--	--	--	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Lake Wallula	LWC1-3SD	J18L10	K1583	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Lake Wallula	LWC1-3SD	J18L15	J00436	--	--	--	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Lake Wallula	LWC1-4SD	J18L11	K1583	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Lake Wallula	LWC1-4SD	J18L16	J00436	--	--	--	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Lake Wallula	LWC1-5SD	J18L12	K1583	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Lake Wallula	LWC1-5SD	J18L17	J00436	--	--	--	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Lake Wallula	LWC1-6SD	J18L13	K1583	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Lake Wallula	LWC1-6SD	J18L18	J00435	--	--	--	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Lake Wallula	LWC1-7SD	J18M71	K1583	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Lake Wallula	LWC1-7SD	J18MC1	J00436	--	--	--	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Lake Wallula	LWC1-8SD	J18M70	K1583	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Lake Wallula	LWC1-8SD	J18MC0	J00436	--	--	--	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Lake Wallula	LWC1-9SD	J18M69	K1583	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Lake Wallula	LWC1-9SD	J18MB9	J00436	--	--	--	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Lake Wallula	LWC1-10SD	J18M68	K1583	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Lake Wallula	LWC1-10SD	J18MB8	J00435	--	--	--	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Lake Wallula	LWC1-11SD	J18M67	K1583	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Lake Wallula	LWC1-11SD	J18MB7	J00436	--	--	--	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Lake Wallula	LWC1-12SD	J18M66	K1583	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Lake Wallula	LWC1-12SD	J18MB6	J00436	--	--	--	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Lake Wallula	LWC1-13SD	J18M65	K1583	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Lake Wallula	LWC1-13SD	J18MB5	J00436	--	--	--	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Lake Wallula	LWC1-14SD	J18M64	K1583	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Lake Wallula	LWC1-14SD	J18MB4	J00435	--	--	--	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Lake Wallula	LWC1-15SD	J18M63	K1583	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Lake Wallula	LWC1-15SD	J18MB3	J00435	--	--	--	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Lake Wallula	LWC1-16SD	J18M62	K1583	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Lake Wallula	LWC1-16SD	J18MB2	J00436	--	--	--	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Lake Wallula	LWC1-17SD	J18M61	K1583	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Lake Wallula	LWC1-17SD	J18MB1	J00435	--	--	--	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Lake Wallula	LWC2-1SD	J18L31	K1584	√	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√	Characterize sediments downriver of Wallula Gap. Used to augment existing core data. Upper portion of sample to be used to evaluate ecological impacts.	(1) AVS/SEM analysis (on one sample) removed in 12/4 changes. (2) Self-change on rationale (previously referenced erroneous Hat Rock State Park location). (3) Core temporary labeling scheme adjusted in field planning to prevent confusion with separate first Lake Wallula core and address a typo.	(1) Approximately 292 cm drive (including cutter head); field recovery estimated at 252 cm; available sediment sampling length of 244 cm. (2) Metals, TOC, and grain size analyses listed for all intervals in SAP, but not reported as requested for LWC2-8SD through 12SD. Confirmed database error only.
Lake Wallula	LWC2-1SD	J18L37	J00438	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Lake Wallula	LWC2-2SD	J18L32	K1584	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Lake Wallula	LWC2-2SD	J18L38	J00438	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Lake Wallula	LWC2-3SD	J18L33	K1584	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Lake Wallula	LWC2-3SD	J18L39	J00438	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Lake Wallula	LWC2-4SD	J18L34	K1584	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Lake Wallula	LWC2-4SD	J18L40	J00438	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Lake Wallula	LWC2-5SD	J18L35	K1584	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Lake Wallula	LWC2-5SD	J18L41	J00438	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Lake Wallula	LWC2-6SD	J18L36	K1584	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Lake Wallula	LWC2-6SD	J18L42	J00438	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Lake Wallula	LWC2-7SD	J18M58	K1584	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Lake Wallula	LWC2-7SD	J18M98	J00438	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Lake Wallula	LWC2-8SD	J18M70-A	K1584	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Lake Wallula	LWC2-8SD	J18MC0-A	J00438	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Lake Wallula	LWC2-9SD	J18M69-A	K1584	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Lake Wallula	LWC2-9SD	J18MB9-A	J00438	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Lake Wallula	LWC2-10SD	J18M68-A	K1584	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Lake Wallula	LWC2-10SD	J18MB8-A	J00438	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Lake Wallula	LWC2-11SD	J18M67-A	K1584	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Lake Wallula	LWC2-11SD	J18MB7-A	J00438	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Lake Wallula	LWC2-12SD	J18M66-A	K1584	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Lake Wallula	LWC2-12SD	J18MB6-A	J00438	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
McNary Dam boat ramps [c]	MDBR-1SSD to MDBR-20SSD			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	Ten samples will be randomly collected from the shoreline area of two (WA & OR side) McNary Dam boat ramps from a 10 cell grid each.	(1) Eliminated in 11/25 changes discussed with Tri-Parties.	
McNary Dam	MDC-1SD	J18L51	K1584	√	√	√	--	√	√	--	√	--	--	√	√	√	√	√	√	--	√	Characterize the sediments ~3/4 mile above McNary Dam (center of river). Used to augment existing core data. Upper portion of sample to be used to evaluate ecological impacts.	(1) AVS/SEM analysis (on one sample) removed in 12/4 changes.	(1) Approximately 122 cm drive (including cutter head); field recovery estimated at 86 cm; available sediment sampling length of 60 cm. 2)Made repeated coring attempts in vicinity of planned station location; no thicker sediment layer identified.
McNary Dam	MDC-1SD	J18L71	J00438	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
McNary Dam	MDC-2SD	J18L52	K1584	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
McNary Dam	MDC-2SD	J18L72	J00438	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
McNary Dam	MDC-3SD	J18L53	K1584	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
McNary Dam	MDC-3SD	J18L73	J00438	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
McNary Beach Recreational Area	MBRA-1SSD	J189T7	K1547	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Samples will be randomly collected from the beach area on a five cell grid.	(1) Added in 11/25 changes discussed with Tri-Parties. (2) Analyses added in 12/4 changes. (3) Self-change on rationale to address typos and reference to a 10 cell grid.	
McNary Beach Recreational Area	MBRA-1SSD	J189V2	J00352	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
McNary Beach Recreational Area	MBRA-2SSD **EPA split collected**	J189T8	K1547	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
McNary Beach Recreational Area	MBRA-2SSD **EPA split collected**	J189V3	J00352	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
McNary Beach Recreational Area	MBRA-3SSD **Duplicate collected**	J189T4	K1547	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
McNary Beach Recreational Area	MBRA-3SSD **Duplicate collected**	J189T9	J00352	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
McNary Beach Recreational Area	MBRA-4SSD	J189T6	K1547	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
McNary Beach Recreational Area	MBRA-4SSD	J189V1	J00352	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
McNary Beach Recreational Area	MBRA-5SSD	J189T5	K1547	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
McNary Beach Recreational Area	MBRA-5SSD	J189V0	J00352	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
McNary Beach Recreational Area	MBRA-1SD	J18173	K1524	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Four samples will be randomly collected from the beach area.	(1) Added in 11/25 changes discussed with Tri-Parties. (2) Analyses added in 12/4 changes.	
McNary Beach Recreational Area	MBRA-1SD	J18179	J00319	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
McNary Beach Recreational Area	MBRA-1SD	J18091	J00367	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--			
McNary Beach Recreational Area	MBRA-2SD	J18176	K1524	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
McNary Beach Recreational Area	MBRA-2SD	J18180	J00319	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
McNary Beach Recreational Area	MBRA-3SD	J18172	K1524	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
McNary Beach Recreational Area	MBRA-3SD	J18178	J00319	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
McNary Beach Recreational Area	MBRA-4SD **Duplicate collected**	J18177	K1525	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
McNary Beach Recreational Area	MBRA-4SD **Duplicate collected**	J18181	J00322	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
McNary Dam boat ramp Oregon side	MDBR-1SD **EPA split collected**	J181B1	K1525	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Three samples will be randomly collected from the McNary Dam boat ramp.	(1) Added in 11/25 changes discussed with Tri-Parties. (2) Analyses added in 12/4 changes.	(1) Wood fragments identified in material collected at MDBR-2SD.
McNary Dam boat ramp Oregon side	MDBR-1SD **EPA split collected**	J181B7	J00322	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
McNary Dam boat ramp Oregon side	MDBR-2SD	J181B2	K1525	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
McNary Dam boat ramp Oregon side	MDBR-2SD	J181B8	J00322	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
McNary Dam boat ramp Oregon side	MDBR-3SD	J181B3	K1525	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
McNary Dam boat ramp Oregon side	MDBR-3SD	J181B9	J00322	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
McNary Dam boat ramp Washington side	MDBR-4SD	J18199	K1525	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√	Three samples will be randomly collected from the McNary Dam boat ramp.	(1) Added in 11/25 changes discussed with Tri-Parties. (2) Analyses added in 12/4 changes.	(1) Wood fragments identified in material collected at MDBR-4SD.
McNary Dam boat ramp Washington side	MDBR-4SD	J181B5	J00322	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
McNary Dam boat ramp Washington side	MDBR-5SD	J181B0	K1525	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
McNary Dam boat ramp Washington side	MDBR-5SD	J181B6	J00322	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
McNary Dam boat ramp Washington side	MDBR-6SD	J18198	K1525	√	√	√	--	√	√	--	√	√	--	√	√	√	√	√	√	--	√			
McNary Dam boat ramp Washington side	MDBR-6SD	J181B4	J00322	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Bonneville Dam	BDC1-1SD	J18MY2	K1584	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√	Characterize the sediments in the Bonneville Dam Pool with two additional locations to complement an existing core sample on the right side of the river. This location is on the left side of the river. Note: data used for Hanford Rad characterization only.	(1) AVS/SEM analysis (on one sample) removed in 12/4 changes. (2) Core temporary labeling scheme adjusted in field planning to prevent confusion with separate second Bonneville core.	(1) Approximately 198 cm drive (including cutter head); field recovery estimated at 56 cm; available sediment sampling length of 43 cm. (2) Station location adjusted from planned coordinates in an attempt to locate better sediment deposition area.
Bonneville Dam	BDC1-2SD	J18MY3	K1584	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			

Table B-5. Sediment and Soil Sampling Summary - Requested Analyses. (64 Pages)

Sample Description				Analyses/EPA Method																		Rationale	Change Control	Other Notes/Comments
Sampling Location	Temporary Sample Identification	Sample Number	Sample Delivery Group	VOCs - 8260B	SVOCs - 8270C	Metals (Unfiltered) - 6010/6020/7471	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A[a]	TOC/Grain Size - 9060/ ASTM D4222	PHC - 8115	AVS/SEM - 200.8	Radionuclides - GEA	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U			
Bonneville Dam	BDC2-1SD	J18MY8	K1584	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√	Characterize the sediments in the Bonneville Dam Pool with two additional locations to complement an existing core sample on the right side of the river. This location is on the left side of the river. Note: data used for Hanford Rad characterization only.	(1) AVS/SEM analysis (on one sample) removed in 12/4 changes. (2) Core temporary labeling scheme adjusted in field planning to prevent confusion with separate first Bonneville core.	(1) Approximately 152 cm drive (including cutter head); field recovery estimated at 69 cm; available sediment sampling length of 58 cm. (2) Station location adjusted from planned coordinates in an attempt to locate better sediment deposition area. (3) Woody debris noted in core.
Bonneville Dam	BDC2-2SD	J18MY9	K1584	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			
Bonneville Dam	BDC2-3SD	J18N00	K1584	--	--	√	--	--	--	--	√	--	--	√	√	√	√	√	√	--	√			

[a] Every 10th sediment sample analyzed for PCB Aroclors by 8082 will also be analyzed for PCB congeners.
[b] Eliminated based on sediment sonar surveys
[c] Station eliminated based on field reconnaissance

√ = Analysis identified in SAP (or changes), and confirmed requested
X = Analysis not identified in SAP (or changes), but requested
O = Analysis identified in SAP (or changes), but not requested

-- = sample not analyzed for given parameter
AEA = alpha energy analysis
ASTM = American Society for Testing and Materials
AVS/SEM = acid volatile sulfides/simultaneously extracted metals by EPA Method 200.8
Core = sediment core
Cr+6 = hexavalent chromium by EPA Method 7196A
DOC = dissolved organic carbon
EPA = U.S. Environmental Protection Agency
GEA = gamma energy analysis
HEIS = Hanford Environmental Information System
HMU = habitat management unit
HT = Hanford townsite
Metals = by EPA Methods 6010/6020 and 7471
MIS = *MULTI INCREMENT®* sampling
NA = not available
PCB = pesticides/polychlorinated biphenyl by EPA Method 8082
PCE = tetrachloroethylene
Pesticides = by EPA Method 8081
PHC = petroleum hydrocarbon by EPA Method 8115
SAP = sampling and analysis plan
SD = shallow sediment
SDT = sample data tracking
SSD = shoreline sediment
SVOA = semivolatile organic analysis
SVOC = semivolatile organic compound by EPA Method 8270C
TBD = to be determined
TOC = total organic carbon by EPA Method 9060
UCL = upper confidence limit
VOC = volatile organic compound by EPA Method 8260B
WDOE = Washington Department of Ecology
WDOH = Washington State Department of Health

Table B-6. Quality Assurance and Quality Control Samples for Sediment and Soil Sampling. (10 Pages)

Quality Assurance/ Quality Control Category	Sample Number	Sample Delivery Group	Sample Date	Matrixed Samples [a]	Requested Analyses																										Comments
					VOCs - 8260B	SVOCs - 8270C	Metals (Filtered) - 6010/7471	ICP Metals (Unfiltered) - 6010	Mercury (Unfiltered) - 7471	Total Uranium by ICP or KPA	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A	PHC - 8115	AVS/SEM - 200.8	Nitrate - 300.0	Radionuclides - Gross alpha/beta	Radionuclides - GEA	Radionuclides - Isotopic Am	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U	TOC - 9060	Grain Size - ASTM D4222	Hardness\DOC\ Alkalinity - 130.1\415.1\310.1	
Equipment blank	J17W48	K1480	12/2/2008	All shallow/deep sediments	√	√	--	√	√	--	--	√	√	--	√		--	--	--	--	--	--	--	--	--	--	--	√	--	--	
	J17W49	J00244			--	--	--	--	--	--	√	--	--	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Equipment blank	J186B7	K1557	3/4/2009	All non-MIS shoreline sediments	√	√	--	√	√	--	--	√	√	--	√	--	--	--	--	--	--	--	--	--	--	--	--	√	--	--	(1) PCB congeners analysis was cancelled for sample J186B8 due to inappropriate matrix for analysis. Analysis is extraneous and not explicitly required for equipment blank. (2) Sample J186B9 disposed in the field--AVS/SEM analysis is extraneous for an equipment blank.
	J186B8	J00368			--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	J186B9	TBD			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Equipment blank	J18HY5	K1551	2/25/2009	All MIS shoreline sediments	--	√	--	√	√	--	√	√	√	--	√	--	--	--	--	--	--	--	--	--	--	--	--	√	--	--	
Equipment blank	J189W6	K1556	3/3/2009	All soils	--	√	--	√	√	--	√	√	√	--	√	--	--	--	--	--	--	--	--	--	--	--	--	√	--	--	
Equipment blank	J18LF4	K1580	3/30/2009	All core sediments	√	√	--	√	√	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	√	--	--	
Equipment blank	J18X60	K1667	6/11/2009	All spring shallow/deep sediments	--	√	--	√	√	--	--	√	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Equipment blank	J18X72	K1668	6/11/2009	All spring soils	--	--	--	√	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Special	J18JC0	K1551	2/25/2009	Leslie Groves MIS shoreline sediments	--	√	--	√	√	--	--	√	√	--	√	--	--	--	√	--	--	--	--	--	--	--	--	√	--	--	(1) Sample collected from extensive goose dung present at Leslie Groves shoreline sample location
Field lab ambient blank	J18LH1	K1594	3/25/2009	All core sediments	√	√	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(1) DI water sample collected as field blank at core-processing facility to assess for potential cross-contamination
Field lab ambient blank	J18LH0	K1595	4/1/2009	All core sediments	√	√	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(1) DI water sample collected as field blank at core-processing facility to assess for potential cross-contamination
Field lab ambient blank	J18N24	K1596	4/7/2009	All core sediments	√	√	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(1) DI water sample collected as field blank at core-processing facility to assess for potential cross-contamination
Field ambient blank	J18N25	K1598	4/9/2009	All BDC sediments	--	--	--	√	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EPA split	J17Y57[b]	NA	12/1/2008	J17V94	--	--	--	√	--	--	--	--	--	--	--		--	√	√	√	--	√	√	--	√	--	√	--	--	--	
EPA split	J17Y58[b]	NA	12/3/2008	J17WJ3	--	--	--	√	--	--	--	--	--	--	--	--	--	√	√	√	--	√	√	--	√	--	√	--	--	--	

Table B-6. Quality Assurance and Quality Control Samples for Sediment and Soil Sampling. (10 Pages)

Quality Assurance/ Quality Control Category	Sample Number	Sample Delivery Group	Sample Date	Matrixed Samples [a]	Requested Analyses																										Comments
					VOCs - 8260B	SVOCs - 8270C	Metals (Filtered) - 6010/7471	ICP Metals (Unfiltered) - 6010	Mercury (Unfiltered) - 7471	Total Uranium by ICP or KPA	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A	PHC - 8115	AVS/SEM - 200.8	Nitrate - 300.0	Radionuclides - Gross alpha/beta	Radionuclides - GEA	Radionuclides - Isotopic Am	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U	TOC - 9060	Grain Size - ASTM D4222	Hardness\DOC\ Alkalinity - 130.1\415.1\310.1	
EPA split	J17Y59[b]	NA	12/9/2008	J180B0	--	--	--	√	--	--	--	--	--	--	--	--	--	√	√	√	--	√	√	--	√	--	√	--	--	--	
EPA split	J17Y61[b]	NA	2/3/2009	J181B1	--	--	--	√	--	--	--	--	--	--	--	--	--	√	√	√	--	√	√	--	√	--	√	--	--	--	
EPA split	J188L8[b]	NA	2/10/2009	J186X2	--	--	--	√	--	--	--	--	--	--	--	--	--	√	√	√	--	√	√	--	√	--	√	--	--	--	
EPA split	J188L9[b]	NA	2/16/2009	J187P8	--	--	--	√	--	--	--	--	--	--	--	--	--	√	√	√	--	√	√	--	√	--	√	--	--	--	
EPA split	J188M0[b]	NA	2/20/2009	J189T8	--	--	--	√	--	--	--	--	--	--	--	--	--	√	√	√	--	√	√	--	√	--	√	--	--	--	
EPA split	J188L7[b]	NA	3/4/2009	J18KH5	--	--	--	√	--	--	--	--	--	--	--	--	--	√	√	√	--	√	√	--	√	--	√	--	--	--	
WDOE split	J17YR4[b]	NA	12/3/2008	J17WB0 & J17WC0	--	√	--	√	√	√	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
WDOE split	J17YR5[b]	NA	12/4/2008	J17Y96 & J17YC6	--	√	--	√	√	√	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
WDOE split	J17YR7[b]	NA	12/8/2008	J17YT4 & J17YT9	--	√	--	√	√	√	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
WDOE split	J17YR6[b]	NA	12/10/2008	J180R0 & J180R5	--	√	--	√	√	√	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
WDOE split	J17YR8[b]	NA	2/2/2009	J17XR9 & J17XT9	--	√	--	√	√	√	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
WDOH split	J17Y93[b]	NA	12/2/2008	J17W99	--	--	--	--	--	--	--	--	--	--	--	--	--	--	√	--	√	√	√	√	√	--	√	--	--	--	
WDOH split	J17Y91[b]	NA	12/10/2008	J180H6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	√	--	√	√	√	√	√	--	√	--	--	--	
WDOH split	J17Y89[b]	NA	12/10/2008	J17XP7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	√	--	√	√	√	√	√	--	√	--	--	--	
WDOH split	J17Y90[b]	NA	2/2/2009	J17XR8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	√	--	√	√	√	√	√	--	√	--	--	--	
WDOH split	J188M1[b]	NA	2/13/2009	J188C4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	√	--	√	√	√	√	√	--	√	--	--	--	
Duplicate[c]	J17VN8	K1480	12/2/2008	J17VD0	--	√	--	√	√	--	--	O	√	--	--	--	--	--	√	--	√	√	√	√	√	--	√	√	√	--	(1) Pesticide analysis requested for corresponding primary sample; not requested for duplicate. (2) PCB congener analysis requested for corresponding primary sample; not requested for duplicate
	J17VR0	J00244		J17VF3	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Duplicate[c]	J17VN7	K1484	12/4/2008	J17X13	√	√	--	√	√	--	--	√	√	--	√	--	--	--	√	--	√	√	√	√	√	--	√	√	√	--	
	J17VP9	J00250		J17X18	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	J17W61	TBD		J17X25	--	--	--	--	--	--	--	--	--	--	--	O	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Duplicate[c]	J17VN9	K1489	12/8/2008	J18003	√	√	--	√	√	--	--	√	√	--	√	--	--	--	√	--	√	√	√	√	√	--	√	√	√	--	
	J17VR1	J00253		J18008	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Sample J17W63 inadvertently disposed. Not a critical deficiency
	J17W63	TBD		J18015	--	--	--	--	--	--	--	--	--	--	--	O	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Duplicate[c]	J17VP2	K1491	12/9/2008	J18097	√	√	--	√	√	--	--	√	√	--	√	--	--	--	√	--	√	√	√	√	√	--	√	√	√	--	
	J17VR4	J00256		J180B7	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(1) AVS/SEM analysis not requested (appropriately) for corresponding primary sample. Sample J17W66 disposed without analysis.
	J17W66	TBD		None	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

