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# River and Stream Ambient Monitoring Report for Wateryear 1994

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September 1995

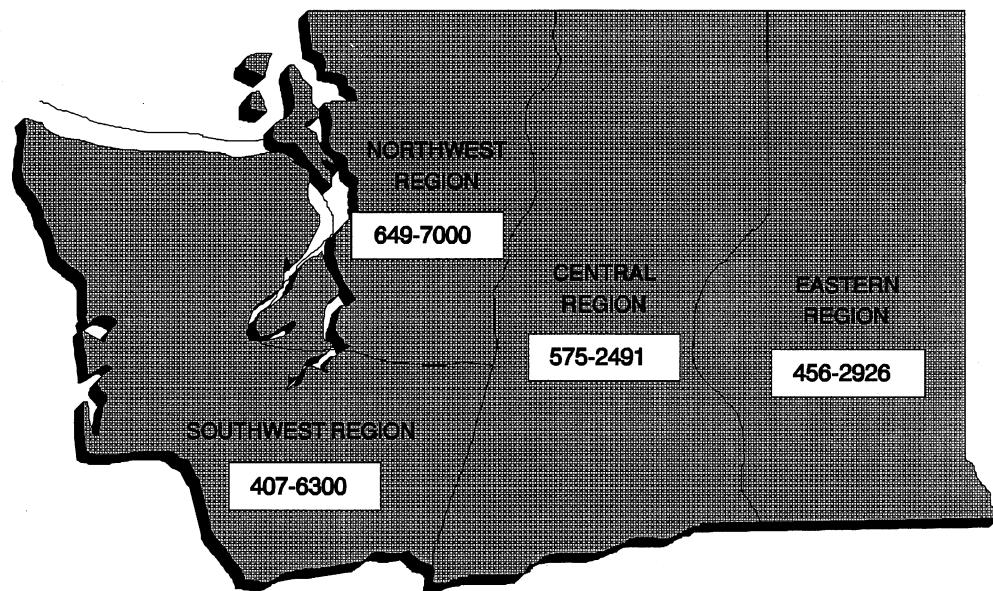
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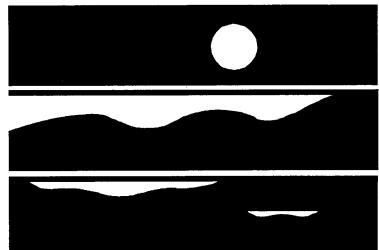
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DEPARTMENT OF  
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# River and Stream Ambient Monitoring Report for Wateryear 1994

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by  
Dave Hallock and  
William Ehinger

Environmental Investigations  
and Laboratory Services Program  
Olympia, Washington 98504-7710

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## **Abstract**

The Washington State Department of Ecology collected monthly water quality information at 79 river and stream monitoring stations during Wateryear (WY) 1994 (October 1, 1993 through September 30, 1994). The primary goals of this ongoing monitoring program are to characterize the rivers and streams of Washington State and to track changes in water quality. Water quality for WY 1994 was average relative to previous years with about an average number of exceedences of Washington's water quality criteria. The fecal coliform bacteria geometric mean was the most frequently violated criteria based on individual samples. Excluding floating stations, 103 samples exceeded the geometric mean criteria, and 51 samples exceeded the "10 percent not to exceed" criteria out of nearly 800 samples collected; 32 of 66 stations had at least one sample that exceeded the geometric mean criteria. Twenty-one of the 32 stations were west of the Cascades and 18 were stations on streams that drain to Puget Sound. Temperature standards were violated 70 times at 37 stations on both sides of the Cascades. Dissolved oxygen and pH standards were violated 38 and 30 times, respectively, both at 14 stations. With a few exceptions, median monthly stream flows in WY 1994 at the time of sampling were below or near normal.

# Introduction

The Washington State Department of Ecology (Ecology) has operated a long-term Ambient Water Quality Monitoring Program since 1970. The program consists of monthly water quality monitoring for conventional parameters at 79 stations on rivers and streams within Washington State. The primary goals of this program are to characterize stream water quality and to evaluate spatial and temporal changes in water quality (trends). Within Ecology, the data generated by the River and Stream Ambient Monitoring Program are used to determine if designated uses are supported (e.g., Ecology, 1992), to support wasteload allocation models, to develop water quality based permits, to prepare 305(b) and other management reports, and to provide water quality information necessary for Centennial Clean Water Fund and other grant awards.

This purpose of this report is to

- describe the Wateryear (WY) 1994 monitoring program,
- provide a brief overview of water quality in Washington State in WY 1994,
- discuss data quality, and
- present results.

More detailed analyses and interpretations of ambient monitoring data are reported elsewhere. Ambient Monitoring Section (AMS) analyzes results at specific stations in response to requests by clients. These analyses are typically reported as technical memoranda (e.g., Hallock, 1991). Some analyses are conducted by other programs, for example, Ecology's Water Quality Program applies its own data reduction procedures prior to developing the biannual 305(b) report. Finally, the AMS analyzes data from four hydrologic basins annually in accordance with the basin approach to water quality management (Wrye, 1993).

The basin approach consists of a five-year cycle of scoping, data collection, data analysis, planning, and implementation of plans in 20 hydrologic basins statewide. In any given year, each of the above activities will be underway in four basins, one in each Ecology region. Data analysis reports for the following basins were produced in WY 1994:

- mid-Columbia (WRIA 41) (Hallock, in prep.), and
- upper Yakima (WRIA 38-39) (Ehinger, 1994).

Basins scheduled for data analysis in 1995 are the Spokane, lower Yakima, Cedar/Green, and eastern Olympics. Basins with focused data collection (monitoring) efforts in 1995 are the Upper Columbia/Pend Oreille, Horseheaven/Klickitat, Skagit/Stillaguamish, and the Columbia Gorge.

# Methods

## Sampling Network

The ambient monitoring network in WY 1994 consisted of monthly water collection at three types of stations: (1) core/benchmark, (2) rotating, and (3) floating. Core and benchmark stations are monitored every year to track water quality changes over time (trends) and to assess inter-annual variability, as well as to collect current water quality information. Core stations are located near the mouths of major rivers, and below major population centers. Benchmark stations are located upstream from most anthropogenic sources of water quality problems and where major streams enter the state and are intended to monitor background conditions. Rotating stations are monitored for one year in a three-year cycle to collect current water quality information, particularly in support of Ecology's waste discharge permitting process and allow expanded coverage over an all-core network. Floating stations are established to address site-specific water quality concerns and are monitored for one year only. Because floating stations usually target known problems and do not necessarily reflect *ambient* conditions, results from these stations are generally not included in the Results and Discussion section of this report. However, the raw data from floating stations are included in the appendices.

The specific locations for ambient stations monitored during WY 1994 are presented in Figure 1 and Table 1. Appendix A lists current and historical monitoring locations and the years they were monitored by Ecology and its predecessor agencies. Historical data for these stations are available from Ecology's Ambient Monitoring Section on request.

## Sample Collection and Analysis

The majority of the water samples were collected as single surface grab samples from highway bridges using a stainless steel sampler similar to the dissolved oxygen (DO) sampler design presented in Figure 4500-O:1 of the 18th Edition of Standard Methods (APHA, 1992). Water samples for fecal coliform bacteria, total suspended solids (TSS), and metals analyses were collected as discrete samples directly in the sample containers. Samples for fecal coliform bacteria and metals determination were collected in a flow orienting sampler specifically designed to hold the sample bottle. The TSS bottle was attached as a passenger to the DO sampler. All water samples were collected approximately 15 cm below the water surface. Twelve water quality constituents were monitored at all stations monthly in WY 1994 and several metals and hardness were monitored bi-monthly at eight stations beginning in May (Table 2). Metals monitoring procedures are described in detail in Hopkins (1994).

Concurrent with collection of water samples, on-site measurements were taken for barometric pressure, time of day, *in-situ* temperature, pH, conductivity, and, if required, stage height (for flow determination by USGS).

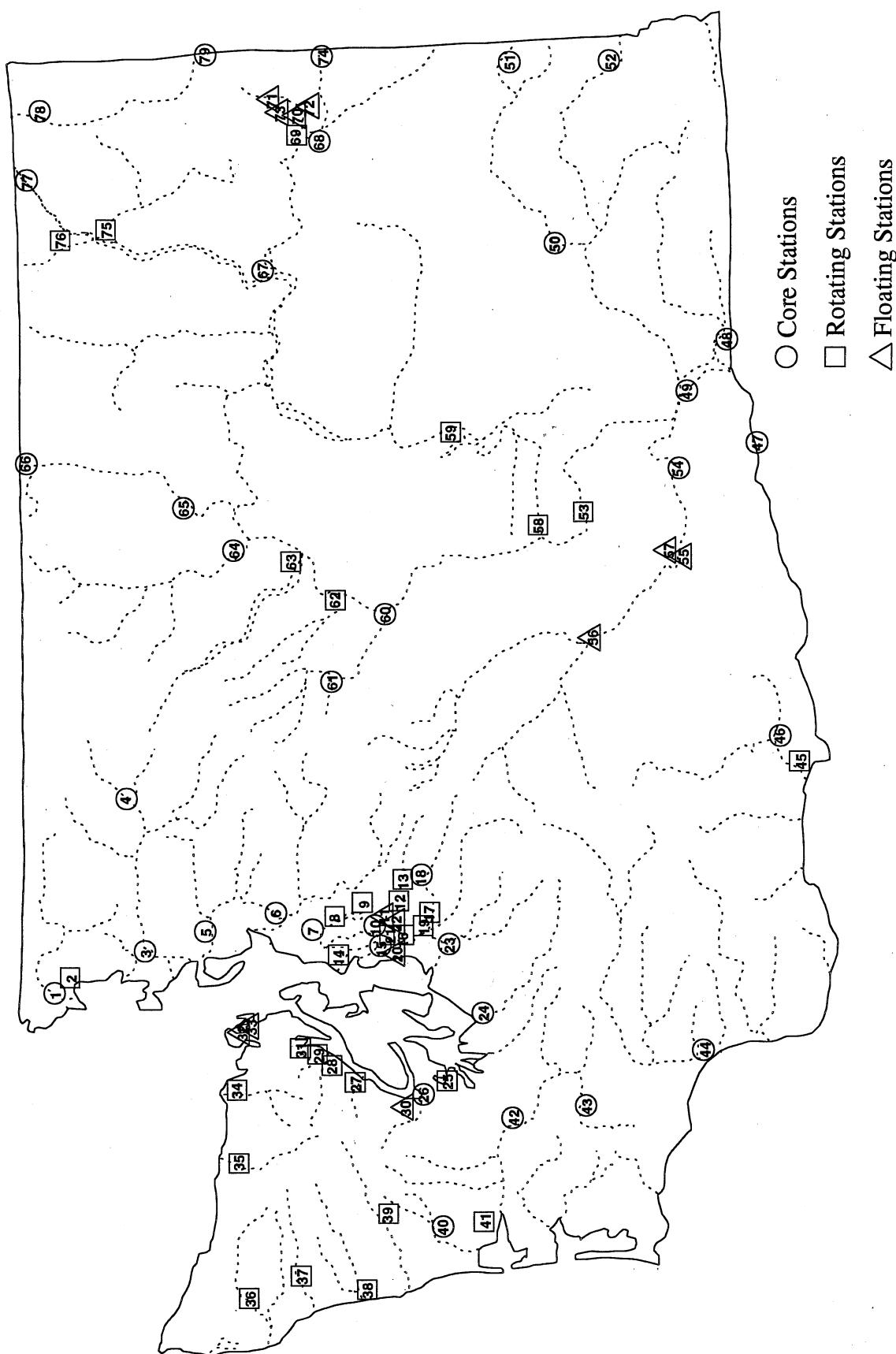


Figure 1. Ecology's river and stream ambient monitoring stations for Wateryear 1994.

Table 1. Ecology's river and stream ambient monitoring stations for Wateryear 1994.

Map	Station	Station Name	Map	Station	Station Name
1	01A050	Nooksack R @ Brennan	41	22B070	WF Hoquiam R nr Hoquiam
2	01E050	Whatcom Cr @ Bellingham	42	23A070	Chehalis R @ Porter
3	03A060	Skagit R nr Mount Vernon	43	23A160	Chehalis R @ Dryad
4	04A100	Skagit R @ Marblemount	44	26B070	Cowlitz R @ Kelso
5	05A070	Stillaguamish R nr Silvana	45	30B070	Klickitat R nr Pitt (USGS)
6	07A090	Snohomish R @ Snohomish	46	30C070	Little Klickitat nr Wahkiacus
7	08B070	Sammamish R @ Bothell	47	31A070	Columbia R @ Umatilla
8	08B110	Sammamish R @ Redmond	48	32A070	Walla Walla R nr Touchet
9	08B130	Issaquah Cr nr Issaquah	49	33A050	Snake R nr Pasco
10	08C070	Cedar R @ Logan St/Renton	50	34A070	Palouse R @ Hooper
11	08C080	Cedar R @ Maplewood	51	34A170	Palouse R @ Palouse
12	08C090	Cedar R @ Maple Valley	52	35A150	Snake R @ Interstate Br
13	08C110	Cedar R nr Landsburg	53	36A070	Columbia R nr Vernita
14	08K090	Ship Canal @ Freemont	54	37A090	Yakima R @ Kiona
15	09A080	Green R @ Tukwila	55	37A130	Yakima R @ Mabton
16	09A090	Green R @ 212th St nr Kent	56	37A210	Yakima R nr Terrace Height
17	09A130	Green Abv Big Soos/Auburn	57	37F070	Sulfer Ck Wasteway @ McGee Rd
18	09A190	Green R @ Kanaskat	58	41A070	Crab Cr nr Beverly
19	09B090	Big Soos Cr nr Auburn	59	41A110	Crab Cr nr Moses Lake
20	09C070	Des Moines Cr nr Mouth	60	45A070	Wenatchee R @ Wenatchee
21	09E070	Mill Cr @ Orillia	61	45A110	Wenatchee R nr Leavenworth
22	09H090	Black R @ Renton	62	46A070	Entiat R nr Entiat
23	10A070	Puyallup R @ Meridian St	63	47A070	Chelan R @ Chelan
24	11A070	Nisqually R @ Nisqually	64	48A070	Methow R nr Pateros
25	14A060	Goldsborough Cr @ Shelton	65	49A070	Okanogan R @ Malott
26	16A070	Skokomish R nr Potlatch	66	49B070	Similkameen R @ Oroville
27	16B110	Hamma Hamma R nr Eldon	67	54A050	Spokane R @ Mouth
28	16C090	Duckabush R nr Brinnon	68	54A120	Spokane R @ Riverside State Pk
29	16D070	Dosewallips R @ Brinnon	69	55B070	Little Spokane R nr Mouth
30	16E070	Finch Cr @ Hoodsport	70	55B100	Little Spokane R abv Deadman Cr
31	17A070	Big Quilcene R nr Quilcene	71	55B200	Little Spokane @ Chattaroy
32	17B070	Chimacum Cr nr Irondale	72	55C065	Deadman Cr nr Mouth
33	17B100	Chimacum Cr @ Chimacum	73	55E070	Dragoon Cr nr Chattaroy
34	18A070	Dungeness R nr Sequim	74	57A150	Spokane R @ Stateline Br
35	18B070	Elwha R nr Port Angeles	75	59A070	Colville R @ Kettle Falls
36	20A090	Soleduck R nr Forks	76	60A070	Kettle R nr Barstow
37	20B070	Hoh R @ DNR Campground	77	61A070	Columbia R @ Northport (USGS)
38	21A070	Queets R @ Queets	78	62A090	Pend Oreille @ Metaline Falls
39	21B090	Quinault R @ Lake Quinault	79	62A150	Pend Oreille R @ Newport
40	22A070	Humptulips R nr Humptulips			

Table 2. Water quality constituents monitored monthly in Wateryear 1994 as part of Ecology's River and Stream Ambient Monitoring Program.

Standard constituents monitored at all stations:

Conductivity	Total Suspended Solids	Total Phosphorus
Dissolved Oxygen	Turbidity	Ammonia
pH	Fecal Coliform Bacteria	Nitrate + Nitrite
Temperature	Soluble reactive phosphorus	Total Nitrogen

Parameters monitored bi-monthly at specific stations: (All metals were analyzed as "dissolved" except mercury, which was analyzed as "total" and arsenic and chromium which were analyzed as "total recoverable.")

Parameters	Stations	
Total Hardness	03A060	Skagit R nr Mount Vernon
Arsenic	04A100	Skagit R at Marblemount
Cadmium <sup>a</sup>	05A070	Stillaguamish R nr Silvana
Chromium	10A070	Puyallup R at Meridian St
Copper <sup>a</sup>	26B070	Cowlitz R at Kelso
Lead <sup>a</sup>	31A070	Columbia R at Umatilla
Mercury	57A150	Spokane R at State Line Br
Nickel	61A070 <sup>a</sup>	Columbia River at Northport
Zinc <sup>a</sup>		

<sup>a</sup>Total Recoverable Cadmium, Copper, Lead, and Zinc were also measured monthly at the Columbia River at Northport.

All water samples collected in WY 1994 were submitted to Ecology's Manchester Environmental Laboratory (MEL) for analysis. Laboratory methods, detection limits, holding times, and other information for each of the above parameters is presented in Table 3. Specific details on methods are available from the references cited in Table 3 and in MEL's Laboratory User's Manual (Ecology, 1994).

## Data Management

Data generated by the River and Stream Ambient Monitoring Program were entered into two independent computer systems by monitoring staff and laboratory personnel. Monitoring staff entered field data (temperature, dissolved oxygen, barometric pressure, pH, conductivity, and discharge) directly into the ambient monitoring database and verified the data manually for transcription errors. Laboratory data were entered into the laboratory computer and verified by double entry by laboratory personnel for transcription errors. Laboratory data were then downloaded via modem and combined electronically with field data in the ambient monitoring database management system. All laboratory data were screened through a series of quality control (QC) filters (see the Quality Assurance section). Data exceeding QC standards were evaluated manually. Data of acceptable quality were uploaded to PCSTORET (a micro-computer analog to STORET) and EPA's STORET database.

## Quality Assurance

Manchester Laboratory's Quality Assurance (QA) Program includes the use of quality control charts, check standards, in-house matrix spikes and laboratory blanks, along with quarterly performance evaluation samples. For a more complete discussion of laboratory quality assurance, see Manchester's Quality Assurance Manual (Ecology, 1988) and Laboratory User's Manual (Ecology, 1994).

The quality assurance (QA) program for field sampling consisted of three parts: (1) adherence to a procedures manual for sample/data collection and periodic evaluation of sampling personnel, (2) instrument calibration methods and schedules, and (3) the collection of a field quality control (QC) sample each day of the sampling run. Our QA program is described in detail in Ehinger (1995).

Three types of additional water collections were made in order to document data quality and to isolate sources of variability (error) in the data. These were:

- Duplicate Field Samples - These consisted of an additional sample collection made approximately 15-20 minutes after the initial collection at a station. These samples represent the variability due to short-term, temporal, in-stream processes, sample collection and processing, and laboratory analysis.

Table 3. Analytical procedures used in WY 1994 in Ecology's River and Stream Ambient Monitoring Program. (NA = Not applicable)

Parameter	Stored Parameter Code	Field Volume Req'd	Prepare/Preserve <sup>a</sup>	Analytical Method	Limit of Detection	Holding Time
Conductivity	95	NA	NA	SM 2510-B	NA ( $\mu\text{mhos}$ )	NA
Dissolved Oxygen	300	NA	NA	SMb 4500-OC	0 mg/L	72 hours
pH	400	NA	NA	SM 4500-H	NA (Std Units)	NA
Temperature	10	NA	NA	Thermistor	NA ( $^{\circ}\text{C}$ )	NA
Total Suspended Solids	530	1000 mL		SM 2540D,E	1 mg/L	7 days
Turbidity	82079	500 mL		SM 2130	0.5 NTU	48 hours
Fecal Coliform Bacteria	31616	250 mL		SM 9222D	1 colony/100 mL	30 hours
Soluble Reactive Phosphorus	671	125 mL	Filter	SM 4500-PF	10 $\mu\text{g/L}$	48 hours
Total Phosphorus	665	125 mL to pH<2	H <sub>2</sub> SO <sub>4</sub>	SM 4500-PF	10 $\mu\text{g/L}$	28 days
Ammonia Nitrogen	610	125 mL to pH<2	H <sub>2</sub> SO <sub>4</sub>	SM 4500D	10 $\mu\text{g/L}$	28 days
Nitrate + Nitrite Nitrogen	630	125 mL	H <sub>2</sub> SO <sub>4</sub> to pH<2	SM 4500F	10 $\mu\text{g/L}$	28 days

Table 3. Continued

Parameter	Storet Parameter Code	Volume Req'd	Field Prepare/Preserve <sup>a</sup>	Analytical Method	Limit of Detection <sup>d</sup>	Holding Time
Total Nitrogen	600	125 mL	H <sub>2</sub> SO <sub>4</sub> to pH<2	Valderrama 1981	25 µg/L	28 days
Total Hardness	900	100 mL	HNO <sub>3</sub> to pH<2	SM 23340C	1 mg/L	6 months
Arsenic (total recoverable - ICP)	978	1 L	HNO <sub>3</sub> to pH<2	EPA° 200.7	30 µg/L	6 months
Cadmium (total recoverable - ICP)	1113	1 L	HNO <sub>3</sub> to pH<2	EPA 200.7	3 µg/L	6 months
Cadmium (dissolved - ICP/MS)	1025	1 L	HNO <sub>3</sub> to pH<2	EPA 200.8	0.04 µg/L	6 months
Chromium (total recoverable - ICP)	1118	1 L	HNO <sub>3</sub> to pH<2	EPA 200.7	5 µg/L	6 months
Copper (total recoverable - ICP)	1119	1 L	HNO <sub>3</sub> to pH<2	EPA 200.7	3 µg/L	6 months
Copper (dissolved - ICP/MS)	1040	1 L	HNO <sub>3</sub> to pH<2	EPA 200.8	0.05 µg/L	6 months

Table 3. Continued

Parameter	Storet Parameter Code	Volume Req'd	Field Prepare/ Preserve <sup>a</sup>	Analytical Method	Limit of Detection <sup>d</sup>	Holding Time
Lead (total recoverable - ICP)	1114	1 L	HNO <sub>3</sub> to pH<2	EPA 200.7	20 µg/L	6 months
Lead (dissolved - ICP/MS) 1049	1 L		HNO <sub>3</sub> to pH<2	EPA 200.8	0.02 µg/L	6 months
Mercury (total - Cold Vapor AF)	71900	1 L	HNO <sub>3</sub> to pH<2	EPA 245.7	0.001 µg/L	28 days
Nickel (dissolved - ICP/MS)	1065	1 L	HNO <sub>3</sub> to pH<2	EPA 200.8	1.0 µg/L	6 months
Zinc (dissolved - ICP/MS) 1090	1 L		HNO <sub>3</sub> to pH<2	EPA 200.8	1.0 µg/L	6 months

<sup>a</sup> All lab samples are kept on ice or stored at 4°C prior to analysis.<sup>b</sup> Standard Methods (APHA, 1992).<sup>c</sup> EPA, 1983.<sup>d</sup> Detection limits for metals vary. Values shown are approximate.

- Field Blank - These consisted of the blind submission and analysis of deionized water. The expected values for all analyses is the reporting limit for that analysis. Significantly higher results would indicate that sample contamination had occurred during field processing or during laboratory analysis.
- Field Split - These consisted of one sample split into two containers which are processed as individual samples. This eliminates the in-stream variability and isolates the variability due to field processing and laboratory analysis.

QC samples were submitted semi-blind to the laboratory (they were identified as QC samples, but sample type (duplicate, blank, or split) and station were not identified).

One hundred forty-four QA/QC samples were processed; 129 replicated field samples, six simultaneously collected samples, and nine blanks. The primary objective of the QA/QC sampling effort in WY 1994 was to quantify the total variability, rather than to isolate individual components of that variability, and so the majority of the samples were replicated field samples. The central tendency of the variability of pairs of replicated field samples was summarized by calculating the square root of the mean of the sample-pair variances (root mean square - RMS). Because this weights the higher values, these figures provide a more conservative (*i.e.*, higher) estimate than other commonly used statistics (mean or median of the standard deviations).

A two-tiered system was used to evaluate data quality. The first tier consisted of five automated checks, including holding time, variability in field duplicates, and reasonableness of the result. Results exceeding pre-set limits were flagged. The second tier QC evaluation was a manual review of the data flagged in the first tier. Data were then coded from one through nine (one = data meets all QA requirements, nine = the data are unusable). Data with quality codes greater than four are generally not distributed.

## Results and Discussion

The primary purpose of this report is to present the results of Ecology's river and stream monitoring in WY 1994. Appendix B contains results for each station monitored in WY 1994. Appendix C is a quarterly summary of data collected during the past six years for each station. Raw data are available in computer formats on request.

While a station-by-station data analysis is not within the scope of this report, some general observations are appropriate. The next two sections (1) discuss general water quality, particularly with respect to Washington's water quality standards (Washington Administrative Code, Chapter 173-201A), and (2) compare discharge in WY 1994 to historical discharge data. Floating stations are excluded from the following analyses or are tabulated separately because they do not necessarily reflect ambient conditions.

## **General Water Quality in Water Year 1994**

This discussion is largely based on comparisons to state water quality criteria. An exceedence of criteria usually indicates a violation of the water quality standards, but not always. For example, temperature standards specify that the criteria shall not be exceeded *due to human activities*. Many of the reported exceedences of the temperature criteria may not be due to human activities, particularly those downstream of lakes (for example, the Sammamish River). The ambient monitoring program is not designed to identify causes of water quality. Final determination of whether or not a station is in violation of water quality standards is made by Ecology's Water Quality Program in their bi-annual 305(b) report to EPA (e.g., Ecology, 1992).

### ***Temperature***

Statewide, 37 stations (56 percent of all stations) exceeded the temperature criteria at least once in WY 1994 (Table 4). Most of these stations were in eastern Washington (Figure 2). Seventy-nine percent of eastern Washington stations exceeded the criteria at least once. Although more western Washington stations exceeded temperature criteria in WY 1994 than in 1993 (Hallock, 1994), different stations were monitored so direct comparisons between water years are not appropriate. Stations which most frequently exceeded temperature criteria tended to be downstream of lakes on Class AA streams (e.g., Sammamish River, Quinault River) (Table 5).

### ***Oxygen***

Statewide, 14 stations (21 percent of all stations) exceeded the oxygen criteria at least once (Table 4). Stations which chronically exceeded the criteria were either class AA streams (Kettle and Sammamish Rivers) which have more restrictive oxygen requirements, or streams which are (presumably) organically enriched (Palouse River at Palouse, Colville River, Mill Creek at Orillia) (Table 5).

### ***pH***

Fourteen stations (21 percent of all stations) exceeded the pH criteria; all were east of the Cascade Mountains (Table 4). Wenatchee River at Wenatchee, Palouse River at Hooper, and Crab Creek at Beverly exceeded the criteria more frequently than other stations (Table 5). Crab Creek may have naturally high pH (Hallock, 1995, in draft). Riparian clearing and nutrient enrichment has probably affected water quality in the Palouse and lower Wenatchee River systems.

### ***Fecal Coliform Bacteria***

Out of about 792 samples collected statewide, 103 samples (13 percent of all samples) from 32 stations (48 percent of all stations) exceeded the geometric mean criteria for fecal coliform bacteria at least once (Table 4). A strict interpretation of the fecal coliform bacteria standards

Table 4. Spatial distribution of water quality criteria exceedences for temperature, dissolved oxygen, pH, and fecal coliform bacteria (FC), and high values of total phosphorus (TP) and total suspended solids (TSS) in WY 1994.

Region	No. of Stations or Samples <sup>a</sup>	Parameter						
		Temp	Oxygen	pH	FC <sup>b</sup> (%)	FC <sup>c</sup> (gm)	TP <sup>d</sup>	
<b>BY STATION</b>								
<b>Ecology Region</b>								
Central	12	9	3	7	0	3	4	
Eastern	16	13	6	7	5	8	7	
Northwest	19	10	5	0	10	14	4	
Southwest	19	5	0	0	4	7	2	
East of Cascades	28	22	9	14	5	11	11	
West of Cascades	38	15	5	0	14	21	6	
Puget Sound Basin	29	10	5	0	14	18	5	
All stations	66	37	14	14	19	32	17	
<b>BY SAMPLE</b>								
<b>Ecology Region</b>								
Central	144	12	4	11	0	3	16	
Eastern	192	23	14	19	9	24	41	
Northwest	228	24	20	0	35	63	15	
Southwest	228	11	0	0	7	13	5	
East of Cascades	336	35	18	30	9	27	57	
West of Cascades	456	35	20	0	42	76	20	
Puget Sound Basin	348	24	20	0	42	72	19	
All stations	792	70	38	30	51	103	77	

<sup>a</sup> Number of samples assumes 12 samples per station. Actual number may be less due to equipment malfunction, loss of sample, etc.

<sup>b</sup> Results greater than the "10 percent not to exceed" criteria. See text.

<sup>c</sup> Results greater than the "geometric mean" criteria. See text.

<sup>d</sup> There are no state water quality standards for total phosphorus. The number shown is the number of results (or stations) that exceeded the 90th percentile of all results (0.068 mg/L).

<sup>e</sup> There are no state water quality standards for total suspended solids. The number shown is the number of results (or stations) that exceeded the 90th percentile of all results (19 mg/L).

Table 5. Continued.

## EASTERN REGION

STATION NUMBER	STATION NAME	CLASS	TEMPERATURE		OXYGEN		pH		FECAL COLIFORM		Geo. Mean	
			No	Exceed	No	Exceed	Pct	No	Exceed	Pct		
32A070	Walla Walla R nr Touchet	B	12	3	25	12	1	8	12	2	17	11
33A050	Snake R nr Pasco	A	12	1 <sup>a</sup>	8	12	1	8	11	1	9	2
34A070	Palouse R @ Hooper	B	12	1	8	12	5	42	12	3	25	3
34A170	Palouse R @ Palouse	A	12	1 <sup>a</sup>	8	12	4	33	12	2	18	5
35A150	Snake R @ Interstate Br	A	12	2 <sup>a</sup>	17	12	12	12	12	12		
41A070	Crab Cr nr Beverly	B	12	2	17	12	6	50	11	1	9	2
41A110	Crab Cr nr Moses Lake	B	12		12	12		12	12			
54A050	Spokane R @ Mouth	A	12	3 <sup>a</sup>	25	12	1	8	12	2	17	4
54A120	Spokane R @ Riverside State Pk	A	12	<sup>a</sup>		12		12	12			
55B070	Little Spokane R nr Mouth	A	12		12	12		12	12			
57A150	Spokane R @ Stateline Br	A	12	1 <sup>a</sup>	8	12	1	8	12	11		
59A070	Colville R @ Kettle Falls	A	12	2	17	12	3	25	12	11	2	
60A070	Kettle R nr Barstow	AA	12	3	25	12	3	25	12	12	1	
61A070	Columbia R @ Northport (USGS)	AA	12	2	17	12	2	17	12	12	5	
62A090	Pend Oreille @ Metaline Falls	A	10	1 <sup>a</sup>	8	10	10	2	20	10		
62A150	Pend Oreille R @ Newport	A	12	1 <sup>a</sup>	8	12		12	12			
<b>Floating Stations</b>												
55B100	Little Spokane R abv Deadman Cr	A	12	1	8	12		12	12		2	
55B200	Little Spokane @ Chattaroy	A	12	2	17	12		12	12	1	8	2
55C065	Deadman Cr nr Mouth	A	12	1	8	12		12	12	2	17	2
55E070	Dragoon Cr nr Chattaroy	A	11	1	9	11		11	1	1	9	4

<sup>a</sup>Special temperature criteria of 20°C is reflected in the exceedences above.

Table 5. Continued.

## NORTHWEST REGION

STATION NUMBER	STATION NAME	CLASS	TEMPERATURE		OXYGEN		pH		FECAL COLIFORM			
			No	Exceed	No	Exceed	Pct	No	Exceed	Pct	No	Exceed
01A050	Nooksack R @ Brennan	A	12	3	25	12		10	12	3	25	3
01E050	Watcom Cr @ Bellingham	A	12			12		10	12			6
03A060	Skagit R nr Mount Vernon	A	12		12	12		10	12			
04A100	Skagit R @ Marblemount	AA	12			12		10	12			
05A070	Stillaguamish R nr Sylvana	A	12	2	17	12		10	12			1
07A090	Snohomish R @ Snohomish	A	12	2	17	12		10	12			
08B070	Sammamish R @ Bothell	AA	12	4	33	12	6	50	10	8	67	11
08B110	Sammamish R @ Redmond	AA	12	4	33	12	1	8	10	6	50	10
08B130	Issaquah Cr nr Issaquah	A	12			12		10	12	3	25	6
08C070	Cedar R @ Logan St/Renton	A	12			12		10	12	1	9	2
08C090	Cedar R @ Maple Valley	A	12			12		10	12			
08C110	Cedar R nr Landsburg	AA	12			12		10	12			
08K090	Ship Canal @ Freemont	LC	12			12		10	12			
09A080	Green R @ Tukwila	A	12	2	17	12	1	8	10	4	33	8
09A090	Green R @ 212th St nr Kent	A	12	2	17	12	1	8	10	4	33	5
09A130	Green Abv Big Soos/Auburn	A	12	1	8	12		10	12	4	33	1
09A190	Green R @ Kansaskat	AA	12			12		10	12			
09B090	Big Soos Cr nr Auburn	A	12	1	8	12		10	12	1	8	2
09E070	Mill Creek @ Orillia	A	12	3	25	12	11	92	10	12	4	33
<b>Floating Stations</b>												
08C080	Cedar R @ Maplewood	A	12			12			10	12		
09C070	Des Moines Cr nr Mouth	A	12			12			10	12		
09H090	Black R @ Renton	A	12	1	8	12	8	67	10	12	8	67
										12	1	8
											12	3
												11

Table 5. Continued.

## SOUTHWEST REGION

STATION NUMBER	STATION NAME	CLASS	TEMPERATURE		OXYGEN		pH		FECAL COLIFORM			Geo. Mean
			No	Exceed	No	Exceed	Pct	No	Exceed	Pct	No	
10A070	Puyallup R @ Meridian St	A	12		12			12	4	33	5	
11A070	Nisqually R @ Nisqually	A	12		12			12	1	8	1	
14A060	Godsbrough Cr @ Shelton	A	12		12			12	1	8	2	
16A070	Skokomish R nr Portaatch	AA	12		12			12				
16B110	Hamma Hamma R nr Eldon	AA	12		12			12				
16C090	Duckabush R nr Brinnon	AA	12		12			12				
16D070	Dosewallips R @ Brinnon	AA	12		12			12				
17A070	Big Quilcene R nr Quilcene	AA	12		12			12				
18A070	Dungeness R nr Sequim	A	12		12			11				
18B070	Elwha R nr Port Angeles	AA	12		12			12				
20A090	Solduck R nr Forks	AA	12		12			12				
20B070	Hoh R @ DNR Campground	AA	12		12			12				
21A070	Quets R @ Quets	AA	1	8	12			12				1
21B090	Quinault R @ Lake Quinault	AA	12	3	25	12		12				
22A070	Humpnulips R nr Humpnulips	A	12	1	8	12		12				
22B070	WF Hoquiam R nr Hoquiam	A	12		12			12				
23A070	Chehalis R @ Porter	A	12	5	42	12		12				
23A160	Chehalis R @ Dryad	A	12	1	8	12		12				
26B070	Cowlitz R @ Kelso	A	12		12			12				
<b>Floating Stations</b>												
16E070	Finch Cr @ Hoodspoint	A	12		12			12	1	8	1	
17B070	Chimacum Cr nr Irondale	A	12		12			12	2	17	6	
17B100	Chimacum Cr @ Chimacum	A	12	1	8	12		12	8	67	10	

would consider all of these stations in violation of water quality standards even though 12 of the stations had only a single result greater than the criteria. This is because the geometric mean cannot be based on a period longer than 30 days (Washington Administrative Code, Chapter 173-201A -060 paragraph (3)) and these samples were collected at approximately 30-day intervals.

Western Washington stations, and particularly Puget Sound stations, were more likely to exceed the fecal coliform criteria than were eastern Washington stations (Figure 2). A sample was twice as likely to exceed the geometric mean criteria in western Washington compared to eastern Washington (16 percent of western Washington samples exceed the geometric mean criteria compared to only 8 percent east of the Cascades). In the Puget Sound Basin, 21 percent of the samples exceed the criteria and 62 percent of the monitored stations had at least one sample over criteria. All stations where more than half of the samples exceeded the criteria were in the Puget Sound Basin (Whatcom Creek, Sammamish River, Issaquah Creek, Green River at Tukwila, and Mill Creek at Orillia) (Table 5).

### ***Summary of Water Quality Criteria Exceedences***

In WY 1994, only three stations (excluding floating stations) exceeded all four of the water quality criteria which we can readily evaluate with data collected by our program: Yakima River at Kiona, Snake River near Pasco, and Palouse River at Palouse. Of these stations, only the Palouse River exceeded criteria more than once or twice. On the other hand, only 17 stations (22 percent) had no water quality criteria exceedences at all. East of the Cascades, stations were listed as exceeding criteria most often because of high temperatures, followed by pH, bacteria, and oxygen. In western Washington, bacteria was the biggest problem, followed by temperature and oxygen.

The percent of samples exceeding water quality standards at core stations in 1994 was generally similar to the percent exceedences over the last seven years:

Parameter	WY 1994	WY 1988-1994
Temperature	13.4	9.5
Oxygen	4.6	3.3
pH	5.5	5.8
Bacteria (10 percent criteria)	6.6	7.8

(Rotating stations are excluded in the above figures to allow a more fair comparison between years.)

There were a few more temperature and dissolved oxygen exceedences than has been typical in recent years. High temperatures mostly occurred in July and early August. This probably indicates warmer than usual ambient air temperatures and not necessarily watershed changes. July was warmer and drier than usual (Seattle Times, 1994).

## **Turbidity**

Water quality was not evaluated against the turbidity standard because the standard requires a comparison to background turbidity. However, the maximum turbidity (and maximum total suspended solids (TSS)) measured in WY 1994 at each station is indicated in Figure 3. Stations with high turbidity were evenly distributed between eastern and western Washington. The Palouse River at Hooper had by far the highest turbidity (7700 NTU), probably largely from agricultural runoff. The Puyallup River at Meridian Street had the next-highest turbidity (200 NTU). Turbidity in the Puyallup was high during lower-flow months (July through September) and glacial melt water may have been the source.

## **Other Parameters**

Although there are no state water quality standards for total phosphorus (TP) or total suspended solids (TSS), these parameters are important to stream ecology. Streams with relatively high values were determined by comparing concentrations to a criteria defined as the 90th percentile of all samples collected in WY 1994 (excluding floating stations). The 90th percentiles were 0.068 mg/L for TP and 19 mg/L for TSS.

Stations with samples exceeding the 90th percentiles were evenly distributed between eastern and western Washington for TSS (Table 4) with eastern Washington generally having higher TP. Seventeen stations had at least one sample which exceeded the 90th percentile for TP and 29 stations for TSS. However, only 10 stations for TP and seven stations for TSS had chronically high concentrations (*i.e.*, were represented by more than two samples).

Stations with more than two samples exceeding the 90th percentile :

Station	Number of samples	
	TP	TSS
01A050 Nooksack River at Brennan	<3	5
09E070 Mill Creek at Orillia	12	<3
10A070 Puyallup River at Meridian Street	4	7
11A070 Nisqually River at Nisqually	<3	3
32A070 Walla Walla River near Touchet	10	8
34A070 Palouse River at Hooper	9	10
34A170 Palouse River at Palouse	4	<3
37A090 Yakima River at Kiona	11	8
41070 Crab Creek near Beverly	7	6
41A110 Crab Creek near Moses Lake	3	<3
54A120 Spokane River at Riverside State Park	3	<3
59A070 Colville River at Kettle Falls	5	<3

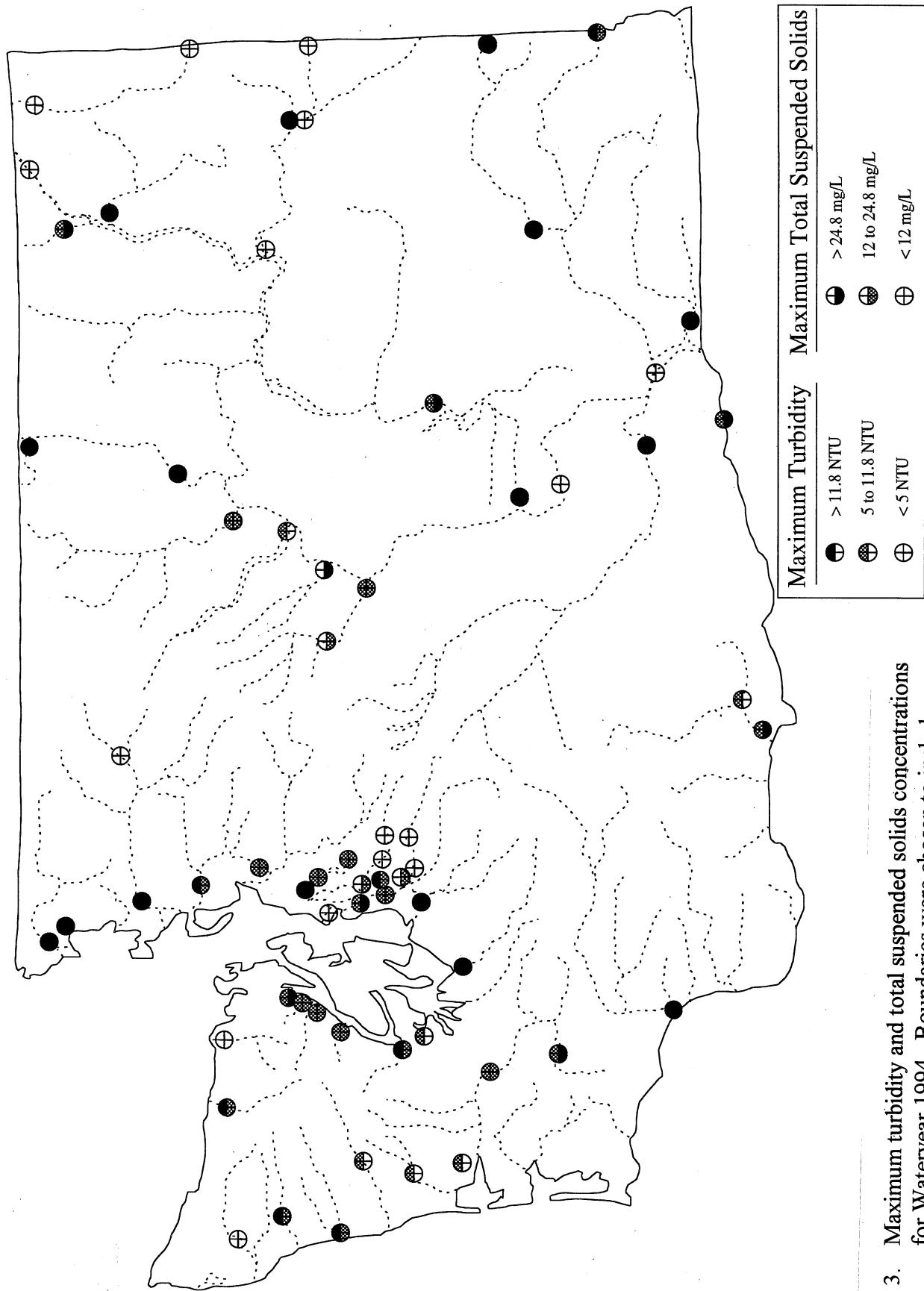


Figure 3. Maximum turbidity and total suspended solids concentrations for Wateryear 1994. Boundaries were chosen to include approximately one third of stations in each category. (Floating stations are not shown.)

Streams such as the Palouse, Walla Walla, and Yakima Rivers, where both TP and TSS are chronically high, may be particularly good candidates for the application of watershed BMPs.

## Discharge in WY 1994

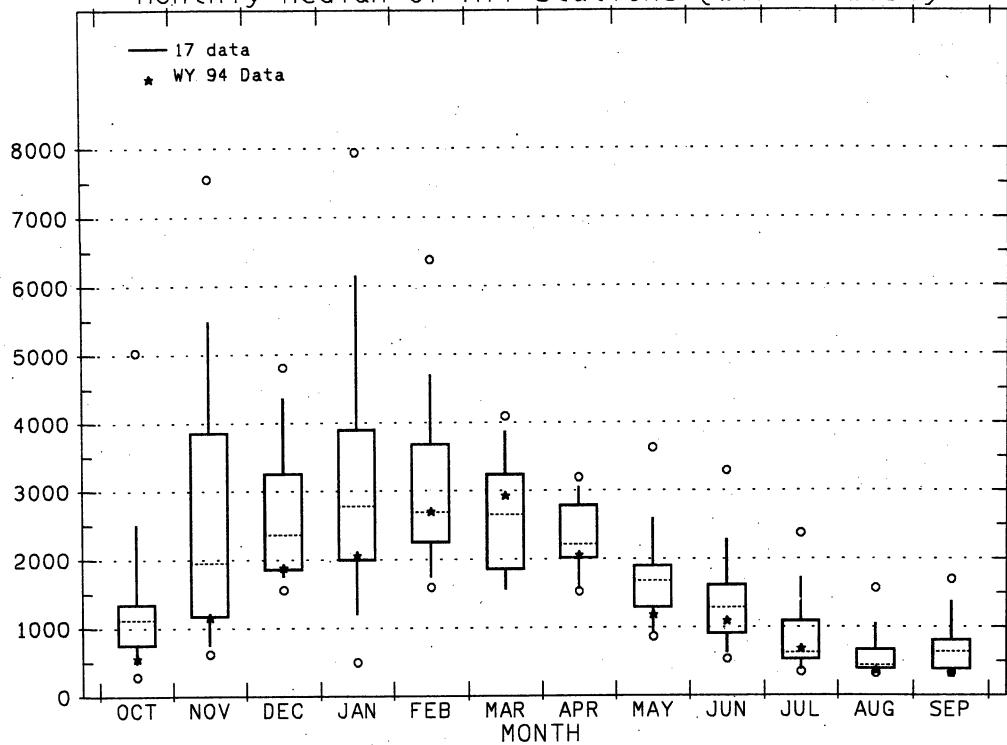
Discharge in WY 1994 at the time of sampling (instantaneous discharge) tended to be low compared to the median instantaneous discharge since WY 1977. In western Washington, median WY 1994 discharge was near or below the 25th percentile for October through January and above the historical median (slightly) only in March and July (Figure 4, top). Precipitation was also below normal at the Seattle-Tacoma International Airport (Seattle Times, 1994). In eastern Washington, instantaneous discharge was very low compared to historical medians in December through February and in June, and high only in May (Figure 4, bottom). This analysis is based on *instantaneous* discharge, and may not reflect mean monthly discharge. Although precipitation duration, intensity, and the time since a previous precipitation event can significantly affect water quality, discharge at the time of sampling is also correlated with a number of water quality parameters. Generally lower discharges in WY 1994 may have resulted in lower fecal coliform bacteria, turbidity, and TSS concentrations, and higher temperature and pH measurements than usual. Detailed analyses of WY 1994 ambient monitoring data should consider the effect of discharge (as well as precipitation).

## Quality Assurance

Because the variability of many parameters increases with increasing mean concentration, the RMS values of some variables are presented according to concentration ranges (of the mean of the sample pair) (Table 6). The variability shown in Table 6 is relatively low considering instream variability is included. There were too few (six) simultaneously collected samples to evaluate field replicates by concentration range, but when the data for all ranges are compared (Table 7) the RMS of simultaneously collected samples was less than the RMS of replicate samples, except for total phosphorus and soluble reactive phosphorus. Because the simultaneously collected field samples represent only a portion of the total variability in the data, it was expected that the RMS for these sample pairs would be lower. The variability of the paired samples of both total phosphorus and soluble reactive phosphorus was very dependent upon the concentration of the samples so that, given a larger number of simultaneously collected samples and a comparison of equivalent concentration ranges, the relative magnitude of the RMS values probably would have been different. Overall, the results were acceptable and no substantial measurement error due to either water collection, processing, or laboratory analysis was detected.

The expected results of the analysis of the blank samples was ‘below reporting limits’ for all concentrations and turbidity, and less than 3 mS (micro Siemans) for specific conductivity. Temperature, dissolved oxygen, and pH were not measured on blanks, and fecal coliform bacteria samples were submitted only two times. All concentration and turbidity results were reported as ‘less than the reporting limits’ except two ammonia-N analysis results of  $0.011 \text{ mg L}^{-1}$  (versus a reporting limit of  $0.010 \text{ mg L}^{-1}$ ). Mean conductivity of blank samples was 1.7 mS (standard error=0.3 mS). Based on these results, no substantial sample contamination was detected.

Western Washington Discharge Data (WY94 Stations)  
Monthly Median of All Stations (WY77 - WY94)



Eastern Washington Discharge Data (WY94 Stations)  
Monthly Median of All Stations (WY 77 - WY 94)

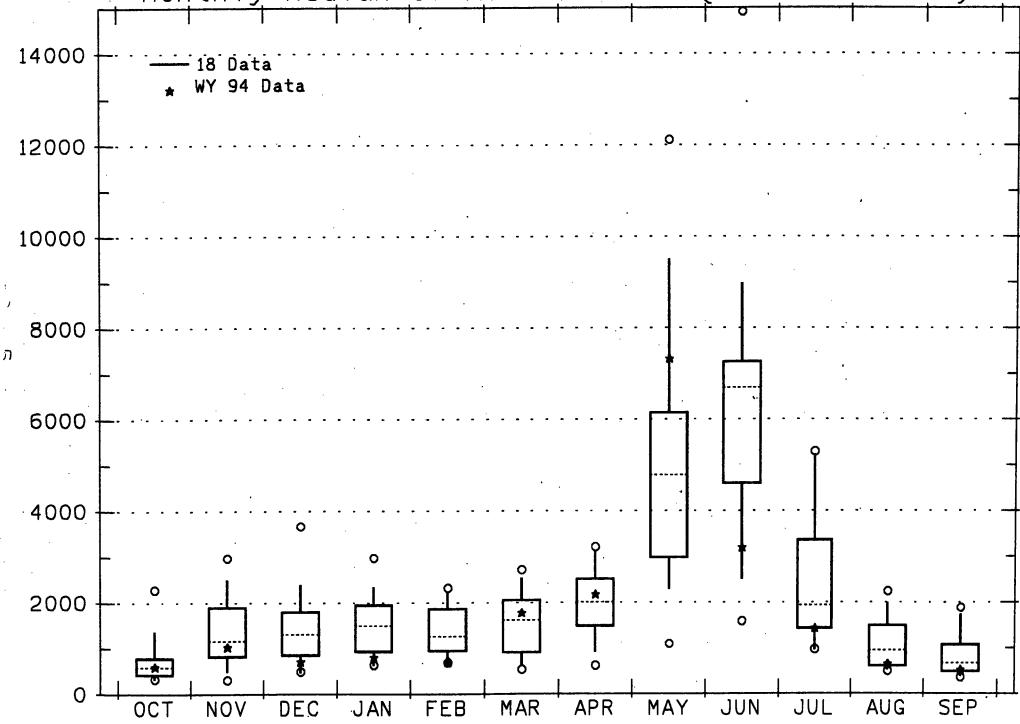


Figure 4. Distribution of discharge data by month in western Washington (top) and eastern Washington (bottom). Distribution is based on the median for each month of historical instantaneous discharge data (since October 1, 1976). Only stations sampled in WY 1994 with nearly continuous records were included (16 stations in eastern Washington and 16 in Western Washington). '\*' indicates the monthly median of WY 1994 data. (Plots produced with WQHYDRO, Aroner, 1995.)

Table 6. Root mean square of the standard deviation of replicate field samples.  $n$  = number of replicate sample pairs.

Variable	Range	Root mean square	sample size, $n$
Temperature (C)	all	0.0	125
pH	all	0.1	122
Specific conductivity (mS)	all	2.0	129
Turbidity (NTU)	$\leq 10$ $> 10$	0.4 1.2	108 21
Suspended solids ( $\text{mg L}^{-1}$ )	$\leq 10$ $> 10$	0.7 6.0	91 38
Total phosphorus ( $\mu\text{g L}^{-1}$ )	$\leq 50$ $> 50$	2.7 9.0	96 33
Soluble reactive P ( $\mu\text{g L}^{-1}$ )	$\leq 50$ $> 50$	1.1 4.3	113 16
Total Nitrogen ( $\mu\text{g L}^{-1}$ )	$\leq 500$ $> 500$	41.5 57.6	79 49*
$\text{NO}_3/\text{NO}_2\text{-N}$ ( $\mu\text{g L}^{-1}$ )	$\leq 500$ $> 500$	10.3 42.8	87 42
$\text{NH}_3\text{-N}$ ( $\mu\text{g L}^{-1}$ )	$\leq 20$ $> 20$	2.7 12.9	98 31
Fecal coliform (# $100 \text{ mL}^{-1}$ )	$\leq 50$ $> 50$	7.5 125	107 22
*does not include one total nitrogen replicate pair with an extremely high standard deviation (values of 3300 and 17,000 $\mu\text{g L}^{-1}$ ).			

Table 7. RMS of replicate field sample pairs and simultaneously collected sample pairs over the entire data range.  $n=6$  simultaneously collected sample pairs for all variables. See Table 6 for  $n$  of replicate pairs.

Variable	Replicates	Simultaneous
Temperature (C)	0.0	NA
pH	0.1	0.0
Specific conductivity (mS)	2.0	0.4
Turbidity (NTU)	0.6	0.1
Suspended solids (mg L <sup>-1</sup> )	3.3	0.8
Total phosphorus (µg L <sup>-1</sup> )	5.1	15.5
Soluble reactive P (µg L <sup>-1</sup> )	1.8	2.4
Total Nitrogen (µg L <sup>-1</sup> )	48.4	11.2*
NO <sub>3</sub> /NO <sub>2</sub> -N (µg L <sup>-1</sup> )	25.8	14.6
NH <sub>3</sub> -N (µg L <sup>-1</sup> )	6.4	1.0
Fecal coliform (# 100 mL <sup>-1</sup> )	51.2	2.6

\*does not include the outlier with extremely high standard deviation (See Table 1 footnote).

The remaining element of the QA program, laboratory variability, was assessed by laboratory staff through manual review of laboratory quality control charts, check standards, in-house matrix spikes, and laboratory blanks. Results were all within acceptable ranges.

## Conclusions

1. Overall there were an average number of water quality standards criteria exceedences in WY 1994. All pH exceedences occurred in eastern Washington and most fecal coliform bacteria exceedences occurred in western Washington. Temperature and dissolved oxygen exceedences occurred statewide.
2. Total suspended solids and total phosphorus concentrations tended to be highest in Ecology's Eastern Region. Western Washington also had its share of high values for both parameters, possibly due to the influence of glacial melt water.
3. Individual stations worthy of note (excluding floating stations) include:
  - a) Yakima River at Kiona (37A090) - Eleven of 12 and eight of 12 samples for total phosphorus and TSS, respectively, were in the 90th percentile of all samples statewide. All four monitored water quality standards criteria were exceeded at least once (temperature, oxygen, pH, and fecal coliform bacteria).
  - b) Palouse River (34A070 and 34A170) - TP and TSS were high at both stations. (TSS was extremely high at the Palouse River at Hooper.) There were numerous criteria exceedences at both stations.
  - c) Sammamish River (08B070 and 08B110) - Temperature, oxygen, and especially fecal coliform exceedences were common.
  - d) Walla Walla River (32A070) - Ten of 12 and 8 of 12 samples for total phosphorus and TSS, respectively, were in the 90th percentile of all samples statewide.
4. Median instantaneous discharge was generally lower than historical medians in both western and eastern Washington, particularly during the winter months.

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## **Appendix A**

### **Station Description and Period of Record for Ecology's River and Stream Ambient Monitoring Program**



Station description and monitoring history for EILS freshwater monitoring program.

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## **Appendix B**

**Wateryear 1994 Raw Data for Ecology's  
River and Stream Ambient Monitoring Program**



01A050 7301A050 12213140  
 NOOKSACK RIVER AT BRENNAN  
 48 49 10.0 122 34 43.0 2F 0 Elev= 0 ft  
 53073 Washington Whatcom Co. PACIFIC NORTHWEST  
 PUGET SOUND (Nooksack-01) 131101  
 21540000 Reach= 0.000 Drg= 0 sqmi  
 Seg ID= 01-01-04 Class= A Miles= 0.00 to 0.00  
 AMBNT/STREAM/RMP

INDEX 1311022  
 MILES 0003.40

DATE		8	10	25	60	80	95	300	301	400	410
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	COLOR	CNDUCTVY	DO	DO	PH	TALK
TO	TIME	IDENT.	TEMP	PRESSURE	FLOW	PT-CO	LAB	25C UMHO	SATUR	CACO3	
	FEET	NUMBER	CENT	MM OF HG	CFS	UNITS		MG/L	PERCENT	SU	MG/L

93/10/19 1200		436061	10.7	775	911		126	10.8	95.0	7.80
93/11/16 1300		476061	5.9	765	1490		113	12.0	95.3	7.60
93/12/20 1145		526061	5.2	773	2530		108	12.7	98.1	7.60
94/01/18 1210		36061	5.1	771	3650		94	11.9	92.0	
94/02/22 1235		86061	5.0	763	2590		113	12.7	99.0	7.60
94/03/22 1210		126061	4.0	760	3640		99	12.3	93.8	7.40
94/04/19 1235		166061	8.3	769	5510		60	10.9	91.4	7.30
94/05/17 1230		206061	12.6	764	3080		81	11.4	106.2	7.30
94/06/21 1150		256061	15.1	765	3280		80	9.8	96.1	7.30
94/07/19 1215		296061	16.8	763	2230		75	9.7	98.8	
94/08/16 1210		336061	17.2	763	1390		90	9.9	101.7	7.60
94/09/20 1240		386061	15.3	768	1160		107	9.9	97.1	7.50

DATE		440	445	530	600	610	613	615	620	625	630
FROM	DEPTH	HCO3	ION	CO3	RESIDUE	TOTAL N	NH3+NH4-	NO2-N	NO2-N	NO3-N	TOT KJEL
TO	TIME	HCO3	CO3	CO3	TOT-NFLT	N	N TOTAL	DISS	TOTAL	TOTAL	N-TOTAL
	FEET	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L

93/10/19 1200				7.0	0.37	0.010K					0.293
93/11/16 1300				24.0	0.41	0.010K					0.329
93/12/20 1145				17.0	0.75	0.047					0.679
94/01/18 1210				28.0	0.67	0.025					0.586
94/02/22 1235				16.0	1.22	0.031					0.971
94/03/22 1210				29.0	0.92	0.024					0.713
94/04/19 1235				75.0	0.26	0.014					0.224
94/05/17 1230				10.0	0.10	0.010K					0.180
94/06/21 1150				16.0	0.17	0.010K					0.148
94/07/19 1215				17.0	0.12	0.010K					0.103
94/08/16 1210				18.0	0.14	0.010K					0.100
94/09/20 1240				31.0	0.22	0.010K					0.189

DATE		665	671	900	902	915	925	930	935	940	945
FROM	DEPTH	PHOS-TOT	PHOS-DIS	TOT HARD	NC HARD	CALCIUM	MGNSIUM	SODIUM	PTSSIUIM	CHLORIDE	SULFATE
TO	TIME	MG/L P	MG/L P	ORTHO	CACO3	CACO3	CA,DISS	NA,DISS	K,DISS	CL	SO4-TOT
	FEET	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L

MORE DATES NEXT PAGE

Station:21540000 01A050

NOOKSACK RIVER AT BRENNAN

PCSTORET -- 05-JUN-95

Page 2

DATE	DEPTH	665 PHOS-TOT	671 PHOS-DIS	900 TOT HARD	902 NC HARD	915 CALCIUM	925 MGNSIUM	930 SODIUM	935 PTSSIUM	940 CHLORIDE	945 SULFATE
FROM		MG/L P	MG/L P	ORTHO	CACO3	CACO3	CA,DISS	MG,DISS	NA,DISS	K,DISS	SO4-TOT
TO	TIME FEET			MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	CL	MG/L

93/10/19 1200 0.015 0.010K  
 93/11/16 1300 0.024 0.010K  
 93/12/20 1145 0.020 0.011  
 94/01/18 1210 0.014 0.010K  
 94/02/22 1235 0.028 0.013  
 94/03/22 1210 0.014 0.010K  
 94/04/19 1235 0.035 0.010K  
 94/05/17 1230 0.010K 0.010K  
 94/06/21 1150 0.014 0.010K  
 94/07/19 1215 0.028 0.010K  
 94/08/16 1210 0.026 0.010K  
 94/09/20 1240 0.049 0.012

DATE	DEPTH	1000 ARSENIC	1002 ARSENIC	1025 CADMIUM	1027 CADMIUM	1030 CHROMIUM	1034 CHROMIUM	1040 COPPER	1042 COPPER	1049 LEAD	1051 LEAD
FROM		AS,DISS	AS,TOT	CD,DISS	CD,TOT	CR,DISS	CR,TOT	CU,DISS	CU,TOT	PB,DISS	PB,TOT
TO	TIME FEET	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L

DATE	DEPTH	1090 ZINC	1092 ZINC	1094 ZINC	1113 CADMIUM	1114 LEAD	1118 CHROMIUM	1119 COPPER	31504 TOT COLI	31616 FEC COLI	31672 FECSTREP
FROM		ZN,DISS	ZN,TOT	TOT REC	TOT REC	TOT REC	TOT REC	TOT REC	MFIM LES	MFM-FCBR	PC M-ENT
TO	TIME FEET	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	/100ML	/100ML	/100ML

93/10/19 1200 37  
 93/11/16 1300 96S  
 93/12/20 1145 6  
 94/01/18 1210 12  
 94/02/22 1235 150  
 94/03/22 1210 170S  
 94/04/19 1235 160  
 94/05/17 1230 27  
 94/06/21 1150 32  
 94/07/19 1215 22  
 94/08/16 1210 45  
 94/09/20 1240 68

DATE	DEPTH	71900 MERCURY	71901 MERCURY	82079 TURBIDTY
FROM		HG,TOTAL	TOT REC	LAB
TO	TIME FEET	UG/L	UG/L	NTU

93/10/19 1200 2.6  
 93/11/16 1300 10.0  
 93/12/20 1145 4.1

MORE DATES NEXT PAGE

DATE	71900	71901	82079	
FROM	MERCURY	MERCURY	TURBIDTY	
TO TIME	DEPTH FEET	HG, TOTAL UG/L	TOT REC UG/L	LAB NTU
94/01/18	1210		12.0	
94/02/22	1235		9.3	
94/03/22	1210		11.0	
94/04/19	1235		29.0	
94/05/17	1230		7.3	
94/06/21	1150		8.6	
94/07/19	1215		17.0	
94/08/16	1210		22.0	
94/09/20	1240		19.0	

01E050 7301E050 12203550  
 WHATCOM CREEK AT BELLINGHAM  
 48 45 18.0 122 28 53.0 2F 0 Elev= 0 ft  
 53073 Washington Whatcom Co. PACIFIC NORTHWEST  
 PUGET SOUND (Nooksack-01) 131101  
 21540000 Reach= 0.000 Drg= 0 sqmi  
 Seg ID= 01-01-99 Class= A Miles= 0.00 to 0.00  
 AMBNT/STREAM

INDEX 1311031  
 MILES 0000.25

DATE		8	10	25	80	95	300	301	400	530	600
FROM	DEPTH	LAB	WATER	BAROMTRC	COLOR	CNDUCTVY	DO	DO	PH	RESIDUE	TOTAL N
TO	TIME	IDENT.	TEMP	PRESSURE	PT-CO	LAB @		SATUR		TOT-NFLT	N
		NUMBER	CENT	MM OF HG	UNITS	25C UMHO	MG/L	PERCENT	SU	MG/L	MG/L
93/10/19	1240	436062	13.2	775		95	10.7	99.5	7.80	2.0	0.41
93/11/16	1415	476062	7.8	767		119	11.5	95.5	7.50	14.0	0.94
93/12/20	1220	526062	5.5	773		136	12.8	99.7	7.90	1.0K	0.82
94/01/18	1245	36062	6.1	772		74	12.5	98.9		2.0	0.46
94/02/22	1325	86062	5.7	763		74	12.4	98.3	7.60	62.0	1.04
94/03/22	1250	126062	6.2	760		70	12.2	98.3	7.60	5.0	0.68
94/04/19	1315	166062	11.3	768		90	10.7	96.3	7.60	2.0	0.60
94/05/17	1335	206062	16.2	763		90	10.8	108.7	7.90	1.0	0.31
94/06/21	1235	256062	17.3	765		69	9.7	99.6	7.60	5.0	0.31
94/07/19	1300	296062	20.1	763		87	9.2	100.1		4.0	0.35
94/08/16	1245	336062	20.8	763		78	9.2	101.4	7.90	3.0	0.29
94/09/20	1350	386062	18.5	767		88	9.5	99.7	7.80	3.0	0.24

DATE		610	615	620	625	630	665	671	31504	31616	82079
FROM	DEPTH	NH3+NH4-	NO2-N	NO3-N	TOT KJEL	NO2+NO3	PHOS-TOT	PHOS-DIS	TOT COLI	FEC COLI	TURBIDTY
TO	TIME	N TOTAL	TOTAL	TOTAL	N	N-TOTAL		ORTHO	MFIM LES	MFM-FCBR	LAB
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L P	MG/L P	/100ML	/100ML	NTU
93/10/19	1240	0.016				0.208	0.025	0.014		200	1.2
93/11/16	1415	0.054				0.520	0.090	0.031		8000J	34.0
93/12/20	1220	0.064				0.632	0.025	0.013		37	1.5
94/01/18	1245	0.011				0.331	0.013	0.010K		130X	1.7
94/02/22	1325	0.018				0.700	0.057	0.010K		74	16.0
94/03/22	1250	0.010K				0.497	0.010K	0.010K		12	2.8
94/04/19	1315	0.010K				0.499	0.010K	0.013		94	2.1
94/05/17	1335	0.010K				0.309	0.013	0.013		49	0.8
94/06/21	1235	0.010K				0.216	0.012	0.010K		85	2.6
94/07/19	1300	0.010K				0.200	0.027	0.010K		390	2.3
94/08/16	1245	0.010K				0.144	0.019	0.010		200	1.3
94/09/20	1350	0.010K				0.110	0.022	0.010K		560	2.1

03A060 5703A060 12200500 541035  
SKAGIT RIVER NEAR MOUNT VERNON  
48 26 42.0 122 20 03.0 2F 0 Elev= 0 ft  
53057 Washington Skagit Co. PACIFIC NORTHWEST  
PUGET SOUND (Lower Skagit-03) 131103  
21540000 Reach= 0.000 Drg= 0 sqmi  
Seg ID= 02-03-06 Class= A Miles= 0.00 to 0.00  
AMBNT/STREAM/RMP

INDEX 1311082  
MILES 0015.90

DATE		8	10	25	60	70	80	95	300	301	340
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	TURB	COLOR	CNDUCTVY	DO	DO	COD
TO	TIME FEET	IDENT.	TEMP	PRESSURE	FLOW	JKSN	PT-CO	LAB a		SATUR	HI LEVEL
		NUMBER	CENT	MM OF HG	CFS	JTU	UNITS	25C UMHO	MG/L	PERCENT	MG/L
93/10/19	1340	436063	11.4	773	5570				60	11.0	98.5
93/11/16	1510	476063	8.1	765	8510				60	11.4	95.6
93/12/20	1335	526063	5.6	771	12600				61	12.4	97.0
94/01/18	1330	36063	5.7	770	17500				59	12.1	95.0
94/02/22	1405	86063	5.5	763	10400				65	12.6	99.4
94/03/22	1345	126063	4.2	758	15600				58	12.4	95.1
94/04/19	1410	166063	8.1	767	19700				40	11.3	94.5
94/05/17	1445	206063	12.1	762	15300				46	10.1	93.2
94/06/21	1350	256063	14.2	763	13500				44	10.3	99.3
94/07/19	1355	296063	15.1	762	11700				41	10.3	101.4
94/08/16	1335	336063	15.7	762	10600				46	10.1	100.7
94/09/20	1440	386063	14.9	765	8560				54	10.4	101.6
DATE		400	405	410	440	445	530	600	605	610	613
FROM	DEPTH	PH	CO2	TALK	HCO3 ION	CO3 ION	RESIDUE	TOTAL N	ORG N	NH3+NH4-	NO2-N
TO	TIME FEET	SU	MG/L	CACO3	HCO3	CO3	TOT-NFLT	N	N	N TOTAL	DISS
				MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
93/10/19	1340		7.60				4.0	0.15		0.011	
93/11/16	1510		7.50				7.0	0.14		0.010K	
93/12/20	1335		7.80				9.0	0.27		0.045	
94/01/18	1330						12.0	0.24		0.010K	
94/02/22	1405		7.50				7.0	0.32		0.012	
94/03/22	1345		7.40				13.0	0.27		0.010K	
94/04/19	1410		7.40				18.0	0.12		0.010K	
94/05/17	1445		7.30				7.0	0.01K		0.010K	
94/06/21	1350		7.50				6.0	0.08		0.010K	
94/07/19	1355						13.0	0.08		0.010K	
94/08/16	1335		7.60				146.0	0.09		0.010K	
94/09/20	1440		7.50				36.0	0.08		0.010K	
DATE		615	620	625	630	660	665	671	680	900	902
FROM	DEPTH	NO2-N	NO3-N	TOT	KJEL	NO2+N03	ORTHOP04	PHOS-TOT	PHOS-DIS	T ORG C	NC HARD
TO	TIME FEET	TOTAL	TOTAL	N	N	N-TOTAL	PO4	ORTHO	ORTHO	C	CACO3
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L P	MG/L P	MG/L	MG/L

MORE DATES NEXT PAGE

Station:21540000 03A060

## SKAGIT RIVER NEAR MOUNT VERNON

PCSTORET -- 08-JUN-95

Page 2

DATE		615	620	625	630	660	665	671	680	900	902
FROM	DEPTH	NO2-N	NO3-N	TOT KJEL	NO2+NO3	ORTHOPO4	PHOS-TOT	PHOS-DIS	T ORG C	TOT HARD	NC HARD
TO	TIME FEET	TOTAL MG/L	TOTAL MG/L	N MG/L	N-TOTAL MG/L	PO4 MG/L	MG/L P	ORTHO MG/L P	C MG/L	CACO3 MG/L	CACO3 MG/L
93/10/19	1340				0.086		0.010K	0.010K			
93/11/16	1510				0.085		0.010K	0.010K			
93/12/20	1335				0.204		0.010K	0.010K			
94/01/18	1330				0.201		0.010K	0.010K			
94/02/22	1405				0.256		0.011	0.010K			
94/03/22	1345				0.214		0.010K	0.010K			
94/04/19	1410				0.113		0.010K	0.010K			
94/05/17	1445				0.105		0.010K	0.010K		22	
94/06/21	1350				0.060		0.010K	0.010K			
94/07/19	1355				0.047		0.014	0.010K		20	
94/08/16	1335				0.051		0.103	0.010K			
94/09/20	1440				0.042		0.026	0.010K			

DATE		915	925	930	931	932	935	940	945	950	955
FROM	DEPTH	CALCIUM CA,DISS	MGNSIUM MG,DISS	SODIUM NA,DISS	SODIUM ADSBTION	PERCENT SODIUM	PTSSIUM K,DISS	CHLORIDE CL	SULFATE SO4-TOT	FLUORIDE F,DISS	SILICA DISOLVED
TO	TIME FEET	MG/L	MG/L	MG/L	RATIO	%	MG/L	MG/L	MG/L	MG/L	MG/L

DATE		978	1000	1005	1020	1025	1030	1040	1045	1049	1065
FROM	DEPTH	ARSENIC TOT REC	ARSENIC AS,DISS	BARIUM BA,DISS	BORON B,DISS	CADMİUM CD,DISS	CHROMIUM CR,DISS	COPPER CU,DISS	IRON FE,TOT	LEAD PB,DISS	NICKEL NI,DISS
TO	TIME FEET	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
94/05/17	1445	30.0U				0.04U		0.3P		0.0P	1U
94/07/19	1355	30.0U				0.04U		0.3P		0.0U	1U
94/09/20	1440	30.0U				0.04U		0.3P		0.0U	1U

DATE		1075	1090	1118	1145	31501	31504	31505	31507	31616	31625
FROM	DEPTH	SILVER AG,DISS	ZINC ZN,DISS	CHROMIUM TOT REC	SELENIUM SE,DISS	TOT COLI MFIMENDO	TOT COLI MFIM LES	TOT COLI MPN CONF	TOT COLI MPN COMP	FEC COLI MFM-FCBR	FEC COLI M-FCAGAD
TO	TIME FEET	UG/L	UG/L	UG/L	UG/L	/100ML	/100ML	/100ML	/100ML	/100ML	/100 ML

93/10/19	1340									4
93/11/16	1510									15
93/12/20	1335									1
94/01/18	1330									2
94/02/22	1405									15
94/03/22	1345									22
94/04/19	1410									21
94/05/17	1445	1U	5.0U							15
94/06/21	1350									1
94/07/19	1355	9P	5.0U							1
94/08/16	1335									31
94/09/20	1440	1U	5.0U							59

DATE		31672	70300	70301	70302	70303	71900	82079
FROM	DEPTH	FECSTREP PC M-ENT	RESIDUE DISS-180	DISS SOL SUM	DISS SOL TONS/DAY	DISS SOL TONS PER	MERCURY HG,TOTAL	TURBIDTY LAB NTU
TO	TIME FEET	/100ML C	MG/L	MG/L	ACRE-FT	UG/L	NTU	

MORE DATES NEXT PAGE

DATE FROM TO	DEPTH TIME FEET	31672 FECSTREP PC M-ENT /100ML	70300 RESIDUE DISS-180 C MG/L	70301 DISS SOL SUM MG/L	70302 DISS SOL TONS/DAY	70303 TONS PER ACRE-FT	71900 MERCURY HG,TOTAL UG/L	82079 TURBIDTY LAB NTU
93/10/19	1340							2.4
93/11/16	1510							1.9
93/12/20	1335							1.9
94/01/18	1330							4.0
94/02/22	1405							2.8
94/03/22	1345							3.6
94/04/19	1410							6.1
94/05/17	1445					0.00U		2.5
94/06/21	1350							2.1
94/07/19	1355					0.00U		7.0
94/08/16	1335							60.0
94/09/20	1440					0.00U		15.0

04A100 5704A100 12181000 541038  
SKAGIT RIVER AT MARBLEMOUNT  
48 31 35.0 121 25 40.0 2F 0 Elev= 0 ft  
53057 Washington Skagit Co. PACIFIC NORTHWEST  
PUGET SOUND (Upper Skagit-04) 131104  
21540000 Reach= 0.000 Drg= 0 sqmi  
Seg ID= 02-04-07 Class= AA Miles= 0.00 to 0.00  
AMBNT/STREAM/RMP

INDEX 1311082  
MILES 0078.20

DATE		8	10	25	60	70	80	95	300	301	400
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	TURB	COLOR	CNDUCTVY	DO	DO	PH
TO	TIME	IDENT.	TEMP	PRESSURE	FLOW	JKSN	PT-CO	LAB @	SATUR		
		NUMBER	CENT	MM OF HG	CFS	JTU	UNITS	25C UMHO	MG/L	PERCENT	SU
93/10/19	0950	436060	9.5	767	3560			47	11.1	95.9	7.50
93/11/16	1005	476060	8.0	755	3250			53	11.5	97.4	7.60
93/12/20	0936	526060	5.5	765	4680			57	12.2	95.9	7.60
94/01/18	1010	36060	5.3	763	8400			59	12.2	95.7	
94/02/22	1025	86060	5.6	758	6000			59	12.2	97.0	7.50
94/03/22	1010	126060	3.4	753	5310			57	12.7	96.1	7.40
94/04/19	1030	166060	5.0	761	7630			35	12.3	96.0	7.20
94/05/17	1025	206060	8.1	755	4650			40	11.8	100.3	7.30
94/06/21	0945	256060	9.4	758	4340			35	11.7	102.1	7.10
94/07/19	1000	296060	11.0	756	4960			37	11.1	100.8	
94/08/16	1010	336060	11.4	756	4270			44	11.1	101.7	7.50
94/09/20	1030	386060	11.4	761	4250			54	11.2	101.9	7.40
DATE		410	440	445	530	600	610	613	615	620	630
FROM	DEPTH	TALK	HCO3	ION	CO3	TOTAL	N	NH3+NH4-	NO2-N	NO2-N	NO3-N
TO	TIME	CACO3	HCO3	CO3	TOT-NFLT	N	N	N TOTAL	DISS	TOTAL	NO2+NO3
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	N-TOTAL
93/10/19	0950				2.0	0.21	0.011				0.093
93/11/16	1005				1.0K	0.12	0.010K				0.086
93/12/20	0936				1.0K	0.16	0.022				0.098
94/01/18	1010				3.0	0.11	0.010K				0.084
94/02/22	1025				1.0	0.12	0.010K				0.081
94/03/22	1010				1.0	0.14	0.010K				0.088
94/04/19	1030				2.0	0.09	0.010				0.096
94/05/17	1025				1.0K	0.01K	0.010K				0.092
94/06/21	0945				1.0	0.06	0.010K				0.057
94/07/19	1000				2.0	0.07	0.010K				0.054
94/08/16	1010				2.0	0.08	0.010K				0.057
94/09/20	1030				1.0	0.07	0.010K				0.064
DATE		660	665	671	900	902	915	925	930	931	932
FROM	DEPTH	ORTHOP4	PHOS-TOT	PHOS-DIS	TOT HARD	NC HARD	CALCIUM	MGSNLIUM	SODIUM	SODIUM	PERCENT
TO	TIME	PO4	MG/L P	MG/L P	CACO3	CACO3	CA,DISS	MG,DISS	NA,DISS	ADSBTION	SODIUM %
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	RATIO	

MORE DATES NEXT PAGE

DATE	DEPTH	FROM	TIME	FEET	660 ORTHOP04 PO4 MG/L	665 PHOS-TOT MG/L P	671 PHOS-DIS MG/L P	900 ORTHO MG/L	902 CACO3 MG/L	915 CACO3 MG/L	925 CALCIUM CA,DISS MG/L	930 MGSNIIUM MG,DISS MG/L	931 SODIUM NA,DISS MG/L	932 SODIUM ADSBTION RATIO	PERCENT SODIUM %
93/10/19	0950					0.010K		0.010K							
93/11/16	1005					0.010K		0.010K							
93/12/20	0936					0.010K		0.010K							
94/01/18	1010					0.010K		0.010K							
94/02/22	1025					0.010K		0.010K							
94/03/22	1010					0.010K		0.010K							
94/04/19	1030					0.010K		0.014							
94/05/17	1025					0.010K		0.010K	22						
94/06/21	0945					0.010K		0.010K							
94/07/19	1000					0.010K		0.010K	17						
94/08/16	1010					0.010K		0.010K							
94/09/20	1030					0.010K		0.010K							

DATE	DEPTH	FROM	TIME	FEET	935 PTSSIUM K,DISS MG/L	940 CHLORIDE CL MG/L	945 SULFATE SO4-TOT MG/L	950 FLUORIDE F,DISS MG/L	955 SILICA DISOLVED MG/L	978 ARSENIC TOT REC UG/L	1020 BORON B,DISS UG/L	1025 CADMIUM CD,DISS UG/L	1030 CHROMIUM CR,DISS UG/L	1040 COPPER CU,DISS UG/L	
94/05/17	1025									30.0U			0.04U		0.4P
94/07/19	1000									30.0U			0.04U		0.2P
94/09/20	1030									30.0U			0.04U		0.2P

DATE	DEPTH	FROM	TIME	FEET	1045 IRON FE, TOT UG/L	1049 LEAD PB,DISS UG/L	1065 NICKEL NI,DISS UG/L	1090 ZINC ZN,DISS UG/L	1118 CHROMIUM TOT REC UG/L	31501 TOT COLI MFIMENDO /100ML	31505 TOT COLI MPN CONF /100ML	31616 FEC COLI MFM-FCBR /100ML	70300 RESIDUE DISS-180 C MG/L	70301 DISS SOL SUM MG/L	
93/10/19	0950												17		
93/11/16	1005												1		
93/12/20	0936												2		
94/01/18	1010												1K		
94/02/22	1025												1		
94/03/22	1010												1K		
94/04/19	1030												2		
94/05/17	1025				0.1P		1U	2P	5.0U				1K		
94/06/21	0945												4		
94/07/19	1000				0.0U		1U	1U	5.0U				1		
94/08/16	1010												5		
94/09/20	1030				0.0U		1U	1U	5.0U				1		

DATE	DEPTH	FROM	TIME	FEET	70302 DISS SOL TONS/DAY	70303 DISS SOL TONS PER ACRE-FT	71900 MERCURY HG, TOTAL UG/L	82079 TURBIDTY LAB NTU
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MORE DATES NEXT PAGE

DATE FROM TO	DEPTH TIME FEET	70302 DISS SOL TONS/DAY	70303 DISS SOL TONS PER ACRE-FT	71900 MERCURY HG,TOTAL UG/L	82079 TURBIDTY LAB NTU
93/10/19 0950				0.7	
93/11/16 1005				0.6	
93/12/20 0936				0.5	
94/01/18 1010				0.5	
94/02/22 1025				0.5K	
94/03/22 1010				0.5K	
94/04/19 1030				1.0	
94/05/17 1025			0.00U	0.8	
94/06/21 0945				0.5	
94/07/19 1000			0.00U	1.1	
94/08/16 1010				1.5	
94/09/20 1030			0.00U	1.6	

05A070 6105A070 12167700 541039  
 STILLAGUAMISH RIVER NEAR SILVANA  
 48 11 50.0 122 12 34.0 2F 0 Elev= 0 ft  
 53061 Washington Snohomish Co. PACIFIC NORTHWEST  
 PUGET SOUND (Stillaguamish-05) 131105  
 21540000 Reach= 0.000 Drg= 0 sqmi  
 Seg ID= 03-05-02 Class= A Miles= 0.00 to 0.00  
 AMBNT/STREAM/RMP

INDEX 1311106  
 MILES 0011.10

DATE		8	10	25	60	70	80	95	300	301	400
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	TURB	COLOR	CNDUCTVY	DO	DO	PH
TO	TIME FEET	IDENT.	TEMP	PRESSURE	FLOW	JKSN	PT-CO	LAB @		SATUR	
		NUMBER	CENT	MM OF HG	CFS	JTU	UNITS	25C UMHO	MG/L	PERCENT	SU
93/10/19	1430	436064	11.7	773					74	10.6	95.6
93/11/16	1540	476064	6.0	766					58	12.0	95.5
93/12/20	1415	526064	4.4	770	2230				64	13.2	100.3
94/01/18	1420	36064	5.5	769	4000				48	12.3	96.2
94/02/22	1455	86064	5.4	763	3000				51	12.2	95.9
94/03/22	1510	126064	4.1	758	3750				47	12.5	95.7
94/04/19	1530	166064	9.3	766	3350				32	11.4	98.2
94/05/17	1535	206064	12.7	763	2230				50	11.1	103.7
94/06/21	1450	256064	16.4	763	2470				48	10.0	101.0
94/07/19	1525	296064	20.8	762	960				36	10.3	113.7
94/08/16	1510	336064	20.6	760	380				98	9.9	109.1
94/09/20	1550	386064	15.6	764	660				74	9.9	98.3

DATE		410	440	445	530	600	610	613	615	620	625
FROM	DEPTH	T ALK	HCO3	ION	CO3	ION	RESIDUE	TOTAL N	NH3+NH4-	NO2-N	NO2-N
TO	TIME FEET	CACO3	HCO3	CO3	TOT-NFLT	MG/L	MG/L	MG/L	N TOTAL	DISS	TOTAL
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
93/10/19	1430				4.0	0.39	0.019				
93/11/16	1540				22.0	0.36	0.017				
93/12/20	1415				4.0	0.64	0.050				
94/01/18	1420				15.0	0.45	0.011				
94/02/22	1455				19.0	0.69	0.022				
94/03/22	1510				11.0	0.53	0.010K				
94/04/19	1530				14.0	0.19	0.010K				
94/05/17	1535				5.0	0.10	0.011				
94/06/21	1450				4.0	0.20	0.010K				
94/07/19	1525				2.0	0.12	0.010K				
94/08/16	1510				7.0	0.28	0.010K				
94/09/20	1550				4.0	0.23	0.010K				

DATE		630	660	665	671	900	902	915	925	930	935
FROM	DEPTH	NO2+N03	ORTHOP04	PHOS-TOT	PHOS-DIS	TOT	HARD	NC HARD	CALCIUM	MGSNLIUM	PTSSIUIM
TO	TIME FEET	N-TOTAL	PO4	MG/L P	ORTHO	CACO3	CACO3	CA,DISS	MG/L	NA,DISS	K,DISS
		MG/L	MG/L	MG/L P	MG/L P	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L

MORE DATES NEXT PAGE

DATE	FROM	TO	DEPTH	TIME	FEET	630 NO2+NO3 N-TOTAL	660 ORTHOP04 PO4	665 PHOS-TOT MG/L P	671 PHOS-DIS ORTHO MG/L P	900 TOT HARD CACO3 MG/L	902 NC HARD CACO3 MG/L	915 CALCIUM CA,DISS MG/L	925 MGNSIUM MG,DISS MG/L	930 SODIUM NA,DISS MG/L	935 PTSSIUUM K,DISS MG/L
93/10/19	1430					0.279			0.010K		0.010K				
93/11/16	1540					0.249			0.026		0.010K				
93/12/20	1415					0.553			0.010K		0.010K				
94/01/18	1420					0.392			0.010		0.010K				
94/02/22	1455					0.589			0.023		0.010K				
94/03/22	1510					0.390			0.010K		0.010K				
94/04/19	1530					0.169			0.010K		0.010K				
94/05/17	1535					0.162			0.010K		0.010K	21			
94/06/21	1450					0.152			0.010K		0.010K				
94/07/19	1525					0.078			0.010K		0.010K	31			
94/08/16	1510					0.151			0.010K		0.010K				
94/09/20	1550					0.190			0.010K		0.010K				
DATE	FROM	TO	DEPTH	TIME	FEET	936 PTSSIUUM K,SUSP	940 CHLORIDE CL	945 SULFATE SO4-TOT	950 FLUORIDE F,DISS	955 SILICA DISOLVED	978 ARSENIC TOT REC	1000 ARSENIC AS,DISS	1020 BORON B,DISS	1025 CADMIUM CD,DISS	1030 CHROMIUM CR,DISS
94/05/17	1535										30.0U				0.04U
94/07/19	1525										30.0U				0.04U
94/09/20	1550										30.0U				0.04U
DATE	FROM	TO	DEPTH	TIME	FEET	1040 COPPER CU,DISS	1045 IRON FE,TOT	1049 LEAD PB,DISS	1065 NICKEL NI,DISS	1080 STRONTIUM SR,DISS	1090 ZINC ZN,DISS	1118 CHROMIUM TOT REC	1130 LITHIUM LI,DISS	31501 TOT COLI MFIMENDO	31504 TOT COLI MFIM LES
94/05/17	1535					0.7			0.1P	1		1P	5.0U		
94/07/19	1525					0.9			0.1P	1P		2P	5.0U		
94/09/20	1550					0.5P			0.0U	1U		1U	5.0U		
DATE	FROM	TO	DEPTH	TIME	FEET	31505 TOT COLI MPN CONF	31507 TOT COLI MPN COMP	31616 FEC COLI MFM-FCBR	70300 RESIDUE DISS-180	71850 NITRATE TOT-NO3	71900 MERCURY HG,TOTAL	82079 TURBIDTY LAB			
93/10/19	1430								63				1.7		
93/11/16	1540								44S				29.0		
93/12/20	1415								1				2.3		
94/01/18	1420								8				8.0		
94/02/22	1455								91				15.0		
94/03/22	1510								7				8.4		
94/04/19	1530								8				8.0		
94/05/17	1535								23S			0.00U	5.6		
94/06/21	1450								10				3.1		

MORE DATES NEXT PAGE

DATE	DEPTH	31505 TOT COLI MPN CONF	31507 TOT COLI MPN COMP	31616 FEC COLI MFM-FCBR	70300 RESIDUE DISS-180	71850 NITRATE TOT-NO3	71900 MERCURY HG,TOTAL	82079 TURBIDTY LAB	
FROM	TO	TIME	FEET	/100ML	/100ML	C MG/L	MG/L	UG/L	NTU
94/07/19		1525			14		0.00U	1.0	
94/08/16		1510			30			1.1	
94/09/20		1550			130		0.00P	1.5	

07A090 6107A090 12155500 541042  
 SNOHOMISH RIVER AT SNOHOMISH  
 47 54 38.0 122 05 52.0 2F 0 Elev= 0 ft  
 53061 Washington Snohomish Co. PACIFIC NORTHWEST  
 PUGET SOUND (Snohomish-07) 131107  
 21540000 Reach= 0.000 Drg= 0 sqmi  
 Seg ID= 03-07-10 Class= A Miles= 0.00 to 0.00  
 AMBNT/STREAM/RMP

INDEX 1311116  
 MILES 0012.70

DATE	LAB	8	10	25	60	70	80	95	300	301	340
FROM	DEPTH	IDENT.	WATER	BAROMTRC	STREAM	TURB	COLOR	CNDUCTVY	DO	DO	COD
TO	TIME	FEET	NUMBER	TEMP CENT	PRESSURE MM OF HG	FLOW CFS	JKSN JTU	PT-CO UNITS	LAB 25C UMHO	MG/L	SATUR PERCENT

