Blaine Mini Mart 2530 Peace Portal Drive Blaine, Washington

Sampling and Analysis Plan and Quality Assurance Project Plan

FINAL

Prepared for



Washington State Department of Ecology Toxics Cleanup Program 3190 – 160th Avenue SE Bellevue, WA 98008-5452

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March 2010

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	Groundwater Sample Collection Form
	Chain of Custody

List of Acronyms

ARI	Analytical Resources, Inc.
ARRA	American Recovery and Reinvestment Act
CFR	Code of Federal Regulations
COC	chain of custody
Ecology	Washington State Department of Ecology
FID	flame ionization detector
FSP	Field Sampling Plan
LUST	Leaking Underground Storage Tank
NAD83	North American Datum 1983
NAPL	non-aqueous phase liquid
NAVD88	North American Vertical Datum 1988
РСВ	polychlorinated biphenyl
PID	photoionization detector
QA	quality assurance
QAPP	Quality Assurance Project Plan
QC	quality control
SAIC	Science Applications International Corporation
SAP	Sampling and Analysis Plan
SOP	standard operating procedure
USC	Unified Soil Classification
EPA	Environmental Protection Agency

1.0 Introduction

This Sampling and Analysis Plan (SAP) was prepared by Science Applications International Corporation (SAIC) on behalf of the Washington State Department of Ecology (Ecology). The SAP details environmental investigation activities to be carried out at the Blaine Mini Mart property. The SAP is composed of the Field Sampling Plan (FSP), provided in Section 2.0, and the Quality Assurance Project Plan (QAPP), provided in Section 3.0. This project is being funded by an Environmental Protection Agency (EPA) Leaking Underground Storage Tank (LUST) stimulus American Recovery and Reinvestment Act (ARRA) grant.

The Blaine Mini Mart is an active gas station located at 2530 Peace Portal Drive, a rural community in Blaine, Washington. The Blaine property is a one-half acre triangularly shaped lot bounded on the southwest by Peace Portal Drive, Bell Road to the west, vacant land to the north, and an abandoned former Rocky Mountain Trading Post building to the east (Figure 1). The property is located within a commercial/residential area. Two buildings, a convenience store and storage space, were constructed in 1955 on the north side of the property. Four fuel dispensers and a fuel island canopy were built in 2005 along Peace Portal Drive (Environmental Associates, Inc., 2005).

The nature and extent of contamination at the Blaine Mini Mart property has not yet been fully characterized. However, sampling results from three previous investigations between October 21, 1997, and April 22, 2008, confirm soil and groundwater contamination is present.

The activities outlined in this SAP are intended to complete confirmational soil and groundwater sampling tasks and provide data on the nature and extent of onsite contamination. Investigation activities will include sampling and analysis of subsurface soil and groundwater.

2.0 Sampling and Analysis Plan

Proposed investigation activities are summarized in the following subsections. Investigation activities will include soil borings, installation of monitoring wells, and collection and analysis of soil and groundwater.

2.1 Pre-Investigation Activities

The following activities will be performed prior to the start of field investigation activities:

- A site walk will be performed with the Ecology representative, SAIC representative, and representatives of the property owners in order to assess access for specific locations, to finalize boring locations, and to discuss field activity logistics.
- Boring locations will be cleared for underground utilities using a private utility-locating firm as well as the state "one-call" system.
- Property boundaries will be surveyed by a private survey company to verify property boundary lines and associated ownership. In addition, the two existing monitoring wells (MW-1 and MW-2) will be surveyed using horizontal coordinates in State Plane NAD 83 and vertical coordinates (to the nearest 0.01 foot) in NAVD 88.
- The first 5 feet at each boring will be cleared using a hand auger or air knife to minimize potential damage to any undetected underground utility or other structures. Clearing will be performed prior to drilling activities.

