

ELK CREEK STUDY

Idaho County

Data Collected 1979

Final Summary October 1980

**Department of Health and Welfare
Division of Environment
Statehouse
Boise, Idaho 83720**

**Water Quality Summary
No. 7**

ELK CREEK STUDY

Idaho County

Data Collected 1979

Final Summary October 1980

Department of Health and Welfare
Division of Environment
Statehouse
Boise, Idaho 83720

TABLE OF CONTENTS

Summary

Data Inventory

Raw Data

SUMMARY OF ELK CREEK STUDY

In Water Year 1979 the American River, the Red River, and Elk Creek in Idaho County were studied to determine their present water quality and to obtain background information for developing effluent limitations for the Elk City sewage treatment facility. Quarterly monitoring was conducted on each stream for the following parameter categories:

Temperature	Solids
Dissolved Oxygen	Select Ions
pH	Nutrients
Bacteria	Heavy Metals
Oxygen Demand	Radioactivity

The study in the Elk City area indicates that the water quality of the major streams is generally very high. However, several violations of the bacteria standard for primary contact recreation were recorded on Elk Creek and the American River, and nutrients on Elk Creek and below Elk City exceeded recommended trophic levels for free flowing streams on several occasions. Elk Creek above the Elk City lagoon discharge was shown to suffer from some organic contamination of an unknown source.

Since the American River has been designated a "Special Resource Water," Elk City may be prevented from increasing their discharge if growth in the area exceeds the present design capacity of their system.

DATA INVENTORY

2020185
 45 50 35.0 115 26 45.0 2
 ELK CR AB ELK CITY EFFLUENT
 16049 IDAHO
 PACIFIC NORTHWEST 130800
 LOWER SNAKE
 211DSURV 790519
 0000 CLASS 00

/IYPA/AMBNT/STREAM

INDEX	1310001	002740	01350	1360	1430	0030												
MILES	0324.30	0139.30	074.70	062.50	001.50	000.90												
PARAMETER					NUMBER	MEAN	VARIANCE	STAN DEV	COEF VAR	STAND ER	MAXIMUM	MINIMUM	BEG DATE	END DATE				
00010	WATER	TEMP	CENT		4	6.62500	86.8958	9.32179	1.40706	4.66090	20.0000	.000000	78/10/25	79/08/15				
00042	ALTITUDE	FEET	AB MSL		1	3940.00					3940.00	3940.00	01/01/01	01/01/01				
00061	STREAM	FLOW,	INST-CFS		1	4.00000					4.00000	4.00000	78/10/25	78/10/25				
00076	TURB	TRIDMTR	HACH FTU		4	4.35000	9.95667	3.15542	.725384	1.57771	7.80000	1.20000	78/10/25	79/08/15				
00095	CONDUCTIVY	AT 25C	MICROMHO		4	40.0000	130.000	11.4018	.285044	5.70088	51.0000	24.0000	78/10/25	79/08/15				
00116	INTNSVE	SURVEY	IDENT		5	791608	.262E+06	.000000		.000000	791608	791608	01/01/01	79/08/15				
00300	DD		MG/L		4	10.4500	3.29012	1.81387	.173576	.906934	12.2000	8.60000	78/10/25	79/08/15				
00310	DD	5 DAY	MG/L		1	30.0000					30.0000	30.0000	79/08/15	79/08/15				
00335	CUD	LOWLEVEL	MG/L		2	14.5500	53.0452	7.28321	.500564	5.15001	19.7000	9.40000	78/10/25	79/05/02				
00400	PH		SU		4	6.70000	.386703	.621855	.092814	.310927	7.60000	6.20000	78/10/25	79/08/15				
00403	LAH	PH	SU		1	6.30000					6.30000	6.30000	79/08/15	79/08/15				
00500	RESIDUE	TOTAL	MG/L		4	56.2750	17.5703	4.19169	.074486	2.09585	62.0000	52.0000	78/10/25	79/08/15				
00530	RESIDUE	TOT NFLT	MG/L		4	6.27500	11.5025	3.39154	.540484	1.69577	10.0000	2.00000	78/10/25	79/08/15				
00610	NH3+NH4-	N TOTAL	MG/L		4	.162750	.015321	.123778	.760539	.061889	.322000	.023000	78/10/25	79/08/15				
00620	NO3-N	TOTAL	MG/L		1	.103000					.103000	.103000	78/10/25	78/10/25				
00625	TOT KJEL	N	MG/L		4	.447500	.038492	.196193	.438421	.098097	.660000	.200000	78/10/25	79/08/15				
00630	NO2&NO3	N-TOTAL	MG/L		3	.169000	.015361	.123939	.733370	.071556	.308000	.070000	79/01/25	79/08/15				
00665	PHOS-TOT		MG/L P		4	.075000	.000967	.031091	.414552	.015546	.120000	.050000	78/10/25	79/08/15				
00940	CHLORIDE	CL	MG/L		3	6.06667	20.8134	4.56217	.752005	2.63397	11.0000	2.00000	78/10/25	79/08/15				
31616	FLC CULI	MFM-FCBK	/100ML		4	325.250	101588	318.728	.979948	159.364	600.000	13.0000	78/10/25	79/08/15				
31679	FLCSTREP	MF M-ENT	/100ML		4	706.250	748386	865.093	1.22491	432.546	1800.00	12.0000	78/10/25	79/08/15				
70507	PHUS-T	ORTHO	MG/L P		4	.018500	.000419	.020469	1.10646	.010235	.040000	.001000	78/10/25	79/08/15				