93/10/19 0740		436059	11.8	774	2130			51	10.1	91.1
93/11/16 0730		476059	6.5	767	2940			54	11.6	93.3
93/12/20 1500		526059	4.7	771	5800			49	12.8	97.8
94/01/18 0810		36059	5.3	773	9090J			37	12.0	92.9
94/02/22 0810		86059	5.5	767	6730J			50	12.6	98.8
94/03/22 0750		126059	3.8	762	11400			40	12.3	92.9
94/04/19 0810		166059	8.1	771	15440			25	11.0	91.5
94/05/17 0720		206059	10.1	765	7950			35	10.9	95.8
94/06/21 0725		256059	13.6	769	8380			30	10.1	95.4
94/07/19 0800		296059	18.1	768	3390			42	8.9	92.5
94/08/16 0740		336059	19.5	766	1770			56	8.7	93.1
94/09/20 0720		386059	15.5	771				50	9.5	93.3

DATE	PH	400	410	440	445	530	600	605	610	613	615
FROM	DEPTH	TALK	HCO3	ION	CO3 ION	RESIDUE	TOTAL N	ORG N	NH3+NH4-	NO2-N	NO2-N
TO	TIME	SU	CACO3	HCO3	CO3	TOT-NFLT	N	N	N TOTAL	DISS	TOTAL
			MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L

93/10/19 0740		7.10				5.0	0.39		0.029
93/11/16 0730		7.50				3.0	0.35		0.042
93/12/20 1500		7.40				4.0	0.64		0.035
94/01/18 0810						7.0	0.44		0.019
94/02/22 0810		7.30				5.0	0.84		0.033
94/03/22 0750		7.20				9.0	0.65		0.012
94/04/19 0810		6.90				23.0	0.21		0.010K
94/05/17 0720		7.40				3.0	0.07		0.010K
94/06/21 0725		7.20				6.0	0.15		0.010K
94/07/19 0800						2.0	0.16		0.010K
94/08/16 0740		7.30				3.0	0.18		0.010K
94/09/20 0720		7.00				2.0	0.27		0.010K

DATE	NO3-N	620	625	630	660	665	671	900	902	915	925
FROM	TOT	KJEL		NO2+NO3	ORTHOP04	PHOS-TOT	PHOS-DIS	TOT	HARD	CALCIUM	MGSNIUM
TO	DEPTH	TOTAL	N	N-TOTAL	PO4	MG/L	ORTHO	CACO3	CACO3	CA,DISS	MG,DISS
		MG/L	MG/L	MG/L	MG/L	MG/L P	MG/L P	MG/L	MG/L	MG/L	MG/L

MORE DATES NEXT PAGE

Station:21540000 07A090

## SNOHOMISH RIVER AT SNOHOMISH

PCSTORET -- 05-JUN-95

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DATE		620	625	630	660	665	671	900	902	915	925
FROM	DEPTH	NO3-N	TOT KJEL	NO2+NO3	ORTHOP04	PHOS-TOT	PHOS-DIS	TOT HARD	NC HARD	CALCIUM	MGNSIUM
TO	TIME FEET	TOTAL MG/L	N MG/L	N-TOTAL MG/L	PO4 MG/L	MG/L P	ORTHO MG/L P	CACO3 MG/L	CACO3 MG/L	CA,DISS MG/L	MG,DISS MG/L
93/10/19	0740			0.248		0.018	0.010K				
93/11/16	0730			0.255		0.010K	0.010K				
93/12/20	1500			0.580		0.010	0.010K				
94/01/18	0810			0.367		0.010K	0.010K				
94/02/22	0810			0.670		0.017	0.010K				
94/03/22	0750			0.476		0.010K	0.010K				
94/04/19	0810			0.188		0.010K	0.010K				
94/05/17	0720			0.154		0.010K	0.010K				
94/06/21	0725			0.121		0.010K	0.010K				
94/07/19	0800			0.108		0.010K	0.010K				
94/08/16	0740			0.116		0.010K	0.010K				
94/09/20	0720			0.298		0.010K	0.010K				
<hr/>											
DATE		930	931	932	935	940	945	950	955	1000	1002
FROM	DEPTH	SODIUM NA,DISS	SODIUM ADSBTION	PERCENT SODIUM	PTSSIUM K,DISS	CHLORIDE CL	SULFATE SO4-TOT	FLUORIDE F,DISS	SILICA DISOLVED	ARSENIC AS,DISS	ARSENIC AS,TOT
TO	TIME FEET	MG/L	RATIO	%	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	UG/L
<hr/>											
<hr/>											
DATE		1020	1025	1027	1030	1034	1040	1042	1045	1049	1051
FROM	DEPTH	BORON B,DISS	CADMUM CADMIUM	CADMUM CD,DISS	CHROMIUM CR,DISS	CHROMIUM CR,TOT	COPPER CU,DISS	COPPER CU,TOT	IRON FE,TOT	LEAD PB,DISS	LEAD PB,TOT
TO	TIME FEET	UG/L	UG/L	CD,TOT UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
<hr/>											
<hr/>											
DATE		1065	1080	1090	1092	1094	1113	1114	1118	1119	1130
FROM	DEPTH	NICKEL NI,DISS	STRONTIUM SR,DISS	ZINC ZN,DISS	ZINC ZN,TOT	TOT REC UG/L	CADMUM TOT REC	TOT REC UG/L	LEAD TOT REC	CHROMIUM TOT REC	COPPER TOT REC
TO	TIME FEET	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	LI,DISS UG/L
<hr/>											
DATE		31501	31504	31505	31616	70300	70303	71900	71901	82079	
FROM	DEPTH	TOT COLI MFIMENDO	TOT COLI MFIM LES	TOT COLI MPN CONF	FEC COLI MFM-FCBR	RESIDUE DISS-180	DISS SOL TONS PER	MERCURY HG,TOTAL	MERCURY TOT REC	TURBIDTY LAB	
TO	TIME FEET	/100ML	/100ML	/100ML	/100ML	C MG/L	ACRE-FT	UG/L	UG/L	NTU	
93/10/19	0740				220					1.8	
93/11/16	0730				80S					1.7	
93/12/20	1500				60					2.0	
94/01/18	0810				31					2.6	
94/02/22	0810				93					3.0	
94/03/22	0750				35					5.5	
94/04/19	0810				35					7.9	
94/05/17	0720				80S					2.3	

MORE DATES NEXT PAGE

DATE FROM TO	DEPTH TIME FEET	31501 TOT COLI MFIMENDO	31504 TOT COLI MFIM LES	31505 TOT COLI MPN CONF	31616 FEC COLI MFM-FCBR	70300 RESIDUE DISS-180	70303 DISS SOL TONS PER	71900 MERCURY HG,TOTAL	71901 MERCURY TOT REC	82079 TURBIDTY LAB NTU
94/06/21 0725					33					2.0
94/07/19 0800					53					1.1
94/08/16 0740					73					1.0
94/09/20 0720					88					1.5

08B070 3308B070 12126500 541049  
 SAMMAMISH RIVER AT BOTHELL  
 47 45 32.0 122 12 09.0 2F 0 Elev= 0 ft  
 53033 Washington King Co. PACIFIC NORTHWEST  
 PUGET SOUND (Cedar-08) 131108  
 21540000 Reach= 0.000 Drg= 0 sqmi  
 Seg ID= 04-08-02 Class= A Miles= 0.00 to 0.00  
 AMBN/T/STREAM/RMP

INDEX 1311141  
 MILES 0020.40

DATE		8	10	25	60	70	80	95	300	301	400
FROM	DEPTH	LAB IDENT.	WATER TEMP	BAROMTRC PRESSURE	STREAM FLOW	TURB JKSN	COLOR PT-CO	CNDUCTVY LAB @	DO	DO	PH
TO	TIME FEET	NUMBER	CENT	MM OF HG	CFS	JTU	UNITS	25C UMHO	MG/L	SATUR PERCENT	SU
93/10/18	1330	436057	12.5	769	118			144	9.4	86.7	7.60
93/11/15	1300	476057	7.8	762	116			192	10.5	87.8	7.40
93/12/19	1230	526057	5.9	771	409			120	10.8	85.1	7.40
94/01/17	1300	36057	7.5	775	354			123	10.5	85.7	
94/02/21	1245	86057	7.4	761	610			105	11.8	97.9	7.30
94/03/21	1300	126057	6.2	764	590			116	11.5	92.2	7.60
94/04/18	1215	166057	10.7	766	409			109	10.6	94.4	7.60
94/05/16	1350	206057	15.4	758	190			138	9.4	93.6	7.40
94/06/20	1230	256057	17.9	764	170			135	9.4	97.8	7.60
94/07/18	1220	296057	20.5	766	85			152	8.6	93.9	
94/08/15	1305	336057	20.2	766	60			166	8.6	93.4	7.50
94/09/19	1345	386057	18.6	768	80			171	8.1	85.1	7.30

DATE		410	440	445	530	600	610	613	615	620	625
FROM	DEPTH	T ALK CACO <sub>3</sub>	HCO <sub>3</sub> CACO <sub>3</sub>	CO <sub>3</sub> ION	RESIDUE TOT-NFLT	TOTAL N N	NH <sub>3</sub> +NH <sub>4</sub> - N	NO <sub>2</sub> -N DISS	NO <sub>2</sub> -N TOTAL	NO <sub>3</sub> -N TOTAL	TOT KJEL N
TO	TIME FEET	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
93/10/18	1330				7.0	0.73	0.045				
93/11/15	1300				8.0	0.71	0.045				
93/12/19	1230				7.0	1.08	0.046				
94/01/17	1300				9.0	0.82	0.034				
94/02/21	1245				25.0	1.30	0.033				
94/03/21	1300				22.0	1.01	0.019				
94/04/18	1215				6.0	0.63	0.010K				
94/05/16	1350				4.0	0.58	0.021				
94/06/20	1230				4.0	0.53	0.010K				
94/07/18	1220				5.0	0.49	0.016				
94/08/15	1305				6.0	0.46	0.015				
94/09/19	1345				4.0	0.60	0.037				

DATE		630 NO <sub>2</sub> +NO <sub>3</sub>	650 T PO <sub>4</sub>	660 ORTHO PO <sub>4</sub>	665 PHOS-TOT	671 PHOS-DIS	900 TOT HARD	902 NC HARD	915 CALCIUM	925 MGNSIUM	930 SODIUM
FROM	DEPTH	N-TOTAL	PO <sub>4</sub>	PO <sub>4</sub>	PHOS-TOT	ORTHO	CACO <sub>3</sub>	CACO <sub>3</sub>	CA,DISS	MG,DISS	NA,DISS
TO	TIME FEET	MG/L	MG/L	MG/L	MG/L P	MG/L P	MG/L	MG/L	MG/L	MG/L	MG/L

MORE DATES NEXT PAGE

DATE		630	650	660	665	671	900	902	915	925	930
FROM	DEPTH	NO2+NO3	T PO4	ORTHOPO4	PHOS-TOT	PHOS-DIS	TOT HARD	NC HARD	CALCIUM	MGSNIIUM	SODIUM
TO	TIME FEET	N-TOTAL	PO4	PO4	MG/L P	ORTHO	CACO3	CACO3	CA,DISS	MG,DISS	NA,DISS
		MG/L	MG/L	MG/L	MG/L P	MG/L P	MG/L	MG/L	MG/L	MG/L	MG/L
93/10/18	1330	0.394			0.059	0.031					
93/11/15	1300	0.451			0.047	0.025					
93/12/19	1230	0.745			0.039	0.017					
94/01/17	1300	0.560			0.033	0.020					
94/02/21	1245	0.878			0.065	0.018					
94/03/21	1300	0.662			0.047	0.012					
94/04/18	1215	0.391			0.020	0.012					
94/05/16	1350	0.418			0.042	0.022					
94/06/20	1230	0.289			0.032	0.010K					
94/07/18	1220	0.222			0.055	0.024					
94/08/15	1305	0.220			0.065	0.031					
94/09/19	1345	0.327			0.053	0.030					
DATE		931	932	935	940	945	950	955	1000	1020	1034
FROM	DEPTH	SODIUM	PERCENT	PTSSIUM	CHLORIDE	SULFATE	FLUORIDE	SILICA	ARSENIC	BORON	CHROMIUM
TO	TIME FEET	ADSBTION	SODIUM	K,DISS	CL	SO4-TOT	F,DISS	DISOLVED	AS,DISS	B,DISS	CR,TOT
		RATIO	%	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	UG/L	UG/L
93/10/18	1330	1040	1045	1080	1090	1130	31501	31503	31504	31505	31507
93/11/15	1300	COPPER	IRON	STRONTIUM	ZINC	LITHIUM	TOT COLI				
93/12/19	1230	CU,DISS	FE,TOT	SR,DISS	ZN,DISS	LI,DISS	MFIMENDO	MFDLENDO	MFIM LES	MPN CONF	MPN COMP
94/01/17	1300	UG/L	UG/L	UG/L	UG/L	UG/L	/100ML	/100ML	/100ML	/100ML	/100ML
DATE		31616	31672	70300	70303	71851	82079				
FROM	DEPTH	FEC COLI	FECSTREP	RESIDUE	DISS SOL	NITRATE	TURBIDTY				
TO	TIME FEET	MFM-FCBR	PC M-ENT	DISS-180	TONS PER	DISS-NO3	LAB				
		/100ML	/100ML	C MG/L	ACRE-FT	MG/L	NTU				
93/10/18	1330	220					4.2				
93/11/15	1300	130S					4.5				
93/12/19	1230	92S					4.8				
94/01/17	1300	120					5.1				
94/02/21	1245	180					14.0				
94/03/21	1300	79S					8.7				
94/04/18	1215	44					3.0				
94/05/16	1350	270S					3.5				
94/06/20	1230	110					2.8				
94/07/18	1220	170					3.0				
94/08/15	1305	96					3.1				
94/09/19	1345	220					2.7				

08B110 3308B110 12124998  
 SAMMAMISH RIVER AT REDMOND  
 47 40 15.0 122 07 35.0 2F 0 Elev= 0 ft  
 53033 Washington King Co. PACIFIC NORTHWEST  
 PUGET SOUND (Cedar-08) 131108  
 21540000 Reach= 0.000 Drg= 0 sqmi  
 Seg ID= 04-08-02 Class= A Miles= 0.00 to 0.00  
 AMBNT/STREAM

INDEX 1311141  
 MILES 0028.65

DATE		8	10	25	60	80	95	300	301	400	530
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	COLOR	CNDUCTVY	DO	DO	PH	RESIDUE
TO	TIME FEET	IDENT.	TEMP	PRESSURE	FLOW	PT-CO	LAB @		SATUR		TOT-NFLT
		NUMBER	CENT	MM OF HG	CFS	UNITS	25C UMHO	MG/L	PERCENT	SU	MG/L
93/10/18	1230	436056	12.8	769	46		114	10.5	97.5	7.70	2.0
93/11/15	1215	476056	8.4	762	45		154	10.8	91.6	7.50	3.0
93/12/19	1200	526056	5.5	771	152		104	11.2	87.4	7.70	7.0
94/01/17	1215	36056	7.2	775	149		106	11.3	91.5		6.0
94/02/21	1140	86056	7.2	760	265		90	11.0	92.2	7.60	11.0
94/03/21	1215	126056	6.4	763	296		107	12.3	99.2	7.90	13.0
94/04/18	1130	166056	10.6	766	164		94	12.0	106.6	8.30	6.0
94/05/16	1230	206056	15.0	758	100		115	10.6	104.7	8.00	4.0
94/06/20	1140	256056	18.2	764	73		110	10.8	113.0	8.00	4.0
94/07/18	1145	296056	20.9	767	30		176	9.1	100.1		3.0
94/08/15	1215	336056	20.2	766	12		124	9.7	105.4	7.80	3.0
94/09/19	1310	386056	18.0	768	15		129	10.7	111.0	7.80	5.0

DATE		600	610	630	665	671	31504	31616	82079
FROM	DEPTH	TOTAL N	NH3+NH4-	NO2+NO3	PHOS-TOT	PHOS-DIS	TOT COLI	FEC COLI	TURBIDTY
TO	TIME FEET	MG/L	MG/L	MG/L	MG/L P	ORTHO	MFIM LES	MFM-FCBR	LAB NTU
93/10/18	1230	0.53	0.029	0.239	0.034	0.019		130	1.9
93/11/15	1215	0.55	0.021	0.315	0.030	0.019		63	2.2
93/12/19	1200	0.84	0.045	0.600	0.033	0.015		92	3.7
94/01/17	1215	0.71	0.020	0.484	0.022	0.017		17	3.0
94/02/21	1140	0.99	0.013	0.682	0.035	0.014		72	5.3
94/03/21	1215	0.96	0.014	0.540	0.045	0.010K		120S	3.4
94/04/18	1130	0.55	0.010K	0.359	0.017	0.010		20	1.7
94/05/16	1230	0.48	0.020	0.354	0.022	0.015		210S	2.4
94/06/20	1140	0.30	0.010K	0.150	0.011	0.010K		84	1.7
94/07/18	1145	0.28	0.010K	0.105	0.022	0.010K		120	1.4
94/08/15	1215	0.23	0.010K	0.085	0.029	0.012		230	1.6
94/09/19	1310	0.37	0.010K	0.166	0.032	0.013		200	2.6

08B130 3308B130 12121600 541050  
 ISSAQAH CREEK NEAR ISSAQAH  
 47 33 09.0 122 02 48.0 2F 0 Elev= 0 ft  
 53033 Washington King Co. PACIFIC NORTHWEST  
 PUGET SOUND (Cedar-08) 131108  
 21540000 Reach= 0.000 Drg= 0 sqmi  
 Seg ID= 04-08-02 Class= A Miles= 0.00 to 0.00  
 AMBNT/STREAM

INDEX 1311141  
 MILES 0033.60

DATE		8	10	25	60	70	80	95	300	301	400
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	TURB	COLOR	CNDUCTVY	DO	DO	PH
TO	TIME FEET	IDENT.	TEMP	PRESSURE	FLOW	JKSN	PT-CO	LAB @		SATUR	
		NUMBER	CENT	MM OF HG	CFS	JTU	UNITS	25C UMHO	MG/L	PERCENT	SU
93/10/18	1150	436055	9.9	770				124	10.6	92.2	7.70
93/11/15	1140	476055	7.8	761				174	11.4	95.4	7.60
93/12/19	1125	526055	4.6	771				107	12.9	98.4	7.60
94/01/17	1135	36055	7.0	775				95	11.9	95.9	
94/02/21	1110	86055	6.9	760				86	12.7	104.1	7.40
94/03/21	1115	126055	5.2	763				91	12.0	94.0	7.60
94/04/18	1045	166055	9.6	766				90	10.7	92.9	7.40
94/05/16	1125	206055	11.9	759				113	11.4	105.2	7.80
94/06/20	1100	256055	13.1	765				109	10.9	102.5	7.70
94/07/18	1100	296055	15.3	766				132	10.3	101.3	
94/08/15	1135	336055	16.5	765				136	11.4	115.1	8.40
94/09/19	1210	386055	15.5	768				143	11.4	112.3	7.90

DATE		410	440	445	530	600	610	615	620	625	630	
FROM	DEPTH	T ALK	HCO3	ION	CO3	ION	RESIDUE	TOTAL N	NH3+NH4-	NO2-N	NO3-N	
TO	TIME FEET	CACO3	HCO3	CO3	TOT-NFLT	MG/L	TOTAL N	MG/L	N TOTAL	TOTAL	TOTAL	
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	
93/10/18	1150				7.0	1.09	0.084					0.824
93/11/15	1140				4.0	0.94	0.050					0.782
93/12/19	1125				5.0	1.80	0.056					1.650
94/01/17	1135				7.0	1.80	0.015					1.640
94/02/21	1110				12.0	2.17	0.011					1.950
94/03/21	1115				16.0	2.17	0.010K					1.490
94/04/18	1045				8.0	1.32	0.010K					1.410
94/05/16	1125				4.0	0.97	0.016					0.885
94/06/20	1100				5.0	0.87	0.010K					0.786
94/07/18	1100				4.0	0.83	0.010K					0.711
94/08/15	1135				4.0	0.61	0.010K					0.503
94/09/19	1210				7.0	0.81	0.016					0.695

DATE		660	665	671	900	902	915	925	930	935	940
FROM	DEPTH	ORTHOP04	PHOS-TOT	PHOS-DIS	TOT HARD	NC HARD	CALCIUM	MGNSIUM	SODIUM	PTSSIUM	CHLORIDE
TO	TIME FEET	PO4	MG/L P	MG/L P	CACO3	CACO3	CA,DISS	MG,DISS	NA,DISS	K,DISS	CL
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L

MORE DATES NEXT PAGE

DATE	DEPTH	660 ORTHOP04 PO4 MG/L	665 PHOS-TOT MG/L P	671 PHOS-DIS MG/L P	900 ORTHO CACO3 MG/L	902 TOT HARD CACO3 MG/L	915 CALCIUM CA,DISS MG/L	925 MGNSIUM MG,DISS MG/L	930 SODIUM NA,DISS MG/L	935 PTSSIUM K,DISS MG/L	940 CHLORIDE CL MG/L
93/10/18	1150		0.047	0.025							
93/11/15	1140		0.029	0.024							
93/12/19	1125		0.022	0.012							
94/01/17	1135		0.014	0.012							
94/02/21	1110		0.021	0.010							
94/03/21	1115		0.021	0.010K							
94/04/18	1045		0.017	0.011							
94/05/16	1125		0.031	0.020							
94/06/20	1100		0.015	0.010K							
94/07/18	1100		0.022	0.012							
94/08/15	1135		0.017	0.010K							
94/09/19	1210		0.027	0.014							

DATE	DEPTH	945 SULFATE SO4-TOT MG/L	950 FLUORIDE F,DISS MG/L	955 SILICA DISOLVED MG/L	1020 BORON B,DISS UG/L	1030 CHROMIUM CR,DISS UG/L	1040 COPPER CU,DISS UG/L	1045 IRON FE,TOT UG/L	1049 LEAD PB,DISS UG/L	1090 ZINC ZN,DISS UG/L	31501 TOT COLI MFIMENDO /100ML

DATE	DEPTH	31504 TOT COLI MFIM LES /100ML	31505 TOT COLI MPN CONF /100ML	31616 FEC COLI MFM-FCBR /100ML	31672 FECSTREP PC M-ENT /100ML	70300 RESIDUE DISS-180 C MG/L	71900 MERCURY HG,TOTAL UG/L	82079 TURBIDTY LAB NTU	
93/10/18	1150			75				2.7	
93/11/15	1140			92				1.4	
93/12/19	1125			20				1.9	
94/01/17	1135			39				3.0	
94/02/21	1110			67				4.0	
94/03/21	1115			110S				6.4	
94/04/18	1045			52				3.3	
94/05/16	1125			180S				2.4	
94/06/20	1100			180				1.8	
94/07/18	1100			250				1.3	
94/08/15	1135			240				1.3	
94/09/19	1210			320				2.7	

08C070 3308C070 12119007 541047  
 CEDAR R AT LOGAN ST BR AT RENTON  
 47 29 09.0 122 12 28.0 2F 0 Elev= 0 ft  
 53033 Washington King Co. PACIFIC NORTHWEST  
 PUGET SOUND (Cedar-08) 131108  
 21540000 Reach= 0.000 Drg= 0 sqmi  
 Seg ID= 04-08-03 Class= A Miles= 0.00 to 0.00  
 AMBNT/STREAM/RMP

INDEX 1311141 000040 00100  
 MILES 0009.35 0011.50 001.00

DATE		8	10	25	60	70	80	95	300	301	400
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	TURB	COLOR	CNDUCTVY	DO	DO	PH
TO	TIME FEET	IDENT. NUMBER	TEMP CENT	PRESSURE MM OF HG	FLOW CFS	JKSN JTU	PT-CO UNITS	LAB 25C UMHO	MG/L	SATUR PERCENT	SU
93/10/18	1110	436054	10.1	771	370			68	11.8	102.9	7.70
93/11/15	1100	476054	8.3	762	448			89	11.6	98.1	7.60
93/12/19	1050	526054	4.8	772	403			66	12.8	98.0	7.70
94/01/17	1055	36054	6.2	776	846			52	12.3	97.0	
94/02/21	1040	86054	7.0	760	364			75	12.2	100.3	7.50
94/03/21	1045	126054	5.2	763	989			58	12.3	96.3	7.60
94/04/18	1010	166054	7.5	767	928			48	11.5	94.8	7.20
94/05/16	1035	206054	11.5	760	343			72	12.0	109.6	7.90
94/06/20	1025	256054	13.3	766	359			73	11.3	106.6	7.60
94/07/18	1030	296054	15.0	767	197			78	10.4	101.5	
94/08/15	1050	336054	15.7	766	129			86	11.1	110.1	7.90
94/09/19	1120	386054	14.6	769	192			87	11.5	111.0	7.40

DATE		440	445	530	600	610	613	615	620	625	630
FROM	DEPTH	HCO3 ION	CO3 ION	RESIDUE	TOTAL N	NH3+NH4-N	NO2-N	NO2-N	NO3-N	TOT KJEL	NO2+NO3
TO	TIME FEET	HC03 MG/L	CO3 MG/L	TOT-NFLT MG/L	MG/L	N TOTAL MG/L	DISS MG/L	TOTAL MG/L	TOTAL MG/L	N MG/L	N-TOTAL MG/L
93/10/18	1110			4.0	0.25	0.010K					0.189
93/11/15	1100			4.0	0.28	0.024					0.194
93/12/19	1050			2.0	0.49	0.039					0.423
94/01/17	1055			7.0	0.43	0.010K					0.323
94/02/21	1040			4.0	0.76	0.010K					0.643
94/03/21	1045			12.0	0.56	0.010K					0.421
94/04/18	1010			5.0	0.27	0.010K					0.256
94/05/16	1035			3.0	0.16	0.010K					0.201
94/06/20	1025			4.0	0.21	0.010K					0.188
94/07/18	1030			4.0	0.20	0.010K					0.163
94/08/15	1050			3.0	0.21	0.010K					0.143
94/09/19	1120			4.0	0.23	0.010K					0.189

DATE		660	665	671	900	902	915	925	930	935	940
FROM	DEPTH	ORTHOP04	PHOS-TOT	PHOS-DIS	TOT HARD	NC HARD	CALCIUM	MGNSIUM	SODIUM	PTSSUUM	CHLORIDE
TO	TIME FEET	PO4 MG/L	MG/L P	MG/L P	CACO3 MG/L	CACO3 MG/L	CA,DISS MG/L	MG,DISS MG/L	NA,DISS MG/L	K,DISS MG/L	CL MG/L

MORE DATES NEXT PAGE

Station:21540000 08C070

CEDAR R AT LOGAN ST BR AT RENTON

PCSTORET -- 05-JUN-95

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DATE	DEPTH	660 ORTHOP04 PO4 MG/L	665 PHOS-TOT MG/L P	671 PHOS-DIS MG/L P	900 TOT HARD CACO3 MG/L	902 NC HARD CACO3 MG/L	915 CALCIUM CA,DISS MG/L	925 MGSNIIUM MG,DISS MG/L	930 SODIUM NA,DISS MG/L	935 PTSSIUUM K,DISS MG/L	940 CHLORIDE CL MG/L
FROM	TO										

93/10/18	1110		0.013	0.010K
93/11/15	1100		0.014	0.010
93/12/19	1050		0.013	0.010K
94/01/17	1055		0.010K	0.010K
94/02/21	1040		0.014	0.010K
94/03/21	1045		0.010	0.010K
94/04/18	1010		0.010K	0.010K
94/05/16	1035		0.010K	0.010K
94/06/20	1025		0.010K	0.010K
94/07/18	1030		0.018	0.010K
94/08/15	1050		0.010K	0.010K
94/09/19	1120		0.010K	0.010K

DATE	DEPTH	945 SULFATE SO4-TOT MG/L	950 FLUORIDE F,DISS MG/L	955 SILICA DISOLVED MG/L	1020 BORON B,DISS UG/L	1030 CHROMIUM CR,DISS UG/L	1040 COPPER CU,DISS UG/L	1045 IRON FE,TOT UG/L	1049 LEAD PB,DISS UG/L	1090 ZINC ZN,DISS UG/L	31504 TOT COLI MFIM LES /100ML
FROM	TO										

DATE	DEPTH	31505 TOT COLI MPN CONF /100ML	31616 FEC COLI MFM-FCBR /100ML	70300 RESIDUE DISS-180 C MG/L	71900 MERCURY HG,TOTAL UG/L	82079 TURBIDTY LAB NTU
FROM	TO					

93/10/18	1110		80		0.8
93/11/15	1100		25S		1.9
93/12/19	1050		19		0.7
94/01/17	1055				1.8
94/02/21	1040		13		0.8
94/03/21	1045		39		2.5
94/04/18	1010		25		1.6
94/05/16	1035		120		1.7
94/06/20	1025		44		1.0
94/07/18	1030		650		1.0
94/08/15	1050		100		0.6
94/09/19	1120		92		0.9

08C080 3308C080  
 Cedar R @ Maplewood  
 47 28 10.0 122 09 31.0 2F000 Elev= 0 ft  
 53033 Washington King Co. PACIFIC NORTHWEST  
 PUGET SOUND (Cedar-08) 131108  
 21540000 Reach=17110012012 0.000 Drg= 0 sqmi  
 AMBNT/STREAM

INDEX 1311141 000040 00100  
 MILES 0009.35 0011.50 004.10

DATE		8	10	25	60	95	300	301	400	530	600
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	CNDUCTVY	DO	DO	PH	RESIDUE	TOTAL N
TO	TIME FEET	IDENT.	TEMP	PRESSURE	FLOW	LAB @	SATUR	SU	TOT-NFLT	MG/L	N MG/L
93/10/18	1015	436053	10.0	769	1670	65	11.4	99.4	7.60	2.0	0.25
93/11/15	1035	476053	8.2	761	393	85	11.5	97.2	7.30	1.0	0.23
93/12/19	1025	526053	4.8	771	368	63	12.8	98.1	7.60	2.0	0.46
94/01/17	1025	36053	6.1	775	824	50	12.1	95.4		5.0	0.38
94/02/21	1015	86053	7.0	757	355	71	11.7	96.5	7.30	3.0	0.75
94/03/21	1005	126053	5.1	761	393	56	12.2	95.4	7.50	8.0	0.43
94/04/18	0945	166053	7.3	766	866	46	11.5	94.5	7.20	4.0	0.26
94/05/16	0935	206053	11.2	759	350	69	11.6	105.4	7.60	2.0	0.15
94/06/20	0955	256053	12.6	764	350	68	11.2	104.2	7.60	3.0	0.21
94/07/18	1000	296053	14.7	766	250	75	10.3	100.1		3.0	0.21
94/08/15	1010	336053	14.7	765	180	89	10.7	104.0	7.80	2.0	0.18
94/09/19	1030	386053	13.9	768	200	84	11.0	104.8	6.90	3.0	0.26

DATE		610	630	665	671	31616	82079
FROM	DEPTH	NH3+NH4-	NO2+NO3	PHOS-TOT	PHOS-DIS	FEC COLI	TURBIDITY
TO	TIME FEET	N TOTAL	N-TOTAL	MG/L P	ORTHO	MFM-FCBR	LAB NTU
93/10/18	1015	0.010K	0.187	0.012	0.010K	45	0.9
93/11/15	1035	0.012	0.178	0.010K	0.010K	20	0.9
93/12/19	1025	0.018	0.404	0.012	0.010K	9	0.6
94/01/17	1025	0.010K	0.317	0.010K	0.010K	8	1.8
94/02/21	1015	0.012	0.626	0.013	0.010K	24	1.1
94/03/21	1005	0.010K	0.359	0.012	0.010K	17	2.4
94/04/18	0945	0.010K	0.244	0.010K	0.010K	29	1.3
94/05/16	0935	0.010K	0.202	0.010K	0.010K	90S	1.1
94/06/20	0955	0.010K	0.195	0.010K	0.010K	28	0.8
94/07/18	1000	0.010K	0.151	0.013	0.010K	92	0.9
94/08/15	1010	0.010K	0.135	0.010K	0.010K	78	0.5
94/09/19	1030	0.010K	0.185	0.010K	0.010K	92	1.0

08C090 3308C090 12118510

CEDAR RIVER AT MAPLE VALLEY

47 24 22.0 122 02 18.0 2F 0 Elev= 0 ft

53033 Washington King Co. PACIFIC NORTHWEST

PUGET SOUND (Cedar-08) 131108

21540000 Reach= 0.000 Drg= 0 sqmi

Seg ID= 04-08-03 Class= A Miles= 0.00 to 0.00

AMBNT/STREAM

INDEX 1311141 000040 00100

MILES 0009.35 0011.50 014.50

DATE		8	10	25	60	80	95	300	301	400	530
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	COLOR	CNDUCTVY	DO	DO	PH	RESIDUE
TO	TIME FEET	IDENT.	TEMP	PRESSURE	FLOW	PT-CO	LAB @		SATUR		TOT-NFLT
		NUMBER	CENT	MM OF HG	CFS	UNITS	25C UMHO	MG/L	PERCENT	SU	MG/L
93/10/18	0945	436052	9.9	762			58	11.1	97.5	7.60	1.0
93/11/15	0945	476052	8.0	753	330		77	11.4	96.9	7.50	1.0K
93/12/19	0950	526052	5.2	765	315		54	12.7	99.1	8.00	1.0K
94/01/17	0955	36052	5.9	768	660		44	12.2	96.5		4.0
94/02/21	0935	86052	6.8	752	330		61	11.8	97.6	7.50	1.0
94/03/21	0930	126052	4.8	754	680		48	12.2	95.7	7.60	4.0
94/04/18	0910	166052	6.8	760	682		41	11.6	94.9	7.30	3.0
94/05/16	0905	206052	10.8	752	353		61	11.4	103.6	7.70	1.0K
94/06/20	0925	256052	11.0	758	370		63	11.1	100.5	7.60	2.0
94/07/18	0930	296052	13.2	759	210		66	10.5	99.7		2.0
94/08/15	0935	336052	12.9	759	155		75	11.0	103.8	7.80	1.0
94/09/19	0950	386052	12.4	762	190		74	11.1	103.1	6.90	1.0

DATE		600	610	615	620	625	630	665	671	31504	31616
FROM	DEPTH	TOTAL N	NH3+NH4-	NO2-N	NO3-N	TOT KJEL	NO2+NO3	PHOS-TOT	PHOS-DIS	TOT COLI	FEC COLI
TO	TIME FEET	MG/L	N	N TOTAL	TOTAL	MG/L	N-TOTAL	MG/L P	ORTHO	MFIM LES	MFM-FCBR
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L P	MG/L P	/100ML	/100ML
93/10/18	0945	0.22	0.010K				0.174	0.012	0.010K		7
93/11/15	0945	0.20	0.010K				0.155	0.010K	0.010K		3
93/12/19	0950	0.31	0.010K				0.291	0.016	0.010K		10
94/01/17	0955	0.30	0.010K				0.257	0.010K	0.010K		4
94/02/21	0935	0.45	0.010K				0.401	0.011	0.010K		12
94/03/21	0930	0.39	0.010K				0.280	0.010K	0.010K		5
94/04/18	0910	0.19	0.010K				0.197	0.010K	0.013		5
94/05/16	0905	0.13	0.010K				0.215	0.010K	0.010		27
94/06/20	0925	0.22	0.010K				0.189	0.010K	0.010K		5
94/07/18	0930	0.20	0.010K				0.158	0.010K	0.010K		16
94/08/15	0935	0.18	0.010K				0.150	0.010K	0.010K		9
94/09/19	0950	0.20	0.010K				0.192	0.010K	0.010K		23

82079

DATE		TURBIDTY
FROM	DEPTH	LAB
TO	TIME FEET	NTU

MORE DATES NEXT PAGE

82079

DATE	TURBIDTY		
FROM	DEPTH	LAB	
TO	TIME	FEET	NTU
93/10/18	0945		0.5
93/11/15	0945		0.5
93/12/19	0950		0.4
94/01/17	0955		1.2
94/02/21	0935		0.7
94/03/21	0930		1.2
94/04/18	0910		0.9
94/05/16	0905		0.5
94/06/20	0925		0.5K
94/07/18	0930		0.6
94/08/15	0935		0.5K
94/09/19	0950		0.5K

08C110 3308C110 12117490  
 CEDAR RIVER NEAR LANDSBURG  
 47 23 28.0 121 55 08.0 2F 0 Elev= 0 ft  
 53033 Washington King Co. PACIFIC NORTHWEST  
 PUGET SOUND (Cedar-08) 131108  
 21540000 Reach= 0.000 Drg= 0 sqmi  
 Seg ID= 04-08-03 Class= AA Miles= 0.00 to 0.00  
 AMBNT/STREAM/RMP

INDEX 1311141 000040 00100  
 MILES 0009.35 0011.50 025.10

DATE		8	10	25	60	70	80	95	300	301	340
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	TURB	COLOR	CNDUCTVY	DO	DO	COD
TO	TIME FEET	IDENT.	TEMP CENT	PRESSURE MM OF HG	FLOW CFS	JKSN JTU	PT-CO UNITS	LAB 25C UMHO	MG/L	SATUR PERCENT	HLEVEL MG/L
93/10/18	0855	436051	10.2	754	424			54	10.9	97.4	
93/11/15	0845	476051	8.1	745	388			73	11.2	96.5	
93/12/19	0905	526051	5.0	757	442			51	12.0	94.1	
94/01/17	0915	36051	5.7	759	899			43	12.1	96.4	
94/02/21	0845	86051	6.9	742	376			55	11.3	94.9	
94/03/21	0820	126051	4.8	752	926			45	12.1	95.1	
94/04/18	0820	166051	6.6	751	905			39	11.4	93.8	
94/05/16	0825	206051	10.6	743	507			55	11.0	100.7	
94/06/20	0835	256051	9.3	751	415			60	11.0	96.7	
94/07/18	0835	296051	11.7	751	393			60	10.5	97.5	
94/08/15	0850	336051	11.1	752	300			69	10.9	99.7	
94/09/19	0905	386051	11.1	752	252			69	10.9	99.7	

DATE		400	440	445	530	600	605	610	613	615	620
FROM	DEPTH	PH	HCO3 SU	ION HCO3	CO3 CO3	RESIDUE TOT-NFLT	TOTAL N N MG/L	ORG N N MG/L	NH3+NH4- N TOTAL MG/L	NO2-N DISS MG/L	NO2-N TOTAL MG/L
TO	TIME FEET		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
93/10/18	0855		7.50			1.0	0.19		0.010K		
93/11/15	0845		7.30			1.0	0.17		0.010K		
93/12/19	0905		7.90			2.0	0.22		0.010K		
94/01/17	0915					3.0	0.29		0.010K		
94/02/21	0845		7.40			1.0	0.29		0.010K		
94/03/21	0820		7.50			2.0	0.23		0.010K		
94/04/18	0820		7.20			4.0	0.14		0.010K		
94/05/16	0825		7.60			1.0K	0.09		0.010K		
94/06/20	0835		7.50			1.0K	0.19		0.010K		
94/07/18	0835					1.0	0.18		0.010K		
94/08/15	0850		7.60			1.0K	0.20		0.010K		
94/09/19	0905		7.00			1.0K	0.19		0.010K		

DATE		625	630	660	665	671	900	902	915	925	930
FROM	DEPTH	TOT KJEL N	NO2+N03 N-TOTAL	ORTHOP04 PO4	PHOS-TOT MG/L P	PHOS-DIS ORTHO MG/L P	TOT HARD CACO3 MG/L	NC HARD CACO3 MG/L	CALCIUM CA,DISS MG/L	MGSNLIUM MG,DISS MG/L	SODIUM NA,DISS MG/L
TO	TIME FEET	MG/L	MG/L	MG/L	MG/L P	MG/L P	MG/L	MG/L	MG/L	MG/L	MG/L

MORE DATES NEXT PAGE

DATE	DEPTH	TOT KJEL	625 NO2+NO3	630 N-TOTAL	660 ORTHOPO4	665 PHOS-TOT	671 PHOS-DIS	900 TOT HARD	902 NC HARD	915 CALCIUM	925 MGNSIUM	930 SODIUM
FROM			MG/L	MG/L	MG/L	P	MG/L P	CACO3	CACO3	CA,DISS	MG/L DISS	NA,DISS
TO	TIME	FEET						MG/L	MG/L	MG/L	MG/L	MG/L
93/10/18	0855			0.152			0.010K		0.010K			
93/11/15	0845			0.144			0.010K		0.010K			
93/12/19	0905			0.206			0.010K		0.010K			
94/01/17	0915			0.188			0.010K		0.010K			
94/02/21	0845			0.233			0.010K		0.010K			
94/03/21	0820			0.191			0.010K		0.010K			
94/04/18	0820			0.141			0.010K		0.010K			
94/05/16	0825			0.153			0.010K		0.010K			
94/06/20	0835			0.171			0.010K		0.010K			
94/07/18	0835			0.146			0.010K		0.010K			
94/08/15	0850			0.167			0.010K		0.010K			
94/09/19	0905			0.177			0.010K		0.010K			

DATE	DEPTH	PTSSIUM	935 CHLORIDE	940 SULFATE	945 FLUORIDE	950 SILICA	955 BORON	1020 IRON	1045 TOT COLI	31504 TOT COLI	31505 MPN CONF	31616 MFM-FCBR
FROM		K,DISS	CL	SO4-TOT	F,DISS	DISOLVED	B,DISS	FE,TOT	MFIM LES	/100ML	/100ML	/100ML
TO	TIME	FEET	MG/L	MG/L	MG/L	MG/L	UG/L	UG/L	UG/L	/100ML	/100ML	/100ML
93/10/18	0855											1K
93/11/15	0845											1K
93/12/19	0905											1K
94/01/17	0915											1K
94/02/21	0845											2
94/03/21	0820											2
94/04/18	0820											1K
94/05/16	0825											17
94/06/20	0835											4
94/07/18	0835											11
94/08/15	0850											4
94/09/19	0905											6

DATE	DEPTH	RESIDUE	70300 TURBIDITY	82079
FROM		DISS-180	LAB	
TO	TIME	FEET	C MG/L	NTU
93/10/18	0855		0.7	
93/11/15	0845		0.5	
93/12/19	0905		0.3	
94/01/17	0915		1.1	
94/02/21	0845		0.7	
94/03/21	0820		1.0	
94/04/18	0820		0.8	
94/05/16	0825		0.5K	
94/06/20	0835		0.5K	
94/07/18	0835		0.5K	

MORE DATES NEXT PAGE

70300 82079  
DATE RESIDUE TURBIDTY  
FROM DEPTH DISS-180 LAB  
TO TIME FEET C MG/L NTU  
-----  
94/08/15 0850 0.5K  
94/09/19 0905 0.5K

09A080 3309A080  
 GREEN RIVER AT TUKWILA  
 47 27 52.0 122 14 49.0 2F000 Elev= 0 ft  
 53033 Washington King Co. PACIFIC NORTHWEST  
 PUGET SOUND (Duwamish/Green-09) 131109  
 21540000 Reach=17110013000 0.000 Drg= 0 sqmi  
 AMBNT/STREAM/RMP

INDEX 1311143  
 MILES 0012.40

DATE		8	10	25	60	95	300	301	400	530	600
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	CNDUCTVY	DO	DO	PH	RESIDUE	TOTAL N
TO	TIME FEET	IDENT. NUMBER	TEMP CENT	PRESSURE MM OF HG	FLOW CFS	LAB @ 25C UMHO	MG/L	SATUR PERCENT	SU	TOT-NFLT MG/L	N MG/L
93/10/20	0945	436067	11.2	773	381	110	9.9	88.3	7.30	8.0	0.42
93/11/17	1000	476067	7.0	763	444	111J	10.8	88.4	7.40	3.0	0.56
93/12/21	0935	526067	4.2	775	676	86	12.4	93.1	7.40	4.0	0.62
94/01/19	0910	36067	5.4	770	1590	62	11.8	91.9		7.0	0.49
94/02/23	0935	86067	6.7	760	1000	85	11.4	93.0	7.50	9.0	0.81
94/03/23	1010	126067	4.1	763	1970	68	11.8	89.8	7.40	13.0	0.79
94/04/20	0935	166067	10.3	766	1130	83	9.5	83.8	7.40	10.0	0.42
94/05/18	0930	206067	13.5	766	489	140	10.8	102.2	7.40	6.0	0.46
94/06/22	0900	256067	15.8	765	991	63	9.2	91.5	7.80	18.0	0.26
94/07/20	0925	296067	19.6	762	255	152	7.5	81.0		25.0	0.49
94/08/17	0930	336067	18.4	767	220	153	8.1	84.8	7.30	9.0	0.41
94/09/21	0930	386067	16.3	767	297	126	8.5	85.3	7.40	16.0	0.45

DATE		610 NH3+NH4-	613 NO2-N	630 NO2+N03	665 PHOS-TOT	671 PHOS-DIS	900 TOT HARD	1094 ZINC	1113 CADMIUM	1114 LEAD	1118 CHROMIUM
FROM	DEPTH	N TOTAL	DISS	N-TOTAL	PHOS-TOT	PHOS-DIS	ORTHOD	CACO3	TOT REC	TOT REC	TOT REC
TO	TIME FEET	MG/L	MG/L	MG/L	MG/L P	MG/L P	MG/L P	MG/L	UG/L	UG/L	UG/L
93/10/20	0945	0.024		0.309	0.029		0.016				
93/11/17	1000	0.120		0.319	0.032		0.020				
93/12/21	0935	0.050		0.531	0.025		0.019				
94/01/19	0910	0.027		0.402	0.018		0.019				
94/02/23	0935	0.030		0.621	0.040		0.022				
94/03/23	1010	0.013		0.542	0.030		0.025				
94/04/20	0935	0.010K		0.300	0.014		0.010K				
94/05/18	0930	0.021		0.461	0.047		0.023				
94/06/22	0900	0.010K		0.176	0.029		0.010K				
94/07/20	0925	0.016		0.314	0.070		0.015				
94/08/17	0930	0.030		0.218	0.055		0.020				
94/09/21	0930	0.013		0.298	0.053		0.023				

DATE		1119 COPPER	31616 FEC COLI	71900 MERCURY	82079 TURBIDTY
FROM	DEPTH	TOT REC	MFM-FCBR	HG, TOTAL	LAB
TO	TIME FEET	UG/L	/100ML	UG/L	NTU

MORE DATES NEXT PAGE

DATE FROM TO	DEPTH TIME FEET	1119 COPPER TOT REC UG/L	31616 FEC COLI MFM-FCBR /100ML	71900 MERCURY HG,TOTAL UG/L	82079 TURBIDTY LAB NTU
93/10/20 0945			140		2.5
93/11/17 1000			500S		2.0
93/12/21 0935			33		2.0
94/01/19 0910			160		2.6
94/02/23 0935			210		3.5
94/03/23 1010			280S		3.5
94/04/20 0935			24		2.8
94/05/18 0930			130		2.4
94/06/22 0900			96		4.3
94/07/20 0925			100		5.8
94/08/17 0930			270		2.9
94/09/21 0930			160		3.4

09A090 3309A090 12113340  
 GREEN R AT 212TH STREET NR KENT  
 47 24 45.0 122 15 49.0 2F 0 Elev= 0 ft  
 53033 Washington King Co. PACIFIC NORTHWEST  
 PUGET SOUND (Duwamish/Green-09) 131109  
 21540000 Reach= 0.000 Drg= 0 sqmi  
 Seg ID= 04-09-06 Class= A Miles= 0.00 to 0.00  
 AMBNT/STREAM/RMP

INDEX 1311143  
 MILES 0018.30

DATE		8	10	25	60	80	95	300	301	400	410
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	COLOR	CNDUCTVY	DO	DO	PH	TALK
TO	TIME	IDENT.	TEMP	PRESSURE	FLOW	PT-CO	LAB	25C	SATUR	CACO3	
	FEET	NUMBER	CENT	MM OF HG	CFS	UNITS	UMHO	MG/L	PERCENT	SU	MG/L
93/10/20	1050	436069	11.4	772	420		96	10.1	90.6	7.30	
93/11/17	1055	476069	7.1	764	470			10.8	88.5	7.50	
93/12/21	1025	526069	3.8	775	530		86	12.4	92.1	7.40	
94/01/19	1005	36069	5.2	771	1730		62	11.9	92.2		
94/02/23	1025	86069	6.6	761			91	11.2	91.1	7.30	
94/03/23	1115	126069	4.0	761	2150		69	12.0	91.3	7.30	
94/04/20	1155	166069	10.1	762	1400		77	10.0	88.2	7.30	
94/05/18	1025	206069	13.7	766	610		118	9.3	88.5	7.40	
94/06/22	1010	256069	15.0	765	1100		64	9.3	91.1	7.40	
94/07/20	1015	296069	19.9	761	320		126	8.0	87.0		
94/08/17	1030	336069	18.5	766	290		127	8.5	89.3	7.40	
94/09/21	1025	386069	16.2	767	350		111	8.6	86.1	7.40	
DATE		440	445	530	600	610	613	615	620	625	630
FROM	DEPTH	HCO3	ION	CO3	RESIDUE	TOTAL N	NH3+NH4-	NO2-N	NO2-N	NO3-N	NO2+NO3
TO	TIME	MG/L	MG/L	CO3	TOT-NFLT	N	N TOTAL	DISS	TOTAL	TOTAL	N-TOTAL
	FEET	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
93/10/20	1050				7.0	0.41	0.030				0.279
93/11/17	1055				3.0	0.44	0.063				0.284
93/12/21	1025				4.0	0.60	0.042				0.528
94/01/19	1005				8.0	0.49	0.033				0.390
94/02/23	1025				10.0	0.84	0.045				0.632
94/03/23	1115				13.0	0.76	0.028				0.534
94/04/20	1155				8.0	0.44	0.010				0.307
94/05/18	1025				5.0	0.44	0.021				0.469
94/06/22	1010				12.0	0.24	0.010K				0.171
94/07/20	1015				13.0	0.47	0.013				0.298
94/08/17	1030				5.0	0.34	0.013				0.207
94/09/21	1025				7.0	0.38	0.012				0.267
DATE		665	671	900	902	915	925	930	935	940	945
FROM	DEPTH	PHOS-TOT	PHOS-DIS	TOT HARD	NC HARD	CALCIUM	MGNSIUM	SODIUM	PTSSIUIM	CHLORIDE	SULFATE
TO	TIME	MG/L P	MG/L P	ORTHO	CACO3	CACO3	CA,DISS	NA,DISS	K,DISS	CL	SO4-TOT
	FEET	MG/L P	MG/L P	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L

MORE DATES NEXT PAGE

DATE	FROM	TO	TIME	DEPTH	665 PHOS-TOT MG/L P	671 PHOS-DIS MG/L P	900 ORTHO CACO3 MG/L	902 TOT HARD CACO3 MG/L	915 NC HARD CA,DISS MG/L	925 CALCIUM MG,DISS MG/L	930 MGNSIUM NA,DISS MG/L	935 SODIUM K,DISS MG/L	940 PTSSIUM CL MG/L	945 CHLORIDE SO4-TOT MG/L
93/10/20	1050				0.030	0.016								
93/11/17	1055				0.023	0.015								
93/12/21	1025				0.022	0.018								
94/01/19	1005				0.018	0.021								
94/02/23	1025				0.044	0.030								
94/03/23	1115				0.034	0.035								
94/04/20	1155				0.014	0.010K								
94/05/18	1025				0.032	0.031								
94/06/22	1010				0.023	0.010K								
94/07/20	1015				0.047	0.013								
94/08/17	1030				0.042	0.018								
94/09/21	1025				0.045	0.020								
DATE	FROM	TO	TIME	DEPTH	1000 ARSENIC AS,DISS UG/L	1002 ARSENIC AS,TOT UG/L	1025 CADMIUM CD,DISS UG/L	1027 CADMIUM CD,TOT UG/L	1030 CHROMIUM CR,DISS UG/L	1034 CHROMIUM CR,TOT UG/L	1040 COPPER CU,DISS UG/L	1042 COPPER CU,TOT UG/L	1049 LEAD PB,DISS UG/L	1051 LEAD PB,TOT UG/L
DATE	FROM	TO	TIME	DEPTH	1065 NICKEL NI,DISS UG/L	1080 STRONTIUM SR,DISS UG/L	1090 ZINC ZN,DISS UG/L	1092 ZINC ZN,TOT UG/L	1094 ZINC TOT REC UG/L	1113 CADMIUM TOT REC UG/L	1114 LEAD TOT REC UG/L	1118 CHROMIUM TOT REC UG/L	1119 COPPER TOT REC UG/L	1130 LITHIUM LI,DISS UG/L
DATE	FROM	TO	TIME	DEPTH	31504 TOT COLI MFIM LES /100ML	31616 FEC COLI MFM-FCBR /100ML	71900 MERCURY HG, TOTAL UG/L	71901 MERCURY TOT REC UG/L	82079 TURBIDTY LAB NTU					
93/10/20	1050					45				2.2				
93/11/17	1055					280S				1.8				
93/12/21	1025					40				1.3				
94/01/19	1005					96S				2.7				
94/02/23	1025					820S				5.1				
94/03/23	1115					700				4.9				
94/04/20	1155					15				2.6				
94/05/18	1025					100				2.5				
94/06/22	1010					88				3.5				
94/07/20	1015					240				3.4				
94/08/17	1030					110				2.1				
94/09/21	1025					88				3.1				

09A130 3309A130 12113000 541052  
 GREEN R ABV BIG SOOS C NR AUBURN  
 47 18 05.0 122 10 23.0 2F 0 Elev= 0 ft  
 53033 Washington King Co. PACIFIC NORTHWEST  
 PUGET SOUND (Duwamish/Green-09) 131109  
 21540000 Reach= 0.000 Drg= 0 sqmi  
 Seg ID= 04-09-09 Class= A Miles= 0.00 to 0.00  
 AMBNT/STREAM

INDEX 1311143  
 MILES 0033.90

DATE		8	10	25	30	60	70	80	95	300	301
FROM	DEPTH	LAB	WATER	BAROMTRC	INCDT	STREAM	TURB	COLOR	CNDUCTVY	DO	DO
TO	TIME FEET	IDENT.	TEMP	PRESSURE	LT	FLOW	JKSN	PT-CO	LAB	SATUR	
		NUMBER	CENT	MM OF HG	C/SQCM/D	CFS	JTU	UNITS	25C UMHO	MG/L	PERCENT
93/10/20	1300	436072	10.8	769		404			70	11.5	102.1
93/11/17	1305	476072	6.9	762		484				12.1	99.0
93/12/21	1225	526072	4.8	773		730			64	13.0	99.4
94/01/19	1155	36072	4.7	769		1680			53	12.6	96.6
94/02/23	1215	86072	5.8	760		1230			70	12.2	97.3
94/03/23	1315	126072	5.2	759		2140			55	12.6	99.1
94/04/20	1345	166072	10.9	761		1240			47	11.6	104.4
94/05/18	1215	206072	13.4	764		548			72	11.4	108.1
94/06/22	1200	256072	14.3	762		1030			55	10.8	104.5
94/07/20	1220	296072	19.1	759		276			77	9.9	106.2
94/08/17	1220	336072	17.5	763		247			81	10.1	104.3
94/09/21	1215	386072	15.8	764		319			79	10.5	104.6
DATE		400	410	440	445	530	600	610	620	630	650
FROM	DEPTH	PH	T ALK	HCO3	ION	CO3	TOTAL	NH3+NH4-	NO3-N	NO2+NO3	T PO4
TO	TIME FEET	SU	CACO3	HCO3	CO3	RESIDUE	N	N TOTAL	TOTAL	N-TOTAL	PO4
		MG/L	MG/L	MG/L	MG/L	TOT-NFLT	MG/L	MG/L	MG/L	MG/L	MG/L
93/10/20	1300	7.70				2.0	0.27	0.010K		0.199	
93/11/17	1305	7.50				1.0	0.28	0.010K		0.192	
93/12/21	1225	7.60				2.0	0.51	0.011		0.452	
94/01/19	1155					4.0	0.38	0.015		0.319	
94/02/23	1215	7.90				7.0	0.83	0.026		0.629	
94/03/23	1315	7.70				9.0	0.56	0.010K		0.378	
94/04/20	1345	7.90				4.0	0.29	0.010K		0.243	
94/05/18	1215	7.80				3.0	0.24	0.016		0.343	
94/06/22	1200	7.90				4.0	0.16	0.010K		0.127	
94/07/20	1220					4.0	0.34	0.010K		0.269	
94/08/17	1220	7.80				1.0	0.29	0.010K		0.215	
94/09/21	1215	7.70				4.0	0.26	0.010K		0.191	
DATE		660	665	671	900	902	915	925	930	931	932
FROM	DEPTH	ORTHOP04	PHOS-TOT	PHOS-DIS	TOT HARD	NC HARD	CALCIUM	MGSNLIUM	SODIUM	SODIUM	PERCENT
TO	TIME FEET	PO4	MG/L	MG/L	ORTHO	CACO3	CACO3	CA,DISS	NA,DISS	ADSBTION	SODIUM %
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	RATIO	%

MORE DATES NEXT PAGE



09A190 3309A190 12107000 541110  
 GREEN RIVER AT KANASKAT  
 47 19 10.0 121 53 33.0 2F 0 Elev= 0 ft  
 53033 Washington King Co. PACIFIC NORTHWEST  
 PUGET SOUND (Duwamish/Green-09) 131109  
 21540000 Reach= 0.000 Drg= 0 sqmi  
 Seg ID= 04-09-07 Class= AA Miles= 0.00 to 0.00  
 AMBNT/STREAM/RMP

INDEX 1311143  
 MILES 0057.60

DATE		8	10	25	60	80	95	300	301	400	410
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	COLOR	CNDUCTVY	DO	DO	PH	TALK
TO	TIME FEET	IDENT.	TEMP	PRESSURE	FLOW	PT-CO	LAB @		SATUR		CACO3
		NUMBER	CENT	MM OF HG	CFS	UNITS	25C UMHO	MG/L	PERCENT	SU	MG/L
93/10/18	0805	436050	11.4	749	258		52	10.0	92.5	7.70	
93/11/15	0755	476050	6.8	740	319		68	11.3	94.9	7.40	
93/12/19	0805	526050	2.9	751	468		44	12.9	96.6	7.60	
94/01/17	0830	36050	5.5	753	1170		40	12.0	95.8		
94/02/21	0755	86050	5.4	738	546		42	12.2	99.3	7.40	
94/03/21	0735	126050	3.6	739	1500		40	12.8	99.2	7.80	
94/04/18	0730	166050	8.3	745	1130		34	11.0	95.2	7.00	
94/05/16	0730	206050	11.2	739	393		43	10.6	99.0	7.30	
94/06/20	0740	256050	11.3	746	687		43	10.6	98.1	7.90	
94/07/18	0755	296050	13.6	746	156		51	10.1	98.4		
94/08/15	0755	336050	15.2	747	124		60	9.8	98.6	7.30	
94/09/19	0750	386050	14.4	748	154		57	9.8	96.9	7.40	

DATE		440	445	530	600	610	613	615	620	630	660
FROM	DEPTH	HCO3	ION	CO3	RESIDUE	TOTAL N	NH3+NH4+	NO2-N	NO2-N	NO3-N	NO2+NO3
TO	TIME FEET	MG/L	MG/L	MG/L	TOT-NFLT	N	N TOTAL	DISS	TOTAL	TOTAL	ORTHOP04
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	PO4 MG/L
93/10/18	0805				2.0	0.14	0.010K				0.061
93/11/15	0755				1.0	0.11	0.010K				0.054
93/12/19	0805				1.0	0.31	0.010K				0.296
94/01/17	0830				5.0	0.23	0.010K				0.204
94/02/21	0755				1.0	0.30	0.010				0.235
94/03/21	0735				3.0	0.24	0.010K				0.177
94/04/18	0730				2.0	0.11	0.013				0.101
94/05/16	0730				2.0	0.06	0.011				0.074
94/06/20	0740				2.0	0.13	0.010K				0.080
94/07/18	0755				1.0	0.12	0.010K				0.058
94/08/15	0755				1.0	0.52	0.016				0.077
94/09/19	0750				2.0	0.13	0.010K				0.068

DATE		665	671	900	902	915	925	930	935	940	945
FROM	DEPTH	PHOS-TOT	PHOS-DIS	TOT HARD	NC HARD	CALCIUM	MGNSIUM	SODIUM	PTSSUIM	CHLORIDE	SULFATE
TO	TIME FEET	MG/L P	MG/L P	CACO3	CACO3	CA,DISS	MG/L	MG/L	K,DISS	CL	SO4-TOT MG/L
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L

MORE DATES NEXT PAGE

DATE	FROM	TO	TIME	DEPTH	665 PHOS-TOT MG/L P	671 PHOS-DIS MG/L P	900 ORTHO CACO <sub>3</sub> MG/L	902 TOT HARD CACO <sub>3</sub> MG/L	915 NC HARD MG/L	CALCIUM CA,DISS MG/L	925 MGNSIUM MG,DISS MG/L	930 SODIUM NA,DISS MG/L	935 PTSSIUM K,DISS MG/L	940 CHLORIDE CL MG/L	945 SULFATE SO <sub>4</sub> -TOT MG/L
93/10/18			0805		0.010K	0.010K									
93/11/15			0755		0.010K	0.010K									
93/12/19			0805		0.011	0.010K									
94/01/17			0830		0.010K	0.010K									
94/02/21			0755		0.010K	0.010K									
94/03/21			0735		0.010K	0.010K									
94/04/18			0730		0.010K	0.010K									
94/05/16			0730		0.010K	0.010K									
94/06/20			0740		0.010K	0.010K									
94/07/18			0755		0.010K	0.010K									
94/08/15			0755		0.010K	0.010K									
94/09/19			0750		0.010K	0.010K									

DATE	FROM	TO	TIME	DEPTH	950 FLUORIDE F,DISS MG/L	955 SILICA DISSOLVED MG/L	1020 BORON B,DISS UG/L	1045 IRON FE,TOT UG/L	31504 TOT COLI MFIM LES /100ML	31505 TOT COLI MPN CONF /100ML	31616 FEC COLI MFM-FCBR /100ML	70300 RESIDUE DISS-180 C MG/L	82079 TURBIDTY LAB NTU	
93/10/18			0805								3K		0.7	
93/11/15			0755								4		0.9	
93/12/19			0805								3		0.5	
94/01/17			0830								3		2.5	
94/02/21			0755								3		0.7	
94/03/21			0735								5		1.3	
94/04/18			0730								14		1.0	
94/05/16			0730								14		1.0	
94/06/20			0740								6		0.6	
94/07/18			0755								9		0.7	
94/08/15			0755								5		0.8	
94/09/19			0750								4		1.1	

09B090 3309B090 12112600 541053  
 BIG SOOS CREEK NEAR AUBURN  
 47 18 35.0 122 10 05.0 2F 0 Elev= 0 ft  
 53033 Washington King Co. PACIFIC NORTHWEST  
 PUGET SOUND (Duwamish/Green-09) 131109  
 21540000 Reach= 0.000 Drg= 0 sqmi  
 Seg ID= 04-09-06 Class= A Miles= 0.00 to 0.00  
 AMBNT/STREAM

INDEX 1311143 000250  
 MILES 0036.30 0001.60

DATE		8	10	25	60	70	80	95	300	301	400
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	TURB	COLOR	CNDUCTVY	DO	DO	PH
TO	TIME	IDENT.	TEMP	PRESSURE	FLOW	JKSN	PT-CO	LAB	SATUR		
	FEET	NUMBER	CENT	MM OF HG	CFS	JTU	UNITS	25C UMHO	MG/L	PERCENT	SU
93/10/20	1320	436073	9.9	770	28			120	11.4	99.1	7.90
93/11/17	1320	476073	7.2	762	35				11.5	94.7	7.60
93/12/21	1240	526073	4.4	774	58			124	12.9	97.5	7.60
94/01/19	1215	36073	5.7	769	80			128	12.3	96.7	
94/02/23	1240	86073	5.9	761	165			110	11.8	94.3	8.10
94/03/23	1330	126073	6.5	758	198			116	12.0	97.6	7.80
94/04/20	1355	166073	12.2	760	109			106	10.7	99.3	8.00
94/05/18	1230	206073	13.7	763	64			127	10.8	103.1	8.00
94/06/22	1220	256073	15.2	762	44			128	10.3	101.7	7.60
94/07/20	1235	296073	17.6	757	29			124	10.6	110.7	
94/08/17	1240	336073	18.4	763	23			127	10.9	114.7	8.00
94/09/21	1230	386073	14.0	765	22			136	11.0	105.5	7.90

DATE		410	440	445	530	600	610	615	620	625	630
FROM	DEPTH	TALK	HCO3	ION	CO3	TOTAL	N	NH3+NH4-	NO2-N	NO3-N	NO2+NO3
TO	TIME	CACO3	HCO3	CO3	TOT-NFLT	MG/L	N	N TOTAL	TOTAL	TOTAL	N-TOTAL
	FEET	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
93/10/20	1320				2.0	1.05	0.010				0.925
93/11/17	1320				3.0	0.96	0.013				0.842
93/12/21	1240				4.0	1.22	0.013				1.180
94/01/19	1215				4.0	1.58	0.021				1.270
94/02/23	1240				12.0	1.59	0.014				1.340
94/03/23	1330				5.0	1.26	0.010K				1.120
94/04/20	1355				4.0	1.13	0.010K				1.090
94/05/18	1230				4.0	1.51	0.012				1.090
94/06/22	1220				3.0	1.02	0.010K				0.999
94/07/20	1235				4.0	1.17	0.010K				1.010
94/08/17	1240				3.0	1.00	0.010K				0.918
94/09/21	1230				2.0	0.99	0.010K				0.913

DATE		660	665	671	900	902	915	925	930	935	940
FROM	DEPTH	ORTHOP4	PHOS-TOT	PHOS-DIS	TOT HARD	NC HARD	CALCIUM	MGSNLIUM	SODIUM	PTSSIUIM	CHLORIDE
TO	TIME	PO4	MG/L P	MG/L P	CACO3	CACO3	CA,DISS	MG,DISS	NA,DISS	K,DISS	CL
	FEET	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L

MORE DATES NEXT PAGE

DATE	FROM	TO	DEPTH	TIME	FEET	660 ORTHOP04 PO4 MG/L	665 PHOS-TOT MG/L P	671 PHOS-DIS MG/L P	900 ORTHO MG/L	902 TOT HARD CACO3 MG/L	915 NC HARD CACO3 MG/L	925 CALCIUM CA,DISS MG/L	930 MGNSIUM MG,DISS MG/L	935 SODIUM NA,DISS MG/L	PTSSIUM K,DISS MG/L	940 CHLORIDE CL MG/L
93/10/20					1320		0.020	0.019								
93/11/17					1320		0.027	0.019								
93/12/21					1240		0.029	0.018								
94/01/19					1215		0.018	0.018								
94/02/23					1240		0.029	0.014								
94/03/23					1330		0.019	0.010K								
94/04/20					1355		0.015	0.010K								
94/05/18					1230		0.014									
94/06/22					1220		0.016	0.011								
94/07/20					1235		0.012	0.012								
94/08/17					1240		0.025	0.014								
94/09/21					1230		0.023	0.019								

DATE	FROM	TO	DEPTH	TIME	FEET	945 SULFATE SO4-TOT MG/L	950 FLUORIDE F,DISS MG/L	955 SILICA DISOLVED MG/L	1020 BORON B,DISS UG/L	1045 IRON FE,TOT UG/L	31504 TOT COLI MFIM LES /100ML	31505 TOT COLI MPN CONF /100ML	31616 FEC COLI MFM-FCBR /100ML	70300 RESIDUE DISS-180 C MG/L	82079 TURBDITY LAB NTU
93/10/20					1320								22		0.9
93/11/17					1320								17		1.4
93/12/21					1240								9		0.8
94/01/19					1215								12		1.5
94/02/23					1240								210		4.9
94/03/23					1330								11		2.0
94/04/20					1355								13		1.6
94/05/18					1230								65		1.6
94/06/22					1220								29		1.1
94/07/20					1235								150		1.0
94/08/17					1240								33		0.8
94/09/21					1230								61		1.0

09C070 3309C070  
 DES MOINES CREEK NEAR MOUTH  
 47 24 21.0 122 19 35.0 2F 0 Elev= 0 ft  
 53033 Washington King Co. PACIFIC NORTHWEST  
 PUGET SOUND (Duwamish/Green-09) 131109  
 21540000 Reach= 0.000 Drg= 0 sqmi  
 Seg ID= 04-09-99 Class= A Miles= 0.00 to 0.00  
 AMBNT/STREAM

INDEX 1311151  
 MILES 0000.10

DATE		8	10	25	60	80	95	300	301	400	530
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	COLOR	CNDUCTVY	DO	DO	PH	RESIDUE
TO	TIME FEET	IDENT.	TEMP	PRESSURE	FLOW	PT-CO	LAB	25C UMHO	SATUR	TOT-NFLT	TOT-MG/L
93/10/20	1200	436071	10.5	772				215	10.9	95.8	8.00
93/11/17	1215	476071	7.9	765					11.3	94.3	8.00
93/12/21	1125	526071	5.7	774				197	12.2	95.3	7.80
94/01/19	1110	36071	7.0	771				221	11.9	96.4	2.0
94/02/23	1140	86071	6.9	762				162	11.5	94.1	8.20
94/03/23	1230	126071	7.3	762				174	12.3	101.6	4.0
94/04/20	1305	166071	12.0	763				190	11.6	106.7	8.40
94/05/18	1130	206071	13.3	766				213	10.2	96.2	8.30
94/06/22	1120	256071	14.7	765				207	9.8	95.4	2.0
94/07/20	1120	296071	16.8	761				224	9.4	96.1	8.0
94/08/17	1140	336071	15.7	766				236	10.0	99.3	8.00
94/09/21	1135	386071	15.7	767				236	9.8	97.2	1.0K
<hr/>											
DATE		600	610	615	620	630	665	671	31504	31616	38260
FROM	DEPTH	TOTAL N	NH3+NH4-	NO2-N	NO3-N	NO2+NO3	PHOS-TOT	PHOS-DIS	TOT COLI	FEC COLI	MBAS
TO	TIME FEET	MG/L	MG/L	N TOTAL	TOTAL	N-TOTAL	ORTHO	MFIM LES	MFM-FCBR	/100ML	MG/L
93/10/20	1200	1.03	0.010K				0.868	0.051	0.048		45
93/11/17	1215	0.93	0.010K				0.771	0.047	0.038		52
93/12/21	1125	1.25	0.073				0.941	0.043	0.032		12
94/01/19	1110	1.20	0.032				0.999	0.040	0.038		12
94/02/23	1140	1.37	0.041				0.904	0.037	0.019		110
94/03/23	1230	1.12	0.010K				0.832	0.031	0.017		31
94/04/20	1305	0.81	0.010K				0.626	0.030	0.012		21
94/05/18	1130	0.78	0.015				0.762	0.062	0.064		60
94/06/22	1120	0.80	0.010K				0.743	0.034	0.056		100
94/07/20	1120	1.23	0.010K				1.100	0.038	0.061		480
94/08/17	1140	0.85	0.010K				0.751	0.077	0.065		150
94/09/21	1135	0.90	0.010K				0.807	0.084	0.066		74

82079

DATE	TURBIDTY		
FROM	DEPTH	LAB	
TO	TIME	FEET	NTU

MORE DATES NEXT PAGE

82079

DATE	TURBIDITY	
FROM	DEPTH	LAB
TO	TIME	FEET NTU

93/10/20	1200	0.7
93/11/17	1215	0.7
93/12/21	1125	1.3
94/01/19	1110	1.1
94/02/23	1140	3.7
94/03/23	1230	2.6
94/04/20	1305	1.2
94/05/18	1130	1.6
94/06/22	1120	1.0
94/07/20	1120	2.0
94/08/17	1140	0.7
94/09/21	1135	0.8

09E070 3309E070  
 MILL CREEK -- KENT -- AT ORILLIA  
 47 26 21.0 122 14 23.0 1F 0 Elev= 0 ft  
 53033 Washington King Co. PACIFIC NORTHWEST  
 PUGET SOUND (Duwamish/Green-09) 131109  
 21540000 Reach= 0.000 Drg= 0 sqmi  
 Seg ID= 04-09-09 Class= A Miles= 0.00 to 0.00  
 AMBNT/STREAM/RMP

INDEX 1311143 000050 00030  
 MILES 0011.00 0000.80 003.14

DATE		8	10	25	60	80	95	300	301	340	400
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	COLOR	CNDUCTVY	DO	DO	COD	PH
TO	TIME	DEPTH	IDENT.	TEMP	PRESSURE	FLOW	PT-CO	LAB	SATUR	HI LEVEL	
		NUMBER		CENT	MM OF HG	CFS	UNITS	25C UMHO	MG/L	PERCENT	MG/L
93/10/20	1115	436070		11.0	772			225	3.4	30.2	7.10
93/11/17	1120	476070		7.0	765				5.7	46.5	7.10
93/12/21	1050	526070		4.3	774			239	6.7	50.5	7.10
94/01/19	1030	36070		6.5	772			267	5.0	40.0	
94/02/23	1100	86070		6.4	761			109	8.4	67.9	7.10
94/03/23	1145	126070		6.7	762	17		167	7.4	60.2	7.00
94/04/20	1220	166070		13.4	763	5		280	4.6	43.7	7.00
94/05/18	1040	206070		15.2	766	4		271	3.3	32.4	7.20
94/06/22	1035	256070		18.2	765	2		264	3.2	33.5	6.90
94/07/20	1045	296070		20.2	761	1		309	1.5	16.4	
94/08/17	1050	336070		18.4	766	1		295	1.5	15.7	7.20
94/09/21	1050	386070		16.3	767	1		259	2.2	22.1	7.00

DATE		530	600	610	613	615	620	630	665	671	900
FROM	DEPTH	RESIDUE	TOTAL N	NH3+NH4-	NO2-N	NO2-N	NO3-N	NO2+NO3	PHOS-TOT	PHOS-DIS	TOT HARD
TO	TIME	FEET	TOT-NFLT	MG/L	DISS	TOTAL	TOTAL	N-TOTAL	ORTHO	CACO3	MG/L
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L P	MG/L P	MG/L
93/10/20	1115	8.0	1.22	0.295				0.521	0.125	0.059	
93/11/17	1120	6.0	1.50	0.288				0.656	0.101	0.036	
93/12/21	1050	20.0	1.33	0.445				0.522	0.203	0.039	
94/01/19	1030	12.0	1.44	0.491				0.495	0.188	0.044	
94/02/23	1100	12.0	0.84	0.125				0.375	0.106	0.039	
94/03/23	1145	6.0	1.05	0.139				0.411	0.131	0.063	
94/04/20	1220	11.0	1.07	0.330				0.293	0.220	0.043	
94/05/18	1040	4.0	1.63	0.383				0.405	0.195	0.054	
94/06/22	1035	8.0	0.85	0.085				0.314	0.163	0.050	
94/07/20	1045	4.0	0.78	0.093				0.347	0.095	0.020	
94/08/17	1050	2.0	0.81	0.061				0.372	0.083	0.018	
94/09/21	1050	3.0	0.75	0.029				0.482	0.092	0.022	

DATE		940	1025	1027	1030	1034	1040	1042	1049	1051	1065
FROM	DEPTH	CHLORIDE	CADMUM	CADMUM	CHROMIUM	CHROMIUM	COPPER	COPPER	LEAD	LEAD	NICKEL
TO	TIME	CL	CD,DISS	CD,TOT	CR,DISS	CR,TOT	CU,DISS	CU,TOT	PB,DISS	PB,TOT	NI,DISS
		MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L

MORE DATES NEXT PAGE

Station:21540000 09E070

MILL CREEK -- KENT -- AT ORILLIA

PCSTORET -- 05-JUN-95

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DATE	FROM	TO	DEPTH	TIME	FEET	940 CHLORIDE CL MG/L	1025 CADMIUM CD,DISS UG/L	1027 CADMIUM CD,TOT UG/L	1030 CHROMIUM CR,DISS UG/L	1034 CHROMIUM CR,TOT UG/L	1040 COPPER CU,DISS UG/L	1042 COPPER CU,TOT UG/L	1049 LEAD PB,DISS UG/L	1051 LEAD PB,TOT UG/L	1065 NICKEL NI,DISS UG/L
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DATE	FROM	TO	DEPTH	TIME	FEET	1067 NICKEL NI,TOTAL UG/L	1090 ZINC ZN,DISS UG/L	1092 ZINC ZN,TOT UG/L	1094 ZINC TOT REC UG/L	1113 CADMIUM TOT REC UG/L	1114 LEAD TOT REC UG/L	1118 CHROMIUM TOT REC UG/L	1119 COPPER TOT REC UG/L	31616 FEC COLI MFM-FCBR /100ML	32101 DICLBRMT TOTUG/L
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93/10/20	1115													86
93/11/17	1120													390
93/12/21	1050													130
94/01/19	1030													69
94/02/23	1100													400S
94/03/23	1145													100
94/04/20	1220													230
94/05/18	1040													200
94/06/22	1035													80
94/07/20	1045													380
94/08/17	1050													26
94/09/21	1050													32

DATE	FROM	TO	DEPTH	TIME	FEET	32102 CARBNET TOTUG/L	32104 BROMOFRM UG/L	32105 CLDIBRMT TOTUG/L	32106 CHLRFORM TOTUG/L	34010 TOLUENE TOTUG/L	34030 BENZENE TOTUG/L	34210 ACROLEIN TOTWUG/L	34215 ACRYLONI TOTWUG/L	34301 CHLOROB NZENE TOTWUG/L	34311 CHLOROET HANE TOTWUG/L
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DATE	FROM	TO	DEPTH	TIME	FEET	34371 ETHYLBEN ZENE TOTWUG/L	34413 METHYLBR OMIDE TOTWUG/L	34418 METHYLCH LORIDE TOTWUG/L	34423 METHYLEN ECHLORID TOTWUG/L	34475 TETRACHL OROETHYL TOTWUG/L	34488 TRICHLOR OFLUOROM TOTWUG/L	34496 11DICHLO ROETHANE TOTWUG/L	34501 11DICHLO ROETHYLE TOTWUG/L	34506 111TRICH LOROETHA TOTWUG/L	34511 112TRICH LOROETHA TOTWUG/L
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DATE	FROM	TO	DEPTH	TIME	FEET	34516 1122TETR ACHLOROE TOTWUG/L	34531 12DICHLO ROETHANE TOTWUG/L	34541 12DICHLO ROPROPAN TOTWUG/L	34546 12DICHLO ROETHYLE TOTWUG/L	34561 13DICHLO ROPROPEN TOTWUG/L	34576 2CHLOROE THYLVINY TOTWUG/L	34668 DICHLORO DIFLUORO TOTWUG/L	39175 VINYLCHL ORIDE TOT UG/L	39180 TRICHLOR ETHYLENE TOT UG/L	71900 MERCURY HG, TOTAL UG/L
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DATE	FROM	TO	DEPTH	TIME	FEET	MERCURY	TURBIDTY
						TOT REC UG/L	LAB NTU

93/10/20	1115					17.0	
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MORE DATES NEXT PAGE

DATE	DEPTH	MERCURY	TURBIDTY
FROM	TO	TOT REC	LAB
	TIME	FEET	UG/L
			NTU
93/11/17	1120		12.0
93/12/21	1050		21.0
94/01/19	1030		28.0
94/02/23	1100		13.0
94/03/23	1145		12.0
94/04/20	1220		25.0
94/05/18	1040		19.0
94/06/22	1035		20.0
94/07/20	1045		13.0
94/08/17	1050		11.0
94/09/21	1050		15.0

DATE		610	613	625	630	665	671	680	760	900	940
FROM	DEPTH	NH3+NH4-	NO2-N	TOT KJEL	NO2+NO3	PHOS-TOT	PHOS-DIS	T ORG C	SWL	TOT HARD	CHLORIDE
TO	TIME FEET	N TOTAL	DISS	N	N-TOTAL		ORTHO	C	PBI	CACO3	CL
93/10/11	1310	0.026			0.126	0.026	0.011				
93/11/07	1440	0.013			0.186	0.025	0.015				
93/12/13	1535	0.010K			0.271	0.024					
94/01/09	1440	0.015			0.345	0.035	0.019				
94/02/14	1510	0.010K			0.276	0.018	0.014				
94/03/14	1305	0.010			0.271	0.020	0.010K				
94/04/11	1530	0.010K			0.176	0.027	0.010K				
94/05/09	1315	0.017			0.107	0.023	0.011				62
94/06/13	1215	0.010K			0.060	0.010K	0.010K				
94/07/11	1300	0.012			0.021	0.019	0.010K				
94/08/08	1620	0.015			0.047	0.012	0.010K				
94/09/12	1220	0.010K			0.010K	0.014	0.010K				
<hr/>											
DATE		945	978	1025	1040	1045	1049	1065	1090	1094	1113
FROM	DEPTH	SULFATE	ARSENIC	CADMIUM	COPPER	IRON	LEAD	NICKEL	ZINC	ZINC	CADMUM
TO	TIME FEET	SO4-TOT	TOT REC	CD,DISS	CU,DISS	FE,TOT	PB,DISS	NI,DISS	ZN,DISS	TOT REC	TOT REC
		MG/L	UG/L	UG/L	UG/L						
94/05/09	1315		30.0U	0.04U	1.0		0.0P	1U	1P		
94/07/11	1300		30.0U	0.04P	1.1		0.2P	1U	2P		
94/09/12	1220		30.0U	0.04U	1.0		0.0U	1U	1U		
<hr/>											
DATE		1114	1118	1119	31501	31616	31625	70300	71900	82079	
FROM	DEPTH	LEAD	CHROMIUM	COPPER	TOT COLI	FEC COLI	FEC COLI	RESIDUE	MERCURY	TURBDITY	
TO	TIME FEET	TOT REC	TOT REC	TOT REC	MFIMENDO	MFCBR	M-FCAGAD	DISS-180	HG, TOTAL	LAB	
		UG/L	UG/L	UG/L	/100ML	/100ML	/100 ML	C MG/L	UG/L	NTU	
93/10/11	1310					17					2.4
93/11/07	1440					16					2.3
94/01/09	1440					4					5.1
94/02/14	1510					1K					1.1
94/03/14	1305					3					1.4
94/04/11	1530					1					2.7
94/05/09	1315		5.0U			9			0.00P		3.7
94/06/13	1215					6					2.6
94/07/11	1300		5.0U			1U			0.00U		3.4
94/08/08	1620					2					3.9
94/09/12	1220		5.0U			1			0.00P		1.7

09H090 3309H090

Black R @ Renton

47 28 30.0 122 14 16.0 2F000 Elev= 0 ft

53033 Washington King Co. PACIFIC NORTHWEST

PUGET SOUND (Duwamish/Green-09) 131109

21540000 Reach=17110013004 0.000 Drg= 0 sqmi

AMBN/T/STREAM

INDEX 1311143 000050

MILES 0011.00 0000.60

DATE		8	10	25	95	300	301	400	530	600	610
FROM	DEPTH	LAB	WATER	BAROMTRC	CNDUCTVY	DO	DO	PH	RESIDUE	TOTAL N	NH3+NH4-
TO	TIME FEET	IDENT. NUMBER	TEMP CENT	PRESSURE MM OF HG	LAB @ 25C UMHO	MG/L	SATUR PERCENT	SU	TOT-NFLT MG/L	N MG/L	N TOTAL MG/L
93/10/20	1010	436068	10.9	773	354	7.1	63.0	7.40	9.0	0.93	0.171
93/11/17	1025	476068	7.2	764		7.7	63.2	7.30	8.0	1.13	0.109
93/12/21	1000	526068	4.8	775	259	7.8	59.5	7.40	16.0	1.25	0.343
94/01/19	0930	36068	6.8	771	290	6.3	50.8		15.0	1.35	0.363
94/02/23	1000	86068	7.0	761	120	9.2	75.5	7.10	18.0	1.00	0.117
94/03/23	1030	126068	6.4	763	194	8.4	67.8	7.00	9.0	0.98	0.147
94/04/20	1000	166068	11.8	766	283	6.3	57.5	7.10	5.0	1.02	0.233
94/05/18	0955	206068	14.0	767	288	4.9	46.9	7.20	4.0	0.99	0.297
94/06/22	0940	256068	17.7	765	305	5.6	58.0	7.00	4.0	0.76	0.040
94/07/20	0945	296068	20.6	762	319	9.1	100.2		17.0	0.51	0.016
94/08/17	1000	336068	18.0	767	331	8.2	85.2	7.10	8.0	0.63	0.044
94/09/21	0955	386068	16.3	767	326	6.8	68.2	7.20	5.0	0.65	0.048

DATE		630	665	671	31616	82079
FROM	DEPTH	NO2+N03	PHOS-TOT	PHOS-DIS	FEC COLI	TURBIDTY
TO	TIME FEET	N-TOTAL MG/L	MG/L P	ORTHO MG/L P	MFM-FCBR /100ML	LAB NTU
93/10/20	1010	0.526	0.119	0.052	490	7.9
93/11/17	1025	0.716	0.082	0.027	410	11.0
93/12/21	1000	0.611	0.143	0.038	170	14.0
94/01/19	0930	0.546	0.149	0.047	220	24.0
94/02/23	1000	0.563	0.088	0.023	190	21.0
94/03/23	1030	0.583	0.101	0.048	350	13.0
94/04/20	1000	0.327	0.175	0.040	190	23.0
94/05/18	0955	0.420	0.165	0.060	230	15.0
94/06/22	0940	0.430	0.139	0.025	80	14.0
94/07/20	0945	0.201	0.097	0.011	330	12.0
94/08/17	1000	0.278	0.081	0.015	440	12.0
94/09/21	0955	0.379	0.087	0.018	1000	13.0

10A070 5310A070 12101475

PUYALLUP R AT MERIDIAN ST BRIDGE

47 12 10.0 122 17 33.0 2F 0 Elev= 0 ft

53053 Washington Pierce Co. PACIFIC NORTHWEST

PUGET SOUND (Puyallup/White-10) 131110

21540000 Reach= 0.000 Drg= 0 sqmi

Seg ID= 05-10-03 Class= A Miles= 0.00 to 0.00

AMBN/TSTREAM/RMP

INDEX 1311160

MILES 0008.30

DATE		8	10	25	60	80	95	300	301	340	400
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	COLOR	CNDUCTVY	DO	DO	COD	PH
TO	TIME	IDENT.	TEMP	PRESSURE	FLOW	PT-CO	LAB @		SATUR	HI LEVEL	
	FEET	NUMBER	CENT	MM OF HG	CFS	UNITS	25C UMHO	MG/L	PERCENT	MG/L	SU
93/10/27	1140	446122	10.5	772	2000		71	10.9	95.8		7.30
93/11/22	1440	486122	5.1	765	2060		81	12.4	96.6		7.60
93/12/21	1215	526122	3.5	771	2420		60	12.7	94.1		7.40
94/01/26	1200	46122	5.6	770	2140		72	12.2	95.5		7.50
94/02/23	1035	86122	4.1	762	2850		85	11.9	90.6		7.40
94/03/30	0950	136122	7.7	768	3390		66	11.5	95.1		7.40
94/04/27	1120	176122	8.6	770	2750		64	11.2	94.5		7.50
94/05/25	1140	216122	13.6	764	2650		57	10.3	98.0		7.70
94/06/29	1030	266122	14.8	767	2570		59	9.7	94.3		7.40
94/07/27	1110	306122	15.8	762	2370		47	9.5	94.9		7.10
94/08/24	1030	346122	14.2	766	1370		70	10.2	98.1		7.60
94/09/28	1050	396122	12.8	760	1080		89	10.1	95.0		7.30

DATE		410	440	530	600	610	613	615	620	625	630
FROM	DEPTH	T ALK	HCO3	ION	RESIDUE	TOTAL N	NH3+NH4-	NO2-N	NO2-N	NO3-N	NO2+NO3
TO	TIME	CACO3	HCO3	TOT-NFLT	MG/L	MG/L	N TOTAL	DISS	TOTAL	TOT KJEL	N-TOTAL
	FEET	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
93/10/27	1140				16.0	0.19	0.017				0.089
93/11/22	1440				76.0	0.57	0.100				0.226
93/12/21	1215				9.0	0.38	0.033				0.277
94/01/26	1200				8.0	0.57	0.039				0.414
94/02/23	1035				51.0	0.75	0.039				0.468
94/03/30	0950				4.0	0.36	0.010				0.220
94/04/27	1120				11.0	0.24	0.016				0.162
94/05/25	1140				39.0	0.14	0.010K				0.048
94/06/29	1030				32.0	0.16	0.053				0.064
94/07/27	1110				288.0	0.11	0.010K				0.062
94/08/24	1030				124.0	0.10J	0.010K				0.068J
94/09/28	1050				350.0	0.38	0.024				0.129

DATE		665	671	900	902	915	925	930	935	940	945
FROM	DEPTH	PHOS-TOT	PHOS-DIS	TOT HARD	NC HARD	CALCIUM	MGSNIIUM	SODIUM	PTSSIIUM	CHLORIDE	SULFATE
TO	TIME	MG/L P	MG/L P	CACO3	CACO3	CA,DISS	MG,DISS	NA,DISS	K,DISS	CL	SO4-TOT
	FEET	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L