2.2 Soil Boring Installation

Twelve direct-push (Geoprobe©) soil borings are anticipated to be completed on the Blaine property. Soil borings will be focused in the northeast corner of the property and in the vicinity of the fuel dispenser. Due to onsite limitations, including overhead utility lines and short distances between buildings, samples will be collected using a Geoprobe© rig. A jackhammer will be used to remove surface asphalt or concrete, as necessary. The anticipated locations of these soil borings are shown on Figure 1. However, the exact installation location of soil borings may be adjusted during the investigation to accommodate access requirements, utilities, refusal, or onsite investigational conditions. Three soil borings will be completed as monitoring wells.

2.3 Soil Sample Collection

Soil samples will be collected using a hand auger and by limited-access track-mounted Geoprobe[©] rig. At each boring one soil sample is anticipated to be collected near the water table, between 0 and 5 feet below ground surface. Additionally, samples may be collected between 5 and 16 feet below ground surface if contamination is encountered.

All borings will be geologically logged and the following items will be noted:

- Color
- Moisture content (dry, damp, moist, or wet)
- Lithology (using the modified Unified Soil Classification [USC] system)
- Geological interpretation, if possible (e.g., fill, topsoil, alluvium, till, etc.)
- Presence of sheen or non-aqueous phase liquid (NAPL)
- Presence of contaminant odor
- Field screening results for organic vapor (using photoionization detector [PID] or flame ionization detector [FID])
- Other indications of contamination (e.g., discoloration)

Determination of which samples are to undergo analytical testing will be based on predetermined intervals of interest, including near the water table. Additional samples may be selected based on field screening of odor, PID measurement, discoloration, and sheen. Samples collected from both the hand auger and Geoprobe[©] will be field screened for indications of contamination. Soil samples will be analyzed for the parameters listed in Table 1.

All downhole tools, including the hand auger, will be decontaminated between samples using a LiquinoxTM solution and a distilled-water rinse.

2.4 Monitoring Well Installation and Development

A total of three monitoring wells will be installed on the site. Proposed monitoring well locations will be in proximity to the fuel dispenser island, including the northeast side and off the south and west corners. The anticipated locations of these wells are shown on Figure 1. The exact installation location of monitoring wells may be adjusted during the investigation to accommodate access requirements, utilities, refusal, or onsite investigational conditions.

Monitoring wells will be installed using a limited-access track rig Geoprobe© and will consist of 2-inch, flush-thread PVC risers, 10-foot long pre-packed screens, to a total depth of approximately 13 feet below ground surface. Well screens will be set so that the water table intersects the well screen even during potential seasonal variation. Borings will be sealed from

the top of the sand pack to the ground surface with cement/bentonite grout. Wells will be completed with flush-mount vaults and equipped with watertight locking plugs. All well materials (screen, riser, etc.) will be delivered from the manufacturer pre-cleaned and sealed.

The three new monitoring wells will be developed by surging the well with a steel bailer or surge block and then over-pumping with an electric down-well pump. Disposable discharge tubing will be used at each well. The bailer, surge block, or pump will be decontaminated before use at each well using LiquinoxTM and distilled water rinse.

2.5 Groundwater Sample Collection

One round of groundwater sample collection will be conducted as part of this investigation. Groundwater sampling will include two existing monitoring wells (MW-1 and MW-2) and the three additionally proposed new monitoring wells. Groundwater sampling will be conducted using low-flow techniques with a peristaltic pump and disposable Polyethylene tubing. Wells will be purged at a low-flow rate until field measurements of pH, conductivity, temperature, and turbidity stabilize. Water levels will be measured in each well prior to purging. Field sampling parameters will be recorded on groundwater sampling field forms (see Appendix A). Groundwater samples will be analyzed for the parameters listed on Table 1. One duplicate will be collected from a selected groundwater monitoring well; see Section 3.5 for additional information.

All non-disposable sample-collection equipment will be decontaminated between stations using a LiquinoxTM detergent solution and a distilled water rinse.