Table B-6. Quality Assurance and Quality Control Samples for Sediment and Soil Sampling. (10 Pages)

Quality Assurance/ Quality Control Category	Sample Number	Sample Delivery Group	Sample Date	Matrixed Samples [a]	Requested Analyses																										Comments
					VOCs - 8260B	SVOCs - 8270C	Metals (Filtered) - 6010/7471	ICP Metals (Unfiltered) - 6010	Mercury (Unfiltered) - 7471	Total Uranium by ICP or KPA	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A	PHC - 8115	AVS/SEM - 200.8	Nitrate - 300.0	Radionuclides - Gross alpha/beta	Radionuclides - GEA	Radionuclides - Isotopic Am	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U	TOC - 9060	Grain Size - ASTM D4222	Hardness\DOC\ Alkalinity - 130.1\415.1\310.1	
Duplicate[c]	J17VP1	K1495	12/11/2008	J180K6	√	√	--	√	√	--	--	√	√	--	√	--	--	--	√	--	√	√	√	√	√	--	√	√	√	--	(1) AVS/SEM analysis not requested (appropriately) for corresponding primary sample. Sample J17W65 disposed without analysis. (2) See note regarding hexavalent chromium analysis for primary sample on master summary sheet. Replacement sample planned for spring campaign
	J17VR3	J00259		J180L6	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	J17W65	TBD		None	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Duplicate[c]	J17VP3	K1495	12/11/2008	J180T6	√	√	--	√	√	--	--	√	√	O	√	--	--	--	√	--	√	√	√	√	√	--	√	√	√	--	(1) PCB congeners analysis requested for primary sample, but not for duplicate (2) AVS/SEM analysis not requested (appropriately) for corresponding primary sample. Sample J17W67 disposed without analysis. (3) See note regarding hexavalent chromium analysis for primary sample on master summary sheet. Replacement sample planned for spring campaign.
	J17VR5	J00262		J180V1	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	J17W67	TBD		None	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Duplicate[c]	J17VP0	K1525	2/3/2009	J18177	√	√	--	√	√	--	--	√	√	--	√	--	--	--	√	--	√	√	√	√	√	X	√	√	√	--	(1) Tritium analysis not requested (appropriately) for corresponding primary sample (2) AVS/SEM analysis not requested (appropriately) for corresponding primary sample. Sample J17W64 inadvertently submitted for analysis (extraneous data)
	J17VR2	J00322		J18181	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	J17W64	TBD		None	--	--	--	--	--	--	--	--	--	--	--	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Duplicate[c]	J17VP5	K1525	2/3/2009	J17V87	√	√	--	√	√	--	--	√	√	--	√	--	--	--	√	--	√	√	√	√	√	√	√	√	√	--	(1) AVS/SEM analysis not requested (appropriately) for corresponding primary sample. Sample J17W69 inadvertently submitted for analysis (extraneous data)
	J17VR7	J00322		J17V97	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	J17W69	TBD		None	--	--	--	--	--	--	--	--	--	--	--	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Duplicate	J18613	K1527	2/5/2009	J186D2	√	√	--	√	√	--	--	√	√	--	X	--	--	--	√	--	√	√	√	√	√	--	√	√	√	--	(1) PHC analysis not requested (appropriately) for corresponding primary sample

Table B-6. Quality Assurance and Quality Control Samples for Sediment and Soil Sampling. (10 Pages)

Quality Assurance/ Quality Control Category	Sample Number	Sample Delivery Group	Sample Date	Matrixed Samples [a]	Requested Analyses																										Comments
					VOCs - 8260B	SVOCs - 8270C	Metals (Filtered) - 6010/7471	ICP Metals (Unfiltered) - 6010	Mercury (Unfiltered) - 7471	Total Uranium by ICP or KPA	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A	PHC - 8115	AVS/SEM - 200.8	Nitrate - 300.0	Radionuclides - Gross alpha/beta	Radionuclides - GEA	Radionuclides - Isotopic Am	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U	TOC - 9060	Grain Size - ASTM D4222	Hardness\DOC\ Alkalinity - 130.1\415.1\310.1	
Duplicate	J17VP8	K1536	2/9/2009	J188J5	√	√	--	√	√	--	--	√	√	--	√	--	--	--	√	--	√	√	√	√	√	--	√	√	√	--	(1) AVS/SEM analysis not requested (appropriately) for corresponding primary sample. Sample J17W72 disposed without analysis
	J17VT0	J00330		J188K5	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	J17W72	TBD		None	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Duplicate	J18612	K1537	2/10/2009	J186D4	O	O	--	√	√	--	--	√	√	--	X	--	--	--	√	--	√	√	√	√	√	--	√	√	√	--	(1) SVOA & VOA requested, but holding time severely exceeded at analytical laboratory; analyses not performed. (2) PHC analysis not requested (appropriately) for corresponding primary sample
	J18628	J00334		J186F4	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Duplicate	J185Y9	K1537	2/10/2009	J186X2	√	√	--	√	√	--	--	√	√	--	--	--	--	--	√	--	√	√	√	√	√	--	√	√	√	--	
	J18615	J00334		J186Y2	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Duplicate	J18600	K1539	2/11/2009	J187D3	√	√	--	√	√	--	--	√	√	--	O	--	--	--	√	--	√	√	√	√	√	--	√	√	√	--	(1) PHC analysis requested for primary sample, but omitted for duplicate (requested laboratory to run analysis with available excess material)
	J18616	J00335		J187F3	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Duplicate	J18610	K1540	2/12/2009	J18795	√	√	--	√	√	--	--	√	√	--	√	O	--	--	√	--	√	√	√	√	√	--	√	√	√	--	(1) AVS/SEM analysis requested for primary sample, but omitted for duplicate
	J18626	J00337		J187B5	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Duplicate	J18608	K1542	2/13/2009	J18904	√	√	--	√	√	--	--	√	√	--	√	--	--	--	√	--	√	√	√	√	√	--	√	√	√	--	
	J18624	J00339		J18916	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Duplicate	J18912	K1542	2/13/2009	J18911	--	--	--	√	√	--	--	--	--	--	--	--	--	--	√	--	√	√	√	√	√	--	√	√	√	--	
	J18924	J00339		J18923	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Duplicate	J18614	K1542	2/16/2009	J187Y1	√	√	--	√	√	--	--	√	√	--	√	--	--	--	√	--	√	√	√	√	√	--	√	√	√	--	
	J18630	J00340		J187Y9	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Duplicate	J18607	K1542	2/17/2009	J18864	√	√	--	√	√	--	--	√	√	--	√	--	--	--	√	--	√	√	√	√	√	--	√	√	√	--	
	J18623	J00342		J18874	--	--	--	--	--	--	√	--	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	
Duplicate	J18609	K1547	2/20/2009	J189T4	√	√	--	√	√	--	--	√	√	--	√	--	--	--	√	--	√	√	√	√	√	--	√	√	√	--	
	J18625	J00352		J189T9	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Duplicate	J189W0	K1554	2/27/2009	J18B49	--	√	--	√	√	--	√	√	√	--	√	--	--	--	√	--	√	√	√	√	√	√	√	√	√	--	
Duplicate	J189W1	K1554	3/2/2009	J18B00	--	√	--	√	√	--	√	√	√	--	√	--	--	--	√	--	√	√	√	√	√	√	√	√	√	--	
Duplicate	J189V8	K1556	3/3/2009	J18B11	--	√	--	√	√	--	√	√	√	--	√	--	--	--	√	--	√	√	√	√	√	√	√	√	√	--	
Duplicate	J189V9	K1556	3/3/2009	J18B33	--	√	--	√	√	--	√	√	√	--	√	--	--	--	√	--	√	√	√	√	√	√	√	√	√	--	
Duplicate	J18X57	K1665	6/9/2009	J18X47	--	--	--	√	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Duplicate	J18X59	J00544		J18X52	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Duplicate	J18X56	K1667	6/10/2009	J18X23	--	--	--	√	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Duplicate	J18X58	J00546		J18X33	--	--	--	--	--	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

Table B-6. Quality Assurance and Quality Control Samples for Sediment and Soil Sampling. (10 Pages)

Quality Assurance/ Quality Control Category	Sample Number	Sample Delivery Group	Sample Date	Matrixed Samples [a]	Requested Analyses																										Comments
					VOCs - 8260B	SVOCs - 8270C	Metals (Filtered) - 6010/7471	ICP Metals (Unfiltered) - 6010	Mercury (Unfiltered) - 7471	Total Uranium by ICP or KPA	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A	PHC - 8115	AVS/SEM - 200.8	Nitrate - 300.0	Radionuclides - Gross alpha/beta	Radionuclides - GEA	Radionuclides - Isotopic Am	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U	TOC - 9060	Grain Size - ASTM D4222	Hardness\DOC\ Alkalinity - 130.1\415.1\310.1	
Duplicate	J18X71	K1668	6/11/2009	J18X68	--	--	--	√	√	--	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J17VY1	K1479	12/1/2008	J17V96, J17V93, J17V94, & J17V95	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J17VY3	K1479	12/1/2008	J17V96, J17V93, J17V94, & J17V95	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Note: redundant trip blank
Trip blank	J17W04	K1480	12/2/2008	None	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(1) Associated with samples collected at PRD-8, 9, & 14-18SD (no VOA requested for any of the primary samples)
Trip blank	J17W07	K1480	12/2/2008	J17WD4, J17WD3, J17WB1, & J17W99	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J17W06	K1482	12/3/2008	J17WB0 & J17W98	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J17W03	K1482	12/3/2008	J17WH9, J17WH6, J17WH8, & J17WH7	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J17W00	K1484	12/4/2008	J17X01, J17X02, J17X12, J17X13, & J17Y99	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J17VY9	K1484	12/4/2008	J17Y97, J17Y96, J17Y98, & J17Y99	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J17VY8	K1486	12/5/2008	J17XJ1	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J17VY7	K1486	12/5/2008	J17XK5 & J17YF2	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J17VY6	K1489	12/8/2008	J17YV8, J17YV9, J18003, J18002, & J17VN9	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J17VY5	K1489	12/8/2008	J17YT5, J17YT4, J18016, & J18017	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

Table B-6. Quality Assurance and Quality Control Samples for Sediment and Soil Sampling. (10 Pages)

Quality Assurance/ Quality Control Category	Sample Number	Sample Delivery Group	Sample Date	Matrixed Samples [a]	Requested Analyses																									Comments
					VOCs - 8260B	SVOCs - 8270C	Metals (Filtered) - 6010/7471	ICP Metals (Unfiltered) - 6010	Mercury (Unfiltered) - 7471	Total Uranium by ICP or KPA	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A	PHC - 8115	AVS/SEM - 200.8	Nitrate - 300.0	Radionuclides - Gross alpha/beta	Radionuclides - GEA	Radionuclides - Isotopic Am	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U	TOC - 9060	Grain Size - ASTM D4222	Hardness\DOC\ Alkalinity - 130.1\415.1\310.1	
Trip blank	J17W01	K1491	12/9/2008	J18031, J18030, J18097, J18096, J18092, J18098, & J18093	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J17W05	K1491	12/9/2008	J180B1, J18095, J180B0, & J18094	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J17VY2	K1495	12/10/2008	J18046, J18045, J18047, J180H5, J180H6, J180H7, J180P4, J180P3, J180P0, & J180P1	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J17W02	K1495	12/10/2008	J180N0, J180R3, J180R0, & J180R4	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(1) Also matrixed to J17XP7, pending confirmation of VOA request on that sample
Trip blank	J17W16	K1495	12/11/2008	J180K6, J180K9, J180K4, J180K2, J180K8, J180T9, J180T6, J180T8, J180T5, & J180T7	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J17W15	K1495	12/11/2008	J180K0, J180K5, J180K7, J180K1, & J180K3	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J17W08	K1497	12/11/2008	J18164	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J17W13	K1524	2/2/2009	J18173, J18176, & J18172	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J17VY4	K1524	2/2/2009	J180W8 & J180W9	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

Table B-6. Quality Assurance and Quality Control Samples for Sediment and Soil Sampling. (10 Pages)

Quality Assurance/ Quality Control Category	Sample Number	Sample Delivery Group	Sample Date	Matrixed Samples [a]	Requested Analyses																									Comments
					VOCs - 8260B	SVOCs - 8270C	Metals (Filtered) - 6010/7471	ICP Metals (Unfiltered) - 6010	Mercury (Unfiltered) - 7471	Total Uranium by ICP or KPA	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A	PHC - 8115	AVS/SEM - 200.8	Nitrate - 300.0	Radionuclides - Gross alpha/beta	Radionuclides - GEA	Radionuclides - Isotopic Am	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U	TOC - 9060	Grain Size - ASTM D4222	Hardness\DOC\ Alkalinity - 130.1\415.1\310.1	
Trip blank	J17W14	K1524	2/3/2009	J18177, J181B1, J181B2, J181B3, J18199, J181B0, J18198, & J17VP0	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J17W10	K1524	2/3/2009	J17V87, J17V88, J17V89, J17V90, J17V91, J17V92, & J17VP5	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J17W09	K1526	2/4/2009	J186C6, J186C5, J186C7, & J186C8	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J17W11	K1526	2/4/2009	J186C3, J186C1, J186C0, & J186C2	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J18688	K1527	2/5/2009	J186D2 & J18613	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J18678	K1527	2/6/2009	J18932, J18929, J18931, J18928 & J18930	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J18686	K1536	2/9/2009	J188H0, J188F8, J188F7, J188F9, J188J8, J188J5, J188J6, & J188J7	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J18685	K1537	2/10/2009	J186D6, J186D5, J186D3, J186D4, & J18702	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J18675	K1537	2/10/2009	J186X2 & J186X3	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J18671	K1539	2/11/2009	J187D3	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

Table B-6. Quality Assurance and Quality Control Samples for Sediment and Soil Sampling. (10 Pages)

Quality Assurance/ Quality Control Category	Sample Number	Sample Delivery Group	Sample Date	Matrixed Samples [a]	Requested Analyses																										Comments
					VOCs - 8260B	SVOCs - 8270C	Metals (Filtered) - 6010/7471	ICP Metals (Unfiltered) - 6010	Mercury (Unfiltered) - 7471	Total Uranium by ICP or KPA	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A	PHC - 8115	AVS/SEM - 200.8	Nitrate - 300.0	Radionuclides - Gross alpha/beta	Radionuclides - GEA	Radionuclides - Isotopic Am	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U	TOC - 9060	Grain Size - ASTM D4222	Hardness\DOC\ Alkalinity - 130.1\415.1\310.1	
Trip blank	J18672	K1539	2/11/2009	None	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(1) Associated with sample collected at RDD-8SSD (no VOA requested for the primary sample)
Trip blank	J18680	K1540	2/12/2009	J18796, J17X03, J18797, J18794, J18795, J187Y2, & J187K6	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J17W12	K1540	2/12/2009	J187D4 & J187K7	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J18669	K1542	2/13/2009	J18906, J18905, J18903, J18902, J18904, & J18608	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J18670	K1542	2/13/2009	None	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(1) Associated with samples collected at WI-2SSD, WI-4SSD, WI-6SSD, WI-11SSD, and WI-12SSD (no VOA for these samples)
Trip blank	J18674	K1542	2/16/2009	J187P1, J187Y1, J18614, & J187Y3	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J18676	K1542	2/16/2009	J187P6, J187P7, J187P5, & J187P8	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J18687	K1542	2/17/2009	J17XP1, J17XP2, J17XP3, J188F0, & J188F1	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J18681-A	K1542	2/17/2009	J18828, J18827, J18807, J18808, J18809, J18810, J18865, J18864, & J18607	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(1) Sample relabeled with -A due to previous use of original HEIS number by a different project

Table B-6. Quality Assurance and Quality Control Samples for Sediment and Soil Sampling. (10 Pages)

Quality Assurance/ Quality Control Category	Sample Number	Sample Delivery Group	Sample Date	Matrixed Samples [a]	Requested Analyses																									Comments
					VOCs - 8260B	SVOCs - 8270C	Metals (Filtered) - 6010/7471	ICP Metals (Unfiltered) - 6010	Mercury (Unfiltered) - 7471	Total Uranium by ICP or KPA	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A	PHC - 8115	AVS/SEM - 200.8	Nitrate - 300.0	Radionuclides - Gross alpha/beta	Radionuclides - GEA	Radionuclides - Isotopic Am	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U	TOC - 9060	Grain Size - ASTM D4222	Hardness\DOC\ Alkalinity - 130.1\415.1\310.1	
Trip blank	J18684	K1543	2/18/2009	J18884, J18885, J18887, J18966, J18965, & J18977	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J18677	K1543	2/18/2009	J18886, J188B2, J188B8, J188B9, J188C0, J188C1, J189D7, & J189D6	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J18683	K1544	2/19/2009	J18991, J18990, J18992, J189C1, J189C0, J189D4, J189C3, J189K2, J189K5, & J189K4	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J18679	K1544	2/19/2009	J18985, J18986, J18987, J18988, J189B5, J189B6, J189B9, J189B8, J189B7, & J189J9	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J18682-A	K1547	2/20/2009	J189P6, J189P5, J189T7, J189T4, & J189T5	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J18673	K1547	2/20/2009	J189R0, J189R1, J189T8, & J189T6	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J18664	K1547	2/23/2009	J180M0	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J18665	K1547	2/23/2009	J189J1	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J18667	K1565	2/26/2009	J17YY6, J17YY7, & J17YY8	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

Table B-6. Quality Assurance and Quality Control Samples for Sediment and Soil Sampling. (10 Pages)

Quality Assurance/ Quality Control Category	Sample Number	Sample Delivery Group	Sample Date	Matrixed Samples [a]	Requested Analyses																									Comments
					VOCs - 8260B	SVOCs - 8270C	Metals (Filtered) - 6010/7471	ICP Metals (Unfiltered) - 6010	Mercury (Unfiltered) - 7471	Total Uranium by ICP or KPA	Cr+6 - 7196A	Pesticides - 8081	PCBs - 8082	PCB Congeners - 1668A	PHC - 8115	AVS/SEM - 200.8	Nitrate - 300.0	Radionuclides - Gross alpha/beta	Radionuclides - GEA	Radionuclides - Isotopic Am	Radionuclides - C-14	Radionuclides - Isotopic Pu	Radionuclides - Sr-90	Radionuclides - Tc-99	Radionuclides - Isotopic Th	Radionuclides - H-3	Radionuclides - Isotopic U	TOC - 9060	Grain Size - ASTM D4222	Hardness\DOC\ Alkalinity - 130.1\415.1\310.1	
Trip blank	J18666	K1557	3/4/2009	J18KH5, J18KH7, & J18KH8	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J18668	K1557	3/4/2009	J189M8	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J18LF8	K1573	3/24/2009	J18KY3	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip blank	J18LF7	K1584	4/7/2009	Cores collected on 4/7/09	√	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

[a] Listed matrixed samples include only those samples with direct correlation. (e.g., only samples with VOA requested are listed as matrixed to a trip blank; other samples collected in trip are not listed.)
[b] Regulatory splits have been assigned a HEIS number for tracking during sample collection, but data will not be provided to HEIS.
[c] Duplicates for shallow/deep sediments were generally collected as a separate co-located grab due to limitations in material recovery for a single grab. Coordinates for such duplicates (which may vary slightly from the primary sample) have not been captured for this tracking table.