MORE DATES NEXT PAGE

DATE	FROM	TO	DEPTH	TIME	FEET	665 PHOS-TOT MG/L P	671 PHOS-DIS MG/L P	900 ORTHO MG/L	902 CACO3 MG/L	915 NC HARD MG/L	925 CALCIUM MG/DISS MG/L	930 MGNSIUM NA,DISS MG/L	935 SODIUM K,DISS MG/L	940 PTSSIUM CL MG/L	945 CHLORIDE SO4-TOT MG/L
93/10/27	1140					0.034		0.017							
93/11/22	1440					0.094		0.030							
93/12/21	1215					0.025		0.014							
94/01/26	1200					0.033		0.023							
94/02/23	1035					0.049		0.022							
94/03/30	0950					0.010K		0.010K							
94/04/27	1120					0.029		0.010K							
94/05/25	1140					0.034		0.010K	24E						
94/06/29	1030					0.039		0.010K							
94/07/27	1110					0.230		0.010K							
94/08/24	1030					0.141J		0.020							
94/09/28	1050					0.265		0.023							
DATE	FROM	TO	DEPTH	TIME	FEET	978 ARSENIC TOT REC UG/L	1025 CADMIUM CD,DISS UG/L	1040 COPPER CU,DISS UG/L	1049 LEAD PB,DISS UG/L	1065 NICKEL NI,DISS UG/L	1090 ZINC ZN,DISS UG/L	1094 ZINC TOT REC UG/L	1113 CADMIUM TOT REC UG/L	1114 LEAD TOT REC UG/L	1118 CHROMIUM TOT REC UG/L
94/05/25	1140					30.0U	0.04U	0.4	0.0U	1U	2J				5.0U
94/07/27	1110					30.0U	0.04U	0.5	0.0U	1U	1U				5.0U
94/09/28	1050					30.0U	0.04U	0.5	0.0U	1U	1U				5.0U
DATE	FROM	TO	DEPTH	TIME	FEET	1119 COPPER TOT REC UG/L	31504 TOT COLI MFIM LES /100ML	31616 FEC COLI MFM-FCBR /100ML	71900 MERCURY HG, TOTAL UG/L	82079 TURBIDTY LAB NTU					
93/10/27	1140							26		14.0					
93/11/22	1440							220		21.0					
93/12/21	1215							53		2.6					
94/01/26	1200							57		2.6					
94/02/23	1035							630		5.5					
94/03/30	0950							56		2.2					
94/04/27	1120							69		4.7					
94/05/25	1140							180	0.00P	13.0					
94/06/29	1030							770		25.0					
94/07/27	1110							240	0.01P	160.0					
94/08/24	1030							84		85.0					
94/09/28	1050							92	0.02	200.0					

11A070 6711A070 12090240

## NISQUALLY RIVER AT NISQUALLY

47 03 43.0 122 41 42.0 2F 0 Elev= 0 ft

53067 Washington Thurston Co. PACIFIC NORTHWEST

PUGET SOUND (Nisqually-11) 131111

21540000 Reach= 0.000 Drg= 0 sqmi

Seg ID= 06-11-01 Class= A Miles= 0.00 to 0.00

AMBN/T/STREAM/RMP

INDEX 1311161 000170

MILES 0020.60 0003.40

DATE		8	10	25	60	80	95	300	301	340	400
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	COLOR	CONDUTCY	DO	DO	COD	PH
TO	TIME	IDENT.	TEMP	PRESSURE	FLOW	PT-CO	LAB	25C UMHO	SATUR	H I LEVEL	
		NUMBER	CENT	MM OF HG	CFS	UNITS		MG/L	PERCENT	MG/L	SU
93/10/27	1235	446123	11.2	773	1170		66	11.4	101.6		7.30
93/11/22	1535	486123	7.2	765	1200		71	11.9	97.7		6.70
93/12/21	1405	526123	5.1	774	1510		53	12.5	96.2		7.40
94/01/26	1350	46123	5.9	771	1700		60	12.4	97.7		7.40
94/02/23	1145	86123	4.5	764	1880		68	12.2	93.7		7.20
94/03/30	1050	136123	6.4	769	2450		63	12.0	96.0		7.40
94/04/27	1200	176123	6.6	770	2500		58	11.7	94.0		7.50
94/05/25	1310	216123	11.9	764	1550		60	11.2	102.7		7.40
94/06/29	1130	266123	13.7	768	1480		63	10.2	96.7		7.40
94/07/27	1300	306123	16.1	762	1470		54	10.5	105.6		7.50
94/08/24	1130	346123	15.4	766	820		69	10.1	99.5		7.50
94/09/28	1250	396123	15.4	760	740		74	10.3	102.4		7.50
<hr/>											
DATE		405	410	440	445	530	600	605	610	613	615
FROM	DEPTH	CO2	T ALK	HCO3	ION	CO3	ION	RESIDUE	TOTAL N	ORG N	NH3+NH4-
TO	TIME	FEET	MG/L	CACO3	HCO3	CO3	CO3	TOT-NFLT	N	N	N TOTAL
			MG/L      MG/L	DISS							
93/10/27	1235						5.0	0.20		0.010K	
93/11/22	1535						6.0	0.22		0.012	
93/12/21	1405						31.0	0.49		0.033	
94/01/26	1350						5.0	0.49		0.017	
94/02/23	1145						7.0	0.48		0.012	
94/03/30	1050						7.0	0.40		0.010K	
94/04/27	1200						5.0	0.37		0.011	
94/05/25	1310						3.0	0.32		0.010K	
94/06/29	1130						28.0	0.23		0.010K	
94/07/27	1300						4.0	0.15		0.010K	
94/08/24	1130						40.0	0.25J		0.010K	
94/09/28	1250						17.0	0.64		0.028	
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DATE		620	625	630	665	671	900	902	915	925	930
FROM	DEPTH	NO3-N	TOT KJEL	NO2+NO3	PHOS-TOT	PHOS-DIS	TOT HARD	NC HARD	CALCIUM	MGSNIUM	SODIUM
TO	TIME	TOTAL	N	N-TOTAL	PHOS-TOT	ORTHO	CACO3	CACO3	CA,DISS	MG,DISS	NA,DISS
		MG/L	MG/L	MG/L	MG/L P	MG/L P	MG/L	MG/L	MG/L	MG/L	MG/L

MORE DATES NEXT PAGE

DATE		620	625	630	665	671	900	902	915	925	930
FROM	DEPTH	NO3-N	TOT KJEL	NO2+NO3	PHOS-TOT	PHOS-DIS	TOT HARD	NC HARD	CALCIUM	MGNSIUM	SODIUM
TO	TIME FEET	TOTAL MG/L	MG/L	N-TOTAL MG/L	MG/L P	ORTHO MG/L P	CACO3 MG/L	CACO3 MG/L	CA,DISS MG/L	MG,DISS MG/L	NA,DISS MG/L
93/10/27	1235			0.106	0.013	0.010K					
93/11/22	1535			0.130	0.020	0.017					
93/12/21	1405			0.380	0.027	0.010K					
94/01/26	1350			0.351	0.017	0.010K					
94/02/23	1145			0.385	0.026	0.010K					
94/03/30	1050			0.331	0.010K	0.010K					
94/04/27	1200			0.270	0.016	0.010K					
94/05/25	1310			0.240	0.010K	0.010K					
94/06/29	1130			0.155	0.010K	0.010K					
94/07/27	1300			0.085	0.011	0.010K					
94/08/24	1130			0.185J	0.062J	0.011					
94/09/28	1250			0.183	0.037	0.010K					
<hr/>											
DATE		935	940	945	1000	1002	1005	1025	1027	1030	1034
FROM	DEPTH	PTSSIUM K,DISS	CHLORIDE CL	SULFATE SO4-TOT	ARSENIC AS,DISS	ARSENIC AS,TOT	BARIUM BA,DISS	CADMIUM CD,DISS	CADMIUM CD,TOT	CHROMIUM CR,DISS	CHROMIUM CR,TOT
TO	TIME FEET	MG/L	MG/L	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
93/10/27	1235										
93/11/22	1535										
93/12/21	1405										
94/01/26	1350										
94/02/23	1145										
94/03/30	1050										
94/04/27	1200										
94/05/25	1310										
94/06/29	1130										
94/07/27	1300										
94/08/24	1130										
94/09/28	1250										
<hr/>											
DATE		1040	1042	1049	1051	1065	1075	1090	1092	1094	1113
FROM	DEPTH	COPPER CU,DISS	COPPER CU,TOT	LEAD PB,DISS	LEAD PB,TOT	NICKEL NI,DISS	SILVER AG,DISS	ZINC ZN,DISS	ZINC ZN,TOT	ZINC TOT REC	CADMUM TOT REC
TO	TIME FEET	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
93/10/27	1235										
93/11/22	1535										
93/12/21	1405										
94/01/26	1350										
94/02/23	1145										
94/03/30	1050										
94/04/27	1200										
94/05/25	1310										
94/06/29	1130										
94/07/27	1300										
94/08/24	1130										
94/09/28	1250										
<hr/>											
DATE		1114	1118	1119	1145	31504	31616	71900	71901	82079	
FROM	DEPTH	LEAD TOT REC	CHROMIUM TOT REC	COPPER TOT REC	SELENIUM SE,DISS	TOT COLI MFIM LES	FEC COLI MFM-FCBR	MERCURY HG,TOTAL	MERCURY TOT REC	TURBIDTY LAB	
TO	TIME FEET	UG/L	UG/L	UG/L	UG/L	/100ML	/100ML	UG/L	UG/L	NTU	
93/10/27	1235							10		3.8	
93/11/22	1535							13		5.8	
93/12/21	1405							5		9.0	
94/01/26	1350							46		5.4	
94/02/23	1145							9		4.9	
94/03/30	1050							2		2.1	
94/04/27	1200							1		2.1	
94/05/25	1310							6		1.9	
94/06/29	1130							20		2.0	
94/07/27	1300							8		2.3	
94/08/24	1130							27		38.0	
94/09/28	1250							7		36.0	

14A060 4514A060  
 Goldsborough Cr @ Shelton  
 47 12 36.0 123 06 00.0 2F000 Elev= 0 ft  
 53045 Washington Mason Co. PACIFIC NORTHWEST  
 PUGET SOUND (Kennedy/Goldsboro-14) 131114  
 21540000 Reach=17110019056 0.000 Drg= 0 sqmi  
 AMBN/T/STREAM

INDEX 1311161 000250 00150 0070  
 MILES 0029.00 0009.10 007.90 000.30

DATE		8	10	25	60	95	300	301	400	530	600
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	CNDUCTVY	DO	DO	PH	RESIDUE	TOTAL N
TO	TIME FEET	IDENT. NUMBER	TEMP CENT	PRESSURE MM OF HG	FLOW CFS	LAB @ 25C UMHO	MG/L	SATUR PERCENT	SU	TOT-NFLT MG/L	N MG/L
93/10/25	0850	446100	9.2	780	46	129	10.5	88.7	7.40	2.0	0.44
93/11/21	0820	486100	7.9	757	39	143	10.6	89.4	7.20	6.0	0.28
93/12/19	0820	526100	5.1	775	99	74	12.0	92.2	6.90	3.0	0.46
94/01/24	0810	46100	7.7	760	140	79	10.8	90.3	7.30	4.0	0.48
94/02/21	0800	86100	6.0	761	310	79	11.6	92.9	7.50	8.0	0.40
94/03/28	0825	136100	7.2	766	114	94	11.0	90.1	7.30	5.0	0.36
94/04/25	0920	176100	8.8	757	78	104	10.3	88.8	7.40	7.0	0.19
94/05/23	0825	216100	11.0	769	51	136	9.7	86.6	7.30	2.0	0.18
94/06/27	0805	266100	12.0	771	39	153	9.5	86.5	7.90	2.0	0.18
94/07/25	0945	306100	13.6	769	28	155	9.1	86.1	7.40	2.0	0.17
94/08/22	0955	346100	13.4	765	23	188	9.0	85.2	7.10	2.0	0.18J
94/09/26	1005	396100	12.5	768	26	184	9.2	85.1	7.50	2.0	

DATE		610	630	665	671	31616	82079
FROM	DEPTH	NH3+NH4- N TOTAL	NO2+N03 N-TOTAL	PHOS-TOT	PHOS-DIS	FEC COLI	TURBIDTY
TO	TIME FEET	MG/L	MG/L	MG/L P	ORTHO MG/L P	MFM-FCBR /100ML	LAB NTU
93/10/25	0850	0.014	0.136	0.035	0.014	55	1.7
93/11/21	0820	0.015	0.085	0.031	0.015	310	5.2
93/12/19	0820	0.016	0.302	0.020	0.010K	11	1.5
94/01/24	0810	0.021	0.240	0.021	0.010K	14	2.3
94/02/21	0800	0.010K	0.275	0.019	0.010K	7	1.9
94/03/28	0825	0.010K	0.157	0.010K	0.010K	3	1.9
94/04/25	0920	0.016	0.074	0.029	0.010K	8	2.1
94/05/23	0825	0.010K	0.080	0.010K	0.012	47	1.2
94/06/27	0805	0.021	0.079	0.019	0.012	56	1.3
94/07/25	0945	0.010K	0.059	0.029	0.014	30	1.2
94/08/22	0955	0.023J	0.101J	0.040J	0.019	53	1.8
94/09/26	1005		0.086		0.014	37	1.0

16A070 4516A070 12061500 541074  
SKOKOMISH RIVER NEAR POTLATCH  
47 18 36.0 123 10 33.0 2F 0 Elev= 0 ft  
53045 Washington Mason Co. PACIFIC NORTHWEST  
PUGET SOUND (Skokomisk/Dosewallips-16) 131116  
21540000 Reach= 0.000 Drg= 0 sqmi  
Seg ID= 25-16-99 Class= AA Miles= 0.00 to 0.00  
AMBNT/STREAM/RMP

INDEX 1311211 001260  
MILES 0050.80 0005.30

DATE		8	10	25	60	70	80	95	300	301	400
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	TURB	COLOR	CNDUCTVY	DO	DO	PH
TO	TIME FEET	IDENT.	TEMP	PRESSURE	FLOW	JKSN	PT-CO	LAB	SATUR	SATUR	SU
		NUMBER	CENT	MM OF HG	CFS	JTU	UNITS	25C UMHO	MG/L	PERCENT	
93/10/25	0930	446101	8.8	779	431			65	10.6	88.7	7.10
93/11/21	0850	486101	8.4	756	296			72	10.1	86.3	7.50
93/12/19	0850	526101	6.2	774	1290			51	11.8	93.3	7.10
94/01/24	0910	46101	7.0	759	1960			49	11.6	95.4	7.00
94/02/21	0840	86101	5.7	761	1620			57	11.9	94.6	7.40
94/03/28	0900	136101	5.8	766	975			58	11.7	92.6	7.50
94/04/25	0950	176101	7.4	757	618			56	11.2	93.3	7.70
94/05/23	0930	216101	10.0	767	431			67	11.3	98.8	7.40
94/06/27	0840	266101	10.5	769	402			70	10.3	90.8	7.90
94/07/25	1025	306101	12.4	767	252			64	10.1	93.2	7.30
94/08/22	1030	346101	10.8	764	180J			74	11.2	100.2	7.20
94/09/26	1050	396101	10.7	767	180			78	9.9	87.9	7.40

DATE		410	440	445	530	600	605	610	613	615	620
FROM	DEPTH	T ALK	HCO <sub>3</sub>	ION	CO <sub>3</sub>	RESIDUE	TOTAL N	ORG N	NH <sub>3</sub> +NH <sub>4</sub> -	NO <sub>2</sub> -N	NO <sub>2</sub> -N
TO	TIME FEET	CACO <sub>3</sub>	HCO <sub>3</sub>	CO <sub>3</sub>	TOT-NFLT	MG/L	N	N	N TOTAL	DISS	TOTAL
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
93/10/25	0930				4.0	0.24			0.010K		
93/11/21	0850				5.0	0.16			0.010		
93/12/19	0850				12.0	0.23			0.018		
94/01/24	0910				24.0	0.19			0.016		
94/02/21	0840				10.0	0.15			0.010K		
94/03/28	0900				4.0	0.10			0.010K		
94/04/25	0950				2.0	0.07			0.010K		
94/05/23	0930				1.0	0.09			0.010K		
94/06/27	0840				2.0	0.09			0.013		
94/07/25	1025				1.0	0.09			0.010K		
94/08/22	1030				1.0K	0.12J			0.010K		
94/09/26	1050				2.0						

DATE		625	630	660	665	671	900	902	915	925	930
FROM	DEPTH	TOT KJEL	NO <sub>2</sub> +NO <sub>3</sub>	ORTHOPO <sub>4</sub>	PHOS-TOT	PHOS-DIS	TOT HARD	NC HARD	CALCIUM	MGSNIUM	SODIUM
TO	TIME FEET	N	N-TOTAL	PO <sub>4</sub>	MG/L P	ORTHO	CACO <sub>3</sub>	CACO <sub>3</sub>	CA,DISS	MG,DISS	NA,DISS
		MG/L	MG/L	MG/L	MG/L P	MG/L P	MG/L	MG/L	MG/L	MG/L	MG/L

MORE DATES NEXT PAGE

Station:21540000 16A070

## SKOKOMISH RIVER NEAR POTLATCH

PCSTORET -- 05-JUN-95

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DATE		625	630	660	665	671	900	902	915	925	930
FROM	DEPTH	TOT KJEL	N02+N03	ORTHOP04	PHOS-TOT	PHOS-DIS	TOT HARD	NC HARD	CALCIUM	MGSNIIUM	SODIUM
TO	TIME FEET	MG/L	N-TOTAL	PO4	MG/L P	ORTHO	CACO3	CACO3	CA,DISS	MG,DISS	NA,DISS
93/10/25	0930		0.158		0.010K	0.010K					
93/11/21	0850		0.091		0.014	0.010K					
93/12/19	0850		0.184		0.016	0.010K					
94/01/24	0910		0.107		0.021	0.010K					
94/02/21	0840		0.122		0.014	0.010K					
94/03/28	0900		0.076		0.010K	0.010K					
94/04/25	0950		0.065		0.013	0.010K					
94/05/23	0930		0.031		0.010K	0.010K					
94/06/27	0840		0.050		0.010K	0.010K					
94/07/25	1025		0.052		0.010K	0.010K					
94/08/22	1030		0.054J		0.030J	0.014					
94/09/26	1050		0.072			0.010K					

DATE		935	940	945	950	955	1020	1045	31504	31505	31616
FROM	DEPTH	PTSSIUUM	CHLORIDE	SULFATE	FLUORIDE	SILICA	BORON	IRON	TOT COLI	TOT COLI	FEC COLI
TO	TIME FEET	K,DISS	CL	SO4-TOT	F,DISS	DISOLVED	B,DISS	FE,TOT	MFIM LES	MPN CONF	MFM-FCBR
93/10/25	0930										31
93/11/21	0850										110J
93/12/19	0850										6
94/01/24	0910										2
94/02/21	0840										2
94/03/28	0900										1
94/04/25	0950										2
94/05/23	0930										17
94/06/27	0840										18
94/07/25	1025										18
94/08/22	1030										74
94/09/26	1050										15

DATE		31625	70300	82079
FROM	DEPTH	FEC COLI	RESIDUE	TURBIDTY
TO	TIME FEET	/100 ML	C MG/L	NTU
93/10/25	0930		2.0	
93/11/21	0850		1.6	
93/12/19	0850		6.5	
94/01/24	0910		14.0	
94/02/21	0840		6.1	
94/03/28	0900		1.7	
94/04/25	0950		1.1	
94/05/23	0930		0.5	
94/06/27	0840		0.6	
94/07/25	1025		0.5	

MORE DATES NEXT PAGE

DATE	DEPTH	FEC COLI	RESIDUE	TURBIDTY
FROM	M-FCAGAD	DISS-180	LAB	
TO	TIME FEET	/100 ML	C MG/L	NTU
94/08/22	1030		0.7	
94/09/26	1050		0.5K	

16B110 4516B110 12054500

HAMMA HAMMA RIVER NEAR ELDON

47 35 18.0 123 06 57.0 2F 0 Elev= 0 ft

53045 Washington Mason Co. PACIFIC NORTHWEST

PUGET SOUND (Skokomish/Dosewallips-16) 131116

21540000 Reach= 0.000 Drg= 0 sqmi

Seg ID= 25-16-99 Class= AA Miles= 0.00 to 0.00

AMBN/TSTREAM

INDEX 1311211 000900

MILES 0037.30 0006.20

DATE		8	10	25	80	95	300	301	400	410	440
FROM	DEPTH	LAB	WATER	BAROMTRC	COLOR	CNDUCTVY	DO	DO	PH	TALK	HCO3 ION
TO	TIME FEET	IDENT.	TEMP	PRESSURE	PT-CO	LAB @	SATUR	SATUR	SU	CACO3	HCO3
93/10/25	1045	446103	8.3	766		71	11.9	100.2	7.30		
93/11/21	1010	486103	7.7	741		73	11.4	97.7	7.60		
93/12/19	1010	526103	5.6	760		53	12.5	99.2	7.30		
94/01/24	1015	46103	5.6	744		52	12.6	102.1	7.40		
94/02/21	0940	86103	4.8	745		64	12.4	98.4	7.30		
94/03/28	1000	136103	4.5	751		61	12.5	97.6	7.10		
94/04/25	1110	176103	5.3	742		54	12.0	96.9	7.70		
94/05/23	1035	216103	7.9	753		60	11.8	100.1	7.40		
94/06/27	1000	266103	8.8	754		65	11.5	99.5	7.80		
94/07/25	1150	306103	10.3	752		59	10.4	93.4	7.50		
94/08/22	1150	346103	9.6	750		68	11.6	102.9	7.00		
94/09/26	1210	396103	9.6	751		74	11.4	100.9	7.40		

DATE		530	600	610	615	620	630	665	671	900	902
FROM	DEPTH	RESIDUE	TOTAL N	NH3+NH4-	N02-N	N03-N	N02+N03	PHOS-TOT	PHOS-DIS	TOT HARD	NC HARD
TO	TIME FEET	TOT-NFLT	MG/L	MG/L	TOTAL N	TOTAL MG/L	N-TOTAL MG/L	MG/L P	ORTHO MG/L P	CACO3 MG/L	CACO3 MG/L
93/10/25	1045	1.0	0.17	0.010K				0.140	0.010K	0.010K	
93/11/21	1010	1.0K	0.12	0.010K				0.094	0.010K	0.010K	
93/12/19	1010	1.0	0.17	0.010K				0.144	0.010K	0.010K	
94/01/24	1015	15.0	0.15	0.010K				0.098	0.010K	0.010K	
94/02/21	0940	2.0	0.09	0.010K				0.082	0.010K	0.010K	
94/03/28	1000	1.0	0.06	0.010K				0.045	0.010K	0.010K	
94/04/25	1110	1.0K	0.09	0.010K				0.055	0.010K	0.010K	
94/05/23	1035	1.0K	0.06	0.010K				0.032	0.010K	0.010K	
94/06/27	1000	1.0K	0.07	0.010K				0.036	0.010K	0.010K	
94/07/25	1150	1.0K	0.08	0.010K				0.042	0.010K	0.010K	
94/08/22	1150	1.0K	0.08J	0.010K				0.067J	0.022J	0.010K	
94/09/26	1210	1.0						0.071		0.010K	

DATE		915	925	930	935	940	945	31504	31616	82079
FROM	DEPTH	CALCIUM	MGNSIUM	SODIUM	PTSSUM	CHLORIDE	SULFATE	TOT COLI	FEC COLI	TURBIDTY
TO	TIME FEET	CA,DISS	MG,DISS	NA,DISS	K,DISS	CL	SO4-TOT	MFIM LES	MFM-FCBR	LAB

MORE DATES NEXT PAGE



16C090 3116C090 12054000

DUCKABUSH RIVER NEAR BRINNON

47 41 03.0 123 00 37.0 2F 0 Elev= 0 ft

53031 Washington Jefferson Co. PACIFIC NORTHWEST

PUGET SOUND (Skokomish/Dosewallips-16) 131116

21540000 Reach= 0.000 Drg= 0 sqmi

Seg ID= 25-16-99 Class= AA Miles= 0.00 to 0.00

AMBNT/STREAM

INDEX 1311211 000700

MILES 0029.40 0004.50

DATE		8	10	25	60	80	95	300	301	400	410
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	COLOR	CNDUCTVY	DO	DO	PH	TALK
TO	TIME	IDENT.	TEMP	PRESSURE	FLOW	PT-CO	LAB	25C UMHO	SATUR		CACO3
		NUMBER	CENT	MM OF HG	CFS	UNITS	25C UMHO	MG/L	PERCENT	SU	MG/L
93/10/25	1150	446104	7.7	773	123		76	12.1	99.4	7.30	
93/11/21	1050	486104	5.9	750	93J		89	12.5	101.4	7.80	
93/12/19	1100	526104	4.2	767	270		63	12.9	97.9	6.90	
94/01/24	1105	46104	5.5	753	700J		50	12.7	101.5	7.10	
94/02/21	1045	86104	4.1	753	300J		70	12.8	98.6	7.20	
94/03/28	1050	136104	4.2	757	369		71	12.7	97.6	7.30	
94/04/25	1220	176104	5.1	749	366		60	12.3	97.8	7.60	
94/05/23	1135	216104	7.9	761	364		64	11.9	99.8	7.30	
94/06/27	1100	266104	9.3	761	292		74	11.5	99.7	7.70	
94/07/25	1235	306104	13.1	758	167		63	10.7	101.4	7.70	
94/08/22	1255	346104	10.9	757	85J		82	11.2	101.3	7.60	
94/09/26	1300	396104	10.9	758	59		87	11.3	102.1	7.70	

DATE		440	530	600	610	615	620	625	630	665	671
FROM	DEPTH	HCO3	ION	RESIDUE	TOTAL N	NH3+NH4-	N02-N	N03-N	TOT KJEL	NO2+NO3	PHOS-TOT
TO	TIME	MG/L	MG/L	TOT-NFLT	MG/L	MG/L	TOTAL	TOTAL	N	N-TOTAL	PHOS-DIS
					MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
93/10/25	1150			2.0	0.14	0.010K				0.084	0.010K
93/11/21	1050			1.0K	0.07	0.010K				0.031	0.010K
93/12/19	1100			1.0	0.11	0.010K				0.084	0.010K
94/01/24	1105			19.0	0.12	0.011				0.067	0.010K
94/02/21	1045			2.0	0.06	0.010K				0.041	0.010K
94/03/28	1050			1.0	0.04	0.010K				0.017	0.010K
94/04/25	1220			2.0	0.03	0.010K				0.026	0.010K
94/05/23	1135			1.0K	0.03	0.010K				0.010K	0.010K
94/06/27	1100			1.0K	0.06	0.010K				0.010K	0.010K
94/07/25	1235			1.0K	0.04	0.010K				0.010K	0.010K
94/08/22	1255			1.0K	0.01J	0.010K				0.014J	0.010J
94/09/26	1300			1.0K						0.021	0.010K

DATE		900	902	915	925	930	935	940	945	31504	31616
FROM	DEPTH	TOT HARD	NC HARD	CALCIUM	MGNSIUM	SODIUM	PTSSUM	CHLORIDE	SULFATE	TOT COLI	FEC COLI
TO	TIME	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	/100ML	/100ML

MORE DATES NEXT PAGE

DATE FROM TO	DEPTH TIME FEET	900 TOT HARD CACO <sub>3</sub> MG/L	902 NC HARD CACO <sub>3</sub> MG/L	915 CALCIUM CA,DISS MG/L	925 MGNSIUM MG,DISS MG/L	930 SODIUM NA,DISS MG/L	935 PTSSIUM K,DISS MG/L	940 CHLORIDE CL MG/L	945 SULFATE SO <sub>4</sub> -TOT MG/L	31504 TOT COLI MFIM LES /100ML	31616 FEC COLI MFM-FCBR /100ML
93/10/25	1150									11	
93/11/21	1050									2	
93/12/19	1100									1	
94/01/24	1105									1K	
94/02/21	1045									1K	
94/03/28	1050									1K	
94/04/25	1220									1K	
94/05/23	1135									1	
94/06/27	1100									4	
94/07/25	1235									3	
94/08/22	1255									1K	
94/09/26	1300									1K	

## 82079

DATE FROM TO	TURBIDTY DEPTH LAB NTU
93/10/25	1150 1.0
93/11/21	1050 0.5
93/12/19	1100 0.7
94/01/24	1105 9.7
94/02/21	1045 0.6
94/03/28	1050 0.6
94/04/25	1220 0.7
94/05/23	1135 0.9
94/06/27	1100 0.7
94/07/25	1235 0.5K
94/08/22	1255 0.5K
94/09/26	1300 0.5K

16D070 3116D070 12053500 541069  
DOSEWALLIPS RIVER AT BRINNON  
47 41 25.0 122 53 52.0 2F 0 Elev= 0 ft  
53031 Washington Jefferson Co. PACIFIC NORTHWEST  
PUGET SOUND (Skokomish/Dosewallips-16) 131116  
21540000 Reach= 0.000 Drg= 0 sqmi  
Seg ID= 25-16-99 Class= AA Miles= 0.00 to 0.00  
AMBNT/STREAM

INDEX 1311211 000600 00050  
MILES 0026.00 0001.80 000.40

DATE		8	10	25	60	70	80	95	300	301	400
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	TURB	COLOR	CNDUCTVY	DO	DO	PH
TO	TIME FEET	IDENT.	TEMP	PRESSURE	FLOW	JKSN	PT-CO	LAB	SATUR	SATUR	SU
		NUMBER	CENT	MM OF HG	CFS	JTU	UNITS	25C UMHO	MG/L	PERCENT	
93/10/25	1220	446105	7.9	779	152			96	12.2	100.0	7.50
93/11/21	1115	486105	5.4	756	98			118	12.5	99.3	7.80
93/12/19	1130	526105	4.1	774	380			79	13.0	97.5	7.60
94/01/24	1135	46105	5.9	759	1330			67	12.6	100.9	7.60
94/02/21	1115	86105	4.8	761	540			80	12.6	97.8	7.40
94/03/28	1120	136105	5.2	765	350			97	12.3	96.1	7.50
94/04/25	1245	176105	6.6	757	140			76	12.0	98.1	7.80
94/05/23	1210	216105	9.4	767	520			79	11.6	100.0	7.30
94/06/27	1130	266105	10.7	767	420			87	11.3	100.4	7.80
94/07/25	1315	306105	14.3	765	210			72	10.4	100.3	7.60
94/08/22	1325	346105	12.0	764	91			103	11.0	101.0	7.60
94/09/26	1340	396105	12.9	765	94			112	11.0	103.0	7.80

DATE		410	440	445	530	600	610	615	620	625	630
FROM	DEPTH	TALK	HCO3	ION	CO3	RESIDUE	TOTAL N	NH3+NH4-	NO2-N	NO3-N	NO2+NO3
TO	TIME FEET	CACO3	HCO3	CO3	TOT-NFLT	MG/L	N	N TOTAL	TOTAL	TOTAL	N-TOTAL
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
93/10/25	1220				8.0	0.08	0.010K				0.040
93/11/21	1115				1.0	0.04	0.010K				0.010K
93/12/19	1130				3.0	0.17	0.010K				0.142
94/01/24	1135				19.0	0.16	0.010K				0.096
94/02/21	1115				5.0	0.12	0.010K				0.104
94/03/28	1120				2.0	0.06	0.010K				0.024
94/04/25	1245				2.0	0.04	0.010K				0.043
94/05/23	1210				2.0	0.04	0.010K				0.010K
94/06/27	1130				2.0	0.02	0.010K				0.010K
94/07/25	1315				3.0	0.04	0.010K				0.010K
94/08/22	1325				4.0	0.01J	0.010K				0.010K
94/09/26	1340				1.0						0.010K

DATE		660	665	671	900	902	915	925	930	935	940
FROM	DEPTH	ORTHOP4	PHOS-TOT	PHOS-DIS	TOT HARD	NC HARD	CALCIUM	MGSNMIUM	SODIUM	PTSSMIUM	CHLORIDE
TO	TIME FEET	PO4	MG/L P	MG/L P	CACO3	CACO3	CA,DISS	MG,DISS	NA,DISS	K,DISS	CL
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L

MORE DATES NEXT PAGE

DATE	DEPTH	660 ORTHOP04 PO4 MG/L	665 PHOS-TOT MG/L P	671 PHOS-DIS MG/L P	900 TOT HARD CACO3 MG/L	902 NC HARD CACO3 MG/L	915 CALCIUM CA,DISS MG/L	925 MGSNLIUM MG,DISS MG/L	930 SODIUM NA,DISS MG/L	935 PTSSIUM K,DISS MG/L	940 CHLORIDE CL MG/L
FROM	TO	TIME	FEET								
93/10/25	1220			0.010K	0.010K						
93/11/21	1115			0.010K	0.010K						
93/12/19	1130			0.010K	0.010K						
94/01/24	1135			0.022	0.010K						
94/02/21	1115			0.010K	0.010K						
94/03/28	1120			0.010K	0.010K						
94/04/25	1245			0.010K	0.010K						
94/05/23	1210			0.010K	0.010K						
94/06/27	1130			0.010K	0.010K						
94/07/25	1315			0.010K	0.010K						
94/08/22	1325			0.010K	0.010K						
94/09/26	1340			0.010K							
DATE	DEPTH	SULFATE SO4-TOT MG/L	FLUORIDE F,DISS MG/L	SILICA DISOLVED MG/L	BORON B,DISS UG/L	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	IRON FE,TOT UG/L	ZINC ZN,TOT UG/L	TOT COLI MFIM LES /100ML	TOT COLI MPN CONF /100ML
93/10/25	1220	945	950	955	1020	1034	1042	1045	1092	31504	31505
93/11/21	1115										
93/12/19	1130										
94/01/24	1135										
94/02/21	1115										
94/03/28	1120										
94/04/25	1245										
94/05/23	1210										
94/06/27	1130										
94/07/25	1315										
94/08/22	1325										
94/09/26	1340										
DATE	DEPTH	FEC COLI MFM-FCBR /100ML	RESIDUE DISS-180 C MG/L	TURBIDTY LAB NTU							
93/10/25	1220	31616	70300	82079							
93/11/21	1115	6		5.7							
93/12/19	1130	6		0.8							
94/01/24	1135	2		1.2							
94/02/21	1115	1K		9.5							
94/03/28	1120	6		1.9							
94/04/25	1245	1K		0.6							
94/05/23	1210	1K		1.3							
94/06/27	1130	1		1.8							
94/07/25	1315	2		1.6							
94/08/22	1325	3		1.9							
94/09/26	1340	7		0.5K							
		1		0.5							

16E070 4516E070

Finch Cr @ Hoodspur

47 24 24.8 123 08 39.1 2F000 Elev= 0 ft

53045 Washington Mason Co. PACIFIC NORTHWEST

PUGET SOUND (Skokomish/Dosewallips-16) 131116

21540000 Reach=17110018033 0.000 Drg= 0 sqmi

AMBN/TSTREAM

INDEX 1311211 001120

MILES 0047.80 0000.10

DATE		8	10	25	95	300	301	400	530	600	610
FROM	DEPTH	LAB	WATER	BAROMTRC	CNDUCTVY	DO	DO	PH	RESIDUE	TOTAL N	NH3+NH4-
TO	TIME FEET	IDENT.	TEMP	PRESSURE	LAB @	SATUR	PERCENT	SU	TOT-NFLT	N	N TOTAL
93/10/25	0955	446102	8.2	780	82	12.0	98.9	7.50	2.0	0.25	0.013
93/11/21	0920	486102	8.0	756	84	11.2	94.8	7.70	3.0	0.24	0.013
93/12/19	0915	526102	6.7	775	56	12.0	95.9	7.40	3.0	0.34	0.027
94/01/24	0930	46102	7.7	760	67	11.8	98.6	7.70	1.0	0.24	0.011
94/02/21	0900	86102	6.4	761	62	12.0	97.0	7.30	2.0	0.26	0.010K
94/03/28	0920	136102	6.8	766	71	12.1	98.2	7.80	1.0	0.13	0.010K
94/04/25	1020	176102	7.8	757	67	11.7	98.4	7.90	1.0	0.09	0.010
94/05/23	1000	216102	9.6	769	79	11.7	101.2	7.80	1.0K	0.11	0.010K
94/06/27	0915	266102	9.3	770	84	11.4	97.7	7.70	1.0K	0.13	0.010K
94/07/25	1050	306102	10.4	768	74	11.2	98.7	7.60	1.0K	0.14	0.010K
94/08/22	1055	346102	10.6	765	85	11.7	104.0	7.30	1.0K	0.17J	0.020J
94/09/26	1120	396102	11.4	768	88	11.7	105.4	7.90	1.0K		

DATE		630	665	671	31616	82079
FROM	DEPTH	NO2+N03	PHOS-TOT	PHOS-DIS	FEC COLI	TURBIDTY
TO	TIME FEET	N-TOTAL	MG/L P	ORTHO	MFM-FCBR	LAB
93/10/25	0955	0.166	0.028	0.024	19	1.0
93/11/21	0920	0.179	0.032	0.022	240	2.1
93/12/19	0915	0.298	0.021	0.016	13	0.9
94/01/24	0930	0.200	0.017	0.015	2	0.5
94/02/21	0900	0.213	0.015	0.013	9	0.9
94/03/28	0920	0.114	0.010	0.015	2	0.5K
94/04/25	1020	0.093	0.024	0.014	10	0.5K
94/05/23	1000	0.079	0.010K	0.017	11	0.5K
94/06/27	0915	0.103	0.018	0.018	5	0.5K
94/07/25	1050	0.096	0.024	0.020	18	0.5K
94/08/22	1055	0.090J	0.030J	0.027	15	0.6
94/09/26	1120	0.053		0.015	35	0.5K

17A070 3117A070 12052500 541070  
 BIG QUILCENE RIVER NEAR QUILCENE  
 47 48 39.0 122 54 33.0 2F 0 Elev= 0 ft  
 53031 Washington Jefferson Co. PACIFIC NORTHWEST  
 PUGET SOUND (Quilcene/Snow-17) 131117  
 21540000 Reach= 0.000 Drg= 0 sqmi  
 Seg ID= 09-17-03 Class= AA Miles= 0.00 to 0.00  
 AMBNT/STREAM

INDEX 1311211 000600 00150 0050  
 MILES 0026.00 0007.00 004.20 002.60

DATE		8	10	25	60	70	80	95	300	301	400
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	TURB	COLOR	CNDUCTVY	DO	DO	PH
TO	TIME FEET	IDENT.	TEMP	PRESSURE	FLOW	JKSN	PT-CO	LAB	SATUR		
		NUMBER	CENT	MM OF HG	CFS	JTU	UNITS	25C UMHO	MG/L	PERCENT	SU
93/10/25	1255	446106	8.7	777	192			154	11.9	99.7	7.60
93/11/21	1150	486106	5.2	753	34			161	12.6	100.0	7.60
93/12/19	1200	526106	4.9	771	167			81	12.7	97.6	7.70
94/01/24	1205	46106	6.2	756	317			74	12.2	98.9	7.50
94/02/21	1140	86106	5.4	757	317			86	12.5	99.1	7.50
94/03/28	1155	136106	6.1	761	142			95	12.3	98.8	7.80
94/04/25	1315	176106	6.5	754	187			76	11.9	97.3	8.00
94/05/23	1255	216106	10.4	764	132			92	11.4	101.1	7.70
94/06/27	1210	266106	10.7	764	88			115	11.2	99.9	7.90
94/07/25	1350	306106	14.8	762	62			96	10.2	99.8	7.60
94/08/22	1400	346106	12.5	762	33			137	10.6	98.7	7.60
94/09/26	1420	396106	13.4	762	28			157	10.5	99.8	7.80

DATE		410	440	445	530	600	610	615	620	625	630	
FROM	DEPTH	TALK	HCO3	ION	CO3	ION	RESIDUE	TOTAL N	NH3+NH4-	NO2-N	NO3-N	
TO	TIME FEET	CACO3	HCO3	CO3	TOT-NFLT	MG/L	MG/L	N	N TOTAL	TOTAL	TOTAL	
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	
93/10/25	1255				3.0	0.17	0.022					0.082
93/11/21	1150				1.0	0.15	0.024					0.075
93/12/19	1200				32.0	0.36	0.010K					0.275
94/01/24	1205				13.0	0.13	0.010K					0.079
94/02/21	1140				5.0	0.29	0.010K					0.266
94/03/28	1155				2.0	0.10	0.010K					0.061
94/04/25	1315				2.0	0.06	0.010K					0.040
94/05/23	1255				1.0K	0.06	0.010K					0.024
94/06/27	1210				1.0K	0.06	0.010K					0.035
94/07/25	1350				1.0K	0.08	0.017					0.031
94/08/22	1400				2.0	0.08J	0.010K					0.051J
94/09/26	1420				2.0							0.059

DATE		660	665	671	900	902	915	925	930	935	940
FROM	DEPTH	ORTHOP04	PHOS-TOT	PHOS-DIS	TOT HARD	NC HARD	CALCIUM	MGSNLIUM	SODIUM	PTSSIUM	CHLORIDE
TO	TIME FEET	PO4	MG/L P	MG/L P	CACO3	CACO3	CA,DISS	MG,DISS	NA,DISS	K,DISS	CL
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L

MORE DATES NEXT PAGE

DATE	FROM	TO	DEPTH	TIME	FEET	660 ORTHOP04 PO4	665 PHOS-TOT MG/L P	671 PHOS-DIS MG/L P	900 ORTHO MG/L P	902 TOT HARD CACO3 MG/L	915 CACO3 MG/L	925 CALCIUM CA,DISS MG/L	930 MGSN1UM MG,DISS MG/L	935 SODIUM NA,DISS MG/L	PTSS1UM K,DISS MG/L	940 CHLORIDE CL MG/L	
93/10/25					1255			0.010K	0.010K								
93/11/21					1150			0.010K	0.010K								
93/12/19					1200			0.014	0.010K								
94/01/24					1205			0.010K	0.010K								
94/02/21					1140			0.010K	0.010K								
94/03/28					1155			0.010K	0.010K								
94/04/25					1315			0.011	0.010K								
94/05/23					1255			0.010K	0.010K								
94/06/27					1210			0.010K	0.010K								
94/07/25					1350			0.010K	0.010K								
94/08/22					1400			0.011J	0.010K								
94/09/26					1420				0.010K								

DATE	FROM	TO	DEPTH	TIME	FEET	945 SULFATE SO4-TOT MG/L	950 FLUORIDE F,DISS MG/L	955 SILICA DISSOLVED MG/L	1020 BORON B,DISS UG/L	1030 CHROMIUM CR,DISS UG/L	1040 COPPER CU,DISS UG/L	1045 IRON FE,TOT UG/L	1049 LEAD PB,DISS UG/L	1090 ZINC ZN,DISS UG/L	31504 TOT COLI MFIM LES /100ML		

DATE	FROM	TO	DEPTH	TIME	FEET	31505 TOT COLI MPN CONF /100ML	31616 FEC COLI MFM-FCBR /100ML	70300 RESIDUE DISS-180 C MG/L	71900 MERCURY HG,TOTAL UG/L	82079 TURBIDTY LAB NTU							
93/10/25					1255			15		0.5							
93/11/21					1150			19		0.5							
93/12/19					1200			3		5.5							
94/01/24					1205			1K		10.0							
94/02/21					1140			1K		3.0							
94/03/28					1155			1K		0.5K							
94/04/25					1315			1K		1.2							
94/05/23					1255			1K		0.8							
94/06/27					1210			10		0.5K							
94/07/25					1350			210J		0.5K							
94/08/22					1400			26		0.5K							
94/09/26					1420			23		0.5K							

17B070 3117B070  
 Chimacum Cr nr Irondale  
 48 02 30.0 122 46 48.0 2F000 Elev= 0 ft  
 53031 Washington Jefferson Co. PACIFIC NORTHWEST  
 PUGET SOUND (Quilcene/Snow-17) 131117  
 21540000 Reach=17110019003 0.000 Drg= 0 sqmi  
 AMBNT/STREAM

INDEX 1311213  
 MILES 0001.20

DATE		8	10	25	60	95	300	301	400	530	600
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	CNDUCTVY	DO	DO	PH	RESIDUE	TOTAL N
TO	TIME FEET	IDENT. NUMBER	TEMP CENT	PRESSURE MM OF HG	FLOW CFS	LAB @ 25C UMHO	MG/L	SATUR PERCENT	SU	TOT-NFLT MG/L	N MG/L
93/10/25	1400	446107	9.1	778	9	236	11.0	92.9	7.60	4.0	0.70
93/11/21	1235	486107	5.3	754	9	222	10.8	85.8	7.80	3.0	0.71
93/12/19	1245	526107	3.8	772	40	211	10.6	79.1	7.20	5.0	3.47
94/01/24	1245	46107	6.9	757	20	234	10.9	89.7	7.50	10.0	1.53
94/02/21	1225	86107	5.6	759	76	202	10.3	81.9	7.20	15.0	2.75
94/03/28	1245	136107	9.2	762	24	213	10.6	91.6	7.60	10.0	1.32
94/04/25	1410	176107	9.6	757	15	191	10.8	94.9	7.80	3.0	0.88
94/05/23	1400	216107	14.6	765	10J	230	9.2	89.4	7.70	4.0	0.89
94/06/27	1310	266107	16.0	765	6J	276	8.8	88.0	7.90	4.0	0.57
94/07/25	1445	306107	16.9	764	6J	231	8.7	88.8	7.80	3.0	0.56
94/08/22	1505	346107	15.2	763	7J	252	9.2	90.8	7.70	2.0	0.41J
94/09/26	1500	396107	13.1	763	8J	258	9.7	91.5	7.80	3.0	

DATE		610	630	665	671	31616	82079
FROM	DEPTH	NH3+NH4-N	NO2+NO3	PHOS-TOT	PHOS-DIS	FEC COLI	TURBIDTY
TO	TIME FEET	N TOTAL MG/L	N-TOTAL MG/L	MG/L P	ORTHO MG/L P	MFM-FCBR /100ML	LAB NTU
93/10/25	1400	0.023	0.270	0.105	0.061	130S	2.8
93/11/21	1235	0.023	0.389	0.091	0.063	100	2.6
93/12/19	1245	0.142	2.250	0.087	0.045	51	3.8
94/01/24	1245	0.069	0.644	0.097	0.049	81	5.0
94/02/21	1225	0.050	1.480	0.091	0.041	210S	6.8
94/03/28	1245	0.037	0.662	0.063	0.044	110	4.0
94/04/25	1410	0.016	0.311	0.097	0.055	92	2.9
94/05/23	1400	0.018	0.328	0.134	0.091	200	4.7
94/06/27	1310	0.024	0.263	0.126	0.102	190	3.5
94/07/25	1445	0.023	0.222	0.131	0.095	100	4.5
94/08/22	1505	0.034J	0.151J	0.101J	0.081	380	3.4
94/09/26	1500		0.176		0.053	84	3.2

17B100 3117B100  
 Chimacum Cr @ Chimacum  
 48 00 42.6 122 46 23.7 2F000 Elev= 0 ft  
 53031 Washington Jefferson Co. PACIFIC NORTHWEST  
 PUGET SOUND (Quilcene/Snow-17) 131117  
 21540000 Reach=17110019006 0.000 Drg= 0 sqmi  
 AMBNT/STREAM

INDEX 1311213  
 MILES 0004.20

DATE		8	10	25	60	95	300	301	400	530	600
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	CNDUCTVY	DO	DO	PH	RESIDUE	TOTAL N
TO	TIME FEET	IDENT. NUMBER	TEMP CENT	PRESSURE MM OF HG	FLOW CFS	LAB @ 25C UMHO	MG/L	SATUR PERCENT	SU	TOT-NFLT MG/L	N MG/L
93/10/25	1425	446108	10.8	777	4	232	9.4	84.5	7.50	11.0	0.83
93/11/21	1310	486108	5.5	753	4	204	10.4	83.1	7.70	4.0	0.70
93/12/19	1305	526108	4.0	771	14	194	9.6	72.1	7.20	5.0	3.56
94/01/24	1305	46108	6.5	756	4	223	9.5	77.5	7.40	10.0	1.66
94/02/21	1245	86108	6.0	757	30	181	10.1	81.3	7.00	14.0	2.49
94/03/28	1305	136108	9.8	760	5	190	10.8	94.9	7.60	9.0	1.46
94/04/25	1430	176108	12.2	757	3	172	13.1	122.1	8.10	15.0	0.77
94/05/23	1420	216108	17.5	763	3	206	11.1	114.8	8.00	2.0	0.72
94/06/27	1340	266108	18.0	764	2	225	6.9	72.0	7.60	2.0	0.32
94/07/25	1510	306108	20.9	763	2J	185	5.3	58.6	7.20	1.0	0.48
94/08/22	1525	346108	17.5	761	2J	208	4.2	43.6	7.20	1.0	0.25J
94/09/26	1525	396108	14.4	762	2J	212	5.7	55.4	7.20	2.0	

DATE		610	630	665	671	31616	82079
FROM	DEPTH	NH3+NH4- N TOTAL	NO2+NO3 N-TOTAL	PHOS-TOT	PHOS-DIS	FEC COLI	TURBIDITY
TO	TIME FEET	MG/L	MG/L	MG/L P	ORTHO MG/L P	MFM-FCBR /100ML	LAB NTU
93/10/25	1425	0.111	0.164	0.164	0.102	700J	3.9
93/11/21	1310	0.080	0.292	0.136	0.096	2500J	3.6
93/12/19	1305	0.213	2.180	0.110	0.061	91S	4.0
94/01/24	1305	0.190	0.609	0.128	0.074	270S	5.9
94/02/21	1245	0.073	1.380	0.111	0.049	170S	11.0
94/03/28	1305	0.086	0.692	0.085	0.061	1200J	6.2
94/04/25	1430	0.033	0.234	0.118	0.067	190	3.0
94/05/23	1420	0.029	0.145	0.147	0.107	280	2.9
94/06/27	1340	0.022	0.017	0.163	0.122	240	2.0
94/07/25	1510	0.052	0.010K	0.173	0.137	72	1.0
94/08/22	1525	0.013J	0.010K	0.132J	0.109	210	0.7
94/09/26	1525		0.020		0.077	2500J	1.1

18A070 0918A070 12048600 541075  
 DUNGENESS RIVER NEAR SEQUIM  
 48 04 34.0 123 08 58.0 2F 0 Elev= 0 ft  
 53009 Washington Clallam Co. PACIFIC NORTHWEST  
 PUGET SOUND (Elwha/Dungeness-18) 131118  
 21540000 Reach= 0.000 Drg= 0 sqmi  
 Seg ID= 09-18-05 Class= A Miles= 0.00 to 0.00  
 AMBNT/STREAM

INDEX 1311227  
 MILES 0006.90

DATE		8	10	25	60	70	80	95	300	301	400
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	TURB	COLOR	CNDUCTVY	DO	DO	PH
TO	TIME FEET	IDENT.	TEMP	PRESSURE	FLOW	JKSN	PT-CO	LAB	SATUR	SATUR	SU
93/10/25	1600	446109	9.3	773	114			126	11.9	101.6	7.80
93/11/21	1420	486109	5.5	749	50			154	12.7	102.1	8.40
93/12/19	1430	526109	3.7	765	180			108	13.0	97.6	
94/01/24	1415	46109	5.2	752	344			105	12.6	100.0	7.50
94/02/21	1400	86109	4.4	753	192			137	12.9	100.2	7.60
94/03/28	1440	136109	7.3	755	286			132	12.1	100.9	7.80
94/04/25	1545	176109	8.4	752	349			97	11.3	97.1	8.10
94/05/23	1530	216109	12.3	759	370			98	10.9	101.5	7.80
94/06/27	1450	266109	13.4	760	334			107	9.9	94.3	8.00
94/07/25	1630	306109	14.3	758	204			84	10.2	99.3	7.90
94/08/22	1650	346109	12.8	756	47			130	10.4	98.2	7.70
94/09/26	1650	396109	14.9	756	26			149	10.1	99.8	8.10

DATE		410	440	445	530	600	610	615	620	625	630
FROM	DEPTH	T ALK	HCO3	ION	CO3	ION	RESIDUE	TOTAL N	NH3+NH4-	NO2-N	NO3-N
TO	TIME FEET	CACO3	HCO3	CO3	TOT-NFLT	MG/L	MG/L	MG/L	N TOTAL	TOTAL	TOTAL
93/10/25	1600				2.0	0.08	0.010K				0.017
93/11/21	1420				1.0K	0.05	0.010K				0.010K
93/12/19	1430				2.0	0.15	0.010K				0.103
94/01/24	1415				6.0	0.12	0.010K				0.067
94/02/21	1400				3.0	0.12	0.010K				0.054
94/03/28	1440				2.0	0.04	0.010K				0.012
94/04/25	1545				2.0	0.01	0.010K				0.014
94/05/23	1530				3.0	0.03	0.010K				0.010K
94/06/27	1450				2.0	0.05	0.030				0.010K
94/07/25	1630				2.0	0.05	0.010K				0.010K
94/08/22	1650				1.0K	0.03J	0.010K				0.010K
94/09/26	1650				2.0						0.010K

DATE		660	665	671	900	902	915	925	930	935	940
FROM	DEPTH	ORTHOP04	PHOS-TOT	PHOS-DIS	TOT HARD	NC HARD	CALCIUM	MGNSIUM	SODIUM	PTSSIUM	CHLORIDE
TO	TIME FEET	PO4	MG/L P	MG/L P	CACO3	CACO3	CA,DISS	MG,DISS	NA,DISS	K,DISS	CL

MORE DATES NEXT PAGE

		660	665	671	900	902	915	925	930	935	940
DATE		ORTHOP04	PHOS-TOT	PHOS-DIS	TOT HARD	NC HARD	CALCIUM	MGNSIUM	SODIUM	PTSSIUM	CHLORIDE
FROM	DEPTH	PO4		ORTHO	CACO3	CACO3	CA,DISS	MG,DISS	NA,DISS	K,DISS	CL
TO	TIME	FEET	MG/L	MG/L P	MG/L P	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
93/10/25	1600			0.010K	0.010K						
93/11/21	1420			0.010K	0.010K						
93/12/19	1430			0.010K	0.010K						
94/01/24	1415			0.010K	0.010K						
94/02/21	1400			0.010K	0.010K						
94/03/28	1440			0.010K	0.010K						
94/04/25	1545			0.010K	0.010K						
94/05/23	1530			0.010K	0.010K						
94/06/27	1450			0.010K	0.010K						
94/07/25	1630			0.010K	0.010K						
94/08/22	1650			0.011J	0.010K						
94/09/26	1650			0.010K							

DATE		945	950	955	1020	1045	31504	31505	31616	70300	82079	
FROM	DEPTH	SULFATE	FLUORIDE	SILICA	BORON	IRON	TOT COLI	TOT COLI	FEC COLI	RESIDUE	TURBIDITY	
TO	TIME	FEET	SO4-TOT	F,DISS	DISOLVED	B,DISS	FE,TOT	MFIM LES	MPN CONF	MFM-FCBR	DISS-180	LAB
		MG/L	MG/L	MG/L	UG/L	UG/L	/100ML	/100ML	/100ML	C MG/L	NTU	
93/10/25		1600							1		2.2	
93/11/21		1420							1		0.4	
93/12/19		1430							1		2.1	
94/01/24		1415							3		3.5	
94/02/21		1400							57		2.2	
94/03/28		1440							1		1.1	
94/04/25		1545							1K		1.6	
94/05/23		1530							1		2.0	
94/06/27		1450							1		1.8	
94/07/25		1630							2		1.6	
94/08/22		1650							7		0.5K	
94/09/26		1650							1K		0.5K	

18B070 0918B070 12045560 541076  
 ELWAH RIVER NEAR PORT ANGELES  
 48 03 56.0 123 34 35.0 2F 0 Elev= 0 ft  
 53009 Washington Clallam Co. PACIFIC NORTHWEST  
 PUGET SOUND (Elwha/Dungeness-18) 131118  
 21540000 Reach= 0.000 Drg= 0 sqmi  
 Seg ID= 09-18-06 Class= AA Miles= 0.00 to 0.00  
 AMBNT/STREAM

INDEX 1311241  
 MILES 0008.10

DATE		8	10	25	60	70	80	95	300	301	400
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	TURB	COLOR	CNDUCTVY	DO	DO	PH
TO	TIME FEET	IDENT.	TEMP	PRESSURE	FLOW	JKSN	PT-CO	LAB	SATUR	SATUR	
		NUMBER	CENT	MM. OF HG	CFS	JTU	UNITS	25C UMHO	MG/L	PERCENT	SU
93/10/26	0900	446111	10.1	777	448			100	11.8	102.2	7.30
93/11/22	0840	486111	5.6	762	311			110	12.4	98.2	7.70
93/12/20	0805	526111	4.4	771	969			67	12.8	97.1	7.70
94/01/25	0815	461111	5.0	760	1650			91	12.8	100.1	7.90
94/02/22	0655	861111	3.7	763	883			100	12.9	97.2	7.70
94/03/29	0815	136111	4.0	765	1520			95	12.8	96.9	8.10
94/04/26	0940	176111	6.3	762	1240			77	11.8	95.1	7.90
94/05/24	0845	216111	9.2	764	1390			78	11.7	100.9	7.80
94/06/28	0850	266111	10.1	761	1250			81	11.1	98.0	8.20
94/07/26	0850	306111	13.3	764	752			70	10.5	99.3	7.50
94/08/23	0745	346111	13.7	763	392			94	10.5	100.3	7.70
94/09/27	0800	396111	12.6	762	306			105	10.5	98.0	7.70

DATE		410	440	445	530	600	610	615	620	625	630
FROM	DEPTH	TALK	HCO3	ION	CO3	ION	RESIDUE	TOTAL N	NH3+NH4-	NO2-N	NO3-N
TO	TIME FEET	CACO3	HCO3	CO3	TOT-NFLT	MG/L	TOTAL	N	N TOTAL	TOTAL	TOTAL
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
93/10/26	0900				15.0	0.09	0.016				0.026
93/11/22	0840				1.0K	0.05	0.010K				0.016
93/12/20	0805				19.0	0.11	0.010K				0.062
94/01/25	0815				10.0	0.08	0.011				0.047
94/02/22	0655				4.0	0.08	0.010K				0.042
94/03/29	0815				5.0	0.05	0.010K				0.012
94/04/26	0940				10.0	0.02	0.010K				0.015
94/05/24	0845				2.0	0.01K	0.010K				0.010K
94/06/28	0850				1.0	0.04	0.010K				0.010K
94/07/26	0850				1.0K	0.01	0.010K				0.010K
94/08/23	0745				1.0K	0.02J	0.010K				0.010K
94/09/27	0800				2.0						0.010K

DATE		660	665	671	900	902	915	925	930	935	940
FROM	DEPTH	ORTHOP4	PHOS-TOT	PHOS-DIS	TOT HARD	NC HARD	CALCIUM	MGSNITIUM	SODIUM	PTSSIUM	CHLORIDE
TO	TIME FEET	PO4	MG/L	P	CACO3	CACO3	CA,DISS	MG,DISS	NA,DISS	K,DISS	CL
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L

MORE DATES NEXT PAGE

DATE	FROM	TO	DEPTH	TIME	FEET	660 ORTHOP04 PO4 MG/L	665 PHOS-TOT MG/L P	671 PHOS-DIS MG/L P	900 ORTHO MG/L	902 TOT HARD CACO3 MG/L	915 NC HARD CACO3 MG/L	925 CALCIUM CA,DISS MG/L	930 MGNSIUM MG/L	935 SODIUM NA,DISS MG/L	PTSSIUM K,DISS MG/L	CHLORIDE CL MG/L	
93/10/26				0900		0.018		0.010K									940
93/11/22				0840			0.010K		0.010K								
93/12/20				0805			0.032		0.010K								
94/01/25				0815			0.010K		0.010K								
94/02/22				0655			0.010K		0.010K								
94/03/29				0815			0.010K		0.010K								
94/04/26				0940			0.014		0.010K								
94/05/24				0845			0.010K		0.010K								
94/06/28				0850			0.010K		0.010K								
94/07/26				0850			0.010K		0.010K								
94/08/23				0745			0.010J		0.010K								
94/09/27				0800					0.010K								

DATE	FROM	TO	DEPTH	TIME	FEET	945 SULFATE SO4-TOT MG/L	950 FLUORIDE F,DISS MG/L	955 SILICA DISOLVED MG/L	1020 BORON B,DISS UG/L	1034 CHROMIUM CR,TOT UG/L	1042 COPPER CU,TOT UG/L	1045 IRON FE,TOT UG/L	1092 ZINC ZN,TOT UG/L	31504 TOT COLI MFIM-LES /100ML	31505 TOT COLI MPN CONF /100ML		

DATE	FROM	TO	DEPTH	TIME	FEET	31616 FEC COLI MFM-FCBR /100ML	70300 RESIDUE DISS-180 C MG/L	82079 TURBIDTY LAB NTU
93/10/26				0900		7		18.0
93/11/22				0840		1		1.0
93/12/20				0805		4		25.0
94/01/25				0815		2		8.7
94/02/22				0655		1K		4.2
94/03/29				0815		1K		5.5
94/04/26				0940		1K		10.0
94/05/24				0845		1K		2.0
94/06/28				0850		1		1.6
94/07/26				0850		4		0.8
94/08/23				0745		2		0.5
94/09/27				0800		1		0.9

20A090 0920A090 12042300

## SOLEDUCK RIVER NEAR FORKS

48 01 15.0 124 22 55.0 2F 0 Elev= 0 ft

53009 Washington Clallam Co. PACIFIC NORTHWEST

COASTAL (Soleduck/Hoh-20) 131220

21540000 Reach= 0.000 Drg= 0 sqmi

Seg ID= 09-20-12 Class= AA Miles= 0.00 to 0.00

## AMBNT/STREAM

INDEX 1312040

MILES 0023.40

DATE		8	10	25	60	80	95	300	301	400	410
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	COLOR	CNDUCTVY	DO	DO	PH	T ALK
TO	TIME	IDENT.	TEMP	PRESSURE	FLOW	PT-CO	LAB	25C UMHO	SATUR		CACO3
		NUMBER	CENT	MM OF HG	CFS	UNITS		MG/L	PERCENT	SU	MG/L
93/10/26	1030	446112	8.3	772	440		76	12.4	103.5	7.40	
93/11/22	1005	486112	4.3	755	1160		65	12.6	97.3	8.00	
93/12/20	0915	526112	5.2	767	1170		65	12.6	98.0	7.70	
94/01/25	0920	461112	6.5	757	1730		66	12.1	98.6	7.20	
94/02/22	0805	861112	4.9	760	1800		70	12.4	96.7	7.20	
94/03/29	0925	136112	5.8	762	1570		74	12.2	97.1	7.50	
94/04/26	1050	176112	7.2	760	900		69	11.9	98.3	7.90	
94/05/24	1000	216112	11.4	738	530		82	10.9	102.3	7.80	
94/06/28	1000	266112	12.9	760	595		83	10.7	100.8	8.00	
94/07/26	1005	306112	13.7	761	270		79	10.7	102.4	7.60	
94/08/23	0905	346112	12.7	760	180		94	11.0	103.2	7.60	
94/09/27	0920	396112	12.4	758	140		99	10.2	95.3	7.60	

DATE		440	530	600	610	615	620	625	630	665	671
FROM	DEPTH	HCO3	ION	RESIDUE	TOTAL N	NH3+NH4-	NO2-N	NO3-N	TOT KJEL	NO2+NO3	PHOS-TOT
TO	TIME	MG/L	MG/L	TOT-NFLT	N	N TOTAL	TOTAL	N	N-TOTAL	PHOS-DIS	ORTHO
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L P	MG/L P
93/10/26	1030			1.0	0.35	0.010				0.305	0.010K
93/11/22	1005			3.0	0.52	0.012				0.451	0.015
93/12/20	0915			1.0	0.33	0.010K				0.307	0.010K
94/01/25	0920			3.0	0.35	0.010K				0.293	0.010K
94/02/22	0805			3.0	0.34	0.010K				0.340	0.010K
94/03/29	0925			3.0	0.17	0.021				0.112	0.010K
94/04/26	1050			2.0	0.14	0.010K				0.107	0.010K
94/05/24	1000			1.0K	0.09	0.010K				0.059	0.010K
94/06/28	1000			1.0K	0.11	0.010K				0.064	0.010K
94/07/26	1005			1.0K	0.12	0.010K				0.057	0.010K
94/08/23	0905			1.0	0.13J	0.010K				0.084J	0.011J
94/09/27	0920			1.0						0.103	0.010K

DATE		900	902	915	925	930	935	940	945	31504	31616
FROM	DEPTH	TOT HARD	NC HARD	CALCIUM	MGNSIUM	SODIUM	PTSSUM	CHLORIDE	SULFATE	TOT COLI	FEC COLI
TO	TIME	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L /100ML	MFM-FCBR /100ML

MORE DATES NEXT PAGE

DATE	DEPTH	TOT HARD CACO3 MG/L	NC HARD CACO3 MG/L	CALCIUM CA,DISS MG/L	MGNSIUM MG,DISS MG/L	SODIUM NA,DISS MG/L	PTSSIUM K,DISS MG/L	CHLORIDE CL MG/L	SULFATE SO4-TOT MG/L	TOT COLI MFIM LES /100ML	31504	31616 FEC COLI /100ML
93/10/26	1030											44
93/11/22	1005											56
93/12/20	0915											2
94/01/25	0920											6
94/02/22	0805											12
94/03/29	0925											6
94/04/26	1050											2
94/05/24	1000											22
94/06/28	1000											7
94/07/26	1005											11
94/08/23	0905											41
94/09/27	0920											4

## 82079

DATE	TURBIDTY		
FROM	DEPTH	LAB	NTU
TO	TIME	FEET	NTU
93/10/26	1030		1.1
93/11/22	1005		2.0
93/12/20	0915		0.6
94/01/25	0920		1.4
94/02/22	0805		1.5
94/03/29	0925		1.3
94/04/26	1050		0.6
94/05/24	1000		0.5K
94/06/28	1000		0.5
94/07/26	1005		0.5K
94/08/23	0905		0.1K
94/09/27	0920		0.5K

20B070 3120B070 12041200 541079  
 HOH RIVER AT DNR CAMPGROUND  
 47 48 25.0 124 14 59.0 2F 0 Elev= 0 ft  
 53031 Washington Jefferson Co. PACIFIC NORTHWEST  
 COASTAL (Soleduck/Hoh-20) 131220  
 21540000 Reach= 0.000 Drg= 0 sqmi  
 Seg ID= 09-20-11 Class= AA Miles= 0.00 to 0.00  
 AMBNT/STREAM

INDEX 1312046  
 MILES 0016.50

DATE		8	10	25	60	70	80	95	300	301	400
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	TURB	COLOR	CNDUCTVY	DO	DO	PH
TO	TIME FEET	IDENT.	TEMP	PRESSURE	FLOW	JKSN	PT-CO	LAB @	SATUR		
		NUMBER	CENT	MM OF HG	CFS	JTU	UNITS	25C UMHO	MG/L	PERCENT	SU
93/10/26	1125	446113	7.9	773	1250			80	12.3	101.6	7.40
93/11/22	1105	486113	4.4	757	1870			72	12.5	96.6	7.90
93/12/20	1005	526113	5.4	769	1990			68	12.5	97.6	7.50
94/01/25	1010	461113	6.4	760	3120			71	12.0	97.1	7.20
94/02/22	0905	861113	4.7	763	2530			69	12.5	96.6	7.10
94/03/29	1005	136113	5.8	763	2090			78	12.3	97.7	7.40
94/04/26	1150	176113	7.0	762	1440			71	12.1	99.2	7.90
94/05/24	1050	216113	10.4	763	1370			82	11.4	101.2	7.50
94/06/28	1050	266113	12.2	761	1550			82	11.1	102.8	7.90
94/07/26	1055	306113	11.9	763	1350			62	11.0	101.0	7.40
94/08/23	1025	346113	12.0	762	673			78	11.1	102.2	7.50
94/09/27	1005	396113	11.6	760	673			83	11.0	100.7	7.60
<hr/>											
DATE		405	410	440	445	530	600	610	615	620	625
FROM	DEPTH	CO2	T ALK	HCO3 ION	CO3 ION	RESIDUE	TOTAL N	NH3+NH4-	NO2-N	NO3-N	TOT KJEL
TO	TIME FEET	MG/L	MG/L	MG/L	CO3	TOT-NFLT	N	N TOTAL	TOTAL	TOTAL	N
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
93/10/26	1125					8.0	0.19	0.010K			
93/11/22	1105					6.0	0.24	0.010K			
93/12/20	1005					4.0	0.23	0.010K			
94/01/25	1010					9.0	0.16	0.012			
94/02/22	0905					4.0	0.19	0.010K			
94/03/29	1005					7.0	0.08	0.010K			
94/04/26	1150					2.0	0.04	0.010K			
94/05/24	1050					3.0	0.01K	0.010K			
94/06/28	1050					3.0	0.06	0.012			
94/07/26	1055					12.0	0.05	0.010K			
94/08/23	1025					2.0	0.03J	0.010K			
94/09/27	1005					2.0					
<hr/>											
DATE		630	660	665	671	900	902	915	925	930	935
FROM	DEPTH	NO2+N03	ORTHOP04	PHOS-TOT	PHOS-DIS	TOT HARD	NC HARD	CALCIUM	MGSNIUM	SODIUM	PTSSIUIM
TO	TIME FEET	N-TOTAL	PO4	MG/L P	ORTHO	CACO3	CACO3	CA,DISS	MG,DISS	NA,DISS	K,DISS
		MG/L	MG/L	MG/L P	MG/L P	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L

MORE DATES NEXT PAGE

DATE	FROM	TO	DEPTH	TIME	FEET	630 NO2+NO3 N-TOTAL MG/L	660 ORTHOP04 PO4 MG/L	665 PHOS-TOT MG/L P	671 PHOS-DIS ORTHO MG/L P	900 TOT HARD CACO3 MG/L	902 NC HARD CACO3 MG/L	915 CALCIUM CA,DISS MG/L	925 MGNSIUM MG,DISS MG/L	930 SODIUM NA,DISS MG/L	935 PTSSIUM K,DISS MG/L
93/10/26	1125					0.153			0.010	0.010K					
93/11/22	1105					0.189			0.014	0.010K					
93/12/20	1005					0.212			0.010K	0.010K					
94/01/25	1010					0.120			0.010K	0.010K					
94/02/22	0905					0.147			0.010K	0.010K					
94/03/29	1005					0.054			0.010K	0.010K					
94/04/26	1150					0.012			0.010K	0.010K					
94/05/24	1050					0.010K			0.010K	0.010K					
94/06/28	1050					0.025			0.010K	0.010K					
94/07/26	1055					0.010K			0.011	0.010K					
94/08/23	1025					0.010J			0.012J	0.010K					
94/09/27	1005					0.020				0.010K					
DATE	FROM	TO	DEPTH	TIME	FEET	940 CHLORIDE CL MG/L	945 SULFATE SO4-TOT MG/L	950 FLUORIDE F,DISS. MG/L	955 SILICA DISOLVED MG/L	1000 ARSENIC AS,DISS UG/L	1005 BARIUM BA,DISS UG/L	1020 BORON B,DISS UG/L	1025 CADMIUM CD,DISS UG/L	1030 CHROMIUM CR,DISS UG/L	1034 CHROMIUM CR,TOT UG/L
93/10/26	1125					1040	1042	1045	1049	1075	1090	1092	1145	31504	31505
93/11/22	1105					COPPER CU,DISS UG/L	COPPER CU,TOT UG/L	IRON FE,TOT UG/L	LEAD PB,DISS UG/L	SILVER AG,DISS UG/L	ZINC ZN,DISS UG/L	ZINC ZN,TOT UG/L	SELENIUM SE,DISS UG/L	TOT COLI MFIM LES /100ML	TOT COLI MPN CONF /100ML
DATE	FROM	TO	DEPTH	TIME	FEET	31616 FEC COLI MFM-FCBR /100ML	31625 FEC COLI M-FCAGAD /100 ML	70300 RESIDUE DISS-180 C MG/L	71900 MERCURY HG,TOTAL UG/L	82079 TURBIDTY LAB NTU					
93/10/26	1125					32				11.0					
93/11/22	1105					17				5.3					
93/12/20	1005					3				1.8					
94/01/25	1010					3				5.6					
94/02/22	0905					1				2.9					
94/03/29	1005					1				2.6					
94/04/26	1150					1				1.9					
94/05/24	1050					2				1.9					
94/06/28	1050					3				3.3					
94/07/26	1055					4				13.0					
94/08/23	1025					7				1.7					
94/09/27	1005					14				3.4					

21A070 3121A070 12040600 541080

## QUEETS RIVER AT QUEETS

47 32 30.0 124 19 59.0 2F 0 Elev= 0 ft

53031 Washington Jefferson Co. PACIFIC NORTHWEST

COASTAL (Queets/Quinault-21) 131221

21540000 Reach= 0.000 Drg= 0 sqmi

Seg ID= 10-21-01 Class= AA Miles= 0.00 to 0.00

## AMBNT/STREAM

INDEX 1312055

MILES 0001.50

DATE		8	10	25	60	70	80	95	300	301	400
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	TURB	COLOR	CNDUCTVY	DO	DO	PH
TO	TIME	IDENT.	TEMP	PRESSURE	FLOW	JKSN	PT-CO	LAB	SATUR		
		NUMBER	CENT	MM OF HG	CFS	JTU	UNITS	25C UMHO	MG/L	PERCENT	SU
93/10/26	1310	446114	9.6	776	1650			65	11.6	99.3	7.20
93/11/22	1205	486114	5.3	763	4620			53	12.0	94.2	7.60
93/12/20	1110	526114	5.6	774	2840			51	12.4	96.6	7.70
94/01/25	1105	461114	6.9	765	5770			49	11.8	96.2	7.20
94/02/22	1025	861114	5.0	766	5070			51	12.3	95.4	7.00
94/03/29	1110	136114	6.8	767	3200			61	11.9	96.4	7.40
94/04/26	1230	176114	9.2	765	1890			56	11.5	99.0	7.80
94/05/24	1145	216114	13.8	767	1320			68	10.7	101.8	7.60
94/06/28	1205	266114	14.4	766	1640			69	10.6	102.3	7.60
94/07/26	1240	306114	16.7	766	870			62	10.4	105.3	7.40
94/08/23	1225	346114	15.8	765	523			76	10.1	100.6	7.60
94/09/27	1200	396114	14.7	763	682			76	10.2	99.5	7.50

DATE		410	440	445	530	600	610	615	620	625	630
FROM	DEPTH	TALK	HCO3	ION	CO3	RESIDUE	TOTAL N	NH3+NH4-	NO2-N	NO3-N	NO2+NO3
TO	TIME	CACO3	HCO3	CO3	TOT-NFLT	MG/L	TOTAL N	N TOTAL	TOTAL	TOTAL	N-TOTAL
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
93/10/26	1310				3.0	0.30	0.010K				0.241
93/11/22	1205				12.0	0.32	0.013				0.240
93/12/20	1110				8.0	0.26	0.010K				0.233
94/01/25	1105				17.0	0.21	0.016				0.141
94/02/22	1025				9.0	0.22	0.010K				0.156
94/03/29	1110				11.0	0.11	0.010K				0.075
94/04/26	1230				5.0	0.06	0.010K				0.034
94/05/24	1145				3.0	0.03	0.010K				0.010K
94/06/28	1205				3.0	0.06	0.019				0.010K
94/07/26	1240				2.0	0.05	0.010K				0.010K
94/08/23	1225				2.0	0.05J	0.010K				0.012J
94/09/27	1200				2.0						0.010K

DATE		660	665	671	900	902	915	925	930	935	940
FROM	DEPTH	ORTHOP4	PHOS-TOT	PHOS-DIS	TOT HARD	NC HARD	CALCIUM	MGNSIUM	SODIUM	PTSSIUIM	CHLORIDE
TO	TIME	PO4		ORTHO	CACO3	CACO3	CA,DISS	MG,DISS	NA,DISS	K,DISS	CL
		MG/L	MG/L P	MG/L P	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L

MORE DATES NEXT PAGE

		660	665	671	900	902	915	925	930	935	940
DATE		ORTHOP04	PHOS-TOT	PHOS-DIS	TOT HARD	NC HARD	CALCIUM	MGNSIUM	SODIUM	PTSSIUM	CHLORIDE
FROM	DEPTH	PO4		ORTHO	CACO3	CACO3	CA,DISS	MG,DISS	NA,DISS	K,DISS	CL
TO	TIME	FEET	MG/L	MG/L P	MG/L P	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
93/10/26	1310			0.010K	0.010K						
93/11/22	1205			0.020	0.010K						
93/12/20	1110			0.012	0.010K						
94/01/25	1105			0.017	0.010K						
94/02/22	1025			0.016	0.010K						
94/03/29	1110			0.010K	0.010K						
94/04/26	1230			0.010K	0.010K						
94/05/24	1145			0.010K	0.010K						
94/06/28	1205			0.010K	0.010K						
94/07/26	1240			0.010K	0.010K						
94/08/23	1225			0.013J	0.010K						
94/09/27	1200				0.010K						

		945	950	955	1020	1034	1042	1045	1092	31504	31505
DATE		SULFATE	FLUORIDE	SILICA	BORON	CHROMIUM	COPPER	IRON	ZINC	TOT COLI	TOT COLI
FROM	DEPTH	SO <sub>4</sub> -TOT	F,DISS	DISOLVED	B,DISS	CR,TOT	CU,TOT	FE,TOT	ZN,TOT	MFIM LES	MPN CONF
TO	TIME	FEET	MG/L	MG/L	MG/L	UG/L	UG/L	UG/L	UG/L	/100ML	/100ML

DATE	FROM	TO	TIME	DEPTH FEET	FEC COLI MFM-FCBR	RESIDUE DISS-180 /100ML	TURBIDITY LAB C MG/L NTU
93/10/26				1310		69	5.2
93/11/22				1205		37	11.0
93/12/20				1110		10	5.6
94/01/25				1105		8	12.0
94/02/22				1025		3	7.1
94/03/29				1110		4	8.0
94/04/26				1230		4	4.2
94/05/24				1145		5	2.9
94/06/28				1205		7	3.3
94/07/26				1240		8	2.8
94/08/23				1225		33	1.4
94/09/27				1200		46	1.3

21B090 2721B090 12039500 541081  
 QUINAULT RIVER AT LAKE QUINAULT  
 47 27 28.0 123 53 17.0 2F 0 Elev= 0 ft  
 53027 Washington Grays Harbor Co. PACIFIC NORTHWEST  
 COASTAL (Queets/Quinault-21) 131221  
 21540000 Reach= 0.000 Drg= 0 sqmi  
 Seg ID= 10-21-02 Class= AA Miles= 0.00 to 0.00  
 AMBNT/STREAM

INDEX 1312064  
 MILES 0033.40

DATE		8	10	25	60	61	70	80	95	300	301
FROM	DEPTH	LAB IDENT.	WATER TEMP	BAROMTRC PRESSURE	STREAM FLOW	STREAM FLOW, INST-CFS	TURB JKSN JTU	COLOR PT-CO UNITS	CNDUCTVY LAB @ 25C UMHO	DO MG/L	DO SATUR PERCENT
TO	TIME FEET	NUMBER	CENT	MM OF HG	CFS	INST-CFS	JTU	UNITS	25C UMHO	MG/L	PERCENT
93/10/26	1400	446115	13.7	771	1920				63	10.5	99.2
93/11/22	1255	486115	9.7	757	2110				64	10.4	91.5
93/12/20	1200	526115	6.8	769	2450				48	9.8	79.1
94/01/25	1150	461115	6.6	760	4380				56	10.8	87.9
94/02/22	1115	861115	6.0	763	3060				62	11.0	87.8
94/03/29	1155	136115	6.8	762	2400				55	12.1	98.7
94/04/26	1315	176115	8.5	762	2130				50	11.9	101.1
94/05/24	1240	216115	13.4	760	1710				59	11.5	109.5
94/06/28	1305	266115	13.7	760	1680				62	10.9	104.5
94/07/26	1340	306115	19.1	760	838				57	9.7	103.9
94/08/23	1315	346115	19.6	760	487				65	9.6	103.8
94/09/27	1250	396115	18.5	756	618				67	10.1	107.4

DATE		400 PH	405 CO2	410 TALK	440 HCO3	445 ION	515 CO3	530 ION	600 RESIDUE	610 TOTAL N	615 NH3+NH4-N
FROM	DEPTH				CACO3	HCO3	CO3	DISS-105	TOT-NFLT	N	NO2-N
TO	TIME FEET	SU	MG/L	MG/L	MG/L	MG/L	MG/L	C MG/L	MG/L	MG/L	TOTAL MG/L
93/10/26	1400	7.30							1.0	0.07	0.010K
93/11/22	1255	7.30							4.0	0.09	0.011
93/12/20	1200	7.30							11.0	0.13	0.020
94/01/25	1150	7.20							2.0	0.16	0.018
94/02/22	1115	7.10							2.0	0.16	0.010K
94/03/29	1155	7.40							3.0	0.13	0.010K
94/04/26	1315	8.00							2.0	0.05	0.010K
94/05/24	1240	7.60							2.0	0.03	0.010K
94/06/28	1305	7.70							1.0	0.05	0.010K
94/07/26	1340	7.40							1.0	0.14	0.022
94/08/23	1315	7.70							2.0	0.03J	0.025J
94/09/27	1250	7.60							1.0K		

DATE		620 NO3-N	625 TOT KJEL	630 NO2+NO3	650 T PO4	660 ORTHOPO4	665 PHOS-TOT	671 PHOS-DIS	900 TOT HARD	902 NC HARD	915 CALCIUM
FROM	DEPTH	TOTAL N	MG/L	N-TOTAL MG/L	PO4 MG/L	PO4 MG/L	MG/L P	ORTHO MG/L P	CACO3 MG/L	CACO3 MG/L	CA,DISS MG/L
TO	TIME FEET	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L P	MG/L P	MG/L	MG/L	MG/L

MORE DATES NEXT PAGE

DATE	DEPTH	620 NO3-N TOTAL MG/L	625 KJEL N MG/L	630 NO2+NO3 N-TOTAL MG/L	650 T PO4 PO4 MG/L	660 ORTHOPO4 PO4 MG/L	665 PHOS-TOT MG/L P	671 PHOS-DIS ORTHO MG/L P	900 TOT HARD CACO3 MG/L	902 NC HARD CACO3 MG/L	915 CALCIUM CA,DISS MG/L
FROM	TO	TIME	FEET								
93/10/26	1400			0.010K			0.010K	0.010K			
93/11/22	1255			0.040			0.010K	0.010K			
93/12/20	1200			0.115			0.018	0.010K			
94/01/25	1150			0.119			0.010K	0.010K			
94/02/22	1115			0.113			0.011	0.010K			
94/03/29	1155			0.063			0.010K	0.010K			
94/04/26	1315			0.032			0.010K	0.010K			
94/05/24	1240			0.010K			0.010K	0.010K			
94/06/28	1305			0.010K			0.010K	0.010K			
94/07/26	1340			0.010K			0.010K	0.010K			
94/08/23	1315			0.010K			0.011J	0.010K			
94/09/27	1250			0.010K				0.010K			
DATE	DEPTH	MGSN MG,DISS	SODIUM NA,DISS	SODIUM ADSBTION RATIO	PERCENT SODIUM %	PTSS K,DISS	CHLORIDE CL	SULFATE SO4-TOT	FLUORIDE F,DISS	SILICA DISOLVED	ARSENIC AS,DISS
FROM	TO	TIME	FEET	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L
1005	1020	1025	1030	1034	1040	1042	1045	1049	1075		
BARIUM	BORON	CADMUM	CHROMIUM	CHROMIUM	COPPER	COPPER	IRON	LEAD	SILVER		
BA,DISS	B,DISS	CD,DISS	CR,DISS	CR,TOT	CU,DISS	CU,TOT	FE,TOT	PB,DISS	AG,DISS		
UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L		
1090	1092	1145	1515	1516	3515	3516	9510	22703	31504		
ZINC	ZINC	SELENIUM	ALPHA-D	ALPHA-S	BETA-D	BETA-S	RA-226-D	U-NAT	TOT COLI		
ZN,DISS	ZN,TOT	SE,DISS	AS U-NAT	AS U-NAT	AS CS137	AS CS137	PLCHT CT	DISOLVED	MFIM LES		
UG/L	UG/L	UG/L	PC/L	PC/L	PC/L	PC/L	PC/L	UG/L	/100ML		
31505	31616	31625	70300	70303	71851	71900	80030	80040	80050		
TOT COLI	FEC COLI	FEC COLI	RESIDUE	DISS SOL	NITRATE	MERCURY	ALPHA-D	ALPHA-S	BETA-D		
MPN CONF	MFM-FCBR	M-FCAGAD	DISS-180	TONS PER	DISS-NO3	HG,TOTAL	AS U-NAT	AS U-NAT	AS SR-Y-		
/100ML	/100ML	/100 ML	C MG/L	ACRE-FT	MG/L	UG/L	UG/L	UG/L	UG/L		
93/10/26	1400		11								
93/11/22	1255		1K								
93/12/20	1200		12								
94/01/25	1150		2								
94/02/22	1115		8								
94/03/29	1155		1K								
94/04/26	1315		1K								
94/05/24	1240		1								

MORE DATES NEXT PAGE

DATE	DEPTH	TOT COLI MPN CONF	FEC COLI MFM-FCBR	31625 M-FCAGAD	RESIDUE DISS-180	70300 TONS PER ACRE-FT	70303 DISS SOL	71851 DISS-N03	71900 HG,TOTAL MG/L	80030 MERCURY UG/L	80040 ALPHA-D AS U-NAT	80050 ALPHA-S AS U-NAT	BETA-D AS SR-Y- UG/L
FROM	TO	TIME	FEET	/100ML	/100 ML	C	MG/L	ACRE-FT	MG/L	UG/L	UG/L	UG/L	90, PC/L
94/06/28	1305				1								
94/07/26	1340				1U								
94/08/23	1315				1								
94/09/27	1250				1K								

DATE	DEPTH	AS SR-Y- 90, PC/L	80060 BETA-S	80154 SUSP SED	80155 CONC	82079 DISCHARG	TURBIDTY LAB
FROM	TO	TIME	FEET	MG/L	TONS/DAY	NTU	
93/10/26	1400					1.4	
93/11/22	1255					0.8	
93/12/20	1200					8.1	
94/01/25	1150					3.9	
94/02/22	1115					3.4	
94/03/29	1155					4.0	
94/04/26	1315					1.1	
94/05/24	1240					0.6	
94/06/28	1305					1.0	
94/07/26	1340					0.7	
94/08/23	1315					0.8	
94/09/27	1250					0.6	

22A070 2722A070 12039003 541082  
 HUMPTULIPS RIVER NEAR HUMPTULIPS  
 47 13 48.0 123 57 38.0 2F 0 Elev= 0 ft  
 53027 Washington Grays Harbor Co. PACIFIC NORTHWEST  
 COASTAL (Lower Chehalis-22) 131222  
 21540000 Reach= 0.000 Drg= 0 sqmi  
 Seg ID= 10-22-05 Class= A Miles= 0.00 to 0.00  
 AMBNT/STREAM/RMP

INDEX 1312093  
 MILES 0023.60

DATE		8	10	25	60	70	80	95	300	301	400
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	TURB	COLOR	CNDUCTVY	DO	DO	PH
TO	TIME FEET	IDENT.	TEMP	PRESSURE	FLOW	JKSN	PT-CO	LAB @		SATUR	
		NUMBER	CENT	MM OF HG	CFS	JTU	UNITS	25C UMHO	MG/L	PERCENT	SU

93/10/26	1435	446116	9.6	772	470			55	11.9	102.4	7.30
93/11/22	1330	486116	5.9	760	1150			49	12.3	98.3	7.20
93/12/20	1235	526116	5.8	771	1160			44	12.3	96.7	7.30
94/01/25	1225	46116	6.7	762	1510			47	12.1	98.4	7.50
94/02/22	1155	86116	5.4	764	1700			48	12.3	96.6	7.20
94/03/29	1230	136116	7.8	763	960			50	12.0	100.1	7.40
94/04/26	1350	176116	9.8	762	530			48	11.6	101.6	7.80
94/05/24	1320	216116	14.6	763	310			57	10.7	104.2	7.60
94/06/28	1400	266116	15.8	762	358			59	10.5	104.9	7.70
94/07/26	1435	306116	18.7	762	190			56	9.9	105.0	7.40
94/08/23	1350	346116	17.1	761	145			65	10.5	107.9	7.80
94/09/27	1340	396116	14.7	756	270			66	10.9	107.3	7.30

DATE		410	440	445	530	600	610	613	615	620	625
FROM	DEPTH	T ALK	HCO <sub>3</sub>	ION	CO <sub>3</sub>	TOTAL N	NH <sub>3</sub> +NH <sub>4</sub> -	NO <sub>2</sub> -N	NO <sub>2</sub> -N	NO <sub>3</sub> -N	TOT KJEL
TO	TIME FEET	CACO <sub>3</sub>	HCO <sub>3</sub>	CO <sub>3</sub>	TOT-NFLT	N	N TOTAL	DISS	TOTAL	TOTAL	N MG/L
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L

93/10/26	1435				2.0	0.41	0.010K				
93/11/22	1330				6.0	0.36	0.010K				
93/12/20	1235				3.0	0.31	0.010K				
94/01/25	1225				6.0	0.21	0.013				
94/02/22	1155				7.0	0.26	0.010K				
94/03/29	1230				2.0	0.17	0.010K				
94/04/26	1350				2.0	0.08	0.010K				
94/05/24	1320				1.0	0.05	0.010K				
94/06/28	1400				1.0K	0.09	0.017				
94/07/26	1435				1.0K	0.11	0.018				
94/08/23	1350				1.0K	0.04J	0.010K				
94/09/27	1340				1.0						

DATE		630	660	665	671	900	902	915	925	930	935
FROM	DEPTH	NO <sub>2</sub> +NO <sub>3</sub>	ORTHOP04	PHOS-TOT	PHOS-DIS	TOT HARD	NC HARD	CALCIUM	MGSNIUM	SODIUM	PTSSIUM
TO	TIME FEET	N-TOTAL	PO <sub>4</sub>	MG/L P	ORTHO	CACO <sub>3</sub>	CACO <sub>3</sub>	CA,DISS	MG,DISS	NA,DISS	K,DISS
		MG/L	MG/L	MG/L P	MG/L P	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L