2.6 Investigation-Derived Waste Management

The following investigation-derived waste will be containerized during this investigation: waste soil and decontamination water from the drilling and Geoprobe© activities, development water, and purge water from the monitoring wells. All soil and water will be contained in 55-gallon U.S. Department of Transportation-approved drums, which will be left on site for temporary storage. Drums will be labeled with a generator contact name and phone number (see Appendix A). Following receipt of laboratory analytical data, SAIC will arrange for disposal of this material. Transport and disposal of waste soil and water will be conducted by Clean Harbors of Seattle, Washington. SAIC will coordinate transportation and disposal of this waste; Ecology is the generator and will sign all manifests, bill of lading, profile sheets, and any other shipping documents.

3.0 Quality Assurance Project Plan

This section constitutes the Quality Assurance Project Plan for this investigation. Supplemental and background information for this QAPP can be found in Section 1.0 of this document and in the Work Plan. The primary objective of the QAPP is to assure that a sufficient number of samples are collected to gain quality analytical information for the Blaine Mini Mart site, in order to evaluate the various environmental media of concern, and to determine whether there is a risk of offsite contamination transport.

3.1 Personnel

The site manager for Ecology is Isaac Standen, who is responsible for defining the scope and objectives of this project.

The SAIC project manager is Glen Vedera, who is responsible for assuring that all personnel are trained to properly carry out information included in this SAP and QAPP and that all resources are made available to meet the investigation objectives.

The SAIC field manager is Julie Wartes, who will implement this SAP, and will verify that samples and data are collected according to this SAP and all pertinent SAIC guidance (see Section 3.2). The field manager is also responsible for interacting with the analytical laboratory to assure that all laboratory objectives are met, and for notifying the project manager of any required field or analytical variances.

The SAIC field assistant is Alisa Wells, who will assist the field manager in proper collection of samples and data.

The SAIC health and safety officer is Andrew Lembrick, who is responsible for identifying and mitigating potential hazards while field work is being performed and insuring health and safety procedures are implemented and followed.

The SAIC database manager is Will Hafner, who is responsible for proper database storage and uploading of field and analytical information into Ecology's database.

3.2 Documentation

In performing field activities, SAIC follows a set of standard operating procedures (SOPs). The SAIC SOPs that will be used in this investigation include the following:

- EC&HS 130 Subsurface Asset and Hazard Avoidance
- FTP-400 Equipment Decontamination
- FTP-405 Cleaning and Decon of Sample Containers and Sampling Equipment
- FTP-625 Chain of Custody (COC)
- FTP-650 Labeling, Packaging, and Shipping of Environmental Field Samples
- FTP-1215 Field Logbooks and Field Forms
- FTP-1220 Documenting and Controlling Field Changes to Approved Work Plans
- QAAP 12.1 Control of Measuring and Test Equipment
- QAAP 15.1 Control of Nonconforming Items and Services
- QAAP 17.1 Records Management
- QAAP 2.3 Project Kickoff Checklist
- QAAP 3.1 Document Review
- QAO Quality Assurance (QA) Orientation
- SAIC EC&HS 13 Personal Protective Equipment
- SAIC EC&HS 20 Hazardous Waste Operations
- SAIC EC&HS 25 Management of Investigation-Derived Waste
- TP-DM-300-06 Data Package Receipt and Verification
- TP-DM-300-10 Analytical Laboratory Interface
- TP-DM-300-12 Handling and Control of Sampling Documentation
- TP-DM-300-13 Tracking Analytical Data

A complete record of field activities will be maintained. Documentation necessary to meet quality assurance (QA) objectives for this project includes field notes and field forms, borehole logs, sample container labels, and chain-of-custody (COC) forms (see Appendix A). The field documentation will provide descriptions of all sampling activities, sampling personnel, and weather conditions. All modifications, decisions, and/or corrective actions to the study design and procedures identified in the SAP will be recorded in the field documents with a signature and date.