√ = Appropriate analysis, confirmed requested
X = Extra analysis, confirmed requested
O = Analysis is appropriate, but was not requested/performed

ASTM = American Society for Testing and Materials
AVS/SEM = acid volatile sulfides/simultaneously extracted metals by EPA Method 200.8
BDC = Bonneville Dam Corp
DI = deionized water
DOC = dissolved oxygen content
EPA = U.S. Environmental Protection Agency
GEA = gamma energy analysis
HEIS = Hanford Environmental Information System
ICP = inductively coupled plasma
MIS = *MULTI INCREMENT*® sampling
NA = not available
PCB = polychlorinated biphenyl
PHC = petroleum hydrocarbon
SVOC = semivolatile organic compound
TBD = to be determined
TOC = total organic compound
VOA = volatile organic analysis
VOC = volatile organic compound
WDOE = Washington Department of Ecology
WDOH = Washington State Department of Health

APPENDIX C

STANDARD OPERATING PROCEDURES USED BY INTEGRAL CONSULTING, INC.

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STANDARD OPERATING PROCEDURE (SOP) SD-05

SURFACE SEDIMENT SAMPLING USING A MODIFIED VAN VEEN OR POWER GRAB SAMPLER

SCOPE AND APPLICATION

This SOP describes the procedures used to collect surface sediment with a modified van Veen or Power grab sampler. For the purposes of this SOP, surface sediment is defined as the upper 10 cm of the sediment column, but may vary given the sampling interval specified in the study design. The specific sampling interval will be specified in the project-specific field sampling plan (FSP). Surface sediment is typically analyzed for various physical and chemical variables so the sampling equipment and sampling procedures must be compatible with all analyses.

A modified stainless-steel van Veen or Power grab sampler is capable of collecting acceptable samples from a variety of substrates, such as mud, sand, gravel, and pebbles (APHA 1989; USEPA 2001). The modified van Veen grab and Power grab samplers incorporate several design improvements over the traditional van Veen grab sampler, which improve the quality of the sediment samples. These grab samplers have two doors on top to allow easy access to the sample for visual characterization and subsampling of undisturbed surface sediments. The interiors of the doors are made of screens to minimize the bow wake and the resulting disturbance of the sediment surface when the grab sampler is lowered to the bottom. Rubber flaps cover each screen as the grab sampler is retrieved to prevent disturbing the sediment sample as it is raised through the water column. The arms of these grab samplers are lengthened and arced to provide a stronger seal when the grab sampler is closed, thereby minimizing sample leakage when the grab sample is retrieved. Finally, the modified grab sampler has four detachable, epoxy-coated lead weights that allow the weight and penetration of the grab sampler to be optimized with respect to the kind of sediment being sampled. The procedures for collecting surface sediment samples using the modified van Veen grab sampler or Power grab sampler are described below.

EQUIPMENT AND REAGENTS REQUIRED

Equipment required for sediment sampling using either the van Veen or Power grab samplers includes the following:

- Stainless-steel van Veen grab sampler (typically 0.06 m^2 or 0.1 m^2) and spare parts OR pneumatic, stainless-steel Power grab sampler (typically 0.2 m^2)

- Winch and hydrowire (with load capacities 3 times the weight of a full sampler)
- Sample collection table
- Teflon® or polyethylene siphon (inner diameter = 1.27 cm, length = 60–90 cm)
- Stainless-steel ruler
- Stainless-steel spoons/spatulas
- Stainless-steel mixing bowl or pot
- Socket and crescent wrenches (for adding or removing the detachable weights of the grab sampler)
- Water pump and hose (for rinsing the grab sampler, sampling utensils, and sample collection table).

PROCEDURES

Decontamination

To prevent potential cross-contamination of samples, all reusable sediment sampling equipment must be decontaminated. Before each station is sampled, decontaminate the inner surfaces of the grab sampler and all stainless-steel sample compositing equipment. Details on correct decontamination procedures can be found in SOP SD-01, *Decontamination of Equipment—Sediment*. The project-specific FSP should also be consulted to determine any project-specific decontamination procedures. The personnel performing the decontamination procedures will wear protective clothing as specified in the site-specific health and safety plan.

All solvent rinsates (if used) will be collected into a bucket or tub and allowed to evaporate over the course of the day. Any rinsate that has not evaporated by the end of the sampling event will be containerized and disposed of in accordance with applicable regulations.

Grab Sampler Deployment

1. Attach the grab sampler to the hydrowire with a swivel. The swivel minimizes the twisting forces on the sampler during deployment and ensures that proper contact is made with the bottom. For safety, the hydrowire, swivel, and all shackles should have a load capacity at least 3 times the weight of a full sampler.
2. Place the decontaminated grab sampler on a clean surface (i.e., the sample collection table) and open it.
3. Ensure that the two release chains and the two retrieval chains are hanging free and are not wrapped around the arms of the sampler.

4. Ensure that all doors are firmly latched shut.
5. Attach the ring of the release chains to the release mechanism, and insert the safety pin to prevent the mechanism from being activated prematurely.
6. Start the winch, raise the release mechanism and the sampler, and swing it outboard.
7. Remove the safety pin from the trigger, and lower the sampler through the water column at a slow and steady speed (e.g., 30 cm/second).
8. Allow the grab sampler to contact the bottom gently, with only its weight being used to force it into the sediments. The sampler should never be allowed to "free fall" to the bottom because this may result in premature triggering, an excessive bow wake, or improper orientation upon contact with the bottom.
9. Allow approximately 60 cm of slack in the hydrowire after contact with the bottom is made to ensure that the release mechanism is activated.

Grab Retrieval

1. After the grab sampler has rested on the bottom for approximately 5 seconds, begin retrieving it at a slow and steady rate (e.g., 30 cm/second). Note: The amount of time that the grab sampler rests on the bottom is dependent upon the kind of substrate (e.g., sediment with a high moisture content will require less time on the bottom to avoid over-penetration).
2. Ensure that the sampling vessel is not headed into any waves before the sampler breaks the water surface to minimize vessel rolling and potential sample disturbance.
3. Care must be taken to avoid loss of fine- grained surface sediments, mixing of sediment layers upon impact, lack of sediment penetration, and loss of sediment from tilting or washout upon ascent.
4. After the grab sampler breaks the water surface and is raised above the height of the sample collection table, swing the grab sampler inboard, keep the sampler in an upright position and gently lower it onto the table, maintaining tension on the hydrowire to prevent the grab sampler from rolling when it contacts the table. Avoid quick movements of the sampler, especially rotation, as this could disrupt the interface.
5. When the grab sampler contacts the table, insert wedges under both jaws so that the grab sampler will be held in an upright position when tension on the hydrowire is relaxed.
6. Relax the tension on the hydrowire, and remove the release and retrieval chains from the surface of the grab sampler.

7. As soon as the grab sampler is secured, open the doors on the top of the grab sampler, and inspect the sample for acceptability. The following acceptability criteria should be satisfied:
   - The sampler is not overfilled with sample to the point that the sediment surface presses against the top of the sampler or is extruded through the top of the sampler
   - Overlying water is present (indicating minimal leakage)
   - The overlying water is not excessively turbid (indicating minimal disturbance of the interface or winnowing)
   - The sediment surface is relatively undisturbed; the sediment-water interface is intact and relatively flat with no sign of channeling or sample washout
   - The desired penetration depth is achieved
   - There is no sign of sediment loss (incomplete closure of the sampler, penetration at an angle, or tilting upon retrieval).

If a sample fails to meet the above criteria, it will be rejected and discarded away from the station. The locations of consecutive attempts and replicate samples (if any) should be as close to the first sample as possible, and if sampling on a river or stream, consecutive attempts should be located upstream of previous samples. Rejected sediment samples should be discarded in a manner that will not affect subsequent samples at that station or other possible sampling stations.

Penetration depth should be determined with a decontaminated stainless-steel ruler by measuring the distance from the top of the sampler to the sediment interface and subtracting this from the inside depth of the sampler. If the sample is fairly level inside the sampler, this measurement can be made at one edge. If the sample is uneven but has an intact interface, then measurements should be made on opposite edges of the sample and the average value used. This observation (i.e., that the sediment surface is slanted) and subsequent calculation of the average penetration depth should be recorded in the field logbook. If penetration depth is inadequate, add auxiliary weights.

Sample Removal and Processing

1. For acceptable samples, remove the overlying water by slowly siphoning it off near one or more sides of the grab sampler. Ensure that the siphon does not contact the sediments or that fine- grained suspended sediment is not siphoned off. If sediment is suspended in the overlying water, do not proceed with siphoning until the sediment is allowed sufficient time to settle.
2. After the overlying water is removed, characterize the sample as specified in the study design. Characteristics that are often recorded in the field logbook include:

- Sediment type (e.g., silt, sand)
- Texture (e.g., fine-grain, coarse, poorly sorted sand)
- Color
- Presence/location/thickness of the redox potential boundaries (a visual indication of black is often adequate for documenting anoxia)
- Approximate percentage of water
- Presence of biological structures (e.g., amphipods, tubes, macrophytes)
- Approximate percentage of biological structures
- Presence of debris (e.g., twigs, leaves)
- Approximate percentage of organic debris
- Presence of shells
- Approximate percentage of shells
- Stratification, if any
- Presence of a sheen
- Odor (e.g., hydrogen sulfide, oil, creosote).

3. After the sample is characterized, remove the top 10 cm using a stainless steel spatula or spoon (see project-specific FSP for correct sampling interval). Unrepresentative material (e.g., large shells, stones) should be carefully removed without touching the sediment sample, under the supervision of the field team leader. This removal should be noted in the field logbook.
4. Remove subsamples for analysis of unstable constituents (e.g., volatile organic compounds, acid- volatile sulfides), and place them directly into sample containers without homogenization. Sediment must be placed in these containers with no headspace and no entrapped bubbles (i.e., completely fill the sample container).
5. Transfer the remaining surface sediment to a stainless-steel mixing bowl or pot for homogenization. Additional grab samples may be required to collect the volume of sediment specified in the study design. If it is necessary to collect additional grab samples to meet the project-specific volume requirements, the mixing bowl or pot should be covered with aluminum foil (dull side down) to prevent sample contamination (e.g., from precipitation, splashing water) and placed out of the sun and away from heat.

6. After the surface sediment for a sample has been collected from the grab sampler, move the sampling vessel away from the station, open the jaws of the grab sampler, attach the ring of the deployment chains to the release mechanism, insert the safety pin, start the winch, raise the grab sampler, and allow the remainder of the sediment sample to fall onto the sample collection table or into waste sediment collection buckets/tubs. Discard this material away from the station, and rinse away any sediment adhering to the inside of the grab sampler. The grab sampler is now ready for additional sampling at the same station or decontamination before sampling at a new station.
7. After a sufficient volume of sediment is transferred to the mixing bowl or pot, homogenize the contents of the bowl or pot using stainless-steel spoons until the texture and color of the sediment appears to be uniform.
8. After the sample is homogenized, distribute subsamples to the various containers specified in the study design and preserve the samples as specified in the study design. The sediment in the mixing bowl or pot should be briefly stirred in between the transfer of sediment to each sample container.
9. After all sediment for testing has been placed in the sample containers, if it is suspected that there is a clay component to the sediment, a "ribbon test" should be performed on the sediment to confirm this suspicion. In this "texture-by- feel" test, a small piece of suspected clay is rolled between the fingers while wearing protective gloves. If the piece easily rolls into a ribbon it is clay; if it breaks apart, it is silt. This information should be noted in the field logbook.

Field Quality Control Samples

Details on collection of field quality control samples and preparation of the certified reference materials can be found in SOP SD-02, *Preparation of Field Quality Control Samples—Sediment* and SOP SD-03, *Preparation of Reference Materials—Sediment*. Not all of the field quality control samples discussed in these SOPs may be required for a given project. The specific field quality control samples will be described in the project-specific FSP and quality assurance project plan (QAPP).

Field Measurements

A water depth measurement must be collected at every sampling location. For sites where tides affect water depth, the time of collection and depth measurement must be recorded simultaneously. Depending on the specific project objectives, it may be necessary to perform field measurements of the in situ environment. Possible field measurements include temperature and pH of the sediment at the sediment-water interface and concentration of dissolved oxygen, salinity, or conductivity in the overlying water. Details on collection of field

measurements can be found in SOP SD-11, *Field Analyses for Sediment*. Required field measurements, if any, will be specified in the project-specific FSP.

Station Location Coordinates

Station locations will be determined in accordance with the project-specific FSP. Generally, station locations for all field sampling will be determined using a differential global positioning system (DGPS), which is capable of providing latitude and longitude coordinates with an accuracy of approximately 2 m. The DGPS consists of two satellite receivers linked to each other by a VHF telemetry radio system. The GPS receiver will be on the sampling vessel and positioned above where the grab sampler is deployed. Details on collection of field station coordinates can be found in SOP AP-06, *Navigation and Station Positioning*.

REFERENCES

APHA. 1989. Standard methods for the examination of water and waste water. Seventeenth Edition. Prepared and published by American Public Health Association, the American Water Works Association, and the Water Pollutant Control Federation.

USEPA. 2001. Methods for collection, storage, and manipulation of sediments for chemical and toxicological analyses: Technical Manual. EPA-823-B-01-002. U.S. Environmental Protection Agency, Office of Water, Office of Science & Technology, Washington, DC.

STANDARD OPERATING PROCEDURE (SOP) SD-08

SUBSURFACE SEDIMENT CORE COLLECTION

SCOPE AND APPLICATION

This SOP outlines the procedure for collecting core samples from target locations using a vibracorer equipped with a Lexan®-lined dedicated core tube. The vibracorer offers a high rate of production, superior retention of shallow samples, and a greater sample volume compared to conventional drilling equipment. The vibracorer also provides greater penetration capabilities than piston-type or conventional gravity corers when encountering compact subsurface sediments.

SUMMARY OF METHOD

Undisturbed, continuous sediment cores will be collected using a vibracore system. The vibracore system utilizes a high-frequency vibrating head to break down the frictional resistance of the sediment and allow the core tube to penetrate into the sediment with minimal distortion. This method is well suited for collecting continuous, undisturbed cores from soft sediment types.

The vibracorer uses a hydraulic system that vibrates and drives a 4-in.-outside-diameter, aluminum core tube with location-dedicated Lexan® liner into the sediment. A continuous sediment sample is retained within the tubing with the aid of a stainless-steel core cutter/catcher attached to the bottom of each aluminum tube.

Following positioning at a given sampling station, the vibracorer is deployed off the foredeck of the vessel and slowly lowered to the sediment surface. Vibracoring continues until adequate core penetration (sample depth) is achieved.

After collection of the core sample, the vibracorer is slowly raised to the deck of the vessel. Before the Lexan® core tube is removed from the vibracorer, the core cutter/catcher is visually inspected to ensure that proper penetration has been attained and that there is no obvious loss of sediment from the tube. Any presence of noticeable odors or sheen at the end of the tube or in the water will also be noted.

The core penetration depth and physical characteristics (e.g., color, texture, odor) of the sediment sample as observed at the ends of the tube will be recorded in the field logbook by an experience geologist.

Cores are cut into manageable sections (3–4 ft) aboard the vessel immediately after their retrieval. They are then capped with aluminum foil and plastic caps, and sealed with duct tape. Following sectioning, the cores are stored onboard the vessel in a core box and transported periodically throughout each field day by small boat to a field-based laboratory where they are stored upright on ice or refrigerated at 4°C to await processing.

PROCEDURES

Vibracorer Deployment and Retrieval

The procedures for vibracorer deployment and retrieval are as follows.

- Maneuver the sampling vessel to the targeted sampling location using the positioning procedures and minimum water depth restrictions.
- Deploy 3- or 4-point anchor system to maintain position; record and monitor position throughout core acquisition.
- Assemble the decontaminated core tube, liner, catcher, and cutterheads using care to not contact decontaminated surfaces. Attach assembled vibracorer to winch cable. Note that several decontaminated catchers and cutterheads will be on hand, in case of loss. These items can be reused for subsequent core collection.
- Attach a tape measure to the vibracorer or mark the winch cable in 1/2-ft increments to measure penetration depth.
- Signal the winch operator to lift the vibracorer.
- Guide the vibracore (with core liner, valve, core catcher, and cutterhead in place) overboard until it is clear of the vessel.
- Lower the vibracorer through the water column slowly to avoid creating a bow wake or overturning of the instrument. Lower until the tip of the core is resting on the sediment or to the depth recorded by the fathometer, depending on the consistency of the sediment. Record the vibracore depth as derived from the attached tape measure or marked winch cable. Measurements will serve as a basis for determining penetration depth.
- Turn on the vibracorer and lower to the target penetration distance as measured by the attached tape measure or marked winch cable. If the targeted penetration depth is met, proceed to the next step; if refusal is met, retrieve the vibracorer, perform gross decontamination (i.e., rinse with river water and brush off visible sediment) and re-attempt at new location offset at least 3–5 ft from original location.
- Turn off the vibracorer and record the time, penetration distance, angle of the cable relative to the boat, and any other observations.

- Signal the winch operator to begin retrieving the corer and raise it slowly at a constant rate to keep the instrument upright and not dislodge any sediment from within the core barrel.
- Guide the vibracorer onboard the vessel and place it on the work vessel deck; use care to avoid jostling that might disturb the integrity of the core. Care must be taken to keep the top end of core elevated to prevent sediment from "pouring" out. Use a sawhorse or equivalent to elevate the top of the core.
- Unscrew the core cutter and carefully remove the core catcher, while retaining as much sediment as possible.
- Affix core cap, wrap with tape, and label core liner and end of core.
- Remove liner from core barrel, lifting lower end from the deck as needed to provide clearance. Remove valve from top of core liner, stand upright, and allow sediment at top to settle.
- While waiting for sediment to settle, prepare core log. Identify any debris as to depth in core and what the debris is, if possible.
- Once resuspended sediment has settled, use a decontaminated saw to cut a drain-slit or a decontaminated drill bit to drill in the side of the core liner approximately 1 to 2 in. above the sediment–water interface; allow excess water to drain. Cut excess polycarbonate liner with decontaminated blade.
- In preparation for next core, thoroughly rinse the interior of the core barrel until all loose sediment has been washed off.

Repeat process at next sampling location. Continue coring until requirements are met.

In situations where there is significant surface water depth and/or water current that could cause the vibracorer setup to lean at an unacceptable angle, a buoyant frame or rigid frame configuration should be used.

With the buoyant frame, the vibracorer is maintained in proper vertical position by two guidelines held taut between a float package and a weight stand. The larger weight stand is provided with ballast boxes so that easy-to-find ballasting material such as lead bags or scrap metal can be used in the field. For deployment, the vibracorer is lowered with the weight stand hanging on its guidelines from the vibrahead. The float package is hooked up to the guidelines when the vibrahead reaches the deck level.

After coring and pull-up, the system is retrieved in the reverse manner. In case of limited deck space or overhead clearance, or to further accelerate the procedure on the water, the weight stand can be left in as overboard cradle.

Sample Handling and Storage

Cores should be processed concurrently with core collection, and every effort should be made to ensure cores are processed within 24 hours of collection. Cores awaiting processing will be sealed tightly at both ends and stored upright in a refrigerator. If core collection outpaces processing such that significant delays in core processing appear likely, core collection will be suspended to allow the core processing to catch up.

The field laboratory will be equipped with a core-cutting table, core-processing tables, a decontamination area, and a storage area with appropriate refrigeration. Appropriate lighting will be installed in the core processing area so that consistent, high quality photographs can be taken of the opened cores. Care should be taken to create a core-processing area that minimizes the potential for outside contamination.

- Cut each core tube along the long axis using decontaminated hook blade. Rotate the tube 180° and cut again.
- After each core is cut, move the entire core tube to an aluminum foil covered table and open it so that it can be systematically logged, described, and photographed.
- After each core is cut open, describe the sediment on a core log in the field laboratory notebook. When recording the information for each core, follow the guidelines below:
  - Physical sediment description (i.e., sediment type, density/consistency, color)
  - Odor (e.g., hydrogen sulfide, petroleum)
  - Visual stratification and lenses
  - Vegetation
  - Debris
  - Evidence of biological activity (e.g., detritus, shells, tubes, bioturbation, live or dead organisms)
  - Presence of oil sheen
  - Other distinguishing characteristics or features.

The visual observations of sediment lithology (dominant grain sizes) will be the primary criteria for determining sample intervals (i.e., lithologic units) in the cores. For consistency, core descriptions and terms used will follow the criteria below, which are modified from methods presented in ASTM D 2488-00 (ASTM 2000).

- Record visual estimates of the grain-size percentages of sediment units within each core on the core logs so that the total sum will add up to 100 percent. Make estimates of gravel, sand, and fines (silt and clay) content generally to the nearest quartiles:
  - 0 to 25 percent

- >25 to 50 percent
- >50 to 75 percent
- >75 to 100 percent.