MORE DATES NEXT PAGE

Station:21540000 22A070

## HUMPTULIPS RIVER NEAR HUMPTULIPS

PCSTORET -- 05-JUN-95

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DATE	FROM	TO	TIME	DEPTH	630 NO2+NO3 N-TOTAL FEET	660 ORTHOP04 PO4 MG/L	665 PHOS-TOT MG/L P	671 PHOS-DIS ORTHO MG/L P	900 TOT HARD CACO3 MG/L	902 NC HARD CACO3 MG/L	915 CALCIUM CA,DISS MG/L	925 MGSNIUM MG,DISS MG/L	930 SODIUM NA,DISS MG/L	935 PTSSIUM K,DISS MG/L	
93/10/26	1435				0.335			0.010K	0.010K						
93/11/22	1330				0.326			0.017	0.010K						
93/12/20	1235				0.287			0.015	0.010K						
94/01/25	1225				0.172			0.010K	0.010K						
94/02/22	1155				0.209			0.012	0.010K						
94/03/29	1230				0.109			0.010K	0.010K						
94/04/26	1350				0.061			0.010K	0.010K						
94/05/24	1320				0.017			0.010K	0.010K						
94/06/28	1400				0.049			0.010K	0.010K						
94/07/26	1435				0.012			0.010K	0.010K						
94/08/23	1350				0.017J			0.012J	0.015						
94/09/27	1340				0.088				0.010K						
DATE	FROM	TO	TIME	DEPTH	940 CHLORIDE CL	945 SULFATE SO4-TOT	950 FLUORIDE F,DISS	955 SILICA DISSOLVED	1020 BORON B,DISS	1034 CHROMIUM CR,TOT	1042 COPPER CU,TOT	1045 IRON FE,TOT	1092 ZINC ZN,TOT	31504 TOT COLI MFIM LES	
					MG/L	MG/L	MG/L	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	/100ML
DATE	FROM	TO	TIME	DEPTH	31505 TOT COLI MPN CONF	31616 FEC COLI MFM-FCBR	31625 FEC COLI M-FCAGAD	70300 RESIDUE DISS-180	82079 TURBIDTY LAB						
					/100ML	/100ML	/100 ML	C MG/L	NTU						
93/10/26	1435				22				2.0						
93/11/22	1330				15				8.7						
93/12/20	1235				6				2.4						
94/01/25	1225				5				5.7						
94/02/22	1155				7				7.4						
94/03/29	1230				1K				1.6						
94/04/26	1350				1				0.9						
94/05/24	1320				3				0.5						
94/06/28	1400				4				0.6						
94/07/26	1435				11				0.5K						
94/08/23	1350				23				0.5K						
94/09/27	1340				23				0.5K						

22B070 2722B070 12038510 541083  
WF HOQUIAM RIVER NEAR HOQUIAM  
47 03 24.0 123 55 35.0 2F 0 Elev= 0 ft  
53027 Washington Grays Harbor Co. PACIFIC NORTHWEST  
COASTAL (Lower Chehalis-22) 131222  
21540000 Reach= 0.000 Drg= 0 sqmi  
Seg ID= 10-22-06 Class= A Miles= 0.00 to 0.00  
AMBN/T/STREAM

INDEX 1312098  
MILES 0009.30

DATE FROM TO	DEPTH TIME FEET	LAB IDENT. NUMBER	8 WATER TEMP CENT	10 BAROMTRC PRESSURE MM OF HG	25 STREAM FLOW CFS	60 TURB JKSN JTU	70 COLOR PT-CO UNITS	80 CNDUCTVY LAB @ 25C UMHO	95 DO MG/L	300 DO PERCENT	301 SATUR	400 PH SU
93/10/26 1515		446117	9.2	776	14			67	11.5	97.6	7.20	
93/11/22 1405		486117	5.8	765	33			57	11.6	91.9	7.10	
93/12/20 1320		526117	5.6	775	57			41	12.3	95.7	7.40	
94/01/25 1255		46117	7.6	765	130			44	11.7	96.9	7.30	
94/02/22 1225		86117	5.7	768	140			45	11.9	93.7	7.20	
94/03/29 1305		136117	7.4	767	56			50	11.8	97.1	7.60	
94/04/26 1430		176117	9.4	767	39			48	11.3	97.4	7.70	
94/05/24 1410		216117	11.6	765	26			62	11.2	101.9	7.40	
94/06/28 1435		266117	13.0	765	23			70	10.4	97.5	7.60	
94/07/26 1505		306117	15.0	765	14			64	9.7	95.0	7.30	
94/08/23 1430		346117	13.3	765	13			75	10.3	97.2	7.60	
94/09/27 1415		396117	12.6	760	10			82	10.0	93.6	7.40	

DATE FROM TO	DEPTH TIME FEET	HCO3 HC03 MG/L	440 ION CO3 CO3 MG/L	445 CO3 CO3 MG/L	530 RESIDUE TOT-NFLT MG/L	600 TOTAL N N MG/L	610 NH3+NH4- N MG/L	615 NO2-N N TOTAL MG/L	620 NO3-N TOTAL MG/L	625 TOT KJEL N MG/L	630 NO2+N03 N-TOTAL MG/L	650 T PO4 PO4 MG/L
93/10/26 1515					2.0	0.28	0.010K				0.153	
93/11/22 1405					3.0	0.57	0.010K				0.434	
93/12/20 1320					1.0K	0.20	0.010K				0.168	
94/01/25 1255					3.0	0.26	0.010K				0.182	
94/02/22 1225					4.0	0.26	0.010K				0.191	
94/03/29 1305					2.0	0.15	0.010K				0.098	
94/04/26 1430					2.0	0.12	0.013				0.092	
94/05/24 1410					1.0	0.11	0.010K				0.055	
94/06/28 1435					1.0	0.18	0.066				0.062	
94/07/26 1505					1.0K	0.12	0.010K				0.052	
94/08/23 1430					1.0	0.09J	0.012J				0.047J	
94/09/27 1415					2.0						0.057	

DATE FROM TO	DEPTH TIME FEET	ORTHOP04 PO4 MG/L	660 PHOS-TOT PO4 MG/L P	665 PHOS-DIS ORTHO MG/L P	671 TOT HARD CACO3 MG/L	900 HARD CACO3 MG/L	902 NC HARD CACO3 MG/L	915 CALCIUM CA,DISS MG/L	925 MGNSIUM MG,DISS MG/L	930 SODIUM NA,DISS MG/L	935 PTSSIUM K,DISS MG/L	940 CHLORIDE CL MG/L

MORE DATES NEXT PAGE

Station:21540000 22B070

## WF HOQUIAM RIVER NEAR HOQUIAM

PCSTORET -- 05-JUN-95

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DATE	DEPTH	660 ORTHOP04	665 PHOS-TOT	671 PHOS-DIS	900 ORTHO	902 CACO3	915 CACO3	925 CA,DISS	930 MG,DISS	935 NA,DISS	940 PTSSIUM	CHLORIDE CL
FROM		PO4 MG/L	MG/L P	MG/L P	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	K,DISS	MG/L
TO	TIME FEET											MG/L
93/10/26	1515			0.015	0.010K							
93/11/22	1405			0.021	0.010K							
93/12/20	1320			0.010K	0.010K							
94/01/25	1255			0.010K	0.010K							
94/02/22	1225			0.011	0.010K							
94/03/29	1305			0.010K	0.010K							
94/04/26	1430			0.013	0.010K							
94/05/24	1410			0.010K	0.010K							
94/06/28	1435			0.010K	0.010K							
94/07/26	1505			0.012	0.010K							
94/08/23	1430			0.019J	0.017							
94/09/27	1415			0.010K								

DATE	DEPTH	945 SULFATE	950 FLUORIDE	955 SILICA	1020 BORON	1045 IRON	31504 TOT COLI	31505 MFIM LES	31507 MPN CONF	31616 TOT COLI	FEC COLI	70300 RESIDUE
FROM		SO4-TOT	F,DISS	DISOLVED	B,DISS	FE,TOT	MPN	CONF	MPN COMP	MFM-FCBR	DISS-180	
TO	TIME FEET	MG/L	MG/L	MG/L	UG/L	UG/L	/100ML	/100ML	/100ML	/100ML	C MG/L	
93/10/26	1515										19	
93/11/22	1405										51	
93/12/20	1320										4	
94/01/25	1255										6	
94/02/22	1225										12	
94/03/29	1305										1K	
94/04/26	1430										4	
94/05/24	1410										12	
94/06/28	1435										10	
94/07/26	1505										19	
94/08/23	1430										31	
94/09/27	1415										16	

DATE	DEPTH	71851 NITRATE	71885 IRON	80154 SUSP SED	80155 CONC	82079 DISCHARG	TURBIDTY LAB
FROM		DISS-NO3	FE	SUSP SED	DISCHARG	TONS/DAY	NTU
TO	TIME FEET	MG/L	UG/L	MG/L			
93/10/26	1515					2.3	
93/11/22	1405					5.0	
93/12/20	1320					1.7	
94/01/25	1255					3.3	
94/02/22	1225					4.6	
94/03/29	1305					1.8	
94/04/26	1430					2.0	
94/05/24	1410					2.0	
94/06/28	1435					1.8	
94/07/26	1505					1.7	

MORE DATES NEXT PAGE

DATE	DEPTH	NITRATE DISS-NO3	IRON FE	SUSP SED CONC	SUSP SED DISCHARG	TURBIDTY LAB	
FROM	TO	TIME	FEET	MG/L	UG/L	TONS/DAY	NTU
94/08/23	94/09/27	1430	1415			1.6	
						1.5	

23A070 2723A070 12031000 541088  
 CHEHALIS RIVER AT PORTER  
 46 56 17.0 123 18 45.0 2F 0 Elev= 0 ft  
 53027 Washington Grays Harbor Co. PACIFIC NORTHWEST  
 COASTAL (Upper Chehalis-23) 131223  
 21540000 Reach= 0.000 Drg= 0 sqmi  
 Seg ID= 10-23-18 Class= A Miles= 0.00 to 0.00  
 AMBNT/STREAM/RMP

INDEX 1312099  
 MILES 0033.30

DATE		8	10	25	40	50	60	70	80	95	300
FROM	DEPTH	LAB IDENT.	WATER TEMP	BAROMTRC PRESSURE	WIND DIRECT	EVAP TOT DAY	STREAM FLOW	TURB JKSN	COLOR PT-CO	CNDUCTVY LAB	DO
TO	TIME FEET	NUMBER	CENT	MM OF HG	AZIMUTH	IN	CFS	JTU	UNITS	25C UMHO	MG/L
93/10/26	1635	446118	11.1	774			548			99	11.5
93/11/22	1535	486118	5.5	765			478			115	12.3
93/12/20	1425	526118	4.6	772			2250			75	12.0
94/01/25	1445	461118	7.4	764			3160			81	11.0
94/02/22	1340	861118	5.4	766			6820			74	11.3
94/03/29	1515	136118	9.6	764			3890			75	10.8
94/04/26	1620	176118	10.5	765			1590			79	10.4
94/05/24	1530	216118	18.1	762			805			99	10.7
94/06/28	1550	266118	20.5	763			688			97	9.5
94/07/26	1630	306118	22.1	763			374			87	9.8
94/08/23	1600	346118	19.8	762			330			107	10.6
94/09/27	1520	396118	18.4	756			320			115	10.0

DATE		301 DO	340 COD	400 PH	405 CO2	410 TALK	440 HCO3	445 ION	530 RESIDUE	600 TOTAL N	605 ORG N
FROM	DEPTH	SATUR	H1 LEVEL	PERCENT	MG/L	SU	MG/L	MG/L	CO3	TOT-NFLT	N
TO	TIME FEET								MG/L	MG/L	MG/L
93/10/26	1635	102.1		7.50					3.0	0.84	
93/11/22	1535	96.8		7.80					1.0K	0.75	
93/12/20	1425	91.4		7.40					4.0	1.15	
94/01/25	1445	90.8		7.30					7.0	1.01	
94/02/22	1340	88.6		6.80					20.0	1.18	
94/03/29	1515	94.0		7.20					11.0	0.91	
94/04/26	1620	92.3		7.60					4.0	0.80	
94/05/24	1530	112.1		7.60					3.0	0.66	
94/06/28	1550	104.2		7.50					2.0	0.78	
94/07/26	1630	110.7		7.80					2.0	0.57	
94/08/23	1600	114.8		7.90					2.0	0.63J	
94/09/27	1520	106.2		7.70					2.0		

DATE		610 NH3+NH4-	613 NO2-N	615 NO2-N	620 NO3-N	625 TOT KJEL	630 NO2+NO3	650 T PO4	660 ORTHOPO4	665 PHOS-TOT	671 PHOS-DIS
FROM	DEPTH	N TOTAL	DISS	TOTAL	TOTAL	N	N-TOTAL	PO4	PO4	ORTHO	
TO	TIME FEET	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L P	MG/L P

MORE DATES NEXT PAGE

DATE	DEPTH	NH3+NH4-	NO2-N	NO2-N	NO3-N	TOT	KJEL	NO2+NO3	T	P04	ORTHOP04	PHOS-TOT	665	671
FROM		N TOTAL	DISS	TOTAL	TOTAL	N		N-TOTAL	P04	P04	P04	PHOS-DIS	ORTHO	
TO	TIME FEET	MG/L	MG/L	MG/L	MG/L	MG/L		MG/L	MG/L	MG/L	MG/L	MG/L P	MG/L P	
93/10/26	1635	0.015						0.657				0.056	0.039	
93/11/22	1535	0.012						0.665				0.072	0.051	
93/12/20	1425	0.032						1.030				0.037	0.023	
94/01/25	1445	0.034						0.829				0.041	0.018	
94/02/22	1340	0.025						0.990				0.041	0.019	
94/03/29	1515	0.017						0.749				0.019	0.015	
94/04/26	1620	0.022						0.655				0.040	0.016	
94/05/24	1530	0.010K						0.510				0.027	0.017	
94/06/28	1550	0.080						0.554				0.047	0.032	
94/07/26	1630	0.010K						0.440				0.040	0.016	
94/08/23	1600	0.010J						0.511J				0.040J	0.027	
94/09/27	1520							0.585					0.029	

DATE	DEPTH	T	ORG C	TOT HARD	NC HARD	CALCIUM	MGSNIIUM	SODIUM	SODIUM	PERCENT	PTSSIUM	CHLORIDE
FROM		C		CACO3	CACO3	CA,DISS	MG,DISS	NA,DISS	ADSBITION	SODIUM	K,DISS	CL
TO	TIME FEET	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	RATIO	%	MG/L	MG/L
94/05/24	1530	680	900	902	915	925	930	931	932	935	940	

DATE	DEPTH	SULFATE	FLUORIDE	SILICA	ARSENIC	BARIUM	BORON	CADMIUM	CHROMIUM	CHROMIUM	COPPER
FROM		SO4-TOT	F,DISS	DISOLVED	AS,DISS	BA,DISS	B,DISS	CD,DISS	CR,DISS	CR,TOT	CU,DISS
TO	TIME FEET	MG/L	MG/L	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
94/05/24	1530	945	950	955	1000	1005	1020	1025	1030	1034	1040

DATE	DEPTH	COPPER	IRON	LEAD	NICKEL	SILVER	STRONTIUM	ZINC	ZINC	LITHIUM	SELENIUM
FROM		CU,TOT	FE,TOT	PB,DISS	NI,DISS	AG,DISS	SR,DISS	ZN,DISS	ZN,TOT	LI,DISS	SE,DISS
TO	TIME FEET	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
94/05/24	1530	1042	1045	1049	1065	1075	1080	1090	1092	1130	1145

DATE	DEPTH	TOT COLI	TOT COLI	TOT COLI	TOT COLI	TOT COLI	FEC COLI	FEC COLI	FECSTREP	RESIDUE	DISS SOL
FROM		MFIMENDO	MFDELENDO	MFIM LES	MPN CONF	MPN COMP	MFM-FCBR	M-FCAGAD	PC M-ENT	DISS-180	SUM
TO	TIME FEET	/100ML	/100ML	/100ML	/100ML	/100ML	/100ML	/100 ML	/100ML	C MG/L	MG/L
93/10/26	1635	31501	31503	31504	31505	31507	31616	31625	31672	70300	70301

93/11/22	1535	7
93/12/20	1425	6
94/01/25	1445	13
94/02/22	1340	46S
94/03/29	1515	44S
94/04/26	1620	12
94/05/24	1530	12
		1

MORE DATES NEXT PAGE

DATE	DEPTH	31501 TOT COLI MFIMENDO	31503 TOT COLI MFDLEND0	31504 TOT COLI MFIM LES	31505 TOT COLI MPN CONF	31507 TOT COLI MPN COMP	31616 FEC COLI MFM-FCBR	31625 FEC COLI M-FCAGAD	31672 FECSTREP PC M-ENT	70300 RÉSIDUE DISS-180	70301 DISS SOL SUM
FROM		TIME FEET	/100ML	/100ML	/100ML	/100ML	/100ML	/100 ML	/100ML	C MG/L	MG/L

94/06/28 1550	7
94/07/26 1630	15
94/08/23 1600	10
94/09/27 1520	8

DATE	DEPTH	70302 DISS SOL TONS/DAY	70303 DISS SOL TONS PER ACRE-FT	71851 NITRATE DISS-N03 MG/L	71900 MERCURY HG, TOTAL UG/L	82079 TURBIDTY LAB NTU
FROM		TIME FEET				
93/10/26 1635						1.3
93/11/22 1535						1.6
93/12/20 1425						2.8
94/01/25 1445						5.9
94/02/22 1340						9.8
94/03/29 1515						4.9
94/04/26 1620						2.7
94/05/24 1530						1.7
94/06/28 1550						1.2
94/07/26 1630						1.0
94/08/23 1600						0.9
94/09/27 1520						0.9

23A160 4123A160 12020565

CHEHALIS RIVER AT DRYAD

46 37 54.0 123 14 51.0 2F 0 Elev= 0 ft

53041 Washington Lewis Co. PACIFIC NORTHWEST

COASTAL (Upper Chehalis-23) 131223

21540000 Reach= 0.000 Drg= 0 sqmi

Seg ID= 10-23-15 Class= A Miles= 0.00 to 0.00

AMBNT/STREAM/RMP

INDEX 1312099

MILES 0101.70

DATE		8	10	25	60	70	80	95	300	301	400
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	TURB	COLOR	CNDUCTVY	DO	DO	PH
TO	TIME	IDENT.	TEMP	PRESSURE	FLOW	JKSN	PT-CO	LAB	SATUR		
		NUMBER	CENT	MM OF HG	CFS	JTU	UNITS	25C UMHO	MG/L	PERCENT	SU
93/10/27	0935	446121	8.0	766	62			77	11.5	96.1	7.20
93/11/22	0930	486121	3.8	752	180			76	12.1	92.7	7.80
93/12/21	1030	526121	3.8	768	408			56	12.9	96.8	7.50
94/01/26	1015	46121	6.3	764	548			62	12.3	98.9	7.60
94/02/23	0840	86121	5.1	756	2790			55	12.2	96.1	6.90
94/03/30	0750	136121	8.2	762	654			63	11.4	96.2	7.30
94/04/27	0830	176121	8.8	770	273			76	10.7	90.7	7.40
94/05/25	0930	216121	14.7	759	132			72	9.7	95.1	7.60
94/06/29	0830	266121	16.2	761	131			73	9.1	91.9	7.60
94/07/27	0910	306121	18.1	758	54			69	8.4	88.5	7.00
94/08/24	0825	346121	15.3	761	243			80	9.0	89.2	7.70
94/09/28	0830	396121	14.8	754	38			88	9.9	97.9	7.50

DATE		440	445	530	600	610	613	615	620	630	650
FROM	DEPTH	HCO3	ION	CO3	TOT	NH3+NH4-	NO2-N	NO2-N	NO3-N	NO2+NO3	T PO4
TO	TIME	FEET	MG/L	MG/L	TOT-NFLT	MG/L	MG/L	MG/L	MG/L	N-TOTAL	PO4
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
93/10/27	0935			3.0	0.23	0.010K				0.061	
93/11/22	0930			5.0	0.43	0.035				0.098	
93/12/21	1030			2.0	0.71	0.010K				0.630	
94/01/26	1015			1.0	0.60	0.010K				0.507	
94/02/23	0840			34.0	0.80	0.011				0.649	
94/03/30	0750			11.0	0.53	0.010K				0.441	
94/04/27	0830			3.0	0.34	0.010				0.271	
94/05/25	0930			2.0	0.30	0.010K				0.153	
94/06/29	0830			1.0	0.35	0.081				0.145	
94/07/27	0910			2.0	0.22	0.019				0.070	
94/08/24	0825			2.0	0.14J	0.010K				0.055J	
94/09/28	0830			2.0	0.37	0.021				0.037	

DATE		660	665	671	900	902	915	925	930	935	940
FROM	DEPTH	ORTHOP04	PHOS-TOT	PHOS-DIS	TOT HARD	NC HARD	CALCIUM	MGNSIUM	SODIUM	PTSSIUM	CHLORIDE
TO	TIME	PO4	MG/L	MG/L P	ORTHO	CACO3	CA,DISS	MG,DISS	NA,DISS	K,DISS	CL
		MG/L	MG/L	MG/L P	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L

MORE DATES NEXT PAGE

DATE	DEPTH	660 ORTHOP04 PO4 MG/L	665 PHOS-TOT MG/L P	671 PHOS-DIS MG/L P	900 ORTHO MG/L	902 TOT HARD CACO3 MG/L	915 NC HARD CACO3 MG/L	925 CALCIUM CA,DISS MG/L	930 MGSNLIUM MG,DISS MG/L	935 SODIUM NA,DISS MG/L	940 PTSSIUUM K,DISS MG/L	CHLORIDE CL MG/L
93/10/27	0935		0.016	0.010K								
93/11/22	0930		0.025	0.010K								
93/12/21	1030		0.014	0.010K								
94/01/26	1015		0.010K	0.010K								
94/02/23	0840		0.030	0.010K								
94/03/30	0750		0.010K	0.010K								
94/04/27	0830		0.016	0.010K								
94/05/25	0930		0.010K	0.010K								
94/06/29	0830		0.010K	0.010K								
94/07/27	0910		0.018	0.010K								
94/08/24	0825		0.020J	0.010K								
94/09/28	0830		0.010K	0.010K								

DATE	DEPTH	945 SULFATE SO4-TOT MG/L	950 FLUORIDE F,DISS MG/L	955 SILICA DISSOLVED MG/L	1000 ARSENIC AS,DISS UG/L	1020 BORON B,DISS UG/L	1034 CHROMIUM CR,TOT UG/L	1040 COPPER CU,DISS UG/L	1045 IRON FE,TOT UG/L	1090 ZINC ZN,DISS UG/L	31505 TOT COLI MPN CONF /100ML
93/10/27	0935										
93/11/22	0930										
93/12/21	1030										
94/01/26	1015										
94/02/23	0840										
94/03/30	0750										
94/04/27	0830										
94/05/25	0930										
94/06/29	0830										
94/07/27	0910										
94/08/24	0825										
94/09/28	0830										

DATE	DEPTH	31507 TOT COLI MPN COMP /100ML	31616 FEC COLI MFM-FCBR /100ML	70300 RESIDUE DISS-180 C MG/L	71851 NITRATE DISS-NO3 MG/L	71885 IRON FE UG/L	80154 SUSP SED CONC MG/L	80155 SUSP SED DISCHARG TONS/DAY	82079 TURBIDTY LAB NTU
93/10/27	0935			22					1.2
93/11/22	0930			150					3.8
93/12/21	1030			160					1.0
94/01/26	1015			11					1.4
94/02/23	0840			37					9.4
94/03/30	0750			35					1.0
94/04/27	0830			21					1.4
94/05/25	0930			43					1.6
94/06/29	0830			43					1.3
94/07/27	0910			53					1.3
94/08/24	0825			40					1.5
94/09/28	0830			35					1.3

26B070 1526B070 14244200 541001  
 COWLITZ RIVER AT KELSO  
 46 08 44.0 122 54 47.0 3F 0 Elev= 0 ft  
 53015 Washington COWLITZ CO. PACIFIC NORTHWEST  
 LOWER COLUMBIA (Cowlitz-26) 131026  
 21540000 Reach= 0.000 Drg= 0 sqmi  
 Seg ID= 12-26-04 Class= A Miles= 0.00 to 0.00  
 AMBNT/STREAM/RMP

INDEX 1310001 000850  
 MILES 0068.00 0004.90

DATE		8	10	25	60	70	80	95	300	301	340
FROM	DEPTH	LAB IDENT.	WATER TEMP	BAROMTRC PRESSURE	STREAM FLOW	TURB JKSN	COLOR PT-CO	CNDUCTVY LAB @	DO	DO	COD
TO	TIME FEET	NUMBER	CENT	MM OF HG	CFS	JTU	UNITS	25C UMHO	MG/L	SATUR PERCENT	HLEVEL MG/L
93/10/27	0805	446120	10.2	766	4130				94	11.9	105.7
93/11/22	1100	486120	7.1	760	3900				122	11.3	93.2
93/12/21	0855	526120	5.2	776	4830				86	12.3	94.6
94/01/26	0855	46120	6.4	772	8440				84	11.9	94.9
94/02/09	0740	66120	5.0	762	6210				90	9.9	77.2
94/03/13	1050	116120	6.6	772	8900				83	11.8	94.5
94/04/10	1010	156120	7.4	795	11100				82	11.4	90.4
94/05/08	1120	196120	11.7	767	6900				96	10.6	96.3
94/06/12	1130	246120	14.1	757	5160				105	10.6	102.9
94/07/10	1250	286120	14.6	767	4310				106	9.9	95.8
94/08/08	0915	326120	13.8	763	3350				118	10.8	103.4
94/09/11	1150	376120	9.7	767	3460				115	10.4	90.3
DATE		400	405	410	440	445	530	600	605	610	613
FROM	DEPTH	PH	CO2	TALK	HCO3 ION	CO3 ION	RESIDUE	TOTAL N	ORG N	NH3+NH4-N	NO2-N
TO	TIME FEET	SU	MG/L	MG/L	HCO3	CO3	TOT-NFLT	N	N	N TOTAL	DISS MG/L
93/10/27	0805	6.90						5.0	0.13		0.010K
93/11/22	1100	7.40						3.0	0.13		0.010K
93/12/21	0855	7.40						19.0	0.40		0.010K
94/01/26	0855	7.60						9.0	0.28		0.015
94/02/09	0740	6.80						8.0	0.33		0.021
94/03/13	1050	7.10						23.0	0.41		0.011
94/04/10	1010	8.40						42.0	0.28		0.069
94/05/08	1120	7.80						6.0	0.12		0.012
94/06/12	1130	8.50						5.0	0.09		0.010U
94/07/10	1250	7.10						5.0	0.27		0.010U
94/08/08	0915	7.80						6.0	0.10		0.010K
94/09/11	1150	7.70						7.0	0.09		0.010U
DATE		615	620	625	630	660	665	671	680	900	902
FROM	DEPTH	NO2-N	NO3-N	TOT KJEL	NO2+NO3	ORTHOP04	PHOS-TOT	PHOS-DIS	T ORG C	TOT HARD	NC HARD
TO	TIME FEET	TOTAL	TOTAL	N	N-TOTAL	PO4	PO4	ORTHO	C	CACO3	CACO3
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L P	MG/L P	MG/L	MG/L	MG/L

MORE DATES NEXT PAGE

DATE	FROM	TO	DEPTH	TIME	FEET	615 NO2-N TOTAL MG/L	620 NO3-N TOTAL MG/L	625 TOT KJEL MG/L	630 N N-TOTAL MG/L	660 ORTHOP04 PO4 MG/L	665 PHOS-TOT MG/L P	671 PHOS-DIS ORTHO MG/L P	680 T ORG C C MG/L	900 TOT HARD CACO3 MG/L	902 NC HARD CACO3 MG/L	
93/10/27	0805								0.036		0.010K	0.010K				
93/11/22	1100								0.068		0.017	0.010K				
93/12/21	0855								0.311		0.029	0.010K				
94/01/26	0855								0.205		0.011	0.010K				
94/02/09	0740								0.179		0.014	0.019				
94/03/13	1050								0.260		0.027	0.010U				
94/04/10	1010								0.171		0.047	0.010U				
94/05/08	1120								0.074		0.010U				31	
94/06/12	1130								0.046		0.018	0.010U				
94/07/10	1250								0.044		0.010U	0.010U				
94/08/08	0915								0.041		0.010K	0.010K				
94/09/11	1150								0.031		0.023	0.010U				
DATE	FROM	TO	DEPTH	TIME	FEET	915 CALCIUM CA,DISS MG/L	925 MGSNIUM MG,DISS MG/L	930 SODIUM NA,DISS MG/L	935 PTSSIUM K,DISS MG/L	940 CHLORIDE CL MG/L	945 SULFATE SO4-TOT MG/L	950 FLUORIDE F,DISS MG/L	955 SILICA DISOLVED MG/L	978 ARSENIC TOT REC UG/L	1000 ARSENIC AS,DISS UG/L	
94/05/08	1120														30.0U	
94/07/10	1250														30.0U	
94/09/11	1150														30.0U	
DATE	FROM	TO	DEPTH	TIME	FEET	1005 BARIUM BA,DISS UG/L	1020 BORON B,DISS UG/L	1025 CADMIUM CD,DISS UG/L	1030 CHROMIUM CR,DISS UG/L	1040 COPPER CU,DISS UG/L	1045 IRON FE,TOT UG/L	1049 LEAD PB,DISS UG/L	1065 NICKEL NI,DISS UG/L	1075 SILVER AG,DISS UG/L	1090 ZINC ZN,DISS UG/L	
94/05/08	1120								0.04U		0.7		0.1P	0P		1P
94/07/10	1250								0.04U		0.9		0.2P	1U		1P
94/09/11	1150								0.04U		0.4P		0.0U	1U		1U
DATE	FROM	TO	DEPTH	TIME	FEET	1118 CHROMIUM TOT REC UG/L	1145 SELENIUM SE,DISS UG/L	31504 TOT COLI MFIM LES /100ML	31505 TOT COLI MPN CONF /100ML	31616 FEC COLI MFM-FCBR /100ML	31625 FEC COLI M-FCAGAD /100 ML	70300 RESIDUE DISS-180 /100 MG/L	71851 NITRATE DISS-NO3 MG/L	71900 MERCURY HG,TOTAL UG/L	82079 TURBIDITY LAB NTU	
93/10/27	0805									12					1.6	
93/11/22	1100									20S					2.9	
93/12/21	0855									13					9.1	
94/01/26	0855									58					5.3	
94/02/09	0740									8					7.1	
94/03/13	1050									4					15.0	
94/04/10	1010									48					26.0	
94/05/08	1120					5.0U				6				0.00U	3.3	
94/06/12	1130									23					2.4	

MORE DATES NEXT PAGE

DATE FROM TO	DEPTH TIME FEET	1118 TOT REC UG/L	1145 SE,DISS UG/L	31504 MFIM LES /100ML	31505 MPN CONF /100ML	31616 MFM-FCBR /100ML	31625 M-FCAGAD /100 ML	70300 RESIDUE C MG/L	71851 DISS-180 MG/L	71900 DISS-NO3 MG/L	82079 MERCURY HG,TOTAL UG/L	TURBIDTY LAB NTU
94/07/10 1250		5.0U				7				0.00U	2.8	
94/08/08 0915						15					2.4	
94/09/11 1150		5.0U				32				0.00U	4.1	

30C070 3930C070 14112500  
 LITTLE KLICKITAT R NR WAHKIACUS  
 45 50 38.0 121 03 32.0 2F 0 Elev= 0 ft  
 53039 Washington Klickitat Co. PACIFIC NORTHWEST  
 LOWER COLUMBIA (Klickitat-30) 131030  
 21540000 Reach= 0.000 Drg= 0 sqmi  
 Seg ID= 14-30-01 Class= A Miles= 0.00 to 0.00  
 AMBNT/STREAM

INDEX 1310001 001850 00240  
 MILES 0180.40 0019.80 000.20

DATE		8	10	25	60	80	95	300	301	400	410
FROM	DEPTH	LAB IDENT.	WATER TEMP	BAROMTRC PRESSURE	STREAM FLOW	COLOR PT-CO	CNDUCTVY LAB @	DO 25C UMHO	DO	PH SATUR	TALK
TO	TIME FEET	NUMBER	CENT	MM OF HG	CFS	UNITS	25C UMHO	MG/L	PERCENT	SU	CACO3 MG/L
93/10/11	1030	426001	9.2	751	7		118	12.1	106.1	7.80	
93/11/07	1115	466001	1.3	753	7		113	14.3	102.3	8.10	
93/12/13	1240	516001	3.9	742	10		111	12.7	98.8	8.00	
94/01/09	1120	26001	4.6	748	15		109	11.2	88.1	7.90	
94/02/14	1215	76001	4.0	752	7		104	13.3	102.4	8.10	
94/03/14	1030	116001	5.0	752	40		99	12.3	97.2	7.50	
94/04/11	1140	156001	7.4	754	50		94	12.2	102.0	8.40	
94/05/09	1010	196001	15.0	749	80		93	10.4	104.0	8.40	
94/06/13	0940	246001	14.6	742	20		134	10.5	105.2	8.50	
94/07/11	1005	286001	17.1	749	8		147	10.5	109.7	8.30	
94/08/08	1315	326001	19.9	743	5		144	11.7	130.4	9.00	
94/09/12	0950	376001	5.2	752	5		163	10.7	85.0	8.20	

DATE		440	445	530	600	610	630	665	671	900	902
FROM	DEPTH	HCO3	CO3 ION	CO3	RESIDUE	TOTAL N	NH3+NH4-N	NO2+NO3	PHOS-TOT	PHOS-DIS	TOT HARD
TO	TIME FEET	MG/L	MG/L	MG/L	TOT-NFLT	MG/L	N TOTAL	N-TOTAL	ORTHO	CACO3	NC HARD
93/10/11	1030			3.0	0.18	0.011	0.055	0.041	0.030		
93/11/07	1115			2.0	0.26	0.010K	0.121	0.041	0.031		
93/12/13	1240			2.0	0.50	0.023	0.330	0.084			
94/01/09	1120			5.0	0.92	0.074	0.637	0.087	0.063		
94/02/14	1215			3.0	0.59	0.010K	0.417	0.066	0.044		
94/03/14	1030			5.0	1.14	0.010K	0.918	0.041	0.022		
94/04/11	1140			5.0	0.35	0.010K	0.260	0.050	0.019		
94/05/09	1010			11.0	0.32	0.023	0.126	0.060	0.033		
94/06/13	0940			6.0	0.21	0.010K	0.088	0.048	0.033		
94/07/11	1005			4.0	0.22	0.017	0.147	0.050	0.040		
94/08/08	1315			3.0	0.22	0.010K	0.055	0.062	0.052		
94/09/12	0950			2.0	0.21	0.010K	0.036	0.056	0.041		

DATE		915	925	930	935	940	945	31504	31616	82079
FROM	DEPTH	CALCIUM	MGSNIUM	SODIUM	PTSSSIUM	CHLORIDE	SULFATE	TOT COLI	FEC COLI	TURBIDTY
TO	TIME FEET	CA,DISS	MG,DISS	NA,DISS	K,DISS	CL	SO4-TOT	MFIM LES	MFM-FCBR	LAB
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	/100ML	/100ML	NTU

MORE DATES NEXT PAGE



31A070 0531A070 COL045

COLUMBIA RIVER AT UMATILLA BR

45 55 53.0 119 19 24.0 2F 0 Elev= 0 ft

53005 Washington Benton Co. PACIFIC NORTHWEST

LOWER COLUMBIA (Rock/Glade-31) 131031

21540000 Reach= 0.000 Drg= 0 sqmi

Seg ID= 26-00-02 Class= A Miles= 0.00 to 0.00

AMBNT/STREAM

INDEX 1310001

MILES 0290.50

DATE	LAB	8	10	25	33	35	36	60	69	70	95
FROM	DEPTH	IDENT.	WATER TEMP	BAROMTRC PRESSURE	WEATHER CODE	WIND VELOCITY MPH	WIND DIR.FROM NORTH-0	STREAM FLOW CFS	SEA CODE	TURB JKSN	CNDCTVY LAB @
TO	TIME FEET	NUMBER	CENT	MM OF HG						JTU	25C UMHO

93/10/11 1310	426002	16.8	755					83200			161
93/11/07 1440	466002	9.6	757					108000			160
93/12/13 1535	516002	7.2	748					116000			176
94/01/09 1440	26002	5.3	756					114000			183
94/02/14 1510	76002	2.9	758					96200			169
94/03/14 1305	116002	4.6	754					149000			196
94/04/11 1530	156002	7.4	757					118000			171
94/05/09 1315	196002	11.2	752					244000			140
94/06/13 1215	246002	14.3	747					185000			128
94/07/11 1300	286002	18.0	752					190000			128
94/08/08 1620	326002	21.5	747					82700			139
94/09/12 1220	376002	19.0	754					82900			144

DATE	DO	300	301	400	405	410	440	445	530	600	605
FROM	DEPTH	DO	DO	PH	CO2	TALK	HCO3 <sup>-</sup>	ION	CO3 <sup>-</sup>	TOTAL N	ORG N
TO	TIME FEET	MG/L	SATUR	SU	MG/L	CACO3	HCO3 <sup>-</sup>	CO3 <sup>-</sup>	RESIDUE	N	N
						MG/L	MG/L	MG/L	TOT-NFLT	MG/L	MG/L

93/10/11 1310	9.5	97.8	8.30						55.0	0.27	
93/11/07 1440	10.7	93.9	8.40						10.0	0.32	
93/12/13 1535	11.8	99.1	8.30						15.0	0.34	
94/01/09 1440	11.8	93.5	8.00						5.0	0.45	
94/02/14 1510	13.2	98.0	8.10						3.0	0.38	
94/03/14 1305	13.9	108.4	8.20						4.0	0.39	
94/04/11 1530	12.8	106.7	8.50						6.0	0.26	
94/05/09 1315	12.2	111.9	8.60						7.0	0.25	
94/06/13 1215	11.0	108.7	8.30						6.0	0.12	
94/07/11 1300	10.1	107.0	8.30						8.0	0.16	
94/08/08 1620	9.3	106.2	8.30						6.0	0.17	
94/09/12 1220	10.1	108.8	8.50						3.0	0.12	

DATE	NH3+NH4-	610	613	625	630	665	671	680	760	900	940
FROM	DEPTH	NO2-N	TOT DISS	KJEL N	NO2+NO3 N-TOTAL	PHOS-TOT MG/L P	PHOS-DIS ORTHO MG/L P	T ORG C MG/L	SWL PBI MG/L	TOT HARD CACO3 MG/L	CHLORIDE CL MG/L
TO	TIME FEET	MG/L	MG/L	MG/L	MG/L	MG/L P	MG/L P	MG/L	MG/L	MG/L	MG/L

MORE DATES NEXT PAGE

08K090 3308K090  
 Ship Canal @ Freemont  
 47 39 24.0 122 20 54.0 2F000 Elev= 0 ft  
 53033 Washington King Co. PACIFIC NORTHWEST  
 PUGET SOUND (Cedar-08) 131108  
 21540000 Reach=17110012001 0.000 Drg= 0 sqmi  
 AMBN/TSTREAM

INDEX 1311141  
 MILES 0003.40

DATE		8	10	25	95	300	301	400	530	600	610
FROM	DEPTH	LAB	WATER	BAROMTRC	CNDUCTVY	DO	DO	PH	RESIDUE	TOTAL N	NH3+NH4-N TOTAL
TO	TIME FEET	IDENT. NUMBER	TEMP CENT	PRESSURE MM OF HG	LAB @ 25C UMHO	MG/L	SATUR PERCENT	SU	TOT-NFLT MG/L	MG/L	MG/L
93/10/20	0855	436066	15.2	773	126	8.2	79.7	7.60	1.0	0.29	0.041
93/11/17	0920	476066	8.5	764	159	9.4	79.7	7.60	2.0	0.22	0.019
93/12/21	0845	526066	7.0	774	99	9.3	75.0	7.40	2.0	0.29	0.038
94/01/19	0830	36066	6.6	770	97	10.0	80.4		2.0	0.34	0.015
94/02/23	0845	86066	7.1	760	95	11.2	92.3	7.00	3.0	0.37	0.014
94/03/23	0920	126066	6.1	763	100	11.7	93.6	7.40	3.0	0.29	0.010K
94/04/20	0850	166066	10.0	767	86	13.1	114.5	8.60	4.0	0.20	0.010K
94/05/18	0845	206066	15.3	767	100	10.1	99.2	8.60	3.0	0.02	0.010K
94/06/22	0815	256066	18.3	766	100	9.8	102.6	7.10	2.0	0.14	0.010K
94/07/20	0840	296066	21.6	762	97	8.6	96.4		1.0	0.15	0.010K
94/08/17	0845	336066	22.3	767	128	8.3	93.6	7.40	1.0K	0.18	0.010K
94/09/21	0835	386066	19.8	769	199	7.8	83.7	7.30	1.0K	0.21	0.022

DATE		630	665	671	31616	82079
FROM	DEPTH	NO2+N03	PHOS-TOT	PHOS-DIS	FEC COLI	TURBIDTY
TO	TIME FEET	N-TOTAL	MG/L	MG/L P	ORTHO	MFM-FCBR
93/10/20	0855	0.014	0.014	0.010K	32	0.7
93/11/17	0920	0.034	0.010K	0.010K	21	0.9
93/12/21	0845	0.149	0.014	0.010	20	2.4
94/01/19	0830	0.188	0.012	0.012	27	0.6
94/02/23	0845	0.191	0.017	0.010K	20	1.0
94/03/23	0920	0.165	0.010K	0.010K	28	1.1
94/04/20	0850	0.040	0.010K	0.010K	5	1.4
94/05/18	0845	0.010K	0.012	0.010K	9	1.2
94/06/22	0815	0.010K	0.010K	0.010K	87	1.0
94/07/20	0840	0.010K	0.011	0.010K	32	0.5
94/08/17	0845	0.010K	0.047	0.010K	4	0.6
94/09/21	0835	0.010K	0.010K	0.010K	14	0.5

32A070 7132A070 14018600 541127

WALLA WALLA RIVER NEAR TOUCHET

46 02 16.0 118 45 55.0 2F 0 Elev= 0 ft

53071 Washington Walla Walla Co. PACIFIC NORTHWEST

LOWER COLUMBIA (Walla Walla-32) 131032

21540000 Reach= 0.000 Drg= 0 sqmi

Seg ID= 15-32-02 Class= A Miles= 0.00 to 0.00

AMBN/T/STREAM/RMP

INDEX 1310001 002700

MILES 0313.50 0015.30

DATE		8	10	25	60	70	80	95	300	301	310
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	TURB	COLOR	CNDUCTVY	DO	DO	BOD
TO	TIME FEET	IDENT.	TEMP	PRESSURE	FLOW	JKSN	PT-CO	LAB @		SATUR	5 DAY
		NUMBER	CENT	MM OF HG	CFS	JTU	UNITS	25C UMHO	MG/L	PERCENT	MG/L
93/10/11	1430	426003	13.9	752	24			346	11.5	112.0	
93/11/07	1555	466003	4.9	755	61			254	14.1	110.8	
93/12/13	1640	516003	4.4	746	268			171	11.9	93.3	
94/01/09	1555	26003	5.8	753	835			122	11.6	93.4	
94/02/14	1615	76003	5.0	754	288			185	12.6	99.3	
94/03/14	1420	116003	8.1	752	566			135	11.2	95.6	
94/04/11	1640	156003	11.5	754	566			118	11.1	102.1	
94/05/09	1420	196003	21.4	747	228			159	8.8	100.3	
94/06/13	1320	246003	19.9	742	46			285	10.4	116.1	
94/07/11	1545	286003	26.9	747	12			456	9.9	124.8	
94/08/08	1810	326003	23.9	742	4			726	10.9	131.2	
94/09/12	1330	376003	17.4	752	2			757	11.5	120.7	

DATE		340	400	410	440	445	530	600	605	610	613
FROM	DEPTH	COD	PH	TALK	HCO3	ION	CO3	TOTAL N	ORG N	NH3+NH4-	NO2-N
TO	TIME FEET	HI LEVEL	CACO3	HCO3	CO3	TOT-NFLT	RESIDUE	N	N	N TOTAL	DISS
		MG/L	SU	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
93/10/11	1430		8.40				48.0	1.05		0.030	
93/11/07	1555		8.40				8.0	0.69		0.011	
93/12/13	1640		8.10				26.0	1.23		0.035	
94/01/09	1555		7.80				112.0	1.14		0.067	
94/02/14	1615		7.90				19.0	1.37		0.016	
94/03/14	1420		7.90				88.0	1.04		0.024	
94/04/11	1640		8.10				34.0	0.63		0.010K	
94/05/09	1420		8.20				31.0	0.64		0.040	
94/06/13	1320		8.40				24.0	0.57		0.010K	
94/07/11	1545		8.20				24.0	1.10		0.045	
94/08/08	1810		8.90				15.0	0.91		0.021	
94/09/12	1330		8.70				6.0	0.67		0.036	

DATE		615	620	625	630	660	665	671	900	902	915
FROM	DEPTH	NO2-N	NO3-N	TOT	KJEL	NO2+NO3	ORTHOP04	PHOS-TOT	PHOS-DIS	TOT	HARD
TO	TIME FEET	TOTAL	TOTAL	N	N-TOTAL	PO4	MG/L	MG/L P	ORTHO	CACO3	CACO3
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L P	MG/L	MG/L	MG/L

MORE DATES NEXT PAGE

Station:21540000 32A070

## WALLA WALLA RIVER NEAR TOUCHET

PCSTORET -- 05-JUN-95

Page 6

DATE		615	620	625	630	660	665	671	900	902	915
FROM	DEPTH	NO2-N	NO3-N	TOT KJEL	NO2+NO3	ORTHOP04	PHOS-TOT	PHOS-DIS	TOT HARD	NC HARD	CALCIUM
TO	TIME FEET	TOTAL MG/L	TOTAL MG/L	MG/L	N-TOTAL MG/L	PO4 MG/L	MG/L P	ORTHO MG/L P	CACO3 MG/L	CACO3 MG/L	CA,DISS MG/L
93/10/11	1430				0.792		0.096	0.065			
93/11/07	1555				0.540		0.062	0.041			
93/12/13	1640				1.010		0.139				
94/01/09	1555				0.842		0.158	0.076			
94/02/14	1615				1.050		0.121	0.093			
94/03/14	1420				0.788		0.155	0.078			
94/04/11	1640				0.376		0.117	0.060			
94/05/09	1420				0.394		0.119	0.087			
94/06/13	1320				0.400		0.079	0.052			
94/07/11	1545				0.743		0.159	0.072			
94/08/08	1810				0.558		0.088	0.034			
94/09/12	1330				0.288		0.038	0.018			
DATE		925	930	935	940	945	950	955	1020	1030	1040
FROM	DEPTH	MGNSIUM MG/L	SODIUM MG/L	PTSSIU MG/L	CHLORIDE CL	SULFATE SO4-TOT MG/L	FLUORIDE F,DISS MG/L	SILICA DISOLVED MG/L	BORON B,DISS UG/L	CHROMIUM CR,DISS UG/L	COPPER CU,DISS UG/L
TO	TIME FEET	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	UG/L	UG/L
DATE		1045	1049	1090	31504	31505	31616	31672	70300	71900	82079
FROM	DEPTH	IRON FE,TOT UG/L	LEAD PB,DISS UG/L	ZINC ZN,DISS UG/L	TOT COLI MFIM LES /100ML	TOT COLI MPN CONF /100ML	FEC COLI MFM-FCBR /100ML	FECSTREP PC M-ENT /100ML	RESIDUE DISS-180 C MG/L	MERCURY HG, TOTAL MG/L	TURBIDITY LAB NTU
TO	TIME FEET	UG/L	UG/L	UG/L	/100ML	/100ML	/100ML	/100ML	MG/L	UG/L	NTU
93/10/11	1430						72				15.0
93/11/07	1555						8				5.4
94/01/09	1555						71				46.0
94/02/14	1615						8				7.6
94/03/14	1420						48				22.0
94/04/11	1640						120				11.0
94/05/09	1420						120				11.0
94/06/13	1320						200				10.0
94/07/11	1545						89				17.0
94/08/08	1810						24				8.9
94/09/12	1330						32				4.7

33A050 2133A050 541008  
 SNAKE RIVER NEAR PASCO  
 46 13 00.0 119 01 20.0 2F 0 Elev= 0 ft  
 53021 Washington FRANKLIN CO. PACIFIC NORTHWEST  
 LOWER SNAKE (Lower Snake-33) 130833  
 21540000 Reach= 0.000 Drg= 0 sqmi  
 Seg ID= 26-00-05 Class= A Miles= 0.00 to 0.00  
 AMBNT/STREAM/RMP

INDEX 1310001 002740  
 MILES 0324.30 0002.20

DATE		8	10	25	35	60	70	80	95	300	301
FROM	DEPTH	LAB	WATER	BAROMTRC	WIND	STREAM	TURB	COLOR	CNDUCTVY	DO	DO
TO	TIME FEET	IDENT. NUMBER	TEMP CENT	PRESSURE MM OF HG	VELOCITY MPH	FLOW CFS	JKSN JTU	PT-CO UNITS	LAB @ 25C UMHO	MG/L	SATUR PERCENT
93/10/11	1530	426004	17.3	752		20500			252	8.0	83.7
93/11/07	1650	466004	12.7	755		22200			324	9.8	92.6
93/12/13	1735	516004	5.6	746		14400			318	11.3	91.4
94/01/09	1650	26004	5.3	753		23100			338	12.4	98.7
94/02/14	1710	76004	3.3	754		20000			330	12.6	95.0
94/03/14	1510	116004	4.4	752		34100			361	14.6	113.7
94/04/11	1740	156004	8.2	752		25100			282	12.4	106.2
94/05/09	1515	196004	11.4	744		86600			144	13.5	125.7
94/06/13	1415	246004	15.2	742		36000			126	11.0	111.6
94/07/11	1630	286004	19.5	747		47200			134	10.3	113.2
94/08/08	1720	326004	20.3	742		11000			170	8.9	100.0
94/09/12	1450	376004	18.8	749		13400			180	8.7	94.0

DATE		340 COD	400 PH	405 CO2	410 TALK	440 HCO3 <sup>-</sup> ION	445 CO3 <sup>-</sup> ION	530 RESIDUE	600 TOTAL N	605 ORG N	610 NH3+NH4-
FROM	DEPTH	H1 LEVEL		CACO3	HCO3	CO3	TOT-NFLT		N	N	N TOTAL
TO	TIME FEET	MG/L	SU	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
93/10/11	1530		8.10					6.0	0.54		0.022
93/11/07	1650		8.20					5.0	0.85		0.023
93/12/13	1735		8.40					5.0	0.80		0.010K
94/01/09	1650		8.30					2.0	1.14		0.028
94/02/14	1710		8.20					3.0	1.22		0.010K
94/03/14	1510		8.50					8.0	1.24		0.010K
94/04/11	1740		8.30					4.0	0.82		0.010K
94/05/09	1515		8.30					7.0	0.38		0.017J
94/06/13	1415		8.30					5.0	0.29		0.010K
94/07/11	1630		8.60					9.0	0.20		0.017
94/08/08	1720		8.20					8.0	0.28		0.010K
94/09/12	1450		8.10					3.0	0.26		0.010K

DATE		613 NO2-N	615 NO2-N	620 NO3-N	625 TOT N	630 NO2+NO3	660 ORTHOPO4	665 PHOS-TOT	671 PHOS-DIS	680 T ORG C	760 SWL
FROM	DEPTH	DISS	TOTAL	TOTAL	KJEL	N-TOTAL	PO4	PHOS-C	ORTHO	C	PBI
TO	TIME FEET	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L P	MG/L P	MG/L	MG/L

MORE DATES NEXT PAGE

Station:21540000 33A050

## SNAKE RIVER NEAR PASCO

PCSTORET -- 05-JUN-95

Page 8

DATE	FROM	TO	DEPTH	TIME	FEET	613 NO2-N DISS MG/L	615 NO2-N TOTAL MG/L	620 NO3-N TOTAL MG/L	625 KJEL N MG/L	630 NO2+NO3 N-TOTAL MG/L	660 ORTHOPO4 PO4 MG/L	665 PHOS-TOT MG/L P	671 PHOS-DIS ORTHO MG/L P	680 T ORG C C MG/L	760 SWL PBI MG/L
93/10/11	1530									0.341		0.053	0.033		
93/11/07	1650									0.680		0.061	0.052		
93/12/13	1735									0.690		0.055			
94/01/09	1650									0.976		0.057	0.046		
94/02/14	1710									1.110		0.050	0.041		
94/03/14	1510									0.891		0.047	0.028		
94/04/11	1740									0.752		0.061	0.033		
94/05/09	1515									0.251		0.033	0.019		
94/06/13	1415									0.200		0.010K	0.014		
94/07/11	1630									0.033		0.029	0.010K		
94/08/08	1720									0.150		0.030	0.023		
94/09/12	1450									0.115		0.026	0.018		

DATE	FROM	TO	DEPTH	TIME	FEET	900 TOT HARD CACO3 MG/L	902 NC HARD CACO3 MG/L	915 CALCIUM CA,DISS MG/L	925 MGSNIMIUM MG,DISS MG/L	930 SODIUM NA,DISS MG/L	935 PTSSIUM K,DISS MG/L	940 CHLORIDE CL MG/L	945 SULFATE SO4-TOT MG/L	950 FLUORIDE F,DISS MG/L	955 SILICA DISOLVED MG/L

DATE	FROM	TO	DEPTH	TIME	FEET	1000 ARSENIC AS,DISS UG/L	1020 BORON B,DISS UG/L	1025 CADMIUM CD,DISS UG/L	1030 CHROMIUM CR,DISS UG/L	1040 COPPER CU,DISS UG/L	1045 IRON FE,TOT UG/L	1049 LEAD PB,DISS UG/L	1090 ZINC ZN,DISS UG/L	1145 SELENIUM SE,DISS UG/L	31501 TOT COLI MFIM MENDO /100ML

DATE	FROM	TO	DEPTH	TIME	FEET	31504 TOT COLI MFIM LES /100ML	31505 TOT COLI MPN CONF /100ML	31616 FEC COLI MFM-FCBR /100ML	70300 RESIDUE DISS-180 C MG/L	71900 MERCURY HG,TOTAL UG/L	82079 TURBIDTY LAB NTU
93/10/11	1530							2			2.9
93/11/07	1650							7			2.9
94/01/09	1650							2			1.4
94/02/14	1710							2			1.9
94/03/14	1510							1K			2.4
94/04/11	1740							3			3.8
94/05/09	1515							2			4.7
94/06/13	1415							2			3.3
94/07/11	1630							180J			4.8
94/08/08	1720							250			4.4
94/09/12	1450							9			2.2

34A070 7534A070 13351000 541009

PALOUSE RIVER AT HOOPER

46 45 33.0 118 08 49.0 2F 0 Elev= 0 ft

53075 Washington Whitman Co. PACIFIC NORTHWEST

LOWER SNAKE (Palouse-34) 130834

21540000 Reach= 0.000 Drg= 0 sqmi

Seg ID= 16-34-01 Class= B Miles= 0.00 to 0.00

AMBN/T/STREAM/RMP

INDEX 1310001 002740 00290

MILES 0324.30 0059.50 019.50

DATE		8	10	25	60	70	80	95	300	301	340
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	TURB	COLOR	CNDUCTVY	DO	DO	COD
TO	TIME FEET	IDENT.	TEMP	PRESSURE	FLOW	JKSN	PT-CO	LAB @		SATUR	HI LEVEL
		NUMBER	CENT	MM OF HG	CFS	JTU	UNITS	25C UMHO	MG/L	PERCENT	MG/L
93/10/04	1255	416151	14.8	732	41			346	10.9	111.3	
93/11/01	1225	456151	6.7	742	68			358	12.7	106.3	
93/12/06	1240	506151	0.4	733	156			318	13.9	99.8	
94/01/03	1245	16151	3.0	738	538			165	12.0	91.8	
94/02/07	1250	66151	0.0	729	185			319J	13.5	96.3	
94/03/07	1245	106151	4.3J	743	527			139	11.9	93.5	
94/04/04	1230	146151	9.4	740	261			198	10.3	92.2	
94/05/02	1220	186151	13.9	734	181			198	11.5	114.8	
94/06/06	1355	236151	17.8	732	105			257	9.3	101.0	
94/07/05	1310	276151	17.3	735	30			328	8.3	88.8	
94/08/01	1225	316151	26.3	732	5			327	12.4	158.0	
94/09/05	1230	366151	20.1	739	2			404	9.9	111.4	

DATE		400	410	440	445	530	600	605	610	613	615
FROM	DEPTH	PH	T ALK	HCO <sub>3</sub>	ION	CO <sub>3</sub>	TOTAL N	ORG N	NH <sub>3</sub> +NH <sub>4</sub> -	NO <sub>2</sub> -N	NO <sub>2</sub> -N
TO	TIME FEET	SU	CACO <sub>3</sub>	HCO <sub>3</sub>	CO <sub>3</sub>	TOT-NFLT	N	N	N TOTAL	DISS	TOTAL
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
93/10/04	1255	8.70				23.0	0.72		0.018		
93/11/01	1225	8.60				17.0	1.82		0.010K		
93/12/06	1240	8.10				10.0	2.91		0.019		
94/01/03	1245	7.70				4380.0J	2.55		0.361		
94/02/07	1250	7.90				22.0	2.58		0.024		
94/03/07	1245	8.10				158.0	1.72		0.051		
94/04/04	1230	8.20				65.0	0.93		0.035		
94/05/02	1220	9.00				31.0	0.46		0.023		
94/06/06	1355	8.10				107.0	1.09		0.010K		
94/07/05	1310	8.40				43.0	0.39		0.033		
94/08/01	1225	8.90				31.0	0.63		0.025		
94/09/05	1230	9.00				38.0	0.45		0.010K		

DATE		620	625	630	660	665	671	900	902	915	925
FROM	DEPTH	NO <sub>3</sub> -N	TOT N	NO <sub>2</sub> +NO <sub>3</sub>	ORTHOPO <sub>4</sub>	PHOS-TOT	PHOS-DIS	TOT HARD	NC HARD	CALCIUM	MGSNIUM
TO	TIME FEET	TOTAL	MG/L	MG/L	PO <sub>4</sub>	MG/L	MG/L P	ORTHO	CACO <sub>3</sub>	CACO <sub>3</sub>	MG/L
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L P	MG/L	MG/L	CA,DISS	MG/L

MORE DATES NEXT PAGE

DATE		620	625	630	660	665	671	900	902	915	925
FROM	DEPTH	NO3-N TOTAL	TOT KJEL N	NO2+NO3 N-TOTAL	ORTHOP04 PO4	PHOS-TOT MG/L P	PHOS-DIS ORTHO MG/L P	TOT HARD CACO3 MG/L	NC HARD CACO3 MG/L	CALCIUM CA,DISS MG/L	MGNSIUM MG,DISS MG/L
TO	TIME FEET	MG/L	MG/L	MG/L	MG/L	MG/L P	MG/L P	MG/L	MG/L	MG/L	MG/L
93/10/04	1255			0.131		0.058	0.019				
93/11/01	1225			1.440		0.048	0.014				
93/12/06	1240			2.310		0.415	0.376				
94/01/03	1245			2.120		0.218	0.116				
94/02/07	1250			2.390		0.206	0.163				
94/03/07	1245			1.090		0.057J	0.097J				
94/04/04	1230			0.617		0.150	0.104				
94/05/02	1220			0.150		0.186	0.091				
94/06/06	1355			0.833		0.272	0.130				
94/07/05	1310			0.076		0.155	0.046				
94/08/01	1225			0.030		0.204	0.063				
94/09/05	1230			0.010K		0.165	0.014				
DATE		930	931	932	935	940	945	950	955	1000	1002
FROM	DEPTH	SODIUM NA,DISS	SODIUM ADSBITION	PERCENT SODIUM	PTSSIUM K,DISS	CHLORIDE CL	SULFATE SO4-TOT	FLUORIDE F,DISS	SILICA DISOLVED	ARSENIC AS,DISS	ARSENIC AS,TOT
TO	TIME FEET	MG/L	RATIO	%	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	UG/L
93/10/04	1255										
93/11/01	1225										
93/12/06	1240										
94/01/03	1245										
94/02/07	1250										
94/03/07	1245										
94/04/04	1230										
94/05/02	1220										
94/06/06	1355										
94/07/05	1310										
94/08/01	1225										
94/09/05	1230										
DATE		1020	1025	1027	1030	1034	1040	1042	1045	1049	1051
FROM	DEPTH	BORON B,DISS	CADMUM CD,DISS	CADMUM CD,TOT	CHROMIUM CR,DISS	CHROMIUM CR,TOT	COPPER CU,DISS	COPPER CU,TOT	IRON FE,TOT	LEAD PB,DISS	LEAD PB,TOT
TO	TIME FEET	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
93/10/04	1255										
93/11/01	1225										
93/12/06	1240										
94/01/03	1245										
94/02/07	1250										
94/03/07	1245										
94/04/04	1230										
94/05/02	1220										
DATE		1065	1080	1090	1092	1094	1113	1114	1118	1119	1130
FROM	DEPTH	NICKEL NI,DISS	STRONTIUM SR,DISS	ZINC ZN,DISS	ZINC ZN,TOT	ZINC TOT REC	CADMUM TOT REC	LEAD TOT REC	CHROMIUM TOT REC	COPPER TOT REC	LITHIUM LI,DISS
TO	TIME FEET	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
93/10/04	1255										
93/11/01	1225										
93/12/06	1240										
94/01/03	1245										
94/02/07	1250										
94/03/07	1245										
94/04/04	1230										
94/05/02	1220										
DATE		31501	31504	31505	31507	31616	31672	70300	70301	70302	70303
FROM	DEPTH	TOT COLI MFIMENDO	TOT COLI MFIM LES	TOT COLI MPN CONF	TOT COLI MPN COMP	FEC COLI MFM-FCBR	FECSTREP PC M-ENT	RESIDUE DISS-180	DISS SOL SUM	DISS SOL TONS/DAY	DISS SOL TONS PER
TO	TIME FEET	/100ML	/100ML	/100ML	/100ML	/100ML	/100ML	C MG/L	MG/L	ACRE-FT	
93/10/04	1255					430					
93/11/01	1225					6					
93/12/06	1240					39					
94/01/03	1245					1700					
94/02/07	1250					1					
94/03/07	1245					33S					
94/04/04	1230					31					
94/05/02	1220					7					

MORE DATES NEXT PAGE

DATE	DEPTH	31501 TOT COLI MFIMENDO	31504 TOT COLI MFIM LES	31505 TOT COLI MPN CONF	31507 TOT COLI MPN COMP	31616 FEC COLI MFM-FCBR	31672 FECSTREP PC M-ENT	70300 RESIDUE DISS-180	70301 DISS SOL SUM	70302 DISS SOL TONS/DAY	70303 DISS SOL TONS PER ACRE-FT
FROM		/100ML	/100ML	/100ML	/100ML	/100ML	/100ML	C MG/L	MG/L		
TO	TIME	FEET									

94/06/06 1355	84
94/07/05 1310	480
94/08/01 1225	71
94/09/05 1230	27

DATE	DEPTH	70337 SUSP SED PARTSIZE	70338 SUSP SED PARTSIZE	70339 SUSP SED PARTSIZE	70340 SUSP SED PARTSIZE	70341 SUSP SED PARTSIZE	70342 SUSP SED PARTSIZE	70343 SUSP SED PARTSIZE	71851 NITRATE DISS-NO3	71900 MERCURY HG,TOTAL	71901 MERCURY UG/L
FROM		%<.002MM	%<.004MM	%<.008MM	%<.016MM	%<.031MM	%<.062MM	%<.125MM	MG/L	UG/L	
TO	TIME	FEET									

DATE	DEPTH	80154 SUSP SED CONC	80155 SUSP SED DISCHARG	82079 TURBIDTY LAB
FROM		MG/L	TONS/DAY	NTU
TO	TIME	FEET		

93/10/04 1255	15.0
93/11/01 1225	14.0
93/12/06 1240	9.4
94/01/03 1245	7700.0
94/02/07 1250	17.0
94/03/07 1245	110.0
94/04/04 1230	33.0
94/05/02 1220	19.0
94/06/06 1355	75.0
94/07/05 1310	32.0
94/08/01 1225	26.0
94/09/05 1230	30.0

34A170 7534A170 13345300  
 PALOUSE RIVER AT PALOUSE  
 46 54 37.0 117 04 08.0 2F 0 Elev= 0 ft  
 53075 Washington Whitman Co. PACIFIC NORTHWEST  
 LOWER SNAKE (Palouse-34) 130834  
 21540000 Reach= 0.000 Drg= 0 sqmi  
 Seg ID= 16-34-01 Class= A Miles= 0.00 to 0.00  
 AMBNT/STREAM

INDEX 1310001 002740 00290  
 MILES 0324.30 0059.50 121.20

DATE		8	10	25	60	80	95	300	301	400	410
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	COLOR	CNDUCTVY	DO	DO	PH	TALK
TO	TIME	IDENT.	TEMP	PRESSURE	FLOW	PT-CO	LAB	25C UMHQ	SATUR	CACO3	
	FEET	NUMBER	CENT	MM OF HG	CFS	UNITS	25C UMHQ	MG/L	PERCENT	SU	MG/L

93/10/05 0715		416154	11.4	702	11		87	8.0	79.0	8.00
93/11/02 0730		456154	3.2	710	13		90	11.2	89.4	7.90
93/12/07 0730		506154	0.0	697	59		71	12.5	93.4	7.80
94/01/04 0745		16154	0.7	698	98		92	12.2	92.7	7.40
94/02/08 0745		66154	0.0	704	52		85J	12.9	95.3	7.60
94/03/08 0750		106154	0.0J	707	251		52	12.8	94.1	7.50
94/04/05 0820		146154	3.0	703	224		46	11.2	89.8	8.00
94/05/03 0805		186154	9.9	704	76		57	9.2	87.6	7.50
94/06/07 0805		236154	14.1	704	39		76	8.8	91.9	8.10
94/07/06 0805		276154	14.1	706	13		81	7.8	81.2	7.90
94/08/02 0835		316154	20.8	700	2		76	5.9	71.0	8.80
94/09/06 0810		366154	12.3	704	4		142	7.0	70.4	9.10

DATE		440	530	600	610	613	630	665	671	900	902
FROM	DEPTH	HCO3	ION	RESIDUE	TOTAL N	NH3+NH4-N	NO2-N	NO2+NO3	PHOS-TOT	PHOS-DIS	TOT HARD
TO	TIME	HCO3	TOT-NFLT	MG/L	MG/L	MG/L	DISS	N-TOTAL	MG/L P	ORTHO	CACO3
	FEET	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L P	CACO3	MG/L

93/10/05 0715			2.0	0.23	0.010K		0.010K	0.016	0.010K	
93/11/02 0730			4.0	0.22	0.010K		0.010K	0.059	0.032	
93/12/07 0730			3.0	0.40	0.021		0.099	0.079	0.040	
94/01/04 0745			55.0	1.00	0.084		0.669	0.105	0.116	
94/02/08 0745			2.0	0.20	0.010K		0.050	0.037	0.021	
94/03/08 0750			9.0	0.37	0.022		0.159	0.058	0.020	
94/04/05 0820			7.0	0.12	0.010K		0.010K	0.027	0.010K	
94/05/03 0805			3.0	0.25J	0.010K		0.010K	0.038	0.021	
94/06/07 0805			9.0	0.13	0.010K		0.010K	0.045	0.021	
94/07/06 0805			4.0	0.14	0.010K		0.010K	0.037	0.010K	
94/08/02 0835			5.0	0.56	0.010K		0.010K	0.078	0.026	
94/09/06 0810			9.0	0.49	0.010K		0.010K	0.090	0.021	

DATE		915	925	930	935	940	945	31504	31616	82079
FROM	DEPTH	CALCIUM	MGSN IUM	SODIUM	PTSS IUM	CHLORIDE	SULFATE	TOT COLI	FEC COLI	TURBIDTY
TO	TIME	CA,DISS	MG,DISS	NA,DISS	K,DISS	CL	SO4-TOT	MFIM LES	MFM-FCBR	LAB
	FEET	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	/100ML	/100ML	NTU

MORE DATES NEXT PAGE

DATE FROM TO	DEPTH TIME FEET	CALCIUM CA,DISS MG/L	MGNSIUM MG,DISS MG/L	SODIUM NA,DISS MG/L	PTSSIUM K,DISS MG/L	CHLORIDE CL MG/L	SULFATE SO4-TOT MG/L	TOT COLI MFIM LES /100ML	FEC COLI MFM-FCBR /100ML	TURBIDTY LAB NTU
93/10/05	0715							120		1.7
93/11/02	0730							6		2.2
93/12/07	0730									12.0
94/01/04	0745							570S		100.0
94/02/08	0745							1		4.6
94/03/08	0750							15		18.0
94/04/05	0820							60		7.9
94/05/03	0805							170		5.1
94/06/07	0805							39		7.1
94/07/06	0805							120		3.4
94/08/02	0835							470		5.7
94/09/06	0810							3		3.6

35A150 0335A150 13335300 541132  
 SNAKE RIVER AT INTERSTATE BRIDGE  
 46 25 15.0 117 02 05.0 2F 0 Elev= 0 ft  
 53003 Washington Asotin Co. PACIFIC NORTHWEST  
 LOWER SNAKE (Middle Snake-35) 130835  
 21540000 Reach= 0.000 Drg= 0 sqmi  
 Seg ID= 26-00-05 Class= A Miles= 0.00 to 0.00  
 AMBNT/STREAM

INDEX 1310001 002740  
 MILES 0324.30 0139.60

DATE		8	10	25	60	70	80	95	300	301	310
FROM	DEPTH	LAB IDENT.	WATER TEMP	BAROMTRC PRESSURE	STREAM FLOW	TURB JKSN	COLOR PT-CO	CNDUCTVY LAB @	DO 25C UMHO	DO MG/L	BOD SATUR PERCENT
TO	TIME FEET	NUMBER	CENT MM OF HG	MM OF HG	CFS	JTU	UNITS	25C UMHO	MG/L	5 DAY MG/L	
93/10/04	1520	416152	16.9	738	20600			371	8.6	90.9	
93/11/01	1435	456152	10.8	752	14900			359	10.6	96.4	
93/12/06	1510	506152	4.2	744	14700			382	12.8	100.3	
94/01/03	1500	16152	3.4	748	14700			395	12.8	97.7	
94/02/07	1505	66152	1.9	737	13600			474J	13.0J	96.6	
94/03/07	1505	106152	3.7J	752	28100			305	12.7	97.1	
94/04/04	1450	146152	8.4	750	23700			258	10.9	94.0	
94/05/02	1450	186152	10.9	741	42000			262	10.6	98.1	
94/06/06	1630	236152	15.6	741	31400			162	9.5	97.3	
94/07/05	1550	276152	19.0	744	19400			269	8.5	92.9	
94/08/01	1450	316152	24.6	735	12500			273	8.5	104.5	
94/09/05	1500	366152	21.4	744	9820			363	8.8	100.8	
<hr/>											
DATE		400	410	440	445	530	600	610	613	620	630
FROM	DEPTH	PH	T ALK	HCO3 ION	CO3 ION	RESIDUE	TOTAL N	NH3+NH4-	NO2-N	NO3-N	NO2+NO3
TO	TIME FEET	SU	CACO3	HCO3	CO3	TOT-NFLT	N	N TOTAL	DISS	TOTAL	N-TOTAL
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
93/10/04	1520	8.30				4.0	0.95	0.010K			0.798
93/11/01	1435	8.40				3.0	1.00	0.010K			0.843
93/12/06	1510	8.10				1.0	1.14	0.020			1.020
94/01/03	1500	8.20				2.0	1.07	0.033			1.070
94/02/07	1505	8.20				1.0	1.39	0.010K			1.310
94/03/07	1505	8.00				15.0	1.01	0.026			0.825
94/04/04	1450	8.40				9.0	0.73	0.011			0.518
94/05/02	1450	8.40				6.0	0.52	0.028			0.420
94/06/06	1630	7.90				5.0	0.26	0.010K			0.193
94/07/05	1550	8.10				7.0	0.47	0.019			0.344
94/08/01	1450	8.40				2.0	0.46	0.010K			0.282
94/09/05	1500	8.40				3.0	0.54	0.010K			0.379
<hr/>											
DATE		650	660	665	671	900	902	915	925	930	931
FROM	DEPTH	T PO4	ORTHOPO4	PHOS-TOT	PHOS-DIS	TOT HARD	NC HARD	CALCIUM	MGSNLIUM	SODIUM	SODIUM
TO	TIME FEET	PO4	PO4	MG/L P	ORTHO	CACO3	CACO3	CA,DISS	MG/DISS	NA,DISS	ADSBTION RATIO
		MG/L	MG/L	MG/L P	MG/L P	MG/L	MG/L	MG/L	MG/L	MG/L	

MORE DATES NEXT PAGE

Station:21540000 35A150

## SNAKE RIVER AT INTERSTATE BRIDGE

PCSTORET -- 05-JUN-95

Page 15

DATE	FROM	TO	DEPTH	TIME	FEET	T PO4	650 PO4 MG/L	660 PO4 MG/L	665 PHOS-TOT MG/L P	671 PHOS-DIS MG/L P	900 ORTHO CACO3 MG/L	902 TOT HARD CACO3 MG/L	915 NC HARD CA,DISS MG/L	925 CALCIUM MG,DISS MG/L	930 MGNSIUM NA,DISS MG/L	931 SODIUM ADSBTION RATIO
93/10/04	1520								0.067	0.069						
93/11/01	1435								0.063	0.055						
93/12/06	1510								0.065	0.055						
94/01/03	1500								0.049	0.042						
94/02/07	1505								0.059	0.048						
94/03/07	1505								0.060	0.051						
94/04/04	1450								0.046	0.025						
94/05/02	1450								0.039	0.025						
94/06/06	1630								0.021	0.018						
94/07/05	1550								0.026	0.010K						
94/08/01	1450								0.037	0.020						
94/09/05	1500								0.054	0.040						

DATE	FROM	TO	DEPTH	TIME	FEET	932 PERCENT SODIUM %	935 PTSSIUM K,DISS MG/L	940 CHLORIDE CL MG/L	945 SULFATE SO4-TOT MG/L	950 FLUORIDE F,DISS MG/L	955 SILICA DISOLVED MG/L	1000 ARSENIC AS,DISS UG/L	1020 BORON B,DISS UG/L	1034 CHROMIUM CR,TOT UG/L	1040 COPPER CU,DISS UG/L
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DATE	FROM	TO	DEPTH	TIME	FEET	1045 IRON FE,TOT UG/L	1080 STRONTIUM SR,DISS UG/L	1090 ZINC ZN,DISS UG/L	1130 LITHIUM LI,DISS UG/L	31503 TOT COLI MFDELENO /100ML	31505 TOT COLI MPN CONF /100ML	31507 TOT COLI MPN COMP /100ML	31616 FEC COLI MFM-FCBR /100ML	32211 CHLRPHYL A CORRECTD UG/L	32218 PHEOPHTN A UG/L
93/10/04	1520												3		
93/11/01	1435												1K		
93/12/06	1510												1K		
94/01/03	1500												1K		
94/02/07	1505												1K		
94/03/07	1505												7		
94/04/04	1450												16		
94/05/02	1450												5		
94/06/06	1630												8		
94/07/05	1550												1		
94/08/01	1450												1K		
94/09/05	1500												1		

DATE	FROM	TO	DEPTH	TIME	FEET	70300 RESIDUE DISS-180 C	70303 DISS SOL TONS PER MG/L	71851 NITRATE DISS-NO3 ACRE-FT	82079 TURBIDTY LAB NTU
93/10/04	1520							1.2	
93/11/01	1435							1.4	
93/12/06	1510							1.2	

MORE DATES NEXT PAGE

DATE FROM TO	TIME DEPTH FEET	RESIDUE DISS-180 C	DISS SOL TONS PER ACRE-FT	NITRATE DISS-NO3 MG/L	TURBIDTY LAB NTU
94/01/03 1500					3.5
94/02/07 1505					1.3
94/03/07 1505					12.0
94/04/04 1450					7.0
94/05/02 1450					3.4
94/06/06 1630					2.1
94/07/05 1550					2.2
94/08/01 1450					1.1
94/09/05 1500					1.2

36A070 0536A070 12472900 541118  
 COLUMBIA RIVER NEAR VERNITA  
 46 38 34.0 119 43 54.0 2F 0 Elev= 0 ft  
 53005 Washington Benton Co. PACIFIC NORTHWEST  
 UPPER COLUMBIA (Esquatzel Coulee-36) 130536  
 21540000 Reach= 0.000 Drg= 0 sqmi  
 Seg ID= 26-00-03 Class= A Miles= 0.00 to 0.00  
 AMBN/T/STREAM/RMP

INDEX 1310001  
 MILES 0388.10

DATE		8	10	25	33	35	36	60	69	70	80
FROM	DEPTH	LAB	WATER	BAROMTRC	WEATHER	WIND	WIND	STREAM	SEA	TURB	COLOR
TO	TIME	DEPTH	IDENT.	TEMP	PRESSURE	CODE	VELOCITY	DIR.FROM	FLOW	CODE	JKSN
		NUMBER		CENT	MM OF HG		MPH	NORTH-0	CFS		PT-CO
										JTU	UNITS
93/10/12	1100	426010		16.0	752				72200		
93/11/08	1150	466010		12.5	758				49700		
93/12/14	1220	516010		8.2	748				94400		
94/01/10	1130	26010		4.8	754				82000		
94/02/15	1325	76010		2.8	721				133000		
94/03/15	1130	116010		4.1	747				118000		
94/04/12	1200	156010		6.1	752				99500		
94/05/10	1130	196010		10.3	752				130000		
94/06/14	1130	246010		12.6	749				166000		
94/07/12	1400	286010		17.6	747				135000		
94/08/09	1255	326010		19.7	726				46500		
94/09/13	1050	376010		18.0	749				45200		
DATE		95	300	301	310	340	400	405	410	440	445
FROM	DEPTH	CNDUCTVY	DO	DO	BOD	COD	PH	CO2	TALK	HCO3	CO3
TO	TIME	LAB @	SATUR	5 DAY	HI LEVEL				CACO3	HCO3	CO3
		25C UMHO	MG/L	PERCENT	MG/L	MG/L	SU	MG/L	MG/L	MG/L	MG/L
93/10/12	1100	125	9.5	96.7				7.40			
93/11/08	1150	126	10.7	100.2				8.30			
93/12/14	1220	135	10.7	92.1				8.10			
94/01/10	1130	159	12.2	95.6				8.30			
94/02/15	1325	148	13.4	104.3				8.20			
94/03/15	1130	153	13.7	106.5				8.10			
94/04/12	1200	142	13.2	107.3				8.40			
94/05/10	1130	147	13.2	118.6				8.70			
94/06/14	1130	123	11.2	106.3				8.00			
94/07/12	1400	121	10.8	114.3				8.60			
94/08/09	1255	130	11.3	128.4				8.50			
94/09/13	1050	136	10.4	110.6				8.40			
DATE		530	600	605	610	613	615	620	625	630	650
FROM	DEPTH	RESIDUE	TOTAL N	ORG N	NH3+NH4-N	NO2-N	NO2-N	NO3-N	TOT KJEL	NO2+N03	T PO4
TO	TIME	TOT-NFLT	N	N	N TOTAL	DISS	TOTAL	TOTAL	N	N-TOTAL	PO4
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L

MORE DATES NEXT PAGE

DATE	DEPTH	RESIDUE	530	600	605	610	613	615	620	625	630	650
FROM		TOT-NFLT		TOTAL N	ORG N	NH3+NH4-		NO2-N	NO2-N	NO3-N	TOT KJEL	NO2+NO3
TO	TIME	FEET	MG/L	MG/L	MG/L	MG/L	DISS	TOTAL	MG/L	MG/L	N	N-TOTAL
							MG/L	MG/L	MG/L	MG/L	MG/L	PO4
93/10/12	1100			2.0	0.15		0.010					0.075
93/11/08	1150			2.0	0.19		0.010K					0.079
93/12/14	1220			1.0	0.15		0.010K					0.090
94/01/10	1130			1.0	0.17		0.010K					0.101
94/02/15	1325			1.0	0.19		0.010K					0.120
94/03/15	1130			2.0	0.17		0.010K					0.093
94/04/12	1200			4.0	0.11		0.010K					0.062
94/05/10	1130			5.0	0.14		0.011					0.016
94/06/14	1130			2.0	0.08		0.010K					0.056
94/07/12	1400			3.0	0.11		0.011					0.010K
94/08/09	1255			3.0	0.13		0.010K					0.044
94/09/13	1050			2.0	0.13		0.010K					0.043

DATE	DEPTH	ORTHOP04	660	665	671	680	760	900	902	915	925	930
FROM		PO4	PHOS-TOT	PHOS-DIS	ORTHO	T ORG C	SWL	TOT HARD	NC HARD	CALCIUM	MGNSIUM	SODIUM
TO	TIME	FEET	MG/L	MG/L P	MG/L P	MG/L	PBI	CACO3	CACO3	CA,DISS	MG,DISS	NA,DISS
							MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
93/10/12	1100				0.014	0.010K						
93/11/08	1150				0.016	0.010K						
93/12/14	1220				0.013	0.010K						
94/01/10	1130				0.016	0.010K						
94/02/15	1325				0.010K	0.010K						
94/03/15	1130				0.012	0.010K						
94/04/12	1200				0.010	0.010K						
94/05/10	1130				0.011	0.010K						
94/06/14	1130				0.010K	0.010K						
94/07/12	1400				0.010K	0.010K						
94/08/09	1255				0.010K	0.010K						
94/09/13	1050				0.019	0.010K						

DATE	DEPTH	PTSSIUM	935	940	945	950	955	1000	1002	1005	1020	1025
FROM		K,DISS	CHLORIDE	SULFATE	FLUORIDE	SILICA	ARSENIC	ARSENIC	BARIUM	BORON	CADMIUM	
TO	TIME	FEET	MG/L	CL	SO4-TOT	F,DISS	DISOLVED	AS,DISS	AS, TOT	BA,DISS	B,DISS	
					MG/L	MG/L	MG/L	UG/L	UG/L	UG/L	UG/L	
93/10/12	1100											
93/11/08	1150											
93/12/14	1220											
94/01/10	1130											
94/02/15	1325											
94/03/15	1130											
94/04/12	1200											
94/05/10	1130											
94/06/14	1130											
94/07/12	1400											
94/08/09	1255											
94/09/13	1050											

DATE	DEPTH	CADMUM	1027	1030	1034	1040	1042	1045	1049	1051	1065	1075
FROM		CD,TOT	CHROMIUM	CHROMIUM	COPPER	COPPER	IRON	LEAD	LEAD	NICKEL	SILVER	
TO	TIME	FEET	UG/L	CR,DISS	CR,TOT	CU,DISS	CU,TOT	FE,TOT	PB,DISS	PB,TOT	NI,DISS	AG,DISS
				UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	
93/10/12	1100											
93/11/08	1150											
93/12/14	1220											
94/01/10	1130											
94/02/15	1325											
94/03/15	1130											
94/04/12	1200											
94/05/10	1130											
94/06/14	1130											
94/07/12	1400											
94/08/09	1255											
94/09/13	1050											

DATE	DEPTH	ZINC	1090	1092	1094	1105	1113	1114	1118	1119	1130	1145
FROM		ZN,DISS	ZINC	ZINC	ZINC	ALUMINUM	CADMUM	LEAD	CHROMIUM	COPPER	LITHIUM	SELENIUM
TO	TIME	FEET	UG/L	ZN,TOT	REC	AL,TOT	TOT REC	TOT REC	TOT REC	TOT REC	LI,DISS	SE,DISS
				UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	
93/10/12	1100											
93/11/08	1150											
93/12/14	1220											
94/01/10	1130											
94/02/15	1325											
94/03/15	1130											
94/04/12	1200											
94/05/10	1130											
94/06/14	1130											
94/07/12	1400											
94/08/09	1255											
94/09/13	1050											

MORE DATES NEXT PAGE

DATE	DEPTH	TO	TIME	FEET	1090 ZINC ZN,DISS UG/L	1092 ZINC ZN,TOT UG/L	1094 ZINC TOT REC UG/L	1105 ALUMINUM AL,TOT UG/L	1113 CADMIUM TOT REC UG/L	1114 LEAD TOT REC UG/L	1118 CHROMIUM TOT REC UG/L	1119 COPPER TOT REC UG/L	1130 LITHIUM LI,DISS UG/L	1145 SE,DISS UG/L
					31501	31504	31505	31616	31625	70300	71900	71901	82079	
DATE	DEPTH	TO	TIME	FEET	TOT COLI MFIMENDO /100ML	TOT COLI MFIM LES /100ML	TOT COLI MPN CONF /100ML	FEC COLI MFM-FCBR /100ML	FEC COLI M-FCAGAD /100 ML	RESIDUE DISS-180 C MG/L	MERCURY HG,TOTAL UG/L	MERCURY TOT REC UG/L	TURBIDTY LAB NTU	
93/10/12	1100							1					0.9	
93/11/08	1150							1					1.1	
93/12/14	1220												0.8	
94/01/10	1130							1K					0.8	
94/02/15	1325							1K					0.7	
94/03/15	1130							1					0.9	
94/04/12	1200							1K					1.1	
94/05/10	1130							3					2.2	
94/06/14	1130							2					1.0	
94/07/12	1400							3					1.3	
94/08/09	1255							1K					1.3	
94/09/13	1050							1K					1.2	

37A090 0537A090 12510500

YAKIMA RIVER AT KIONA

46 15 13.0 119 28 37.0 2F 0 Elev= 0 ft

53005 Washington Benton Co. PACIFIC NORTHWEST

YAKIMA (Lower Yakima-37) 130437

21540000 Reach= 0.000 Drg= 0 sqmi

Seg ID= 18-37-01 Class= B Miles= 0.00 to 0.00

AMBNT/STREAM/RMP

INDEX 1310001 002750

MILES 0335.20 0029.80

DATE		8	10	25	60	70	80	95	300	301	310
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	TURB	COLOR	CNDUCTVY	DO	DO	BOD
TO	TIME	IDENT.	TEMP	PRESSURE	FLOW	JKSN	PT-CO	LAB a		SATUR	5 DAY
	FEET	NUMBER	CENT	MM OF HG	CFS	JTU	UNITS	25C UMHO	MG/L	PERCENT	MG/L
93/10/12	0720	426006	13.0	756	1360			290	9.3	88.3	
93/11/08	0710	466006	5.7	760	1780			303	11.1	88.5	
93/12/14	0805	516006	5.3	750	2100			275	11.2	89.5	
94/01/10	0640	26006	3.8	757	1980			310	12.1	92.2	
94/02/15	0750	76006	4.7	752	1800			280	11.6	91.0	
94/03/15	0730	116006	8.1	749	2610			228	10.4	89.1	
94/04/12	0810	156006	11.6	752	1750			222	8.9	82.4	
94/05/10	0800	196006	18.3	752	2430			325	7.6	81.1	
94/06/14	0810	246006	14.6	749	991			292	8.4	83.3	
94/07/12	1040	286006	23.1	747	580			298	9.8	115.4	
94/08/09	0820	326006	21.5	751	927			295	7.5	85.2	
94/09/13	0730	376006	16.2	749	895			277	8.2	84.1	

DATE		340	400	405	410	440	445	530	600	605	610
FROM	DEPTH	COD	PH	CO2	TALK	HCO3	ION	CO3	TOTAL N	ORG N	NH3+NH4-
TO	TIME	HI LEVEL	LEVEL	SU	MG/L	HCO3	MG/L	CO3	N	N	N TOTAL
	FEET	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
93/10/12	0720		7.90					20.0	1.67		0.025
93/11/08	0710		7.90					8.0	1.82		0.018
93/12/14	0805		8.00					16.0	1.78		0.066
94/01/10	0640		7.70					9.0	1.67		0.060
94/02/15	0750		7.80					16.0	1.75		0.062
94/03/15	0730		8.30					40.0	1.28		0.022
94/04/12	0810		8.20					29.0	0.74		0.010K
94/05/10	0800		7.90					42.0	0.83		0.035
94/06/14	0810		8.20					27.0	1.57		0.010K
94/07/12	1040		8.60					22.0	0.82		0.021
94/08/09	0820		8.20					37.0	1.32		0.010K
94/09/13	0730		8.20					26.0	1.26		0.010K

DATE		613	615	618	620	625	630	650	660	665	671
FROM	DEPTH	NO2-N	NO2-N	NO3-N	NO3-N	TOT	KJEL	NO2+NO3	T PO4	ORTHOPO4	PHOS-TOT
TO	TIME	DISS	TOTAL	DISS	TOTAL	N	N	N-TOTAL	PO4	PO4	PHOS-DIS
	FEET	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	ORTHO

MORE DATES NEXT PAGE

Station:21540000 37A090

## YAKIMA RIVER AT KIONA

PCSTORET -- 05-JUN-95

Page 21

DATE		613	615	618	620	625	630	650	660	665	671
FROM	DEPTH	NO2-N DISS MG/L	NO2-N TOTAL MG/L	NO3-N DISS MG/L	NO3-N TOTAL MG/L	TOT KJEL N MG/L	NO2+NO3 N-TOTAL MG/L	T PO4 PO4 MG/L	ORTHOPO4 PO4 MG/L	PHOS-TOT MG/L P	PHOS-DIS ORTHO MG/L P
TO	TIME	FEET									
93/10/12	0720						1.510			0.131	0.101
93/11/08	0710						1.630			0.092	0.069
93/12/14	0805						1.580			0.113	
94/01/10	0640						1.460			0.110	0.076
94/02/15	0750						1.530			0.102	0.068
94/03/15	0730						0.917			0.120	0.046
94/04/12	0810						0.651			0.111	0.034
94/05/10	0800						0.596			0.117	0.066
94/06/14	0810						1.150			0.091	0.065
94/07/12	1040						0.645			0.061	0.090
94/08/09	0820						0.996			0.172	0.117
94/09/13	0730						1.070			0.157	0.088
DATE		680	900	902	915	925	930	931	932	935	940
FROM	DEPTH	T ORG C C MG/L	TOT HARD CACO3 MG/L	NC HARD CACO3 MG/L	CALCIUM CA,DISS MG/L	MGNSIUM MG,DISS MG/L	SODIUM NA,DISS MG/L	SODIUM ADSBTION RATIO	PERCENT SODIUM %	PTSSIUM K,DISS MG/L	CHLORIDE CL MG/L
TO	TIME	FEET									
DATE		945	950	955	1000	1005	1020	1025	1027	1030	1034
FROM	DEPTH	SULFATE SO4-TOT MG/L	FLUORIDE F,DISS MG/L	SILICA DISOLVED MG/L	ARSENIC AS,DISS UG/L	BARIUM BA,DISS UG/L	BORON B,DISS UG/L	CADMIUM CD,DISS UG/L	CADMIUM CD,TOT UG/L	CHROMIUM CR,DISS UG/L	CHROMIUM CR,TOT UG/L
TO	TIME	FEET									
DATE		1040	1042	1045	1049	1051	1065	1075	1080	1090	1092
FROM	DEPTH	COPPER CU,DISS UG/L	COPPER CU,TOT UG/L	IRON FE,TOT UG/L	LEAD PB,DISS UG/L	LEAD PB,TOT UG/L	NICKEL NI,DISS UG/L	SILVER AG,DISS UG/L	STRONTIUM SR,DISS UG/L	ZINC ZN,DISS UG/L	ZINC ZN,TOT UG/L
TO	TIME	FEET									
DATE		1105	1130	1145	31501	31503	31504	31507	31616	31625	31672
FROM	DEPTH	ALUMINUM AL,TOT UG/L	LITHIUM LI,DISS UG/L	SELENIUM SE,DISS UG/L	TOT COLI MFIMENDO /100ML	TOT COLI MFDELENDO /100ML	TOT COLI MFIM LES /100ML	TOT COLI MPN COMP /100ML	FEC COLI MFM-FCBR /100ML	FEC COLI M-FCAGAD /100 ML	FECSTREP PC M-ENT /100ML
TO	TIME	FEET									
93/10/12	0720								36X		
93/11/08	0710								24		
94/01/10	0640								56		
94/02/15	0750								14		
94/03/15	0730								11		
94/04/12	0810								17		
94/05/10	0800								120		
94/06/14	0810								34X		