Daily activities will be recorded in a bound field logbook of water-resistant paper. All entries will be made legibly, in indelible ink, and will be signed and dated. Information recorded will include the following:

- Date, time, place, and location of sampling
- Onsite personnel and visitors
- Daily safety discussion and any safety issues

- Quality control samples (i.e., duplicate samples, trip blanks, etc.)
- Field measurements and their units
- Observations about site, location, and samples (weather, current, odors, appearance, etc.)
- Equipment decontamination verification

Field logbooks are intended to provide sufficient data and observations to enable participants to reconstruct events that occur during project field activities. Entries should be factual, detailed, and objective. Unless restricted by weather conditions, all original data recorded in field logbooks and on sample identification labels, COC records, and field forms will be written in waterproof ink. If an error is made, the individual responsible may make corrections simply by crossing out the error and entering the correct information. The erroneous information should not be obliterated. All corrections must be initialed and dated. All documentation, including voided entries, must be maintained within project files. Photocopies or electronic scans of the field logbooks will be made at the end of each field event and maintained in the project file.

Boring logs will be used to record geological and well installation observations and data. Soil sampling information (sample ID, depth, time) will also be recorded on these logs. One boring log will be completed for each soil boring and monitoring well (see Appendix A).

Sample collection data sheets will be completed for each groundwater sample location. Sample data sheets will contain date and time of sample collection, sample number, sample location, field measurements (e.g., pH, conductivity, temperature), and analyses collected.

Sample labels will be attached to each sample container. Labels will contain the sample number, date and time of sample collection, analyses requested, and information on sample preservation.

Chain-of-custody forms will accompany all samples shipped to the analytical laboratory. In addition to containing a record of sample information, chain-of-custody forms will contain the signature of the sample shipper and will document the date and time that samples were shipped. Upon receipt at the laboratory, the chain-of-custody record will be compared with the samples received, any discrepancies will be noted, and the form will be signed and dated by an authorized laboratory representative and a copy returned to the sender.

3.3 Analytical Methods

Table 1 includes the specific analytical method for each environmental medium, estimated number of samples, sample container type, sample preservation, and associated holding time requirements.

Analyses of soil and water will be performed by Analytical Resources, Inc. (ARI) located in Tukwila, Washington. The ARI laboratory is accredited by Ecology to perform the required analytical methods.

Samples will be transported to the laboratory in properly packaged coolers under chain-ofcustody and will be extracted and analyzed within required holding times.

3.4 Laboratory QA/QC and Submittals

Laboratory quality control (QC) samples will include the following, as relevant to each analytical method:

- Method blanks
- Method blank spikes
- Laboratory control samples
- Surrogates
- Matrix spikes/matrix spike duplicates

Laboratory data will be provided electronically and in hard copy to SAIC and will consist of "Tier IV" deliverables including project narratives, chain-of-custody documentation, data reports containing method blank results, and QA summary forms. Deliverables will also include electronic data deliverables formatted to meet the submittal requirements of Ecology's Environmental Information Management database. Third-party data validation will be performed by EcoChem, Inc. of Seattle, Washington.

3.5 Field QA/QC Measures

Samples will be considered acceptable to the field manager if sufficient quantity of material is recovered to adequately and appropriately represent the target material and depth interval. Examples of unacceptable samples or sample locations include Geoprobe© cores with less than 50 percent in-situ soil recovery, soil samples with largely coarse-grained material (coarser than sand), refusal before extending below major contaminant depths, and water samples that are extremely turbid. For cases of poor recovery or refusal or lack of physical access, the SAIC field manager or project manager will discuss with the Ecology site manager to decide whether data completeness has been affected significantly enough to require moving boring locations or resampling.