If appropriate, describe the sediment narratively on the log based on the estimated grain-size percentages. Use the dominant constituent grain size as the primary unit descriptor, and describe the abundance of other grain sizes present using the following terms:

- The grain-size adjective (e.g., gravelly, sandy, silty, or clayey), if estimated to constitute more than 25 percent of the sediment
- *With*, for example, sand with silt, silt with sand, etc., if estimated to constitute less than 25 percent of the sediment
- *Trace*, if estimated at less than 5 percent of the sediment (and not included in the total 100 percent).

For other features observed, such as organics or debris, use the following additional descriptive terms as appropriate:

- *Mostly*, if estimated to constitute 50 percent or more of the unit
- *Some*, if estimated to constitute more than 25 to 50 percent of the unit
- *Little*, if estimated to be 25 percent of the unit or less
- *Trace*, if estimated at less than 5 percent (and not included in the total 100 percent).

- Describe density using the following terms:
  - *Loose*, if easily penetrated with a sampling spoon
  - *Dense*, if penetration is more difficult.
- Describe consistency using the following terms:
  - *Very soft*, if present as an ooze that holds no shape
  - *Soft*, if saggy
  - *Stiff*, if it holds a shape
  - *Very stiff*, if penetration with a spoon is low
  - *Hard*, if no penetration with a spoon is possible.
- Use other observations (e.g., obvious anthropogenic material, dramatic color changes) to define or help define sample intervals.

- Determine the boundaries of lithologic units primarily by changes in the top two dominant grain sizes estimated visually (e.g., a change from a silty sand to a gravelly sand or to a sandy silt).
- Photograph the cores after being described and before any sediment is removed for processing. It is important for each core section to be photographed with adequate lighting from a standard measured distance from the core. Digital photographs will be used later in the production of digital core logs.
- Place subsampled sediment into a decontaminated stainless-steel bowl. Collect adequate volumes of sediment for all required analyses.
- Mix sediment from each subsample individually in the decontaminated, stainless-steel bowl to a uniform color and texture using a decontaminated, stainless-steel spoon. Stir the sediment periodically while individual samples are taken to ensure that the mixture remains homogeneous. Exercise care to not include sediment that is in direct contact with the core tube. Fill pre-labeled jars for chemical testing with the homogenized sediment.

The types and number of field quality control samples for subsurface sediment samples will follow the same guidelines prescribed for surface sediment samples. If additional volumes of sediment are required to perform all analyses in addition to quality control analyses, an additional core may need to be collected from the same location and subsampled and homogenized accordingly.

When required, sediment subsamples to be analyzed for volatile organic compounds will be collected from within appropriate intervals following the opening of the core and designation of the lithologic units. This process will minimize the release of volatile organic compounds caused by mixing.

Sediment handling equipment that comes in direct contact with the sample, such as scoops, spoons, and mixing bowls that are not dedicated to an individual sample, will be decontaminated in accordance to ENV-1-2.15 prior to use at each station and between field replicates.

REFERENCES

ASTM. 2000. Standard Practice for Description and Identification of Soils (Visual-Manual Procedure). ASTM Standard Method No. D 2488-00. In: ASTM Book of Standards, Volume 04.08. American Society for Testing and Materials, West Conshohocken, PA.

STANDARD OPERATING PROCEDURE (SOP) SW-04

SURFACE WATER SAMPLING USING A PERISTALTIC PUMP

SCOPE AND APPLICATION

This SOP defines and standardizes the methods for collecting surface water samples from freshwater or marine environments using a peristaltic pump and Teflon™ tubing.

This SOP utilizes and augments the procedures outlined in the *San Francisco Estuary Institute's Field Sampling Manual for the Regional Monitoring Program for Trace Substances* (David et al. 2001), the *Interagency Field Manual for the Collection of Water-Quality Data* (USGS various dates), and *U.S. Environmental Protection Agency (EPA) Method 1669, Sampling Ambient Water for Trace Metals at EPA Water Quality Criteria Levels* (USEPA 1996). The goal of this SOP is to ensure that the highest quality, most representative data be collected, and that these data are comparable to data collected by different programs that follow EPA guidelines.

By following this SOP, surface water can be collected with a high level of sample integrity and minimal contamination during sample handling. The trace clean sampling method described in this SOP can be used to collect surface water for filtered and unfiltered water analysis, trace metals analysis, analysis of organic compounds, and analysis of conventional analytes, such as total suspended solids, dissolved organic carbon, and total dissolved solids.

STATION ACCESS

Prior to entering select areas such as private beaches or embayments, or nearing docks, it may be necessary to acquire property access permission from the landowner. Be sure to secure such permission, including any written agreements, in advance of the sampling program.

STATION LOCATION

When collecting near-bottom surface water samples, take care to avoid resuspending sediments in the water column, which could affect the sample being collected or samples to be collected at other downstream stations. To avoid resuspended sediment interference in the sample being collected, always approach stations from downstream. Avoid sampling near eddies that may circulate water from the sampling location to upstream of the sampling location. To avoid interference from resuspended sediment at other stations, begin collecting samples with the most downstream station and continue upstream.

Collect near-surface water samples at least 6 in. below the surface–air interface or surface water microlayer to avoid collecting non-representative compounds such as transient dust particles and thin oil films, unless otherwise instructed.

Collect water samples from areas that are representative of the surface water body conditions. A station that is located away from immediate point sources (e.g., tributaries and industrial and municipal effluents) is preferred for collecting surface water samples unless sampling is designed to assess these sources. Representative samples can usually be collected in portions of the surface water body that have a uniform cross section and flow rate. Because mixing is influenced by turbulence and water velocity, select a site immediately downstream of a riffle area (e.g., fast flow zone) to ensure good vertical mixing.

Sample tributaries as near the mouth as is feasible. However, consider the impact of the downstream receiving water body on the tributary flow and sediments. The downstream body may decrease water velocity (causing suspended solids to settle) or create eddies (causing mixing of the two waters). The downstream water body may change the water quality (e.g., salinity), temperature, or turbidity in the tributary near its mouth. It is important to determine how far upstream the tributary is influenced by the downstream water body, and then establish a sampling point with a reasonable distance upstream from that boundary.

Pay attention to intakes and outflows within lagoons or settling ponds, which may cause localized concentrations that are not representative of general conditions. Sample locations adjacent to structures (e.g., banks, piers) may also have biased characteristics as a result of flow or release of substances from the structure. Note these kinds of confounding factors in the field logbook. For ponds and lakes that may be vertically stratified, use a multi-parameter water quality meter to collect depth profiles throughout the water body to aid in selecting appropriate sampling points and depths.

SUMMARY OF METHOD

To collect surface water samples for standard chemical and conventional analyses, use a peristaltic pump with an extended sampling tube lowered to the desired depths (see project-specific sampling and analysis plan [SAP]). Two kinds of sampling devices may be used to obtain the water samples, depending upon the project's needs. The near-surface water polyvinyl chloride (PVC) sampling structure (water sampler) has a polyurethane-coated weight suspended from the bottom of the structure to maintain it in an upright position (Figure 1a).

A near-bottom water sampler has a weighted landing base designed to keep the sampling tube at a fixed distance from the bottom (e.g., 30 cm, or 12 in.) and prevent the intake from coming in contact with the sediment (Figure 1b). Both types of water samplers keep the tubing intake pointing into the current with the help of a vane. The vane can be removed if the water is

quiescent. Additional equipment, such as a multi-probe or underwater video camera, may be mounted on the PVC structure.

At each station, when either a near-surface or a near-bottom water sampler is deployed, attach the Teflon™ tubing to the vane with zip ties and place the water intake approximately 10 ft from the bow of the boat with the aid of an A-frame or davit. Keeping the boat facing the current, lower the water sampler unit to the appropriate depth with the help of a hydraulic or electric winch. Using a peristaltic pump, direct the outflow from the sampling tube into either a polycarbonate (for inorganic analyses) or glass or stainless-steel (for organic analyses) composite mixing container (Figure 2). Pump equal volumes of water into each large, pre-cleaned 10- or 20 L mixing container (depending on the project-specific needs) that is equipped with a Teflon™-coated magnetic stirring bar, and place them over a magnetic stir table. Use the containers for mixing and compositing samples for subsequent chemical analysis.

Following sample compositing in the mixing container, fill appropriate sample bottles (see project-specific SAP) using a second peristaltic pump, with the outflow directed into the sample bottle. If enough water volume is available, hold the sample bottle near the pump outlet, rinse the sample container one or two times, discard the rinsate, and then fill the sample bottle. Be aware that laboratory bottles are pre-cleaned and this rinsing option is not mandatory if water volume is an issue. Collect field rinsate blanks to ensure that sampling containers are not a source of contamination. If preservatives are present in the sample bottle, then omit the rinsing step. Cap and label the sample containers, and place them inside a cooler to store at approximately 4±2 °C.

Two types of surface water samples may be collected: unfiltered and filtered. For filtered metals and dissolved organic carbon samples, place the 0.45-μm filter (or project-specific pore size filter; see project-specific SAP) in-line near the tubing outlet to filter samples immediately before the water is discharged into the sample bottle (Figure 2). In general, filter samples for total suspended solids (TSS) and total dissolved solids (TDS) at the laboratory (see project-specific SAP).

Use the same technique described above to collect water for compositing surface water collected at horizontally integrated near-surface and near-bottom stations.

EQUIPMENT AND REAGENTS REQUIRED

This section describes the general types of required equipment and reagents. Attachment 1 provides a detailed supply and equipment list. Additional equipment may be required depending upon project-specific needs.

Use one or two peristaltic pumps at each sampling station (near-surface and near-bottom) for collecting surface water samples. To collect unfiltered and filtered split samples from the mixing containers, use the same pump that is used to fill the mixing containers. Use a sample

processing and preservation chamber (i.e., workbox) made of PVC pipes and 6-mil plastic sheeting to house stir plate(s), a peristaltic pump, sampling bottles, and ancillary equipment. Place a polycarbonate, glass, or stainless-steel mixing container (10 or 20L) on the stir plate. Each mixing container is equipped with a 3-in.-long Teflon™-coated stir bar at the bottom and a lid containing inflow, outflow, and vent Teflon™ spouts (Figure 2). For each sampling station, assemble a filtering kit (laboratory precleaned 0.45-μm filter with C-Flex™ and Teflon™ tubing placed in a double Ziploc™ bag) and attach it to a peristaltic pump and mixing containers. If necessary, attach a precleaned 10-μm prefilter inline to prolong the life of the 0.45-μm filter. You will need the following equipment:

- Peristaltic pump
- Surface water parameter multimeter capable of measuring pH, reduction/oxidation (redox) potential, temperature, specific conductance, turbidity, and dissolved oxygen
- PVC pipes and plastic sheeting
- Polycarbonate (inorganic analyses) and/or glass or stainless-steel (organic analyses) mixing containers (see project-specific SAP for analyte list)
- Sample tubing (type and length are site-dependent)
- Stir plate with Teflon™-coated stir bar
- 0.45-μm filter with C-Flex™ and Teflon™ tubing (if needed; see project-specific SAP to determine if filtered samples are required)
- Water Sampling Log forms (attached)
- Sample tags/labels and appropriate documentation (e.g., chain-of-custody forms)
- Insulated cooler(s), chain-of-custody seals, Ziploc® bags
- Sample containers with preservative, coolers, and blue ice or equivalent.

PROCEDURES

The sampling team should comprise three people. Two are needed to conduct the sampling and a third must keep track of sample logging and processing. In addition, the third person may be responsible for collecting the surface water quality parameters.

Equipment Preparation

Bring enough decontaminated sampling tubing and filtering kits to the field to avoid performing decontamination procedures between stations. Each participating laboratory is responsible for preparing its equipment prior to the sampling cruise. Predesignated commercial laboratories will decontaminate sample tubing, mixing containers, and sampling bottles according to their specific SOPs.

Note: Decontamination of large amounts of sampling equipment requires several days, if not weeks, to be ready for sampling. Contract agreements with commercial laboratories and scheduling decontamination work may require several weeks to months. Initiate this critical step as early as possible.

The main components of the peristaltic pump sample collection system are as follows:

- **Processing and Preservation Chamber**—Build a workbox with ¾-in. PVC tubing and cover it with a 6-mil plastic sheet in order to contain the peristaltic pump sampling equipment and conduct the subsampling from the carboys. Leave one side of the workbox open for placing sampling equipment and sample containers. Wash all components with Alconox™ and rinse with tap water. To secure the receiving Teflon™ tubing and filter cartridge, use stands and clamps made of non-metallic components or resin-coated stainless steel, which have been washed with soap, rinsed in tap water, washed in acid, and rinsed with distilled/deionized water.
- **Water Sampler**—The water sampler device for near-surface sampling should be made of PVC tubing with a polyurethane-coated 50-lb weight at the bottom to keep the sampler in the vertical position (Figure 1a) (Note: To reduce potential drag at the water surface, do not include a base on the near-surface sampling device.) The near-bottom sampling device should also be made of PVC tubing and have a polypropylene vane, constructed with a weighted base (Figure 1b). Both sampling devices should be attached to the boat by a Technora™ or Kevlar™ rope. Figure 1b shows the sampling device with a YSI water quality multimeter and underwater camera attached to it. Figure 1b also shows how the Teflon™ tubing is positioned on the vane and the relationship of the inlet to the water sampler. The vane works to keep the water intake into the flow and elevated at a constant height from the bottom. Prior to commencement of sampling activities, wash all components with Alconox™ and rinse with tap water.
- **Water Quality Meter**—Use a YSI 650/6600 multi-probe (newer model or similar) for measuring surface water parameters, such as temperature, pH, dissolved oxygen, conductivity, oxidation-reduction potential (ORP), and turbidity. Attach it to the water samplers as shown in Figures 1a and 1b. The unit will come pre-calibrated from the laboratory and will be checked daily for proper functioning and drift. However, the must be calibrated daily for certain parameters such as pH, conductivity, ORP, and dissolved oxygen If possible, install a YSI unit on each water sampler (i.e., near-surface and near-bottom) if both are deployed at the same time. A YSI unit installed on the near-bottom water sampler can also take an initial near-surface measurement at the beginning and at the end of the sampling event, therefore avoiding the cost of having to install an additional YSI unit on the near-surface water sampler. The proper handling of the multi-probe is described in detail in SOP SW-06. Except for the probe sensor, wash all components with soap (Alconox™) and rinse with tap water. Because

this equipment will not be in the pathway with the surface water being collected, there is no need for a thorough decontamination.

Take the following steps to set up the surface water collection system:

1. Assemble and secure the water samplers to either the A-frame or a davit.
2. Determine the correct position of the sampling station, have the captain anchor the vessel into the current at the sample site, and switch off the engines. If anchoring is not possible and the engine must be on, make sure the water intake tubing is always facing into the current.
3. Set up a clean area for the workboxes. Set workboxes on a secure table or bench top onboard the sampling vessel to house stir plate(s) and a small peristaltic pump in each workbox. Provide enough space inside the workboxes for a stand to hold the outlet tubing and filter (if necessary; see project-specific SAP) and to collect surface water and processing sample bottles (Figure 3).
4. Place stirring plate(s) inside the workbox and the mixing container(s) on top of the plate. Check each mixing container (a polycarbonate container for inorganic analytes and a glass or stainless-steel container for organics) to ensure:
   - Containers were properly wrapped by the laboratories and are free of rips or holes that may have occurred during shipment to the field.
   - Each container contains a 3-in. stir bar at the bottom.
   - All components such as inflow and outflow tubing have been properly assembled in the laboratory (e.g., one end of the outflow tubing should be touching the bottom inside the container), and that they are intact and securely placed on the cap.
5. Attach the outlet tubing "kits" (i.e., Unit # 3) to the mixing containers (Figure 2). The kits are composed of 10-cm C-Flex™ tubing, 0.5-m Teflon™ tubing, 30-cm C-Flex™ tubing, and 30-cm Teflon™ tubing, placed sequentially.
6. Place the small peristaltic pump inside each of the workboxes.
7. Place a stand inside the workboxes and secure each tubing outlet from both mixing containers with clamps (Figure 3).

8. Attach Teflon™ tubing (collecting end) to 30-cm C-Flex™ tubing and 1-m Teflon™ tubing, sequentially, and then connect these interconnected pieces of tubing to a mixing container (polycarbonate for inorganics and glass or stainless steel for organics). Clamp the C-Flex™ tubing section firmly into place inside the large peristaltic pump head, which is placed outside the workbox. (Note: The length of the Teflon™ tubing will vary depending on project-specific requirements and water depth at a given station. For example, 4 m of Teflon™ tubing could be used for near surface sampling and 25 m could be used for near-bottom sampling)
9. Attach the intake part of the Teflon™ tubing to the vane of the near-surface sampler (Figure 1a) or to the vane of the near-bottom sampler (Figure 1b). Take care not to remove the protective cap from the tip of the sample collection tube until the sampling device is ready for submersion.
10. Secure the pump and pump speed controller, and connect them to the vessel's power source with an extension cord. If vessel power is not available, use the pump's battery power supply.
11. To limit sediment suspension during near-bottom sampling, tether a submersible, underwater video camera to the boat and attach it to the sampling device vane to reveal when the sampling device touches bottom.

Sample Collection

Take the following steps to collect and process the surface water samples:

1. Remove the protective cap from the sampling tube and lower the sampler gently below the water surface.
2. To sample water near the surface, submerge the sample tubing inlet approximately 1 m (3 ft) below the surface of the water column (consult project-specific SAP for exact sampling water depth).
3. To sample water near the bottom, submerge the sample tubing inlet approximately 3 m (9 ft) above the bottom (consult project-specific SAP for required distance) with the help of the A-frame or davit. If it is necessary to sample surface water at a fixed depth from the bottom, adjust the vane height on the sampler while the sampler rests on the bottom surface. The vane will maintain the sample tubing inlet into the current at a constant depth between 30 cm (12 in.) and 1 m (3 ft) above the sediment–water interface.

4. Begin collecting measurements of water quality parameters at each depth using the water quality meter (e.g., YSI, Hydrolab, Horiba). Set data collection intervals according to data needs. If a vertical water column profile is needed, set the multi-probe to collect data every 1 second for a high-resolution profile. If sampling a vertically integrated water column with several round trips to the bottom, reset the multi-probe to collect data at time intervals relative to the sampling time period after the initial high resolution profile. For example, if sampling a vertically integrated water column during a period of 2 hours, set the multi-probe to record data every 1 second for the first roundtrip to the bottom and then reset to record data every 5 minutes for the subsequent roundtrips until sampling is complete. If collecting surface water at a stationary location for more than 1 hour, and no major changes in water quality are expected, set the multi-probe to collect data every 15 minutes.
5. Note: Failure to adjust the multi-probe for data collection according to sampling periods can result in data loss. That is, if the multi-probe memory bank is quickly filled early in a long sampling period, no additional data will be stored in the memory bank for the remaining sampling time.
6. Record the water quality measurements on the Water Sampling Log forms every 15 minutes during sample collection. If the surface water sample collection is completed within 15 minutes, then collect water quality parameters at least three times: at the beginning, middle, and end of sample collection.
7. Switch the pump on and pump surface water through the sample tubing and into the mixing containers. Once the water reaches one-third of the container's volume, turn on the stir plates.
8. Turn off the pump once the mixing containers have been filled to 1 in. below the inflow spout or when sufficient volume has been collected to fill all of the sample bottles at a given station.
9. Place the C-Flex section of the outflow tubing kit from the first container to be sampled inside the small peristaltic pump head and clamp firmly.
10. Before turning on the small pump, make final adjustments to the stand, holding the outflow spout as close as possible to the sample bottle opening, but without touching the inside of the bottle.
11. Fill container to the "neck" with unfiltered sample water.
12. After collecting the unfiltered samples, attach the 0.45-μm filter cartridge (or appropriate pore size filter) to the sample tubing outlet and secure it to the stand with a clamp (consult project-specific SAP to determine if filtered samples are required). Drain the storage solution inside the filter, and flush the entire sample tubing and filter assembly with sample water. Discard this first "rinse" of sample water.

13. After rinsing the filter and sample tubing, fill the sample bottle to the "neck" with filtered sample water. (Note: If dissolved constituents are being analyzed [per the project-specific SAP], then discard the 0.45-μm filtration cartridge after each sampling site.)
14. As soon as a sample container is filled, turn off the peristaltic pump and label the container. Include the date, time, project name or number, sample ID, type of analysis required, and sampler initials on the label (see SOP AP-04).

Once a surface water sample container is properly closed and labeled, place it inside a cooler containing wet or blue ice and store it at approximately 4°C. Store all samples in coolers with ice on board the vessel and transfer them to the field laboratory (if applicable) at the end of the sampling day.