MORE DATES NEXT PAGE

Station:21540000 37A090

## YAKIMA RIVER AT KIONA

PCSTORET -- 05-JUN-95

Page 22

DATE	DEPTH	ALUMINUM AL,TOT UG/L	LITHIUM LI,DISS UG/L	SELENIUM SE,DISS UG/L	TOT COLI MFIMENDO /100ML	TOT COLI MFDILENDO /100ML	TOT COLI MFIM LES /100ML	TOT COLI MPN COMP /100ML	FEC COLI MFM-FCBR /100ML	FEC COLI M-FCAGAD /100 ML	31625	31672
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94/07/12 1040

57

94/08/09 0820

96

94/09/13 0730

9

DATE	DEPTH	Par Name	33410	39330	39340	39350	39360	39365	39370	39380	39390	39410
------	-------	----------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------

DATE	DEPTH	HPCHLREP	39420	39730	39740	39760	70300	70301	70302	70303	71851	71900
------	-------	----------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------

FROM	TO	TIME	FEET	WHL SMPL	2,4-D	2,4,5-T	SILVEX	RESIDUE	DISS SOL	DISS SOL	DISS SOL	NITRATE
------	----	------	------	----------	-------	---------	--------	---------	----------	----------	----------	---------

				UG/L		UG/L	WHL SMPL	DISS-180	SUM	TONS/DAY	TONS PER	DISS-NO3
--	--	--	--	------	--	------	----------	----------	-----	----------	----------	----------

							C	MG/L	MG/L		ACRE-FT	MG/L
--	--	--	--	--	--	--	---	------	------	--	---------	------

											HG, TOTAL
--	--	--	--	--	--	--	--	--	--	--	-----------

82079

TURBIDTY

LAB

NTU

93/10/12 0720 9.3

93/11/08 0710 4.2

93/12/14 0805 6.7

94/01/10 0640 4.5

94/02/15 0750 7.3

94/03/15 0730 12.0

94/04/12 0810 12.0

94/05/10 0800 17.0

94/06/14 0810 10.0

94/07/12 1040 8.9

94/08/09 0820 17.0

94/09/13 0730 12.0

37A130 7737A130 12508990

## YAKIMA RIVER AT MABTON

46 13 53.0 119 59 54.0 2F 0 Elev= 0 ft

53077 Washington Yakima Co. PACIFIC NORTHWEST

YAKIMA (Lower Yakima-37) 130437

21540000 Reach= 0.000 Drg= 0 sqmi

Seg ID= 18-37-01 Class= B Miles= 0.00 to 0.00

## AMBN/TSTREAM

INDEX 1310001 002750

MILES 0335.20 0059.80

DATE		8	10	25	60	80	95	300	301	400	410
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	COLOR	CNDUCTVY	DO	DO	PH	TALK
TO	TIME	IDENT.	TEMP	PRESSURE	FLOW	PT-CO	LAB	SATUR	PERCENT	SU	CACO3
		NUMBER	CENT	MM OF HG	CFS	UNITS	25C UMHO	MG/L	PERCENT		MG/L
93/10/12	0815	426007	12.5	751	1430			270	10.1	95.5	7.70
93/11/08	0820	466007	5.6	752	1430			273	11.8	94.7	8.20
93/12/14	0920	516007	5.4	745	1680			246	11.0	88.8	8.20
94/01/10	0750	26007	4.1	752	1590			290	12.2	94.3	7.90
94/02/15	0850	76007	5.0	746	1460			259	12.2	97.3	8.10
94/03/15	0830	116007	8.0	744	2200			203	11.2	96.4	7.80
94/04/12	0910	156007	11.6	747	1520			207	10.4	96.9	8.40
94/05/10	0900	196007	17.0	747	3050			162	9.0	94.1	8.10
94/06/14	0910	246007	15.6	744	958			253	8.2	83.6	8.00
94/07/12	1140	286007	21.5	742	655			274	8.5	97.8	8.30
94/08/09	0930	326007	20.7	745	965			212	8.3	93.7	8.10
94/09/13	0830	376007	15.2	744	1130			251	9.0	91.0	8.00

DATE		440	445	530	535	600	610	615	620	625	630
FROM	DEPTH	HCO3	ION	CO3	ION	RESIDUE	RESIDUE	TOTAL N	NH3+NH4-	NO2-N	NO2+N3
TO	TIME	FEET	MG/L	MG/L	MG/L	VOL NFLT	TOT-NFLT	MG/L	N TOTAL	TOTAL	TOT KJEL
93/10/12	0815			23.0			1.77	0.043			1.600
93/11/08	0820			6.0			1.85	0.044			1.580
93/12/14	0920			9.0			1.57	0.046			1.270
94/01/10	0750			7.0			1.56	0.081			1.360
94/02/15	0850			13.0			1.57	0.055			1.360
94/03/15	0830			23.0			1.06	0.032			0.770
94/04/12	0910			24.0			0.79	0.010K			0.685
94/05/10	0900			29.0			0.68	0.036			0.505
94/06/14	0910			23.0			1.33	0.019			1.160
94/07/12	1140			25.0			1.43	0.123			1.190
94/08/09	0930			43.0			1.09	0.042			0.864
94/09/13	0830			23.0			1.39	0.025			1.060

DATE		665	671	680	900	902	915	925	930	935	940
FROM	DEPTH	PHOS-TOT	PHOS-DIS	T ORG C	TOT HARD	NC HARD	CALCIUM	MGNSIUM	SODIUM	PTSSIUIM	CHLORIDE
TO	TIME	FEET	MG/L P	MG/L P	MG/L	CACO3	CA,DISS	MG/L	MG/L	K,DISS	CL

MORE DATES NEXT PAGE

DATE		665 PHOS-TOT FROM DEPTH TO TIME FEET	671 PHOS-DIS ORTHO MG/L P	680 T ORG C C MG/L	900 TOT HARD CACO3 MG/L	902 NC HARD CACO3 MG/L	915 CALCIUM CA,DISS MG/L	925 MGSNLIUM MG,DISS MG/L	930 SODIUM NA,DISS MG/L	935 PTSSIUM K,DISS MG/L	940 CHLORIDE CL MG/L
93/10/12	0815		0.099	0.074							
93/11/08	0820		0.097	0.076							
93/12/14	0920		0.085								
94/01/10	0750		0.090	0.066							
94/02/15	0850		0.090	0.060							
94/03/15	0830		0.087	0.041							
94/04/12	0910		0.095	0.039							
94/05/10	0900		0.087	0.044							
94/06/14	0910		0.056	0.056							
94/07/12	1140		0.150	0.086							
94/08/09	0930		0.125	0.073							
94/09/13	0830		0.106	0.063							

DATE		945 SULFATE SO4-TOT FROM DEPTH TO TIME FEET	31504 TOT COLI MFIM LES MG/L	31616 FEC COLI MFM-FCBR /100ML	31672 FECSTREP PC M-ENT /100ML	82079 TURBIDTY LAB NTU
93/10/12	0815			120S		9.6
93/11/08	0820			210		3.9
93/12/14	0920					4.4
94/01/10	0750			180		3.1
94/02/15	0850			71		5.3
94/03/15	0830			100		11.0
94/04/12	0910			120S		12.0
94/05/10	0900			200		12.0
94/06/14	0910			180		13.0
94/07/12	1140			330		16.0
94/08/09	0930			1200J		20.0
94/09/13	0830			230		11.0

37A210 7737A210 12500010  
 YAKIMA RIVER NEAR TERRACE HEIGHT  
 46 36 21.0 120 28 27.0 2F 0 Elev= 0 ft  
 53077 Washington Yakima Co. PACIFIC NORTHWEST  
 YAKIMA (Lower Yakima-37) 130437  
 21540000 Reach= 0.000 Drg= 0 sqmi  
 Seg ID= 18-37-02 Class= A Miles= 0.00 to 0.00  
 AMBNT/STREAM

INDEX 1310001 002750  
 MILES 0335.20 0113.20

DATE		8	10	25	60	80	95	300	301	400	410
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	COLOR	CNDUCTVY	DO	DO	PH	TALK
TO	TIME	IDENT.	TEMP	PRESSURE	FLOW	PT-CO	LAB	SATUR	SATUR	CACO3	
	FEET	NUMBER	CENT	MM OF HG	CFS	UNITS	25C UMHO	MG/L	PERCENT	SU	MG/L
93/10/12	0940	426009	11.0	740	1740		116	10.7	99.3	8.00	
93/11/08	1000	466009	3.5	742	1240		165	13.2	101.7	8.00	
93/12/14	1045	516009	3.4	732	1290		142	12.4	96.6	8.40	
94/01/10	0925	26009	3.0	742	1320		174	12.5	95.1	8.20	
94/02/15	1200	76009	3.4	734	1290		149	13.0	101.0	8.00	
94/03/15	1000	116009	6.5	734	2640		123	11.9	100.1	8.00	
94/04/12	1050	156009	8.1	737	2410		101	11.5	100.2	8.00	
94/05/10	1010	196009	10.2	744	3990			10.7	96.9	7.80	
94/06/14	1020	246009	12.2	732	2750		98	10.0	96.4	8.20	
94/07/12	1250	286009	17.8	732	2740		85	9.8	106.4	8.60	
94/08/09	1055	326009	17.7	734	3240		78	10.1	109.0	8.10	
94/09/13	0950	376009	13.8	734	2510		112	9.9	98.5	7.90	

DATE		440	445	530	600	610	615	620	625	630	665	
FROM	DEPTH	HCO3	ION	CO3	ION	RESIDUE	TOTAL N	NH3+NH4-N	NO2-N	NO3-N	NO2+NO3	
TO	TIME	MG/L	MG/L	MG/L	MG/L	TOT-NFLT	MG/L	MG/L	TOTAL	MG/L	PHOS-TOT	
	FEET											
93/10/12	0940					7.0	0.29	0.013			0.180	0.026
93/11/08	1000					6.0	0.43	0.014			0.307	0.029
93/12/14	1045					11.0	0.49	0.027			0.359	0.037
94/01/10	0925					10.0	0.45	0.024			0.325	0.042
94/02/15	1200					6.0	0.36	0.010			0.255	0.030
94/03/15	1000					9.0	0.20	0.010K			0.068	0.026
94/04/12	1050					10.0	0.11	0.010K			0.044	0.034
94/05/10	1010					14.0	0.19	0.026			0.083	0.036
94/06/14	1020					10.0	0.15	0.010K			0.127	0.010
94/07/12	1250					9.0	0.22	0.017			0.094	0.029
94/08/09	1055					15.0	0.14	0.010K			0.052	0.018
94/09/13	0950					9.0	0.19	0.010K			0.062	0.023

DATE		671	900	902	915	925	930	935	940	945	31504
FROM	DEPTH	PHOS-DIS	TOT HARD	NC HARD	CALCIUM	MGSNLIUM	SODIUM	PTSSIUIM	CHLORIDE	SULFATE	TOT COLI
TO	TIME	ORTHO	CACO3	CACO3	CA,DISS	MG,DISS	NA,DISS	K,DISS	CL	SO4-TOT	MFIM LES
	FEET	MG/L P	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	/100ML

MORE DATES NEXT PAGE

DATE FROM TO	DEPTH TIME FEET	PHOS-DIS ORTHO MG/L P	671 TOT HARD MG/L	900 CACO3 MG/L	902 CACO3 MG/L	915 CALCIUM MG,DISS MG/L	925 MGSNIM MG,DISS MG/L	930 SODIUM NA,DISS MG/L	935 PTSSIUM K,DISS MG/L	940 CHLORIDE CL MG/L	945 SULFATE SO4-TOT MG/L	31504 TOT COLI MFIM LES /100ML
93/10/12 0940		0.014										
93/11/08 1000		0.021										
93/12/14 1045		0.033										
94/01/10 0925		0.027										
94/02/15 1200		0.021										
94/03/15 1000		0.010										
94/04/12 1050		0.012										
94/05/10 1010		0.021										
94/06/14 1020		0.010K										
94/07/12 1250		0.010K										
94/08/09 1055		0.012										
94/09/13 0950		0.012										

DATE FROM TO	DEPTH TIME FEET	31616 FEC COLI MFM-FCBR /100ML	31672 FECSTREP PC M-ENT /100ML	82079 TURBIDTY LAB NTU
93/10/12 0940		37		4.5
93/11/08 1000		7		3.2
93/12/14 1045				4.5
94/01/10 0925		10		3.1
94/02/15 1200		7		2.2
94/03/15 1000		8		2.8
94/04/12 1050		19		4.1
94/05/10 1010		48		6.1
94/06/14 1020		40		3.7
94/07/12 1250		28		3.6
94/08/09 1055		43		3.7
94/09/13 0950		21		4.2

37F070 7737F070  
 Sulfer Ck Wasteway @ McGee Rd  
 46 15 03.0 120 01 07.0 2F000 Elev= 0 ft  
 53077 Washington Yakima Co. PACIFIC NORTHWEST  
 Columbia River below Yakima River 131037  
 21540000 Reach=17030003005 0.000 Drg= 0 sqmi  
 AMBNT/STREAM

INDEX 1310001 002750 00280  
 MILES 0335.20 0061.00 001.70

DATE		8	10	25	60	95	300	301	400	530	600
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	CNDUCTVY	DO	DO	PH	RESIDUE	TOTAL N
TO	TIME	FEET	IDENT.	TEMP	PRESSURE	FLOW	LAB	SATUR	TOT-NFLT	N	MG/L
93/10/12	0840	426008	11.7	752	264	318	9.7	90.0	7.90	84.0	2.94
93/11/08	0850	466008	7.2	753	69	591	10.2	85.2	8.10	10.0	6.38
93/12/14	0940	516008	8.8	745	67	631	9.2	80.8	8.20	29.0	6.46
94/01/10	0810	26008	8.0	752	53	741	9.7	82.8	8.20	52.0	7.12
94/02/15	0920	76008	8.3	746	46	673	9.8	85.0	8.40	62.0	7.46
94/03/15	0845	116008	7.6	744	47	677	9.9	84.5	8.70	21.0	7.31
94/04/12	0940	156008	9.4	747	206	249	10.0	88.7	8.20	97.0	1.70
94/05/10	0915	196008	14.2	747	85	417	8.5	83.9	8.10	171.0	3.59
94/06/14	0920	246008	13.2	744	96	365	9.1	88.2	8.10	52.0	3.30
94/07/12	1200	286008	18.0	742	74	419	10.7	115.1	8.50	37.0	4.01
94/08/09	0950	326008	17.2	744	119	341	8.9	93.9	8.10	67.0	3.07
94/09/13	0840	376008	12.8	744	110	395	8.7	83.6	7.80	15.0	3.59

DATE		610	630	665	671	31616	82079
FROM	DEPTH	NH3+NH4-	NO2+NO3	PHOS-TOT	PHOS-DIS	FEC COLI	TURBIDTY
TO	TIME	N TOTAL	N-TOTAL	MG/L P	ORTHO	MFM-FCBR	LAB
93/10/12	0840	0.055	2.500	0.143	0.095	510	12.0
93/11/08	0850	0.251	5.660	0.164	0.107	3000J	4.5
93/12/14	0940	0.326	5.920	0.215			9.1
94/01/10	0810	0.351	5.600	0.238	0.169	1600S	14.0
94/02/15	0920	0.273	6.540	0.231	0.145	730	17.0
94/03/15	0845	0.265	5.280	0.196	0.143	1000J	5.4
94/04/12	0940	0.025	1.490	0.172	0.062	1700J	23.0
94/05/10	0915	0.096	3.220	0.296	0.123	1300	60.0
94/06/14	0920	0.023	3.350	0.104	0.090	1600J	21.0
94/07/12	1200	0.118	3.910	0.246	0.203	3200	19.0
94/08/09	0950	0.037	2.750	0.181	0.105	2700	26.0
94/09/13	0840	0.050	3.230	0.174	0.124	730	10.0

41A070 2541A070 12472600 541133  
 CRAB CREEK NEAR BEVERLY  
 46 49 53.0 119 48 54.0 2F 0 Elev= 0 ft  
 53025 Washington GRANT CO. PACIFIC NORTHWEST  
 UPPER COLUMBIA (Lower Crab-41) 130541  
 21540000 Reach= 0.000 Drg= 0 sqmi  
 Seg ID= 19-41-01 Class= B Miles= 0.00 to 0.00  
 AMBNT/STREAM/RMP

INDEX 1310001 003020  
 MILES 0410.80 0006.00

DATE		8	10	25	60	70	80	95	300	301	310
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	TURB	COLOR	CNDUCTVY	DO	DO	BOD
TO	TIME	IDENT.	TEMP	PRESSURE	FLOW	JKSN	PT-CO	LAB	DO	SATUR	5 DAY
	FEET	NUMBER	CENT	MM OF HG	CFS	JTU	UNITS	25C UMHO	MG/L	PERCENT	MG/L

93/10/12 1145		426011	12.8	753	347			523	10.5	99.8	
93/11/08 1300		466011	5.9	754	239			599	13.8	111.4	
93/12/14 1300		516011	8.4	746	225			738	12.4	107.7	
94/01/10 1230		26011	4.8	752	215			859	12.1	95.4	
94/02/15 1405		76011	5.1	747	185			793	11.9	95.2	
94/03/15 1230		116011	10.4	744	125			782	14.6	133.2	
94/04/12 1310		156011	11.8	749	250			562	10.0	93.4	
94/05/10 1230		196011	18.6	747	237			536	9.5	102.8	
94/06/14 1230		246011	14.8	747	259			476	10.4	104.0	
94/07/12 1450		286011	22.4	749	251			462	10.8	125.1	
94/08/09 1355		326011	22.1	746	296			504	10.5	121.7	
94/09/13 1150		376011	16.4	747	325			522	10.3	106.6	

DATE		400	405	410	440	445	530	600	605	610	613
FROM	DEPTH	PH	CO2	TALK	HCO3	ION	CO3	ION	ORG N	NH3+NH4-	NO2-N
TO	TIME	SU	MG/L	CACO3	HCO3	CO3	TOT-NFLT	N	N	N TOTAL	DISS
	FEET			MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L

93/10/12 1145		8.40					8.0	1.67		0.012	
93/11/08 1300		8.20					10.0	2.37		0.018	
93/12/14 1300		8.40					11.0	2.85		0.032	
94/01/10 1230		8.60					15.0	3.15		0.031	
94/02/15 1405		8.80					20.0	3.46		0.014	
94/03/15 1230		8.60					8.0	3.36		0.010K	
94/04/12 1310		8.50					89.0	1.46		0.010K	
94/05/10 1230		8.50					85.0	1.44		0.017	
94/06/14 1230		8.60					49.0	1.17		0.010K	
94/07/12 1450		8.70					67.0	1.21		0.027	
94/08/09 1355		8.60					66.0	1.47		0.010K	
94/09/13 1150		8.40					10.0	1.62		0.010K	

DATE		615	620	625	630	650	660	665	671	900	902
FROM	DEPTH	NO2-N	NO3-N	TOT	KJEL	NO2+NO3	T	PO4	ORTHOP04	PHOS-TOT	PHOS-DIS
TO	TIME	TOTAL	TOTAL	N	N	N-TOTAL	PO4	PO4	ORTHOP04	ORTHO	CACO3
	FEET	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L P	MG/L P	MG/L

MORE DATES NEXT PAGE

DATE	DEPTH	NO2-N TOTAL TO FEET	NO3-N TOTAL MG/L	TOT KJEL MG/L	NO2+NO3 N-TOTAL MG/L	T PO4 PO4 MG/L	660 ORTHOPO4 PO4 MG/L	665 PHOS-TOT MG/L P	671 PHOS-DIS ORTHO MG/L P	900 TOT HARD CACO3 MG/L	902 NC HARD CACO3 MG/L
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93/10/12 1145					1.420			0.033	0.014		
93/11/08 1300					2.010			0.057	0.035		
93/12/14 1300					2.580			0.092	0.068		
94/01/10 1230					2.810			0.087	0.059		
94/02/15 1405					3.200			0.093	0.040		
94/03/15 1230					2.890			0.075	0.025		
94/04/12 1310					1.260			0.185	0.015		
94/05/10 1230					1.120			0.108	0.010K		
94/06/14 1230					1.260			0.028	0.010K		
94/07/12 1450					1.040			0.082	0.010K		
94/08/09 1355					1.150			0.065	0.011		
94/09/13 1150					1.250			0.053	0.010K		

DATE	DEPTH	CALCIUM CA,DISS TO FEET	MGNSIUM MG,DISS MG/L	SODIUM NA,DISS MG/L	SODIUM ADSBITION RATIO	PERCENT SODIUM %	PTSSIUM K,DISS MG/L	940 CHLORIDE CL MG/L	945 SULFATE SO4-TOT MG/L	950 FLUORIDE F,DISS MG/L	955 SILICA DISOLVED MG/L
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DATE	DEPTH	1000 ARSENIC AS,DISS UG/L	1005 BARIUM BA,DISS UG/L	1020 BORON B,DISS UG/L	1025 CADMIUM CD,DISS UG/L	1030 CHROMIUM CR,DISS UG/L	1034 CHROMIUM CR,TOT UG/L	1040 COPPER CU,DISS UG/L	1045 IRON FE,TOT UG/L	1049 LEAD PB,DISS UG/L	1065 NICKEL NI,DISS UG/L
FROM											
TO											
TIME											
FEET											

DATE	DEPTH	1075 SILVER AG,DISS UG/L	1080 STRONTIUM SR,DISS UG/L	1090 ZINC ZN,DISS UG/L	1130 LITHIUM LI,DISS UG/L	1145 SELENIUM SE,DISS UG/L	31501 TOT COLI MFIMENDO /100ML	31503 TOT COLI MFIMENDO /100ML	31504 TOT COLI MFIM LES /100ML	31505 TOT COLI MPN CONF /100ML	31507 TOT COLI MPN COMP /100ML
FROM											
TO											
TIME											
FEET											

DATE	DEPTH	31616 FEC COLI MFM-FCBR /100ML	70300 RESIDUE DISS-180 C MG/L	70301 DISS SOL MG/L	70302 DISS SOL TONS/DAY	70303 DISS SOL TONS PER ACRE-FT	71850 NITRATE TOT-NO3 MG/L	71851 NITRATE DISS-NO3 MG/L	71900 MERCURY HG,TOTAL UG/L	82079 TURBIDTY NTU
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93/10/12 1145		69								3.2
93/11/08 1300		27								5.5
93/12/14 1300										4.5
94/01/10 1230		9								6.5
94/02/15 1405		9								8.4
94/03/15 1230		13								3.2
94/04/12 1310		720								31.0
94/05/10 1230		160								26.0

MORE DATES NEXT PAGE

DATE FROM TO	TIME DEPTH FEET	31616 FEC COLI MFM-FCBR	70300 RESIDUE DISS-180	70301 DISS SOL SUM	70302 DISS SOL TONS/DAY	70303 TONS PER ACRE-FT	71850 NITRATE TOT-NO3	71851 NITRATE DISS-NO3	71900 MERCURY HG,TOTAL	82079 TURBIDTY LAB NTU
		/100ML C	MG/L	MG/L			MG/L	MG/L	UG/L	
94/06/14	1230	96								18.0
94/07/12	1450		40							23.0
94/08/09	1355		360							19.0
94/09/13	1150		100							5.0

41A110 2541A110 12467000 541117  
 CRAB CREEK NEAR MOSES LAKE  
 47 11 23.0 119 15 54.0 2F 0 Elev= 0 ft  
 53025 Washington GRANT CO. PACIFIC NORTHWEST  
 UPPER COLUMBIA (Lower Crab-41) 130541  
 21540000 Reach= 0.000 Drg= 0 sqmi  
 Seg ID= 19-41-01 Class= B Miles= 0.00 to 0.00  
 AMBNT/STREAM

INDEX 1310001 003020  
 MILES 0410.80 0063.00

DATE		8	10	25	60	70	80	95	300	301	400
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	TURB	COLOR	CNDUCTVY	DO	DO	PH
TO	TIME	IDENT.	TEMP	PRESSURE	FLOW	JKSN	PT-CO	LAB	SATUR		
		NUMBER	CENT	MM OF HG	CFS	JTU	UNITS	25C UMHO	MG/L	PERCENT	SU
93/10/04	1050	416150	12.8	734	44				492	11.8	115.0
93/11/01	1040	456150	6.8	743	32				543	13.9	116.6
93/12/06	1040	506150	1.4	732	17				622	12.2	90.3
94/01/03	1045	16150	2.8	740	18				625	11.4	86.6
94/02/07	1055	66150	1.3	730	11				696	12.2	90.3
94/03/07	1040	106150	2.6J	746	8				614	12.9	96.8
94/04/04	1035	146150	8.2	738	7				589	10.2	89.1
94/05/02	1020	186150	10.9	734	18				424	12.3	114.9
94/06/06	1105	236150	14.8	730	29				431	11.1	113.7
94/07/05	1115	276150	18.1	733	41				454	11.9	129.9
94/08/01	1035	316150	19.0	733	44				387	11.3	125.6
94/09/05	1020	366150	15.0	740	49				500	11.1	112.5

DATE		440	445	530	600	610	615	620	630	660	665
FROM	DEPTH	HCO3	ION	CO3	RESIDUE	TOTAL N	NH3+NH4-N	NO2-N	NO3-N	NO2+NO3	ORTHOP04
TO	TIME	HCO3	CO3	CO3	TOT-NFLT	MG/L	MG/L	MG/L	MG/L	PO4	PHOS-TOT
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L P
93/10/04	1050				12.0	1.39	0.011			0.977	0.034
93/11/01	1040				2.0	1.54	0.011			1.420	0.031
93/12/06	1040				2.0	1.79	0.037			1.350	0.075
94/01/03	1045				4.0	1.45	0.068			1.130	0.078
94/02/07	1055				9.0	1.75	0.052			1.450	0.083
94/03/07	1040				8.0	1.11	0.020			0.860	0.057
94/04/04	1035				3.0	0.63	0.017			0.280	0.030
94/05/02	1020				14.0	0.54	0.014			0.306	0.047
94/06/06	1105				44.0	0.84	0.010K			0.546	0.045
94/07/05	1115				14.0	0.93	0.010			0.872	0.022
94/08/01	1035				17.0	0.91	0.010K			0.781	0.025
94/09/05	1020				13.0	1.10	0.014			0.958	0.017

DATE		671	900	902	915	925	930	935	940	945	950
FROM	DEPTH	PHOS-DIS	TOT	HARD	NC	HARD	CALCIUM	MGNSIUM	SODIUM	PTSSUIM	CHLORIDE
TO	TIME	ORTHO	CACO3	CACO3	CA,DISS	MG/L	MG,DISS	NA,DISS	K,DISS	CL	SULFATE
		MG/L P	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L

MORE DATES NEXT PAGE

DATE FROM TO	DEPTH TIME FEET	671 PHOS-DIS ORTHO MG/L P	900 TOT HARD CACO <sub>3</sub> MG/L	902 NC HARD CACO <sub>3</sub> MG/L	915 CALCIUM CA,DISS MG/L	925 MGNSIUM MG,DISS MG/L	930 SODIUM NA,DISS MG/L	935 PTSSIUM K,DISS MG/L	940 CHLORIDE CL MG/L	945 SULFATE SO <sub>4</sub> -TOT MG/L	950 FLUORIDE F,DISS MG/L
93/10/04 1050		0.014									
93/11/01 1040		0.021									
93/12/06 1040		0.053									
94/01/03 1045		0.062									
94/02/07 1055		0.064									
94/03/07 1040		0.037									
94/04/04 1035		0.011									
94/05/02 1020		0.010									
94/06/06 1105		0.010K									
94/07/05 1115		0.010K									
94/08/01 1035		0.010K									
94/09/05 1020		0.011									

DATE FROM TO	DEPTH TIME FEET	955 SILICA DISOLVED MG/L	1020 BORON B,DISS UG/L	1045 IRON FE,TOT UG/L	31505 TOT COLI MPN CONF /100ML	31616 FEC COLI MFM-FCBR /100ML	70300 RESIDUE DISS-180 C MG/L	82079 TURBIDITY LAB NTU
93/10/04 1050					52		2.1	
93/11/01 1040					22		0.8	
93/12/06 1040					17		1.4	
94/01/03 1045					18		1.0	
94/02/07 1055					34		4.0	
94/03/07 1040					6		2.6	
94/04/04 1035					23		1.4	
94/05/02 1020					57		4.0	
94/06/06 1105					61		9.1	
94/07/05 1115					35		4.1	
94/08/01 1035					190		4.9	
94/09/05 1020					48		4.9	

45A070 0745A070 12462520 541017  
 WENATCHEE RIVER AT WENATCHEE  
 47 27 32.0 120 20 07.0 2F 0 Elev= 0 ft  
 53007 Washington Chelan Co. PACIFIC NORTHWEST  
 UPPER COLUMBIA (Wenatchee-45) 130545  
 21540000 Reach= 0.000 Drg= 0 sqmi  
 Seg ID= 21-45-01 Class= A Miles= 0.00 to 0.00  
 AMBNT/STREAM/RMP

INDEX 1310001 003550  
 MILES 0468.40 0001.10

DATE		8	10	25	60	70	80	95	300	301	310
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	TURB	COLOR	CNDUCTVY	DO	DO	BOD
TO	TIME FEET	IDENT. NUMBER	TEMP CENT	PRESSURE MM OF HG	FLOW CFS	JKSN JTU	PT-CO UNITS	LAB 25C UMHO	MG/L	SATUR PERCENT	5 DAY MG/L

93/10/12 1530		426013	12.2	745	302			103	12.3	116.5
93/11/09 1255		466013	3.0	748	486			83	14.8	111.6
93/12/15 1200		516013	2.2	748	711			69	14.0	103.3
94/01/11 1145		26013	1.8	751	762			89	14.7	107.0
94/02/16 1150		76013	3.4	740	798			75	13.1	100.9
94/03/16 1215		116013	5.6	737	2480			60	12.7	104.0
94/04/13 1220		156013	6.5	744	3080			53	13.0	107.8
94/05/11 1620		196013	8.5	739	10900			32	11.4	99.9
94/06/15 1420		246013	11.5	742	4180			35	10.9	102.0
94/07/13 1530		286013	20.0	737	1870			44	9.5	106.9
94/08/10 1220		326013	18.6	741	653			68	11.7	127.3
94/09/14 1400		376013	15.4	742	399			92	11.9	121.2

DATE		340 COD	400 PH	405 CO2	410 TALK	440 HCO3 <sub>ION</sub>	445 CO3 <sub>ION</sub>	530 RESIDUE	600 TOTAL N	605 ORG N	610 NH3+NH4-
FROM	DEPTH	HI LEVEL			CACO3	HCO3	CO3	TOT-NFLT	N	N	N TOTAL
TO	TIME FEET	MG/L	SU	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L

93/10/12 1530			9.10					4.0	0.48		0.014
93/11/09 1255			8.40					2.0	0.32		0.010K
93/12/15 1200			7.70					3.0	0.28		0.010K
94/01/11 1145			7.90					14.0	0.25		0.010K
94/02/16 1150			8.40					5.0	0.30		0.010K
94/03/16 1215			8.00					6.0	0.20		0.012
94/04/13 1220			8.70					5.0	0.07		0.010K
94/05/11 1620			7.70					14.0	0.14		0.010K
94/06/15 1420			7.80					3.0	0.09		0.010K
94/07/13 1530			8.40					2.0	0.13		0.010K
94/08/10 1220			9.00					2.0	0.22		0.010K
94/09/14 1400			8.80					5.0	0.41		0.010K

DATE		613 NO2-N	615 NO2-N	620 NO3-N	625 TOT N	630 KJEL	660 NO2+NO3	665 ORTHOP04	671 PHOS-TOT	671 PHOS-DIS	900 TOT HARD	902 NC HARD
FROM	DEPTH	DISS	TOTAL	TOTAL	N	N-TOTAL	PO4	PHOS	PHOS	ORTHO	CACO3	CACO3
TO	TIME FEET	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L P	MG/L P	MG/L P	MG/L	MG/L

MORE DATES NEXT PAGE

DATE	DEPTH	613 NO2-N DISS	615 NO2-N TOTAL MG/L	620 NO3-N TOTAL MG/L	625 TOT KJEL N MG/L	630 NO2+NO3 N-TOTAL MG/L	660 ORTHOPO4 PO4 MG/L	665 PHOS-TOT MG/L P	671 PHOS-DIS ORTHO MG/L P	900 TOT HARD CACO3 MG/L	902 NC HARD CACO3 MG/L
93/10/12	1530					0.342		0.017	0.010K		
93/11/09	1255					0.245		0.010	0.010K		
93/12/15	1200					0.214		0.010K	0.010K		
94/01/11	1145					0.185		0.010K	0.010K		
94/02/16	1150					0.188		0.010K	0.010K		
94/03/16	1215					0.077		0.011	0.010K		
94/04/13	1220					0.022		0.010K			
94/05/11	1620					0.066		0.012	0.010K		
94/06/15	1420					0.055		0.010K	0.010K		
94/07/13	1530					0.065		0.010K	0.010K		
94/08/10	1220					0.130		0.010K	0.010K		
94/09/14	1400					0.294		0.019	0.010K		

DATE	DEPTH	915 CALCIUM CA,DISS	925 MGSNIUM MG,DISS	930 SODIUM NA,DISS	935 PTSSIUM K,DISS	940 CHLORIDE CL	945 SULFATE SO4-TOT	950 FLUORIDE F,DISS	955 SILICA DISOLVED	1000 ARSENIC AS,DISS	1005 BARIUM BA,DISS
TO	TIME FEET	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	UG/L

DATE	DEPTH	1020 BORON	1025 CADMIUM	1030 CHROMIUM	1040 COPPER	1045 IRON	1049 LEAD	1065 NICKEL	1075 SILVER	1090 ZINC	1145 SELENIUM
FROM		B,DISS	CD,DISS	CR,DISS	CU,DISS	FE,TOT	PB,DISS	NI,DISS	AG,DISS	ZN,DISS	SE,DISS
TO	TIME FEET	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L

DATE	DEPTH	31501 TOT COLI MFIMENDO	31504 TOT COLI MFIM LES	31505 TOT COLI MPN CONF	31616 FEC COLI MFM-FCBR	70300 RESIDUE DISS-180	71900 MERCURY HG,TOTAL	82079 TURBIDITY LAB
FROM		/100ML	/100ML	/100ML	/100ML	C MG/L	UG/L	NTU
TO	TIME FEET							

93/10/12 1530 1 8.4  
 93/11/09 1255 2 0.5  
 93/12/15 1200 3 0.7  
 94/01/11 1145 15 1.0  
 94/02/16 1150 8 1.0  
 94/03/16 1215 2 1.2  
 94/04/13 1220 1K 1.2  
 94/05/11 1620 9 4.6  
 94/06/15 1420 1 1.0  
 94/07/13 1530 3 0.8  
 94/08/10 1220 14 0.7  
 94/09/14 1400 14 1.4

45A110 0745A110 12457800 541115

WENATCHEE RIVER NEAR LEAVENWORTH

47 40 35.0 120 44 00.0 2F 0 Elev= 0 ft

53007 Washington Chelan Co. PACIFIC NORTHWEST

UPPER COLUMBIA (Wenatchee-45) 130545

21540000 Reach= 0.000 Drg= 0 sqmi

Seg ID= 21-45-01 Class= AA Miles= 0.00 to 0.00

AMBN/TSTREAM/RMP

INDEX 1310001 003550

MILES 0468.40 0035.60

DATE		8	10	25	60	70	80	95	300	301	400
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	TURB	COLOR	CNDUCTVY	DO	DO	PH
TO	TIME	IDENT.	TEMP	PRESSURE	FLOW	JKSN	PT-CO	LAB	SATUR		
	FEET	NUMBER	CENT	MM OF HG	CFS	JTU	UNITS	25C UMHO	MG/L	PERCENT	SU
93/10/12	1445	426012	10.9	721	243			45	10.7	101.7	8.30
93/11/09	1400	466012	3.7	724	311			40	12.6	100.0	7.60
93/12/15	1255	516012	3.0	735	456			42	13.0	99.7	7.80
94/01/11	1240	26012	2.7	721	542			47	13.1	101.6	7.80
94/02/16	1240	76012	2.8	726	536			40	12.7	98.1	8.00
94/03/16	1310	116012	4.4	714	1630			37	12.2	100.0	7.60
94/04/13	1310	156012	4.7	719	2090			36	12.0	98.5	7.90
94/05/11	1700	196012	7.0	716	7320			25	11.3	94.2	7.60
94/06/15	1500	246012	10.7	716	2950			27	10.5	100.0	7.80
94/07/13	1620	286012	17.0	716	1540			29	9.3	101.5	8.20
94/09/14	1500	376012	14.6	719	315			42	10.1	104.4	8.00

DATE		440	445	530	600	610	613	615	620	630	660
FROM	DEPTH	HCO3	ION	CO3	RESIDUE	TOTAL N	NH3+NH4-	NO2-N	NO2-N	NO3-N	NO2+NO3
TO	TIME	HCO3	CO3	CO3	TOT-NFLT	N	N TOTAL	DISS	TOTAL	TOTAL	ORTHOPO4
	FEET	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	PO4
93/10/12	1445				1.0K	0.13	0.011				0.010K
93/11/09	1400				1.0K	0.05	0.010K				0.010K
93/12/15	1255				1.0	0.12	0.018				0.037
94/01/11	1240				3.0	0.11	0.020				0.040
94/02/16	1240				1.0K	0.11	0.010K				0.053
94/03/16	1310				12.0	0.15	0.010K				0.066
94/04/13	1310				4.0	0.11	0.010K				0.023
94/05/11	1700				9.0	0.15	0.019				0.071
94/06/15	1500				3.0	0.06	0.010K				0.044
94/07/13	1620				2.0	0.05	0.010K				0.014
94/09/14	1500				2.0	0.02	0.010K				0.010K

DATE		665	671	900	902	915	925	930	935	940	945
FROM	DEPTH	PHOS-TOT	PHOS-DIS	TOT HARD	NC HARD	CALCIUM	MGNSIUM	SODIUM	PTSSIUIM	CHLORIDE	SULFATE
TO	TIME	MG/L P	MG/L P	MG/L	MG/L	CA,DISS	MG,DISS	NA,DISS	K,DISS	CL	SO4-TOT
	FEET	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
93/10/12	1445	0.010K	0.010K								

MORE DATES NEXT PAGE

DATE		665	671	900	902	915	925	930	935	940	945
FROM	DEPTH	PHOS-TOT	PHOS-DIS	TOT HARD	NC HARD	CALCIUM	MGSNLIUM	SODIUM	PTSSIUIM	CHLORIDE	SULFATE
TO	TIME FEET	MG/L P	MG/L P	MG/L	MG/L	CA,DISS	MG,DISS	NA,DISS	K,DISS	CL	SO4-TOT
93/11/09	1400		0.010K	0.010K							
93/12/15	1255		0.010K	0.010K							
94/01/11	1240		0.010K	0.010K							
94/02/16	1240		0.010K	0.010K							
94/03/16	1310		0.010K	0.010K							
94/04/13	1310		0.070								
94/05/11	1700		0.010K	0.010K							
94/06/15	1500		0.010K	0.010K							
94/07/13	1620		0.010K	0.010K							
94/09/14	1500		0.014	0.010K							
DATE		950	955	1020	1045	31505	31616	70300	82079		
FROM	DEPTH	FLUORIDE	SILICA	BORON	IRON	TOT COLI	FEC COLI	RESIDUE	TURBIDTY		
TO	TIME FEET	F,DISS	DISOLVED	B,DISS	FE,TOT	MPN CONF	MFM-FCBR	DISS-180	LAB		
		MG/L	MG/L	UG/L	UG/L	/100ML	/100ML	C MG/L	NTU		
93/10/12	1445						1K		0.4		
93/11/09	1400						1K		0.8		
93/12/15	1255						4		0.8		
94/01/11	1240						1K		0.6		
94/02/16	1240						1		0.5K		
94/03/16	1310						1K		1.7		
94/04/13	1310						2		1.1		
94/05/11	1700						1K		2.4		
94/06/15	1500						1K		0.7		
94/07/13	1620						1		0.7		
94/09/14	1500						2		0.5K		

46A070 0746A070 12452990 541018  
 ENTIAT RIVER NEAR ENTIAT  
 47 39 48.0 120 14 58.0 2F 0 Elev= 0 ft  
 53007 Washington Chelan Co. PACIFIC NORTHWEST  
 UPPER COLUMBIA (Entiat-46) 130546  
 21540000 Reach= 0.000 Drg= 0 sqmi  
 Seg ID= 21-46-02 Class= A Miles= 0.00 to 0.00  
 AMBNT/STREAM/RMP

INDEX 1310001 004000  
 MILES 0483.70 0001.50

DATE		8	10	25	60	70	80	95	300	301	310
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	TURB	COLOR	CNDUCTVY	DO	DO	BOD
TO	TIME FEET	IDENT. NUMBER	TEMP CENT	PRESSURE MM OF HG	FLOW CFS	JKSN JTU	PT-CO UNITS	LAB 25C UMHO	MG/L	SATUR PERCENT	5 DAY MG/L
93/10/13	1115	426019	11.5	744				100	11.3	105.5	
93/11/09	1050	466019	1.8	751				101	14.3	104.1	
93/12/15	1120	516019	0.9	747				93	13.8	98.8	
94/01/11	1100	26019	1.1	749				118	14.3	102.3	
94/02/16	1110	76019	3.0	740				101	13.3	101.3	
94/03/16	1140	116019	5.2	737				86	12.5	101.4	
94/04/13	1110	156019	5.8	744				74	12.3	100.2	
94/05/11	1500	196019	6.7	739				32	11.6	97.3	
94/06/15	1330	246019	9.7	739				40	10.8	97.4	
94/07/13	1445	286019	19.4	737				54	9.1	101.2	
94/08/10	1140	326019	16.6	741				80	11.0	115.0	
94/09/14	1320	376019	14.6	742				100	10.5	105.2	

DATE		400	410	440	445	530	600	610	613	615	620
FROM	DEPTH	PH	T ALK	HCO3	ION	CO3	TOTAL N	NH3+NH4-	NO2-N	NO2-N	NO3-N
TO	TIME FEET	SU	CACO3	HCO3	CO3	TOT-NFLT	N	N TOTAL	DISS	TOTAL	TOTAL
93/10/13	1115	8.30				1.0	0.22	0.010K			
93/11/09	1050	8.10				1.0K	0.26	0.010K			
93/12/15	1120	7.80				2.0	0.27	0.010K			
94/01/11	1100	7.70				2.0	0.10	0.010K			
94/02/16	1110	8.40				1.0	0.23	0.010K			
94/03/16	1140	8.20				4.0	0.17	0.011			
94/04/13	1110	8.20				3.0	0.06	0.010K			
94/05/11	1500	7.80				25.0	0.13	0.010K			
94/06/15	1330	7.90				4.0	0.03	0.010K			
94/07/13	1445	8.00				2.0	0.08	0.010K			
94/08/10	1140	8.40				2.0	0.16	0.010K			
94/09/14	1320	8.50				2.0	0.23	0.010K			

DATE		625	630	660	665	671	900	902	915	925	930
FROM	DEPTH	TOT KJEL	NO2+NO3	ORTHOP4	PHOS-TOT	PHOS-DIS	TOT HARD	NC HARD	CALCIUM	MGNSIUM	SODIUM
TO	TIME FEET	N	N-TOTAL	PO4	MG/L P	ORTHO	CACO3	CACO3	CA,DISS	MG,DISS	NA,DISS

MORE DATES NEXT PAGE

DATE	FROM	TO	TIME	DEPTH	TOT KJEL	625 N	630 NO2+NO3	660 ORTHOP04	665 PHOS-TOT	671 PHOS-DIS	900 ORTHO	902 CACO3	915 CACO3	925 CA,DISS	930 MGNSIUM	SODIUM
				FEET	MG/L	MG/L	MG/L	MG/L	MG/L P	MG/L P	MG/L	MG/L	MG/L	MG/L	MG/L	
93/10/13	1115					0.159			0.010K	0.010K						
93/11/09	1050					0.199			0.010K	0.010K						
93/12/15	1120					0.198			0.010K	0.010K						
94/01/11	1100					0.156			0.010K	0.010K						
94/02/16	1110					0.177			0.010K	0.010K						
94/03/16	1140					0.081			0.010K	0.010K						
94/04/13	1110					0.025			0.011	0.010K						
94/05/11	1500					0.027			0.015	0.010K						
94/06/15	1330					0.022			0.010K	0.010K						
94/07/13	1445					0.023			0.010K	0.010K						
94/08/10	1140					0.078			0.010K	0.010K						
94/09/14	1320					0.158			0.019	0.010K						

DATE	FROM	TO	TIME	DEPTH	PTSSIUM K,DISS	935 CL	940 CHLORIDE	945 SO4-TOT	950 FLUORIDE	955 SILICA	1020 BORON B,DISS	1030 CHROMIUM CR,DISS	1040 COPPER CU,DISS	1045 IRON FE,TOT	1049 LEAD PB,DISS	
				FEET	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	
93/10/13	1115															
93/11/09	1050															
93/12/15	1120															
94/01/11	1100															
94/02/16	1110															
94/03/16	1140															
94/04/13	1110															
94/05/11	1500															
94/06/15	1330															
94/07/13	1445															
94/08/10	1140															
94/09/14	1320															

DATE	FROM	TO	TIME	DEPTH	1090 ZINC	31504 TOT COLI	31505 MFIM LES	31616 MPN CONF	70300 FEC COLI	71900 RESIDUE	82079 MERCURY	TURBIDTY			
				FEET	UG/L	/100ML	/100ML	/100ML	MFM-FCBR	DISS-180 C	HG,TOTAL MG/L	LAB UG/L			
93/10/13	1115								5			0.4			
93/11/09	1050								1			0.6			
93/12/15	1120								1K			0.6			
94/01/11	1100								1K			0.4			
94/02/16	1110								9			0.5K			
94/03/16	1140								49			0.6			
94/04/13	1110								57			0.8			
94/05/11	1500								2			4.8			
94/06/15	1330								5			1.2			
94/07/13	1445								4			0.6			
94/08/10	1140								11			0.6			
94/09/14	1320								2			0.6			

47A070 0747A070 12452500 541019

CHELAN RIVER AT CHELAN

47 50 23.0 120 01 11.0 2F 0 Elev= 0 ft

53007 Washington Chelan Co. PACIFIC NORTHWEST

UPPER COLUMBIA (Chelan-47) 130547

21540000 Reach= 0.000 Drg= 0 sqmi

Seg ID= 21-47-101 Class= LC Miles= 0.00 to 0.00

AMBN/T/STREAM/RMP

INDEX 1310001 004400

MILES 0503.30 0004.80

DATE		8	10	25	60	70	80	95	300	301	310
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	TURB	COLOR	CNDUCTVY	DO	DO	BOD
TO	TIME	IDENT.	TEMP	PRESSURE	FLOW	JKSN	PT-CO	LAB	25C	SATUR	5 DAY
	FEET	NUMBER	CENT	MM OF HG	CFS	JTU	UNITS	UMHO	MG/L	PERCENT	MG/L
93/10/13	1030	426018	15.9	735	1630				45	9.6	99.7
93/11/09	1020	466018	11.5	740	1990				46	10.1	94.7
93/12/15	1035	516018	7.2	737	1970				45	10.7	91.2
94/01/11	1020	26018	5.0	738	2110				56	11.8	95.0
94/02/16	1030	76018	5.1	732	2130				51	11.9	96.9
94/03/16	1100	116018	6.2	726	2200				49	11.7	98.7
94/04/13	1020	156018	10.5	737					51	10.0	92.1
94/05/11	1415	196018	17.0	732	1170				50	9.7	103.6
94/06/15	1250	246018	17.8	732					49	9.0	97.7
94/07/13	1330	286018	21.7	729	1800				49	8.8	103.4
94/08/10	1015	326018	22.1	734	1200				50	9.2	108.1
94/09/14	1250	376018	18.2	732	1270				53	9.1	99.6

DATE		340	400	410	440	445	530	600	602	605	610
FROM	DEPTH	COD	PH	TALK	HCO3	ION	CO3	RESIDUE	TOTAL N	DISS.	ORG N
TO	TIME	HI LEVEL	CACO3	HCO3	CO3	CO3	TOT-NFLT	N	NITROGEN	N	NH3+NH4-
	FEET	MG/L	SU	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L N	MG/L	MG/L
93/10/13	1030		8.00					1.0	0.08		0.011
93/11/09	1020		7.90					1.0	0.09		0.013
93/12/15	1035		7.70					2.0	0.08		0.010K
94/01/11	1020		8.10					2.0	0.10		0.010K
94/02/16	1030		8.60					1.0	0.10		0.010K
94/03/16	1100		7.90					2.0	0.14		0.010K
94/04/13	1020		8.10					5.0	0.06		0.010K
94/05/11	1415		8.00					1.0	0.09		0.014
94/06/15	1250		8.00					2.0	0.05		0.010K
94/07/13	1330		8.20					1.0K	0.06		0.010K
94/08/10	1015		8.10					1.0K	0.06		0.010K
94/09/14	1250		8.10					1.0K	0.03		0.010K

DATE		613	615	620	625	630	660	665	671	900	902
FROM	DEPTH	NO2-N	NO2-N	NO3-N	TOT	KJEL	NO2+NO3	ORTHOP04	PHOS-TOT	PHOS-DIS	TOT HARD
TO	TIME	DISS	TOTAL	TOTAL	N	N	N-TOTAL	PO4	ORTHO	ORTHO	CACO3
	FEET	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L P	MG/L P	MG/L
93/10/13	1030										
93/11/09	1020										
93/12/15	1035										
94/01/11	1020										
94/02/16	1030										
94/03/16	1100										
94/04/13	1020										
94/05/11	1415										
94/06/15	1250										
94/07/13	1330										
94/08/10	1015										
94/09/14	1250										

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Station:21540000 47A070

## CHELAN RIVER AT CHELAN

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DATE	DEPTH	613 NO2-N DISS MG/L	615 NO2-N TOTAL MG/L	620 NO3-N TOTAL MG/L	625 TOT KJEL N MG/L	630 NO2+NO3 N-TOTAL MG/L	660 ORTHOP04 PO4 MG/L	665 PHOS-TOT MG/L P	671 PHOS-DIS ORTHO MG/L P	900 TOT HARD CACO3 MG/L	902 NC HARD CACO3 MG/L
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93/10/13 1030						0.010K		0.010K	0.010K		
93/11/09 1020						0.015		0.010K	0.010K		
93/12/15 1035						0.030		0.010K	0.010K		
94/01/11 1020						0.038		0.010K	0.010K		
94/02/16 1030						0.048		0.010K	0.010K		
94/03/16 1100						0.054		0.010K	0.010K		
94/04/13 1020						0.017			0.010K		
94/05/11 1415						0.041		0.010K	0.010K		
94/06/15 1250						0.028		0.010K	0.010K		
94/07/13 1330						0.010K		0.010K	0.010K		
94/08/10 1015						0.010K		0.010K	0.010K		
94/09/14 1250						0.010K		0.010K	0.010K		

DATE	DEPTH	915 CALCIUM CA,DISS MG/L	925 MGSNIUM MG,DISS MG/L	930 SODIUM NA,DISS MG/L	935 PTSSIUM K,DISS MG/L	940 CHLORIDE CL MG/L	945 SULFATE SO4-TOT MG/L	950 FLUORIDE F,DISS MG/L	955 SILICA DISOLVED MG/L	1020 BORON B,DISS UG/L	1030 CHROMIUM CR,DISS UG/L
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DATE	DEPTH	1040 COPPER CU,DISS UG/L	1045 IRON FE,TOT UG/L	1049 LEAD PB,DISS UG/L	1090 ZINC ZN,DISS UG/L	31501 TOT COLI MFIMENDO /100ML	31504 TOT COLI MFIM LES /100ML	31505 TOT COLI MPN CONF /100ML	31616 FEC COLI MFM-FCBR /100ML	32211 CHLRPHYL A UG/L CORRECTD	32218 PHEOPHTN A UG/L
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93/10/13 1030										1	
93/11/09 1020										1K	
93/12/15 1035										1	
94/01/11 1020										1K	
94/02/16 1030										1K	
94/03/16 1100										1K	
94/04/13 1020										54	
94/05/11 1415										1K	
94/06/15 1250										1K	
94/07/13 1330										1U	
94/08/10 1015										2	
94/09/14 1250										1	

DATE	DEPTH	32219 PHEOPHTN	70300 RESIDUE	71900 MERCURY	82079 TURBDITY
FROM	DEPTH	RATIO	DISS-180	HG,TOTAL	LAB
TO	TIME	SPECTRO	C MG/L	UG/L	NTU

93/10/13 1030			0.3		
93/11/09 1020			0.7		
93/12/15 1035			0.4		

MORE DATES NEXT PAGE

	32219	70300	71900	82079			
DATE	PHEOPHTN	RESIDUE	MERCURY	TURBIDTY			
FROM	DEPTH	RATIO	DISS-180	HG,TOTAL			
TO	TIME	FEET	SPECTRO	C MG/L	UG/L	LAB	NTU
94/01/11	1020					0.6	
94/02/16	1030					0.5	
94/03/16	1100					0.6	
94/04/13	1020					2.2	
94/05/11	1415					7.6	
94/06/15	1250					1.3	
94/07/13	1330					0.5K	
94/08/10	1015					0.5K	
94/09/14	1250					0.5K	

48A070 4748A070 12449954 541020  
 METHOW RIVER NEAR PATEROS  
 48 04 29.0 119 57 20.0 2F 0 Elev= 0 ft  
 53047 Washington Okanogan Co. PACIFIC NORTHWEST  
 UPPER COLUMBIA (Methow-48) 130548  
 21540000 Reach= 0.000 Drg= 0 sqmi  
 Seg ID= 22-48-01 Class= A Miles= 0.00 to 0.00  
 AMBNT/STREAM/RMP

INDEX 1310001 004810  
 MILES 0523.90 0005.00

DATE		8	10	25	60	70	80	95	300	301	310
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	TURB	COLOR	CNDUCTVY	DO	DO	BOD
TO	TIME	DEPTH	IDENT.	TEMP	PRESSURE	FLOW	JKSN	PT-CO	LAB	SATUR	5 DAY
		FEET	NUMBER	CENT	MM OF HG	CFS	JTU	UNITS	25C UMHO	PERCENT	MG/L

93/10/13 0935		426017	11.2	741	393			160	10.7	99.6	
93/11/09 0930		466017	2.0	747	359			158	13.6	100.0	
93/12/15 0935		516017	1.7	743	307			159	13.2	96.8	
94/01/11 0940		26017	0.1	744	281			206	14.3	100.2	
94/02/16 0940		76017	3.3	737	274			180	13.0	100.4	
94/03/16 1020		116017	6.8	732	330			172	11.7	99.5	
94/04/13 0945		156017	7.8	739	955			131	11.3	97.4	
94/05/11 1330		196017	7.3	737	6400			59	11.4	97.4	
94/06/15 1150		246017	10.7	737	2070			86	10.6	98.1	
94/07/13 1300		286017	18.7	734	770			125	9.2	101.3	
94/08/10 0920		326017	17.0	740	411			169	10.2	107.6	
94/09/14 1200		376017	13.8	737	263			188	10.5	104.2	

DATE		400	405	410	440	445	530	600	610	613	615
FROM	DEPTH	PH	CO2	TALK	HCO3	ION	CO3	RESIDUE	TOTAL N	NH3+NH4-	NO2-N
TO	TIME	FEET	SU	MG/L	CACO3	HCO3	CO3	TOT-NFLT	N	N TOTAL	NO2-N
				MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	DISS	TOTAL
									MG/L	MG/L	MG/L

93/10/13 0935		8.20					2.0	0.23	0.010K		
93/11/09 0930		8.10					1.0	0.25	0.010K		
93/12/15 0935		8.30					1.0	0.28	0.010K		
94/01/11 0940		8.00					1.0	0.28	0.010K		
94/02/16 0940		8.20					2.0	0.31	0.010K		
94/03/16 1020		8.20					3.0	0.27	0.015		
94/04/13 0945		8.20					4.0	0.12	0.010K		
94/05/11 1330		7.90					19.0	0.12	0.010K		
94/06/15 1150		8.40					11.0	0.06	0.010K		
94/07/13 1300		8.60					1.0	0.11	0.010K		
94/08/10 0920		8.40					2.0	0.20	0.010K		
94/09/14 1200		8.30					2.0	0.29	0.010K		

DATE		620	625	630	660	665	671	900	902	915	925
FROM	DEPTH	NO3-N	TOT KJEL	NO2+N03	ORTHOP04	PHOS-TOT	PHOS-DIS	TOT HARD	NC HARD	CALCIUM	MGSNIUM
TO	TIME	TOTAL	N	N-TOTAL	PO4	PO4	ORTHO	CACO3	CACO3	CA,DISS	MG,DISS
		MG/L	MG/L	MG/L	MG/L	MG/L P	MG/L P	MG/L	MG/L	MG/L	MG/L

MORE DATES NEXT PAGE

Station:21540000 48A070

## METHOW RIVER NEAR PATEROS

PCSTORET -- 05-JUN-95

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DATE	DEPTH	620 NO3-N TOTAL MG/L	625 KJEL N MG/L	630 NO2+NO3 N-TOTAL MG/L	660 ORTHOP04 PO4 MG/L	665 PHOS-TOT MG/L P	671 PHOS-DIS ORTHO MG/L P	900 TOT HARD CACO3 MG/L	902 NC HARD CACO3 MG/L	915 CALCIUM CA,DISS MG/L	925 MGNSIUM MG,DISS MG/L
FROM	TO	TIME	FEET								

93/10/13 0935				0.173		0.010K	0.010K				
93/11/09 0930				0.202		0.010K	0.010K				
93/12/15 0935				0.239		0.010K	0.010K				
94/01/11 0940				0.245		0.010K	0.010K				
94/02/16 0940				0.236		0.010K	0.010K				
94/03/16 1020				0.144		0.010K	0.010K				
94/04/13 0945				0.064		0.010	0.010K				
94/05/11 1330				0.033		0.021	0.010K				
94/06/15 1150				0.046		0.010K	0.010K				
94/07/13 1300				0.068		0.010K	0.010K				
94/08/10 0920				0.160		0.010K	0.010K				
94/09/14 1200				0.247		0.017	0.010K				

DATE	DEPTH	930 SODIUM NA,DISS MG/L	935 PTSSIUM K,DISS MG/L	940 CHLORIDE CL MG/L	945 SULFATE SO4-TOT MG/L	950 FLUORIDE F,DISS MG/L	955 SILICA DISOLVED MG/L	1000 ARSENIC AS,DISS UG/L	1005 BARIUM BA,DISS UG/L	1020 BORON B,DISS UG/L	1025 CADMIUM CD,DISS UG/L
FROM	TO	TIME	FEET								

DATE	DEPTH	1030 CHROMIUM CR,DISS UG/L	1040 COPPER CU,DISS UG/L	1045 IRON FE,TOT UG/L	1049 LEAD PB,DISS UG/L	1075 SILVER AG,DISS UG/L	1090 ZINC ZN,DISS UG/L	1145 SELENIUM SE,DISS UG/L	31504 TOT COLI MFIM LES /100ML	31505 TOT COLI MPN CONF /100ML	31616 FEC COLI MFM-FCBR /100ML
FROM	TO	TIME	FEET								

93/10/13 0935											3
93/11/09 0930											1
93/12/15 0935											1
94/01/11 0940											1K
94/02/16 0940											1K
94/03/16 1020											1K
94/04/13 0945											1K
94/05/11 1330											13
94/06/15 1150											3
94/07/13 1300											4
94/08/10 0920											19
94/09/14 1200											2

DATE	DEPTH	70300 RESIDUE DISS-180 C	71900 MERCURY HG,TOTAL MG/L	82079 TURBIDTY LAB NTU
FROM	TO	TIME	FEET	

93/10/13 0935		0.4
93/11/09 0930		0.5
93/12/15 0935		0.4

MORE DATES NEXT PAGE

DATE	DEPTH	RESIDUE DISS-180	MERCURY HG,TOTAL	TURBIDTY LAB NTU		
FROM	TO	TIME	FEET	C MG/L	UG/L	NTU
94/01/11	0940				0.5	
94/02/16	0940				0.6	
94/03/16	1020				0.9	
94/04/13	0945				1.1	
94/05/11	1330				0.6	
94/06/15	1150				5.7	
94/07/13	1300				0.6	
94/08/10	0920				0.6	
94/09/14	1200				0.5	

49A070 4749A070 12447200

OKANOGAN RIVER AT MALOTT

48 16 53.0 119 42 12.0 2F 0 Elev= 0 ft

53047 Washington Okanogan Co. PACIFIC NORTHWEST

UPPER COLUMBIA (Okanogan-49) 130549

21540000 Reach= 0.000 Drg= 0 sqmi

Seg ID= 22-49-02 Class= A Miles= 0.00 to 0.00

AMBNT/STREAM/RMP

INDEX 1310001 004930

MILES 0533.50 0017.00

DATE		8	10	25	60	80	95	300	301	310	400
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	COLOR	CNDUCTVY	DO	DO	BOD	PH
TO	TIME	IDENT.	TEMP	PRESSURE	FLOW	PT-CO	LAB	25C	SATUR	5 DAY	
		NUMBER	CENT	MM OF HG	CFS	UNITS	UMHO	MG/L	PERCENT	MG/L	SU
93/10/13	0840	426016	12.5	744	1080		253	9.7	92.6		8.10
93/11/09	0830	466016	2.8	748	1300		214	12.5	93.8		8.40
93/12/15	0845	516016	2.2	746	1170		238	12.2	90.3		8.40
94/01/11	0850	26016	1.7	746	1560		315	13.0	95.1		7.80
94/02/16	0850	76016	2.5	739	933		242	12.7	95.7		7.70
94/03/16	0930	116016	6.9	734	1890		258	11.1	94.3		8.10
94/04/13	0900	156016	9.3	744	3110		213	10.2	90.5		8.00
94/05/11	1245	196016	10.2	747	10400		91	10.5	94.8		8.00
94/06/15	1100	246016	14.2	737	3690		127	9.5	95.0		7.90
94/07/13	1200	286016	22.3	737	1840		203	8.1	95.3		8.20
94/08/10	0830	326016	21.6	743	633		291	7.7	88.7		8.30
94/09/14	1110	376016	16.8	739	1140		283	9.1	95.8		8.40

DATE		405	410	440	445	530	600	605	610	613	615
FROM	DEPTH	CO2	T ALK	HCO3 ION	CO3 ION	RESIDUE	TOTAL N	ORG N	NH3+NH4-	NO2-N	NO2-N
TO	TIME	FEET	MG/L	MG/L	MG/L	TOT-NFLT	N	N	N TOTAL	DISS	TOTAL
						MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
93/10/13	0840					5.0	0.19		0.010K		
93/11/09	0830					3.0	0.16		0.010K		
93/12/15	0845					2.0	0.21		0.010K		
94/01/11	0850					5.0	0.23		0.010K		
94/02/16	0850					3.0	0.26		0.010K		
94/03/16	0930					14.0	0.22		0.010K		
94/04/13	0900					28.0	0.12		0.010K		
94/05/11	1245					124.0	0.14		0.012		
94/06/15	1100					18.0	0.04		0.010K		
94/07/13	1200					8.0	0.11		0.010K		
94/08/10	0830					4.0	0.17		0.010K		
94/09/14	1110					6.0	0.14		0.010K		

DATE		620	625	630	660	665	671	680	900	902	915
FROM	DEPTH	NO3-N	TOT KJEL	NO2+NO3	ORTHOP04	PHOS-TOT	PHOS-DIS	T ORG C	TOT HARD	NC HARD	CALCIUM
TO	TIME	TOTAL	N	N-TOTAL	PO4		ORTHO	C	CACO3	CACO3	CA,DISS
		MG/L	MG/L	MG/L	MG/L	MG/L P	MG/L P	MG/L	MG/L	MG/L	MG/L
93/10/13	0840										
93/11/09	0830										
93/12/15	0845										
94/01/11	0850										
94/02/16	0850										
94/03/16	0930										
94/04/13	0900										
94/05/11	1245										
94/06/15	1100										
94/07/13	1200										
94/08/10	0830										
94/09/14	1110										

MORE DATES NEXT PAGE

DATE		620	625	630	660	665	671	680	900	902	915
FROM	DEPTH	NO3-N	TOT KJEL	N02+NO3	ORTHOP04	PHOS-TOT	PHOS-DIS	T ORG C	TOT HARD	NC HARD	CALCIUM
TO	TIME FEET	MG/L	MG/L	MG/L	PO4	MG/L P	ORTHO	C	CACO3	CACO3	CA,DISS

93/10/13 0840			0.031		0.013		0.010K				
93/11/09 0830			0.032		0.012		0.010K				
93/12/15 0845			0.070		0.019		0.010K				
94/01/11 0850			0.043		0.016		0.010K				
94/02/16 0850			0.104		0.012		0.010K				
94/03/16 0930			0.010K		0.072		0.010K				
94/04/13 0900			0.010K		0.036		0.010K				
94/05/11 1245			0.019		0.068		0.010K				
94/06/15 1100			0.010K		0.010K		0.010K				
94/07/13 1200			0.010K		0.019		0.010K				
94/08/10 0830			0.010K		0.010K		0.010K				
94/09/14 1110			0.010		0.015		0.010K				

DATE		925	930	935	940	945	950	955	1000	1005	1020
FROM	DEPTH	MGNSIUM	SODIUM	PTSSIUM	CHLORIDE	SULFATE	FLUORIDE	SILICA	ARSENIC	BARIUM	BORON
TO	TIME FEET	MG,DISS	NA,DISS	K,DISS	CL	SO4-TOT	F,DISS	DISOLVED	AS,DISS	BA,DISS	B,DISS

DATE		1025	1030	1034	1040	1042	1045	1049	1065	1075	1090
FROM	DEPTH	CADMIUM	CHROMIUM	CHROMIUM	COPPER	COPPER	IRON	LEAD	NICKEL	SILVER	ZINC
TO	TIME FEET	CD,DISS	CR,DISS	CR,TOT	CU,DISS	CU,TOT	FE,TOT	PB,DISS	NI,DISS	AG,DISS	ZN,DISS

DATE		1092	1145	31501	31504	31505	31507	31616	31625	70300	71851
FROM	DEPTH	ZINC	SELENIUM	TOT COLI	TOT COLI	TOT COLI	TOT COLI	FEC COLI	FEC COLI	RESIDUE	NITRATE
TO	TIME FEET	ZN,TOT	SE,DISS	MFIMENDO	MFIM LES	MPN CONF	MPN COMP	MFM-FCBR	M-FCAGAD	DISS-180	DISS-NO3

93/10/13 0840									45		
93/11/09 0830									8		
93/12/15 0845									11		
94/01/11 0850									24		
94/02/16 0850									1		
94/03/16 0930									5		
94/04/13 0900									15		
94/05/11 1245									70		
94/06/15 1100									18		
94/07/13 1200									21		
94/08/10 0830									63		
94/09/14 1110									19		

DATE		71900	82079
FROM	DEPTH	MERCURY	TURBIDTY
TO	TIME FEET	HG,TOTAL	LAB

MORE DATES NEXT PAGE

DATE	DEPTH	MERCURY	TURBIDTY
FROM		HG, TOTAL	LAB
TO	TIME	UG/L	NTU
93/10/13	0840		1.0
93/11/09	0830		0.9
93/12/15	0845		1.1
94/01/11	0850		1.4
94/02/16	0850		1.1
94/03/16	0930		3.7
94/04/13	0900		7.6
94/05/11	1245		45.0
94/06/15	1100		6.6
94/07/13	1200		3.4
94/08/10	0830		1.7
94/09/14	1110		3.2

49B070 4749B070 12443600 541022  
 SIMILKAMEEN RIVER AT OROVILLE  
 48 56 05.0 119 26 27.0 2F 0 Elev= 0 ft  
 53047 Washington Okanogan Co. PACIFIC NORTHWEST  
 UPPER COLUMBIA (Okanogan-49) 130549  
 21540000 Reach= 0.000 Drg= 0 sqmi  
 Seg ID= 22-49-02 Class= A Miles= 0.00 to 0.00  
 AMBNT/STREAM/RMP

INDEX 1310001 004930 00590  
 MILES 0533.50 0074.10 005.00

DATE	8	10	25	60	70	80	95	300	301	400
FROM	LAB	WATER	BAROMTRC	STREAM	TURB	COLOR	CNDUCTVY	DO	DO	PH
TO	DEPTH	IDENT.	TEMP	PRESSURE	JKSN	PT-CO	LAB	SATUR		
TIME	FEET	NUMBER	CENT	MM OF HG	CFS	JTU	UNITS	25C UMHO	MG/L	SU

93/10/13 0705	426015	11.6	742	565			178	10.5	98.5	7.90
93/11/09 0700	466015	2.1	747	1550			162	13.5	99.6	8.20
93/12/15 0725	516015	2.3	744	680			175	13.0	96.8	8.30
94/01/11 0730	26015	2.2	744	510			253	13.7	101.7	7.60
94/02/16 0740	76015	3.1	735	574			213	12.9	99.3	8.40
94/03/16 0730	116015	7.0	732	1100			181	11.5	98.3	8.30
94/04/13 0720	156015	7.9	742	2220			148	11.4	98.2	8.60
94/05/11 0800	196015	2.6	742	9580			80	12.4	93.3	8.40
94/06/15 0840	246015	11.7	737	3400			102	10.9	103.2	8.50
94/07/13 0630	286015	18.8	724	1290			146	9.9	110.8	8.30
94/08/10 0645	326015	19.3	742	550			199	9.5	104.7	8.30
94/09/14 0700	376015	13.9	737	870			209	9.6	95.4	8.30

DATE	440	445	530	600	610	613	615	620	630	660
FROM	HCO <sub>3</sub> ION	CO <sub>3</sub> ION	RESIDUE	TOTAL N	NH <sub>3</sub> +NH <sub>4</sub> -	NO <sub>2</sub> -N	NO <sub>2</sub> -N	NO <sub>3</sub> -N	NO <sub>2</sub> +NO <sub>3</sub>	ORTHOPO <sub>4</sub>
TO	DEPTH	HCO <sub>3</sub>	CO <sub>3</sub>	TOT-NFLT	N	N TOTAL	DISS	TOTAL	TOTAL	PO <sub>4</sub>
TIME	FEET	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L

93/10/13 0705			2.0	0.07	0.010K				0.010K	
93/11/09 0700			1.0	0.08	0.010K				0.010K	
93/12/15 0725			2.0	0.10	0.010K				0.028	
94/01/11 0730			2.0	0.10	0.010K				0.019	
94/02/16 0740			3.0	0.12	0.010K				0.018	
94/03/16 0730			7.0	0.10	0.010K				0.010K	
94/04/13 0720			12.0	0.07	0.010K				0.010K	
94/05/11 0800			102.0	0.12	0.010K				0.013	
94/06/15 0840			11.0	0.04	0.010K				0.010K	
94/07/13 0630			3.0	0.07	0.010K				0.010K	
94/08/10 0645			12.0	0.08	0.010K				0.010K	
94/09/14 0700			2.0	0.05	0.010K				0.010K	

DATE	665	671	900	902	915	925	930	935	940	945
FROM	PHOS-TOT	PHOS-DIS	TOT HARD	NC HARD	CALCIUM	MGNSIUM	SODIUM	PTSSIUM	CHLORIDE	SULFATE
TO	DEPTH	ORTHO	CACO <sub>3</sub>	CACO <sub>3</sub>	CA,DISS	MG,DISS	NA,DISS	K,DISS	CL	SO <sub>4</sub> -TOT
TIME	FEET	MG/L P	MG/L P	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L

MORE DATES NEXT PAGE

Station:21540000 49B070

## SIMILKAMEEN RIVER AT OROVILLE

PCSTORET -- 05-JUN-95

Page 48

54A050 6554A050  
 SPOKANE RIVER AT MOUTH  
 47 54 30.0 118 19 00.0 2F000 Elev= 0 ft  
 53065 Washington Stevens Co. PACIFIC NORTHWEST  
 SPOKANE (Lower Spokane-54) 130354  
 21540000 Reach=17010307000 0.000 Drg= 0 sqmi  
 AMBNT/STREAM/RMP

INDEX 1310001 006500  
 MILES 0638.90 0001.70

DATE		8	10	25	95	300	301	400	530	600	610
FROM	DEPTH	LAB	WATER	BAROMTRC	CNDUCTVY	DO	DO	PH	RESIDUE	TOTAL N	NH <sub>3</sub> +NH <sub>4</sub> -
TO	TIME FEET	IDENT. NUMBER	TEMP CENT	PRESSURE MM OF HG	LAB @ 25C UMHO	MG/L	SATUR PERCENT	SU	TOT-NFLT MG/L	MG/L	MG/L
93/10/06	1515	416168	17.4	724	130	8.3	90.3	8.00	2.0	0.30	0.010K
93/11/03	1400	456168	13.9	724	144	8.1	81.9	7.90	2.0	0.45	0.010K
93/12/08	1245	506168	6.7	711	162	10.0	87.3	7.90	1.0K	0.62	0.019
94/01/05	1420	16168	3.9	724	152	11.7	93.4	7.70	2.0	0.36	0.021
94/02/09	1230	66168	2.8	725	203J	12.0	92.9	7.80	1.0	0.70	0.028
94/03/09	1345	106168	2.5J	729	152	12.6	96.3	7.90	4.0	0.76	0.015
94/04/06	1415	146168	7.0	719	146	12.8	111.3	8.40	3.0	0.65	0.010K
94/05/04	1355	186168	11.2	728	93	12.9	122.3	8.70	3.0	0.28	0.010K
94/06/08	1610	236168	16.7	730	98	9.8	104.3	8.40	1.0	0.24	0.016
94/07/07	1500	276168	21.7	723	120	8.9	105.4	7.90	1.0	0.35	0.037
94/08/03	1335	316168	25.3	719	113	8.7	110.7	8.40	1.0K	0.32	0.010K
94/09/07	1400	366168	21.3	722	137	9.0	106.0	8.50	1.0	0.25	0.010K

DATE		613	630	665	671	900	1094	1113	1114	1118	1119
FROM	DEPTH	NO2-N DISS	NO2+NO3 N-TOTAL	PHOS-TOT	PHOS-DIS	TOT HARD	ZINC	CADMUM	LEAD	CHROMIUM	COPPER
TO	TIME FEET	MG/L	MG/L	MG/L P	MG/L P	CACO <sub>3</sub> MG/L	TOT REC UG/L				
93/10/06	1515			0.229	0.010K	0.010K					
93/11/03	1400			0.372	0.013	0.010K					
93/12/08	1245			0.511	0.017	0.010K					
94/01/05	1420			0.307	0.018	0.010K					
94/02/09	1230			0.609	0.035	0.024					
94/03/09	1345			0.541	0.036	0.020					
94/04/06	1415			0.505	0.027	0.011					
94/05/04	1355			0.184	0.010	0.010K					
94/06/08	1610			0.177	0.010K	0.010K					
94/07/07	1500			0.265	0.010K	0.010K					
94/08/03	1335			0.242	0.010K	0.010K					
94/09/07	1400			0.139	0.010K	0.010K					

DATE		31616	71900	82079
FROM	DEPTH	FEC COLI MFM-FCBR	MERCURY HG,TOTAL	TURBIDTY LAB NTU
TO	TIME FEET	/100ML UG/L	UG/L	NTU

MORE DATES NEXT PAGE

DATE FROM TO	DEPTH TIME FEET	31616 FEC COLI MFM-FCBR /100ML	71900 MERCURY HG,TOTAL UG/L	82079 TURBIDTY LAB NTU
93/10/06 1515		1K		0.9
93/11/03 1400		1K		1.2
93/12/08 1245		1K		1.1
94/01/05 1420		1K		1.0
94/02/09 1230		1K		1.1
94/03/09 1345		1K		1.1
94/04/06 1415		1K		1.6
94/05/04 1355		1K		1.5
94/06/08 1610		1K		0.6
94/07/07 1500		1U		1.4
94/08/03 1335		1K		0.5K
94/09/07 1400		1K		0.6

54A120 6554A120 12424200 543108  
 SPOKANE R AT RIVERSIDE STATE PK  
 47 41 48.0 117 29 48.0 2F 0. Elev= 0 ft  
 53063 Washington Spokane Co. PACIFIC NORTHWEST  
 SPOKANE (Lower Spokane-54) 130354  
 21540000 Reach= 0.000 Drg= 0 sqmi  
 Seg ID= 24-54-01 Class= A Miles= 0.00 to 0.00  
 AMBNT/STREAM/RMP

INDEX 1310001 006500  
 MILES 0643.00 0066.00

DATE		8	10	25	60	80	95	300	301	310	340
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	COLOR	CNDUCTVY	DO	DO	BOD	COD
TO	TIME	IDENT.	TEMP	PRESSURE	FLOW	PT-CO	LAB	25C	SATUR	5 DAY	HI LEVEL
		NUMBER	CENT	MM OF HG	CFS	UNITS	UMHO	MG/L	PERCENT	MG/L	MG/L
93/10/05	1420	416162	14.2	713	2340			126	9.8	101.3	
93/11/02	1415	456162	9.8	723	1960			143	11.2	103.5	
93/12/07	1420	506162	5.0	710	2370			131	11.8	98.8	
94/01/04	1420	16162	5.6	708	2700			126	11.7	99.7	
94/02/08	1420	66162	2.6	721	2610			134J	12.7	98.3	
94/03/08	1420	106162	2.6J	725	4330			92	13.0	100.1	
94/04/05	1425	146162	4.6	716	6610			79	12.9	106.0	
94/05/03	1435	186162	9.2	718	7300			82	11.7	107.4	
94/06/07	1520	236162	15.6	720	3970			96	10.1	106.5	
94/07/06	1530	276162	16.7	720	1270			194	9.7	104.7	
94/08/02	1520	316162	18.2	710	685			218	9.8	110.6	
94/09/06	1450	366162	14.7	716	585			285	10.5	109.4	
DATE		400	405	410	440	445	500	530	600	605	610
FROM	DEPTH	PH	CO2	TALK	HCO3	ION	CO3	RESIDUE	TOTAL N	ORG N	NH3+NH4-
TO	TIME	SU	MG/L	CACO3	HCO3	ION	CO3	TOTAL	TOT-NFLT	N	N TOTAL
				MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
93/10/05	1420		8.40						2.0	0.61	0.013
93/11/02	1415		8.30						1.0	0.93	0.091
93/12/07	1420		7.60						1.0K	0.87	0.104
94/01/04	1420		7.90						4.0	0.75	0.189
94/02/08	1420		8.40						1.0	0.84	0.010K
94/03/08	1420		8.30						3.0	0.57	0.044
94/04/05	1425		8.00						2.0	0.39	0.021
94/05/03	1435		8.20						2.0	0.29	0.016
94/06/07	1520		7.70						3.0	0.47	0.021
94/07/06	1530		8.10						1.0	1.29	0.019
94/08/02	1520		8.10						2.0	1.56	0.010K
94/09/06	1450		8.30						2.0	1.39	0.011
DATE		613	615	620	625	630	660	665	671	680	900
FROM	DEPTH	NO2-N	NO2-N	NO3-N	TOT	KJEL	NO2+NO3	ORTHOP04	PHOS-TOT	PHOS-DIS	T HARD
TO	TIME	DISS	TOTAL	TOTAL	N		N-TOTAL	PO4	PHOS	ORTHO	CACO3
		MG/L	MG/L	MG/L	MG/L		MG/L	MG/L	MG/L P	MG/L P	MG/L

MORE DATES NEXT PAGE

DATE	FROM	TO	DEPTH	TIME	FEET	613 NO2-N DISS MG/L	615 NO2-N TOTAL MG/L	620 NO3-N TOTAL MG/L	625 TOT KJEL N MG/L	630 NO2+NO3 N-TOTAL MG/L	660 ORTHOP04 PO4 MG/L	665 PHOS-TOT MG/L P	671 PHOS-DIS ORTHO MG/L P	680 T ORG C C MG/L	900 TOT HARD CACO3 MG/L	
93/10/05	1420									0.543		0.010K	0.010K			
93/11/02	1415									0.721		0.059	0.047			
93/12/07	1420									0.601		0.079	0.069			
94/01/04	1420									0.502		0.076	0.065			
94/02/08	1420									0.689		0.070	0.060			
94/03/08	1420									0.375		0.048	0.037			
94/04/05	1425									0.266		0.029	0.022			
94/05/03	1435									0.259		0.010K	0.010K			
94/06/07	1520									0.374		0.011	0.017			
94/07/06	1530									1.450		0.010K	0.010K			
94/08/02	1520									1.530		0.025	0.011			
94/09/06	1450									1.390		0.027	0.019			
DATE	FROM	TO	DEPTH	TIME	FEET	902 NC HARD CACO3 MG/L	915 CALCIUM CA,DISS MG/L	925 MGNSIUM MG,DISS MG/L	930 SODIUM NA,DISS MG/L	935 PTSSIUM K,DISS MG/L	940 CHLORIDE CL MG/L	945 SULFATE SO4-TOT MG/L	1000 ARSENIC AS,DISS UG/L	1002 ARSENIC AS,TOT UG/L	1005 BARIUM BA,DISS UG/L	
1025	CADMUM	CADMUM	CD,DISS	CD,TOT	UG/L	1027	CHROMIUM	CR,DISS	1030	CHROMIUM	COPPER	1042	IRON	1049	1051	1065
1034									1034	CHROMIUM	CU,DISS	1040	COPPER	PB,DISS	LEAD	NICKEL
										CR,TOT	CU,TOT	1042	IRON	PB,TOT	NI,DISS	
										UG/L	UG/L	1045	LEAD	UG/L	UG/L	
												1045	LEAD	UG/L	UG/L	
DATE	FROM	TO	DEPTH	TIME	FEET	1075 SILVER AG,DISS UG/L	1080 STRONTIUM SR,DISS UG/L	1090 ZINC ZN,DISS UG/L	1092 ZINC ZN,TOT UG/L	1094 ZINC TOT REC UG/L	1105 ALUMINUM AL,TOT UG/L	1113 CADMIUM TOT REC UG/L	1114 LEAD TOT REC UG/L	1118 CHROMIUM TOT REC UG/L	1119 COPPER TOT REC UG/L	
1130	LITHIUM	SELENIUM	LI,DISS	SE,DISS	UG/L	1145	TOT COLI	MFIM LES	31504	FEC COLI	FEC COLI	70300	MERCURY	71900	71901	82079
11616										MFM-FCBR	M-FCAGAD	RESIDUE DISS-180	RESIDUE HG,TOTAL	MERCURY	MERCURY	TURBIDTY
31625										/100ML	/100 ML	70300	71900	71901	82079	
93/10/05	1420									120					0.9	
93/11/02	1415									270					0.8	
93/12/07	1420									6					1.0	
94/01/04	1420									29					3.5	
94/02/08	1420									96X					0.9	
94/03/08	1420									69					2.4	
94/04/05	1425									200J					1.2	
94/05/03	1435									33					0.9	

MORE DATES NEXT PAGE

DATE	DEPTH	LITHIUM LI,DISS UG/L	SELENIUM SE,DISS UG/L	TOT COLI MFIM LES /100ML	FEC COLI MFM-FCBR /100ML	31625 M-FCAGAD /100 ML	70300 DISS-180	RESIDUE C MG/L	71900 HG,TOTAL UG/L	71901 TOT REC UG/L	82079 TURBIDTY LAB NTU
94/06/07	1520				210J						1.3
94/07/06	1530				3						0.6
94/08/02	1520				24						0.8
94/09/06	1450				38S						0.7

55B070 6355B070 12431900  
 LITTLE SPOKANE RIVER NEAR MOUTH  
 47 47 00.0 117 31 43.0 2F 0 Elev= 0 ft  
 53063 Washington Spokane Co. PACIFIC NORTHWEST  
 SPOKANE (Little Spokane-55) 130355  
 21540000 Reach= 0.000 Drg= 0 sqmi  
 Seg ID= 24-55-02 Class= A Miles= 0.00 to 0.00  
 AMBNT/STREAM/RMP

INDEX 1310001 006500 00510  
 MILES 0643.00 0056.30 001.10

DATE		8	10	25	60	80	95	300	301	310	340
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	COLOR	CNDUCTVY	DO	DO	BOD	COD
TO	TIME	IDENT.	TEMP	PRESSURE	FLOW	PT-CO	LAB	25C	SATUR	5 DAY	HI LEVEL
	FEET	NUMBER	CENT	MM OF HG	CFS	UNITS	UMHO	MG/L	PERCENT	MG/L	MG/L

93/10/05 1350		416161	10.9	717			263	9.4	89.9		
93/11/02 1345		456161	8.5	728			257	10.4	92.7		
93/12/07 1340		506161	5.5	714			257	10.1	85.3		
94/01/04 1400		16161	6.8	712			239	9.8	85.7		
94/02/08 1345		66161	4.6	725			278J	10.8	87.6		
94/03/08 1350		106161	5.7J	728			248	10.6	88.1		
94/04/05 1355		146161	8.3	720			231	10.1	90.5		
94/05/03 1410		186161	11.2	721			230	10.0	95.7		
94/06/07 1450		236161	12.7	723			248	10.0	98.7		
94/07/06 1450		276161	14.8	724			266	9.4	97.0		
94/08/02 1445		316161	15.7	714			233	9.9	105.6		
94/09/06 1420		366161	13.5	719			282	10.1	102.0		

DATE		400	405	410	440	445	530	600	610	613	615
FROM	DEPTH	PH	CO2	TALK	HCO3	ION	CO3	RESIDUE	TOTAL N	NH3+NH4-	NO2-N
TO	TIME	SU	MG/L	MG/L	HCO3	ION	CO3	TOT-NFLT	N	N TOTAL	NO2-N
	FEET				MG/L		MG/L	MG/L	MG/L	DISS	TOTAL
									MG/L	MG/L	MG/L

93/10/05 1350		8.30					7.0	1.26	0.010K		
93/11/02 1345		8.10					3.0	1.31	0.010K		
93/12/07 1340		8.20					8.0	1.40	0.016		
94/01/04 1400		8.00					26.0	1.47	0.041		
94/02/08 1345		8.40					7.0	1.18	0.013		
94/03/08 1350		8.10					13.0	1.13	0.028		
94/04/05 1355		8.30					13.0	1.08	0.010		
94/05/03 1410		8.40					8.0	0.96	0.010K		
94/06/07 1450		8.30					7.0	1.08	0.023		
94/07/06 1450		8.10					5.0	1.05	0.012		
94/08/02 1445		8.10					3.0	1.19	0.010K		
94/09/06 1420		8.40					3.0	1.10	0.010K		

DATE		620	625	630	660	665	671	680	900	902	915
FROM	DEPTH	NO3-N	TOT KJEL	NO2+NO3	ORTHOP04	PHOS-TOT	PHOS-DIS	T ORG C	TOT HARD	NC HARD	CALCIUM
TO	TIME	TOTAL	N	N-TOTAL	PO4		ORTHO	C	CACO3	CACO3	CA,DISS
	FEET	MG/L	MG/L	MG/L	MG/L	MG/L P	MG/L P	MG/L	MG/L	MG/L	MG/L