Field QC samples will also be collected to gauge the quality of samples being collected; these include the following:

Field duplicates will be collected to assess natural variability in the sampled water matrix. One groundwater field duplicate will be collected during this investigation. This sample will allow the relative percent difference to be calculated, to gauge the variability in the sampling and analysis processes.

Equipment rinses will be collected to assess the effectiveness of equipment decontamination and to confirm that no significant sample cross-contamination is occurring. Equipment rinses will be collected at a rate of one per sampling method where decontaminated sampling equipment is being used. This will apply to the hand auger. Equipment rinses will be prepared by running deionized water through (or pouring it over) all parts of the decontaminated sampling equipment that contact the sample. The equipment rinse samples will be analyzed only for the contaminants of concern as listed in Table 1.

<u>*Trip blanks*</u> will be submitted with every sample shipment in which samples are being analyzed for volatile organics including BTEX + MTBE, EDB, EDC and NWTPH-Gx. One trip blank, consisting of laboratory-supplied organic-free water, will be included in each cooler and analyzed upon receipt for the same constituents as the environmental samples.

3.6 Containers, Preservatives, and Holding Times

Table 1 summarizes the requirements for sample containers and preservatives as well as the maximum time that samples can be held after sampling and prior to being analyzed. Note that soil samples for volatile constituents will be collected according to the EPA 5035 method of preparation and preservation. This includes preservation by methanol and/or sodium bisulfate.

3.7 Sample Numbering

Sample identifiers will be designated as follows:

Subsurface soils: *SB-xx-yy* (for example, SB-01-05)

Where "xx" is the boring number (padded with a preceding zero for boring numbers less than 10), and "yy" is the depth, in feet below ground surface, of the top of the sampled interval.

Groundwater: *MW-xx-mmddyy* (for example, MW-12-051809)

Where "xx" is the well number (padded with a preceding zero for well numbers less than 10), and "mmddyy" is the date.

Field duplicates: *sample number-FD* (for example, MW-12-051809-FD)

Where "sample number" is the sample designation of the duplicated sample, groundwater only.

Equipment rinses:ER-mmddyy-x (for example, ER-051809-1)Trip blanks:TB-mmddyy-x (for example, TB-0521809-2)Where "mmddyy" is the date and "x" is the sequential number of this type of sampleprepared on the same day.

3.8 Field Equipment Calibration

Field instruments, including PIDs and water parameter meters, will be calibrated prior to use each day according to the manufacturer's recommended procedure using the appropriate calibration standards. Recalibration may be needed during the day after a significant gap of time, or if the instrument does not give reliable readings (such as does not zero out). All calibration of such instruments will be recorded in the field log book.

3.9 Sample Storage and Delivery Procedures

All samples will be stored in insulated coolers and preserved by cooling with ice to a temperature of 4°C. Maximum sample holding and extraction times will be strictly adhered to by field personnel and the analytical and testing laboratories. Samples will be delivered to ARI by a commercial courier. Preparation of containers for shipment will be performed in the following manner:

- Samples will be packaged and shipped in accordance with U.S. Department of Transportation regulations as specified in 49 Code of Federal Regulations (CFR) 173.6 and 49 CFR 173.24.
- Place sample containers in plastic Ziploc bubble-pack bags, or wrap in bubble pack and secure with packaging tape.
- Prepare an empty insulated cooler by placing ice in a Ziploc bag at the bottom of the cooler. Place sample containers in a garbage bag and fill with the sample bottles. Add additional bags of ice as needed to surround the bag containing the samples.
- COC forms will be enclosed in a plastic bag and placed inside the top of the cooler.
- Seal the cooler with strapping or duct tape and a custody seal.
- Samples for chemical analyses will be hand-couriered or shipped via overnight courier to the analytical laboratories once per day or whenever a cooler is filled, and accompanied by the COC record that identifies the shipment contents. The COC will be signed by the individual relinquishing samples to the onsite laboratory representative. Upon receipt of samples at the laboratory, the shipping container seal will be broken and the condition of the samples will be recorded by the receiver.