Water Quality Measurements

If specified in the project-specific SAP, measurements of physical and chemical water parameters may need to be collected at surface water stations. Several physical and chemical water parameters are best measured in the field because of the unstable nature of the parameter or because the information is needed to direct further sampling. It is frequently preferable to perform these analyses in the field, especially if the samples will not be immediately transported to the analytical laboratory (pH, in particular, should be measured in the field if feasible). In addition, measurements of temperature and transparency can be accurately collected only in the field.

It is always best to place the water quality meter directly into the surface water body at the station location at the desired water depth instead of collecting a sample and measuring parameters in a container. However, if this is not possible, use a plastic bucket to collect samples for water quality analyses (e.g., pH, temperature, and conductivity). Rinse a clean bucket twice with the water from the station prior to measuring water quality parameters.

The name(s) of the person(s) making the measurement and the field equipment used to make that measurement must be recorded in the field logbook and on any field forms used during the sampling event. Equipment maintenance and calibration records must be kept in logbooks and field records so that the procedures are traceable.

Sample Handling

Gloved hands are required for sample collection and handling, as described above. Field staff will wear appropriate non-contaminating, disposable, powderless nitrile gloves during the entire sampling operation. Change gloves frequently, usually with each change in task (wearing multiple layers of gloves allows rapid glove changes).

Gloved hands are required for all operations that involve equipment that comes into contact with the sample, including the following activities:

- Handling the sample bottle
- Handling the discharge end of the sample tube or line
- Setting up working space inside the processing and preservation chambers
- Setting up the equipment (i.e., the sample bottles, mixing containers, and the filtration and preservation equipment) inside the chambers
- Working inside the chambers during collection, processing, and preservation
- Handling the filter (if needed)
- Changing the chamber covers as needed.

Ungloved hands take care of all operations that involve contact with potential sources of contamination, including the following activities:

- Working exclusively exterior to the processing and preservation chambers
- Preparing a clean workspace (inside boat)
- Preparing and operating the sampling equipment, including the pumps and discrete samplers, peristaltic pump switch, pump controller, and manifold system
- Handling the generator or other power supply for samplers
- Handling the tools, such as hammers, wrenches, keys, locks, and sample-flow manifolds
- Handling the single or multi-parameter instruments for field measurements
- Setting up and checking the field-measurement instruments
- Measuring and recording the water depths and field measurements.

Store all samples in coolers with ice at approximately 4°C on board the vessel and transfer them to the field laboratory (if applicable) at the end of the sampling day. The sampling team leader is responsible for maintaining sample integrity throughout the sampling event.

If storage freezers or refrigeration units are available at the field laboratory, monitor these units daily to ensure temperature compliance. Each unit will have a separate log form containing date, time, and temperature information.

Avoid contaminating samples by handling the sample containers with clean gloves and transferring the samples into clean refrigerators (or clean coolers) immediately after the samples have been brought back from the field. Always wear disposable, powderless nitrile gloves when handling samples. This includes any and all sample handling that may occur during sample packing and shipping (see SOP AP-01).

RELATED SOPS

- Pack and ship all surface water samples in accordance with procedures outlined in SOP AP-01.
- Record field activities in accordance with procedures outlined in SOP AP-02.
- Maintain sample custody in accordance with procedures outlined in SOP AP-03.

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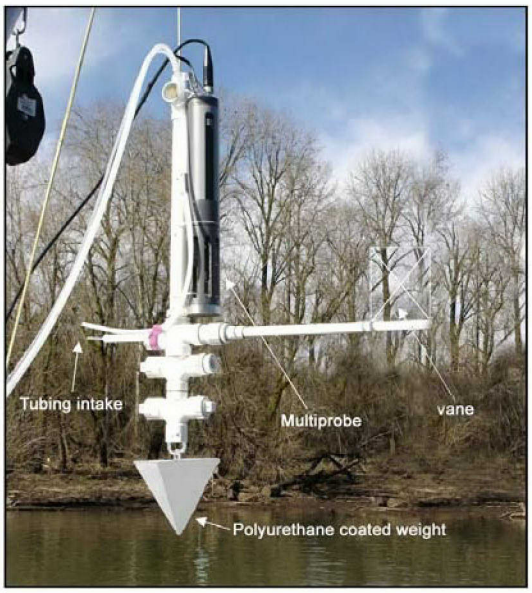


Figure 1a. Near-Surface Water Sampler

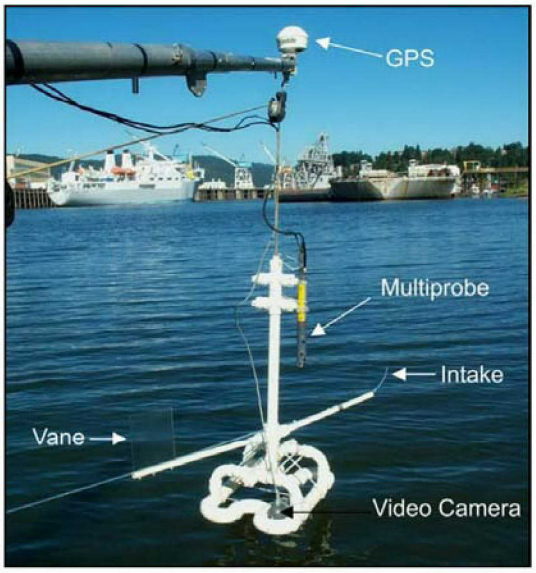


Figure 1b. Near-Bottom Water Sampler

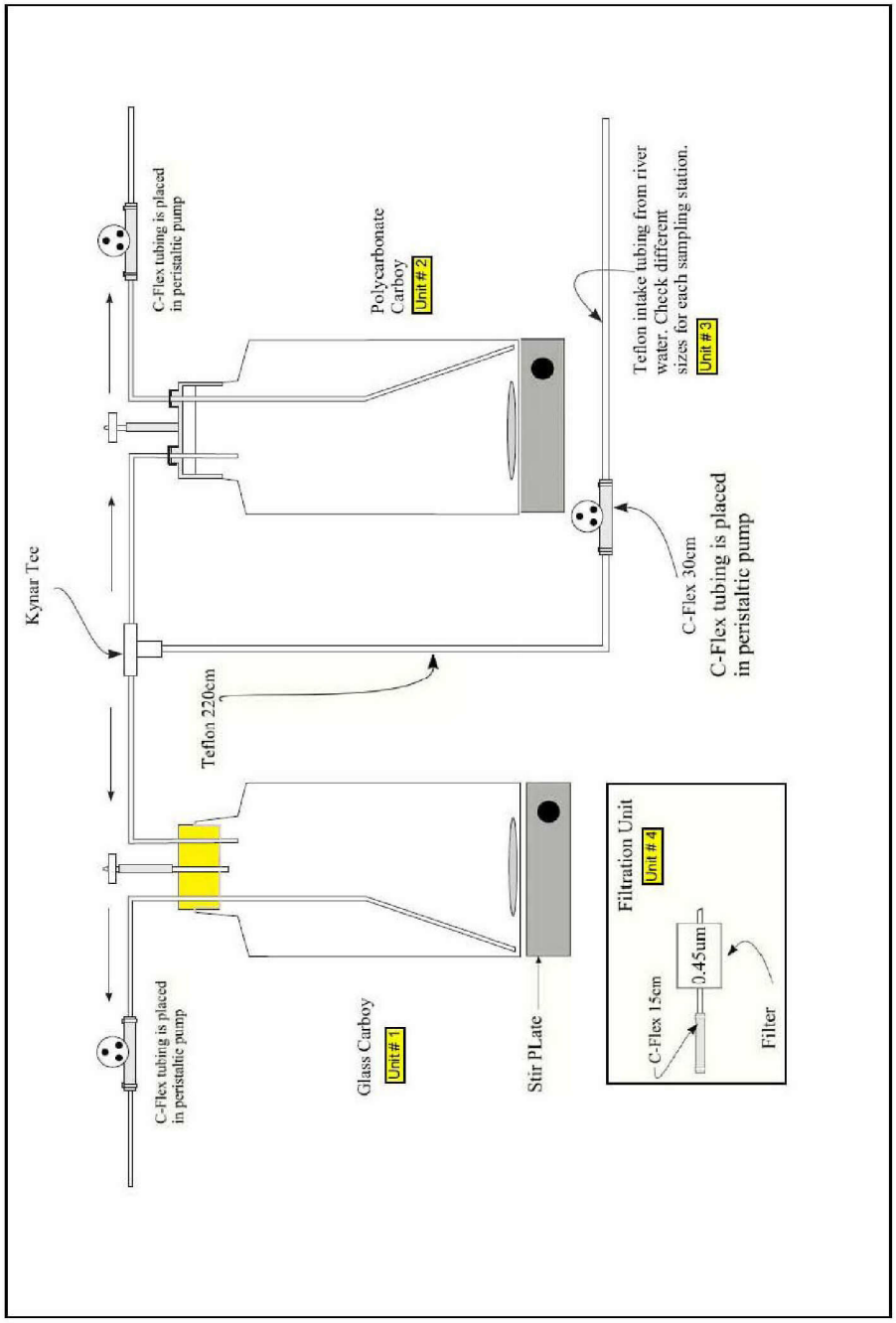


Figure 2. Peristaltic Pump Sampling Apparatus

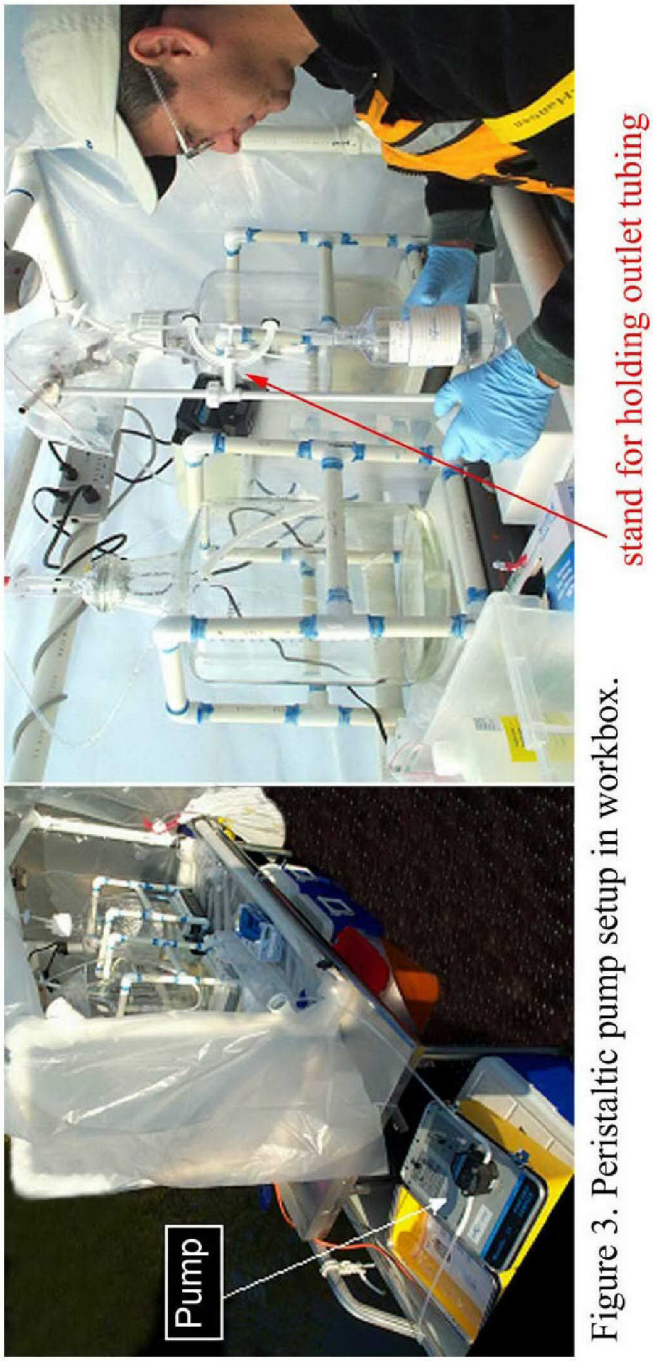


Figure 3. Peristaltic pump setup in workbox.

ATTACHMENT 1. CHECKLIST OF SUPPLIES FOR SURFACE WATER SAMPLING WITH PERISTALTIC PUMP

All sampling equipment described here will be sent to Battelle Marine Laboratories at Sequim, Washington, or other approved laboratory for decontamination and assembly prior to sampling. Each unit below shall be wrapped in plastic bags and clearly labeled on the outside in large letters.

UNIT #1

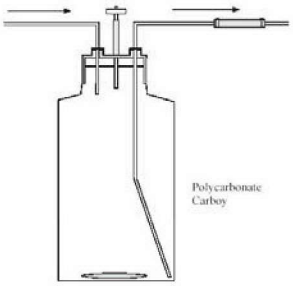
For polycarbonate carboys

Teflon

50 cm	for inflow from Kynar tee into carboy
140 cm	for outflow from carboy to small peristaltic pump
60 cm	for outflow from small peristaltic pump to sample bottle

C-Flex

6 cm	for connecting air filter on carboy (additional internal tubing is not needed)
30 cm	for connecting outflow tubing from carboy to tubing for filling sample bottles

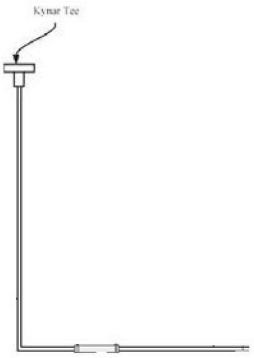


Other

3-in. stir bar
Vacu-guard filter
2 small plastic zip-ties for C-Flex tubing

The total number of bags labeled UNIT #1 will depend on the number of sampling stations per specific sampling event.

UNIT #2



From sample intake tubing to large peristaltic pump to carboys

Teflon

220 cm	for inflow from large peristaltic pump to Kynar tee

C-Flex

30 cm	for connecting Kynar tee and inflow tubing to variable lengths of sampling intake tubing

Other

Kynar tee	for connecting carboys to intake tubing
	Variable lengths of sampling intake tubing (station dependent) to large peristaltic pump

Teflon

40 to 100 m	for near-bottom sampling at transect stations
8 m	for near-surface water sampling at any station
15 m	for near-bottom sampling at shallow stations

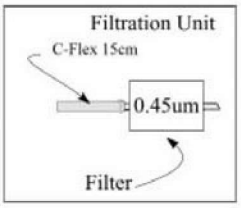
The total number of bags labeled UNIT #2 will depend on the number of sampling stations per specific sampling event.

UNIT #3

Set of one filter in line

C-Flex

15 cm	for connecting the filter to the outflow from small peristaltic pump to sample bottle



Filter

0.45 μm	Whatman POLYCAP 36 TF

Other

Small plastic zip-tie for C-Flex tubing

Loose small plastic zip-tie (extra zip-tie to be placed in bag to connect to carboy outflow)

The total number of bags labeled UNIT #3 will depend on the number of sampling stations per specific sampling event.

YSI WATER QUALITY PARAMETERS SAMPLE LOG

Survey _____ Crew _____ Date _____

Station	Time	Temp (C)	Conduc-tivity (µS/cm)	DO (mg/L)	Depth (m)	pH	ORP (mV)	Turbidity (NTU)	Comments/Observations

STANDARD OPERATING PROCEDURE (SOP) SW-05

SURFACE WATER SAMPLING USING GRAB SAMPLERS

SCOPE AND APPLICATION

This SOP describes methods for sampling surface water from freshwater bodies (e.g., creeks, rivers, lakes, ponds) or from estuarine and marine systems (e.g., estuaries, embayments, open ocean) are presented in this SOP. These methods were developed based on Greenberg et al. (1985) and USEPA (1991). Not all of the sampling methodologies discussed in this SOP may be required for a given project. The specific sample collection techniques and associated sampling equipment will be specified in the project-specific sampling and analysis plan (SAP).

STATION ACCESS

Prior to entering select areas, it may be necessary to acquire property access permission from the landowner. Access permission must be acquired in advance of the sampling program and may require a written agreement. Surface water stations may be accessed by boat, wading, or standing on the shore or other structure (e.g., bridge) and extending a sampling device into the water body.

STATION LOCATION

When sampling in proximity to the bottom of a water body, surface water samples must be collected in a manner that avoids resuspending sediments into the sample being collected or samples that will be collected at other downstream or downcurrent stations. Therefore, if it is necessary to enter the water to sample (i.e., wade), care must be taken to avoid resuspending sediment into the water column. To avoid resuspended sediment interference in the sample being collected, stations should always be approached from downstream. Avoid sampling near eddies that may circulate water from the sampling location to upstream of the sampling location. To avoid interference from resuspended sediment at other stations, samples should be collected beginning with the most downstream station and continuing in an upstream direction.

Water samples should be collected in areas that are representative of the surface water body conditions. A station that is located away from immediate point sources (e.g., tributaries and industrial and municipal effluents) is preferred for collecting surface water samples unless

sampling is designed to assess these sources. Representative samples can usually be collected in portions of the surface water of a river that have a uniform cross-section and flow rate. Because mixing is influenced by turbulence and water velocity, the selection of a site immediately downstream of a riffle area (e.g., fast flow zone) will ensure good vertical mixing.

Whenever possible, a depth-integrated sample (as well as a width-integrated sample) should be collected from flowing water bodies. This is particularly true for data that will be used in mass balance calculations. When sampling is performed to assess the effects of a tributary or discharge on receiving water chemistry, some calculations may be needed prior to sampling to estimate appropriate distances downstream and across the stream to characterize concentrations. It is common for streams to be incompletely laterally mixed for downstream distances of 50 times the stream width, or more. Guidance on mixing rates can be found in *Mixing in Inland and Coastal Waters* (Fischer et al. 1979).

Tributaries should be sampled as near the mouth as is feasible. However, it is important to select the sample location taking into consideration the impact that the downstream receiving water body has on the tributary flow and sediments. The downstream body may affect the tributary by decreasing water velocity (causing suspended solids to settle) or by eddies (causing mixing of the two waters). The downstream water body may change the water quality (e.g., salinity), temperature, or turbidity in the tributary near its mouth.

Attention must be given to identifying intakes and outflows within lagoons or settling ponds, which may cause localized concentrations that are not representative of general conditions. Sample locations adjacent to structures (e.g., banks, piers) may also have biased characteristics as a result of flow or release of substances from in-water structures. These kinds of possible confounding factors should be noted in the field logbook. For ponds, lakes, and large rivers that may be vertically stratified, a multi-parameter water quality meter can be used to collect depth profiles throughout the water body to aid in the selection of appropriate sampling points and depths.

SURFACE WATER SAMPLE COLLECTION

Appropriate surface water sampling techniques and equipment are designed to minimize effects on the chemical and physical integrity of the sample. Different kinds of surface water sampling techniques and equipment are discussed in the following sections. The project-specific SAP should be consulted to determine the appropriate surface water sampling techniques and associated sampling equipment.

In general, surface water samples should always be collected first if sediment samples are to be collected at the same location. Every attempt should be made to keep floating debris from entering the sample bottles, which could result in unrepresentative analytical data. Sample collection when the flow depth is minimal (i.e., less than a few inches) will require special consideration to prevent sediment disturbance. If water depth is shallow and sampling

equipment will come into contact with the sediment surface, then a small excavation in the stream bed to create a "sump" for sample collection may be permissible, but it should be prepared well in advance of the sample collection event to allow sediment to settle. This technique should be considered very carefully because digging a depression may expose the surface water to other possible contaminants and natural compounds such as sulfides, phosphates, and ammonium. In addition, certain sediment types will crumble as a hole is dug up and will not support enough depth for bottle dipping. A peristaltic pump may be needed (consult project-specific SAP and field conditions).

As mentioned above, surface water samples shall be collected moving in an upstream or upcurrent direction, in accordance with the following procedure:

1. Immediately after collecting the sample, record the temperature, dissolved oxygen, pH, turbidity, and specific conductance using a water quality meter (e.g., YSI, Horiba®, or equivalent) and following the manufacturer's specifications.
2. If stipulated in the project-specific SAP, collect a water depth measurement at every surface water station.
3. Target analytes, container types, and preservatives are specified in the project-specific SAP. In general, when collecting surface water samples for a variety of analyses, collect them in the following order:
   - Samples for analysis for volatile organic compounds (VOCs)

     Note: When collecting samples for VOC analysis, let the water flow down the side of the sample container to minimize aeration. Hold caps in hand to minimize contamination of sample. Fill all VOC sample containers to the top. A positive meniscus at the top of the container will help ensure that no air is trapped inside when cap is screwed down on the container. No air bubbles should be trapped in the sample when the container is sealed. VOC sample bottles must be checked after filling to ensure no air bubbles are present. Invert the bottle and lightly tap it to release any bubbles beneath the cap. If an air bubble is present, the VOC sample must be retaken using a fresh bottle.
   - Samples for analysis for dissolved gases and total organic carbon
   - Samples for analysis of semivolatile organic compounds
   - Samples for analysis of metals and cyanide
   - Samples for analysis of major water quality cations and anions
   - Samples for radionuclides.