MORE DATES NEXT PAGE

DATE		620	625	630	660	665	671	680	900	902	915
FROM	DEPTH	NO3-N	TOT KJEL	NO2+NO3	ORTHOP04	PHOS-TOT	PHOS-DIS	T ORG C	TOT HARD	NC HARD	CALCIUM
TO	TIME FEET	MG/L	MG/L	N-TOTAL	PO4	MG/L P	ORTHO	C	CACO3	CACO3	CA,DISS
93/10/05	1350			1.200		0.010K	0.010K				
93/11/02	1345			1.310		0.010	0.010K				
93/12/07	1340			1.250		0.038	0.023				
94/01/04	1400			1.120		0.050	0.029				
94/02/08	1345			1.340		0.020	0.013				
94/03/08	1350			1.130		0.026	0.016				
94/04/05	1355			0.970		0.021	0.012				
94/05/03	1410			0.906		0.015	0.010				
94/06/07	1450			1.020		0.010K	0.010K				
94/07/06	1450			1.250		0.010K	0.010K				
94/08/02	1445			1.230		0.010K	0.010K				
94/09/06	1420			1.140		0.010K	0.010				
<hr/>											
DATE		925	930	935	940	945	1000	1002	1005	1025	1027
FROM	DEPTH	MGSNISIUM	SODIUM	PTSSSIUM	CHLORIDE	SULFATE	ARSENIC	ARSENIC	BARIUM	CADMUM	CADMUM
TO	TIME FEET	MG,DISS	NA,DISS	K,DISS	CL	SO4-TOT	AS,DISS	AS,TOT	BA,DISS	CD,DISS	CD,TOT
93/10/05	1350	1030	1034	1040	1042	1049	1051	1065	1075	1090	1092
93/11/02	1345	CHROMIUM	CHROMIUM	COPPER	COPPER	LEAD	LEAD	NICKEL	SILVER	ZINC	ZINC
93/12/07	1340	CR,DISS	CR,TOT	CU,DISS	CU,TOT	PB,DISS	PB,TOT	NI,DISS	AG,DISS	ZN,DISS	ZN,TOT
94/01/04	1400	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
94/02/08	1345										
94/03/08	1350										
94/04/05	1355										
94/05/03	1410										
94/06/07	1450										
94/07/06	1450										
94/08/02	1445										
94/09/06	1420										
<hr/>											
DATE		1094	1113	1114	1118	1119	1145	31504	31616	71900	71901
FROM	DEPTH	ZINC	CADMUM	LEAD	CHROMIUM	COPPER	SELENIUM	TOT COLI	FEC COLI	MERCURY	MERCURY
TO	TIME FEET	TOT REC	TOT REC	TOT REC	TOT REC	TOT REC	SE,DISS	MFIM LES	MFM-FCBR	HG,TOTAL	TOT REC
93/10/05	1350	1094	1113	1114	1118	1119	1145	31504	31616	71900	71901
93/11/02	1345	ZINC	CADMUM	LEAD	CHROMIUM	COPPER	SELENIUM	TOT COLI	FEC COLI	MERCURY	MERCURY
93/12/07	1340	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	MFIM LES	MFM-FCBR	HG,TOTAL	TOT REC
94/01/04	1400							/100ML	/100ML	UG/L	UG/L
94/02/08	1345										
94/03/08	1350										
94/04/05	1355										
94/05/03	1410										
94/06/07	1450										
94/07/06	1450										
94/08/02	1445										
94/09/06	1420										
<hr/>											
DATE		82079									
FROM	DEPTH	TURBDTY									
TO	TIME FEET	LAB									
		NTU									

MORE DATES NEXT PAGE

82079

DATE	TURBIDTY	
FROM	DEPTH	LAB
TO	TIME	FEET NTU

93/10/05	1350	1.4
93/11/02	1345	1.6
93/12/07	1340	3.6
94/01/04	1400	13.0
94/02/08	1345	2.4
94/03/08	1350	4.7
94/04/05	1355	3.6
94/05/03	1410	2.4
94/06/07	1450	1.6
94/07/06	1450	1.7
94/08/02	1445	0.9
94/09/06	1420	1.2

55B100 6355B100  
 LITTLE SPOKANE RIVER ABOVE PEONE CREEK  
 47 47 54.0 117 22 54.0 2F000 Elev= 0 ft  
 53063 Washington Spokane Co. PACIFIC NORTHWEST  
 SPOKANE (Little Spokane-55) 130355  
 21540000 Reach=17010308000 0.000 Drg= 0 sqmi  
 TYPEA/AMBN/TSTREAM

INDEX 1310001 006500 00510  
 MILES 0643.00 0056.30 013.50

DATE		8	10	25	95	300	301	400	530	600	610
FROM	DEPTH	LAB	WATER	BAROMTRC	CNDUCTVY	DO	DO	PH	RESIDUE	TOTAL N	NH3+NH4-
TO	TIME	IDENT.	TEMP	PRESSURE	LAB @ 25C UMHO	MG/L	SATUR PERCENT	SU	TOT-NFLT	N	N TOTAL
			CENT	MM OF HG							
93/10/05	1310	416160	10.6	717	233	11.0	104.6	8.40	2.0	1.03	0.010K
93/11/02	1305	456160	5.6	726	225	12.6	104.8	8.10	1.0	1.19	0.010K
93/12/07	1255	506160	0.6	713	224	12.7	94.2	8.00	3.0	1.34	0.015
94/01/04	1310	16160	3.3	710	212	11.9	95.3	8.10	10.0	1.24	0.053
94/02/08	1310	66160	0.0	724	253J	13.4	96.2	8.40	8.0	1.34	0.020
94/03/08	1300	106160	2.2J	726	203	12.8	97.4	8.20	6.0	1.02	0.020
94/04/05	1320	146160	7.3	719	188	10.9	95.4	8.20	16.0	0.88	0.017
94/05/03	1335	186160	12.0	720	183	10.9	106.4	8.40	7.0	0.63	0.010K
94/06/07	1405	236160	14.4	722	206	10.9	111.8	8.40	4.0	0.84	0.010K
94/07/06	1415	276160	18.0	723	230	11.3	124.8	8.50	2.0	0.81	0.012
94/08/02	1400	316160	21.8	713	221	11.0	132.6	8.40	3.0	0.94	0.010K
94/09/06	1350	366160	15.6	718	266	11.3	119.5	8.40	2.0	0.85	0.011

DATE		613	630	665	671	900	31616	71900	82079
FROM	DEPTH	NO2-N	NO2+NO3	PHOS-TOT	PHOS-DIS	TOT HARD	FEC COLI	MERCURY	TURBIDTY
TO	TIME	DISS	N-TOTAL	MG/L P	ORTHO	CACO3	MFM-FCBR	HG, TOTAL	LAB
		MG/L	MG/L	MG/L P	MG/L P	MG/L	/100ML	UG/L	NTU
93/10/05	1310		0.915	0.011	0.010K		40		0.6
93/11/02	1305		1.060	0.011	0.010K		18		0.9
93/12/07	1255		1.110	0.052	0.034		22S		2.0
94/01/04	1310		1.040	0.060	0.041		130S		3.5
94/02/08	1310		1.230	0.031	0.017		2		3.0
94/03/08	1300		0.845	0.038	0.019		2		4.2
94/04/05	1320		0.678	0.034	0.018		38		4.9
94/05/03	1335		0.565	0.028	0.015		8		2.5
94/06/07	1405		0.698	0.019	0.013		190J		1.7
94/07/06	1415		0.793	0.010K	0.010K		17		0.9
94/08/02	1400		0.796	0.018	0.010K		84		0.9
94/09/06	1350		0.792	0.099	0.010K		100		0.5

55B200 6355B200  
 Little Spokane @ Chattaroy  
 47 53 22.0 117 21 19.0 2F000 Elev= 0 ft  
 53063 Washington Spokane Co. PACIFIC NORTHWEST  
 Columbia River below Yakima River 131055  
 21540000 Reach=17010308010 0.000 Drg= 0 sqmi  
 AMBNT/STREAM

INDEX 1310001 006500 00513  
 MILES 0643.00 0056.30 023.10

DATE		8	10	25	95	300	301	400	530	600	610
FROM	DEPTH	LAB	WATER	BAROMTRC	CNDUCTVY	DO	DO	PH	RESIDUE	TOTAL N	NH3+NH4-
TO	TIME FEET	IDENT. NUMBER	TEMP CENT	PRESSURE MM OF HG	LAB @ 25C UMHO	MG/L	SATUR PERCENT	SU	TOT-NFLT MG/L	MG/L	N TOTAL MG/L
93/10/05	1130	416157	10.9	716	189	9.4	90.0	8.00	2.0	0.40	0.010K
93/11/02	1210	456157	5.5	724	182	12.0	99.8	8.00	1.0	0.47	0.010K
93/12/07	1155	506157	0.7	711	182	12.5	93.2	7.50	4.0	0.64	0.013
94/01/04	1210	16457	2.8	710	170	11.7	92.5	7.60	12.0	0.79	0.059
94/02/08	1210	66157	0.0	722	201J	12.7	91.5	8.10	6.0	0.76	0.019
94/03/08	1210	106157	2.5J	724	172	12.3	94.6	8.10	5.0	0.53	0.028
94/04/05	1225	146157	7.8	717	148	10.5	93.4	8.10	9.0	0.43	0.018
94/05/03	1240	186157	12.6	719	146	10.5	104.0	8.40	4.0	0.33	0.010K
94/06/07	1310	236157	14.5	720	158	10.4	107.2	8.40	3.0	0.30	0.010K
94/07/06	1310	276157	18.1	721	173	10.3	114.2	8.30	2.0	0.19	0.010K
94/08/02	1300	316157	22.0	712	160	10.3	124.7	8.40	2.0	0.25	0.023
94/09/06	1245	366157	15.8	718	209	10.5	111.6	8.40	2.0	0.22	0.010K

DATE		630	665	671	31616	82079
FROM	DEPTH	NO2+N03	PHOS-TOT	PHOS-DIS	FEC COLI	TURBIDTY
TO	TIME FEET	N-TOTAL MG/L	MG/L P	ORTHO MG/L P	MFM-FCBR /100ML	LAB NTU
93/10/05	1130	0.248	0.010K	0.010K	6	0.6
93/11/02	1210	0.338	0.010K	0.010K	4	0.7
93/12/07	1155	0.434	0.026	0.010	9	1.3
94/01/04	1210	0.435	0.040	0.020	230J	6.8
94/02/08	1210	0.474	0.024	0.010	4	2.0
94/03/08	1210	0.324	0.020	0.010K	1	1.7
94/04/05	1225	0.199	0.021	0.010K	12	2.9
94/05/03	1240	0.136	0.018	0.010K	6	1.6
94/06/07	1310	0.170	0.037	0.010K	51	1.1
94/07/06	1310	0.098	0.010K	0.010K	33	0.7
94/08/02	1300	0.089	0.012	0.010K	130J	1.0
94/09/06	1245	0.116	0.010K	0.010K	23	0.5K

55C065 6355C065  
 Deadman Cr nr Mouth  
 47 47 44.0 117 22 51.0 2F000 Elev= 0 ft  
 53063 Washington Spokane Co. PACIFIC NORTHWEST  
 Columbia River below Yakima River 131055  
 21540000 Reach=17010308002 0.000 Drg= 0 sqmi  
 AMBNT/STREAM

INDEX 1310001 006500 00510 0140  
 MILES 0643.00 0056.30 013.10 000.13

DATE		8	10	25	60	95	300	301	400	530	600
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	CNDUCTVY	DO	DO	PH	RESIDUE	TOTAL N
TO	TIME FEET	IDENT. NUMBER	TEMP CENT	PRESSURE MM OF HG	FLOW CFS	LAB @ 25C UMHO	MG/L	SATUR PERCENT	SU	TOT-NFLT MG/L	N MG/L
93/10/05	1245	416159	12.0	717	9J	288	9.8	96.1	8.50	2.0	1.00
93/11/02	1245	456159	9.1	726	10J	272	11.2	101.4	8.30	3.0	0.92
93/12/07	1240	506159	4.4	713	12J	250	11.7	96.2	7.90	10.0	0.88
94/01/04	1250	16159	3.4	710	46J	197	12.0	96.4	8.00	45.0	0.86
94/02/08	1250	66159	3.8	723	24J	270J	12.7	101.2	8.60	4.0	0.88
94/03/08	1245	106159	3.5J	726	45J	183	12.7	100.0	8.30	12.0	0.46
94/04/05	1300	146159	7.2	719	68J	138	11.2	97.9	8.30	25.0	0.41
94/05/03	1320	186159	11.2	720	62J	140	10.7	102.5	8.60	8.0	0.39
94/06/07	1345	236159	13.7	723	28J	179	10.3	104.0	8.20	10.0	0.48
94/07/06	1340	276159	17.1	723	17J	260	10.0	108.4	8.40	3.0	0.72
94/08/02	1345	316159	18.4	713	11J	263	9.7	109.5	8.40	3.0	1.05
94/09/06	1320	366159	15.2	719	11J	303	9.7	101.7	8.30	4.0	0.88

DATE		610	630	665	671	31616	82079
FROM	DEPTH	NH3+NH4-N TOTAL	NO2+NO3 N-TOTAL	PHOS-TOT	PHOS-DIS	FEC COLI	TURBIDTY
TO	TIME FEET	MG/L	MG/L	MG/L P	ORTHO MG/L P	MFM-FCBR /100ML	LAB NTU
93/10/05	1245	0.010K	0.960	0.021	0.024	37	1.2
93/11/02	1245	0.010K	0.877	0.034	0.028	14	2.0
93/12/07	1240	0.013	0.740	0.057	0.035	19S	6.5
94/01/04	1250	0.046	0.533	0.032	0.051	49	48.0
94/02/08	1250	0.010K	0.764	0.039	0.027	16	2.8
94/03/08	1245	0.021	0.325	0.043	0.022	4	7.3
94/04/05	1300	0.018	0.255	0.053	0.029	27	13.0
94/05/03	1320	0.010K	0.278	0.048	0.028	12	4.2
94/06/07	1345	0.012	0.388	0.049	0.035	330J	5.9
94/07/06	1340	0.010K	0.779	0.045	0.033	88	1.9
94/08/02	1345	0.010K	0.928	0.032	0.022	88	1.2
94/09/06	1320	0.010K	0.880	0.020	0.021	500J	1.9

55E070 6355E070  
 Dragoon Cr nr Chattaroy  
 47 52 35.6 117 22 20.2 2F000 Elev= 0 ft  
 53063 Washington Spokane Co. PACIFIC NORTHWEST  
 Columbia River below Yakima River 131055  
 21540000 Reach=17010308024 0.000 Drg= 0 sqmi  
 AMBNT/STREAM

INDEX 1310001 006500 00510 0150  
 MILES 0643.00 0056.30 021.30 000.20

DATE		8	10	25	60	95	300	301	400	530	600
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	CNDUCTVY	DO	DO	PH	RESIDUE	TOTAL N
TO	TIME FEET	IDENT.	TEMP	PRESSURE	FLOW	LAB @	SATUR	SATUR	SU	TOT-NFLT	N
93/11/02	1150	456158	4.2	725	17J	304	12.4	99.7	8.20	1.0	2.66
93/12/07	1135	506158	0.0	710		288	13.2	96.8	8.00	3.0	3.09
94/01/04	1145	16158	1.8	709	70J	235	12.4	95.6	7.90	21.0	2.78
94/02/08	1155	66158	0.0	721	36J	358J	13.7	98.7	8.20	1.0	3.82
94/03/08	1155	106158	0.6J	724	82J	228	13.2	96.5	8.10	5.0	1.76
94/04/05	1205	146158	6.4	716	76J	259	11.3	97.3	8.40	8.0	
94/05/03	1220	186158	10.3	719	63J	261	10.9	102.6	8.60	3.0	1.67
94/06/07	1250	236158	13.0	720	53J	287	10.1	100.8	8.40	5.0	1.70
94/07/06	1240	276158	16.7	722	28J	305	9.5	102.3	8.40	3.0	2.09
94/08/02	1235	316158	21.0	713	20J	263	8.8	104.5	8.50	3.0	1.86
94/09/06	1220	366158	13.6	718	14J	327	10.0	101.4	8.40	2.0	1.89

DATE		610	630	665	671	31616	82079
FROM	DEPTH	NH3+NH4-	NO2+NO3	PHOS-TOT	PHOS-DIS	FEC COLI	TURBIDTY
TO	TIME FEET	N TOTAL	N-TOTAL	MG/L P	ORTHO	MFM-FCBR	LAB
93/11/02	1150	0.010K	2.740	0.012	0.010K	86	0.8
93/12/07	1135	0.019	2.360	0.141	0.112	68	2.3
94/01/04	1145	0.222	1.750	0.238	0.182	2200J	8.9
94/02/08	1155	0.013	3.310	0.058	0.046	3	1.6
94/03/08	1155	0.016	1.580	0.070	0.045	1K	7.7
94/04/05	1205	0.013	1.450	0.066	0.043	60	4.4
94/05/03	1220	0.010K	1.580	0.064	0.035	7	1.5
94/06/07	1250	0.010K	2.120	0.048	0.042	200J	2.1
94/07/06	1240	0.015	2.200	0.031	0.016	160	1.3
94/08/02	1235	0.010K	1.760	0.043	0.032	140	1.3
94/09/06	1220	0.010K	1.880	0.016	0.010	40	0.8

57A150 6357A150 12419495 541026  
 SPOKANE RIVER AT STATELINE BR  
 47 41 55.0 117 02 37.0 2F 0 Elev= 0 ft  
 53063 Washington Spokane Co. PACIFIC NORTHWEST  
 SPOKANE (Middle Spokane-57) 130357  
 21540000 Reach= 0.000 Drg= 0 sqmi  
 Seg ID= 24-57-04 Class= A Miles= 0.00 to 0.00  
 AMBNT/STREAM

INDEX 1310001 006500  
 MILES 0643.00 0096.00

DATE	DEPTH	LAB IDENT.	8 WATER TEMP CENT	10 BAROMTRC PRESSURE MM OF HG	25 STREAM FLOW CFS	60 TURB JKSN JTU	70 COLOR PT-CO UNITS	80 CONDUCTVY 25C UMHO	95 DO MG/L	300 DO MG/L	301 DO MG/L	310 BOD MG/L
FROM TO	TIME FEET	NUMBER										SATUR PERCENT

93/10/05 0920		416155	15.4	708	2200				51	8.4	89.7
93/11/02 0925		456155	10.4	718	1790				51	10.0	94.4
93/12/07 0930		506155	4.2	700	2100				54	11.0	91.5
94/01/04 0940		16155	4.0	704	2320				54	11.1	91.4
94/02/08 0945		66155	0.8	710	2170				57J	12.4	92.8
94/03/08 0940		106155	2.2J	713	4670				57	12.4	96.1
94/04/05 1010		146155	3.4	708	7090				57	12.2	98.2
94/05/03 0950		186155	7.8	711	5380				55	11.2	100.4
94/06/07 1010		236155	15.4	712	3900				51	9.2	97.7
94/07/06 0955		276155	18.6	714	697				55	8.1	91.5
94/08/02 1020		316155	25.2	708	366				50	7.7	99.4
94/09/06 1000		366155	18.9	711	303				65	8.6	98.2

DATE	DEPTH	PH	400 HCO3 SU	440 HCO3 MG/L	445 CO3 ION	530 CO3 ION	RESIDUE TOT-NFLT MG/L	600 TOTAL N MG/L	610 NH3+NH4- N MG/L	613 NO2-N DISS MG/L	615 NO2-N TOTAL MG/L	620 NO3-N TOTAL MG/L	625 TOT KJEL N MG/L
FROM TO	TIME FEET												

93/10/05 0920		7.50				3.0	0.13	0.011					
93/11/02 0925		7.60				1.0	0.16	0.017					
93/12/07 0930		7.40				1.0K	0.15	0.015					
94/01/04 0940		7.40				1.0	0.18	0.038					
94/02/08 0945		7.50				1.0	0.22	0.030					
94/03/08 0940		7.60				2.0	0.15	0.023					
94/04/05 1010		7.50				2.0	0.14	0.017					
94/05/03 0950		7.70				1.0	0.07	0.013					
94/06/07 1010		8.00				2.0	0.10	0.012					
94/07/06 0955		7.50				1.0	0.20	0.022					
94/08/02 1020		7.60				2.0	0.27	0.010K					
94/09/06 1000		8.40				2.0	0.30	0.010K					

DATE	DEPTH	NO2+NO3 N-TOTAL MG/L	630 ORTHOPO4 PO4 MG/L	660 PHOS-TOT MG/L P	665 PHOS-DIS MG/L P	671 ORTHO MG/L P	680 T ORG C MG/L	760 SWL PBI MG/L	900 TOT HARD CACO3 MG/L	902 NC HARD CACO3 MG/L	915 CALCIUM CA,DISS MG/L	925 MGSNUIUM MG/L
FROM TO	TIME FEET											

MORE DATES NEXT PAGE

DATE	DEPTH	NO2+NO3	ORTHOPHO4	PHOS-TOT	PHOS-DIS	T ORG C	SWL	TOT HARD	NC HARD	902	915	MGSNMIUM
FROM	TIME FEET	N-TOTAL	PO4		ORTHO	C	PBI	CACO3	CACO3	CA,DISS	MG,DISS	MG/L
TO		MG/L	MG/L	MG/L P	MG/L P	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
93/10/05	0920		0.014		0.010K	0.010K						
93/11/02	0925		0.038		0.010K	0.010K						
93/12/07	0930		0.061		0.023	0.011						
94/01/04	0940		0.073		0.020	0.013						
94/02/08	0945		0.077		0.021	0.015						
94/03/08	0940		0.065		0.010K	0.010K						
94/04/05	1010		0.030		0.010K	0.010K						
94/05/03	0950		0.017		0.010K	0.010K				24		
94/06/07	1010		0.013		0.010K	0.010K						
94/07/06	0955		0.111		0.010K	0.010K				23		
94/08/02	1020		0.137		0.012	0.010K						
94/09/06	1000		0.200		0.017	0.010K						
DATE	DEPTH	SODIUM	PTSSIUM	CHLORIDE	SULFATE	FLUORIDE	SILICA	ARSENIC	BORON	1020	1025	1030
FROM	TIME FEET	NA,DISS	K,DISS	CL	SO4-TOT	F,DISS	DISOLVED	TOT REC	B,DISS	CADMIUM	CD,DISS	CHROMIUM
TO		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L
94/05/03	0950								30.0U		0.30P	
94/07/06	0955								30.0U		0.15P	
94/09/06	1000								30.0U		0.04U	
DATE	DEPTH	COPPER	IRON	LEAD	NICKEL	STRONTIUM	ZINC	ZINC	CADMIUM	LEAD	CHROMIUM	
FROM	TIME FEET	CU,DISS	FE,TOT	PB,DISS	NI,DISS	SR,DISS	ZN,DISS	TOT REC	TOT REC	TOT REC	TOT REC	
TO		UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	
94/05/03	0950		1.4		0.2	1U		97			5.0U	
94/07/06	0955		0.5P		0.2P	1U		58			5.0U	
94/09/06	1000		0.4P		0.1P	1U		22			5.0U	
DATE	DEPTH	COPPER	LITHIUM	TOT COLI	TOT COLI	TOT COLI	FEC COLI	RESIDUE	MERCURY	82079	TURBDITY	
FROM	TIME FEET	TOT REC	LI,DISS	MFIMENDO	MFIM LES	MPN CONF	MFM-FCBR	DISS-180	HG,TOTAL	LAB		
TO		UG/L	UG/L	/100ML	/100ML	/100ML	/100ML	C MG/L	UG/L	NTU		
93/10/05	0920							9		1.1		
93/11/02	0925							79		0.8		
93/12/07	0930									0.6		
94/01/04	0940							6		0.8		
94/02/08	0945							1K		0.8		
94/03/08	0940							1		0.9		
94/04/05	1010							2		0.8		
94/05/03	0950							2	0.00K	0.8		
94/06/07	1010							6		1.2		

MORE DATES NEXT PAGE

DATE	DEPTH	COPPER	LITHIUM	TOT COLI	31504	31505	31616	70300	71900	82079
FROM	TO	TOT REC	LI,DISS	MFIMENDO	MFIM LES	MPN CONF	FEC COLI	RESIDUE	MERCURY	TURBIDTY
	TIME	FEET	UG/L	UG/L	/100ML	/100ML	/100ML	C	MG/L	UG/L
94/07/06	0955						6		0.00P	0.9
94/08/02	1020						27			0.7
94/09/06	1000						34S		0.00U	0.9

59A070 6559A070 12409000 541027  
 COLVILLE RIVER AT KETTLE FALLS  
 48 35 40.0 118 03 41.0 2F 0 Elev= 0 ft  
 53065 Washington Stevens Co. PACIFIC NORTHWEST  
 UPPER COLUMBIA (Colville-59) 130559  
 21540000 Reach= 0.000 Drg= 0 sqmi  
 Seg ID= 23-59-02 Class= A Miles= 0.00 to 0.00  
 AMBNT/STREAM/RMP

INDEX 1310001 007100  
 MILES 0695.00 0005.00

DATE		8	10	25	60	70	80	95	300	301	310
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	TURB	COLOR	CNDUCTVY	DO	DO	BOD
TO	TIME FEET	IDENT.	TEMP	PRESSURE	FLOW	JKSN	PT-CO	LAB	25C UMHO	SATUR	5 DAY
		NUMBER	CENT	MM OF HG	CFS	JTU	UNITS	DO	MG/L	PERCENT	MG/L
93/10/06	1210	416164	11.6	723	91			332	9.4	90.5	
93/11/03	1130	456164	3.7	721	121			331	12.1	96.5	
93/12/08	0930	506164	0.0	709	132			340	12.4	91.1	
94/01/05	1140	16164	1.6	717	232			331	12.2	92.6	
94/02/09	0935	66164	0.0	721	73			600J	12.1	87.3	
94/03/09	1120	106164	1.5J	727	240			347	12.5	93.3	
94/04/06	1115	146164	3.1	718	676			223	11.3	89.1	
94/05/04	1120	186164	10.8	727	444			240	9.9	93.1	
94/06/08	1445	236164	14.5	729	303			257	10.6	107.9	
94/07/07	1210	276164	20.0	725	87			316	7.9	90.5	
94/08/03	1100	316164	23.6	721	28			318	6.8	83.8	
94/09/07	1120	366164	18.0	723	51			367	8.0	88.3	
DATE		400	410	440	445	530	600	610	613	615	620
FROM	DEPTH	PH	T ALK	HCO3	ION	CO3	TOTAL	NH3+NH4-	NO2-N	NO2-N	NO3-N
TO	TIME FEET	SU	CACO3	HCO3	CO3	RESIDUE	N	N TOTAL	DISS	TOTAL	TOTAL
		MG/L	MG/L	MG/L	MG/L	TOT-NFLT	MG/L	MG/L	MG/L	MG/L	MG/L
93/10/06	1210	8.20				6.0	0.28	0.013			
93/11/03	1130	8.40				4.0	0.47	0.046			
93/12/08	0930	8.00				3.0	1.03	0.217			
94/01/05	1140	8.00				16.0	0.88	0.159			
94/02/09	0935	8.00				3.0	1.20	0.208			
94/03/09	1120	8.10				19.0	0.85	0.087			
94/04/06	1115	8.00				83.0	0.44	0.042			
94/05/04	1120	8.00				25.0	0.27	0.016			
94/06/08	1445	8.20				7.0	0.27	0.014			
94/07/07	1210	8.00				5.0	0.25	0.021			
94/08/03	1100	8.20				7.0	0.34	0.013			
94/09/07	1120	8.40				10.0	0.22	0.015			
DATE		625	.630	650	660	665	671	900	902	915	925
FROM	DEPTH	TOT	KJEL	NO2+NO3	T PO4	ORTHOP04	PHOS-TOT	PHOS-DIS	TOT	HARD	CALCIUM
TO	TIME FEET	N	N	N-TOTAL	PO4	PO4	ORTHO	PHOS	CACO3	CACO3	MGSNIUM
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L P	MG/L P	MG/L	MG/L	MG/L

MORE DATES NEXT PAGE

DATE	DEPTH	TOT KJEL	625 N NO2+NO3	630 N-TOTAL	650 T PO4	660 ORTHOPO4	665 PHOS-TOT	671 PHOS-DIS	900 TOT HARD	902 NC HARD	915 CALCIUM	925 MGNSIUM
FROM			MG/L	MG/L	MG/L	MG/L	MG/L P	MG/L P	CACO3	CACO3	CA,DISS	MG,DISS
TO	TIME FEET								MG/L	MG/L	MG/L	MG/L
93/10/06	1210		0.090				0.018	0.017				
93/11/03	1130		0.293				0.035	0.025				
93/12/08	0930		0.565				0.080	0.059				
94/01/05	1140		0.491				0.084	0.053				
94/02/09	0935		0.639				0.076	0.055				
94/03/09	1120		0.509				0.063	0.032				
94/04/06	1115		0.171				0.098	0.023				
94/05/04	1120		0.149				0.047	0.020				
94/06/08	1445		0.119				0.035	0.025				
94/07/07	1210		0.018				0.026	0.010K				
94/08/03	1100		0.094				0.074	0.055				
94/09/07	1120		0.056				0.040	0.032				

DATE	DEPTH	SODIUM	930 NA,DISS	SODIUM	931 ADSBTION	PERCENT	932 SODIUM	935 PTSSIUM	940 CHLORIDE	945 SULFATE	950 FLUORIDE	955 SILICA	1000 ARSENIC	1002 ARSENIC
FROM			MG/L		RATIO	%		K,DISS	CL	SO4-TOT	F,DISS	DISOLVED	AS,DISS	AS,TOT
TO	TIME FEET							MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	UG/L

DATE	DEPTH	BORON	1020 B,DISS	CHROMIUM	1030 CR,DISS	CHROMIUM	1032 HEX-VAL	1034 CHROMIUM	1040 COPPER	1042 COPPER	1045 IRON	1049 LEAD	1080 STRONTIUM	1090 ZINC
FROM			UG/L		UG/L		UG/L	CR,TOT	CU,DISS	CU,TOT	FE,TOT	PB,DISS	SR,DISS	ZN,DISS
TO	TIME FEET							UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L

DATE	DEPTH	LITHIUM	1130 LI,DISS	TOT COLI	31501 MFIMENDO	TOT COLI	31504 MFIM LES	TOT COLI	31505 MPN CONF	31507 MPN COMP	31616 FEC COLI	70300 RESIDUE	70301 DISS SOL	70302 DISS SOL	70303 DISS SOL
FROM			UG/L	/100ML			/100ML		/100ML	/100ML	MFM-FCBR	DISS-180	SUM	TONS/DAY	TONS PER
TO	TIME FEET										C MG/L	MG/L	MG/L	ACRE-FT	

93/10/06	1210											92		
93/11/03	1130											18		
93/12/08	0930											38		
94/01/05	1140											120		
94/02/09	0935											19		
94/03/09	1120											11		
94/04/06	1115											75		
94/05/04	1120											22		
94/06/08	1445											92		
94/08/03	1100											150		
94/09/07	1120											100		

DATE	DEPTH	NITRATE	71851 IRON	71885 MERCURY	71900 TURBIDTY
FROM		DISS-NO3	FE	HG,TOTAL	LAB
TO	TIME FEET	MG/L	UG/L	UG/L	NTU

MORE DATES NEXT PAGE

DATE	DEPTH	NITRATE DISS-NO3	IRON FE	MERCURY HG,TOTAL	TURBIDTY LAB NTU
FROM	TO	TIME	FEET	MG/L	UG/L
93/10/06		1210			2.8
93/11/03		1130			2.2
93/12/08		0930			2.8
94/01/05		1140			11.0
94/02/09		0935			3.4
94/03/09		1120			10.0
94/04/06		1115			36.0
94/05/04		1120			12.0
94/06/08		1445			4.0
94/07/07		1210			3.5
94/08/03		1100			5.1
94/09/07		1120			5.7

60A070 6560A070 12404900 541028  
 KETTLE RIVER NEAR BARSTOW  
 48 47 05.0 118 07 27.0 2F 0 Elev= 0 ft  
 53065 Washington Stevens Co. PACIFIC NORTHWEST  
 UPPER COLUMBIA (Kettle-60) 130560  
 21540000 Reach= 0.000 Drg= 0 sqmi  
 Seg ID= 23-60-04 Class= A Miles= 0.00 to 0.00  
 AMBNT/STREAM/RMP

INDEX 1310001 007190  
 MILES 0706.40 0010.90

DATE		8	10	25	60	70	80	95	300	301	310
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	TURB	COLOR	CNDUCTVY	DO	DO	BOD
TO	TIME	IDENT.	TEMP	PRESSURE	FLOW	JKSN	PT-CO	LAB	@	SATUR	5 DAY
	FEET	NUMBER	CENT	MM OF HG	CFS	JTU	UNITS	25C UMHO	MG/L	PERCENT	MG/L
93/10/06	1305	416167	12.3	726	616			175	10.3	100.4	
93/11/03	1215	456167	4.9	725	746			157	12.5	102.2	
93/12/08	1025	506167	0.0	716	616			179	13.9	101.0	
94/01/05	1230	16167	0.1	724	683			174	14.0	100.9	
94/02/09	1025	66167	0.0	727	583			290J	13.8	98.7	
94/03/09	1200	106167	1.8J	730	711			174	13.2	98.9	
94/04/06	1210	146167	4.4	721	6540			81	12.5	101.5	
94/05/04	1210	186167	7.8	729	9230			67	11.7	102.3	
94/06/08	0840	236167	9.6	735	12000			45	11.6	105.0	
94/07/07	1305	276167	19.6	726	2720			95	9.2	104.3	
94/08/03	1140	316167	21.6	722	545			144	8.7	103.1	
94/09/07	1210	366167	18.1	724	434			198	9.5	104.9	
DATE		340	400	410	440	445	530	600	610	613	615
FROM	DEPTH	COD	PH	TALK	HCO3	ION	CO3	RESIDUE	TOTAL N	NH3+NH4-	NO2-N
TO	TIME	HI LEVEL		CACO3	HCO3	CO3	TOT-NFLT	N	N	N TOTAL	NO2-N
	FEET	MG/L	SU	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	DISS	TOTAL MG/L
93/10/06	1305		8.30					1.0	0.14	0.010K	
93/11/03	1215		8.40					1.0	0.14	0.010K	
93/12/08	1025		8.00					1.0K	0.26	0.010K	
94/01/05	1230		8.40					1.0	0.25	0.010K	
94/02/09	1025		8.10					6.0	0.31	0.010K	
94/03/09	1200		8.40					3.0	0.26	0.023	
94/04/06	1210		7.90					19.0	0.21	0.011	
94/05/04	1210		8.00					10.0	0.09	0.010K	
94/06/08	0840		7.90					30.0	0.08	0.010K	
94/07/07	1305		8.10					2.0	0.08	0.010K	
94/08/03	1140		8.20					1.0K	0.10	0.010K	
94/09/07	1210		8.50					2.0	0.13	0.010K	
DATE		620	625	630	660	665	671	900	902	915	925
FROM	DEPTH	NO3-N	TOT	KJEL	NO2+NO3	ORTHOP04	PHOS-TOT	PHOS-DIS	TOT	HARD	MGSNIUM
TO	TIME	TOTAL	N		N-TOTAL	PO4	MG/L P	ORTHO	CACO3	CACO3	CALCIUM
	FEET	MG/L	MG/L		MG/L	MG/L	MG/L P	MG/L P	MG/L	MG/L	MG/DISS

MORE DATES NEXT PAGE

Station:21540000 60A070

## KETTLE RIVER NEAR BARSTOW

PCSTORET -- 05-JUN-95

Page 65

DATE	DEPTH	NO3-N	TOT KJEL	620	625	630	660	665	671	900	902	915	925
FROM		TOTAL	N	NO2+NO3	ORTHOP04	PO4	PHOS-TOT	PHOS-DIS	ORTHO	CACO3	NC HARD	CACO3	CALCIUM
TO	TIME	FEET	MG/L	MG/L	MG/L	MG/L	MG/L P	MG/L P	MG/L P	MG/L	MG/L	CA,DISS	MG,DISS

93/10/06	1305				0.025			0.010K	0.010K				
93/11/03	1215				0.040			0.010K	0.010K				
93/12/08	1025				0.172			0.012	0.010K				
94/01/05	1230				0.184			0.010K	0.010K				
94/02/09	1025				0.190			0.010K	0.010K				
94/03/09	1200				0.115			0.010K	0.010K				
94/04/06	1210				0.045			0.023	0.010K				
94/05/04	1210				0.016			0.013	0.010K				
94/06/08	0840				0.010K			0.023	0.010K				
94/07/07	1305				0.010K			0.010K	0.010K				
94/08/03	1140				0.018			0.010K	0.010K				
94/09/07	1210				0.010K			0.010K	0.010K				

DATE	DEPTH	SODIUM	PTSSIUM	CHLORIDE	SULFATE	FLUORIDE	SILICA	BORON	CADMIUM	CHROMIUM	COPPER
FROM		NA,DISS	K,DISS	CL	SO4-TOT	F,DISS	DISOLVED	B,DISS	CD,DISS	CR,DISS	CU,DISS
TO	TIME	FEET	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	UG/L	UG/L	UG/L

DATE	DEPTH	IRON	LEAD	NICKEL	ZINC	TOT COLI	TOT COLI	TOT COLI	FEC COLI	RESIDUE	MERCURY
FROM		FE,TOT	PB,DISS	NI,DISS	ZN,DISS	MFIMENDO	MFIM LES	MPN CONF	MFM-FCBR	DISS-180	HG,TOTAL
TO	TIME	FEET	UG/L	UG/L	UG/L	/100ML	/100ML	/100ML	/100ML	C MG/L	UG/L

93/10/06	1305									2	
93/11/03	1215									1K	
93/12/08	1025									3	
94/01/05	1230									1K	
94/02/09	1025									1	
94/03/09	1200									1K	
94/04/06	1210									10	
94/05/04	1210									10	
94/06/08	0840									56S	
94/07/07	1305									5	
94/08/03	1140									8	
94/09/07	1210									6	

DATE	DEPTH	TURBDITY
FROM		LAB
TO	TIME	NTU

93/10/06	1305	0.4
93/11/03	1215	0.4
93/12/08	1025	0.5

MORE DATES NEXT PAGE

82079

## DATE TURBIDTY

FROM DEPTH LAB

TO TIME FEET NTU

94/01/05	1230	0.5
94/02/09	1025	1.1
94/03/09	1200	1.1
94/04/06	1210	7.1
94/05/04	1210	3.5
94/06/08	0840	8.2
94/07/07	1305	0.8
94/08/03	1140	0.5K
94/09/07	1210	0.6

61A070 6561A070 12399500 541029  
 COLUMBIA R AT NORTHPORT  
 48 55 21.0 117 46 32.0 2F 0 Elev= 0 ft  
 53065 Washington Stevens Co. PACIFIC NORTHWEST  
 UPPER COLUMBIA (Upper Lake Roosevelt-61) 130561  
 21540000 Reach= 0.000 Drg= 0 sqmi  
 Seg ID= 26-00-04 Class= AA Miles= 0.00 to 0.00  
 AMBNT/STREAM/NASQAN

INDEX 1310001  
 MILES 0735.10

DATE		8	10	25	33	35	36	60	69	70	80
FROM	DEPTH	LAB IDENT.	WATER TEMP	BAROMTRC PRESSURE	WEATHER CODE	WIND VELOCITY MPH	WIND DIR.FROM NORTH-0	STREAM FLOW CFS	SEA CODE	TURB JKSN	COLOR PT-CO UNITS
TO	TIME FEET	NUMBER	CENT	MM OF HG						JTU	
93/10/06	0755	416165	15.2	725				57100			
93/11/03	0725	456165	10.0	722				77000			
93/12/08	0750	506165	4.2	717				79500			
94/01/05	0730	16165	4.2	720				75700			
94/02/09	0750	66165	2.9	727				115000			
94/03/09	0720	106165	1.6J	733				60000			
94/04/06	0735	146165	4.3	725				37700			
94/05/04	0725	186165	7.9J	729				82200			
94/06/08	1015	236165	12.1	756				133000			
94/07/07	0730	276165	15.8	731				105000			
94/08/03	0710	316165	17.4	724				92700			
94/09/07	0740	366165	17.8	728				48400			
DATE		95	300	301	310	400	405	410	440	445	530
FROM	DEPTH	CNDUCTVY LAB @	DO	DO	BOD	PH	CO2	TALK	HCO3 ION	CO3 ION	RESIDUE
TO	TIME FEET	25C UMHO	MG/L	SATUR PERCENT	5 DAY MG/L	SU	MG/L	CACO3	HCO3	CO3	TOT-NFLT
93/10/06	0755	140	9.5	98.7		8.20					2.0
93/11/03	0725	134	11.4	106.0		8.10					2.0
93/12/08	0750	137	13.2	107.2		8.00					1.0K
94/01/05	0730	137	13.3	107.5		8.00					1.0
94/02/09	0750	159J	12.2	94.4		8.10					2.0
94/03/09	0720	154	12.5	92.7		8.00					1.0
94/04/06	0735	154	12.3	99.0		8.00					2.0
94/05/04	0725	133	11.7	102.6		7.90					2.0
94/06/08	1015	118	11.9	110.7		7.70					3.0
94/07/07	0730	118	10.2	106.4		8.00					2.0
94/08/03	0710	99	9.9	107.7		7.90					1.0
94/09/07	0740	123	9.3	101.5		8.30					1.0
DATE		600	605	610	613	615	620	625	630	660	665
FROM	DEPTH	TOTAL N	ORG N	NH3+NH4-	NO2-N	NO2-N	NO3-N	TOT KJEL	NO2+N03	ORTHOP04	PHOS-TOT
TO	TIME FEET	MG/L	MG/L	MG/L	DISS	TOTAL	TOTAL	N	N-TOTAL	PO4	MG/L P

MORE DATES NEXT PAGE

DATE		600	605	610	613	615	620	625	630	660	665
FROM	DEPTH	TOTAL N	ORG N	NH3+NH4-	NO2-N	NO2-N	NO3-N	TOT KJEL	NO2+NO3	ORTHOP04	PHOS-TOT
TO	TIME FEET	MG/L	MG/L	MG/L	DISS	TOTAL	TOTAL	N	N-TOTAL	PO4	
93/10/06	0755	0.12		0.018					0.026		0.020
93/11/03	0725	0.12		0.011					0.036		0.016
93/12/08	0750	0.16		0.016					0.084		0.014
94/01/05	0730	0.16		0.018					0.113		0.018
94/02/09	0750	0.20		0.015					0.135		0.010K
94/03/09	0720	0.09		0.044					0.095		0.022
94/04/06	0735	0.20		0.029					0.100		0.036
94/05/04	0725	0.10		0.010K					0.081		0.010K
94/06/08	1015	0.12		0.014					0.047		0.010K
94/07/07	0730	0.13		0.010K					0.058		0.010K
94/08/03	0710	0.16		0.010K					0.080		0.010K
94/09/07	0740	0.16		0.018					0.056		0.010K

DATE		671	680	760	900	902	915	925	930	935	940
FROM	DEPTH	PHOS-DIS	T ORG C	SWL	TOT HARD	NC HARD	CALCIUM	MGNSIUM	SODIUM	PTSSIUM	CHLORIDE
TO	TIME FEET	ORTHO	C	PBI	CACO3	CACO3	CA,DISS	MG,DISS	NA,DISS	K,DISS	CL
93/10/06	0755	0.021									
93/11/03	0725	0.010K									
93/12/08	0750	0.010K									
94/01/05	0730	0.011									
94/02/09	0750	0.010K									
94/03/09	0720	0.014									
94/04/06	0735	0.030									
94/05/04	0725	0.010K		68							
94/06/08	1015	0.010K		61							
94/07/07	0730	0.010K		61							
94/08/03	0710	0.010K									
94/09/07	0740	0.010K									

DATE		945	950	955	978	1000	1005	1020	1025	1030	1040
FROM	DEPTH	SULFATE	FLUORIDE	SILICA	ARSENIC	ARSENIC	BARIUM	BORON	CADMIUM	CHROMIUM	COPPER
TO	TIME FEET	SO4-TOT	F,DISS	DISOLVED	TOT REC	AS,DISS	BA,DISS	B,DISS	CD,DISS	CR,DISS	CU,DISS
94/05/04	0725				30.0U				0.05P		1.7
94/06/08	1015				30.0U						
94/07/07	0730				30.0U				0.04U		1.5
94/09/07	0740				30.0U				0.06P		1.7

DATE		1042	1045	1049	1065	1074	1075	1090	1092	1094	1113
FROM	DEPTH	COPPER	IRON	LEAD	NICKEL	NICKEL	SILVER	ZINC	ZINC	ZINC	CADMUM
TO	TIME FEET	CU,TOT	FE,TOT	PB,DISS	NI,DISS	TOT REC	AG,DISS	ZN,DISS	ZN,TOT	TOT REC	TOT REC

MORE DATES NEXT PAGE

DATE	DEPTH	COPPER	IRON	LEAD	NICKEL	NICKEL	SILVER	ZINC	ZINC	ZINC	CADMUM
FROM	TO	CU,TOT	FE,TOT	PB,DISS	NI,DISS	TOT REC	AG,DISS	ZN,DISS	ZN,TOT	TOT REC	TOT REC
	TIME	FEET	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
94/05/04	0725		6.7P		0.1P	1U	10.0U		4	4.3P	4.3P
94/06/08	1015			2.4			1.0U			5.2	5.2
94/07/07	0730				0.0P	1U			2P		
94/08/03	0710									7.1U	3.00U
94/09/07	0740				0.1P	1U			3P		4.2P
											15.00U

DATE	DEPTH	LEAD	CHROMIUM	COPPER	SELENIUM	TOT COLI	TOT COLI	FEC COLI	FEC COLI	FECSTREP	CHLRPHYL
FROM	TO	TOT REC	TOT REC	TOT REC	SE,DISS	MFIMENDO	MFIM LES	MFM-FCBR	M-FCAGAD	PC M-ENT	A UG/L
	TIME	FEET	UG/L	UG/L	UG/L	/100ML	/100ML	/100ML	/100 ML	/100ML	CORRECTD
93/10/06	0755								95		
93/11/03	0725								17		
93/12/08	0750								6		
94/01/05	0730								14		
94/02/09	0750								24		
94/03/09	0720								5		
94/04/06	0735								93		
94/05/04	0725	20.0U	5.0U	6.7P					79		
94/06/08	1015	0.6	5.0U	2.4					24		
94/07/07	0730		5.0U						4		
94/08/03	0710	20.0U		3.5U					74		
94/09/07	0740	20.0U	5.0U	3.8P					100		

DATE	DEPTH	PHEOPHTN	RESIDUE	MERCURY	TURBIDTY
FROM	TO	A	DISS-180	HG,TOTAL	LAB
	TIME	FEET	UG/L	MG/L	NTU
93/10/06	0755				0.8
93/11/03	0725				1.0
93/12/08	0750				0.7
94/01/05	0730				0.6
94/02/09	0750				0.7
94/03/09	0720				0.7
94/04/06	0735				1.0
94/05/04	0725		0.00K	0.8	
94/06/08	1015		0.00K	1.1	
94/07/07	0730		0.00P	1.0	
94/08/03	0710		0.00U	0.7	
94/09/07	0740		0.00P	0.5	

62A090 5162A090 12396500 541030

PEND OREILLE R AT METALINE FALLS

48 51 54.0 117 22 20.0 2F 0 Elev= 0 ft

53051 Washington Pend Oreille Co. PACIFIC NORTHWEST

CLARK FORK, PEND OREILLE (Pend Oreille-6 130262

21540000 Reach= 0.000 Drg= 0 sqmi

Seg ID= 23-62-05 Class= A Miles= 0.00 to 0.00

AMBN/T/STREAM

INDEX 1310001 007520

MILES 0745.50 0027.00

DATE		8	10	25	60	70	80	95	300	301	400
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	TURB	COLOR	CNDUCTVY	DO	DO	PH
TO	TIME	IDENT.	TEMP	PRESSURE	FLOW	JKSN	PT-CO	LAB	UMHO	SATUR	
		NUMBER	CENT	MM OF HG	CFS	JTU	UNITS	25C	MG/L	PERCENT	SU
93/10/06	1020	416166	15.3	708	24900			158	9.2	98.0	8.40
93/11/03	0950	456166	9.9	705	26500			157	10.1	96.0	8.10
94/01/05	0955	16166	1.8	705	14200			162	12.4	96.1	8.00
94/03/09	0945	106166	1.6J	712	22800			161	12.6	96.2	8.10
94/04/06	0940	146166	6.2	729	12500			156	11.6	97.5	8.30
94/05/04	0950	186166	9.4	711	27900			142	10.7	99.7	8.20
94/06/08	1255	236166	14.8	713	31400			137	9.7	101.6	7.70
94/07/07	1000	276166	18.7	712	12500			146	9.1	103.5	8.30
94/08/03	0925	316166	24.9	707	6320			127	8.6	110.6	8.70
94/09/07	0940	366166	19.4	710	10700			160	8.8	101.6	8.60

DATE		440	445	530	600	610	620	630	660	665	671
FROM	DEPTH	HCO3	ION	CO3	ION	RESIDUE	TOTAL N	NH3+NH4-	NO3-N	NO2+NO3	ORTHOP04
TO	TIME	HCO3	CO3	TOT-NFLT		N	N TOTAL	TOTAL	N-TOTAL	PO4	PHOS-TOT
		MG/L	MG/L	MG/L		MG/L	MG/L	MG/L	MG/L	MG/L	PHOS-DIS
93/10/06	1020				2.0	0.09	0.010K		0.010K		0.010K
93/11/03	0950				1.0	0.09	0.010K		0.010K		0.010K
94/01/05	0955				2.0	0.10	0.010		0.015		0.010K
94/03/09	0945				3.0	0.11	0.011		0.012		0.014
94/04/06	0940				2.0	0.08	0.010K		0.010K		0.010K
94/05/04	0950				3.0	0.07	0.010K		0.010K		0.010K
94/06/08	1255				4.0	0.06	0.010K		0.010K		0.010K
94/07/07	1000				1.0	0.09	0.010K		0.010K		0.010K
94/08/03	0925				2.0	0.10	0.010K		0.010K		0.010K
94/09/07	0940				1.0K	0.12	0.012		0.010K		0.012

DATE		900	902	915	925	930	935	940	945	950	955
FROM	DEPTH	TOT HARD	NC HARD	CALCIUM	MGNSIUM	SODIUM	PTSSUM	CHLORIDE	SULFATE	FLUORIDE	SILICA
TO	TIME	CACO3	CACO3	CA,DISS	MG,DISS	NA,DISS	K,DISS	CL	SO4-TOT	F,DISS	DISOLVED
		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L

DATE		1020	1045	31505	31616	70300	82079
FROM	DEPTH	BORON	IRON	TOT COLI	FEC COLI	RESIDUE	TURBIDTY
TO	TIME	B,DISS	FE,TOT	MPN CONF	MFM-FCBR	DISS-180	LAB
		UG/L	UG/L	/100ML	/100ML	C MG/L	NTU

MORE DATES NEXT PAGE

DATE FROM TO	DEPTH TIME FEET	1020 BORON B,DISS UG/L	1045 IRON FE,TOT UG/L	31505 TOT COLI MPN CONF	31616 FEC COLI MFM-FCBR	70300 RESIDUE DISS-180	82079 TURBIDTY LAB NTU
93/10/06	1020				2		0.8
93/11/03	0950				1K		1.0
94/01/05	0955				1		0.6
94/03/09	0945				1K		1.7
94/04/06	0940				1		1.4
94/05/04	0950				1		2.2
94/06/08	1255				2		2.3
94/07/07	1000				1U		1.2
94/08/03	0925				3		1.0
94/09/07	0940				7		0.7

62A150 5162A150 12395500 541031

PEND OREILLE RIVER AT NEWPORT

48 11 07.0 117 02 02.0 2F 0 Elev= 0 ft

53051 Washington Pend Oreille Co. PACIFIC NORTHWEST

CLARK FORK, PEND OREILLE (Pend Oreille-6 130262

21540000 Reach= 0.000 Drg= 0 sqmi

AMBN/TSTREAM/RMP

INDEX 1310001 007520

MILES 0745.50 0088.20

DATE		8	10	25	60	70	80	95	300	301	400
FROM	DEPTH	LAB	WATER	BAROMTRC	STREAM	TURB	COLOR	CNDUCTVY	DO	DO	PH
TO	TIME FEET	IDENT. NUMBER	TEMP CENT	PRESSURE MM OF HG	FLOW CFS	JKSN JTU	PT-CO UNITS	LAB @ 25C UMHO	MG/L	SATUR PERCENT	SU
93/10/05	1025	416156	15.0	708	34700			158	9.1	96.5	8.40
93/11/02	1035	456156	10.2	716	24700			155	10.2	96.1	8.40
93/12/07	1035	506156	2.9	701	18600			159	11.8	94.8	8.00
94/01/04	1050	16156	2.8	700	16500			162	11.9	95.5	8.00
94/02/08	1055	66156	0.4	710	14200			179J	12.7	94.0	8.00
94/03/08	1050	106156	2.2J	713	30600			168	12.4	96.1	8.10
94/04/05	1115	146156	6.0	707	19400			148	12.0	103.5	8.30
94/05/03	1135	186156	8.9	709	35800			138	11.3	104.3	8.40
94/06/07	1120	236156	14.5	712	31000			138	9.8	102.2	8.00
94/07/06	1125	276156	18.0	713	12700			145	9.0	100.7	8.00
94/08/02	1130	316156	24.9	706	6200			127	9.1	117.2	8.50
94/09/06	1130	366156	19.6	710	4450			162	8.9	103.3	8.30

DATE		405	410	440	445	530	600	610	613	615	620
FROM	DEPTH	CO2	T ALK	HCO3 ION	CO3 ION	RESIDUE	TOTAL N	NH3+NH4-	NO2-N	NO2-N	NO3-N
TO	TIME FEET	MG/L	Mg/L	HCO3	CO3	TOT-NFLT	N	N TOTAL	DISS	TOTAL	TOTAL
93/10/05	1025					2.0	0.09	0.010K			
93/11/02	1035					2.0	0.09	0.010K			
93/12/07	1035					1.0K	0.11	0.010K			
94/01/04	1050					5.0	0.11	0.010K			
94/02/08	1055					4.0	0.14	0.010K			
94/03/08	1050					3.0	0.12	0.010K			
94/04/05	1115					3.0	0.10	0.010K			
94/05/03	1135					5.0	0.05	0.010K			
94/06/07	1120					4.0	0.06	0.010K			
94/07/06	1125					2.0	0.08	0.010K			
94/08/02	1130					1.0	0.12	0.010K			
94/09/06	1130					2.0	0.10	0.010K			

DATE		625	630	660	665	671	900	902	915	925	930
FROM	DEPTH	TOT KJEL N	NO2+NO3 N-TOTAL	ORTHOP04 PO4	PHOS-TOT	PHOS-DIS ORTHO	TOT HARD CACO3	NC HARD CACO3	CALCIUM CA,DISS MG,DISS	MGNSIUM MG/L	SODIUM NA,DISS MG/L
TO	TIME FEET	MG/L	MG/L	MG/L	MG/L P	MG/L P	MG/L	MG/L	MG/L	MG/L	MG/L
93/10/05	1025										
93/11/02	1035										
93/12/07	1035										
94/01/04	1050										
94/02/08	1055										
94/03/08	1050										
94/04/05	1115										
94/05/03	1135										
94/06/07	1120										
94/07/06	1125										
94/08/02	1130										
94/09/06	1130										

MORE DATES NEXT PAGE

Station:21540000 62A150

## PEND OREILLE RIVER AT NEWPORT

PCSTORET -- 05-JUN-95

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DATE	DEPTH	TOT KJEL	625 N NO2+NO3	630 N-TOTAL	660 ORTHOPO4	665 PHOS-TOT	671 PHOS-DIS	900 TOT HARD	902 NC HARD	915 CALCIUM	925 MGNSIUM	930 SODIUM
FROM			MG/L	MG/L	MG/L	MG/L P	MG/L P	CACO3	CACO3	CA,DISS	MG,DISS	NA,DISS
TO	TIME	FEET						MG/L	MG/L	MG/L	MG/L	MG/L

93/10/05	1025		0.010K		0.010K		0.010K					
93/11/02	1035		0.010K		0.010K		0.010K					
93/12/07	1035		0.025		0.012		0.010K					
94/01/04	1050		0.039		0.010K		0.010K					
94/02/08	1055		0.032		0.010K		0.010K					
94/03/08	1050		0.047		0.010K		0.010K					
94/04/05	1115		0.010K		0.010K		0.010K					
94/05/03	1135		0.010K		0.010K		0.010K					
94/06/07	1120		0.010K		0.015		0.010K					
94/07/06	1125		0.010K		0.010K		0.010K					
94/08/02	1130		0.010K		0.010K		0.010K					
94/09/06	1130		0.010K		0.014		0.010K					

DATE	DEPTH	PTSSIUM	935 CHLORIDE	940 CL	945 SULFATE	950 FLUORIDE	955 SILICA	1000 ARSENIC	1005 BARIUM	1020 BORON	1025 CADMIUM	1030 CHROMIUM
FROM		K,DISS		MG/L	CL	SO4-TOT	F,DISS	DISOLVED	AS,DISS	BA,DISS	B,DISS	CD,DISS
TO	TIME	FEET	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L

93/10/05	1025		1040 COPPER		1045 IRON		1049 LEAD		1075 SILVER		1090 ZINC		1145 SELENIUM		31505 TOT COLI		31616 FEC COLI		70300 RESIDUE		71900 MERCURY
93/11/02	1035		CU,DISS		FE,TOT		PB,DISS		AG,DISS		ZN,DISS		SE,DISS		MPN CONF		MFM-FCBR		DISS-180		HG,TOTAL
93/12/07	1035		UG/L		UG/L		UG/L		UG/L		UG/L		UG/L		/100ML		/100ML		C	MG/L	UG/L

93/10/05	1025		1040		1045		1049		1075		1090		1145		31505		31616		70300		71900
93/11/02	1035		COPPER		IRON		LEAD		SILVER		ZINC		SELENIUM		TOT COLI		FEC COLI		RESIDUE		MERCURY
93/12/07	1035		CU,DISS		FE,TOT		PB,DISS		AG,DISS		ZN,DISS		SE,DISS		MPN CONF		MFM-FCBR		DISS-180		HG,TOTAL
94/01/04	1050		UG/L		UG/L		UG/L		UG/L		UG/L		UG/L		/100ML		/100ML		C	MG/L	UG/L
94/02/08	1055																				
94/03/08	1050																				
94/04/05	1115																				
94/05/03	1135																				
94/06/07	1120																				
94/07/06	1125																				
94/08/02	1130																				
94/09/06	1130																				

DATE	DEPTH	TURBDTY
FROM		LAB
TO	TIME	NTU

93/10/05	1025	0.8
93/11/02	1035	1.2
93/12/07	1035	0.9

MORE DATES NEXT PAGE

**82079****DATE TURBIDTY****FROM DEPTH LAB****TO TIME FEET NTU**

94/01/04	1050	0.8
94/02/08	1055	1.8
94/03/08	1050	1.6
94/04/05	1115	2.0
94/05/03	1135	2.0
94/06/07	1120	1.8
94/07/06	1125	1.2
94/08/02	1130	1.0
94/09/06	1130	0.9

## **Appendix C**

**Wateryear 1994 Six-Year Summary Statistics  
for Ecology's River and Stream  
Ambient Monitoring Program**



## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 01A050      Name: NOOKSACK R @ BRENNAN

Location:  
LOCATED ONE MILE WEST OF BRENNAN AT BRIDGE OVER NOOKSACK ON STATE  
HIGHWAY 540 (RURAL ROAD EXIT FROM I-5)

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			---JANUARY-MARCH---			---APRIL-JUNE---			---JULY-SEPTEMBER---			---SIX YEAR----		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	C	7.189	2.318	18	5.365	2.032	17	10.661	2.270	18	15.306	1.490	18	17.900	1.000	
ZN	P1094	ug/L	18.400	17.902	10	13.667	13.928	9	6.750	2.765	8	11.250	16.158	8	67.000	2.000K	
CD	P1113	ug/L	0.151	0.054	10	0.196	0.075	9	0.142	0.069	9	0.126	0.049	8	0.360	0.100K	
PB	P1114	ug/L	2.080	1.215	10	1.800	1.727	9	1.788	1.435	8	1.725	1.852	8	6.300	1.000K	
CR	P1118	ug/L	4.143	2.867	7	3.623	4.033	8	3.489	1.619	8	1.339	1.099	7	10.600	0.370	
CU	P1119	ug/L	8.950	12.113	10	9.344	9.300	9	4.867	1.981	9	7.513	8.562	8	42.400	2.000K	
PRESS	P25	mmHg	763.733	8.528	18	766.188	6.513	17	764.433	5.054	18	763.512	3.889	17	775.700	744.000	
OXYGEN	P300	mg/L	11.578	0.834	18	12.047	0.626	17	10.800	0.468	18	10.056	0.450	18	13.600	9.500	
PCTSAT	P301	%	94.878	4.174	18	94.118	2.837	17	95.900	4.644	17	99.071	3.317	17	106.300	81.100	
FC	P31616	#/100ml	143.235	166.340	17	194.625	206.508	16	92.882	111.650	17	280.944	455.920	18	1900.000	1.000	
PH	P400	units	7.638	0.258	16	7.538	0.189	16	7.506	0.235	16	7.582	0.238	17	8.300	7.200	
SUSSOL	P530	mg/L	130.333	158.024	18	73.059	150.248	17	48.333	56.719	18	85.067	174.678	18	770.000	6.000	
FLOW	P60	cfs	4257.833	2454.271	18	3864.706	2420.744	17	4027.778	1246.301	18	2224.444	1252.425	18	10800.000	820.000	
TPN	P600	mg/L	0.508	0.214	3	0.937	0.275	3	0.175	0.080	3	0.161	0.052	3	1.220	0.097	
NH3_N	P610	mg/L	0.041	0.034	18	0.064	0.035	17	0.021	0.010	18	0.020	0.010	16	0.160	0.010K	
N02_DIS	P613	mg/L	0.009	0.002	15	0.010	0.000	14	0.010	0.000	15	0.010	0.002	15	0.010	0.002K	
N02_N	P615	mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.010K	
NH3_UN	P619	mg/L	0.000	0.000	10	0.000	0.000	11	0.000	0.000	12	0.000	0.000	9	0.001	0.000	
N03_N	P620	mg/L	0.495	0.120	2	0.553	0.047	3	0.223	0.111	3	0.137	0.059	3	0.590	0.070	
N02_N03	P630	mg/L	0.463	0.178	18	0.651	0.199	17	0.232	0.087	18	0.159	0.047	16	1.000	0.094	
TP_P	P665	mg/L	0.065	0.050	16	0.075	0.111	17	0.035	0.021	18	0.094	0.194	15	0.790	0.010K	
OP_DIS	P671	mg/L	0.011	0.003	18	0.011	0.004	16	0.010	0.000	18	0.010	0.002	18	0.020	0.005K	
HG	P71900	ug/L	0.072	0.034	10	0.040	0.019	8	0.044	0.013	9	0.055	0.018	6	0.140	0.020K	
COLOR	P80	Pt-Co	33.500	21.486	4	283.000	465.174	3	14.667	23.671	3	2.000	1.732	3	820.000	1.000K	
TURB	P82079	NTU	38.517	47.452	18	18.894	25.137	17	14.282	16.539	17	31.044	40.707	18	193.000	1.300	
HARD	P900	mg/L	46.000	8.097	10	47.111	10.948	9	35.111	5.442	9	38.667	11.811	9	61.000	17.000	
COND	P95	umhos	100.111	22.397	18	110.353	17.592	17	83.000	13.638	18	94.833	17.349	18	149.000	59.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY - SIX YEAR AVERAGE

Name: WHATCOM CR @ BELLINGHAM Station Number: 01E050

**Class:** A    **Elevation:** 20    **River Mile:** 0.25

**Location:** STATION LOCATED ON WHATCOM CREEK DOWNSTREAM FROM DUPONT STREET AND JUST ACROSS FROM THE SEWAGE TREATMENT PLANT

Water Years Sampled:  
5 6  
9 0 1 2 3 4 5 6 7 8

VARIABLE	P-CODE	UNITS	--OCTOBER-DECEMBER--			--JANUARY-MARCH--			--APRIL-JUNE--			--JULY-SEPTEMBER--			----SIX YEAR----		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	C	8.833	3.953	3	6.000	0.265	3	14.933	3.194	3	19.800	1.179	3	20.800	5.500	
PRESS	P25	mmHg	771.500	3.940	3	764.733	6.229	3	765.133	2.517	3	764.300	1.997	3	774.700	759.700	
OXYGEN	P300	mg/l	11.667	1.060	3	12.367	0.153	3	10.400	0.608	3	9.300	0.173	3	12.800	9.200	
PCTSAT	P301	%	98.233	2.369	3	98.500	0.346	3	101.533	6.422	3	100.400	0.889	3	108.700	95.500	
FC	P31616	#/100ml	2745.667	4551.116	3	72.000	59.025	3	76.000	23.812	3	383.333	180.093	3	8000.000	12.000	
PH	P400	units	7.733	0.208	3	7.600	0.000	2	7.700	0.173	3	7.850	0.071	2	7.900	7.500	
SUSSOL	P530	mg/l	5.667	7.234	3	23.000	33.808	3	2.667	2.082	3	3.333	0.577	3	62.000	1.000K	
FLOW	P60	CFS	6.700	0.990	2	184.000	89.152	3	41.667	14.364	3	25.000	5.000	3	270.000	6.000	
TPN	P600	mg/l	0.724	0.276	3	0.727	0.291	3	0.409	0.169	3	0.296	0.058	3	1.040	0.238	
NH3_N	P610	mg/l	0.045	0.025	3	0.013	0.004	3	0.010	0.000	3	0.010	0.064	3	0.000	0.010K	
NO2_NO3	P630	mg/l	0.453	0.220	3	0.509	0.185	3	0.341	0.144	3	0.151	0.045	3	0.700	0.110	
TP_P	P665	mg/l	0.047	0.038	3	0.027	0.026	3	0.012	0.002	3	0.023	0.004	3	0.090	0.010K	
OP_D1S	P671	mg/l	0.019	0.010	3	0.010	0.000	3	0.012	0.002	3	0.010	0.000	3	0.031	0.010K	
TURB	P82079	NTU	12.233	18.851	3	6.833	7.958	3	1.833	0.929	3	1.900	0.529	3	34.000	0.800	
COND	P95	umhos	116.667	20.599	3	72.667	2.309	3	83.000	12.124	3	84.333	5.508	3	136.000	69.000	

**Summary statistics** should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 03A060		Name: SKAGIT R NR MOUNT VERNON		Class: A		Elevation: 14		River Mile: 15.90		Water Years Sampled:											
Location: LOCATED ONE MILE NORTH OF MOUNT VERNON AT THE BRIDGE CROSSING THE SKAGIT RIVER ON OLD HIGHWAY 99 (.3 MILE EAST OF INTERSTATE 5)				5 6		7		8		9											
VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---	MEAN	STD. DEV.	N	---JANUARY-MARCH---	MEAN	STD. DEV.	N	---APRIL-JUNE---	MEAN	STD. DEV.	N	---JULY-SEPTEMBER---	MEAN	STD. DEV.	N	---SIX YEAR---	MAX	MIN
TEMP	P10	°C	8.011	2.246	18	4.694	1.166	18	9.428	1.927	18	13.467	1.254	18	15.700	1.400					
CR	P1118	ug/L	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	5.000	0.000	2	5.000	5.000					
PRESS	P25	mmHg	763.061	8.789	18	766.778	9.795	18	767.117	5.386	18	767.124	4.795	17	776.700	741.700					
OXYGEN	P300	mg/L	11.700	0.758	18	12.489	0.584	18	11.256	0.540	18	10.383	0.373	18	13.500	9.800					
PCTSAT	P301	%	97.894	2.619	18	95.922	3.281	18	96.800	2.141	17	98.047	2.935	17	105.300	89.500					
FC	P31616	#/100ml	19.118	21.366	17	16.778	21.599	18	12.556	11.903	18	34.667	37.036	18	140.000	1.000					
COD	P340	mg/L	7.500	1.871	6	6.400	2.074	5	6.400	1.517	5	5.000	0.816	4	10.00	4.000					
PH	P400	units	7.431	0.206	16	7.400	0.257	17	7.450	0.253	16	7.459	0.272	17	8.10	6.90					
SUSSOL	P530	mg/L	39.833	33.333	18	25.444	41.220	18	16.500	17.942	18	114.811	282.556	18	1230.00	2.000					
FLOW	P60	CFS	17770.000	8232.437	18	17288.333	8463.554	18	17467.778	5034.526	18	12835.556	5858.361	18	46400.00	5570.000					
TPN	P600	mg/L	0.187	0.070	3	0.279	0.043	3	0.071	0.057	3	0.080	0.005	3	0.325	0.010					
NH3_N	P610	mg/L	0.019	0.011	18	0.015	0.006	18	0.011	0.003	18	0.014	0.009	16	0.045	0.010					
NO2_DIS	P613	mg/L	0.009	0.002	15	0.010	0.000	15	0.010	0.000	15	0.009	0.002	15	0.011	0.002					
NO2_N	P615	mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.010					
NH3_UN	P619	mg/L	0.000	0.000	11	0.000	0.000	12	0.000	0.000	12	0.000	0.000	9	0.001	0.000					
NO3_N	P620	mg/L	0.120	0.070	3	0.113	0.015	3	0.087	0.025	3	0.043	0.012	3	0.170	0.030					
NO2_N03	P630	mg/L	0.146	0.055	18	0.154	0.047	18	0.102	0.078	18	0.048	0.012	17	0.400	0.030					
TP_P	P665	mg/L	0.029	0.021	16	0.028	0.036	18	0.015	0.007	18	0.078	0.173	17	0.737	0.010					
OP_DIS	P671	mg/L	0.010	0.002	18	0.010	0.001	18	0.010	0.000	18	0.010	0.002	18	0.011	0.001					
HG	P71900	ug/L	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.001	0.000	2	0.001	0.001					
COLOR	P80	Pt-Co	22.000	19.916	4	99.333	156.666	3	21.333	18.771	3	22.667	34.962	3	280.00	1.000					
TURB	P82079	NTU	9.578	9.138	18	7.611	12.621	18	4.106	3.723	18	28.528	60.220	18	260.00	1.200					
HARD	P900	mg/L	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	21.500	2.121	2	24.00	20.00					
COND	P95	umhos	55.333	7.380	18	61.944	7.810	18	48.833	11.873	18	46.889	8.274	18	89.00	30.00					

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

| QUARTERLY DATA SUMMARY -- SIX YEAR AVERAGE

Station Number: 04A100

Name: SKAGIT R @ MARBLEMOUNT

**CLASS:**

**Class:** AA    **Elevation:** 360    **River Mile:** 78.20

**Location:** LOCATED AT THE BRIDGE ON THE CASCADE RIVER ROAD WHERE HIGHWAY 20 (NORTH CASCADIA HIGHWAY) TURNS 90 DEGREES IN MARBLE MOUNT

Location:	Water Years Sampled:																							
	7			8			9			10														
LOCATED AT THE BRIDGE ON THE CASCADE RIVER ROAD WHERE HIGHWAY 20 (NORTH CASCades HIGHWAY) TURNS 90 DEGREES IN MARBLEMOUNT																								
-----SIX YEAR-----																								
----JULY-SEPTEMBER----				----APRIL-JUNE----				----JANUARY-MARCH----				----OCTOBER-DECEMBER----												
VARIABLE	P-CODE	UNITS	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN											
TEMP	P10	C	7.794	1.541	18	4.150	1.621	18	7.378	1.570	18	10.800	0.774											
CR	P1118	ug/L	0.000	0.000	0	0.000	0.000	0	0.000	0.000	2	5.000	5.0000											
PRESS	P25	mmHg	757.328	6.868	18	758.000	6.428	18	756.844	5.240	18	757.329	4.011											
OXYGEN	P300	mg/L	11.872	0.601	18	12.772	0.530	18	12.039	0.365	18	11.178	0.262											
PCTSAT	P301	%	99.717	3.463	18	97.839	3.050	18	100.047	1.901	17	101.018	2.163											
FC	P31616	#/100ml	5.222	9.258	18	5.813	18.985	16	2.059	1.560	17	11.667	21.785											
PH	P400	units	7.519	0.274	16	7.435	0.209	17	7.394	0.249	16	7.412	0.291											
TUSSOL	P530	mg/L	4.889	4.969	18	3.222	5.418	18	2.444	2.935	18	2.511	1.755											
FLDW	P60	CFs	6507.222	3628.059	18	7143.889	3171.014	18	5465.000	1734.261	18	5517.778	2311.306											
TPN	P600	mg/L	0.164	0.042	3	0.122	0.013	3	0.054	0.043	3	0.075	0.007											
NH3_N	P610	mg/L	0.011	0.004	18	0.011	0.003	18	0.010	0.000	18	0.012	0.004											
N02_DIS	P613	mg/L	0.009	0.002	15	0.010	0.000	15	0.010	0.000	15	0.009	0.002											
N02_N	P615	mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.000											
NH3_UN	P619	mg/L	0.000	0.000	10	0.000	0.000	11	0.000	0.000	12	0.000	0.000											
N03_N	P620	mg/L	0.060	0.014	2	0.050	0.010	3	0.057	0.015	3	0.037	0.006											
N02_N03	P630	mg/L	0.078	0.019	18	0.065	0.012	18	0.066	0.015	18	0.045	0.013											
TP_P	P665	mg/L	0.010	0.002	16	0.018	0.020	17	0.011	0.002	18	0.011	0.004											
OP_DIS	P671	mg/L	0.010	0.001	18	0.010	0.001	18	0.010	0.001	18	0.010	0.002											
HG	P71900	ug/L	0.000	0.000	0	0.000	0.000	0	0.000	0.000	2	0.001	0.001											
COLOR	P80	Pt-Co	5.125	3.614	4	10.000	5.196	3	22.667	24.987	3	6.000	6.245											
TURB	P82079	NTU	1.639	1.188	18	1.483	1.157	18	1.053	0.332	17	1.617	0.714											
HARD	P900	mg/L	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	20.500	4.950											
COND	P95	umhos	49.778	9.595	18	59.722	7.458	18	41.222	12.013	18	46.000	7.388											

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with half the detection limit.

## **QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE**

Station Number: 05A070 Name: STILLAGNISH B NB SILVANA

סינטראליות ומיון

**Location:** LOCATED ON THE INTERSTATE 5 BRIDGE JUST NORTH OF THE ARLINGTON-SILVANA EXIT (EXIT 208).

Water Years Sampled:  
5 6  
9 0 1 2 3 4 5 6 7 8 9  
X X X X X X X X X X

**Class:** A    **Elevation:** 35    **River Mile:** 11 10

וְיָמָיו אֲמִתָּה בַּיּוֹמָנוּ יְמִינֵי

Water Years Sampled: 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			---JANUARY-MARCH---			---APRIL-JUNE---			---JULY-SEPTEMBER---			---SIX YEAR----		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	C	6.933	2.358	18	4.600	1.679	18	10.689	2.358	18	16.561	2.909	18	20.800	0.500	
CR	P1118	ug/L	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	5.000	0.000	2	5.000	5.000U	
PRESS	P25	mmHg	765.183	6.982	18	765.733	8.423	18	767.606	4.675	18	765.265	4.361	17	779.800	743.000	
OXYGEN	P300	mg/L	11.950	0.904	18	12.528	0.616	18	10.906	0.529	18	9.294	0.742	18	14.000	8.100	
PCTSAT	P301	%	97.067	3.390	18	96.050	2.568	18	96.659	2.470	17	93.706	7.352	17	113.700	86.400	
FC	P3116	#/100ml	76.389	77.251	18	72.556	71.936	18	42.667	43.956	18	167.833	176.100	18	680.000	1.000	
PH	P400	units	7.413	0.720	16	7.294	0.422	17	7.344	0.367	16	7.441	0.364	17	9.700	6.000	
SUSSOL	P530	mg/L	61.944	70.180	18	95.389	255.526	18	18.000	21.890	18	13.689	27.648	18	1100.000	1.000	
FLOW	P60	cfs	5228.250	3078.280	16	4779.444	4690.706	18	3597.778	1311.988	18	1127.889	1293.693	18	18600.000	380.000	
TPN	P600	mg/L	0.464	0.152	3	0.557	0.123	3	0.161	0.052	3	0.211	0.078	3	0.692	0.102	
NH3_N	P610	mg/L	0.029	0.022	18	0.033	0.020	18	0.013	0.006	18	0.017	0.011	17	0.080	0.010K	
N02_DIS	P613	mg/L	0.009	0.002	15	0.010	0.000	15	0.010	0.000	15	0.009	0.002	15	0.010	0.002K	
N02_N	P615	mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.010K	
NH3_UN	P619	mg/L	0.000	0.000	10	0.000	0.000	11	0.000	0.000	12	0.000	0.000	8	0.001	0.000	
N03_N	P620	mg/L	0.425	0.021	2	0.237	0.135	3	0.153	0.055	3	0.137	0.038	3	0.440	0.100	
N02_N03	P630	mg/L	0.336	0.106	18	0.338	0.108	18	0.151	0.043	18	0.122	0.042	17	0.589	0.063	
TP_P	P665	mg/L	0.041	0.034	16	0.045	0.055	18	0.020	0.013	18	0.028	0.030	17	0.240	0.010K	
OP_DIS	P671	mg/L	0.010	0.001	18	0.011	0.006	18	0.010	0.000	18	0.010	0.002	18	0.036	0.006J	
HG	P71900	ug/l	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.001	0.000	2	0.001	0.001P	
COLOR	P80	Pt-Co	38.500	14.526	4	295.500	416.486	2	30.667	9.815	3	10.000	13.077	3	590.000	1.000	
TURB	P82079	NTU	20.006	18.953	18	21.544	34.956	18	7.094	6.524	18	3.733	5.474	18	156.000	0.800	
HARD	P900	mg/L	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	31.000	0.000	2	31.000	21.000	
COND	P95	umhos	57.944	22.124	18	52.222	12.374	18	46.167	9.199	18	72.833	21.850	18	127.000	25.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 07A090 Name: SNOHOMISH R @ SNOHOMISH

Location:  
**LOCATED AT BRIDGE ON AVENUE D IN SNOHOMISH, TWO BLOCKS SOUTH OF 2ND  
 STREET (OLD HIGHWAY 2)**

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			---JANUARY-MARCH---			---APRIL-JUNE---			---JULY-SEPTEMBER---			---SIX YEAR---		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	C	7.633	2.321	18	5.039	1.686	18	10.172	2.069	18	16.906	2.305	18	21.300	1.400	
ZN	P1094	ug/L	9.100	6.262	10	7.333	2.693	9	10.875	7.338	8	6.500	3.295	8	26.000	2.000K	
CD	P1113	ug/L	0.190	0.152	10	0.170	0.046	9	0.130	0.048	9	0.125	0.046	8	0.600	0.100K	
PB	P1114	ug/L	1.367	0.548	9	1.156	0.324	9	1.288	0.596	8	1.663	1.190	8	4.400	1.000K	
CR	P1118	ug/L	2.163	2.054	10	1.376	1.346	9	1.006	0.395	8	0.548	0.312	8	7.000	0.200K	
CU	P1119	ug/L	6.780	5.671	10	4.933	4.108	9	3.756	1.455	9	3.763	1.039	8	20.000	2.000K	
PRESS	P25	mmHg	768.528	5.304	18	766.078	4.930	18	764.700	5.563	18	763.965	5.585	17	779.800	748.800	
OXYGEN	P300	mg/L	11.644	0.906	18	12.317	0.499	18	11.056	0.697	18	9.433	0.511	18	13.500	8.400	
PCTSAT	P301	%	95.783	3.849	18	95.494	2.582	18	96.900	4.043	17	95.941	4.377	17	107.800	88.800	
FC	P31616	#/100ml	128.353	123.352	17	45.533	32.227	15	64.059	74.026	17	111.722	178.813	18	820.000	4.000	
COD	P340	mg/L	11.500	3.937	6	9.600	1.817	5	6.000	2.739	5	13.000	12.390	5	35.000	4.000K	
PH	P400	units	7.250	0.398	16	7.206	0.251	17	7.194	0.282	16	7.253	0.224	17	8.100	6.200	
SUSSOL	P530	mg/L	25.722	34.227	18	17.556	22.563	18	12.222	12.991	18	5.278	3.177	18	140.000	1.000K	
FLOW	P60	CFS	12807.059	11116.949	17	9393.889	4349.417	18	11170.500	3935.808	18	3010.588	1533.703	17	41800.000	14400.000	
TPN	P600	mg/L	0.462	0.154	3	0.644	0.202	3	0.145	0.070	3	0.203	0.059	3	0.840	0.071	
NH3_N	P610	mg/L	0.030	0.014	18	0.030	0.016	18	0.013	0.005	18	0.018	0.012	17	0.070	0.010K	
NO2_DIS	P613	mg/L	0.009	0.002	15	0.010	0.000	14	0.010	0.000	15	0.009	0.002	15	0.010	0.002K	
NO2_N	P615	mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.010K	
NH3_UN	P619	mg/L	0.000	0.000	10	0.000	0.000	11	0.000	0.000	12	0.000	0.000	9	*****.***	0.000	
NO3_N	P620	mg/L	0.355	0.064	2	0.370	0.115	3	0.113	0.055	3	0.133	0.023	3	0.490	0.060	
NO2_NO3	P630	mg/L	0.349	0.198	18	0.394	0.153	18	0.146	0.061	18	0.119	0.060	17	1.010	0.010K	
TP_P	P665	mg/L	0.033	0.034	16	0.032	0.035	18	0.015	0.008	18	0.012	0.003	17	0.160	0.010K	
OP_DIS	P671	mg/L	0.010	0.001	18	0.010	0.000	17	0.010	0.000	18	0.010	0.002	18	0.011	0.002J	
HG	P71900	ug/L	0.067	0.025	9	0.045	0.014	7	0.047	0.018	9	0.054	0.012	6	0.110	0.020K	
COLOR	P80	Pt-Co	28.000	13.229	3	21.000	4.000	3	18.000	12.124	3	16.286	11.116	7	38.000	1.000	
TURB	P82079	NTU	8.489	12.230	18	5.606	5.678	18	4.288	3.985	17	2.050	1.376	18	51.000	1.000K	
HARD	P900	mg/L	17.200	4.104	10	18.111	5.711	9	15.000	3.905	9	22.889	3.689	9	30.000	10.000	
COND	P95	umhos	43.833	10.848	18	45.278	8.180	18	32.222	5.287	18	52.000	12.649	18	85.000	23.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## **QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE**

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY -- SIX YEAR AVERAGE

Name: SAMMAMISH B @ REDMOND  
Station Number: 088110

Class: AA Elevation: 25 River Mile: 28.65

**Location:**  
LOCATED AT THE BRIDGE ON LEARY WAY ON THE WESTERN SIDE OF REDMOND AT THE  
REDMOND GOLF LINKS AND DRIVING RANGE. ADJACENT TO MARYMOOR PARK.