The field personnel will be responsible for the following:

- Packaging the samples.
- Signing the COC before placing inside the cooler to be sealed.

- Applying a shipping label, a custody seal, and strapping tape to the cooler.
- Shipping the samples in accordance with the maximum holding times allowed.
- Notifying the laboratory of when the samples are shipped.
- Confirming receipt of the samples by the laboratory in good condition.

All samples will be retained for a minimum of 6 months from the time they were received using standard laboratory handling procedures. They may be removed from the laboratory prior to the end of the 6-month period only at the direction of the SAIC project manager.

3.10 Chain-of-Custody Procedures

Samples will be retained at all times in the field crew's custody until samples are delivered or shipped to the appropriate laboratory by SAIC personnel. COC forms will be initiated at the time of sample collection to ensure that all collected samples are properly documented and traceable through storage, transport, and analysis. When all line items on the form are completed or when the samples are relinquished, the sample collection custodian will sign and date the form, list the time, and confirm the completeness of all descriptive information contained on the form. Each individual who subsequently assumes responsibility for the samples will sign and date the COC form. The field COC terminates when the laboratory receives the samples. The field sample custodian should retain a copy of the completed, signed COC form(s) for project files.

4.0 References

- Environmental Associates Inc. 2005. Subsurface Sampling and Testing Blaine Mini Mart (Gas Station and Convenience Store). Environmental Associates Inc. December 08, 2005.
- U.S. Environmental Protection Agency. 2008. *Test Methods for Evaluating Solid Wastes: Physical/Chemical Methods SW-846.* www.epa.gov/epawaste/hazard/testmethods/sw846/online/index.htm

Figure



Table

Analytical Parameter	Sample Matrix	Method	Approximate # of Samples	Sample Containers	Number of Containers and Preservation	Holding Time
BTEX + MTBE	Soil	EPA 5035/ 8260C ¹	40	40mL vials	2- sodium bisulfate 1 - methanol	14 days
NWTPH-Gx	Soil	5035/NWTPH	40	40mL vials	2 - methanol	14 days
NWTPH - Dx (a/s cleaned)	Soil	NWTPH	40	8oz WMG	1 - None	14 days
MTCA PCBs (20ug/kg RL)	Soil	EPA 8082 ¹	5	8oz WMG	1 - None	ARI - 14 days SW846 - None
Lead	Soil	EPA 6010B ¹	10	4oz WMG	1 - None	6 months
BTEX + MTBE, EDB, EDC	Water	EPA 8260C ¹	10	40mL vials	3 - HCL	14 days
NWTPH-Gx	Water	NWTPH	10	40mL vials	2 - HCL	14 days
NWTPH-Dx (a/s cleaned)	Water	NWTPH	10	500 mL AG	2 - None	7 days
LL SIM cPAH (0.01 µg/L)	Water	EPA 8270-SIM ¹	10	500 mL AG	2 - None	7 days
Lead	Water	EPA 6010B ¹	10	500 mL HDPE	1 - Nitric Acid	6 months

 Table 1.
 Chemical Analysis, Sample Containers, and Holding Times, Blaine Mini Mart

1. Source: U.S. EPA 2008

AG = Amber glass jar

BTEX = Benzene, Toluene, Ethylbenzene, Xylenes

EDB = Ethylene dibromide

EDC = 1,2-Dichloroethane

HDPE = High density polypropylene bottle

LL SIM cPAH = Low level selected ion monitoring for carcinogenic polycyclic aromatic hydrocarbons analysis