4. Collect quality assurance and quality control (QA/QC) samples (i.e., duplicate, equipment rinsate, trip blank, laboratory matrix spike, and laboratory matrix spike duplicate, as applicable) at the same time by filling all bottles from the same flow. The number and types of QA/QC samples are specified in the project-specific SAP.
5. Label sample bottles with the date, sample number, time, sampler's name, and type of preservative, as described in the project-specific SAP and in accordance with SOP AP-04. Sample bottles must be placed in a cooler and on ice to keep the sample cool (4°C). Samples must be cooled continuously from time of collection to the time of receipt at the laboratory, as described in SOP AP-01.
6. Complete sample logs, labels, custody seals, and chain of custody forms. Record sample information in the field notebook. The depth in the water column where the sample is collected *must* be recorded in the field logbook.

Dipping Using Sample Analysis Bottle

In some cases, water is collected directly from the water body into the bottle that is sent to the laboratory for analysis. This surface water sampling technique is appropriate only if a composite sample is not required for analysis (i.e., only filling one sample bottle per station). If compositing is required, then a decontaminated churn splitter or mixing container will need to be used (see discussion below).

When collecting samples in a riverine environment, approach the station from downstream of the sampling location and face upstream to collect the sample without disturbing the sediment. Using a bottle attached to a dip stick or wearing nitrile gloves to hold the bottle, quickly immerse the inverted sample bottle through the surface of the water to the desired sampling depth and then tilt the opening of the bottle upstream to fill. If possible, samples should be collected approximately one-third of the distance from the surface to the bottom, and the sample bottle should be completely submerged. Note: If collection is done too slowly, the film at surface of the water will be collected; water must be collected from below the air–water interface.

Be careful not to displace the preservative from a pre-preserved sample container (e.g., VOC vial). If water is needed to fill bottles that contain preservative, then collect water with a clean bottle and pour this water into the sample bottle that contains the preservatives.

Specific Depth Interval Sampler

If surface water samples are required from a specific depth, a standard Kemmerer, GO-FLO™, Niskin bottle, or Van Dorn sampler, or plastic tubing with a peristaltic pump may be used. The Kemmerer, GO-FLO™, and Niskin bottle samplers are stainless steel or acrylic cylinders with closures at each end that leave the ends of the sampler open while being lowered in a vertical position through the water column to allow free passage of the water through the

cylinder. The Van Dorn sampler is similar in construction, but is lowered in a horizontal position through the water column. In each case, the sampler is lowered to the desired depth and a messenger is sent down a rope or cable that causes the sampler to close. The sampler is then raised to the surface. Water is removed through a valve to fill sample bottles. If the sampler needs to be reused during the sampling event (e.g., at different stations), then the sampler must be decontaminated between stations.

Note: The analyte list in the project-specific SAP should be reviewed prior to sample collection to determine if a Teflon™-coated sampler is required.

GO-FLO™ Bottle Sampler

GO–FLO™ bottle samplers are fabricated by General Oceanics Inc. 1295 N.W. 163rd Street, Miami, Florida 33169 USA. The specific model depicted here is a 20 L GO–FLO™ 1080 series (General Oceanics, http://www.generaloceanics.com/genocean/1080.htm).

Description: Close-open-close operation. Opens automatically (hydrostatic pressure activated) at approximately 10 m (33 ft), and then flushes until closed by standard GO Devil messengers (Model 1000-MG) individually, serially, or sequentially by remote command with model 1015 Rosette@ multi-bottle array, or with model AR1015 Acoustic Command Control. (See data sheet 1015-12/85.) Inert gas can be injected into bottle to force retrieved sample out of sampling valve, directly through filter system. The GO-FLO™ sampling bottle avoids sample contamination at the surface, internal spring contamination, loss of sample on deck (internal seals), and exchange of water from different depths.

Material: Rigid PVC tube section, ball valve, handles and cable clamp blocks. Delrin stopcocks and push rod. Stainless steel cable clamp bolts. Latex external spring, Viton and silicone O-ring seals. Monofilament nylon and Kevlar lanyards.

Inert Gas Connection: Dual-purpose air vent pressure release valve with standard 9/16-18 thread for connecting inert gas line. (Operation requires additional fitting - part S1080-AFIT).

Closure: Ball valve with Viton and silicone seals.

Health and Safety: All hands on deck must be wearing appropriate personal protective equipment (i.e., hard hats, personal flotation device, steel-toed boots, and gloves) (Figure 1). People in charge of handling the GO-FLO™ bottle must have read the instruction manual and be familiar with the proper use of the sampling equipment, must have read the project-specific health and safety plan, and must have participated in a safety meeting debrief on the hazards associated with sampling equipment of the specific research vessel used for that project.

Figure 1. Proper Personal Protective Equipment

Trace Metal Analyses: If trace metal analyses are required, the interior of the GO-FLO™ bottle must be Teflon™ coated. Decontamination procedures for trace metals are described in Mason and Sullivan (1996) and are outlined in SOP SW-15 for laboratory decontamination and SOP SW-01 for field decontamination. Decontaminated GO-FLO™ bottles must be wrapped in plastic bags to prevent any contamination from airborne dust particles or exhaust fumes from power generators and boat engines. Additional plastic bags or clean nitrile gloves must be wrapped around the sampling spigots and removed only at the last minute before deployment. A non-metallic wire (e.g., Technora™, Kevlar™) must be spooled on a winch that will deploy the GO-FLO™ bottle. The non-metallic wire must be rated to safely support the weight of a bottle filled with water plus ancillary equipment such as bottom weight, water quality multiprobe meter, underwater video camera, and stainless steel frame if multiple bottles are deployed at the same time. Prior to the collection of water samples, GO-FLO™ bottles are checked for defects and to ensure the opening and closing mechanisms are operational.

Pre-deployment Checks: The bottle must be secured in a transport box or shipping crate that can also be used as a secure platform for deployment and retrieval of the unit. The GO-FLO™ bottles are pre-cocked before deployment. During the cocking procedure, the GO-FLO™ bottle is either placed on a clean plastic sheet/bag on the floor or handheld if it is a small volume bottle (i.e., less than 20 L). The cocking procedure consists of the following:

- Rotate the bungee cord attached to the ball valve so that the plastic ball string is loose. Figure 2 shows how the bungee cord is wrapped around the ball valve wheel in order to loosen tension on plastic ball string. In this instance, residual water flows out of the bottle.

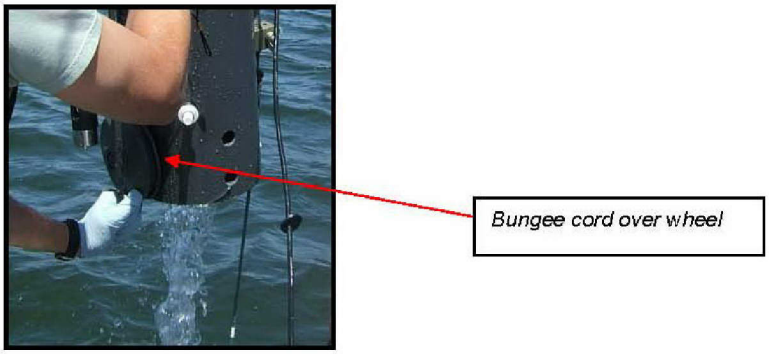


Figure 2. Release Tension on Ball Valve

- Position the plastic balls on the string around the pressure release valve and pull the pressure release valve outward locking the two plastic balls between the valve and the U-shaped stainless steel wire located on the middle of the bottle just below one of the PVC handles (Figure 3).

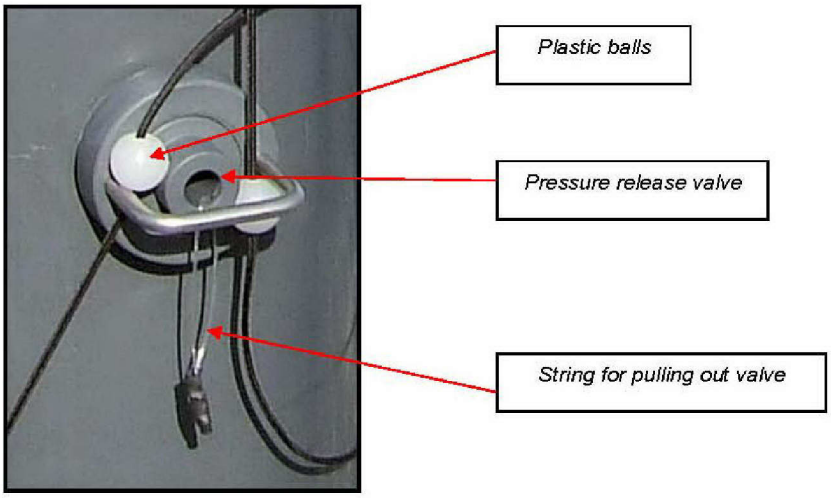


Figure 3. Pressure Release Valve in Cocked Position

- Rotate the bungee cord attached to the ball valve back so that both the string and the cord are under tension (Figure 4).

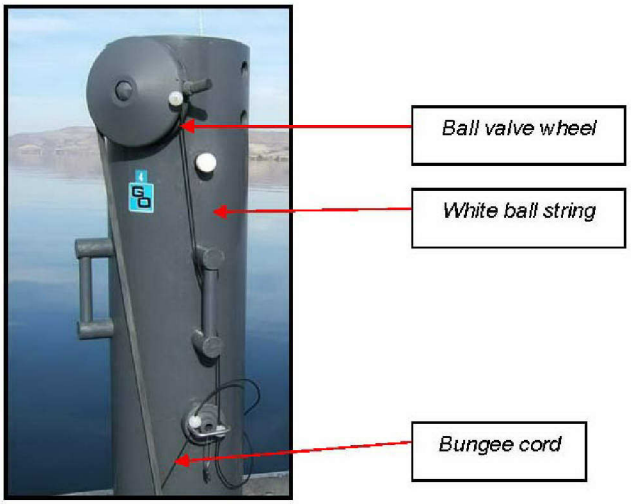


Figure 4. Bungee Cord on Cocked Position

- Perform the following checks to ensure the GO-FLO™ sampler has been properly cocked.
  - Push the pressure release valve and ensure the balls' valves move to the open position.
  - Press the push rod release mechanism to release the string, which should cause the bottle to close (Figure 5).

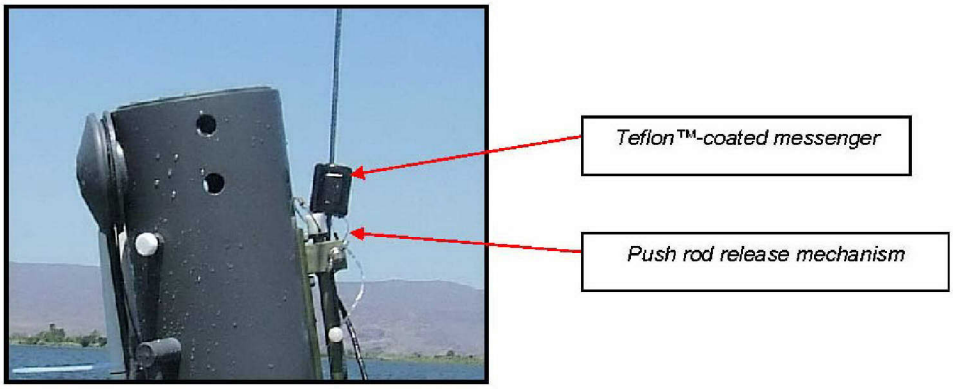


Figure 5. Push Rod Triggering Mechanism with Messenger Deployed

- Recock the bottle after this check as described earlier.
- Check that vent valve is turned all the way in and that sampling spigots are pulled out and white flange twisted away from release pin before deployment (Figure 6).

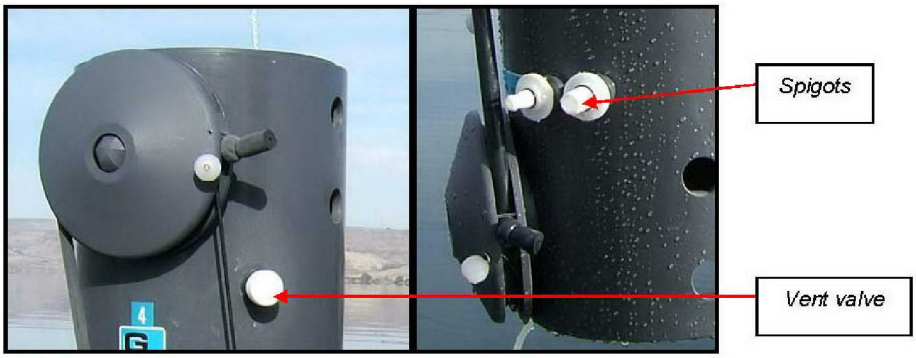


Figure 6. Vent Valve at Top End of Bottle and Sampling Spigots at Bottom End of Bottle

Deployment: Before deploying the sampler, make sure any ancillary equipment, such as multiprobe (Figure 7) and underwater video camera, are attached to the bottle and a non-metallic or polyurethane-coated weight (approximately 100 lb) is attached to the end of the Kevlar line. The weight is lifted overboard and at least 10 m of line is let out prior to the GO-FLO™ bottle attachment depending on water depth. If near bottom sampling is required, the distance between the GO-FLO™ bottle and the bottom weight must be adjusted.

Quickly lower the bottle down into the water to about 15 m so that the pressure valve is activated to open the two ball valves at each end of the bottle when the bottle reaches a water depth of 10 m. If the bottle is lowered too slowly, water will seep into the bottle and the pressure gradient between the inside of the bottle and the outside water column will not be sufficient to trigger the valves open. Bubbles should rise to the surface as the pressure release valve opens the GO-FLO™ underwater. Bubbles rising to the surface are indicative that the bottle is in the open position. If bubbles are not seen, it is possible that the bottle has not opened, although bubbles sometimes cannot be seen because of light scattering or choppy water surface. The bottle can be raised slowly to just beneath the water surface so that personnel looking over the side can see if the bottle has opened. If the bottle is not visible, do not bring it above the surface. If it is in the open position, then contact with air or surface water oily microlayer can contaminate the lining of the bottle. If the water is rough or turbid, then it is better to assume the bottle is open. After verifying that the bottle is open, lower it to the desired sampling depth. Attach the messenger to the line and release it. The messenger will trigger the bottle closed. Allow adequate time based on the time required for the messenger to reach the bottle, before retrieving the GO-FLO™ bottle. When the bottle is retrieved to deck level, the person who attached the bottle to the line will disengage it and

carry it or slide it with the help of the winch and secure it to the designated clean workspace. Once in the clean workspace, the GO-FLO™ bottle is placed upright and the air release valve is opened and the sample is decanted or pumped into the sample containers (Figure 8). Trace metal clean sampling procedures will follow the EPA clean-hands technique (USEPA 1996) and SOP-SW4 instructions.

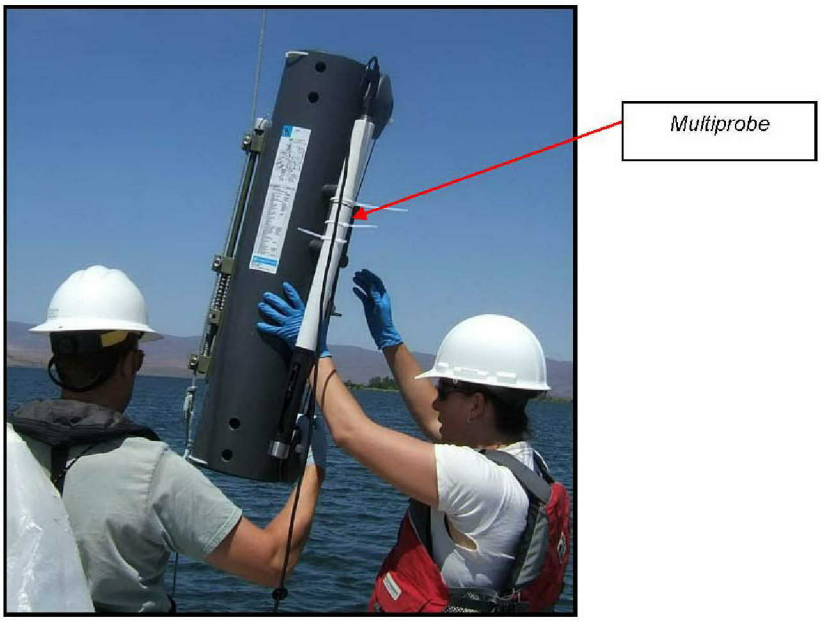


Figure 7. GO-FLO™ Bottle with Multiprobe Attached to Handle prior to Deployment

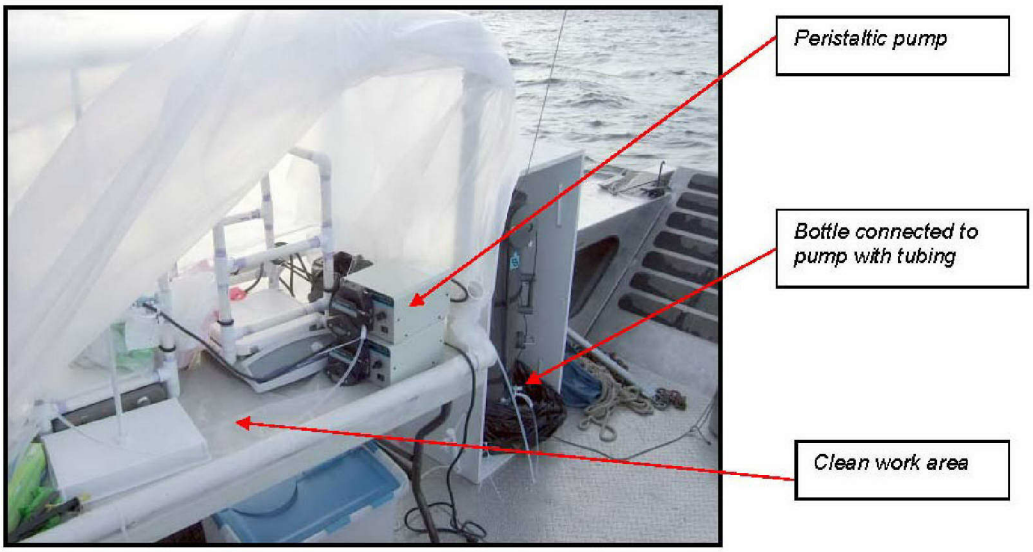


Figure 8. Typical Setup for Sampling with Peristaltic Pump

FIELD FILTRATION

In some cases, field filtration may be required (recommended for inorganic compound analysis). If applicable, attach a new, disposable filter cartridge (typically 0.45 μm) to the discharge line. Filtered water should be introduced directly into the appropriate sample container. Alternate field filtration methods may be specified in the project-specific SAP. Note: Although not recommended, the laboratory can filter the samples if the samples are NOT preserved and are filtered within 24 to 48 hours of collection.

WATER QUALITY MEASUREMENTS

If specified in the project-specific SAP, physical and chemical water parameters may need to be collected at surface water stations. Several physical and chemical water parameters are best measured in the field because of the unstable nature of the parameter or because the information is needed to direct further sampling. It is frequently preferable to perform these analyses in the field, especially if the samples will not be immediately transported to the analytical laboratory (pH, in particular, should be measured in the field if feasible). In addition, measurements of temperature and transparency can be collected accurately only in the field.

It is always best if the water quality meter is placed directly into the surface water body at the station location at the desired water depth instead of being placed into the container in which the sample is collected. However, if this is not possible, a clean plastic bucket can be used to collect samples for water quality analyses (e.g., pH, temperature, and conductivity). The bucket should be rinsed twice with the water from the station prior to measuring water quality parameters.

The name(s) of the person(s) making the measurement and the field equipment used to make that measurement must be recorded in the field logbook. Equipment maintenance and calibration records must be kept in logbooks and field records so that the procedures are traceable.

RELATED SOPS

- Record all field activities in accordance with procedures outlined in SOP AP-02.
- Package and ship surface water samples in accordance with procedures outlined in SOP AP-01.
- Maintain sample custody in accordance with procedures outlined in SOP AP-03.