Water Years Sampled:	5 6	7	8	9	X
9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6					X

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			---JANUARY-MARCH---			---APRIL-JUNE---			---JULY-SEPTEMBER---			MAX	MIN
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N		
TEMP	P10	C	8.900	3.676	3	6.933	0.662	3	14.600	3.816	3	19.700	1.513	3	20.900	5.500
PRESS	P25	mmHg	767.333	4.936	3	765.900	8.242	3	762.700	3.951	3	766.600	1.000	3	775.200	758.200
OXYGEN	P300	mg/L	10.833	0.351	3	11.533	0.681	3	11.133	0.757	3	9.833	0.808	3	12.300	9.100
PCTSAT	P301	%	92.167	5.074	3	94.300	4.258	3	108.100	4.349	3	105.500	5.451	3	113.000	87.400
FC	P31616	#/100mL	95.000	33.601	3	69.667	51.540	3	104.667	96.671	3	183.333	56.862	3	230.000	17.000
PH	P400	units	7.633	0.115	3	7.750	0.212	2	8.100	0.173	3	7.800	0.000	2	8.300	7.500
SUSSOL	P530	mg/L	4.000	2.646	3	10.000	3.606	3	4.667	1.155	3	3.667	1.155	3	13.000	2.000
FLOW	P60	cfs	81.000	61.490	3	236.667	77.488	3	112.333	46.737	3	19.000	9.644	3	296.000	12.000
TPN	P600	mg/L	0.640	0.172	3	0.887	0.152	3	0.442	0.129	3	0.294	0.069	3	0.986	0.229
NH3_N	P610	mg/L	0.032	0.012	3	0.016	0.004	3	0.013	0.006	3	0.010	0.000	3	0.045	0.010K
NO2_NO3	P630	mg/L	0.385	0.190	3	0.569	0.102	3	0.288	0.119	3	0.119	0.042	3	0.682	0.085
TP_P	P665	mg/L	0.032	0.002	3	0.034	0.012	3	0.017	0.006	3	0.028	0.005	3	0.045	0.011
OP_DIS	P671	mg/L	0.018	0.002	3	0.014	0.004	3	0.012	0.003	3	0.012	0.002	3	0.019	0.010K
TURB	P82079	NTU	2.600	0.964	3	3.900	1.229	3	1.933	0.404	3	1.867	0.643	3	5.300	1.400
COND	P95	umhos	124.000	26.458	3	101.000	9.539	3	106.333	10.970	3	143.000	28.688	3	176.000	90.000

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 088130 Name: ISSAQIYAH

**Class:** A    **Elevation:** 45    **River Mile:** 33,60

**Location:** LOCATED ONE MILE NORTH OF ISSAQUAH ON SE 56TH ST BRIDGE OVER ISSAQAH CREEK

#### Water Years Sampled:

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## [QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE]

Station Number: 08C070      Name: CEDAR R @ LOGAN ST/RENTON

Location:  
LOCATED AT THE BRIDGE ON LOGAN STREET IN RENTON ADJACENT TO THE  
SOUTHEAST CORNER OF THE RENTON AIRPORT

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			---JANUARY-MARCH---			---APRIL-JUNE---			---JULY-SEPTEMBER---			---SIX YEAR---		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	C	8.317	2.143	18	6.489	1.377	18	11.000	1.867	18	14.200	1.674	18	17.300	3.100	
PRESS	P25	mmHg	763.428	8.072	18	766.922	8.116	18	766.150	4.867	18	766.594	3.748	17	777.200	745.000	
OXYGEN	P300	mg/L	11.733	0.694	18	12.306	0.444	18	11.533	0.498	18	11.011	0.559	18	13.400	10.000	
PCTSAT	P301	%	98.939	4.093	18	98.911	3.311	18	103.094	5.079	17	105.759	4.810	17	113.700	91.100	
FC	P31616	#/100ml	59.375	104.023	16	43.176	80.178	17	87.056	204.802	18	159.111	139.865	18	900.000	1.000	
PH	P400	units	7.556	0.239	16	7.471	0.320	17	7.569	0.199	16	7.688	0.245	17	26.000	26.000	
SUSSOL	P530	mg/L	11.944	12.312	18	21.667	49.939	18	6.389	6.921	18	9.689	16.313	18	213.000	1.000	
FLOW	P60	CFS	668.111	408.642	18	891.111	764.610	18	532.833	260.007	18	190.444	65.966	18	3570.000	129.000	
TPN	P600	mg/L	0.340	0.131	3	0.582	0.166	3	0.211	0.056	3	0.211	0.013	3	0.756	0.157	
NH3_N	P610	mg/L	0.028	0.023	17	0.013	0.006	18	0.012	0.003	18	0.012	0.004	16	0.100	0.008	
N02_D1S	P613	mg/L	0.009	0.002	15	0.010	0.000	15	0.010	0.000	15	0.009	0.002	15	0.011	0.002K	
N02_N	P615	mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.010K	
NH3_UN	P619	mg/L	0.000	0.000	11	0.000	0.000	12	0.000	0.000	12	0.000	0.001	9	0.001	0.000	
N03_N	P620	mg/L	0.310	0.161	3	0.360	0.095	3	0.143	0.040	3	0.153	0.061	3	0.480	0.100	
N02_N03	P630	mg/L	0.343	0.121	17	0.412	0.107	18	0.220	0.058	18	0.184	0.035	17	0.643	0.117	
TP_P	P665	mg/L	0.020	0.010	15	0.025	0.025	18	0.014	0.006	18	0.016	0.008	17	0.110	0.006	
OP_DIS	P671	mg/L	0.012	0.005	18	0.010	0.001	18	0.010	0.000	18	0.010	0.001	18	0.030	0.005K	
COLOR	P8Q	Pt-Co	16.500	12.342	4	29.333	32.716	3	8.667	10.786	3	11.333	15.373	3	67.000	1.000	
TURB	P82079	NTU	2.211	1.650	18	5.411	9.392	18	1.867	2.626	18	1.544	1.485	18	37.500	0.400	
HARD	P900	mg/L	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	26.000	26.000	
COND	P95	umhos	67.333	14.809	18	64.056	9.321	18	66.889	8.429	18	85.944	7.833	18	110.000	42.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number:	08C080	Name:	CEDAR R @ MAPLEWOOD	Class:	A	Elevation:	100	River Mile:	4.10
<b>Location:</b> Highway 169 Bridge across Cedar River in Maplewood (not the bridge in Maple Vall ey).									
Water Years Sampled:	5 6 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 X	7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 X	14.433 0.462 3 14.700 4.800 774.700 757.400	10.367 2.747 3 10.700 4.300	763.033 3.573 3 766.333 1.537 3	11.433 0.265 3 11.200 0.208 3	10.667 0.351 3 10.300 12.800	101.367 5.977 3 102.967 2.515 3	95.767 0.635 3 95.500 105.400 94.500

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			---JANUARY-MARCH---			---APRIL-JUNE---			---JULY-SEPTEMBER---			---SIX YEAR---		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	C	7.667	2.641	3	6.067	0.950	3	10.367	2.747	3	14.433	0.462	3	14.700	4.800	
PRESS	P25	mmHg	766.933	5.710	3	764.433	9.092	3	763.033	3.573	3	766.333	1.537	3	774.700	757.400	
OXYGEN	P300	mg/L	11.900	0.781	3	12.000	0.265	3	11.433	0.208	3	10.667	0.351	3	12.800	10.300	
PCTSAT	P301	%	98.233	1.106	3	95.767	0.635	3	101.367	5.977	3	102.967	2.515	3	105.400	94.500	
FC	P31616	#/100ml	24.667	18.448	3	16.333	8.021	3	49.000	35.511	3	87.333	8.083	3	92.000	8.000	
PH	P400	units	7.500	0.173	3	7.400	0.141	2	7.467	0.231	3	7.350	0.636	2	7.800	6.900	
SUSSOL	P530	mg/L	1.667	0.577	3	5.333	2.517	3	3.000	1.000	3	2.667	0.577	3	8.000	1.000	
FLOW	P60	CFS	810.333	744.598	3	524.000	260.501	3	522.000	297.913	3	210.000	36.056	3	1670.000	180.000	
TPN	P600	mg/L	0.312	0.130	3	0.522	0.201	3	0.205	0.056	3	0.215	0.038	3	0.752	0.147	
NH3_N	P610	mg/L	0.013	0.004	3	0.011	0.001	3	0.010	0.000	3	0.010	0.000	3	0.018	0.000K	
NO2_NO3	P630	mg/L	0.256	0.128	3	0.434	0.168	3	0.214	0.027	3	0.157	0.026	3	0.526	0.135	
TP_P	P665	mg/L	0.011	0.001	3	0.012	0.002	3	0.010	0.000	3	0.011	0.002	3	0.013	0.000K	
OP_DIS	P671	mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.000K	
TURB	P82079	NTU	0.800	0.173	3	1.767	0.651	3	1.067	0.252	3	0.800	0.265	3	2.400	0.500	
COND	P95	umhos	71.000	12.166	3	59.000	10.817	3	61.000	13.000	3	82.667	7.095	3	89.000	46.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 08C090		Name: CEDAR R @ MAPLE VALLEY		Class: A		Elevation: 325		River Mile: 14.50	
Location: STATION LOCATED ON THE CEDAR RIVER ON THE HIGHWAY 169 BRIDGE AT MAPLE VALLEY				Water Years Sampled:		7		8	
				5 6		9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6		X	
VARIABLE	P-CODE UNITS	---OCTOBER-DECEMBER---	MEAN	STD. DEV.	N	---JANUARY-MARCH---	MEAN	STD. DEV.	N
TEMP	P10 C	7.700	2.364	3	5.833	1.002	3	9.533	2.369
PRESS	P25 mmHg	760.133	6.311	3	757.833	8.937	3	756.600	4.423
OXYGEN	P300 mg/L	11.733	0.850	3	12.067	0.231	3	11.367	0.252
PCTSAT	P301 %	97.833	1.137	3	96.600	0.954	3	99.667	4.409
FC	P31616 #/100ml	6.667	3.512	3	7.000	4.359	3	12.333	12.702
PH	P400 units	7.700	0.265	3	7.550	0.071	2	7.533	0.208
SUSSOL	P530 mg/L	1.000	0.000	3	3.000	1.732	3	2.000	1.000
FLOW	P60 CFS	322.500	10.607	2	556.667	196.554	3	468.333	185.236
TPN	P600 mg/L	0.241	0.058	3	0.380	0.078	3	0.183	0.047
NH3_N	P610 mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000
NO2_NO3	P630 mg/L	0.207	0.074	3	0.313	0.077	3	0.200	0.013
TP_P	P665 mg/L	0.013	0.003	3	0.010	0.001	3	0.010	0.000
OP_DIS	P671 mg/L	0.010	0.000	3	0.010	0.000	3	0.011	0.002
TURB	P82079 NTU	0.467	0.058	3	1.033	0.289	3	0.633	0.231
COND	P95 umhos	63.000	12.288	3	51.000	8.888	3	55.000	12.166
									71.667
									4.933
									3
									77.000
									41.000

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 08C110 Name: CEDAR R NR LANDSBURG

**Class:** AA    **Elevation:** 616    **River Mile:** 25.10

**Location:** STATION LOCATED ON THE CEDAR RIVER 1 MILE SOUTH OF WALSH LAKE AND 2.25 MILES NORTHEAST OF LANDSBURG AT THE TRINITY ROAD CROSSING

Later Years Same | ad:

Water Years Sampled:  
5 6  
9 0 1 2 3 4 5 6 7 8 9  
X X X X

VARIABLE	P-CODE	UNITS	--OCTOBER-DECEMBER--			--JANUARY-MARCH--			--APRIL-JUNE--			--JULY-SEPTEMBER--			----SIX YEAR----		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	C	7.500	1.570	12	5.773	0.926	11	8.964	1.549	11	11.250	0.718	12	13.000	4.100	
PRESS	P25	mmHg	754.808	10.596	12	749.964	6.233	11	747.364	5.728	11	747.958	5.552	12	785.000	736.600	
OXYGEN	P300	mg/L	11.917	0.622	12	12.136	0.388	11	11.218	0.389	11	10.675	0.256	12	13.200	10.100	
PCTSAT	P301	%	99.758	4.205	12	98.018	2.839	11	97.990	2.285	10	98.709	1.166	11	109.800	93.800	
FC	P31616	#/100ml	4.083	3.848	12	1.889	1.269	9	4.000	4.980	11	8.417	8.857	12	35.000	1.000K	
COD	P340	mg/L	6.000	2.530	6	6.750	2.500	4	6.000	1.826	4	6.800	2.490	5	11.000	4.000U	
PH	P400	units	7.560	0.331	10	7.470	0.455	10	7.311	0.220	9	7.400	0.307	11	8.400	6.700	
SUSSOL	P530	mg/L	4.833	4.448	12	2.545	1.368	11	1.818	0.874	11	2.150	1.995	12	16.000	1.000K	
FLOW	P60	CFS	836.917	508.894	12	944.545	398.139	11	752.455	290.208	11	348.417	56.703	12	1740.000	236.000	
T PNN	P600	mg/L	0.193	0.025	3	0.270	0.036	3	0.142	0.052	3	0.187	0.009	3	0.295	0.090	
NH3_N	P610	mg/L	0.010	0.000	12	0.010	0.002	11	0.010	0.001	11	0.013	0.009	11	0.040	0.005K	
NH2_D1S	P613	mg/L	0.009	0.003	9	0.010	0.000	8	0.010	0.000	8	0.009	0.003	9	0.010	0.002K	
NH2_N	P615	mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.010K	
NH3_UN	P619	mg/L	0.000	0.000	10	0.000	0.000	11	0.000	0.000	12	0.000	0.000	9	0.001	0.000	
NO3_N	P620	mg/L	0.200	0.071	2	0.093	0.038	3	0.113	0.015	3	0.147	0.052	3	0.250	0.050	
NO2_NO3	P630	mg/L	0.211	0.116	12	0.187	0.028	11	0.143	0.020	11	0.151	0.022	12	0.560	0.110	
TP_P	P665	mg/L	0.011	0.004	10	0.024	0.027	11	0.010	0.001	11	0.010	0.003	12	0.100	0.005J	
OP_DIS	P671	mg/L	0.010	0.001	12	0.010	0.001	11	0.010	0.000	11	0.010	0.001	12	0.013	0.005J	
COLOR	P80	Pt-Co	8.333	4.509	3	4.000	0.000	3	8.667	8.021	3	7.857	8.435	7	17.000	1.000	
TURB	PB2079	NTU	1.517	1.794	12	1.500	0.811	11	0.945	0.411	11	1.000	0.795	12	6.000	0.300	
COND	P95	umhos	55.500	17.723	12	51.727	15.963	11	35.818	7.692	11	66.833	5.340	12	96.000	38.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 08090      Name: SHIP CANAL @ FREEMONT

Location:

Class: LC   Elevation: 0   River Mile: 0.00

Water Years Sampled:

5 6  
9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6  
X 9  
8  
X

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			---JANUARY-MARCH---			---APRIL-JUNE---			---JULY-SEPTEMBER---			---SIX YEAR---		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	C	10.233	4.366	3	6.600	0.500	3	14.533	4.203	3	21.233	1.290	3	22.300	6.100	
PRESS	P25	mmHg	770.400	5.738	3	764.367	4.790	3	766.600	0.866	3	765.800	3.703	3	774.200	760.200	
OXYGEN	P300	mg/L	8.967	0.666	3	10.967	0.874	3	11.000	1.825	3	8.233	0.404	3	13.100	7.800	
PCTSAT	P301	%	78.153	2.714	3	88.767	7.275	3	105.433	8.034	3	91.233	6.673	3	114.500	75.000	
FC	P31616	#/100ml	24.333	6.658	3	25.000	4.359	3	33.667	46.231	3	16.667	14.189	3	87.000	4.000	
PH	P400	units	7.533	0.115	3	7.200	0.283	2	8.100	0.866	3	7.350	0.071	2	8.600	7.000	
SUSSOL	P530	mg/L	1.667	0.577	3	2.667	0.577	3	3.000	1.000	3	1.000	0.000	3	4.000	1.000K	
TPN	P600	mg/L	0.267	0.041	3	0.333	0.037	3	0.120	0.095	3	0.181	0.033	3	0.367	0.017	
NH3_N	P610	mg/L	0.033	0.012	3	0.013	0.003	3	0.010	0.000	3	0.014	0.007	3	0.041	0.010K	
NO2_NO3	P630	mg/L	0.066	0.073	3	0.181	0.014	3	0.020	0.017	3	0.010	0.000	3	0.191	0.010K	
TP_P	P665	mg/L	0.013	0.002	3	0.013	0.004	3	0.011	0.001	3	0.023	0.021	3	0.047	0.010K	
OP_DIS	P671	mg/L	0.010	0.000	3	0.011	0.001	3	0.010	0.000	3	0.010	0.000	3	0.012	0.010K	
TURB	P82079	NTU	1.333	0.929	3	0.900	0.265	3	1.200	0.200	3	0.533	0.058	3	2.400	0.500	
COND	P95	umhos	128.000	30.050	3	97.333	2.517	3	95.333	8.083	3	141.333	52.291	3	199.000	86.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY - SIX YEAR AVERAGE

Station Number: 08A080 Name: GREEN R A TIKWILL

Class: A Elevation: 6 River Miles: 12-40

**Location:** LOCATED AT THE INTERSECTION ON INTERURAN AVENUE AT 1-405 AND SOUTHCENTER BLVD

Water Years Sampled:  
 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6  
 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6

VARIABLE	P-CODE	UNITS	OCTOBER-DECEMBER			JANUARY-MARCH			APRIL-JUNE			JULY-SEPTEMBER			SIX YEAR			
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN		
TEMP	P10	°C	7.990	3.028	10	5.642	1.885	12	12.842	2.365	12	17.283	2.428	12	20.800	2.200		
ZN	P1094	ug/L	6.500	0.707	2	9.333	10.116	3	8.333	4.509	3	4.000	0.000	2	21.000	3.000V		
CD	P1113	ug/L	0.120	0.028	2	0.107	0.012	3	0.100	0.000	3	0.100	0.000	2	0.140	0.100K		
PB	P1114	ug/L	1.000	0.000	2	2.200	1.908	3	1.100	0.173	3	1.000	0.000	2	4.400	1.000K		
CR	P1118	ug/L	0.980	0.028	2	4.440	6.898	3	0.490	0.096	3	0.425	0.177	2	12.400	0.200K		
CU	P1119	ug/L	2.500	0.707	2	9.633	6.615	3	3.533	0.924	3	3.000	0.000	2	17.000	2.000V		
PRESS	P25	mmHg	765.370	6.106	10	764.600	7.606	12	766.925	4.286	12	764.800	3.566	11	774.700	752.900		
OXYGEN	P300	mg/L	11.150	1.308	10	11.833	0.510	12	9.675	0.529	12	8.850	0.935	12	13.200	7.500		
PCITSAT	P301	%	92.580	5.581	10	93.317	2.392	12	90.092	4.646	12	90.683	8.172	12	111.200	81.000		
FC	P31616	#/100ml	166.600	159.520	10	228.083	271.202	12	52.000	35.609	12	232.833	311.104	12	1200.000	3.000		
PH	P400	units		7.380	0.187	10	7.264	0.266	11	7.333	0.215	12	7.318	0.204	11	7.800	6.800	
SUSSOL	P530	mg/L		26.200	31.033	10	42.167	90.079	12	12.167	5.441	12	13.750	6.757	12	326.000	3.000	
FLOW	P60	CFS	1236.333	1048.246	9	1525.444	799.637	9	904.333	376.137	9	389.556	243.857	9	3420.000	220.000		
TPN	P600	mg/L	0.536	0.102	3	0.696	0.177	3	0.379	0.105	3	0.448	0.040	3	0.811	0.260		
NH3_N	P610	mg/L	0.040	0.031	10	0.033	0.013	12	0.023	0.013	12	0.030	0.013	11	0.120	0.010K		
NO2_DIS	P613	mg/L	0.010	0.000	7	0.010	0.001	9	0.010	0.000	9	0.010	0.000	9	0.014	0.010K		
NO2_N03	P630	mg/L	0.368	0.092	10	0.461	0.115	12	0.344	0.098	12	0.301	0.063	11	0.621	0.176		
TP_P	P665	mg/L	0.048	0.034	10	0.045	0.023	12	0.032	0.012	12	0.050	0.015	11	0.135	0.014		
OP_DIS	P671	mg/L	0.014	0.004	10	0.018	0.008	12	0.015	0.005	12	0.019	0.005	12	0.031	0.005K		
HG	P71900	ug/L	0.045	0.007	2	0.040	0.000	2	0.093	0.092	3	0.000	0.000	0	0.200	0.040K		
TURB	P82079	NTU	6.550	6.522	10	12.492	26.089	12	2.717	1.283	12	3.342	0.973	12	94.500	1.400		
HARD	P900	mg/L	33.500	16.263	2	22.667	6.658	3	32.667	3.215	3	55.667	5.508	3	62.000	15.000		
COND	P95	umhos	79.100	25.714	10	72.250	19.531	12	98.500	23.655	12	136.583	22.948	12	162.000	38.000		

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with  $1/2$  the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 09A130		Name: GREEN ABV BIG SOOS/AUBURN		Class: A		Elevation: 75		River Mile: 33.90													
Location: LOCATED .1 MILE UPSTREAM FROM BIG SOOS CREEK AT THE BRIDGE ON THE AUBURN-BLACK DIAMOND ROAD (SOUTHEAST 336TH STREET), 1.8 MILES EAST OF AUBURN				Water Years Sampled:																	
VARIABLE	P-CODE	UNITS	--OCTOBER-DECEMBER--	MEAN	STD. DEV.	N	--JANUARY-MARCH--	MEAN	STD. DEV.	N	--APRIL-JUNE--	MEAN	STD. DEV.	N	--JULY-SEPTEMBER--	MEAN	STD. DEV.	N	--SIX YEAR--	MAX	MIN
TEMP	P10	C	7.500	3.045	3	5.233	0.551	3	12.867	1.762	3	17.467	1.650	3	19.100	4.700					
PRESS	P25	mmHg	767.933	5.645	3	762.700	5.565	3	762.167	1.405	3	762.100	2.987	3	772.700	758.700					
OXYGEN	P300	mg/L	12.200	0.755	3	12.467	0.231	3	11.267	0.416	3	10.167	0.306	3	13.000	9.900					
PCTSAT	P301	%	100.167	1.686	3	97.667	1.290	3	105.667	2.108	3	105.033	1.021	3	108.100	96.600					
FC	P31616	#/100ml	8.333	2.517	3	63.333	84.878	3	15.000	13.115	3	16.000	5.568	3	160.000	1.000K					
PH	P400	units	7.600	0.100	3	7.800	0.141	2	7.867	0.058	3	7.750	0.071	2	7.900	7.500					
SUSSOL	P530	mg/L	1.667	0.577	3	6.667	2.517	3	3.667	0.577	3	3.000	1.732	3	9.000	1.000					
FLOW	P60	CFS	539.333	169.898	3	1683.333	455.009	3	939.333	354.798	3	280.667	36.226	3	2140.000	247.000					
TPN	P600	mg/L	0.353	0.133	3	0.591	0.226	3	0.232	0.062	3	0.295	0.040	3	0.831	0.164					
NH3_N	P610	mg/L	0.010	0.001	3	0.017	0.008	3	0.012	0.003	3	0.010	0.000	3	0.026	0.010K					
NO2_NO3	P630	mg/L	0.281	0.148	3	0.442	0.165	3	0.238	0.108	3	0.225	0.040	3	0.629	0.127					
TP_P	P665	mg/L	0.012	0.003	3	0.024	0.019	3	0.011	0.001	3	0.010	0.001	3	0.045	0.010K					
OP_DIS	P671	mg/L	0.010	0.000	3	0.016	0.010	3	0.010	0.000	2	0.010	0.000	3	0.027	0.010K					
TURB	P82079	NTU	0.900	0.173	3	3.000	1.389	3	1.233	0.252	3	0.833	0.153	3	3.900	0.700					
COND	P95	umhos	67.000	4.243	2	59.333	9.292	3	58.000	12.767	3	79.000	2.000	3	81.000	47.000					

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## | QUARTERLY DATA SUMMARY - SIX YEAR AVERAGE |

Station Number: 09A190 Name: GREEN R @ KANASKAT

Location:  
LOCATED AT THE CUMBERLAND-PALMER ROAD BRIDGE AT KANASKAT, 1.1 MILES  
ABOVE THE FISH HATCHERY AND 4.5 MILES BELOW THE GAGE NEAR BEAR CREEK

VARIABLE	P-CODE	UNITS	--OCTOBER-DECEMBER--			--JANUARY-MARCH--			--APRIL-JUNE--			--JULY-SEPTEMBER--			--SIX YEAR--		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	C	7.350	2.720	18	4.383	1.631	18	9.256	1.791	18	14.189	1.082	18	16.100	1.700	
PRESS	P25	mmHg	746.772	10.738	18	743.406	5.517	18	744.144	8.302	18	744.076	4.040	17	785.000	731.500	
OXYGEN	P300	mg/L	11.817	1.016	18	12.561	0.636	18	11.233	0.606	18	9.933	0.287	18	13.600	9.300	
PCTSAT	P301	%	99.289	4.299	18	98.678	3.570	18	99.182	3.396	17	98.112	1.528	17	110.200	91.300	
FC	P31616	#/100ml	19.278	30.304	18	3.125	3.096	16	10.556	20.774	18	19.833	27.307	18	130.000	1.000K	
PH	P400	units	7.438	0.562	16	7.553	0.508	17	7.353	0.402	17	7.224	0.361	17	8.500	6.300	
SUSSOL	P530	mg/L	11.611	23.625	18	2.833	1.790	18	2.500	1.886	18	2.233	1.124	18	100.000	1.000K	
FLOW	P60	cfs	1509.944	1675.966	18	1016.778	559.480	18	1041.222	745.861	18	178.667	66.199	18	6100.000	124.000	
TPN	P600	mg/L	0.187	0.105	3	0.258	0.037	3	0.099	0.037	3	0.258	0.029	3	0.522	0.057	
NH3_N	P610	mg/L	0.011	0.003	18	0.011	0.004	18	0.012	0.002	18	0.017	0.010	17	0.050	0.006	
NO2_DIS	P613	mg/L	0.009	0.002	15	0.010	0.000	14	0.010	0.000	15	0.009	0.002	15	0.010	0.002K	
NO2_N	P615	mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.010K	
NH3_UN	P619	mg/L	0.000	0.000	9	0.000	0.000	11	0.000	0.000	12	0.000	0.000	9	0.001	0.000	
NO3_N	P620	mg/L	0.165	0.064	2	0.073	0.065	3	0.047	0.012	3	0.037	0.012	3	0.210	0.010K	
NO2_NO3	P630	mg/L	0.160	0.081	18	0.163	0.044	18	0.064	0.033	18	0.056	0.013	17	0.296	0.026	
TP_P	P665	mg/L	0.017	0.007	16	0.020	0.022	17	0.013	0.004	18	0.010	0.001	17	0.100	0.009J	
OP_DIS	P671	mg/L	0.011	0.005	18	0.010	0.002	17	0.010	0.000	18	0.010	0.002	18	0.030	0.003J	
COLOR	P80	Pt-Co	9.667	2.887	3	6.667	2.309	3	15.667	4.619	3	12.143	8.611	7	29.000	1.000	
TURB	P82079	NTU	3.522	6.032	18	1.589	0.942	18	1.650	1.677	18	1.594	2.392	18	26.000	0.200	
COND	P95	umhos	52.778	24.551	18	42.000	5.931	18	42.000	7.428	18	59.889	14.668	18	140.000	30.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 09B090 Name: BIG SOOS CR NR AUBURN		Class: A Elevation: 75 River Mile: 1.60		Water Years Sampled: 5 6 7 8 9 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6							
Location: LOCATED AT THE PRIVATE ROAD (312TH PLACE) BRIDGE, .9 MILES UPSTREAM OF THE STATE FISH HATCHERY				X X X X X X							
VARIABLE	P-CODE UNITS	---OCTOBER-DECEMBER---		---JANUARY-MARCH---		---APRIL-JUNE---		---JULY-SEPTEMBER---		---SIX YEAR---	
		MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX
TEMP	P10 C	7.167	2.750	3	6.033	0.416	3	13.700	1.500	3	16.667
PRESS	P25 mmHg	768.700	6.001	3	762.667	5.670	3	761.567	1.692	3	761.467
OXYGEN	P300 mg/L	11.933	0.839	3	12.033	0.252	3	10.600	0.265	3	10.833
PCTSAT	P301 %	97.100	2.227	3	96.200	1.706	3	101.367	1.922	3	110.300
FC	P31616 #/100ml	16.000	6.557	3	77.667	114.605	3	35.667	26.633	3	81.333
PH	P400 units	7.700	0.173	3	7.950	0.212	2	7.867	0.231	3	7.950
SUSSOL	P550 mg/L	3.000	1.000	3	7.000	4.359	3	3.667	0.577	3	3.000
FLOW	P60 CFS	40.353	15.695	3	147.667	60.880	3	72.333	33.292	3	24.667
TPN	P600 mg/L	1.076	0.132	3	1.477	0.188	3	1.220	0.257	3	1.054
NH3_N	P610 mg/L	0.012	0.002	3	0.015	0.006	3	0.011	0.001	3	0.010
NO2_NO3	P630 mg/L	0.982	0.176	3	1.243	0.112	3	1.060	0.053	3	0.947
TP_P	P665 mg/L	0.025	0.005	3	0.022	0.006	3	0.015	0.001	3	0.020
OP_DIS	P671 mg/L	0.019	0.001	3	0.014	0.004	3	0.011	0.001	2	0.015
TURB	P82079 NTU	1.033	0.321	3	2.800	1.836	3	1.433	0.289	3	0.933
COND	P95 umhos	122.000	2.828	2	118.000	9.165	3	120.333	12.423	3	129.000

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 09C070		Name: DES MOINES CR NR MOUTH		Class: A		Elevation: 15		River Mile: 0.10								
Location: LOCATED AT THE BRIDGE IN COVENANT BEACH BIBLE CAMP IN DES MOINES				Water Years Sampled:												
				5 6		7		8								
		9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6		X		X		X								
VARIABLE		P-CODE UNITS		---OCTOBER-DECEMBER---		---JANUARY-MARCH---		---APRIL-JUNE---								
		MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.							
TEMP	P10	C	8.033	2.403	3	7.067	0.208	3	13.333	1.350	3	16.067	0.635	3	16.800	5.700
PRESS	P25	mmHg	770.200	5.069	3	764.933	5.343	3	764.533	1.550	3	764.533	3.101	3	774.200	761.000
OXYGEN	P300	mg/L	11.467	0.666	3	11.900	0.400	3	10.533	0.945	3	9.733	0.306	3	12.300	9.400
PCTSAT	P301	%	95.133	0.764	3	97.367	3.842	3	99.433	6.306	3	97.533	1.626	3	106.700	94.100
FC	P31616	#/100ml	36.333	21.362	3	51.000	51.971	3	60.333	39.501	3	254.667	215.836	3	480.000	12.000
PH	P400	units	7.933	0.115	3	8.100	0.141	2	8.100	0.436	3	7.950	0.071	2	8.400	7.600
SUSSOL	P530	mg/L	2.000	1.000	3	3.667	1.528	3	2.000	0.090	3	3.333	4.041	3	8.000	1.000K
TPN	P600	mg/L	1.068	0.166	3	1.230	0.128	3	0.797	0.019	3	0.991	0.208	3	1.370	0.777
NH3_N	P610	mg/L	0.031	0.036	3	0.028	0.016	3	0.012	0.003	3	0.010	0.000	3	0.073	0.010K
NO2_NO3	P630	mg/L	0.860	0.085	3	0.912	0.084	3	0.710	0.074	3	0.886	0.187	3	1.100	0.626
TP_P	P665	mg/L	0.047	0.004	3	0.036	0.005	3	0.042	0.017	3	0.066	0.025	3	0.084	0.030
OP_D1S	P671	mg/L	0.059	0.008	3	0.025	0.012	3	0.044	0.028	3	0.064	0.003	3	0.066	0.012
TURB	P82079	NTU	0.900	0.346	3	2.467	1.305	3	1.267	0.306	3	1.167	0.723	3	3.700	0.700
COND	P95	umhos	206.000	12.728	2	185.667	31.182	3	203.333	11.930	3	232.000	6.928	3	236.000	162.000

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## **QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE**

Station Number: 08E070 Name: MII CREEK A OR 11 A

**Class:** A    **Elevation:** 12    **River Miles:** 3-14

**Location:** LOCATED AT THE RAILROAD TRESTLE ON THE SOUTHEAST CORNER OF ORILLIA NEAR SOUTH 183RD STREET AND NEAR THE CONFLUENCE WITH SPRING BROOK CREEK

Water Years Sampled: 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 X X X X X

VARIABLE	P-CODE	UNITS	--OCTOBER-DECEMBER--			--JANUARY-MARCH--			--APRIL-JUNE--			--JULY-SEPTEMBER--			--SIX YEAR--	
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN
TEMP	P10	C	8.511	3.111	9	7.378	1.719	9	15.133	2.367	9	17.533	2.531	6	20.200	4.300
ZN	P1094	ug/L	109.333	17.500	6	108.667	26.800	6	189.667	207.009	6	47.000	5.568	3	607.000	41.000
CD	P1113	ug/L	0.860	0.595	6	0.853	0.409	6	1.136	0.508	5	0.550	0.106	3	2.000	0.200
PB	P1114	ug/L	4.900	3.022	5	4.833	4.164	6	12.633	21.851	6	3.267	1.124	3	56.500	1.000
CR	P1118	ug/L	2.453	1.734	6	2.052	0.622	6	3.018	1.742	5	1.660	0.359	3	5.840	0.980
CU	P1119	ug/L	7.683	4.334	6	9.017	5.041	6	14.433	17.712	6	4.867	1.501	3	46.500	2.000
PRSS	P25	mmHg	765.667	10.431	9	768.967	6.697	9	763.889	3.294	9	765.217	3.808	6	777.200	744.000
DXYGEN	P300	mg/L	5.425	1.135	8	6.700	1.589	9	3.356	0.921	9	2.433	0.809	6	8.500	1.500
PCTSAT	P301	%	45.400	7.051	8	54.644	12.051	9	31.850	8.545	8	23.220	7.517	5	70.000	15.700
FC	P31616	#/100ml	556.889	1148.008	9	159.000	175.791	9	495.889	907.236	9	364.667	327.570	6	3600.000	17.000
COD	P340	mg/L	33.200	23.414	5	26.400	2.702	5	43.750	29.182	4	24.000	5.657	2	87.000	20.000
PH	P400	units	7.171	0.263	7	7.063	0.200	8	7.043	0.098	7	7.080	0.084	5	7.700	6.800
SUSSOL	P530	mg/L	19.750	15.276	8	12.889	7.390	9	16.125	18.879	8	6.833	4.309	6	62.000	2.000
FFLOW	P60	CFS	23.850	37.429	6	23.571	16.810	7	7.313	6.944	8	2.000	1.192	6	100.000	1.100
TPN	P600	mg/L	1.350	0.141	3	1.111	0.303	3	1.185	0.401	3	0.780	0.032	3	1.630	0.749
NH3_N	P610	mg/L	0.332	0.206	8	0.357	0.180	9	0.603	0.376	7	0.361	0.398	6	1.100	0.029
NH2O2_DIS	P613	mg/L	0.028	0.013	6	0.012	0.004	6	0.032	0.024	6	0.060	0.014	2	0.080	0.010
NH2O2_N	P615	mg/L	0.013	0.006	3	0.027	0.006	3	0.023	0.006	3	0.030	0.010	3	0.020	0.010
NH3_UN	P619	mg/L	0.001	0.001	11	0.001	0.001	12	0.003	0.001	12	0.006	0.006	8	0.019	0.000
NO3_N	P620	mg/L	0.923	0.306	3	0.733	0.060	3	0.757	0.064	3	0.617	0.042	3	1.100	0.570
NO2_N03	P630	mg/L	0.495	0.132	9	0.470	0.085	9	0.407	0.312	9	0.370	0.131	6	1.000	0.070
TP_P	P665	mg/L	0.180	0.103	7	0.181	0.053	8	0.271	0.159	9	0.205	0.157	6	0.650	0.083
DP_DIS	P671	mg/L	0.073	0.031	9	0.053	0.023	9	0.041	0.009	9	0.038	0.026	6	0.130	0.018
HG	P71900	ug/L	0.100	0.042	6	0.042	0.020	6	0.068	0.042	5	0.060	0.000	2	0.170	0.020
COLOR	P80	Pt-Co	226.000	127.791	4	234.667	239.636	3	51.667	43.155	3	131.000	153.268	3	500.000	1.000
TURB	P82079	NTU	14.656	7.129	9	18.222	4.868	9	26.111	7.913	9	19.333	10.289	6	39.000	1.900
HARD	P900	mg/L	58.000	19.058	6	70.000	24.429	6	81.167	22.463	6	89.000	17.692	3	107.000	28.000
COND	P95	umhos	194.750	62.142	8	206.778	81.806	9	280.778	62.568	9	274.833	49.910	6	390.000	82.000

Summary statistics should be used with caution because variables may not be normally distributed.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 09H090		Name: BLACK R @ RENTON		Class: A		Elevation: 13		River Mile: 0.60				
Location:				Water Years Sampled:		7		8				
Metro access road (North?) to Renton treatment plant.				5 6 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6		9 X						
VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---		---JANUARY-MARCH---		---APRIL-JUNE---		---JULY-SEPTEMBER---		---SIX YEAR---	
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX
TEMP	P10	C	7.633	3.073	3	6.733	0.306	3	14.500	2.982	3	18.300
PRESS	P25	mmHg	770.633	5.558	3	764.933	4.989	3	765.900	0.656	3	765.433
OXYGEN	P300	mg/L	7.533	0.379	3	7.967	1.498	3	5.600	0.700	3	8.033
PCTSAT	P301	%	61.900	2.081	3	64.700	12.638	3	54.133	6.269	3	84.533
FC	P31616	#/100ml	356.667	166.533	3	253.333	85.049	3	166.667	77.675	3	590.000
PH	P400	units	7.367	0.058	3	7.050	0.071	2	7.100	0.100	3	7.150
SUSSOL	P530	mg/L	11.000	4.359	3	14.000	4.583	3	4.333	0.577	3	10.000
TPN	P600	mg/L	1.103	0.162	3	1.108	0.210	3	0.923	0.144	3	0.596
NH3_N	P610	mg/L	0.208	0.121	3	0.209	0.134	3	0.190	0.134	3	0.036
NO2_NO3	P630	mg/L	0.618	0.095	3	0.564	0.019	3	0.392	0.057	3	0.286
TP_P	P665	mg/L	0.115	0.031	3	0.113	0.032	3	0.160	0.019	3	0.088
OP_DIS	P671	mg/L	0.039	0.013	3	0.039	0.014	3	0.042	0.018	3	0.015
TURB	P82079	NTU	10.967	3.050	3	19.333	5.686	3	17.333	4.933	3	12.333
COND	P95	umhos	306.500	67.175	2	201.333	85.237	3	292.000	11.533	3	325.333

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## **QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE**

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## [QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE]

Station Number: 11A070		Name: NISQUALLY R @ NISQUALLY		Water Years Sampled:		Class: A		Elevation:		20 River Mile:		3.40					
Location: LOCATED AT THE BRIDGE ON OLD PACIFIC HIGHWAY, .4 MILES DOWNSTREAM FROM THE GAGE				5 6		7		8		9		9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6					
VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			---JANUARY-MARCH---			---APRIL-JUNE---			---JULY-SEPTEMBER---			---SIX YEAR---		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	C	7.817	2.853	18	6.122	1.395	18	10.806	2.080	18	14.600	0.897	18	16.400	2.700	
ZN	P1094	ug/L	10.444	13.020	9	4.667	1.118	9	4.556	1.130	9	5.375	3.701	8	43.000	2.000K	
CD	P1113	ug/L	0.221	0.107	7	0.167	0.050	9	0.139	0.049	9	0.143	0.053	7	0.450	0.100K	
PB	P1114	ug/L	2.329	3.385	7	1.125	0.219	8	1.156	0.467	9	1.029	0.076	7	10.000	1.000K	
CR	P1118	ug/L	0.525	0.218	6	0.558	0.348	9	0.664	0.515	9	0.726	0.580	7	1.900	0.200V	
CU	P1119	ug/L	3.583	1.636	6	3.267	1.105	9	3.622	1.654	9	3.771	0.706	7	6.500	2.000J	
PRESS	P25	mmHg	768.956	5.553	18	766.228	6.810	18	764.528	4.402	18	764.178	3.366	18	782.300	752.600	
OXYGEN	P300	mg/L	11.772	0.909	18	12.112	0.733	17	11.261	0.695	18	10.267	0.442	18	14.100	9.500	
PCTSAT	P301	%	97.183	4.791	18	96.794	4.499	17	100.082	3.582	17	99.641	4.107	17	111.100	88.500	
FC	P31616	#/100ml	86.765	238.891	17	63.778	150.965	18	20.500	31.350	18	19.222	12.226	18	1000.000	1.000K	
COD	P340	mg/L	8.000	2.757	6	10.333	4.885	6	9.000	2.345	5	10.750	10.996	4	27.000	4.000K	
PH	P400	units	7.511	0.351	18	7.428	0.337	18	7.567	0.291	18	7.694	0.238	17	8.300	6.700	
SUSSOL	P530	mg/L	40.889	71.850	18	24.944	46.911	18	8.611	7.293	18	17.700	23.859	18	312.000	2.000	
FLOW	P60	CFS	2160.556	999.556	18	2994.444	1123.405	18	2037.778	653.547	18	1067.500	254.479	18	5200.000	740.000	
TPN	P600	mg/L	0.307	0.161	3	0.455	0.051	3	0.308	0.070	3	0.351	0.259	3	0.644	0.153	
NH3_N	P610	mg/L	0.023	0.010	18	0.020	0.013	18	0.012	0.002	18	0.013	0.005	18	0.050	0.00K	
N02_DIS	P613	mg/L	0.010	0.002	15	0.010	0.000	15	0.010	0.000	15	0.010	0.002	15	0.010	0.003	
N02_N	P615	mg/L	0.010	0.000	2	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.010K	
NH3_UN	P619	mg/L	0.000	0.000	13	0.000	0.000	14	0.000	0.000	10	0.000	0.000	9	0.001	0.000	
N03_N	P620	mg/L	0.243	0.111	3	0.387	0.042	3	0.195	0.049	2	0.113	0.049	3	0.420	0.080	
N02_N03	P630	mg/L	0.264	0.128	18	0.412	0.080	18	0.212	0.065	18	0.144	0.041	18	0.570	0.085	
TP_P	P665	mg/L	0.077	0.101	18	0.050	0.043	18	0.018	0.007	18	0.030	0.024	18	0.410	0.010K	
OP_DIS	P671	mg/L	0.011	0.002	18	0.011	0.003	18	0.010	0.000	18	0.010	0.001	18	0.020	0.009	
HG	P71900	ug/L	0.066	0.029	9	0.042	0.019	9	0.054	0.032	7	0.039	0.022	6	0.120	0.001K	
COLOR	P80	Pt-60	51.667	16.743	3	71.333	54.976	3	18.000	8.888	3	124.667	84.056	3	200.000	8.000	
TURB	P82079	NTU	40.389	82.769	18	11.594	15.795	18	2.839	1.945	18	12.278	15.464	18	325.000	1.100	
HARD	P900	mg/L	26.889	5.110	9	24.111	3.723	9	24.889	5.061	9	26.333	1.871	9	39.000	20.000	
COND	P95	umhos	64.500	7.374	18	63.778	7.788	18	62.278	5.062	18	67.833	6.233	18	84.000	48.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 14A050		Name: GOLDSBOROUGH CR @ SHELTON		Class: A		Elevation: 10		River Mile: 0.30									
Location: 1ST STREET BRIDGE IN SHELTON				Water Years Sampled:		5 6 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 X		8 9									
VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			---JANUARY-MARCH---			---APRIL-JUNE---			---JULY-SEPTEMBER---			---SIX YEAR---		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	C	7.400	2.095	3	6.967	0.874	3	10.600	1.637	3	13.167	0.586	3	13.600	5.100	
PRESS	P25	mmHg	770.633	11.741	3	762.333	3.347	3	765.533	7.514	3	767.067	2.003	3	779.800	756.900	
OXYGEN	P300	mg/L	11.033	0.839	3	11.133	0.416	3	9.833	0.416	3	9.100	0.100	3	12.000	9.000	
PCTSAT	P301	%	90.100	1.852	3	91.100	1.562	3	87.300	1.300	3	85.467	0.551	3	92.900	85.100	
FC	P31616	#/100ml	125.333	161.432	3	8.000	5.568	3	37.000	25.515	3	40.000	11.790	3	310.000	3.000	
PH	P400	units	7.167	0.252	3	7.367	0.115	3	7.533	0.321	3	7.333	0.208	3	7.900	6.900	
SUSSOL	P530	mg/L	3.667	2.082	3	5.667	2.082	3	3.667	2.887	3	2.000	0.000	3	8.000	2.000	
FLOW	P60	CFS	61.333	32.808	3	188.000	106.452	3	56.000	19.975	3	25.667	2.517	3	310.000	23.000	
TPN	P600	mg/L	0.394	0.096	3	0.414	0.062	3	0.184	0.008	3	0.174	0.006	2	0.483	0.170	
NH3_N	P610	mg/L	0.015	0.001	3	0.014	0.006	3	0.016	0.006	3	0.017	0.009	2	0.023	0.010K	
NO2_NO3	P630	mg/L	0.174	0.113	3	0.224	0.061	3	0.078	0.003	3	0.082	0.021	3	0.302	0.059	
TP_P	P665	mg/L	0.029	0.008	3	0.017	0.006	3	0.019	0.010	3	0.035	0.008	2	0.040	0.010K	
OP_DIS	P671	mg/L	0.013	0.003	3	0.010	0.000	3	0.011	0.001	3	0.016	0.003	3	0.019	0.010K	
TURB	P82079	NTU	2.800	2.081	3	2.033	0.231	3	1.533	0.493	3	1.333	0.416	3	5.200	1.000	
COND	P95	umhos	115.333	36.474	3	84.000	8.660	3	131.000	24.880	3	175.667	18.009	3	188.000	74.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 16A070		Name: SKOKOMISH R NR POTLATCH		Class: AA		Elevation: 60		River Mile: 5.30					
LOCATED AT HIGHWAY 101 BRIDGE ON THE SKOKOMISH RIVER APPROXIMATELY EIGHT MILES NORTH OF SHELTON				Water Years Sampled:									
				5 6 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6				9					
VARIABLE	P-CODE UNITS	---OCTOBER-DECEMBER---			---JANUARY-MARCH---			---APRIL-JUNE---					
		MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.				
TEMP	P10 C	7.267	1.209	18	6.172	1.102	18	9.606	1.533				
PRESS	P25 mmHg	768.656	8.057	18	767.489	6.126	18	764.700	5.474				
OXYGEN	P300 mg/L	11.471	0.788	17	11.900	0.447	17	10.872	0.497				
PCTSAT	P301 %	93.535	5.735	17	94.941	2.393	17	94.541	3.000				
FC	P31616 #/100ml	17.882	27.048	17	4.222	3.949	18	24.333	28.403				
PH	P400 units	7.317	0.449	18	7.122	0.467	18	7.333	0.404				
SUSSOL	P530 mg/L	25.500	44.626	18	19.000	32.267	18	11.556	20.988				
FLOW	P60 CFS	1731.389	2223.103	18	2118.556	2471.748	18	787.000	661.432				
TPN	P600 mg/L	0.210	0.046	3	0.145	0.045	3	0.083	0.014				
NH3_N	P610 mg/L	0.014	0.006	18	0.014	0.006	18	0.012	0.003				
N02_DIS	P613 mg/L	0.010	0.000	14	0.010	0.000	15	0.010	0.002				
N02_N	P615 mg/L	0.010	0.000	2	0.010	0.000	3	0.010	0.000				
NH3_UN	P619 mg/L	0.000	0.000	13	0.000	0.001	13	0.000	0.000				
N03_N	P620 mg/L	0.130	0.072	3	0.073	0.025	3	0.040	0.000				
N02_N03	P630 mg/L	0.136	0.034	18	0.104	0.023	18	0.056	0.014				
TP_P	P665 mg/L	0.031	0.032	18	0.029	0.028	18	0.012	0.004				
OP_DIS	P671 mg/L	0.010	0.002	17	0.010	0.000	18	0.010	0.000				
COLOR	P80 Pt-Co	15.333	12.662	3	5.333	2.309	3	12.500	12.021				
TURB	P82079 NTU	9.139	14.947	18	9.918	14.105	17	3.439	7.553				
COND	P95 umhos	62.778	8.092	18	57.389	9.082	18	66.556	10.141				

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## [QUARTERLY DATA SUMMARY-SIX YEAR AVERAGE]

Station Number: 16B110		Name: HAMMA HAMMA R NR ELDON		Class: AA		Elevation: 650		River Mile: 6.20															
Location:		Water Years Sampled:																					
STATION LOCATED APPROX 5 MILES UPSTREAM FROM HOOD CANAL ON THE HAMMA HAMMA RIVER NEAR THE HAMMA HAMMA RIVER GUARD STATION																							
5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 X X X X																							
VARIABLE	P-CODE UNITS	--OCTOBER-DECEMBER--	MEAN	STD. DEV.	N	--JANUARY-MARCH--	MEAN	STD. DEV.	N	--APRIL-JUNE--	MEAN	STD. DEV.	N	--JULY-SEPTEMBER--	MEAN	STD. DEV.	N	--SIX YEAR--	MAX	MIN			
TEMP	P10 C	7.200	1.418	3	4.967	0.569	3	7.333	1.818	3	9.833	0.404	3	10.300	4.500								
PRESS	P25 mmHg	755.500	12.731	3	746.567	3.675	3	749.500	6.773	3	750.733	1.102	3	765.600	741.200								
OXYGEN	P300 mg/L	11.933	0.551	3	12.500	0.100	3	11.767	0.252	3	11.133	0.643	3	12.600	10.400								
PCTSAT	P301 %	99.033	1.258	3	99.367	2.401	3	98.833	1.701	3	99.067	5.008	3	102.900	93.400								
FC	P31616 #/100ml	2.333	1.528	3	1.000	0.000	3	1.333	0.577	3	1.333	0.577	3	4.000	1.000K								
PH	P400 units	7.400	0.173	3	7.267	0.153	3	7.633	0.208	3	7.300	0.265	3	7.800	7.000								
SUSSOL	P530 mg/L	1.000	0.000	3	6.000	7.810	3	1.000	0.000	3	1.000	0.000	3	15.000	1.000K								
TPN	P600 mg/L	0.150	0.027	3	0.100	0.042	3	0.074	0.013	3	0.078	0.001	2	0.167	0.061								
NH3_N	P610 mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.000	2	0.010	0.010K								
NO2_NO3	P630 mg/L	0.126	0.028	3	0.075	0.027	3	0.041	0.012	3	0.060	0.016	3	0.144	0.032								
TP_P	P665 mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.016	0.008	2	0.022	0.010K								
OP_DIS	P671 mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.010K								
TURB	P82279 NTU	0.600	0.100	3	2.567	3.493	3	0.500	0.000	3	0.500	0.000	3	6.600	0.500K								
COND	P95 umhos	65.667	11.015	3	59.000	6.245	3	59.667	5.508	3	67.000	7.550	3	74.000	52.000								

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 16C090		Name: DUCKABUSH R NR BRINNON		Class: AA		Elevation: 300		River Mile: 4.50		Water Years Sampled:	
Location:		LOCATED AT THE GS RECORDER IN THE SOUTHWEST QUARTER OF SECTION ONE` IN TOWNSHIP 25 NORTH, RANGE THREE WEST, 4.5 MILES UPSTREAM FROM THE MOUTH OF THE DUCKABUSH RIVER AND FIVE MILES WEST OF BRINNON, JEFFERSON COUNTY		5 6		7		8		9	
VARIABLE	P-CODE	UNITS	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N
TEMP	P10	°C	5.933	1.750	3	4.600	0.781	3	7.433	2.139	3
PRESS	P25	mmHg	763.200	12.205	3	754.500	2.352	3	757.100	6.755	3
OXYGEN	P300	mg/L	12.500	0.400	3	12.733	0.058	3	11.900	0.400	3
PCTSAT	P301	%	99.567	1.756	3	99.233	2.026	3	99.100	1.127	3
FC	P31616	#/100ml	4.667	5.508	3	1.000	0.000	3	2.000	1.732	3
PH	P400	units	7.333	0.451	3	7.200	0.100	3	7.533	0.208	3
SUSSOL	P530	mg/L	1.333	0.577	3	7.333	10.116	3	1.333	0.577	3
FLOW	P60	CFS	162.000	94.726	3	456.333	213.823	3	340.667	42.158	3
TPN	P600	mg/L	0.105	0.031	3	0.072	0.041	3	0.038	0.017	3
NH3_N	P610	mg/L	0.010	0.000	3	0.010	0.001	3	0.010	0.000	3
NO2_NO3	P630	mg/L	0.066	0.031	3	0.042	0.025	3	0.015	0.009	3
TP_P	P665	mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	2
OP_DIS	P671	mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3
TURB	P82079	NTU	0.733	0.252	3	3.633	5.254	3	0.767	0.115	3
COND	P95	umhos	76.000	13.000	3	63.667	11.846	3	66.000	7.211	3
									77.333	12.662	3
									89.000	50.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

**Summary statistics** should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 16E070		Name: FINCH CR @ HOODSPORT		Class: A		Elevation: 20		River Mile: 0.10									
Location: Highway 101 in Hoodsport.		Across from Hoodsport salmon hatchery.		Water Years Sampled: 5 6 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 X		7 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 X		8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 X									
VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			---JANUARY-MARCH---			---APRIL-JUNE---			---JULY-SEPTEMBER---			---SIX YEAR---		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	C	7.633	0.814	3	6.967	0.666	3	8.900	0.964	3	10.800	0.529	3	11.400	6.400	
PRESS	P25	mmHg	770.567	12.701	3	762.267	2.948	3	765.133	7.160	3	767.100	1.997	3	780.300	756.200	
OXYGEN	P300	mg/L	11.733	0.462	3	11.967	0.153	3	11.600	0.173	3	11.533	0.289	3	12.100	11.200	
PCTSAT	P301	%	96.533	2.122	3	97.933	0.833	3	99.100	1.852	3	102.700	3.534	3	105.400	94.800	
FC	P31616	#/100ml	90.667	129.361	3	4.333	4.041	3	8.667	3.215	3	22.667	10.786	3	240.000	2.000	
PH	P400	units	7.533	0.153	3	7.600	0.265	3	7.800	0.100	3	7.600	0.300	3	7.900	7.300	
SUSSOL	P530	mg/L	2.667	0.577	3	1.333	0.577	3	1.000	0.000	3	1.000	0.000	3	3.000	1.000K	
TPN	P600	mg/L	0.276	0.051	3	0.212	0.071	3	0.108	0.020	3	0.151	0.021	2	0.335	0.088	
NH3_N	P610	mg/L	0.018	0.008	3	0.010	0.001	3	0.010	0.000	3	0.015	0.007	2	0.027	0.010K	
NO2_NO3	P630	mg/L	0.214	0.073	3	0.176	0.054	3	0.092	0.012	3	0.080	0.023	3	0.298	0.053	
TP_P	P665	mg/L	0.027	0.006	3	0.014	0.004	3	0.017	0.007	3	0.027	0.004	2	0.032	0.00K	
OP_DIS	P671	mg/L	0.021	0.004	3	0.014	0.001	3	0.016	0.002	3	0.021	0.006	3	0.027	0.013	
TURB	P82079	NTU	1.333	0.666	3	0.633	0.231	3	0.500	0.000	3	0.533	0.058	3	2.100	0.500K	
COND	P95	umhos	74.000	15.620	3	66.667	4.509	3	76.667	8.737	3	82.333	7.371	3	88.000	56.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 17A070 Name: BIG SHILFENE R NR SHILFENE

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**Location:** LOCATED AT THE BRIDGE ON HIGHWAY 101, 1.9 MILES SOUTHWEST OF QUILCENE

### **Location:**

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			---JANUARY-MARCH---			---APRIL-JUNE---			---JULY-SEPTEMBER---			----SIX YEAR----	
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN
TEMP	P10	C	6.267	2.113	3	5.900	0.436	3	9.200	2.343	3	13.567	1.159	3	14.800	4.900
PRESS	P25	mmHg	766.833	12.410	3	757.933	2.542	3	760.633	5.404	3	762.100	0.346	3	776.700	752.900
OXYGEN	P300	mg/L	12.400	0.436	3	12.333	0.153	3	11.500	0.361	3	10.433	0.208	3	12.700	10.200
PCTSAT	P301	%	99.100	1.308	3	98.933	0.153	3	99.433	1.943	3	99.433	0.635	3	101.100	97.300
FC	P31616	#/100ml	12.333	8.327	3	1.000	0.000	3	4.000	5.196	3	86.333	107.109	3	210.000	1.000K
PH	P400	units	7.633	0.058	3	7.600	0.173	3	7.867	0.153	3	7.667	0.115	3	8.000	7.500
SUSSOL	P530	mg/L	12.000	17.349	3	6.667	5.686	3	1.333	0.577	3	1.667	0.577	3	32.000	1.000K
FLOW	P60	CFS	131.000	84.929	3	258.667	101.036	3	135.667	49.602	3	41.000	18.358	3	317.000	28.000
TPN	P600	mg/L	0.225	0.115	3	0.172	0.103	3	0.062	0.002	3	0.084	0.001	2	0.357	0.061
NH3_N	P610	mg/L	0.019	0.008	3	0.010	0.000	3	0.010	0.000	3	0.014	0.005	2	0.024	0.010K
NO2_NO3	P630	mg/L	0.144	0.114	3	0.135	0.114	3	0.033	0.008	3	0.047	0.014	3	0.275	0.024
TP_P	P665	mg/L	0.011	0.002	3	0.010	0.000	3	0.010	0.001	3	0.011	0.001	2	0.014	0.010K
OP_DIS	P671	mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.010K
TURB	P82079	NTU	2.167	2.887	3	4.500	4.924	3	0.833	0.351	3	0.500	0.000	3	10.000	0.500K
COND	P95	umhos	132.000	44.306	3	85.000	10.536	3	94.333	19.604	3	130.000	31.097	3	161.000	74.000

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## | QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE |

Station Number: 178070		Name: CHIMACUM CR NR IRONDALE		Water Years Sampled:		Class: A		Elevation: 40		River Mile: 1.20		---SIX YEAR---				
Location: Chimacum Center Road.				5 6 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 X								MAX MIN				
VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			---JANUARY-MARCH---			---APRIL-JUNE---			---JULY-SEPTEMBER---				
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N		
TEMP	P10	C	6.067	2.732	3	7.233	1.823	3	13.400	3.365	3	15.067	1.904	3	16.900	3.800
PRESS	P25	mmHg	768.000	12.418	3	759.400	2.425	3	762.333	4.712	3	762.933	0.513	3	778.000	754.100
OXYGEN	P300	mg/L	10.800	0.200	3	10.600	0.300	3	9.600	1.058	3	9.200	0.500	3	11.000	8.700
PCTSAT	P301	%	85.933	6.901	3	87.733	5.140	3	90.767	3.647	3	90.367	1.401	3	94.900	79.100
FC	P31616	#/100ml	93.667	39.879	3	133.667	67.678	3	160.667	59.677	3	188.000	166.469	3	380.000	51.000
PH	P400	units	7.533	0.306	3	7.433	0.208	3	7.800	0.100	3	7.767	0.058	3	7.900	7.200
SUSSOL	P530	mg/L	4.000	1.000	3	11.667	2.887	3	3.667	0.577	3	2.667	0.577	3	15.000	2.000
FLOW	P60	CFS	19.333	17.898	3	40.000	31.241	3	10.300	4.355	3	6.800	1.000	3	76.000	5.800J
TPN	P600	mg/L	1.630	1.593	3	1.867	0.772	3	0.781	0.182	3	0.489	0.105	2	3.470	0.415J
NH3_N	P610	mg/L	0.063	0.069	3	0.052	0.016	3	0.019	0.004	3	0.029	0.008	2	0.142	0.016
NO2_NO3	P630	ng/L	0.970	1.110	3	0.929	0.478	3	0.301	0.034	3	0.183	0.036	3	2.250	0.151J
TP_P	P665	mg/L	0.094	0.009	3	0.084	0.018	3	0.119	0.019	3	0.116	0.021	2	0.134	0.063J
OP_DIS	P671	mg/L	0.056	0.010	3	0.045	0.004	3	0.083	0.025	3	0.076	0.021	3	0.102	0.041
TURB	P82079	NTU	3.067	0.643	3	5.267	1.419	3	3.700	0.917	3	3.700	0.700	3	6.800	2.600
COND	P95	umhos	223.000	12.530	3	216.333	16.258	3	232.333	42.548	3	247.000	14.177	3	276.000	191.000

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## **QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE**

Station Number: 17B100 Name: CHIMACIM CB @ CHIMACIM

**Class:** A    **Elevation:** 100    **River Mile:** 4-20

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**Location:**

#### Water Years Sampled:

Water Years Sampled: 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 X

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			---JANUARY-MARCH---			---APRIL-JUNE---			---JULY-SEPTEMBER---			---SIX YEAR-----	
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN
TEMP	P10	C	6.767	3.573	3	7.433	2.065	3	15.900	3.214	3	17.600	3.251	3	20.900	4.000
PRESS	P25	mmHg	767.000	12.205	3	758.000	1.970	3	761.133	3.675	3	761.567	0.902	3	777.000	753.400
OXYGEN	P300	mg/l	9.800	0.529	3	10.133	0.651	3	10.367	3.164	3	5.067	0.777	3	13.100	4.200
PCTSAT	P301	%	79.900	6.791	3	84.567	9.148	3	102.967	27.065	3	52.533	7.900	3	122.100	43.600
FC	P31616	#/100ml	1097.000	1252.608	3	546.667	568.008	3	236.667	45.092	3	927.333	1363.716	3	2500.000	72.000
PH	P400	units	7.467	0.252	3	7.333	0.306	3	7.900	0.265	3	7.200	0.000	3	8.100	7.000
SUSSOL	P530	mg/l	6.667	3.786	3	11.000	2.646	3	6.333	7.506	3	1.333	0.577	3	15.000	1.000
FLOW	P60	CFS	7.233	5.428	3	13.167	14.582	3	2.500	0.700	3	1.700	0.173	3	30.000	1.500J
TPN	P600	mg/l	1.697	1.615	3	1.870	0.546	3	0.603	0.249	3	0.370	0.162	2	3.560	0.255J
NH3_N	P610	mg/l	0.135	0.070	3	0.116	0.064	3	0.028	0.006	3	0.033	0.028	2	0.213	0.013J
NO2_N03	P630	mg/l	0.879	1.129	3	0.894	0.423	3	0.132	0.109	3	0.013	0.006	3	2.180	0.010K
TP_P	P665	mg/l	0.137	0.027	3	0.108	0.022	3	0.143	0.023	3	0.153	0.029	2	0.173	0.085
OP_DIS	P671	mg/l	0.086	0.022	3	0.061	0.013	3	0.099	0.028	3	0.108	0.030	3	0.137	0.049
TURB	P82079	NTU	3.833	0.208	3	7.700	2.862	3	2.633	0.551	3	0.933	0.208	3	11.000	0.700
COND	P95	umhos	210.000	19.698	3	198.000	22.113	3	201.000	26.851	3	201.667	14.572	3	232.000	172.000

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Name: DUNGENESS R NR SEQUIN Station Number: 18A070

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**Location:** LOCATED AT THE BRIDGE ON HIGHWAY 101, 2.3 MILES WEST OF SEQUIM

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			---JANUARY-MARCH---			---APRIL-JUNE---			---JULY-SEPTEMBER---			MAX	MIN
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N		
TEMP	P10	C	6.167	2.859	3	5.633	1.498	3	11.367	2.627	3	14.000	1.082	3	14.900	3.700
PRESS	P25	mmHg	762.333	12.125	3	753.433	1.332	3	756.667	4.234	3	757.000	1.039	3	772.700	749.000
OXYGEN	P300	mg/l	12.533	0.569	3	12.533	0.404	3	10.700	0.721	3	10.233	0.153	3	13.000	9.900
PCTSAT	P301	%	100.433	2.466	3	100.367	0.473	3	97.633	3.630	3	99.100	0.819	3	102.100	94.300
FC	P31616	#/100ml	1.000	0.000	3	20.333	31.770	3	1.000	0.000	3	3.333	3.215	3	57.000	1.000K
PH	P400	units	8.100	0.424	2	7.633	0.153	3	7.967	0.153	3	7.900	0.200	3	8.400	7.500
SUSSOL	P530	mg/l	1.667	0.577	3	3.667	2.082	3	2.333	0.577	3	1.667	0.577	3	6.000	1.000K
FLOW	P60	CFS	114.667	65.003	3	274.000	76.707	3	351.000	18.083	3	92.333	97.275	3	370.000	26.000
TPN	P600	mg/l	0.090	0.052	3	0.093	0.043	3	0.030	0.019	3	0.041	0.013	2	0.148	0.010
NH3_N	P610	mg/l	0.010	0.000	3	0.010	0.000	3	0.017	0.012	3	0.010	0.000	2	0.030	0.010K
NO2_N03	P630	mg/l	0.043	0.052	3	0.044	0.029	3	0.011	0.002	3	0.010	0.000	3	0.103	0.010K
TP_P	P665	mg/l	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.011	0.001	2	0.011	0.010K
OP_DIS	P671	mg/l	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.010K
TURB	P82079	NTU	1.567	1.012	3	2.267	1.201	3	1.800	0.200	3	0.867	0.635	3	3.500	0.400
COND	P95	umhos	129.333	23.180	3	124.667	17.214	3	100.667	5.508	3	121.000	33.422	3	154.000	84.000

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Name: EIWHA B NB PORT ANGELES  
Station Number: 18070

Class: AA Elevation: 220 River Mile: 8.10

Location: LOCATED AT BRIDGE ON HIGHWAY 101, 12 MILES WEST OF PORT ANGELES

#### Water Years Sampled:

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			---JANUARY-MARCH---			---APRIL-JUNE---			---JULY-SEPTEMBER---			---SIX YEAR---	
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN
TEMP	P10	C	6.700	3.005	3	4.233	0.681	3	8.533	1.986	3	13.200	0.557	3	13.700	3.700
PRESS	P25	mmHg	769.700	7.473	3	762.267	2.658	3	762.333	1.332	3	762.767	0.643	3	776.500	759.500
OXYGEN	P300	mg/L	12.333	0.503	3	12.833	0.058	3	11.533	0.379	3	10.500	0.000	3	12.300	10.500
PCTSAT	P301	%	99.167	2.684	3	98.067	1.767	3	98.000	2.900	3	99.200	1.153	3	102.200	95.100
FC	P31616	#/100ml	4.000	3.000	3	1.333	0.577	3	1.000	0.000	3	2.333	1.528	3	7.000	1.000K
PH	P400	units	7.567	0.231	3	7.900	0.200	3	7.967	0.208	3	7.633	0.115	3	8.200	7.300
SUSSOL	P530	mg/L	11.667	9.452	3	6.333	3.215	3	4.333	4.933	3	1.333	0.577	3	19.000	1.000K
FLOW	P60	CFS	576.000	347.173	3	1351.000	410.479	3	1293.333	83.865	3	483.333	236.612	3	1650.000	306.000
TPN	P600	mg/L	0.082	0.028	3	0.068	0.013	3	0.022	0.016	3	0.016	0.005	2	0.107	0.010K
NH3_N	P610	mg/L	0.012	0.003	3	0.010	0.001	3	0.010	0.000	3	0.010	0.000	2	0.016	0.010K
NO2_NO3	P630	mg/L	0.035	0.024	3	0.034	0.019	3	0.012	0.003	3	0.010	0.000	3	0.062	0.010K
TP_P	P665	mg/L	0.020	0.011	3	0.010	0.000	3	0.011	0.002	3	0.010	0.000	2	0.032	0.010K
OP_DIS	P671	mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.010K
TURB	P82079	NTU	14.667	12.342	3	6.133	2.316	3	4.533	4.738	3	0.733	0.208	3	25.000	0.500
COND	P95	umhos	92.333	22.502	3	95.333	4.509	3	78.667	2.082	3	89.667	17.898	3	110.000	67.000

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 20A090 Name: SOLEDUCK NR FORKS

**Location:** LOCATED ON THE SOLEDUCK RIVER AT IVERSON FROM THE MAXFIELD ROAD BRIDGE,  
4.6 MILES NORTH OF FORKS

Water Years Sampled:  
5 6  
9 0 1 2 3 4 5 6 7 8 9

**Class:** AA    **Elevation:** 360    **River Mile:** 23.40

VARIABLE	P-CODE	UNITS	--OCTOBER-DECEMBER--			--JANUARY-MARCH--			--APRIL-JUNE--			--JULY-SEPTEMBER--			----SIX YEAR----		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	C	5.933	2.098	3	5.733	0.802	3	10.500	2.955	3	12.933	0.681	3	13.700	4.300	
PRESS	P25	mmHg	764.867	8.515	3	759.467	2.050	3	752.367	12.529	3	759.533	1.557	3	771.900	737.900	
OXYGEN	P300	mg/L	12.533	0.115	3	12.233	0.153	3	11.167	0.643	3	10.633	0.404	3	12.600	10.200	
PCSAT	P301	%	99.600	3.396	3	97.467	1.002	3	100.467	2.021	3	100.300	4.349	3	103.500	95.300	
FC	P31616	#/100ml	34.000	28.355	3	8.000	3.464	3	10.333	10.408	3	18.667	1.9.655	3	56.000	2.000	
PH	P400	units	7.700	0.300	3	7.300	0.173	3	7.900	0.100	3	7.600	0.000	3	8.000	7.200	
SUSSOL	P530	mg/L	1.667	1.155	3	3.000	0.000	3	1.333	0.577	3	1.000	0.000	3	3.000	1.000K	
FLOW	P60	CFS	923.333	418.609	3	1700.000	117.898	3	675.000	197.547	3	196.667	66.583	3	1800.000	140.000	
TPN	P600	mg/L	0.401	0.104	3	0.289	0.106	3	0.113	0.023	3	0.128	0.005	2	0.520	0.091	
NH3_N	P610	mg/L	0.011	0.001	3	0.014	0.006	3	0.010	0.000	3	0.010	0.000	2	0.021	0.010K	
NO2_NO3	P630	mg/L	0.354	0.084	3	0.248	0.120	3	0.077	0.026	3	0.081	0.023	3	0.451	0.057	
TP_P	P665	mg/L	0.012	0.003	3	0.010	0.000	3	0.010	0.000	3	0.011	0.001	2	0.015	0.010K	
OP_DIS	P671	mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.010K	
TURB	P82079	NTU	1.233	0.709	3	1.400	0.100	3	0.533	0.058	3	0.367	0.231	3	2.000	0.100K	
COND	P95	umhos	68.667	6.351	3	70.000	4.000	3	78.000	7.810	3	90.667	10.408	3	99.000	65.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 21A070 Name: GHEETS B A GHEETS

卷之三

**Location:** LOCATED AT THE BRIDGE ON HIGHWAY 101 AT QUEETS

**Class:** AA    **Elevation:** 30    **River Miles:** 1-58

卷之三

Water Years Sampled: 5 6 7 8 9

**Class:** AA    **Elevation:** 30    **River Miles:** 1-50

卷之三

Water Years Sampled: 5 6 7 8 9

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			---JANUARY-MARCH---			---APRIL-JUNE---			---JULY-SEPTEMBER---			MAX	MIN
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N		
TEMP	P10	C	6.833	2.401	3	6.233	1.069	3	12.467	2.845	3	15.733	1.002	3	16.700	5.000
PRESS	P25	mmHg	771.000	7.158	3	765.967	1.405	3	765.900	1.311	3	764.567	1.662	3	776.000	762.800
OXYGEN	P300	mg/L	12.000	0.400	3	12.000	0.265	3	10.933	0.493	3	10.233	0.153	3	12.400	10.100
PCTSAT	P301	%	96.700	2.551	3	96.000	0.529	3	101.033	1.779	3	101.800	3.081	3	105.300	94.200
FC	P31616	#/100ml	38.667	29.535	3	5.000	2.646	3	5.333	1.528	3	29.000	19.313	3	69.000	3.000
PH	P400	units	7.500	0.265	3	7.200	0.200	3	7.667	0.115	3	7.500	0.100	3	7.800	7.000
SUSSOL	P530	mg/L	7.667	4.509	3	12.333	4.163	3	3.667	1.155	3	2.000	0.000	3	17.000	2.000
FLOW	P60	CFS	3036.667	1494.735	3	4630.000	1328.646	3	1616.667	285.715	3	691.667	173.702	3	5770.000	523.000
TPN	P600	mg/L	0.292	0.035	3	0.178	0.063	3	0.048	0.015	3	0.048	0.002	2	0.325	0.031
NH3_N	P610	mg/L	0.011	0.002	3	0.012	0.003	3	0.013	0.005	3	0.010	0.000	2	0.019	0.010K
NO2_NO3	P630	mg/L	0.238	0.004	3	0.124	0.043	3	0.018	0.014	3	0.011	0.001	3	0.241	0.010K
TP_P	P665	mg/L	0.014	0.005	3	0.014	0.004	3	0.010	0.000	3	0.012	0.002	2	0.020	0.010K
OP_DIS	P671	mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.010K
TURB	P82079	NTU	7.267	3.239	3	9.033	2.608	3	3.467	0.666	3	1.833	0.839	3	12.000	1.300
COND	P95	umhos	56.333	7.572	3	53.667	6.429	3	64.333	7.234	3	71.333	8.083	3	76.000	49.000

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY - SIX YEAR AVERAGE

Station Number: 21B090		Name: QUINVAULT R @ LAKE QUINVAULT		Class: AA		Elevation: 200		River Mile: 33.40	
Location: LOCATED AT THE BRIDGE ON HIGHWAY 101 OVER THE QUINVAULT RIVER AT AMANDA PARK, TWO MILES SOUTHWEST OF QUINVAULT				Water Years Sampled:		7		8	
VARIABLE	P-CODE	UNITS	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN
TEMP	P10	°C	10.067	3.465	3	6.467	0.416	3	11.867
PRESS	P25	mmHg	765.900	7.399	3	761.733	1.419	3	760.733
OXYGEN	P300	mg/L	10.233	0.379	3	11.300	0.700	3	11.433
PCTSAT	P301	%	89.933	10.141	3	91.467	6.264	3	105.033
FC	P31616	#/100ml	8.000	6.083	3	3.667	3.786	3	1.000
PH	P400	units	7.300	0.000	3	7.233	0.153	3	7.767
SUSSOL	P530	mg/L	5.333	5.132	3	2.333	0.577	3	1.667
FLOW	P60	CFS	2160.000	268.514	3	3280.000	1008.167	3	1840.000
TPN	P600	mg/L	0.098	0.032	3	0.149	0.017	3	0.041
NH3_N	P610	mg/L	0.014	0.006	3	0.013	0.005	3	0.010
NO2_NO3	P630	mg/L	0.055	0.054	3	0.098	0.031	3	0.017
TP_P	P665	mg/L	0.013	0.005	3	0.010	0.001	3	0.010
OP_DIS	P671	mg/L	0.010	0.000	3	0.010	0.000	3	0.010
TURB	P82079	NTU	3.433	4.053	3	3.767	0.321	3	0.900
COND	P95	umhos	58.333	8.963	3	57.667	3.786	3	57.000

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 22A070		Name: HUMPTULIPS R NR HUMPTULIPS		Class: A		Elevation: 145		River Mile: 23.60									
Location: LOCATED AT THE BRIDGE ON HIGHWAY 101, JUST SOUTH OF HUMPTULIPS				Water Years Sampled:													
VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			---JANUARY-MARCH---			---APRIL-JUNE---			---JULY-SEPTEMBER---			---SIX YEAR---		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	C	7.322	1.847	18	6.511	1.430	18	12.250	2.773	18	15.383	2.481	18	21.00	4.000	
PRESS	P25	mmHg	764.694	6.660	18	762.744	5.720	18	761.000	4.424	18	762.000	5.040	18	774.200	749.600	
OXYGEN	P300	mg/L	12.065	0.713	17	12.235	0.506	17	11.006	0.755	18	10.356	0.528	18	13.60	9.400	
PCTSAT	P301	%	98.065	5.502	17	99.082	2.673	17	101.718	4.153	17	102.265	3.668	17	111.800	84.000	
FC	P31616	#/100ml	26.529	4.8222	17	3.944	3.857	18	13.500	24.891	18	25.056	32.204	18	180.000	1.000K	
PH	P400	units	7.394	0.210	18	7.211	0.283	18	7.467	0.316	18	7.553	0.155	17	7.90	6.500	
SUSSOL	P530	mg/L	14.056	24.832	18	17.611	25.027	18	7.059	17.693	17	1.544	0.864	18	106.00	0.800	
FLOW	P60	CFS	1621.111	971.390	18	1964.118	1332.306	17	796.833	837.093	18	174.611	58.613	18	5000.000	86.000	
TPN	P600	mg/L	0.357	0.051	3	0.214	0.042	3	0.076	0.022	3	0.077	0.048	2	0.409	0.043J	
NH3_N	P610	mg/L	0.014	0.007	18	0.014	0.006	18	0.012	0.004	18	0.011	0.003	17	0.031	0.008	
NO2_DIS	P613	mg/L	0.009	0.002	14	0.010	0.000	15	0.010	0.000	15	0.010	0.002	15	0.010	0.002	
NO2_N	P615	mg/L	0.010	0.000	2	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.010K	
NH3_UN	P619	mg/L	0.000	0.000	13	0.000	0.000	13	0.000	0.000	10	0.000	0.000	9	0.000	0.000	
NO3_N	P620	mg/L	0.220	0.072	3	0.117	0.031	3	0.040	0.000	2	0.023	0.006	3	0.300	0.020	
NO2_NO3	P630	mg/L	0.235	0.071	18	0.160	0.051	18	0.059	0.037	18	0.045	0.042	18	0.335	0.010	
TP_P	P665	mg/L	0.026	0.025	18	0.029	0.026	18	0.014	0.010	18	0.011	0.003	17	0.100	0.004	
OP_DIS	P671	mg/L	0.010	0.002	17	0.010	0.001	18	0.010	0.000	18	0.010	0.002	18	0.015	0.002	
COLOR	P80	Pt-Co	29.667	14.434	3	6.667	2.309	3	14.500	14.849	2	22.333	17.616	3	42.000	4.000	
TURB	P82079	NTU	7.956	11.499	18	9.271	11.401	17	3.517	7.687	18	0.656	0.363	18	47.000	0.300	
COND	P95	umhos	52.167	8.097	18	52.278	9.627	18	55.667	7.154	18	69.778	9.644	18	86.000	40.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY - SIX YEAR AVERAGE

Station Number: 22B020 Name: WILHELM R NR HOMMAM

Class: A Elevation: 120 River Mile: 9.30

**Location:** STATION LOCATED ON THE WEST FORK OF THE HOQUIAM RIVER AT NEW LONDON ON THE DEKAY ROAD JUST BELOW THE CONfluence OF POI SON CR.

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			---JANUARY-MARCH---			---APRIL-JUNE---			---JULY-SEPTEMBER---		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N
TEMP	P10	C	6.867	2.023	3	6.900	1.044	3	11.333	1.815	3	13.633	1.234	3
PRESS	P25	mmHg	771.733	6.025	3	766.567	1.250	3	765.567	1.328	3	763.033	3.060	3
OXYGEN	P300	mg/L	11.800	0.436	3	11.800	0.100	3	10.967	0.493	3	10.000	0.300	3
PCTSAT	P301	%	95.067	2.902	3	95.900	1.908	3	98.933	2.570	3	95.267	1.815	3
FC	P3161	#/100mL	24.667	24.007	3	6.333	5.508	3	8.667	4.163	3	22.000	7.937	3
PH	P400	units	7.233	0.153	3	7.367	0.208	3	7.567	0.153	3	7.433	0.153	3
SUSSOL	P530	mg/L	2.000	1.000	3	3.000	1.000	3	1.333	0.577	3	1.333	0.577	3
FLOW	P60	CFS	34.667	21.548	3	108.667	45.884	3	29.333	8.505	3	12.333	2.082	3
TPN	P600	mg/L	0.351	0.194	3	0.226	0.062	3	0.138	0.039	3	0.108	0.024	2
NH3_N	P610	mg/L	0.010	0.000	3	0.010	0.000	3	0.030	0.032	3	0.011	0.001	2
NO2_N03	P630	mg/L	0.252	0.158	3	0.157	0.051	3	0.070	0.020	3	0.052	0.005	3
TP_P	P665	mg/L	0.015	0.006	3	0.010	0.001	3	0.011	0.002	3	0.016	0.005	2
OP_DIS	P671	mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.012	0.004	3
TURB	P82079	NTU	3.000	1.758	3	3.233	1.401	3	1.933	0.115	3	1.600	0.100	3
COND	P95	umhos	55.000	13.115	3	46.333	3.215	3	60.000	11.136	3	73.667	2.074	3

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with  $\bar{z}$  the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number:	23A070	Name:	CHEHALIS R @ PORTER	Class:	A	Elevation:	40	River Mile:	33.30
<b>Location:</b> LOCATED AT THE BRIDGE ON THE SIDE ROAD OFF US HIGHWAY 12 ON THE RIGHT WHEN ENTERING PORTER FROM THE NORTHWEST									
<b>Water Years Sampled:</b> 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6									
VARIABLE	P-CODE	UNITS	--OCTOBER-DECEMBER--	--JANUARY-MARCH--	--APRIL-JUNE--	--JULY-SEPTEMBER--	--APRIL-JUNE--	--JULY-SEPTEMBER--	--SIX YEAR--
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN
TEMP	P10	C	7.728	2.590	18	6.972	1.892	18	14.822
PRESS	P25	mmHg	768.594	6.314	18	766.439	5.803	18	764.333
OXYGEN	P300	mg/L	11.188	0.828	17	11.147	0.594	17	9.606
PCTSAT	P301	%	91.182	5.960	17	90.953	3.903	17	93.759
FC	P31616	#/100ml	142.118	309.807	17	76.333	78.366	18	30.444
COD	P340	mg/L	13.667	3.077	6	8.200	2.049	5	11.200
PH	P400	units	7.444	0.273	18	7.111	0.289	18	7.350
SUSSOL	P530	mg/L	14.944	22.678	18	21.222	20.375	18	6.389
FLOW	P60	CFS	5556.389	9521.580	18	7131.667	4678.587	18	1715.389
TPN	P600	mg/L	0.914	0.208	3	1.034	0.136	3	0.749
NH3_N	P610	mg/L	0.026	0.011	18	0.032	0.013	18	0.026
NO2_DIS	P613	mg/L	0.010	0.001	14	0.010	0.000	15	0.010
NO2_N	P615	mg/L	0.010	0.000	2	0.010	0.000	3	0.010
NH3_UN	P619	mg/L	0.000	0.000	13	0.000	0.000	10	0.000
NO3_N	P620	mg/L	0.713	0.140	3	0.590	0.046	3	0.380
NO2_NO3	P630	mg/L	0.922	0.373	18	0.857	0.113	18	0.535
TP_P	P665	mg/L	0.078	0.040	18	0.057	0.028	18	0.040
OP_DIS	P671	mg/L	0.031	0.017	17	0.017	0.006	18	0.019
COLOR	P80	Pt-Co	64.000	6.557	3	39.000	17.776	3	27.500
TURB	P82079	NTU	7.406	13.891	18	9.747	8.278	17	2.844
COND	P95	umhos	90.333	18.166	18	73.000	9.834	18	90.167

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 23A160		Name: CHEHALIS R @ DRYAD															
Location: LOCATED AT THE BRIDGE LEAVING DRYAD ON THE SOUTHEAST AND APPROXIMATELY 1.5 MILES EAST OF DOTY				Class: A		Elevation: 288 River Mile: 101.70											
VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			---JANUARY-MARCH---			---APRIL-JUNE---			---JULY-SEPTEMBER---			---SIX YEAR---		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	C	7.061	2.445	18	6.861	2.126	18	13.583	3.780	18	17.072	2.899	18	24.500	2.200	
PRESS	P25	mmHg	758.550	6.654	18	758.206	6.719	18	756.744	7.080	18	756.244	5.878	18	772.900	742.200	
OXYGEN	P300	mg/L	12.147	0.852	17	12.150	0.403	16	10.911	1.021	18	9.861	0.667	18	13.700	8.400	
PCTSAT	P301	%	99.276	4.323	17	100.856	3.700	16	104.429	7.863	17	101.271	7.221	17	120.500	88.500	
FC	P31616	#/100ml	63.176	51.489	17	28.778	30.030	18	46.333	64.645	18	35.611	17.026	18	270.000	2.000	
PH	P400	units	7.506	0.248	18	7.278	0.341	18	7.622	0.448	18	7.667	0.297	18	8.700	6.400	
SUSSOL	P530	mg/L	9.222	20.016	18	26.059	55.344	17	3.529	3.559	17	2.278	1.364	18	192.000	1.000K	
FLOW	P60	cfs	846.056	827.827	18	1696.611	1812.714	18	379.778	402.737	18	68.833	50.895	18	6980.000	17.000	
TPN	P600	mg/L	0.456	0.238	3	0.643	0.138	3	0.331	0.029	3	0.244	0.114	3	0.799	0.144J	
NH3_N	P610	mg/L	0.014	0.007	18	0.013	0.005	18	0.017	0.017	18	0.014	0.005	18	0.081	0.010K	
NO2_DIS	P613	mg/L	0.010	0.002	14	0.010	0.000	15	0.010	0.000	15	0.010	0.002	15	0.010	0.003	
NO2_N	P615	mg/L	0.010	0.000	2	0.040	0.052	3	0.010	0.000	3	0.010	0.000	3	0.010	0.010K	
NH3_UN	P619	mg/L	0.000	0.000	13	0.000	0.000	13	0.000	0.000	10	0.000	0.000	9	0.001	0.000	
NO3_N	P620	mg/L	0.533	0.190	3	0.390	0.026	3	0.115	0.007	2	0.027	0.012	3	0.720	0.020	
NO2_NO3	P630	mg/L	0.484	0.310	18	0.505	0.152	18	0.198	0.080	18	0.059	0.036	18	0.959	0.010K	
TP_P	P665	mg/L	0.028	0.029	18	0.044	0.048	18	0.017	0.007	18	0.017	0.005	18	0.173	0.010K	
OP_DIS	P671	mg/L	0.010	0.002	17	0.010	0.001	18	0.010	0.000	18	0.010	0.000	18	0.014	0.002	
COLOR	P80	Pt-Co	46.000	33.719	3	18.333	2.309	3	25.000	5.657	2	58.667	7.506	3	83.000	17.000	
TURB	P82079	NTU	3.078	4.835	18	8.612	14.416	17	1.500	0.858	18	1.444	0.348	18	42.000	0.700	
COND	P95	umhos	66.833	9.351	18	58.889	6.173	18	68.235	7.685	17	81.944	7.666	18	96.000	40.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 26B070 Name: CONNELL B A KEI SO

COMMISSIONER

Location: LOCATED IN KELSO AT THE ALLEN (MAIN) STREET BRIDGE CROSSING THE COLUMBIA RIVER.