MTBE = Methyl-tert-butyl-ether

NWTPH-Dx = Diesel- range hydrocarbons with extended range and silica gel cleanup

NWTPH-Gx = Gasoline- range hydrocarbons

PCB = Polychlorinated biphenyls

WMG = Wide mouth glass jar

Appendix A Field Forms

NON- AZARDOUS
RUDUS
Waste
wasie
OPTIONAL INFORMATION SHIPPER
ADDRESS
CITY, STATE, ZIP
CONTENTS

DATE:					LE DIAME		WELL SCREEN:	
LOGGED B	Y:			HOL	E DEPTH	:	FILTER PACK:	
			_	_			CASING ELEVATION:	
					r			
Water Level Moisture	Content PID (nnm)	"I OWS / E	Recoverv @	Interval	E E	SOIL TYPE	LITHOLOGY / DESCRIPTION	Well Completion/ Backfill Material
M								Material
NOTES:								
L								

MONITORING WELL/ BORING LOG

BORING/WELL No:

WELL DIAMETER:

WELL DEPTH:

WELL CASING:

WELL SCREEN:

PAGE 1 of

DRILLER:

DRILL METHOD:

SAMPLE METHOD:

HOLE DIAMETER:

541

From

PROJECT:

CLIENT:

DATE:

LOCATION:

Fro	5A	Solutions			MON	NITORIN	IG WE	LL/ BORING LOG BORING/WELL No: PAGE 2 of	
PROJ LOCA CLIEN DATE LOGG	TION: IT:				Sampi Hole	ER: METHOD: LE METHO DIAMETEF DEPTH:		WELL DIAMETER: WELL DEPTH: WELL CASING: WELL SCREEN: FILTER PACK: CASING ELEVATION:	
Water Level	Moisture Content	PID (ppm)	BLOWS/6"	Sar Kecovery	Interval d	DEPTH (ft.)	SOIL TYPE	LITHOLOGY / DESCRIPTION	Well Completion/ Backfill Material
						 12			
						 13			
						14 <u> </u>			
						15 — — — 16 —			
						 17			
						18 — 			
						19 			
						20 21			
						 22			
NOTE	S:								

GROUNDWATER SAMPLE COLLECTION FORM

Blaine Mini Mart

SAMPLE ID NO.:

DATE/TIME:

ANALYSIS:

WELL PURGING DATA

Initial depth to water: Screened interval: Method of purging: Method of decontaminating:

WELL NUMBER:

WEATHER:

Depth of well: Volume of water in well: Purge rate:

WATER QUALITY OBSERVATIONS DURING PURGING

Date/Time	Volume Purged	Depth to Water	Temp (°C)	pН	Conductivity (µS/cm)	D.O. (mg/L)	Redox (mV)	Turbidity (NTU)

Comments:

SAMPLE CONTAINER DATA:

Туре	Preser- vative	Volume	No. Required	No. Filled

Signature:

Date/Time:

SAMPLE METHOD: Pump Bailer Other

FILTERED FOR METALS? Yes No

Photograph Taken? Sample Entered on C.O.C.? SAMPLE PRESERVATION METHOD: _____ Iced____

		18912 Bothel	2 North Cr ell, Washir	eek Parkwa Igton 9801	18912 North Creek Parkway, Suite 101 Bothell, Washington 98011		A	Analyses / Tests	/Tests		S	Shipping Information
From Science to Solutions	olutions @	TEL:	425.485.58	300 • FAX	425.485.5566						Number	Number of Shipping
	CHA	CHAIN OF CUSTODY RECORD	TODY REC	ORD							Contamers: Date Shipped:	ers: ipped:
Project No.: Project Name: Project Location:		Pre-	Project Mgr:								Carrier:	
Sample Collectors: Client Name:											Waybill No.:	No.:
Sample ID	Depth	Matrix	Date	Time	# of Containers			-				Comments
		-11.										
RELINQUISHED BY:		RECEI	RECEIVED BY:		RELINQUISHED BY:	ED BY:				RECEIVED BY:	BY:	
Signature:		Signature:	iure:		Signature:					Signature:		
Date/Time:		Date/Time:	ime:		Date/Time:					Date/Time:		
		Addination	iner.		Affiliation					Affiliation-		