REFERENCES

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Greenberg, A.E., R.R. Trussell, and C.S. Clesceri (eds). 1985. *Standard methods for the examination of water and wastewater*. 16th Edition. American Public Health Association, Washington, DC. p. 37.

Mason, R.P., and K.A. Sullivan. 1996 Standard operating procedure for site selection and sampling for mercury in Lakewater. Chesapeake Biological Laboratory University of Maryland. Solomans, MD. June 26, 1996

USEPA. 1991. Environmental investigations standard operating procedures and quality assurance manual. U.S. Environmental Protection Agency, Region 4, SESD, Athens, GA. 424 pp.

STANDARD OPERATING PROCEDURE (SOP) SW-06

MEASUREMENT OF SURFACE WATER FIELD PARAMETERS

This SOP is based on the procedures outlined in *Field Measurements: U.S. Geological Survey Techniques of Water-Resources Investigations* (Wilde various dates).

SCOPE AND APPLICATION

Information and general instructions for field measurement of water quality parameters (pH, Eh [oxidation-reduction potential, ORP], specific conductance, dissolved oxygen, and temperature) are presented below. Because the types and complexity of water quality meters available vary widely, calibration and measurement procedures should be conducted in accordance with manufacturer's recommendations for the specific meters used. The following information describes general procedures for the measurement of water quality parameters. Where possible, sampling should be conducted first in areas expected to be least affected by constituents of interest, followed by increasingly affected areas.

EQUIPMENT AND REAGENTS REQUIRED

- Water quality parameter multimeter or meters specific to parameters of interest (i.e., temperature, dissolved oxygen, pH, transparency, turbidity, salinity, specific conductance, and ORP)
- Calibration solutions and deionized distilled water.

PROCEDURES

Before any calibration takes place, allow the probe and all calibration solutions to acclimate to the ambient field temperature along for at least 1 hour.

Calibrate the meter(s) in the field at the beginning of each day of field or laboratory work when water quality parameters will be measured. If feasible, meters must be checked for drift with calibration standards after every 4 hours of continuous use. Otherwise, a final check must be done at the end of the sampling event. If drift is evident, recalibrate.

1. Calibrate meter(s) in accordance with manufacturer's instructions using fresh (unused) calibration buffers and standards for each sensor.
2. Check slope reading with specifications (in operating manual) to verify slope is within the manufacturer's specified range.
3. Thoroughly rinse a 500-mL beaker or 8-oz jar with sample water. Discard sample water.
4. Rinse electrodes with sample water to acclimate them.
5. Fill beaker with fresh sample water.
6. Immerse electrodes in sample while swirling the sample, if needed, to provide thorough mixing. Turn on meter(s). If a flow-through cell is used, install probes and connect sample water to bottom port of flow-through cell, directing sample water up through the cell, exiting through the top port. Direct effluent tubing back in the water or into an appropriate container for storage and handling.
7. When the readings have stabilized, record the measurements displayed on the meter. It is important to determine that the correct units and unit scale are displayed on the meter and recorded for each parameter measured. Record and correct any problems encountered during measurement.
8. If available, field measurement results should be compared to previous measurements for quality control.

Several physical and chemical water parameters are best measured in the field because of the unstable nature of the parameter or because the information is needed to direct further sampling. It is frequently preferable to perform these analyses in the field, especially if the samples will not be immediately transported to the analytical laboratory (pH, in particular, should be measured in the field, if feasible). In addition, measurements of temperature and transparency can be collected accurately only in the field. Eight parameter measurements for water are described in the following sections of this SOP.

Temperature

Measure water temperature with either an alcohol or digital thermometer. It is recommended that mercury thermometers not be used to avoid possible breakage and introduction of mercury into the environment and to remove a source of possible contamination to samples collected for the analysis of mercury. Measure temperature as soon as the sample is collected to obtain a measurement that is an accurate representation of the *in situ* sample temperature. All instruments used to measure temperature should be traceable to a National Institute of Standards and Technology temperature reference. In the case of digital thermometers, follow the calibration procedure recommended by the manufacturer, if provided. Multiprobes in

general contain a temperature probe; check these probes against a calibrated thermometer before use. For more detailed procedures, see discussion in Wilde (2006).

Dissolved Oxygen

Dissolved oxygen may be measured in the field by either a dissolved oxygen polarographic-membrane type sensor or a luminescent type sensor. Dissolved oxygen can also be measured by a field-portable Winkler titration kit.

It is recommended that calibration be done at temperatures that are at least within 10ºC of the ambient water temperature. The smaller the temperature difference is between the environmental water and the calibration chamber, the more accurate the calibration will be.

When using static samples (i.e., water sample collected in a container), protect samples from absorbing oxygen from the atmosphere by using a low or zero-headspace container. If using a meter and probe, calibrate the system according to the manufacturer's procedure prior to use with a zero oxygen standard and a second standard of known oxygen content. Check the second standard by performing a Winkler titration. Other probes are calibrated by percent oxygen saturation in an enclosed container with a small amount of water. When measuring dissolved oxygen with certain polarographic-membrane probe in water samples held inside zero-headspace containers, swirl or stir samples constantly until the reading stabilizes and the measurement is recorded. Stirring the sample is not necessary if a luminescent-sensor is used. For other probes, immerse the probe in the water column and monitor a constant measurement (dynamic measurement) until the readings are stabilized. Once the readings stabilize, record the oxygen concentration readings manually or digitally. For more detailed procedures, see discussion in Lewis (2006).

pH

The pH of a water column sample can be measured in the field using a pH meter. Calibrate the meter according to manufacturer's specifications with at least two standards of known pH. The pH of these standards should bracket the expected pH at the sampling site. For example, if the pH at the sampling site is expected to be basic (pH 7 to 14), standards of pH 7.00 and 10.00 should be used to calibrate the meter. The pH of the buffer solution is temperature dependent. That is, pH 10 buffers change more per unit change in temperature than do pH 4 buffers. The temperature of buffer solutions must be measured, and temperature-correction factors must be applied before calibration adjustments are made. Calibration and operating procedures differ with instrument systems—check the manufacturer's instructions. If pH measurements at the sampling site do not fall within the initial calibration range, the meter should be recalibrated with appropriate standards and sample pH remeasured for those samples that fell outside the calibration range. For more detailed procedures, see discussion in Wilde et al. (2006).

Transparency

Water column transparency is measured with a Secchi disk, which is a weighted, black-and-white or all-white disk that is lowered into the water body on a calibrated rope or line.

Always perform these measurements from the side of the boat that faces away from the sun. Lower the disk slowly until it is no longer visible and then raise it until it is visible again. Record the depth, measured from the water surface, in feet or meters. The all-white disk may be preferable when the water transparency is high. However, either disk is acceptable to use.

Turbidity

Turbidity can be measured in the field on static water samples contained in jars with a field-portable nephelometer (turbidity meter) or *in situ* with a turbidity probe mounted in a multiprobe device. Calibrate the meter prior to use with at least two standards of different but known turbidity (in nephelometric turbidity units, or NTUs). The two standards should bracket the range of turbidity measurements expected at the sampling site.

Perform field analysis for turbidity on static water samples as soon as possible after collection. If immediate analysis is not possible, agitate the sample prior to analysis to resuspend any settled solid material. If the sample temperature increases, air bubbles may form and cause erroneous values.

When performing field analysis for turbidity *in situ*, monitor the turbidity probe constantly with a remote display and record data manually or digitally.

For more detailed procedures, see Anderson (2005).

Conductivity or Salinity

Salinity can be measured in the field with a salinometer, and conductivity with a conductivity meter. There are two types of conductivity sensors as described below.

- **Contacting-type sensors with electrodes**—Electrodes contained in a dip cell can be suspended in the sample. The cell constant is the distance between electrodes (in centimeters) divided by the effective cross-sectional area of the conducting path (in square centimeters). A cell constant is chosen on the basis of the expected conductivity. The greater the cell constant, the greater the conductivity that can be measured.
- **Electrodeless-type sensors**—Conductivity is measured by inducing an alternating current in a closed loop of solution, and measuring the magnitude of the current. Measuring errors in this type of electrode are minimized because sensors do not have issues with electrode polarization or electrode fouling.

Calibrate the conductivity meter prior to use in accordance with the manufacturer's directions using a standard of known conductivity. The conductivity of the standard should be close to the expected value at the sampling site. When measuring a sample for conductivity, swirl or stir the sample until the meter is stabilized and a measurement is recorded. For more detailed procedures, see Radtke et al. (2005).

Salinity can be automatically calculated from conductivity, temperature, and barometric pressure readings in the same multiprobe and displayed on the meter of most models. Salinity may also be calculated from the measured conductivity and temperature of a sample according to Standard Method 2520B (APHA 1998). Gross salinity measurements may also be taken with a field-portable refractometer. This instrument provides salinity measurements with an accuracy of 1 to 2 parts per thousand. For more detailed procedures, see APHA (1998).

ORP or Eh

ORP or Eh may be measured in the field with an inert metal electrode and read relative to a reference electrode that is immersed in the same medium. For most multiprobe units, the inert metal electrode is a button or ring made of platinum and the Ag/AgCl reference electrode is the same one connected to the pH probe. The readout of the sensor is a voltage (relative to the reference electrode), with positive values (e.g., + 300 mV) indicating an oxidizing environment (ability to accept electrons) and negative values (e.g., –300 mV) indicating a reducing environment (ability to donate electrons) (YSI 2005).

ORP and Eh are the same parameters in that both measure the potential of the medium to transfer electrons. However, the ORP reference electrode is made of different material than the Eh standard hydrogen electrode; therefore, a voltage offset needs to be taken into account when converting ORP measurements to Eh values.

More detailed explanation on the theoretical concept, voltage offset conversions, method limitations and interferences can be found in the attached YSI Tech Note (YSI Environmental 2005) and in Nordstrom and Wilde (2005).

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ATTACHMENT 1. MEASURING ORP ON YSI 6-SERIES SONDES: TIPS, CAUTIONS AND LIMITATIONS

YSI Environmental Pure Data for a Healthy Planet.®

Tech Note

Measuring ORP on YSI 6-Series Sondes: Tips, Cautions and Limitations

Introduction and Basic Theory

As described in *Standard Methods for the Examination of Water and Wastewater* (Section 2580 B.), ORP is a potentiometric measurement in which the potential (or tendency) of the medium for electron transfer is sensed by an inert metal electrode and read relative to a reference electrode that is immersed in the same medium. This determination can also be referred to as a "redox" measurement (combination of REDuction and OXidation). For most multiparameter monitoring systems, the inert metal electrode is a button or ring made of platinum and the reference electrode is the same one associated with the pH sensor, usually Ag/AgCl. The readout of the sensor is a voltage (relative to the reference electrode), with positive values (e.g., + 300 mV vs. Ag/AgCl) indicating an oxidizing environment (ability to accept electrons) and negative values (e.g. -300 mV) indicating a reducing environment (ability to furnish electrons).

The determination of ORP is particularly worthwhile in water which contains a relatively high concentration of a redox-active species, e.g., the salts of many metals (Fe^{2+}, Fe^{3+}) and strong oxidizing (chlorine) and reducing (sulfite ion) agents. Thus, ORP can sometimes be utilized to track the metallic pollution in ground or surface water or to determine the chlorine content of wastewater effluent. However, ORP is a nonspecific measurement, i.e., the measured potential is reflective of a combination of the effects of all the dissolved species in the medium. Because of this factor, the measurement of ORP in relatively clean environmental water (ground, surface, estuarine, and marine) has only limited utility unless a predominant redox-active species is known to be present. Users should thus be careful not to "over-interpret" ORP data unless specific information about the site is known.

ORP vs. Eh: Calibration of ORP Sensors

Many users of YSI 6-series sondes that make field or laboratory redox measurements have questions about the difference between ORP and Eh. In essence, the two parameters are the same in that both quantify the potential of the medium to transfer electrons -- the difference is the reference electrode (and thus the voltage offset) against which the potential of the platinum sensor is reported. Eh is defined as a voltage reading vs. the Standard Hydrogen Electrode (SHE), while ORP is a much less specific term in which the measurement can be made relative to any practical or theoretical reference electrode, such as Ag/AgCl, calomel, or SHE. Generally, it is not easy to use the SHE in laboratory or field measurements and thus redox readings are made using either the Ag/AgCl or calomel reference electrodes, with Ag/AgCl being more popular in multiparameter water quality instrumentation. Thus, Eh is usually not determined directly. However, the voltages obtained as ORP readings vs. non-SHE electrodes can easily be converted into Eh values by two mechanisms:

- Adding (or subtracting) an offset voltage to the ORP readings obtained vs. a practical reference electrode to account for the fixed difference between the SHE and the other reference system. The offset voltage can easily be obtained for several practical reference electrodes in Table 2580: II of the section of Standard Methods on ORP. For example, the potential of Zobell solution vs. the Ag/AgCl reference electrode using 4 M KCl is +228 mV while the same solution read vs. the SHE is +428 mV. Therefore to convert ORP readings taken under these conditions to Eh, simply add 200 mV to the ORP voltage. For example, ORP readings of +150 and -172 mV translate to Eh values of +350 and +28 mV, respectively.
- Using the instrument software to automatically add the offset voltage to the ORP readings as they are displayed or logged. This method is implemented during calibration of the ORP sensor in YSI 6-series sondes. For example, when calibrating an instrument with Zobell solution that has an ORP reading of 228 versus the YSI reference electrode, enter 428 mV at the calibration prompt instead of 228. After the calibration is confirmed, 200 mV (the difference between Ag/AgCl and SHE reference electrodes) will automatically be added to all displayed and logged ORP values, effectively converting them to Eh with no further correction needed. The software in YSI 6-series sondes is likely to interpret the entry of the higher voltage value as an "out of range" calibration error and provide a warning to this effect. As long as the user is knowledgeable about the procedure, the error can be "overridden" with no ill effects.

Effect of Temperature

The temperature of the water for which ORP is being determined will affect the voltage output of the sensor. This factor definitely needs to be taken into account for calibration and should be considered when reporting field ORP values.

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For calibration, the following table can be used when using Zobell solution, the YSI-recommended standard. Thus, if the Zobell calibration standard is at 15° C instead of 25° C, enter 241 mV at the calibration prompt instead of 228 mV (the 25° C value which is commonly quoted).

Temperature, C	Zobell Solution Value, mV vs. Ag/AgCl (4 M KCl)
-5	267.0
0	260.5
5	254.0
10	247.5
15	241.0
20	234.5
25	228.0
30	221.5
35	215.0
40	208.5
45	202.0
50	195.5

The user may be able to locate similar temperature-dependence data in the literature for other ORP standards such as Light's Solution and quinhydrone standards in pH buffers.

Temperature will also clearly have an effect on field readings, but, in this case, the variation is usually not definable since the temperature effect depends on the dissolved species responsible for the ORP reading, and these species are usually not known exactly for environmental water. For this reason, ORP readings on YSI 6-series sondes are **not** temperature compensated in any manner. The user must remember that ORP variation in field water could be due to temperature changes rather than analyte compensation. Usually, however, gross changes in ORP (>100 mV) are not due to the effect of temperature.

Confirming ORP Response

Unlike pH, YSI 6-series sondes only allow a single point calibration for ORP, i.e., an offset adjustment as described above. This is almost always adequate if the ORP sensor has been maintained properly. However, some users like to confirm that their ORP system tracks changes in ORP correctly, in the same way that a pH sensor responds to immersion in pH 7 and pH 10 buffers.

To check the "slope" and response characteristics of the ORP sensor, YSI recommends that the user purchase item number B125 (ORP Calibration Kit) from the manufacturer of one of our ORP sensors:

Sensorex
Tel. +1 714 895 4344
Fax. +1 714 894 4839
Email. info@sensorex.com
Web. www.sensorex.com

The kit contains solid quinhydrone which, when added to the supplied buffers, yields two solutions with well-defined, but different, ORP values.

Problems with ORP Sensors

Although based on relatively simple theory, ORP is, unfortunately, also a measurement that can show more problems than other water quality sensors with regard to consistency between different instruments and overall accuracy. In addition, these issues are further complicated in that their extent is likely to depend on both the condition of the sensor and the makeup of the water being tested. The most common problem reported with regard to ORP determination in environmental water is that readings from various instruments (sometimes with exactly the same sensor type and electronics) differ by a significant margin (50-100 mV) even though the sensors are in the same container of water. To make the problem more perplexing, all of the sensors show identical readings in an ORP standard such as Zobell solution. The exact explanation for this paradox is sometimes elusive, but there are at least three possible reasons for its occurrence.

- First, ORP sensors can show a slow response in environmental water if the platinum button of the probe has been contaminated with extraneous material. Common contaminants include hard water deposits, oil/grease, or other organic matter. If the platinum electrodes in the above example are variably contaminated, then some of them (the more contaminated) will be likely to approach potentiometric equilibrium slower. Under this scenario, if left long enough all the sensors would read the same. However, it might take days for the contaminated sensors to reach their final value, and, therefore, they appear in the time frame of a sampling experiment (< 1 hour), to be different. Naturally, if the electrode contaminant is redox-active, either in itself or because it contains redox-active impurities, the reading from that sensor will exhibit erroneous readings that may never change unless the contaminant is removed.

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- Second, in clean environmental water, there may be very few redox-active species present, and those that are present may be in very low concentration. In many cases, the concentration can be so low that the redox influence of the species is effectively below the detection limit of the method. Under these conditions, the readings will have questionable meaning and could show this type of variation described above. Note that the ORP reading variance associated by this scenario is likely to be exacerbated if any of the electrodes is also contaminated as described above.
- Third, the makeup of the surface composition of the electrode may not be ideal for the measurement in the medium under investigation. While "platinum" ORP electrodes are primarily composed of the metal itself (in a neutral state), it is well known that the surface of the electrode (where the redox action takes place) is coated to varying extents with a molecular layer of platinum oxide (PtO). The Pt/PtO ratio can change over time, depending on the medium in which the probe is stored, and thus the surface of the electrode actually possesses its own potential that can be variable. If this surface potential is similar to the ORP potential of the medium, then electrode response can be sluggish. The cleaning procedure recommended later in this document will result in a surface characterized by a low Pt/PtO ratio and one that possesses a very positive potential. This should be suitable for most environmental measurements.

The fact that similar or identical ORP sensors read differently in environmental water yet the same in Zobell solution is due to the fact that the concentration of redox-active species (ferricyanide/ferrocyanide for Zobell) is much greater in the standards. This higher concentration usually "swamps out" the inconsistencies related to detection limit problems (caused by low amounts of redox-active species) and response time issues (caused by electrode contamination), thus all sensors respond rapidly and read within the YSI specification of +/- 20 mV when in standards.

If you observe inconsistency between different sensors or experience ORP readings which seem unusual for the water being tested with your YSI 6-series multiparameter instrument, YSI recommends the following steps to identify and/or correct the problem:

First, make certain that the pH sensor is functioning properly. The reference electrode of the sonde is common to both pH and ORP sensors and, therefore, if both pH and ORP sensors are malfunctioning this is likely to be the source of the problem. Reference electrode problems usually appear as either total failure or as a slow response in both pH and ORP readings. If a reference electrode problem is suspected, test the ORP sensor in a standard and make certain that it is within 20-30 mV of the predicted value. If reference electrode performance is indicated, clean the sensor according to the instructions shown below and then retest.

Second, if the sensor performs well in the ORP standard, remove the probe from the sonde and carry out the sequential cleaning process documented in the next section.

ORP Electrode Cleaning

The following procedure will result in removal of many common contaminants from the platinum ORP electrode. Fouling of the electrode can, however, be deployment-specific, and some contaminants from polluted water may not be dissolved by this method. The use of other solvents and reagents may be possible, but they must be selected carefully so as not to damage the reference electrode or pH glass of the combination sensors nor to leach or dissolve the CPVC body of the probe itself. Consult YSI Customer Service before using cleaning methods other than those documented below.

YSI recommends that the user perform the cleaning/reconditioning operation in the order indicated. Performance can be rechecked at the conclusion of each major section (A, B, and C) and the cleaning discontinued if, at that point, the performance problem has been corrected.

Procedure A

1. Soak the probe for 10-15 minutes in clean water containing a few drops of commercial dishwashing liquid.
2. Wipe the platinum button or ring by rubbing with a cotton swab soaked in the cleaning solution. CAUTION: For 6565 probes, be certain not to damage the glass bulb of the combination sensor during this process.
3. Rinse the probe in clean water, wipe with a cotton swab saturated with clean water, and then re-rinse with clean water.