### Water Years Sampled:

Class: A Elevation: 5 River Mile: 1/80

CHAPTER 10 ■ THE NATURE OF POLYMERIZATION

Water Years Sampled: 7  
5 6 8

VARIABLE	P-CODE	UNITS	-- OCTOBER-DECEMBER --			-- JANUARY-MARCH --			-- APRIL-JUNE --			-- JULY-SEPTEMBER --			-- SIX YEAR MIN	
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN
TEMP	P10	C	8.311	2.055	18	6.506	1.659	18	11.294	2.723	18	14.056	2.073	18	19.000	3.800
CR	P1118	ug/L	0.000	0.000	0	0.000	0.000	0	0.000	0.000	2	5.000	5.000	2	5.000	5.0000
PRESS	P25	mmHg	765.456	11.888	18	767.483	6.543	18	766.133	9.389	18	764.794	4.714	18	795.000	724.400
OXYGEN	P300	mg/L	11.618	0.555	17	11.694	0.647	17	10.906	0.599	18	10.156	0.315	18	13.200	9.300
PCTSAT	P301	%	97.324	4.791	17	94.376	5.128	17	97.988	3.272	17	97.435	3.131	17	108.800	77.200
FC	P31616	#/100ml	49.000	69.026	17	33.778	76.905	18	19.778	14.953	18	21.833	13.201	18	330.000	2.000
COD	P340	mg/L	9.833	3.189	6	8.500	4.324	6	9.200	3.114	5	5.500	1.915	4	16.000	4.000K
PH	P400	units	7.394	0.248	18	7.239	0.342	18	7.472	0.507	18	7.544	0.236	18	8.500	6.400
SUSSOL	P530	mg/L	92.722	184.646	18	50.611	56.666	18	32.722	37.232	18	9.700	9.086	18	794.000	3.000
FLOW	P60	cfs	9634.000	8109.270	15	10912.500	5569.776	16	7966.667	2831.515	12	3570.000	566.216	9	32600.000	950.000
TPN	P600	mg/L	0.221	0.153	3	0.341	0.063	3	0.161	0.101	3	0.153	0.105	3	0.408	0.085
NH3_N	P610	mg/L	0.017	0.009	18	0.021	0.012	18	0.019	0.015	18	0.011	0.002	18	0.069	0.010U
NO2_DIS	P613	mg/L	0.010	0.002	14	0.010	0.000	15	0.010	0.000	15	0.010	0.002	15	0.010	0.003
NO2_N	P615	mg/L	0.010	0.000	2	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.010K
NH3_UN	P619	mg/L	0.000	0.000	13	0.000	0.000	13	0.000	0.000	10	0.000	0.000	9	0.000	0.000
NO3_N	P620	mg/L	0.163	0.012	3	0.290	0.020	3	0.080	0.014	2	0.030	0.010	3	0.310	0.020
NO2_N03	P630	mg/L	0.202	0.149	18	0.275	0.123	18	0.106	0.059	18	0.047	0.011	18	0.627	0.025J
TP_P	P665	mg/L	0.053	0.047	18	0.065	0.077	18	0.027	0.019	18	0.015	0.007	18	0.339	0.007
OP_DIS	P671	mg/L	0.010	0.001	17	0.011	0.002	18	0.010	0.000	17	0.010	0.001	18	0.019	0.004
HG	P71900	ug/L	0.000	0.000	0	0.000	0.000	0	0.000	0.000	2	0.001	0.000	2	0.001	0.001U
COLOR	P80	Pt-Co	47.333	21.502	3	36.333	10.599	3	14.333	12.220	3	36.333	13.429	3	71.000	1.000
TURB	P82079	NTU	19.865	32.936	17	15.628	11.145	18	8.456	7.968	18	2.372	0.771	18	130.000	1.500
HARD	P900	mg/L	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	33.000	1.414	2	34.000	31.000
COND	P95	umhos	95.778	20.447	18	90.000	11.157	18	104.000	19.704	18	124.167	17.345	18	171.000	60.000

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 300C070		Name: LITTLE KLICKITAT NR WANKIACUS		Class: A		Elevation: 575		River Mile: 0.20		Water Years Sampled:				
Location: LOCATED AT THE BRIDGE ON STATE HIGHWAY 142, 14.4 MILES WEST OF GOLDENDALE .2 MILE ABOVE THE CONFLUENCE WITH THE KLICKITAT RIVER				5 6		7		8		9				
				9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6		X X								
<b>VARIABLE P-CODE UNITS</b>														
		---	OCTOBER-DECEMBER---		---	JANUARY-MARCH---		---	APRIL-JUNE---		JULY-SEPTEMBER---			
		MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	
TEMP	P10	C	4.800	4.026	3	4.533	0.503	3	12.333	4.277	3	14.067	7.805	3
PRESS	P25	mmHg	749.033	5.840	3	750.533	2.194	3	748.467	6.391	3	747.933	4.701	3
OXYGEN	P300	mg/L	13.033	1.137	3	12.267	1.050	3	11.033	1.012	3	10.967	0.643	3
PCTSAT	P301	%	102.400	3.651	3	95.900	7.238	3	103.733	1.617	3	108.367	22.729	3
FC	P31616	#/100ml	20.000	18.385	2	7.000	2.646	3	31.333	23.288	3	35.333	21.939	3
PH	P400	units	7.967	0.153	3	7.833	0.306	3	8.433	0.058	3	8.500	0.436	3
SUSSL	P530	mg/L	2.333	0.577	3	4.333	1.155	3	7.333	3.215	3	3.000	1.000	3
FLOW	P60	CFS	8.000	1.732	3	20.667	17.214	3	50.000	30.000	3	6.000	1.732	3
TPN	P600	mg/L	0.311	0.167	3	0.882	0.278	3	0.293	0.072	3	0.219	0.006	3
NH3_N	P610	mg/L	0.015	0.007	3	0.031	0.037	3	0.014	0.008	3	0.012	0.004	3
NO2_NO3	P630	mg/L	0.169	0.144	3	0.657	0.251	3	0.158	0.090	3	0.079	0.059	3
TP_P	P665	mg/L	0.055	0.025	3	0.065	0.023	3	0.053	0.006	3	0.056	0.006	3
OP_DIS	P671	mg/L	0.031	0.001	2	0.043	0.021	3	0.028	0.008	3	0.044	0.007	3
TURB	P82079	NTU	1.650	0.354	2	5.467	2.157	3	4.800	0.755	3	2.900	0.529	3
COND	P95	umhos	114.000	3.606	3	104.000	5.000	3	107.000	23.388	3	151.333	10.214	3

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 31A070 Name: COLUMBIA R @ UMATILLA

Class: A Elevation: 240 River Mile: 290.50

Location:  
LOCATED BELOW MCNARY DAM UNDER THE UMATILLA INTERSTATE BRIDGE

Water Years Sampled:

5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			---JANUARY-MARCH---			---APRIL-JUNE---			---JULY-SEPTEMBER---			---SIX YEAR---		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	C	11.720	4.078	10	3.500	1.681	12	11.133	2.873	12	19.192	1.586	12	21.500	0.800	
ZN	P1094	ug/L	7.000	4.359	3	6.000	1.633	4	7.000	2.666	3	5.667	2.082	3	12.000	4.000K	
CD	P1113	ug/L	0.100	0.000	3	0.197	0.167	3	0.000	0.000	0	0.000	0.000	0	0.390	0.100K	
PB	P1114	ug/L	1.000	0.000	3	1.000	0.000	3	0.000	0.000	0	0.000	0.000	0	1.000	1.000K	
CR	P1118	ug/L	0.733	0.664	3	0.277	0.068	3	2.875	3.005	2	3.467	2.656	3	5.000	0.200K	
CU	P1119	ug/L	2.667	0.577	3	2.250	0.500	4	0.000	0.000	0	0.000	0.000	0	3.000	2.000K	
PRESS	P25	mmHg	760.640	6.130	10	757.845	8.022	11	754.367	5.514	12	753.825	3.932	12	768.900	738.600	
OXYGEN	P300	mg/L	10.550	0.807	10	13.225	0.854	12	12.300	0.714	12	9.825	0.522	12	14.400	8.900	
PCTSAT	P301	%	96.270	3.225	10	99.658	4.491	12	112.017	4.529	12	106.250	4.950	12	117.500	90.500	
FC	P31616	#/100ml	75.222	135.417	9	7.500	11.131	12	3.917	2.999	12	26.083	80.021	12	400.000	1.000U	
PH	P400	Units	8.110	0.307	10	7.925	0.336	12	8.217	0.282	12	8.258	0.323	12	8.800	7.500	
SUSSOL	P530	mg/L	11.600	15.636	10	35.750	112.823	12	6.917	1.311	12	6.833	2.209	12	394.000	2.000	
FLOW	P60	CFS	12990.000	49188.350	10	146575.000	45166.080	12	192583.333	48586.302	12	124400.000	53925.386	12	300000.000	62900.000	
TPN	P600	mg/L	0.311	0.037	3	0.408	0.034	3	0.210	0.079	3	0.151	0.025	3	0.447	0.119	
NH3_N	P610	mg/L	0.017	0.006	10	0.012	0.004	12	0.014	0.006	12	0.016	0.008	12	0.036	0.004	
NO2_DIS	P613	mg/L	0.010	0.000	7	0.010	0.000	9	0.009	0.003	9	0.010	0.000	9	0.010	0.001	
NO2_N03	P630	mg/L	0.174	0.085	10	0.289	0.114	12	0.168	0.148	12	0.028	0.020	12	0.577	0.010K	
TP_P	P665	mg/L	0.027	0.007	10	0.023	0.007	12	0.024	0.008	12	0.019	0.006	12	0.042	0.010K	
OP_DIS	P671	mg/L	0.017	0.012	9	0.015	0.006	12	0.011	0.003	12	0.013	0.008	12	0.047	0.005	
HG	P71900	ug/L	0.047	0.006	3	0.064	0.005	5	0.041	0.032	4	0.109	0.134	5	0.300	0.001U	
TURB	P82079	NTU	2.578	1.708	9	1.700	1.172	12	3.242	1.394	12	2.608	0.811	12	6.900	0.500	
HARD	P900	mg/L	67.667	9.866	3	74.750	3.594	4	63.500	5.066	4	59.600	4.722	5	80.000	52.000	
COND	P95	umhos	160.000	12.156	10	177.083	22.203	12	143.917	19.533	12	132.083	10.698	12	232.000	110.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 32A070 Name: WAIWAIAIABNB TOUCHET

Class: B Elevation: 370 River Mile: 15.30

**Location:**  
LOCATED AT A PRIVATE BRIDGE THREE RIVER MILES UPSTREAM FROM US HIGHWAY  
12 BRIDGE NEAR REESE

**Water Years Sampled:**

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			---JANUARY-MARCH---			---APRIL-JUNE---			---JULY-SEPTEMBER---			---SIX YEAR--	
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN
TEMP	P10	C	9.183	4.992	18	5.100	2.657	17	14.983	5.019	18	22.939	3.357	18	28.400	0.000
PRESS	P25	mmHg	756.689	5.465	18	755.069	8.287	16	751.683	4.990	18	749.417	4.605	18	774.000	736.100
OXYGEN	P300	mg/L	12.422	1.453	18	12.200	1.120	16	10.300	1.201	18	10.929	1.913	17	15.600	8.000
PCTSAT	P301	%	108.283	20.073	18	95.463	4.096	16	101.453	7.086	17	124.769	22.714	16	190.900	85.000
FC	P31616	#/100ml	74.125	114.030	16	106.706	171.195	17	199.278	144.846	18	91.176	74.522	17	700.000	1.000
COD	P340	mg/L	9.000	7.071	2	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
PH	P400	units	8.206	0.337	18	7.800	0.226	17	8.006	0.244	18	8.500	0.393	18	9.000	7.300
SUSSOL	P530	mg/L	35.000	34.438	18	219.059	468.163	17	107.944	129.293	18	33.222	22.209	18	1800.000	4.000
FLOW	P60	CFS	155.100	219.270	18	710.941	397.293	17	688.056	584.253	18	21.233	18.776	18	1950.000	1.300
TPN	P600	mg/L	0.989	0.277	3	1.183	0.169	3	0.613	0.038	3	0.894	0.217	3	1.370	0.569
NH3_N	P610	mg/L	0.027	0.017	18	0.045	0.024	17	0.034	0.026	18	0.031	0.021	18	0.112	0.010K
NO2_DIS	P613	mg/L	0.013	0.006	15	0.010	0.000	14	0.010	0.002	15	0.012	0.006	14	0.030	0.006
NO2_N	P615	mg/L	0.017	0.012	3	0.010	0.000	3	0.015	0.007	2	0.017	0.006	3	0.030	0.010
NH3_UN	P619	mg/L	0.001	0.001	13	0.000	0.000	12	0.001	0.002	11	0.005	0.003	9	0.011	0.000
NO3_N	P620	mg/L	1.115	0.403	2	1.013	0.441	3	0.637	0.271	3	0.260	0.305	3	1.500	0.170
NO2_N03	P630	mg/L	0.707	0.365	18	0.996	0.301	17	0.500	0.174	18	0.446	0.395	18	1.800	0.010K
TP_P	P665	mg/L	0.108	0.045	15	0.165	0.099	17	0.133	0.044	18	0.122	0.045	18	0.500	0.010K
OP_DIS	P671	mg/L	0.062	0.034	17	0.092	0.017	17	0.063	0.013	18	0.054	0.036	17	0.129	0.010K
COLOR	P80	Pt-o	30.429	9.554	7	32.333	26.858	3	44.714	47.923	7	31.167	5.879	6	63.000	4.000
TURB	P82079	NTU	11.765	12.930	17	28.500	43.593	17	15.439	12.865	18	13.582	11.127	17	174.000	1.000
COND	P95	umhos	289.833	156.429	18	147.294	23.326	17	158.556	65.915	18	481.500	134.444	18	757.000	80.000

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number:	33A050	Name:	SNAKE R NR PASCO	Class:	A	Elevation:	330	River Mile:	2.20							
Location:	LOCATED AT THE BRIDGE ON US HIGHWAY 12/395 NEAR BURBANK AT HOOD PARK															
		Water Years Sampled:														
		5 6			7											
		9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6			8 9											
		X X X X X X X X			X X X X X											
VARIABLE	P-CODE UNITS	---OCTOBER-DECEMBER---			---JANUARY-MARCH---			---APRIL-JUNE---			---JULY-SEPTEMBER---			---SIX YEAR---		
		MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10 C	11.990	4.294	10	3.650	1.448	12	11.592	2.971	12	19.717	1.731	12	22.600	1.600	
PRESS	P25 mmHg	753.000	10.959	10	755.517	8.092	12	749.450	4.009	12	748.108	8.689	12	765.300	725.200	
OXYGEN	P300 mg/L	9.710	1.253	10	12.658	0.789	12	11.575	1.089	12	8.942	0.892	12	14.600	7.500	
PCTSAT	P301 %	89.710	4.783	10	96.158	5.804	12	107.250	9.524	12	98.383	8.600	12	125.700	83.100	
FC	P31616 #/100ml	2.889	2.261	9	6.917	8.565	12	26.000	54.860	12	58.917	79.731	12	250.000	1.000K	
COD	P340 mg/L	9.143	5.543	21	19.500	13.435	2	10.500	0.707	2	11.667	4.041	3	29.000	7.000	
PH	P400 units	8.090	0.160	10	8.158	0.247	12	7.817	0.422	12	8.017	0.388	12	8.600	6.900	
SUSSOL	P530 mg/L	4.700	1.703	10	7.917	8.702	12	12.417	8.005	12	11.583	10.475	12	30.000	2.000	
FLOW	P60 CFS	26030.000	10118.635	10	32858.333	15913.143	12	61708.333	28804.749	12	24783.333	18340.161	12	103000.000	90000.000	
TPN	P600 mg/L	0.728	0.165	3	1.200	0.053	3	0.497	0.283	3	0.247	0.044	3	1.240	0.199	
NH3_N	P610 mg/L	0.017	0.005	10	0.021	0.011	12	0.020	0.009	12	0.020	0.014	12	0.052	0.01K	
NO2_D1S	P613 mg/L	0.012	0.006	7	0.010	0.001	9	0.012	0.007	9	0.011	0.001	9	0.028	0.004	
NO2_N	P615 mg/L	0.012	0.004	17	0.013	0.007	14	0.010	0.000	12	0.010	0.000	13	0.000	0.000	
NH3_UN	P619 mg/L	0.000	0.001	19	0.000	0.000	19	0.001	0.004	17	0.001	0.001	15	0.000	0.000	
NO3_N	P620 mg/L	0.638	0.144	13	0.809	0.148	14	0.380	0.389	13	0.163	0.085	10	0.000	0.000	
NO2_NO3	P630 mg/L	0.430	0.195	10	0.858	0.274	12	0.579	0.359	12	0.376	0.474	12	1.390	0.033	
TP_P	P665 mg/L	0.055	0.008	10	0.060	0.023	12	0.061	0.036	12	0.049	0.040	12	0.141	0.010K	
OP_DIS	P671 mg/L	0.042	0.009	9	0.045	0.015	12	0.039	0.026	12	0.030	0.030	12	0.098	0.010K	
COLOR	P80 Pt Co	21.571	6.294	7	37.667	17.507	9	36.000	23.551	7	22.333	2.066	6	0.000	0.000	
TURB	P82079 NTU	2.033	0.534	9	3.483	2.386	12	6.067	2.381	12	4.292	2.309	12	12.000	1.100	
COND	P95 umhos	291.300	52.436	10	296.833	45.073	12	172.417	87.361	12	151.417	32.765	12	400.000	79.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## **QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE**

Station Number 30070 Name: DAUSSIE B A WOODER

Class: B Elevation: 1060 River Miles: 10 50

**Location:** LOCATED IN "DOWNTOWN" HOOPER NEAR TRAIN TRACKS AT BRIDGE ON OLD HIGHWAY 26

Water Years Sampled:	5	6	7	8	9
9	0	1	2	3	4
0	1	2	3	4	5
1	3	4	5	6	7
2	7	8	9	0	1
3	0	1	2	3	4
4	2	3	4	5	6
5	3	4	5	6	7
6	4	5	6	7	8
7	5	6	7	8	9
8	6	7	8	9	0
9	7	8	9	0	1
X	X	X	X	X	X
X	X	X	X	X	X
X	X	X	X	X	X
X	X	X	X	X	X
X	X	X	X	X	X

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			---JANUARY-MARCH---			---APRIL-JUNE---			---JULY-SEPTEMBER---		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N
TEMP	P10	C	6.789	4.525	18	3.213	2.128	15	13.356	4.487	18	20.339	3.089	18
ZN	P1094	ug/L	44.125	88.252	8	148.143	254.190	7	12.778	13.553	9	9.000	7.297	9
CD	P1113	ug/L	0.157	0.053	7	0.715	0.913	6	0.163	0.060	7	0.147	0.064	7
PB	P1114	ug/L	1.257	0.431	7	29.917	58.300	6	2.067	1.752	6	1.800	1.196	7
CR	P1118	ug/L	1.013	0.350	6	4.382	3.305	5	2.223	2.485	7	1.210	1.199	7
CU	P1119	ug/L	25.375	56.181	8	58.857	108.982	7	4.857	4.224	7	4.829	1.888	7
PRESS	P25	mmHg	739.172	5.841	18	736.521	5.847	14	736.889	3.396	18	735.433	4.522	18
OXYGEN	P300	mg/L	11.872	1.368	18	11.960	1.797	15	10.172	1.306	18	8.612	1.236	17
PCTSAT	P301	%	98.950	5.693	18	92.007	12.792	15	98.665	8.266	17	97.875	17.619	16
FC	P31616	#/100ml	104.875	126.340	16	273.667	547.608	12	99.588	164.029	17	131.722	113.493	18
COD	P340	mg/L	60.125	125.304	8	133.500	282.541	6	18.778	8.800	9	20.250	8.294	8
PH	P400	units	8.428	0.346	18	7.900	0.214	15	8.333	0.555	18	8.717	0.313	18
SUSSOL	P530	mg/L	64.444	165.104	18	1545.643	3606.178	14	81.333	81.969	18	42.824	39.643	17
FLOW	P60	CFS	95.056	63.133	18	1181.067	1561.164	15	693.389	766.370	18	48.778	35.054	18
TPN	P600	mg/L	1.818	1.093	3	2.283	0.488	3	0.827	0.327	3	0.489	0.130	3
NH3_N	P610	mg/L	0.043	0.063	18	0.109	0.122	14	0.046	0.053	18	0.047	0.075	17
NO2_DIS	P613	mg/L	0.013	0.008	15	0.018	0.006	12	0.014	0.007	15	0.013	0.011	14
NO2_N	P615	mg/L	0.013	0.006	3	0.023	0.015	3	0.010	0.000	2	0.013	0.006	3
NHH3_UN	P619	mg/L	0.006	0.013	11	0.001	0.001	9	0.002	0.002	12	0.004	0.003	9
NO3_N	P620	mg/L	2.650	2.051	2	3.633	1.607	3	0.907	0.519	3	0.060	0.087	3
NO2_NO3	P630	mg/L	1.349	1.051	18	3.099	1.069	15	1.104	0.867	18	0.239	0.436	18
TP_P	P665	mg/L	0.203	0.121	16	0.244	0.144	15	0.145	0.076	17	0.152	0.062	18
OP_DIS	P671	mg/L	0.165	0.126	18	0.141	0.056	15	0.090	0.047	18	0.075	0.057	18
HG	P7190	ug/L	0.067	0.022	8	0.060	0.052	7	0.052	0.011	5	0.054	0.014	7
COLOR	P80	Pt-Co	73.286	48.462	7	104.500	106.773	2	26.333	4.619	3	130.000	0.000	2
TURB	P82079	NTU	26.483	62.598	18	698.667	1972.389	15	31.922	37.324	18	18.789	16.033	18
HARD	P900	mg/L	115.222	28.830	9	71.857	24.742	7	63.778	15.889	9	115.000	15.403	9
COND	P95	umhos	314.833	56.153	18	210.800	64.901	15	196.278	54.951	18	314.222	40.984	18

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 34A170 Name: PALOUSE R @ PALOUSE

Class: A Elevation: 2090 River Mile: 121.20

## Location:

LOCATED AT THE EASTERLY MOST BRIDGE IN PALOUSE NEAR THE GRAVEL PIT, .4 MILE EAST OF THE INTERSECTION OF STATE HIGHWAYS 6, 27, AND 272 ON STATE HIGHWAY 6 -- STATION MOVED 10/01/90 TO THE HIGHWAY 27 BRIDGE ENTERING

Water Years Sampled:

5 6 7 8 9  
9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6  
X X X X

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			---JANUARY-MARCH---			---APRIL-JUNE---			---JULY-SEPTEMBER---			---SIX YEAR---	
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN
TEMP	P10	C	4.833	4.326	9	1.150	2.081	8	11.300	6.481	9	17.889	3.993	9	23.700	0.000J
PRESS	P25	mmHg	705.311	5.522	9	703.896	4.492	7	708.900	19.560	9	702.344	2.608	9	760.700	696.500
OXYGEN	P300	mg/l	11.478	1.677	9	12.600	0.923	8	10.744	1.500	9	8.689	1.448	9	14.000	5.900
PCTSAT	P301	%	95.233	7.508	9	95.850	4.180	8	105.100	22.791	9	98.822	20.144	9	154.400	70.400
FC	P31616	#/100ml	93.625	162.755	8	90.857	211.404	7	431.222	1039.631	9	96.333	145.177	9	3200.000	1.000
PH	P400	units	7.878	0.148	9	7.675	0.212	8	8.022	0.327	9	8.622	0.424	9	9.200	7.400
SUSSOL	P530	mg/l	2.778	1.202	9	13.125	17.365	8	79.333	206.684	9	11.667	21.610	9	630.000	1.000K
FLOW	P60	CFS	29.556	21.593	9	159.250	118.415	8	327.778	499.477	9	15.333	14.283	9	1280.000	2.000
TPN	P600	mg/l	0.282	0.102	3	0.520	0.420	3	0.165	0.076	3	0.395	0.225	3	0.995	0.116
NH3_N	P610	mg/l	0.014	0.006	9	0.031	0.024	8	0.019	0.026	9	0.013	0.005	9	0.089	0.010K
NO2_DIS	P613	mg/l	0.010	0.000	6	0.010	0.000	5	0.010	0.000	6	0.010	0.000	6	0.010	0.010K
NO2_N03	P630	mg/l	0.088	0.151	9	0.639	0.703	8	0.134	0.273	9	0.141	0.390	9	2.240	0.010K
TP_P	P665	mg/l	0.044	0.020	9	0.062	0.023	8	0.056	0.045	9	0.048	0.031	9	0.162	0.010K
OP_DIS	P671	mg/l	0.022	0.011	9	0.037	0.033	8	0.024	0.017	9	0.035	0.041	9	0.141	0.010K
TURB	P82079	NTU	4.856	3.780	9	22.550	31.614	8	29.089	64.271	9	8.289	16.825	9	200.000	1.100
COND	P95	umhos	87.333	16.210	9	80.875	24.666	8	62.222	14.524	9	84.000	24.135	9	142.000	35.000

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## **QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE**

Station Number: 35A150 Name: SNAKE R @ INTERSTATE RR

Class: A Elevation: 705 River Mile: 139.60

**Location:**  
**LOCATED AT THE WASHINGTON-IDAHO INTERSTATE BRIDGE ON U S HIGHWAY 12 AT  
CLARKSTON**

VARIABLE	P-CODE	UNITS	- - - OCTOBER-DECEMBER - - -			- - - JANUARY-MARCH - - -			- - - APRIL-JUNE - - -			- - - JULY-SEPTEMBER - - -			- - - SIX YEAR - - -		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	°C	10.440	5.035	10	3.150	1.518	12	11.875	2.819	12	20.200	2.588	12	24.600	1.200	
PRESS	P25	mmHg	748.180	5.090	10	746.764	6.143	11	743.017	6.061	12	740.275	5.468	12	754.900	730.000	
OXYGEN	P300	mg/L	10.740	1.515	10	12.900	0.697	12	10.442	0.668	12	8.933	0.460	12	13.900	8.100	
PCTSAT	P301	%	96.070	3.067	10	97.808	1.861	12	98.150	3.086	12	100.358	4.281	12	106.600	90.900	
FC	P31616	#/100ml	2.500	1.780	10	3.500	3.826	12	16.909	13.649	11	4.833	6.073	12	44.000	1.000K	
CHL	P32211	ug/L	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.233	1.721	3	4.200	1.000J	
PHEO	P32218	ug/L	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.720	0.416	3	6.300	0.470	
PH	P400	units	8.280	0.092	10	8.242	0.284	12	8.225	0.283	12	8.367	0.167	12	8.900	7.700	
SUSSL	P530	mg/L	3.200	1.687	10	4.250	3.817	12	11.750	7.424	12	5.583	3.728	12	25.000	1.000	
FLOW	P60	CFS	15700.000	2260.777	10	19140.000	5609.159	10	41716.667	22107.458	12	19802.500	8460.348	12	87100.000	9410.000	
TP_N	P600	mg/L	0.869	0.202	6	1.193	0.152	6	0.668	0.390	6	0.454	0.100	6	1.390	0.264	
NH3_N	P610	mg/L	0.013	0.005	10	0.019	0.009	12	0.021	0.020	12	0.015	0.007	12	0.079	0.007	
NO2_Dis	P613	mg/L	0.010	0.000	7	0.010	0.001	9	0.009	0.002	9	0.010	0.000	9	0.013	0.004	
NO2_N03	P630	mg/L	0.717	0.182	10	1.031	0.141	12	0.435	0.239	12	0.271	0.090	12	1.310	0.125	
TP_P	P665	mg/L	0.063	0.013	10	0.061	0.015	11	0.047	0.029	12	0.036	0.010	12	0.128	0.021	
OP_Dis	P671	mg/L	0.051	0.014	10	0.045	0.012	12	0.028	0.020	12	0.022	0.010	12	0.082	0.010K	
TURB	P82079	NTU	1.320	0.257	10	3.075	3.148	12	5.400	5.959	12	2.092	1.270	12	23.000	0.700	
COND	P95	umhos	377.800	27.182	10	377.250	53.015	12	209.167	64.835	12	262.500	67.567	12	474.000	123.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Name: **COLIMBIA B NR VERNITA**

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**Location:**

**Location:**  
LOCATED ON STATE HIGHWAY 24 AT THE VERNITA BRIDGE APPROXIMATELY FIVE  
MILES NORTHEAST OF VERNITA

**Class:** A      **Elevation:** 380      **River Mile:** 388, 10

## Water Years Sampled:

Water Years Sampled: 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 37A090		Name: YAKIMA R @ KIONA		Class: A		Elevation:	460	River Mile:	29.80																								
Location: LOCATED .1 MILE NORTHWEST OF HIGHWAY 12 AND KIONA AND SOUTHEAST OF BENTON CITY				Water Years Sampled:		5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6						
						9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6
VARIABLE	P-CODE	UNITS	--OCTOBER-DECEMBER--	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN				
TEMP	P10	C	8.956	4.341	18	4.550	2.553	18	14.944	3.388	18	20.606	2.994	18	25.40	0.00	0.00	25.40	0.00	0.00	25.40	0.00	0.00	25.40	0.00	0.00	25.40	0.00	0.00				
PRESS	P25	mmHg	752.494	7.971	18	752.806	8.188	18	751.439	3.618	18	750.400	4.246	18	774.00	0.00	0.00	774.00	0.00	0.00	774.00	0.00	0.00	774.00	0.00	0.00	774.00	0.00	0.00				
OXYGEN	P300	mg/L	11.678	1.260	18	12.628	1.493	18	9.872	1.477	18	9.206	1.055	18	15.50	0.00	0.00	15.50	0.00	0.00	15.50	0.00	0.00	15.50	0.00	0.00	15.50	0.00	0.00				
PCTSAT	P301	%	101.022	8.634	18	98.111	8.295	18	96.853	11.770	17	102.441	14.362	17	130.200	0.00	0.00	130.200	0.00	0.00	130.200	0.00	0.00	130.200	0.00	0.00	130.200	0.00	0.00				
FC	P31616	#/100ml	40.875	25.366	16	19.000	18.257	16	42.444	36.381	18	58.765	33.894	17	120.000	0.00	0.00	120.000	0.00	0.00	120.000	0.00	0.00	120.000	0.00	0.00	120.000	0.00	0.00				
COD	P340	mg/L	7.500	3.507	6	10.167	3.430	6	15.500	3.271	6	11.000	4.290	6	20.000	0.00	0.00	20.000	0.00	0.00	20.000	0.00	0.00	20.000	0.00	0.00	20.000	0.00	0.00				
PH	P400	units	8.133	0.325	18	7.950	0.290	18	8.122	0.308	18	8.256	0.271	18	8.900	0.00	0.00	8.900	0.00	0.00	8.900	0.00	0.00	8.900	0.00	0.00	8.900	0.00	0.00				
SUSSOL	P530	mg/L	17.222	19.371	18	17.444	16.536	18	37.500	27.532	18	22.611	9.696	18	98.000	0.00	0.00	98.000	0.00	0.00	98.000	0.00	0.00	98.000	0.00	0.00	98.000	0.00	0.00				
FLOW	P60	CFS	2328.889	1922.495	18	2775.556	1169.893	18	2694.500	1259.954	18	1385.778	479.512	18	9850.000	0.00	0.00	9850.000	0.00	0.00	9850.000	0.00	0.00	9850.000	0.00	0.00	9850.000	0.00	0.00				
TPN	P600	mg/L	1.757	0.078	3	1.567	0.251	3	1.048	0.454	3	1.134	0.272	3	1.820	0.744	0.00	1.820	0.744	0.00	1.820	0.744	0.00	1.820	0.744	0.00	1.820	0.744	0.00				
NH3_N	P610	mg/L	0.031	0.016	18	0.069	0.054	18	0.021	0.011	18	0.021	0.010	18	0.209	0.006	0.00	0.209	0.006	0.00	0.209	0.006	0.00	0.209	0.006	0.00	0.209	0.006	0.00				
N02_DIS	P613	mg/L	0.016	0.006	15	0.013	0.004	15	0.010	0.001	15	0.015	0.005	14	0.030	0.008	0.00	0.030	0.008	0.00	0.030	0.008	0.00	0.030	0.008	0.00	0.030	0.008	0.00				
N02_N	P615	mg/L	0.023	0.012	3	0.010	0.000	3	0.010	0.000	2	0.020	0.000	3	0.030	0.010	0.00	0.030	0.010	0.00	0.030	0.010	0.00	0.030	0.010	0.00	0.030	0.010	0.00				
NH3_UN	P619	mg/L	0.001	0.001	13	0.001	0.001	12	0.001	0.001	11	0.002	0.001	9	0.004	0.001	9	0.100	0.00	0.00	0.100	0.00	0.00	0.100	0.00	0.00	0.100	0.00	0.00				
N03_N	P620	mg/L	1.300	0.000	2	0.877	0.577	3	0.597	0.289	3	1.300	0.100	3	1.500	0.360	0.00	1.500	0.360	0.00	1.500	0.360	0.00	1.500	0.360	0.00	1.500	0.360	0.00				
N02_N03	P630	mg/L	1.332	0.306	18	1.004	0.388	18	0.580	0.272	18	0.884	0.377	18	1.750	0.055	0.00	1.750	0.055	0.00	1.750	0.055	0.00	1.750	0.055	0.00	1.750	0.055	0.00				
TP_P	P665	mg/L	0.103	0.016	16	0.109	0.044	18	0.091	0.036	18	0.107	0.046	18	0.216	0.017	0.00	0.216	0.017	0.00	0.216	0.017	0.00	0.216	0.017	0.00	0.216	0.017	0.00				
OP_DIS	P671	mg/L	0.077	0.016	17	0.066	0.024	18	0.039	0.016	18	0.066	0.028	17	0.120	0.010	0.00	0.120	0.010	0.00	0.120	0.010	0.00	0.120	0.010	0.00	0.120	0.010	0.00				
COLOR	P80	Pt-Co	17.571	5.381	7	14.333	2.309	3	24.714	15.283	7	19.667	3.266	6	25.000	1.000	0.00	25.000	1.000	0.00	25.000	1.000	0.00	25.000	1.000	0.00	25.000	1.000	0.00				
TURB	P82079	NTU	4.511	4.587	18	5.078	3.601	18	8.472	4.675	18	7.400	4.101	17	21.000	1.000	0.00	21.000	1.000	0.00	21.000	1.000	0.00	21.000	1.000	0.00	21.000	1.000	0.00				
COND	P95	umhos	268.611	46.975	18	223.556	49.494	18	205.444	47.197	18	267.333	27.134	18	325.000	109.000	0.00	325.000	109.000	0.00	325.000	109.000	0.00	325.000	109.000	0.00	325.000	109.000	0.00	325.000	109.000	0.00	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 37A130 Name: YAKIMA R @ MABTON

Location:  
LOCATED AT BRIDGE ON SUNNYSIDE-GRANDVIEW EXIT FROM HIGHWAY 22 NEAR  
MABTON TO SECOND BRIDGE (1.3 MILES)

Class: A Elevation: 643 River Mile: 59.80

Water Years Sampled:  
5 6 7 8 9  
9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6  
X X X X

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			---JANUARY-MARCH---			---APRIL-JUNE---			---JULY-SEPTEMBER---			---SIX YEAR---		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	C	7.833	4.043	3	5.700	2.042	3	14.733	2.802	3	19.133	3.430	3	21.500	4.100	
PRESS	P25	mmHg	749.367	4.244	3	747.167	4.065	3	745.933	1.501	3	743.467	1.537	3	752.300	741.700	
OXYGEN	P300	mg/L	10.967	0.850	3	11.867	0.577	3	9.200	1.114	3	8.600	0.361	3	12.200	8.200	
PCTSAT	P301	%	93.000	3.659	3	96.000	1.539	3	91.533	7.012	3	94.167	3.424	3	97.800	83.600	
FC	P31616	#/100ml	165.000	63.640	2	117.000	56.454	3	166.667	41.633	3	586.667	533.510	3	1200.000	71.000	
PH	P400	units	8.033	0.289	3	7.933	0.153	3	8.167	0.208	3	8.133	0.153	3	8.400	7.700	
SUSSOL	P530	mg/L	12.667	9.074	3	14.333	8.083	3	25.333	3.215	3	30.333	11.015	3	43.000	6.000	
FLOW	P60	CFS	1513.333	144.338	3	1750.000	395.095	3	1842.667	1082.682	3	916.667	241.160	3	3050.000	655.000	
TPN	P600	mg/L	1.730	0.144	3	1.397	0.292	3	0.932	0.349	3	1.303	0.186	3	1.850	0.679	
NH3_N	P610	mg/L	0.044	0.002	3	0.056	0.025	3	0.022	0.013	3	0.063	0.052	3	0.123	0.010K	
NO2_NO3	P630	mg/L	1.483	0.185	3	1.163	0.341	3	0.783	0.338	3	1.038	0.164	3	1.600	0.505	
TP_P	P665	mg/L	0.094	0.008	3	0.089	0.002	3	0.079	0.021	3	0.127	0.022	3	0.150	0.056	
OP_DIS	P671	mg/L	0.075	0.001	2	0.056	0.013	3	0.046	0.009	3	0.074	0.012	3	0.086	0.039	
TURB	P82079	NTU	5.967	3.156	3	6.467	4.077	3	12.333	0.577	3	15.667	4.509	3	20.000	3.100	
COND	P95	umhos	263.000	14.799	3	250.667	44.095	3	207.333	45.501	3	245.667	31.342	3	290.000	162.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## **QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE**

Station Number: 37A210 Name: YAKIMA R NB TERRACE HEIGHT

Class: A Elevation: 1020 River Mile: 113.20

**Location:** AT BRIDGE ON TERRACE HEIGHTS ROAD THREE BLOCKS EAST OF US HIGHWAY 97

Water Years Sampled:	5 6	7	8	9
9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6	X X	X X		X

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			---JANUARY-MARCH---			---APRIL-JUNE---			---JULY-SEPTEMBER---		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N
TEMP	P10	C	5.967	4.359	3	4.300	1.916	3	10.167	2.050	3	16.433	2.281	3
PRESS	P25	mmHg	738.067	5.050	3	736.633	4.388	3	737.433	6.391	3	733.300	1.562	3
OXYGEN	P300	mg/L	12.100	1.277	3	12.467	0.551	3	10.733	0.751	3	9.933	0.153	3
PCTSAT	P301	%	99.200	2.551	3	98.733	3.179	3	97.833	2.065	3	104.633	5.468	3
FC	P31616	#/100mL	22.000	21.213	2	8.333	1.528	3	35.667	14.978	3	30.667	11.240	3
PH	P400	units	8.133	0.231	3	8.067	0.115	3	8.000	0.200	3	8.200	0.361	3
SUSSOL	P530	mg/L	8.000	2.646	3	8.333	2.082	3	11.333	2.309	3	11.000	3.464	3
FLOW	P60	CFS	1423.333	275.379	3	1750.000	770.909	3	3050.000	831.625	3	2830.000	373.229	3
TPN	P600	mg/L	0.403	0.098	3	0.337	0.129	3	0.146	0.041	3	0.184	0.042	3
NH3_N	P610	mg/L	0.018	0.008	3	0.015	0.008	3	0.015	0.009	3	0.012	0.004	3
NO2_N03	P630	mg/L	0.282	0.092	3	0.216	0.133	3	0.085	0.042	3	0.069	0.022	3
TP_P	P665	mg/L	0.031	0.006	3	0.033	0.008	3	0.027	0.014	3	0.023	0.006	3
OP_DIS	P671	mg/L	0.023	0.010	3	0.019	0.009	3	0.014	0.006	3	0.011	0.001	3
TURB	P82079	NTU	4.067	0.751	3	2.700	0.458	3	4.633	1.286	3	3.833	0.321	3
COND	P95	umhos	141.000	24.515	3	148.667	25.502	3	99.500	2.121	2	91.667	17.254	3

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## [QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE]

Station Number: 37070 Name: SULFUR CK WASTEWAY @ MCGEE RD

Location:

Water Years Sampled:  
 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6  
 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6  
 X

VARIABLE	P-CODE	UNITS	--OCTOBER-DECEMBER--			--JANUARY-MARCH--			--APRIL-JUNE--			--JULY-SEPTEMBER--			--SIX YEAR--		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	C	9.233	2.281	3	7.967	0.351	3	12.267	2.532	3	16.000	2.800	3	18.000	7.200	
PRESS	P25	mmHg	749.800	4.636	3	747.167	4.065	3	745.933	1.501	3	743.367	1.443	3	753.100	741.700	
OXYGEN	P300	mg/L	9.700	0.500	3	9.800	0.100	3	9.200	0.755	3	9.433	1.102	3	10.700	8.500	
PCTSAT	P301	%	85.333	4.601	3	84.100	1.153	3	86.933	2.639	3	97.533	16.061	3	115.100	80.800	
FC	P31616	#/100ml	1755.000	1760.696	2	1110.000	445.309	3	1533.333	208.167	3	2210.000	1305.871	3	3200.000	510.000	
PH	P400	units	8.067	0.153	3	8.433	0.252	3	8.133	0.058	3	8.133	0.351	3	8.700	7.800	
SUSOL	P530	mg/L	41.000	38.432	3	45.000	21.378	3	106.667	60.086	3	39.667	26.102	3	171.000	10.000	
FLOW	P60	cfs	133.233	113.252	3	48.733	3.591	3	129.067	66.870	3	100.867	24.039	3	264.000	46.000	
TPN	P600	mg/L	5.260	2.010	3	7.297	0.170	3	2.863	1.018	3	3.557	0.471	3	7.460	1.700	
NH3_N	P610	mg/L	0.211	0.140	3	0.296	0.048	3	0.048	0.042	3	0.068	0.044	3	0.351	0.023	
NO2_NO3	P630	mg/L	4.693	1.904	3	5.807	0.655	3	2.687	1.058	3	3.297	0.583	3	6.540	1.490	
TP_P	P665	mg/L	0.174	0.037	3	0.222	0.023	3	0.191	0.097	3	0.200	0.040	3	0.296	0.104	
OP_DIS	P671	mg/L	0.101	0.008	2	0.152	0.014	3	0.092	0.031	3	0.144	0.052	3	0.203	0.062	
TURB	P82079	NTU	8.533	3.782	3	12.133	6.021	3	34.667	21.962	3	18.333	8.021	3	60.000	4.500	
COND	P95	umhos	513.333	170.342	3	697.000	38.158	3	343.667	86.008	3	385.000	39.950	3	741.000	249.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number:	41A070	Name:	CRAB CR NR BEVERLY	Class: B	Elevation:	500	River Mile:	6.00
<b>Location:</b>								
LOCATED 6 MILES FROM THE MOUTH OF CRAB CREEK AT THE BRIDGE ON LOWER CRAB CREEK ROAD, ABOUT 5.6 MILES FROM BEVERLY								
Water Years Sampled:				5 6	7	8	9	9
				9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6	9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6			
VARIABLE	P-CODE UNITS	--OCTOBER-DECEMBER---	--JANUARY-MARCH--	--APRIL-JUNE--	--JULY-SEPTEMBER--	--SIX YEAR--		
		MEAN STD. DEV. N	MEAN STD. DEV. N	MEAN STD. DEV. N	MEAN STD. DEV. N	MAX	MIN	
TEMP	P10 C	8.450 3.454 12	6.083 3.010 12	15.217 2.689 12	20.592 2.288 12	23.70	2.00	
PRESS	P25 mmHg	748.992 16.020 12	753.167 5.667 12	747.575 3.748 12	744.583 3.906 12	763.00	702.30	
OXYGEN	P300 mg/l	12.108 1.434 12	13.300 1.205 12	10.492 1.096 12	10.067 0.815 12	14.90	8.70	
PCTSAT	P301 %	103.908 5.927 12	108.592 16.876 12	104.864 10.032 11	113.482 7.965 11	133.20	89.70	
FC	P31616 #/100ml	59.273 81.984 11	12.083 12.986 12	142.083 193.919 12	105.083 97.846 12	720.00	1.000K	
PH	P400 units	8.350 0.278 12	8.658 0.312 12	8.592 0.178 12	8.550 0.173 12	9.10	7.90	
SUSSOL	P530 mg/l	12.083 5.435 12	20.000 6.647 12	87.167 40.463 12	45.455 35.115 11	195.00	3.00	
FLOW	P60 CFS	248.500 61.923 12	171.417 33.124 12	235.167 30.111 12	272.583 37.459 12	347.00	125.00	
TPN	P600 mg/L	2.297 0.593 3	3.323 0.158 3	1.357 0.162 3	1.433 0.207 3	3.460	1.170	
NH3_N	P610 mg/L	0.017 0.008 12	0.024 0.031 12	0.017 0.009 12	0.017 0.008 12	0.120	0.010K	
NO2_DIS	P613 mg/L	0.011 0.003 9	0.013 0.005 9	0.012 0.005 9	0.014 0.005 9	0.021	0.001K	
NO2_N	P615 mg/L	0.013 0.006 3	0.017 0.006 3	0.020 0.000 2	0.013 0.006 3	0.020	0.010	
NH3_UN	P619 mg/L	0.001 0.000 13	0.002 0.001 12	0.003 0.001 10	0.002 0.002 10	0.007	0.000	
NO3_N	P620 mg/L	2.600 0.917 3	3.000 0.624 3	1.200 0.707 2	1.095 0.573 2	3.70	0.690	
NO2_NO3	P630 mg/L	2.276 0.965 12	3.002 0.276 12	1.195 0.195 12	1.234 0.120 12	3.63	0.150	
TP_P	P665 mg/L	0.071 0.030 10	0.132 0.049 12	0.116 0.047 12	0.071 0.024 11	0.230	0.028	
OP_DIS	P671 mg/L	0.054 0.031 12	0.056 0.034 12	0.021 0.014 12	0.013 0.004 12	0.140	0.010K	
COLOR	P80 Pt-Co	25.000 5.657 2	107.500 74.246 2	19.667 6.110 3	43.333 19.035 3	160.00	13.00	
TURB	P82079 NTU	3.133 1.625 12	6.233 2.358 12	17.800 7.528 12	11.625 7.563 12	31.00	0.80	
COND	P95 umhos	709.833 105.858 12	819.750 58.233 12	563.917 46.913 12	526.091 29.579 11	995.00	462.00	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 41A110 Name: CRAB CR NR MOSES LAKE

Location:  
LOCATED FOUR MILES NORTH OF MOSES LAKE .5 MILES EAST OF MOSES LAKE-  
STRATFORD ROAD (MILITARY RESERVATION BOUNDARY SOUTHEAST CORNER OF  
SECTION 27-- ROAD FOLLOWS SECTION LINE BETWEEN SECTIONS 26 AND 35)

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			---JANUARY-MARCH---			---APRIL-JUNE---			---JULY-SEPTEMBER---			---SIX YEAR---		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	C	7.000	5.703	3	2.233	0.814	3	11.300	3.318	3	17.367	2.098	3	19.00	1.300	
PRESS	P25	mmHg	736.333	5.632	3	738.367	8.011	3	733.967	4.202	3	735.233	4.477	3	745.50	729.70	X
OXYGEN	P300	mg/L	12.633	1.115	3	12.167	0.751	3	11.200	1.054	3	11.433	0.416	3	13.90	10.20	
PCTSAT	P301	%	107.300	14.744	3	91.233	5.164	3	105.900	14.562	3	122.667	9.063	3	129.90	86.60	
FC	P31616	#/100ml	30.333	18.930	3	19.333	14.048	3	47.000	20.881	3	91.000	85.983	3	190.00	6.000	
PH	P400	units	8.100	0.265	3	8.300	0.100	3	8.267	0.153	3	8.133	0.058	3	8.40	7.80	
SUSSL	P530	mg/L	5.333	5.774	3	7.000	2.646	3	20.333	21.221	3	14.667	2.082	3	44.00	2.00	
FLOW	P60	CFS	31.000	13.528	3	12.333	5.132	3	18.000	11.000	3	44.667	4.041	3	49.00	7.00	
TPN	P600	mg/L	1.573	0.202	3	1.437	0.320	3	0.668	0.154	3	0.979	0.105	3	1.79	0.537	
NH3_N	P610	mg/L	0.020	0.015	3	0.047	0.024	3	0.014	0.004	3	0.011	0.002	3	0.068	0.010K	
NO2_N	P615	mg/L	0.030	0.000	3	0.043	0.012	3	0.017	0.012	3	0.020	0.010	3	0.00	0.00	
NH3_UN	P619	mg/L	0.001	0.001	3	0.001	0.000	3	0.002	0.001	3	0.000	0.001	3	0.00	0.00	
NO3_N	P620	mg/L	1.150	0.354	2	0.757	0.605	3	0.420	0.468	3	0.970	0.289	3	0.00	0.00	
NO2_NO3	P630	mg/L	1.249	0.238	3	1.147	0.295	3	0.377	0.147	3	0.870	0.089	3	1.45	0.280	
TP_P	P665	mg/L	0.047	0.025	3	0.073	0.014	3	0.041	0.009	3	0.021	0.004	3	0.08	0.017	
OP_DIS	P671	mg/L	0.029	0.021	3	0.054	0.015	3	0.010	0.001	3	0.010	0.001	3	0.064	0.010K	
COLOR	P80	Pt-Co	21.000	4.000	3	36.333	17.214	3	40.333	8.737	3	23.667	6.110	3	0.00	0.00	
TURB	P82079	NTU	1.433	0.651	3	2.533	1.501	3	4.833	3.917	3	4.633	0.462	3	9.10	0.80	
COND	P95	umhos	552.333	65.501	3	645.000	44.508	3	481.333	93.308	3	447.000	56.824	3	696.00	387.00	X

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 45AU70 Name: WENATCHEE R @ WENATCHEE

Location:  
LOCATED 1.1 MILES FROM THE MOUTH OF THE WENATCHEE RIVER, 1.5 MILES NORTH  
OF WENATCHEE AT THE BRIDGE CROSSING HIGHWAYS 2-97

VARIABLE	P-CODE	UNITS	--OCTOBER-DECEMBER--			--JANUARY-MARCH--			--APRIL-JUNE--			--JULY-SEPTEMBER--			--SIX YEAR--		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	C	7.141	3.861	17	3.633	1.940	15	8.950	2.231	18	17.024	2.580	17	21.200	0.000	
PRESS	P25	mmHg	745.418	4.773	17	744.067	6.337	15	741.667	4.360	18	741.089	3.879	18	757.700	734.300	
OXYGEN	P300	mg/L	13.359	0.920	17	13.780	0.984	15	12.178	1.093	18	10.628	0.848	18	15.400	9.500	
PCTSAT	P301	%	111.982	8.561	17	105.947	3.888	15	106.806	5.114	17	109.718	10.595	17	134.500	84.600	
FC	P31616	#/100ml	8.118	11.224	17	13.000	30.820	15	6.625	10.105	16	23.471	31.341	17	130.000	1.000K	
COD	P340	mg/L	8.143	1.952	7	6.800	1.789	5	9.167	2.787	6	5.167	1.169	6	12.000	4.000K	
PH	P400	units	8.065	0.640	17	8.027	0.461	15	7.718	0.597	17	8.156	0.655	18	9.400	6.800	
SUSSOL	P530	mg/L	6.000	7.794	17	6.333	8.355	15	11.111	12.112	18	3.125	1.668	16	44.000	1.000K	
FLOW	P60	CFS	2905.941	5375.396	17	1646.533	669.482	15	6376.111	3076.354	18	1606.056	1710.581	18	22700.000	302.000	
TPN	P600	mg/L	0.362	0.105	3	0.252	0.047	3	0.101	0.033	3	0.252	0.141	3	0.482	0.072	
NH3_N	P610	mg/L	0.011	0.003	17	0.011	0.002	15	0.012	0.005	18	0.013	0.008	18	0.040	0.010K	
NO2_D1S	P613	mg/L	0.010	0.000	14	0.010	0.000	12	0.010	0.000	15	0.010	0.000	15	0.010	0.010K	
NO2_N	P615	mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	2	0.010	0.000	3	0.010	0.010K	
NH3_UN	P619	mg/L	0.001	0.001	12	0.000	0.001	9	0.001	0.001	8	0.002	0.002	10	0.008	0.000	
NO3_N	P620	mg/L	0.167	0.055	3	0.107	0.057	3	0.060	0.028	2	0.185	0.120	2	0.270	0.040	
NO2_NO3	P630	mg/L	0.160	0.092	17	0.109	0.049	15	0.045	0.020	18	0.151	0.088	18	0.342	0.010K	
TP_P	P665	mg/L	0.013	0.004	15	0.019	0.019	15	0.013	0.006	18	0.012	0.003	18	0.080	0.010K	
OP_DIS	P671	mg/L	0.010	0.000	17	0.010	0.000	15	0.010	0.000	17	0.010	0.000	18	0.010	0.010K	
COLOR	P80	Pt-Co	14.000	4.041	7	14.500	14.849	2	15.000	19.799	2	12.000	19.053	3	34.000	1.000	
TURB	P82079	NTU	3.847	8.774	17	1.447	2.128	15	1.894	1.444	18	1.059	0.557	17	37.000	0.300	
COND	P95	umhos	68.294	22.828	17	67.933	9.874	15	46.833	18.260	18	63.278	16.740	18	109.000	28.000	

Water Years Sampled:  
5 6 7 8 9 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 65A110 Name: WENATCHEE R NR FAVENWORTH

Class: AA Elevation: 1665 River Mile: 35,60

**Location:** LOCATED AT THE UPPER END OF TUMMATER CANYON ON THE US HIGHWAY 2 BRIDGE AT TUMMATER CAMPGROUND

Water Years Sampled: 5 6 7 8 9  
 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6

VARIABLE	P-CODE	UNITS	--OCTOBER-DECEMBER--			--JANUARY-MARCH--			--APRIL-JUNE--			--JULY-SEPTEMBER--			----SIX YEAR----		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	C	6.378	3.359	18	2.456	1.451	18	7.194	2.164	18	14.718	2.489	17	19.200	0.000	
PRESS	P25	mmHg	718.561	6.769	18	719.383	5.500	18	717.483	3.357	18	718.765	5.157	17	735.100	708.000	
OXYGEN	P300	mg/L	12.017	1.158	18	12.944	0.494	18	11.578	0.742	18	9.744	0.430	16	14.400	9.200	
PCTSAT	P301	%	102.333	4.336	18	99.956	2.710	18	100.529	3.274	17	101.340	4.143	15	114.300	93.700	
FC	P31616	#/100mL	2.667	2.275	18	1.176	0.728	17	1.824	2.430	17	2.824	2.481	17	11.000	1.000K	
PH	P400	units	7.665	0.562	17	7.522	0.556	18	7.588	0.620	17	7.688	0.433	17	8.600	6.000	
SUSSOL	P530	mg/L	4.722	6.702	18	6.056	8.755	18	7.833	8.590	18	2.188	0.834	16	36.000	1.000K	
FLOW	P60	CFS	1717.944	2685.862	18	1211.833	598.294	18	4774.444	2372.899	18	1392.706	1463.738	17	11300.000	243.000	
TPN	P600	mg/L	0.100	0.041	3	0.125	0.022	3	0.107	0.048	3	0.037	0.022	2	0.152	0.021	
NH3_N	P610	mg/L	0.011	0.002	18	0.012	0.004	18	0.011	0.002	18	0.012	0.007	17	0.030	0.010K	
NO2_D1S	P613	mg/L	0.010	0.000	14	0.009	0.002	15	0.010	0.000	15	0.010	0.000	15	0.010	0.001K	
NO2_N	P615	mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	2	0.010	0.000	3	0.010	0.010K	
NH3_UN	P619	mg/L	0.000	0.000	12	0.000	0.000	12	0.000	0.000	8	0.000	0.001	10	0.003	0.000	
NO3_N	P620	mg/L	0.030	0.028	2	0.043	0.006	3	0.045	0.007	2	0.015	0.007	2	0.050	0.010K	
NO2_N03	P630	mg/L	0.028	0.018	18	0.055	0.023	18	0.053	0.018	18	0.012	0.005	17	0.139	0.010K	
TP_P	P665	mg/L	0.011	0.003	16	0.015	0.017	18	0.015	0.014	18	0.011	0.002	17	0.080	0.002K	
OP_DIS	P671	mg/L	0.010	0.000	17	0.010	0.001	18	0.010	0.000	17	0.010	0.000	16	0.010	0.004	
COLOR	P80	Pt-Co	4.000	0.000	2	6.667	2.309	3	5.000	6.928	3	15.000	19.799	2	29.000	1.000	
TURB	P82079	NTU	1.184	0.821	18	1.000	0.700	18	1.450	0.821	18	0.906	0.445	16	3.400	0.020	
COND	P95	umhos	41.222	13.888	18	38.222	6.538	18	33.000	9.659	18	37.941	8.927	17	85.000	20.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number:	46A070	Name:	ENTIAT R NR ENTIAT	Water Years Sampled:			
				5	6	7	8
Location:	LOCATED AT A PRIVATE BRIDGE 1.2 MILES FROM HIGHWAY 97 JUST OFF THE ENTIAT RIVER ROAD APPROXIMATELY 1.5 MILES WEST OF ENTIAT			9	0	1	2
				3	4	5	6
				7	8	9	0
				1	2	3	4
				5	6	7	8
				9	0	1	2
				3	4	5	6
				7	8	9	0
				1	2	3	4
				5	6	7	8
				9	0	1	2
				3	4	5	6
				7	8	9	0
				1	2	3	4
				5	6	7	8
				9	0	1	2
				3	4	5	6
				7	8	9	0
				1	2	3	4
				5	6	7	8
				9	0	1	2
				3	4	5	6
				7	8	9	0
				1	2	3	4
				5	6	7	8
				9	0	1	2
				3	4	5	6
				7	8	9	0
				1	2	3	4
				5	6	7	8
				9	0	1	2
				3	4	5	6
				7	8	9	0
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				3	4	5	6
				7	8	9	0
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				7	8	9	0
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				7	8	9	0
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				9	0	1	2
				3	4	5	6
				7	8	9	0
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				9	0	1	2
				3	4	5	6
				7	8	9	0
				1	2	3	4
				5	6	7	8
				9	0	1	2
				3	4	5	6
				7	8	9	0
				1	2	3	4
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				3	4	5	6
				7	8	9	0
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				3	4	5	6
				7	8	9	0
				1	2	3	4
				5	6	7	8
				9	0	1	2
				3	4	5	6
				7	8	9	0
				1	2	3	4
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				7	8	9	0
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				7	8	9	0
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				9	0	1	2
				3	4	5	6
				7	8	9	0
				1	2	3	4
				5	6	7	8
				9	0	1	2
				3	4	5	6
				7	8	9	0
				1	2	3	4
				5	6	7	8
				9	0	1	2
				3	4	5	6
				7	8	9	0
				1	2	3	4
				5	6	7	8
				9	0	1	2
				3	4	5	6
				7	8	9	0
				1	2	3	4
				5	6	7	8
				9	0	1	2
				3	4	5	6
				7	8	9	0
				1	2	3	4
				5	6	7	8
				9	0	1	2
				3	4	5	6
				7	8	9	0
				1	2	3	4
				5	6	7	8
				9	0	1	

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 47A070 Name: CHELAN R @ CHELAN

Location:  
LOCATED 4.8 MILES FROM THE MOUTH OF THE CHELAN RIVER AT THE OUTLET OF  
LAKE CHELAN FROM THE BRIDGE ON HIGHWAY 97

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			---JANUARY-MARCH---			---APRIL-JUNE---			---JULY-SEPTEMBER---			---SIX YEAR---		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	C	11.908	3.560	12	4.967	1.080	12	14.117	3.697	12	20.658	1.769	12	23.500	3.000	
PRESS	P25	mmHg	731.917	5.092	12	733.900	4.606	12	730.883	4.723	12	729.625	4.088	12	742.000	722.400	
OXYGEN	P300	mg/L	10.450	0.688	12	11.842	0.193	12	10.392	0.853	12	9.017	0.262	12	12.200	8.800	
PCTSAT	P301	%	99.800	5.271	12	95.808	3.127	12	103.482	5.074	11	103.718	3.334	11	110.700	88.900	
FC	P31616	#/100ml	11.583	36.036	12	1.000	0.000	12	6.083	15.222	12	4.167	6.088	12	126.000	1.000	
CHL	P32211	ug/L	1.044	0.952	5	5.000	0.000	2	0.140	0.135	4	0.130	0.092	6	5.000	0.010	
PHEO	P32218	ug/L	0.970	0.963	5	5.000	0.000	2	0.220	0.194	4	0.153	0.066	6	5.000	0.010	
COD	P340	mg/L	5.429	1.272	7	4.833	1.329	6	5.167	1.169	6	5.500	1.975	6	8.000	4.000	
PH	P400	units	7.933	0.306	12	8.250	0.288	12	7.867	0.438	12	8.075	0.283	12	8.800	7.100	
SUSSOL	P530	mg/L	1.750	1.055	12	1.250	0.452	12	1.833	1.337	12	1.417	0.793	12	5.000	1.000	
FLOW	P60	cfs	2023.333	191.707	12	2157.500	114.346	12	1908.333	1329.264	12	1955.917	1014.048	12	5120.000	0.000	
TPN	P600	mg/L	0.083	0.009	3	0.109	0.022	3	0.066	0.022	3	0.049	0.015	3	0.135	0.032	
NH3_N	P610	mg/L	0.011	0.003	12	0.011	0.003	12	0.010	0.001	12	0.012	0.004	12	0.020	0.010	
NO2_DIS	P613	mg/L	0.010	0.000	9	0.009	0.003	9	0.010	0.000	9	0.010	0.000	9	0.010	0.001	
NO2_N	P615	mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	2	0.010	0.000	3	0.010	0.010	
NH3_UN	P619	mg/L	0.000	0.001	13	0.000	0.000	12	0.000	0.000	8	0.000	0.001	10	0.002	0.000	
NO3_N	P620	mg/L	0.025	0.007	2	0.033	0.021	3	0.030	0.000	2	0.020	0.014	2	0.050	0.010	
NO2_NO3	P630	mg/L	0.018	0.008	12	0.053	0.009	12	0.040	0.012	12	0.016	0.009	12	0.070	0.010	
TP_P	P665	mg/L	0.012	0.006	10	0.024	0.037	12	0.012	0.004	11	0.010	0.002	12	0.127	0.004	
OP_DIS	P671	mg/L	0.010	0.000	12	0.009	0.002	12	0.010	0.000	12	0.010	0.000	12	0.010	0.002	
COLOR	P80	Pt-Co	6.000	2.828	2	4.000	0.000	3	2.000	1.732	3	11.000	14.142	2	21.000	1.000	
TURB	P82079	NTU	0.733	0.293	12	0.742	0.329	12	1.575	1.955	12	0.575	0.270	12	7.600	0.200	
COND	P95	umhos	53.000	5.721	12	58.333	7.992	12	57.083	9.510	12	55.167	5.997	12	76.00	45.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number:	48A070	Name:	METHOW R NR PATEROS	Water Years Sampled:		
Location:	LOCATED 5 MILES FROM THE MOUTH OF THE METHOW RIVER, 3.6 MILES FROM THE JUNCTION OF HIGHWAYS 153 AND 97 AT THE BRIDGE ON HIGHWAY 153 NORTHWEST OF PATEROS			5	6	7
VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---	---JANUARY-MARCH---	---APRIL-JUNE---	---JULY-SEPTEMBER---
			MEAN	STD. DEV.	N	MEAN
TEMP	P10	C	5.389	3.869	18	9.511
PRESS	P25	mmHg	737.728	6.602	18	736.444
OXYGEN	P300	mg/L	12.678	1.130	18	11.189
PCTSAT	P301	%	102.461	3.739	18	100.253
FC	P31616	#/100ml	1.944	1.434	18	14.944
PH	P400	units	8.178	0.221	18	8.300
SUSSOL	P530	mg/L	2.056	1.434	18	4.250
FLOW	P60	cfs	510.389	382.238	18	390.563
TPN	P600	mg/L	0.256	0.023	3	0.285
NH3_N	P610	mg/L	0.010	0.000	18	0.011
NO2_DIS	P613	mg/L	0.010	0.000	14	0.009
NO2_N	P615	mg/L	0.010	0.000	3	0.010
NH3_UN	P619	mg/L	0.000	0.000	12	0.001
NO3_N	P620	mg/L	0.230	0.000	2	0.207
NO2_NO3	P630	mg/L	0.185	0.053	18	0.186
TP_P	P665	mg/L	0.011	0.003	16	0.017
OP_DIS	P671	mg/L	0.010	0.000	17	0.010
COLOR	P80	Pt-Co	4.000	0.000	2	4.000
TURB	P82079	NTU	0.939	1.054	18	1.400
COND	P95	umhos	169.778	40.767	18	174.563
						12.811
						98.389
						33.138
						18
						144.722
						34.556
						18
						300.000
						59.000

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 49B070		Name: SIMILKAMEEN R @ OROVILLE		Class: A		Elevation:	960	River Mile:	5.00												
Location: LOCATED .2 MILES WEST OF HIGHWAY 97 AT THE BRIDGE ON 12TH AVENUE (WANNACUT LAKE ROAD) IN OROVILLE				Water Years Sampled:		5 6	7	8	9												
VARIABLE	P-CODE	UNITS	--OCTOBER-DECEMBER--	MEAN	STD. DEV.	N	--JANUARY-MARCH--	MEAN	STD. DEV.	N	--APRIL-JUNE--	MEAN	STD. DEV.	N	--JULY-SEPTEMBER--	MEAN	STD. DEV.	N	--SIX YEAR----	MAX	MIN
TEMP	P10	C	5.444	4.158	18	2.760	2.334	15	9.394	3.483	18	16.889	2.827	18	22.40	-0.200					
PRESS	P25	mmHg	738.739	6.174	18	739.947	4.611	15	738.511	5.584	18	738.950	5.191	18	751.30	723.90					
OXYGEN	P300	mg/l	12.706	1.504	18	13.240	0.923	15	11.717	0.858	18	9.633	0.617	18	15.10	8.40					
PCTSAT	P301	%	102.378	4.820	18	100.053	2.154	15	103.876	4.417	17	101.465	4.057	17	114.50	93.30					
FC	P31616	#/100ml	3.588	6.481	17	1.786	1.888	14	14.353	13.143	17	14.235	13.958	17	54.00	1.000K					
PH	P400	units	8.133	0.421	18	8.447	0.439	15	8.206	0.384	18	8.289	0.325	18	9.10	7.10					
SUSSOL	P530	mg/l	18.944	50.843	18	5.333	7.844	15	48.056	65.604	18	6.278	7.797	18	248.00	1.000K					
FLOW	P60	CFS	1478.167	1880.593	18	941.077	515.844	13	5371.944	3712.751	18	1656.167	1584.308	18	12500.00	265.00					
TPN	P600	mg/l	0.083	0.017	3	0.106	0.016	3	0.075	0.040	3	0.067	0.014	3	0.125	0.036					
NH3_N	P610	mg/l	0.013	0.010	18	0.011	0.003	15	0.015	0.015	18	0.012	0.006	18	0.074	0.010K					
NO2_DIS	P613	mg/l	0.010	0.000	14	0.010	0.000	12	0.010	0.000	15	0.010	0.000	15	0.010	0.010	0.010	0.010	0.010	0.010	
NO2_N	P615	mg/l	0.010	0.000	3	0.010	0.000	3	0.010	0.000	2	0.010	0.000	3	0.010	0.010	0.010	0.010	0.010	0.010	
NH3_UN	P619	mg/l	0.000	0.000	12	0.001	0.001	7	0.001	0.001	8	0.001	0.001	10	0.003	0.000	0.003	0.000	0.003	0.000	
NO3_N	P620	mg/l	0.025	0.021	2	0.010	0.000	3	0.025	0.007	2	0.010	0.000	2	0.040	0.000K					
NO2_NO3	P630	mg/l	0.023	0.016	18	0.026	0.019	15	0.013	0.008	18	0.011	0.002	18	0.070	0.010K					
TP_P	P665	mg/l	0.024	0.042	16	0.017	0.019	15	0.030	0.031	18	0.013	0.005	18	0.180	0.009					
OP_DIS	P671	mg/l	0.010	0.000	17	0.010	0.000	15	0.010	0.000	18	0.010	0.000	18	0.011	0.010K					
COLOR	P80	Pt-Co	4.000	0.000	2	19.857	12.602	7	15.333	10.599	3	21.500	28.991	2	80.000	1.000					
TURB	P82079	NTU	5.817	17.117	18	1.667	1.812	15	10.167	12.424	18	2.161	2.105	18	74.000	0.600					
COND	P95	umhos	166.611	37.961	18	195.933	23.481	15	116.500	38.000	18	164.667	34.578	18	253.000	80.000					

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 54A050 Name: SPOKANE R @ MOUTH

Class: A Elevation: 129 River Mile: 1.70

Location:  
 LOCATED ON THE STATE HIGHWAY 25 BRIDGE AT THE MOUTH OF THE SPOKANE RIVER  
 ADJACENT TO FORT SPOKANE ON THE LINCOLN/STEVENS COUNTY LINE

Water Years Sampled:

5	6	7	8	9
9	0	1	2	3
4	5	6	7	8
9	0	1	2	3
4	5	6	7	8
9	0	1	2	3
4	5	6	7	8
9	0	1	2	3
X	X	X	X	X

VARIABLE	P-CODE	UNITS	--OCTOBER-DECEMBER--			--JANUARY-MARCH--			--APRIL-JUNE--			--JULY-SEPTEMBER--			--SIX YEAR--		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	C	12.010	4.122	10	3.145	1.669	11	11.392	4.544	12	21.450	1.575	12	25.300	0.900	
ZN	P1094	ug/L	0.000	0.000	0	72.000	16.971	2	53.667	8.386	3	17.333	5.508	3	84.000	11.000	
CR	P1118	ug/L	0.000	0.000	0	0.385	0.021	2	0.000	0.000	0	0.000	0.000	0	0.450	0.360	
PRESS	P25	mmHg	729.870	8.620	10	731.000	5.488	10	726.517	3.688	12	724.583	2.370	12	738.100	710.700	
OXYGEN	P300	mg/L	9.050	1.113	10	12.218	0.763	11	11.908	1.280	12	8.867	0.464	12	14.100	7.800	
PCTSAT	P301	%	86.440	5.338	10	94.709	6.623	11	112.725	7.428	12	106.375	6.288	12	125.000	81.400	
FC	P31616	#/100ml	1.500	1.581	10	1.364	1.206	11	1.083	0.289	12	1.091	0.302	11	6.000	1.000	
PH	P400	units	7.860	0.178	10	7.755	0.216	11	8.242	0.329	12	8.225	0.226	12	8.700	7.300	
SUSSOL	P530	mg/L	2.000	0.816	10	2.909	1.300	11	4.333	3.284	12	1.667	0.778	12	12.000	1.000	
TPN	P600	mg/L	0.456	0.163	3	0.606	0.212	3	0.390	0.224	3	0.306	0.049	3	0.757	0.242	
NH3_N	P610	mg/L	0.020	0.018	10	0.028	0.021	11	0.020	0.016	12	0.016	0.009	12	0.084	0.010	
NO2_DIS	P613	mg/L	0.015	0.006	7	0.011	0.003	8	0.009	0.002	9	0.010	0.001	9	0.023	0.003	
NO2_NO3	P630	mg/L	0.363	0.125	10	0.425	0.149	11	0.270	0.280	12	0.209	0.083	12	1.040	0.358	
TP_P	P665	mg/L	0.014	0.003	10	0.027	0.012	11	0.019	0.013	12	0.011	0.002	12	0.052	0.010	
OP_DIS	P671	ng/L	0.011	0.003	10	0.018	0.008	11	0.012	0.004	12	0.010	0.000	12	0.035	0.010	
HG	P71900	ug/L	0.000	0.000	0	0.040	0.000	2	0.040	0.000	3	0.184	0.125	3	0.300	0.040	
TURB	P82079	NTU	0.900	0.249	10	2.173	2.372	11	2.700	2.966	12	1.142	0.570	12	11.000	0.500	
HARD	P900	mg/L	0.000	0.000	0	42.500	10.607	2	35.667	7.024	3	49.333	6.506	3	74.000	29.000	
COND	P95	umhos	158.300	20.017	10	139.727	29.503	11	98.333	19.796	12	121.167	18.105	12	203.000	65.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 54A120		Name: SPOKANE R @ RIVERSIDE STATE PK		Class: A		Elevation: 1640	River Mile: 66.00
Location: LOCATED IN SPOKANE AT RIVERSIDE STATE PARK ON THE WOODEN, SWINGING, FOOT BRIDGE				Water Years Sampled:			
VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---	---JANUARY-MARCH---	---APRIL-JUNE---	---JULY-SEPTEMBER---	---SIX YEAR---
			MEAN	STD. DEV.	N	MEAN	STD. DEV.
TEMP	P10	C	9.644	3.113	18	9.906	4.470
ZN	P1094	ug/L	75.222	35.738	9	87.889	35.519
CD	P1113	ug/L	0.213	0.059	6	0.409	0.205
PB	P1114	ug/L	1.622	0.418	9	6.244	7.183
CR	P1118	ug/L	0.598	0.224	9	2.914	6.634
CU	P1119	ug/L	3.044	1.744	9	8.200	11.471
PRESS	P25	mmHg	718.006	9.294	18	719.788	7.051
OXYGEN	P300	mg/L	11.628	0.934	18	13.206	0.895
PCTSAT	P301	%	107.461	5.512	18	106.006	7.890
FC	P31616	#/100ml	63.389	127.513	18	41.938	45.356
COD	P340	mg/L	17.750	30.867	8	22.250	26.644
PH	P400	units	8.167	0.374	18	7.867	0.363
SUSSOL	P530	mg/L	2.167	1.150	18	89.588	293.335
FLOW	P60	CFS	3298.333	3315.729	18	5552.778	4066.417
TPN	P600	mg/L	0.802	0.167	3	0.719	0.132
NH3_N	P610	mg/L	0.138	0.120	18	0.106	0.085
NO2_DIS	P613	mg/L	0.022	0.031	15	0.010	0.000
NO2_N	P615	mg/L	0.010	0.000	3	0.013	0.006
NH3_UN	P619	mg/L	0.003	0.006	13	0.001	0.001
NO3_N	P620	mg/L	0.355	0.021	2	0.503	0.337
NO2_NO3	P630	mg/L	0.460	0.184	18	0.589	0.382
TP_P	P665	mg/L	0.041	0.024	16	0.074	0.050
OP_DIS	P671	mg/L	0.033	0.024	18	0.052	0.025
HG	P71900	ug/L	0.061	0.017	8	0.043	0.017
COLOR	P80	Pt-Co	10.143	5.581	7	22.000	24.249
TURB	P82079	NTU	1.617	2.845	18	22.183	52.701
HARD	P900	mg/L	55.778	16.338	9	44.667	9.849
COND	P95	umhos	122.611	28.979	18	131.611	93.601

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY - SIX YEAR AVERAGE

Station Number: 55B070		Name: LITTLE SPOKANE R NR MOUTH		Class: A		Elevation: 1525		River Mile: 1.10		Water Years Sampled:											
Location: LOCATED APPROXIMATELY 1.5 MILES UPSTREAM FROM CONFLUENCE WITH LONG LAKE ON BRIDGE CROSSING THE LITTLE SPOKANE RIVER ON HIGHWAY 291 AT OLD FORT SPOKANE HISTORICAL SITE				5 6		7		8		9											
VARIABLE	P-CODE	UNITS	--OCTOBER-DECEMBER--	MEAN	STD. DEV.	N	--JANUARY-MARCH--	MEAN	STD. DEV.	N	--APRIL-JUNE--	MEAN	STD. DEV.	N	--JULY-SEPTEMBER--	MEAN	STD. DEV.	N	--SIX YEAR--	MAX	MIN
TEMP	P10	C	8.508	1.958	12	5.608	1.279	12	11.767	2.607	12	15.025	1.111	12	17.200	3.500					
ZN	P1094	ug/L	4.667	2.449	9	16.333	20.335	9	5.500	2.390	8	4.667	2.739	9	58.000	2.000V					
CD	P1113	ug/L	0.156	0.053	9	0.186	0.080	9	*****	*****	7	0.129	0.049	7	1.000	0.030					
PB	P1114	ug/L	1.011	0.033	9	3.013	4.785	8	1.200	0.394	5	1.157	0.215	7	14.800	1.000K					
CR	P1118	ug/L	0.888	0.282	9	1.604	2.388	8	0.914	0.304	7	0.690	0.229	7	7.450	0.300V					
CU	P1119	ug/L	2.422	0.769	9	5.833	6.644	9	2.986	1.391	7	3.857	1.069	7	18.000	2.000K					
PRESS	P25	mmHg	721.000	6.819	12	722.200	7.061	12	722.317	3.093	12	719.667	5.149	12	736.000	710.000					
OXYGEN	P300	mg/L	10.383	0.369	12	10.608	0.429	12	10.000	0.931	12	9.658	0.412	12	12.300	8.500					
PCTSAT	P301	%	93.392	5.200	12	88.675	3.993	12	95.927	9.470	11	100.273	3.428	11	121.000	79.500					
FC	P31616	#/100ml	26.000	22.780	12	93.091	149.920	11	31.545	43.505	11	31.333	14.975	12	520.000	2.000					
COD	P340	mg/L	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	4.000	4.000K					
PH	P400	units	8.175	0.238	12	7.883	0.248	12	8.075	0.267	12	8.233	0.257	12	8.500	7.500					
SUSSOL	P530	mg/L	5.083	3.204	12	106.545	197.728	11	14.417	6.201	12	5.273	2.412	11	600.000	1.000					
FLOW	P60	CFS	402.778	48.399	9	644.556	249.699	9	645.000	170.988	9	369.000	31.185	9	1040.000	321.000					
TPN	P600	mg/L	1.323	0.071	3	1.260	0.184	3	1.041	0.068	3	1.113	0.071	3	1.470	0.963					
NH3_N	P610	mg/L	0.013	0.004	12	0.075	0.113	11	0.024	0.028	12	0.012	0.004	11	0.374	0.010K					
N02_D1S	P613	mg/L	0.010	0.000	9	0.010	0.000	9	0.009	0.003	9	0.010	0.000	8	0.010	0.001					
N02_N	P615	mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	2	0.010	0.000	3	0.010	0.010K					
NH3_UN	P619	mg/L	0.000	0.001	13	0.000	0.000	13	0.000	0.000	12	0.001	0.001	9	0.003	0.000					
N03_N	P620	mg/L	0.980	0.594	2	0.953	0.431	3	0.877	0.074	3	1.100	0.000	3	1.400	0.540					
N02_N03	P630	mg/L	1.212	0.075	12	1.132	0.189	12	0.841	0.140	11	1.136	0.094	12	1.400	0.500					
TP_P	P665	mg/L	0.020	0.008	10	0.134	0.296	12	0.034	0.018	12	0.019	0.008	12	1.070	0.010K					
OP_DIS	P671	mg/L	0.011	0.004	12	0.037	0.040	12	0.013	0.006	12	0.010	0.000	12	0.139	0.010K					
HG	P71900	ug/L	0.073	0.022	8	0.050	0.036	9	0.045	0.024	5	0.061	0.021	7	0.110	0.002					
COLOR	P80	Pt-Co	15.000	12.437	7	12.333	7.506	3	15.667	2.309	3	46.500	17.678	2	59.000	8.000					
TURB	P82079	NTU	1.425	0.826	12	27.542	53.297	12	3.383	2.722	12	1.633	1.277	12	178.000	0.700					
HARD	P900	mg/L	135.778	5.540	9	109.667	23.964	9	101.667	15.460	9	134.778	6.200	9	143.000	71.000					
COND	P95	umhos	262.833	16.214	12	232.833	33.125	12	223.083	26.023	12	266.583	22.134	12	290.000	170.000					

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number:	55B100	Name:	LITTLE SPOKANE R ABV DEADMAN CREEK	Class:	A	Elevation:	1615	River Mile:	13.50
Location:	STATION IS LOCATED AT FIRST BRIDGE CROSSING OF LITTLE SPOKANE DRIVE UPSTREAM FROM MOUTH OF LITTLE DEEP CREEK AND PEONE (DEADMAN) CREEK. JUST ABOVE WANDERER GOLF COURSE				Water Years Sampled:	5 6	7	8	9
VARIABLE	P-CODE UNITS	--OCTOBER-DECEMBER--	--JANUARY-MARCH--	--APRIL-JUNE--	--JULY-SEPTEMBER--	--SIX YEAR--			
		MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.
TEMP	P10 °C	5.517	3.625	6	1.750	1.843	6	12.167	3.321
PRESS	P25 mmHg	721.200	7.173	6	721.617	6.546	6	720.117	1.129
OXYGEN	P300 mg/L	12.383	0.714	6	12.533	0.653	6	10.617	0.371
PCTSAT	P301 %	103.167	5.477	6	96.683	3.622	6	103.900	6.196
FC	P31616 #/100ml	18.500	11.777	6	412.500	831.744	6	50.600	79.075
PH	P400 units	8.233	0.197	6	8.033	0.356	6	8.317	0.098
SUSSOL	P530 mg/L	2.333	1.033	6	56.167	96.653	6	11.667	6.532
TWN	P600 mg/L	1.187	0.155	3	1.200	0.164	3	0.783	0.136
NH <sub>3</sub> N	P610 mg/L	0.014	0.008	6	0.132	0.221	6	0.014	0.003
NO <sub>2</sub> _D <sub>S</sub>	P613 mg/L	0.010	0.000	3	0.010	0.000	3	0.007	0.005
NO <sub>2</sub> _N <sub>3</sub>	P630 mg/L	0.982	0.094	6	0.934	0.311	6	0.571	0.102
TP_P	P665 mg/L	0.021	0.016	6	0.201	0.347	6	0.031	0.007
OP_DIS	P671 mg/L	0.014	0.010	6	0.054	0.066	6	0.014	0.003
HG	P71900 ug/L	0.001	0.000	3	0.018	0.027	3	0.002	0.001
TURB	P82079 NTU	1.083	0.475	6	21.333	40.166	6	2.767	1.143
HARD	P900 mg/L	114.333	6.658	3	72.000	38.158	3	81.000	3.606
COND	P95 umhos	232.333	9.832	6	195.333	53.407	6	186.833	10.226

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 558200 Name: LITTLE SPOKANE @ CHATTAROY

Location: Turn West off of Highway 2 at Chatteroy and drive 0.1 miles.

Class: A Elevation: 1685 River Mile: 23.10

Water Years Sampled:

5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6
9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	X

VARIABLE	P-CODE	UNITS	--OCTOBER-DECEMBER--			--JANUARY-MARCH--			--APRIL-JUNE--			--JULY-SEPTEMBER--			--SIX YEAR--		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	C	5.700	5.103	3	1.767	1.537	3	11.633	3.453	3	18.633	3.134	3	22.00	0.00	
PRESS	P25	mmHg	717.133	6.391	3	718.667	7.679	3	718.367	1.692	3	716.900	4.590	3	724.200	709.900	
OXYGEN	P300	mg/L	11.300	1.664	3	12.233	0.503	3	10.467	0.058	3	10.367	0.115	3	12.700	9.400	
PCTSAT	P301	%	94.333	4.997	3	92.867	1.582	3	101.533	7.223	3	116.833	6.936	3	124.700	90.000	
FC	P31616	#/100ml	6.333	2.517	3	78.333	131.356	3	23.000	24.434	3	62.000	59.102	3	230.00	1.000	
PH	P400	units	7.833	0.289	3	7.933	0.289	3	8.300	0.173	3	8.367	0.058	3	8.400	7.500	
SUSSOL	P530	mg/L	2.333	1.528	3	7.667	3.786	3	5.333	3.215	3	2.000	0.000	3	12.000	1.000	
FLOW	P60	CFS	73.400	17.764	3	95.200	32.014	3	122.833	35.286	3	42.400	10.739	3	148.000	30.000	
TPN	P600	mg/L	0.505	0.126	3	0.694	0.146	3	0.353	0.065	3	0.220	0.034	3	0.791	0.186	
NH3_N	P610	mg/L	0.011	0.002	3	0.035	0.021	3	0.013	0.005	3	0.014	0.008	3	0.059	0.010K	
NO2_NO3	P630	mg/L	0.340	0.093	3	0.411	0.078	3	0.168	0.052	3	0.101	0.014	3	0.474	0.089	
TP_P	P665	mg/L	0.015	0.009	3	0.028	0.011	3	0.025	0.010	3	0.011	0.001	3	0.040	0.010K	
OP_DIS	P671	mg/L	0.010	0.000	3	0.013	0.006	3	0.010	0.000	3	0.010	0.000	3	0.020	0.010K	
TURB	P82079	NTU	0.867	0.379	3	3.500	2.862	3	1.867	0.929	3	0.733	0.252	3	6.800	0.500K	
COND	P95	umhos	184.333	4.041	3	181.000	17.349	3	150.667	6.429	3	180.667	25.384	3	209.000	146.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 55C065		Name: DEADMAN CR NR MOUTH		Class: A		Elevation: 1615	River Mile: 0.13
Location: Barry Davidson's back yard (15526 _____ street.)				Water Years Sampled:			
VARIABLE	P-CODE	UNITS	--OCTOBER-DECEMBER--	--JANUARY-MARCH--	--APRIL-JUNE--	--JULY-SEPTEMBER--	--SIX YEAR--
			MEAN	STD. DEV.	N	MEAN	STD. DEV.
TEMP	P10	C	8.500	3.835	3	3.567	0.208
PRESS	P25	mmHg	718.567	6.983	3	719.633	8.641
OXYGEN	P300	mg/L	10.900	0.985	3	12.467	0.404
PCTSAT	P301	%	97.900	3.032	3	99.200	2.498
FC	P31616	#/100ml	23.333	12.097	3	23.000	23.302
PH	P400	units	8.233	0.306	3	8.300	0.300
SUSSOL	P530	mg/L	5.000	4.359	3	20.333	21.733
FLOW	P60	CFS	10.500	1.411	3	38.333	12.423
TPN	P600	mg/L	0.936	0.058	3	0.733	0.238
NH3_N	P610	mg/L	0.011	0.002	3	0.026	0.018
NO2_NO3	P630	mg/L	0.859	0.111	3	0.541	0.220
TP_P	P665	mg/L	0.037	0.018	3	0.058	0.006
OP_DIS	P671	mg/L	0.029	0.006	3	0.033	0.016
TURB	P82079	NTU	3.233	2.857	3	19.367	24.899
COND	P95	umhos	270.000	19.079	3	216.667	46.715

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 55E070 Name: DRAGOON CR NR CHATTARDY

Location:  
AT BRIDGE ON CRESCENT STREET, 1.4 MILES FROM CHATTARDY.

Water Years Sampled:  
5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6  
X 9

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			---JANUARY-MARCH---			---APRIL-JUNE---			---JULY-SEPTEMBER---			---SIX YEAR----		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	C	2.100	2.970	2	0.800	0.917	3	9.900	3.318	3	17.100	3.716	3	21.00	0.00	
PRESS	P25	mmHg	717.200	10.607	2	718.067	7.757	3	718.133	2.371	3	717.567	4.325	3	724.70	709.20	X
OXYGEN	P300	mg/L	12.800	0.566	2	13.100	0.656	3	10.767	0.611	3	9.433	0.603	3	13.70	8.80	
PCTSAT	P301	%	98.250	2.051	2	96.933	1.595	3	100.233	2.695	3	102.733	1.595	3	104.50	95.60	
FC	P31616	#/100ml	77.000	12.728	2	734.667	1269.016	3	89.000	99.715	3	113.333	64.291	3	2200.00	1.000K	
PH	P400	units	8.100	0.141	2	8.067	0.153	3	8.467	0.115	3	8.433	0.058	3	8.60	7.90	
SUSSOL	P530	mg/L	2.000	1.414	2	9.000	10.583	3	5.333	2.517	3	2.667	0.577	3	21.00	1.00	
FLOW	P60	CFS	0.000	0.000	0	34.900	9.398	3	26.033	7.215	3	8.833	0.850	3	43.70	8.000J	
TPN	P600	mg/L	2.875	0.304	2	2.787	1.030	3	1.685	0.021	2	1.947	0.125	3	3.820	1.670	
NH3_N	P610	mg/L	0.015	0.006	2	0.084	0.120	3	0.011	0.002	3	0.012	0.003	3	0.222	0.010K	
NO2_NO3	P630	mg/L	2.550	0.269	2	2.213	0.954	3	1.717	0.555	3	1.947	0.227	3	3.310	1.450	
TP_P	P665	mg/L	0.077	0.091	2	0.122	0.101	3	0.059	0.010	3	0.030	0.014	3	0.238	0.012	
OP_DIS	P671	mg/L	0.061	0.072	2	0.091	0.079	3	0.040	0.004	3	0.019	0.011	3	0.182	0.010K	
TURB	P82079	NTU	1.550	1.061	2	6.067	3.915	3	2.667	1.531	3	1.133	0.289	3	8.90	0.800	
COND	P95	umhos	296.000	11.314	2	273.667	73.119	3	269.000	15.620	3	298.333	32.517	3	358.00	228.00	X

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Name: SPOKANE R @ STATELINE BR

Location:

**Location:** LOCATED AT THE BRIDGE ON STATELINE VILLAGE ROAD, .1 MILE WEST OF THE WASHINGTON-IDaho BORDER. 0-.1 MILE NORTH OF I-90.

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with  $1/2$  the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 59A070		Name: COLVILLE R @ KETTLE FALLS		Class: A		Elevation: 1250		River Mile: 5.00			
Location: LOCATED 5 MILES FROM THE MOUTH OF THE COLVILLE RIVER .5 MILES SOUTH OF KETTLE FALLS AT THE USGS GAGING STATION JUST BELOW MEYERS FALLS AND THE POWER PLANT				Water Years Sampled:							
VARIABLE	P-CODE UNITS	--OCTOBER-DECEMBER--		--JANUARY-MARCH--		--APRIL-JUNE--		--JULY-SEPTEMBER--		--SIX YEAR--	
		MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	MAX	MIN
TEMP	P10 C	5.473	4.042	11	1.783	1.751	6	10.411	4.410	9	18.711
PRESS	P25 mmHg	724.164	6.902	11	723.833	6.054	6	725.867	3.813	9	726.744
OXYGEN	P300 mg/L	11.445	1.181	11	12.050	0.288	6	10.578	0.851	9	8.256
PCTSAT	P301 %	94.391	3.632	11	90.983	4.315	6	98.038	5.980	8	91.463
FC	P31616 #/100ml	82.455	112.906	11	83.667	89.391	6	87.556	105.659	9	121.500
PH	P400 units	8.191	0.221	11	7.983	0.194	6	7.989	0.355	9	8.256
SUSSOL	P530 mg/L	97.455	299.032	11	32.800	43.597	5	50.556	55.473	9	8.750
FLOW	P60 CFS	100.545	34.662	11	192.500	63.109	6	576.333	412.251	9	90.667
TPN	P600 mg/L	0.594	0.390	3	0.976	0.195	3	0.324	0.096	3	0.272
NH3_N	P610 mg/L	0.076	0.065	11	0.209	0.164	5	0.030	0.018	9	0.021
NO2_D1S	P613 mg/L	0.009	0.002	8	0.013	0.006	3	0.012	0.004	6	0.010
NO2_N	P615 mg/L	0.010	0.000	2	0.010	0.000	2	0.010	0.000	2	0.010
NH3_UN	P619 mg/L	0.001	0.001	10	0.001	0.001	6	0.001	0.001	11	0.002
NO3_N	P620 mg/L	0.205	0.134	2	0.315	0.035	2	0.153	0.058	3	0.117
NO2_NO3	P630 mg/L	0.286	0.183	11	0.702	0.292	6	0.184	0.120	9	0.064
TP_P	P665 mg/L	0.055	0.021	9	0.077	0.039	6	0.078	0.026	9	0.058
OP_DIS	P671 mg/L	0.049	0.023	11	0.072	0.045	6	0.030	0.008	9	0.033
COLOR	P80 Pt-Co	40.857	40.847	7	31.500	3.536	2	18.333	4.619	3	31.000
TURB	P82079 NTU	2.327	0.861	11	14.533	13.314	6	13.833	11.552	9	3.544
HARD	P900 mg/L	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	200.000
COND	P95 umhos	337.000	29.756	11	389.667	121.227	6	252.111	44.993	9	343.222
											22.554

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.



## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 61A070		Name: COLUMBIA R @ NORTHPORT		Class: AA		Elevation: 1280		River Mile: 735.10		Water Years Sampled:	
Location: LOCATED AT THE BRIDGE CROSSING THE COLUMBIA RIVER ON STATE HIGHWAY 25, IMMEDIATELY NORTHEAST OF NORTHPORT				5 6		7		8		9	
VARIABLE	P-CODE	UNITS	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N
TEMP	P10	C	9.220	3.904	10	3.064	1.380	11	8.283	3.296	12
ZN	P1094	ug/L	10.200	0.837	5	16.875	9.265	8	21.070	21.051	10
CD	P1113	ug/L	0.178	0.075	5	0.180	0.118	7	0.474	0.954	9
PB	P1114	ug/L	1.980	1.348	5	3.271	3.052	7	3.875	6.607	8
CR	P1118	ug/L	0.410	0.187	5	0.421	0.143	7	1.397	2.049	9
CU	P1119	ug/L	4.520	2.477	5	3.913	2.059	8	4.489	3.412	9
PRESS	P25	mmHg	730.640	7.597	10	731.180	6.024	10	729.317	9.038	12
OXYGEN	P300	mg/L	11.590	1.466	10	12.982	0.498	11	12.150	0.378	12
PCTSAT	P301	%	103.630	5.797	10	100.555	7.297	11	107.325	7.107	12
FC	P31616	#/100ml	17.200	28.063	10	18.273	40.657	11	18.333	32.374	12
CHL	P32211	ug/L	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0
PHEO	P32218	ug/L	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0
PH	P400	units	7.970	0.231	10	7.845	0.273	11	7.973	0.190	11
SUSSOL	P530	mg/L	2.000	0.816	10	1.636	0.505	11	2.917	1.730	12
FLOW	P60	CFS	82120.000	15131.410	10	82209.091	35956.737	11	81350.000	5459.453	12
TPN	P600	mg/L	0.134	0.023	3	0.148	0.058	3	0.139	0.052	3
NH3_N	P610	mg/L	0.026	0.021	10	0.023	0.013	11	0.022	0.019	12
NO2_DIS	P613	mg/L	0.010	0.000	7	0.010	0.000	8	0.009	0.003	9
NO2_NO3	P630	mg/L	0.063	0.023	10	0.115	0.016	11	0.078	0.024	12
TP_P	P665	mg/L	0.020	0.007	10	0.019	0.007	11	0.018	0.011	12
OP_DIS	P671	mg/L	0.013	0.006	10	0.015	0.007	11	0.014	0.009	12
HG	P71900	ug/L	0.070	0.021	5	0.048	0.005	8	0.060	0.064	11
TURB	P82079	NTU	0.800	0.236	10	1.018	0.774	11	1.058	0.414	12
HARD	P900	mg/L	70.667	1.211	6	67.429	19.415	7	66.273	4.429	11
COND	P95	umhos	140.100	8.762	10	145.909	14.508	11	134.500	16.539	12

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Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 62A090 Name: PEND OREILLE MTAINE FAY S

**Class:** A    **Elevation:** 2020    **River Mile:** 27.00

**Location:** LOCATED AT THE BRIDGE ON HIGHWAY 31 BETWEEN METALINE AND METALINE FALLS CROSSING THE PEND OREILLE RIVER

VARIABLE	P-CODE	UNITS	--- OCTOBER-DECEMBER ---			--- JANUARY-MARCH ---			--- APRIL-JUNE ---			--- JULY-SEPTEMBER ---			--- SIX YEAR ---		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	C	12.600	3.818	2	1.700	0.141	2	10.133	4.347	3	21.000	3.396	3	24.900	1.600J	
PRESS	P25	mmHg	706.650	2.475	2	708.300	4.808	2	717.700	10.037	3	709.600	2.402	3	729.200	704.900	
OXYGEN	P300	mg/L	9.650	0.636	2	12.500	0.141	2	10.667	0.950	3	8.833	0.252	3	12.600	8.600	
PCTSAT	P301	%	97.000	1.414	2	96.150	0.071	2	99.600	2.052	3	105.233	4.744	3	110.600	96.000	
FC	P31616	#/100ml	1.500	0.707	2	1.000	0.000	2	1.333	0.577	3	3.667	3.055	3	7.000	1.000U	
PH	P400	units	8.250	0.212	2	8.050	0.071	2	8.067	0.321	3	8.533	0.208	3	8.700	7.700	
SUSSOL	P530	mg/L	1.500	0.707	2	2.500	0.707	2	3.000	1.000	3	1.333	0.577	3	4.000	1.000K	
FLOW	P60	CFS	25700.000	1131.371	2	18500.000	6081.118	2	23933.333	10055.015	3	9840.000	3178.490	3	31400.000	6320.000	
TPN	P600	mg/L	0.092	0.001	2	0.104	0.008	2	0.067	0.011	3	0.105	0.017	3	0.125	0.056	
NH3_N	P610	mg/L	0.010	0.000	2	0.011	0.001	2	0.010	0.000	3	0.011	0.001	3	0.012	0.010K	
NO2_NO3	P630	mg/L	0.010	0.000	2	0.014	0.002	2	0.010	0.000	3	0.010	0.000	3	0.015	0.010K	
TP_P	P665	mg/L	0.010	0.000	2	0.012	0.003	2	0.010	0.000	3	0.011	0.001	3	0.014	0.010K	
OP_DIS	P671	mg/L	0.010	0.000	2	0.010	0.000	2	0.010	0.000	3	0.010	0.000	3	0.010	0.010K	
TURB	P82079	NTU	0.900	0.141	2	1.150	0.778	2	1.967	0.493	3	0.967	0.252	3	2.300	0.600	
COND	P95	umhos	157.500	0.707	2	161.500	0.707	2	145.000	9.849	3	144.333	16.563	3	162.000	127.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

VARIABLE	P-CODE	UNITS	--OCTOBER-DECEMBER--			--JANUARY-MARCH--			--APRIL-JUNE--			--JULY-SEPTEMBER--			--SIX YEAR--		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	C	8.967	4.367	18	2.138	1.424	16	9.817	3.764	18	19.311	2.408	18	24.90	-0.100	
PRESS	P25	mmHg	712.767	6.360	18	710.680	8.115	15	710.567	3.121	18	711.144	3.207	18	727.00	692.000	
OXYGEN	P300	mg/L	10.461	1.031	18	12.513	0.466	16	11.394	1.068	18	9.067	0.468	18	13.30	8.500	
PCTSAT	P301	%	95.422	3.677	18	97.138	3.805	16	106.129	5.298	17	104.329	5.348	17	119.80	89.200	
FC	P31616	#/100ml	1.556	1.199	18	1.688	1.662	16	2.176	1.741	17	6.059	14.843	17	63.00	1.000K	
PH	P400	units	8.089	0.263	18	7.856	0.266	16	8.065	0.242	17	8.378	0.190	18	8.60	7.300	
SUSSL	P530	mg/L	2.500	1.043	18	5.867	6.968	15	5.000	2.544	18	2.235	0.831	17	26.00	1.000K	
FLOW	P60	CFS	23161.111	4806.018	18	18206.250	6476.467	16	30388.333	19729.046	18	17692.778	12014.742	18	75600.000	2980.000	
TPN	P600	mg/L	0.098	0.008	3	0.125	0.019	3	0.069	0.025	3	0.100	0.023	3	0.145	0.048	
NH3_N	P610	mg/L	0.011	0.004	18	0.011	0.005	15	0.010	0.002	18	0.010	0.000	17	0.027	0.004	
NO2_DIS	P613	mg/L	0.009	0.002	15	0.010	0.000	13	0.009	0.002	15	0.010	0.000	14	0.010	0.001	
NO2_N	P615	mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	2	0.010	0.000	3	0.010	0.010K	
NH3_UN	P619	mg/L	0.001	0.003	14	0.000	0.000	12	0.000	0.000	11	0.001	0.001	9	0.011	0.000	
NO3_N	P620	mg/L	0.013	0.006	3	0.023	0.012	3	0.013	0.006	3	0.010	0.000	3	0.030	0.000K	
NO2_NO3	P630	mg/L	0.012	0.006	18	0.039	0.016	16	0.013	0.006	18	0.010	0.000	18	0.070	0.000K	
TP_P	P665	mg/L	0.010	0.001	15	0.017	0.021	15	0.012	0.004	18	0.012	0.003	18	0.090	0.006	
QP_DIS	P671	mg/L	0.010	0.002	18	0.010	0.001	16	0.010	0.002	18	0.010	0.000	18	0.010	0.002	
COLOR	P80	Pt-Co	8.143	4.337	7	9.000	11.314	2	8.667	8.021	3	23.000	28.355	3	55.000	1.000	
TURB	P82079	NTU	1.017	0.296	18	1.656	1.111	16	1.917	0.466	18	1.189	0.382	18	5.500	0.400	
HARD	P900	mg/L	0.000	0.000	0	0.000	0.000	0	29.000	1.414	2	0.000	0.000	0	85.000	85.000	
COND	P95	umhos	161.222	21.789	18	166.938	14.163	16	146.333	17.547	18	148.944	12.240	18	211.000	107.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.