Procedure B

1. Soak the probe for 20-30 minutes in one molar (1 M) hydrochloric acid (HCl). This reagent can be purchased from most laboratory supply dealers. Be sure to follow the safety instructions supplied with the reagent.
2. Wipe the platinum button by rubbing with a cotton swab soaked in the acid. CAUTION: For 6565 probes, be certain not to damage the glass bulb of the combination sensor during this process.
3. Rinse the probe in clean water, wipe with a cotton swab saturated with clean water, then rerinse with clean water.

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Procedure C

1. Soak the probe for approximately 1-2 hours in a 1 to 1 dilution of commercially available chlorine bleach.
2. Rinse the probe with clean water and then soak for at least 1 hour in clean water to remove residual bleach from the reference junction. **CAUTION**: If removal of the chlorine bleach is incomplete, this cleaning reagent can seep into either your calibration standards or measurement media and cause erroneous ORP readings until it is dissipated. Always err on the side of caution in the chlorine bleach removal. Soaking the probe in clean water for periods of time longer than 1 hour can do no harm, however, lesser soaking times can cause problems.
3. Dry the sonde port and probe connector with compressed air and apply a very thin coat of O-ring lubricant to all O-rings before re-installation of the probe. After the probe is reinstalled, place the sensors in Zobell solution and make certain that observed ORP readings stabilize within a few minutes and remain stable for 15-20 minutes.

Typical ORP Data in Standards and Freshwater

	Zobell Reading		
Probe #	Initial	1 hour	After Testing
1	228	228	233
2	227	226	227
3	227	227	228
4	224	224	228
5	227	227	228

Table 1. ORP sensor performance in Zobell Solution.

Experiments have been performed at YSI to demonstrate the typical performance of YSI ORP sensors in both standards and in freshwater. Five (5) new 6565 sensors were taken from stock and placed directly into Zobell solution at 22° C. As shown in Table 1 below, all sensors read within 4 mV of each other. The sensors were left in the Zobell solution for 1 hour and the values recorded again. Finally, the sensors were retested in Zobell solution after the entire regimen of testing described below was completed. The values were basically unchanged, demonstrating the stability of the sensor in redox buffer.

The sensors were then rinsed and soaked in DI water and then transferred to tap water that had been diluted with deionized water to a specific conductance of 290 uS/cm and saturated with air. The ORP readings were recorded 1 minute after transfer and then again after 2.5 hours in the low-to-medium conductivity water. Note that all readings are fairly close at 1 minute, with probe 5 showing a somewhat more positive reading. Note also that the discrepancy between probe 5 and the others increased slightly after longer-term exposure to the water sample. Cleaning the ORP platinum sensor of probe 5 with clean water and a cotton swab resulted in a decrease of the reading to 207 mV -- significantly closer to the other sensors. Finally, note that all readings increased by an average of about 40 mV after longer-term exposure to the natural water. This stabilization pattern, along with some variation in probe readings, is likely to occur with all ORP sensors when used in environmental water samples. The difference in behavior between Zobell solution and the water sample is striking and demonstrates that a lower accuracy specification must be tolerated in natural water samples than in buffers. (Note that the YSI accuracy specification of +/- 20 mV refers to readings taken in redox standards.) See Table 2 for the data described in this experiment.

	ORP Reading	
Probe #	1 minute	2.5 hours
1	138	178
2	143	161
3	132	177
4	135	169
5	166	221

Table 2. ORP sensor performance in 290 uS/cm natural water.

The sensors were then cleaned using the 1 M HCl treatment described above, soaked in DI water to remove all acid traces, and then placed back into the 290 uS/cm natural water sample. ORP readings were taken 5 minutes after placing the probes in the water. The calibration of the sensors was then checked in Zobell solution the probes returned to the natural water sample, and the readings recorded after 5 minutes. Results are shown in Table 3.

Probe #	Water Sample 5 minutes post cleaning	Zobell Solution Calibration check	Water Sample 5 minutes post cal check
1	195	233	186
2	188	227	183
3	214	228	184
4	197	228	184
5	280	228	230

Table 3. ORP sensor performance in 290 uS/cm natural water after cleaning sensors with 1 M HCl.

(continued)

Note the following from the data in Table 3:

- The results in the natural water sample are about the same after the cleaning as before -- probe #5 is still significantly higher than the other 4 that are fairly tightly bunched.
- Even after multiple exposures to standards, the natural water sample, and 1 M HCl, the probes (including probe #5) all read effectively the same in Zobell solution.
- Although the effect is relatively minor, the water sample readings are somewhat dependent on the previous reagent to which the probes were exposed. Note that the results are more consistent and slightly lower overall after the probes had been in Zobell solution (column 3) than after they had been in 1 M HCl (column 1).

Most users would consider the performance of probes 1-4 in natural water acceptable in terms of their consistency with one another, but might wonder why probe 5 always seems to read somewhat more positive than the other sensors except in Zobell solution where it has the same reading. Although difficult to prove, the difference is most likely due to a different Pt/PtO ratio on the surface of probe 5. Consistent with this hypothesis, the final experiments indicate that probe 5 responds to ORP changes and that its ORP reading in natural water becomes closer to those of the other four sensors after longer-term exposure to this medium.

In the final testing, the probes were placed in a sodium sulfite solution, a reducing environment that should produce a decrease in the ORP readings. As shown in Table 4, this effect was indeed observed. The probes were then carefully cleaned and returned to the natural water sample for 18 hours and then the ORP values recorded to conclude the test protocol. These final values are found in Table 4.

Probe #	Sodium Sulfite Solution, after 5 minute exposure	Natural Water, after 18 hour exposure
1	135	196
2	125	174
3	140	207
4	120	195
5	95	218

Table 4. ORP sensor performance in sodium sulfite solution and after long-term exposure to natural water.

YSI would consider Probe 5 as an acceptable sensor for use with our 6-series sondes for the following reasons even though it reads an average of 50 mV different from the other sensors tested:

- The sensor responds quickly and shows the proper reading in Zobell solution;
- The sensor's reading in natural water is not radically different (>100 mV) from the other sensors and becomes closer after extended exposure to this medium;
- The sensor tracks changes in ORP properly.

Summary

The determination of ORP in environmental water can provide valuable insight into the sample as long as there is a significant concentration of a redox-active species present. However, in the absence of these species, ORP can be a significantly less exact measurement than for most other sensors found in YSI 6-series sondes. The inexactness is usually due to contamination of the electrode surface (either physically or chemically), but can also be due to the lack or low concentration of redox active agent in the environmental water.

The quoted accuracy specification for the YSI ORP sensor (+/- 20 mV) refers to redox- standards, such as Zobell solution, and not to environmental water of variable, and usually unknown, content. In many cases, the +/- 20 mV specification will be met in natural water, but it cannot be guaranteed.

Periodic maintenance of your YSI ORP sensor (6032 or 6565) will increase your field consistency and accuracy, but may not overcome all problems.

The value of ORP in determining the content of environmental water is greatly enhanced if the user has some knowledge or history of the site.

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STANDARD OPERATING PROCEDURE (SOP) SW-07

CLEAN-HANDS TECHNIQUE FOR SURFACE WATER SAMPLING

SCOPE AND APPLICATION

The concentration of many metals in ambient waters is typically very low (<1 μg/L), and collecting water samples that are representative of ambient conditions requires extreme care to prevent contaminating the sample during handling. This SOP utilizes and augments the procedures outlined in the San Francisco Estuary Institute's *Field Sampling Manual for the Regional Monitoring Program for Trace Substances* (David et al. 2001), the *Interagency Field Manual for the Collection of Water-Quality Data* (USGS 2000), and U.S. Environmental Protection Agency Method 1669, *Sampling Ambient Water for Trace Metals at EPA Water Quality Criteria Levels* (USEPA 1996). The following technique is commonly called the "clean-hands technique." It employs two people, one designated as the "clean-hands person" and the other designated as the "dirty-hands person."

While sampling for trace metals, clean sampling techniques will be used for the collection of unfiltered organic compounds and conventionals, such as total suspended solids, filtered dissolved organic carbon, and dissolved suspended solids. By following this SOP, the collection of other samples besides trace metals guarantees a high level of sample integrity and minimizes contamination during sample handling.

EQUIPMENT DECONTAMINATION

If required in the project-specific field sampling plan, the analytical laboratory may be in charge of providing decontaminated sampling equipment prior to the sampling event. The analytical laboratory will decontaminate sample tubing, mixing carboys, and sampling jars according to their specific laboratory SOPs (see project-specific quality assurance plan). Additional field equipment will be cleaned and decontaminated by Integral Consulting Inc. (Integral), as described below.

EQUIPMENT AND REAGENTS REQUIRED

A workbox will be built with ¾-inch PVC tubing and covered with a 6-mil plastic sheet in order to contain the sampling equipment (e.g., peristaltic pump or Go-Flo™ bottle) and

conduct the sample processing. One side of the workbox will be left open for placing sampling equipment and sample carboys. All components will be washed with Alconox™, rinsed with tap water rinsed, washed in acid washed, and rinsed in deionized water.

Initially, stands and clamps used to secure the receiving Teflon™ tubing and filter cartridge that are made of nonmetallic components or resin-coated stainless-steel are to be washed with soap, rinsed with tap water, washed in dilute 10 percent acid (nitric or hydrochloric acid), and rinsed with deionized water. At the beginning of each subsequent sampling day, the stands and clamps are washed with soap and rinsed with tap water.

PROCEDURES

Initial Steps and Precautions

Before collecting a water sample, take the following steps or precautions to avoid sample contamination:

1. Prior to collecting the sample or handling the sampling equipment or sample bottles, perform a quick survey of the sampling area to identify sources of potential contamination to the sample (e.g., sources of dust, engines running, batteries). If there is an obvious source, either remove, clean, or isolate it from the sample handling area.
2. Both the clean- and dirty-hands persons will wear lint-free clothing, which reduces the amount of airborne dust in the immediate vicinity of the sample. These clothes can be made of nylon, Tyvek, or a plastic-coated material (e.g., Saranex). Keep these suits isolated from dust and contamination (in plastic bags) until ready for use and discard them after they have been used once. Other appropriate clothing includes coated or plastic rain suits and suits worn for hazardous waste site investigations.
3. After the sampling personnel are dressed in the appropriate sampling clothing, care should be taken to avoid bumping into potentially contaminated surfaces.
4. Sampling personnel will wear two pairs of nitrile gloves while working, one pair of nitrile gloves and then a second pair of gloves over the first pair. The gloves must be powder-free, clean-room gloves (e.g., Oak Class 100 or nitrile, powder-free). These gloves come in vacuum-sealed plastic bags containing 50 pairs. Once opened, the entire pack is potentially exposed to contamination. To minimize this potential, open only the end of the bag at the wrist end of the glove (not the fingertip end), and remove only one pair at a time. Keep the unused gloves in the original bag inside a large Ziploc® bag. When handling the clean gloves, do not touch the fingertips; handle the gloves only around the wrist.
5. At all times, the clean-hands person must avoid touching surfaces that are not known to be clean, including his or her suit. The clean-hands person should touch only the

inner bag and the sample bottle used during sample collection. While sampling, both samplers must be conscious of the potential chains of contamination that can occur. A chain of contamination could involve handling an object that touched another object that touched something contaminated. Unless an object is known to be clean (i.e., was cleaned appropriately and isolated from contaminants from the time of cleaning until the time of use), it should be assumed to be dirty.

Sample Collection

The following procedure is based on the assumption that properly cleaned and packaged bottles have been shipped from the analytical laboratory. After the initial steps have been taken, the clean-hands person and the dirty-hands person will use the following procedure to collect the samples:

1. To remove the sample bottle from the plastic bags, the dirty-hands person will remove the double-bagged bottle from the ice chest and open the outer bag. While the dirty-hands person holds the outer bag open, the clean-hands person will reach inside, lift the inner bag (but not remove it), open it, remove the sample bottle, and push the inner bag back down inside the outer bag. The dirty-hands person will close the outer bag. See Consideration 1 below.
2. In some cases, the caps on sample bottles are closed so tightly that they cannot be opened by hand. If this occurs, set the bottle aside and use another bottle. (Note: The laboratory may need to be promptly informed to send more bottles if this is a persistent problem during the sampling event.)
3. The clean-hands person will remove the cap and, while filling the bottle, hold the cap in the upright position so that particles cannot land inside the cap. If the cap must be set down, lay down a clean vinyl glove and place the cap upright on it.
4. While the clean-hands person is filling the sample bottle, the dirty-hands person will keep the outer bag closed and prepare the sample tag. When the sample bottle is full, the clean-hands person will replace the cap and tighten it.
5. The dirty-hands person will open the outer bag, and the clean-hands person will reach inside, lift the inner bag, place the bottle in the inner bag, and seal it. Before lowering the bagged bottle into the outer bag, the dirty-hands person will place the sample tag on the inner bag. The clean-hands person will then lower the inner bag into the outer bag, and the dirty-hands person will close the outer bag and place the bagged bottle in the ice chest.

Note: Although the person handling the outside plastic bag is called the "dirty hands" person, he or she will maintain the same level of care as the clean-hands person to avoid any cross contamination of the sample.

Additional Considerations

1. Sample bottles for mercury are made of either fluorinated ethylene propylene (FEP) Teflon®, FEP Teflon®-lined polyethylene bottles, or glass and are double-bagged in Ziploc® bags. Because labels do not stick to Teflon®, each sample bottle has a unique identifier etched on the outside. If FEP Teflon®-lined polyethylene bottles are used, then each sample bottle will be labeled with an Integral sample label affixed to the outside of the bottle. It is assumed that the exterior of the outer bag is contaminated and that its contents are clean. Therefore, only the dirty-hands person is allowed to handle the outer bag, and only the clean-hands person its contents.
2. It is common for the caps on Teflon® bottles not to seal well, and they will frequently leak if tightened only by hand. Strips of parafilm can be wrapped around the cap to keep it from leaking. The strips of parafilm can be prepared prior to going into the field. The strips of parafilm should be cut with ceramic scissors, and the precut strips can be placed in a separate doubled- Ziploc® bag (CETAC 2007).
3. Rainwater has elevated concentrations of mercury relative to most surface water samples and may contaminate a sample. Sampling will be done inside a processing chamber consisting of a PVC structure covered in 6-mil plastic sheathing. This will protect the sampling bottles from rain water or airborne dust particles during sample collection.
4. If there is any question as to whether gloves are clean, change gloves.

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STANDARD OPERATING PROCEDURE (SOP) SW-15

LABORATORY DECONTAMINATION PROCEDURES

SCOPE AND APPLICATION

This SOP describes Integral procedures for decontamination of sampling equipment. If low analytical reporting limits are required (see project-specific sampling and analysis plan), then sampling equipment must be decontaminated at a qualified laboratory. Each participating laboratory is responsible for preparing the equipment prior to the sampling event. Predesignated commercial laboratories will decontaminate sample tubing, mixing containers, and sampling jars according to steps described below.

SUMMARY OF METHOD

Preparation of the Teflon™ sample tubing will be completed in the laboratory 3 to 4 weeks before the start of a sampling event. All sample tubing, filters, and containers will be decontaminated, preassembled, and packed for the field in double-bagged polyethylene bags.

Decontamination of tubing, filters, stir bars, and containers consists of soaking the sampling equipment in cleaning solutions for a predetermined amount of time and then rinsing it with distilled/deionized water. A peristaltic pump is used to fill the Teflon™ sample tubing with cleaning solutions and to flush with distilled/deionized water between cleanings. In similar fashion, sampling filters are also attached in series with C-flex™ tubing, filled with cleaning solutions and flushed with distilled/deionized water between cleanings. The Teflon™ tubing ends and in-line filters are joined together with C-flex™ tubing for transport to the field.

PROCEDURES

The procedure for each type of sampling equipment is provided below. Use selected equipment (e.g., tubing) for collection of all target parameters. However, be sure to process selected equipment (containers, filter units) separately for sampling metals and organics.

Teflon™ and C-Flex™ Pump Tubing and Teflon™ Coated Stir Bars for Intake Water

Clean the Teflon™ and C-Flex™ tubing used for the intake of site water and Teflon-coated stir bars used in the containers for all target parameters in accordance with the following procedures:

- Completely fill sample tubing with reagent grade methanol and let it soak for 24 hours.
- Soak the appropriate number of stir bars in reagent grade methanol for 24 hours.
- Drain methanol solution from the tubing and stir bars and flush with approximately 10 L of distilled/deionized water.
- Completely fill sample tubing with dilute reagent grade hydrochloric acid (HCl) and let soak for 24 hours. Soak the appropriate number of stir bars in reagent grade HCl for 24 hours.
- Drain acid and flush tubing and stir bars with distilled/deionized water. Fill tubing with distilled/deionized water, and soak stir bars with distilled/deionized water and let set for 24 hours.
- Double bag the clean tubing and stir bars, label the outside bag identifying cleaning process used, and store in double-bagged polyethylene bags until assembly.

Teflon™ and C-Flex™ Pump Tubing From Filtration Units to Sample Jars

Clean the Teflon™ and C-Flex™ tubing used between the filtration units and sample jars for metals or for organic and conventional parameters, as described below.

Procedure for Metals, Nutrients, and Conventional Analysis

- Completely fill sample tubing with dilute reagent grade HCl and let soak for 24 hours.
- Drain acid and flush tubing with distilled/deionized water, fill with distilled/deionized water, and let set for 24 hours. Drain, rinse with distilled/deionized water, and drain.
- Double bag the clean tubing, label the outside bag identifying cleaning process used, and store in double-bagged polyethylene bags until assembly.

Procedure for Organic Analysis

- Completely fill sample tubing with reagent grade methanol and let it soak for 24 hours.
- Drain methanol solution from the tubing and flush with approximately 10 L of distilled/deionized water.

- Double-bag clean tubing, label outside bag identifying cleaning process used, and store in double-bagged polyethylene bags until assembly.

Filter Cartridges

The 0.45 μm Teflon™ filter cartridges will be used for the collection of dissolved trace metal samples and dissolved organic carbon (DOC) in water. The following procedures are used for cleaning the 0.45 μm filter cartridges for metals, DOC, and conventional analytes:

The 0.45 μm Teflon™ filters are hydrophobic and need to be "wetted" with methanol prior to rinsing with a water-based solution.

- Pump methanol through the filter unit to wet the filter.
- Drain the methanol and flush the filter with distilled/deionized water for approximately 10 minutes.
- Fill the filter unit with dilute HCl and allow it to soak for 24 hours.
- Drain the acid and flush with distilled/deionized water.
- Fill the unit with distilled/deionized water and allow it to soak for 24 hours.
- Followed by a series of draining and rinsing procedures with distilled/deionized water, dry the filter units in a laminar flow hood and double-bagged in polyethylene bags.

Glass and Polycarbonate 10- to 20-Liter Containers

The glass and polycarbonate containers will be used to composite the sample prior to distribution to the sample containers. The cleaning procedure for metals and for organic and conventional parameters is described below:

- Polycarbonate container (metals, nutrients and conventionals)
  - Half-fill the container with dilute reagent-grade HCl. Secure the lid and place the container on its side for 12 hours.
  - Rotate the container to the other side for an additional 12 hours.
  - Drain the acid and rinse with distilled/deionized water.
  - Drain the distilled/deionized water and let it dry in a laminar flow hood.
  - Double-bag the polycarbonate container in polyethylene bags.
- Glass container (organics)
  - Rinse the glass container three times with methanol using a squeeze bottle and thoroughly coat all inner surfaces.

- Drain the methanol and rinse with distilled/deionized water.
- Drain the distilled/deionized water and let it dry in a laminar flow hood.
- Double-bag the glass container in polyethylene bags.

Assembly

After all the components have been cleaned, the peristaltic pump collection and filtration units will be assembled by the laboratory performing the sample equipment decontamination. The assembled units will be double-bagged in polyethylene bags, labeled for identification on the outside bag, and sent to the field laboratory.

LABORATORY AND DECONTAMINATION BLANKS

Laboratory and decontamination blanks will be collected for each sampling event. A cooler will be sent to the laboratory performing the decontamination with prelabeled bottles, along with chain-of-custody forms, custody seals, and a temperature blank. The two types of blanks are described below.

- **Laboratory Blank**—A laboratory blank is a sample of analyte-free water that is supplied by the laboratory. The laboratory blank is generated by transferring the analyte-free water to another laboratory-supplied sample container. Laboratory blank results are used to measure and document any possible laboratory contamination.
- **Decontamination Blank**—Prior to the start of sample collection activities for each sampling event, a decontamination blank will be generated by the laboratory that conducts decontamination of the peristaltic pump sampling equipment (i.e., containers, filters, tubing, and tubing connectors) to ensure that the decontamination procedure is adequate.

The blanks will then be sent back to the analytical laboratory for analyses of all pertinent target analytes within 1 to 2 days of collection. Samples must be received by the laboratory at or around 4±2°C.

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