2020186
 45 50 45.0 115 26 55.0 2
 ELK CITY LAGOON
 16049 IDAHO
 PACIFIC NORTHWEST 130800
 LOWER SNAKE
 211DSURV 790519
 0000 CLASS 00

/TYP/AMNT/STREAM

INDEX	1310001	002740	01350	1360	1430	0030												
MILES	0324.30	0139.30	074.70	062.50	001.50	000.60	PARAMETER	NUMBER	MEAN	VARIANCE	STAN DEV	COEF VAR	STAND ER	MAXIMUM	MINIMUM	BEG DATE	END DATE	
00010	WATER	TEMP	CENT					2	8.00000	32.0000	5.65685	.707107	4.00000	12.0000	4.00000	78/10/25	79/05/02	
00042	ALTITUDE	FEET	AD MSL					1	3935.00					3935.00	3935.00	01/01/01	01/01/01	
00076	TURB	TRBIDMTR	HALF FTU					2	14.9000	131.220	11.4551	.768802	8.10001	23.0000	6.80000	78/10/25	79/05/02	
00095	CONDUCTIVY	AT 25C	MICROMHO					2	326.000	50.0000	7.07107	.021690	5.00000	331.000	321.000	78/10/25	79/05/02	
00116	INTNSVE	SURVEY	IDENT					3	791608	.000000	.000000		.000000	791608	791608	01/01/01	79/05/02	
00300	DU		MG/L					2	2.55000	2.20500	1.48493	.582324	1.05000	3.60000	1.50000	78/10/25	79/05/02	
00335	COD	LOWLEVEL	MG/L					2	153.000	3872.00	62.2254	.406702	44.0000	197.000	109.000	78/10/25	79/05/02	
00400	PH		SU					2	6.80000	.080017	.282873	.041599	.200021	7.00000	6.60000	78/10/25	79/05/02	
00403	LAB	PH	SU					1	7.30000					7.30000	7.30000	79/05/02	79/05/02	
00500	RESIDUE	TOTAL	MG/L					2	355.000	28800.0	169.706	.478044	120.000	475.000	235.000	78/10/25	79/05/02	
00530	RESIDUE	TOT NFLT	MG/L					2	177.500	14280.5	119.501	.673245	84.5000	262.000	93.0000	78/10/25	79/05/02	
00610	NH3+NH4-	N TOTAL	MG/L					2	10.9700	3.53804	1.88097	.171465	1.33004	12.3000	9.60000	78/10/25	79/05/02	
00615	NO2-N	TOTAL	MG/L					2	.011000	.000128	.011314	1.02852	.008000	.019000	.010000	78/10/25	79/05/02	
00620	NO3-N	TOTAL	MG/L					2	.015500	.000040	.006364	.410578	.004500	.020000	.011000	78/10/25	79/05/02	
00625	TOT KJEL	N	MG/L					2	18.2500	17.4058	4.17202	.228604	2.95006	21.2000	15.3000	78/10/25	79/05/02	
00665	PHOS-TOT		MG/L P					2	6.50000	.020004	.141436	.021759	.100011	6.60000	6.40000	78/10/25	79/05/02	
00940	CHLORIDE	CL	MG/L					1	29.0000					29.0000	29.0000	78/10/25	78/10/25	
31501	TOT COLI	MFIMENDU	/100ML					1	1740.00					1740.00	1740.00	79/05/02	79/05/02	
31616	FEC COLI	MF M-FCBR	/100ML					2	104.000	2048.00	45.2548	.435143	32.0000	136.000	72.0000	78/10/25	79/05/02	
31679	FECSTREP	MF M-EWT	/100ML					1	6.00000					6.00000	6.00000	78/10/25	78/10/25	
70507	PHOS-T	ORTHO	MG/L P					2	5.23500	.266434	.516172	.098600	.364989	5.60000	4.87000	78/10/25	79/05/02	

2020187
 45° 50' 50.0" 115 27 30.0" 2
 ELK CR AT MOUTH
 16049 IDAHO
 PACIFIC NORTHWEST 130800
 LOWER SNAKE
 21IDSURV 790519
 0000 CLASS 00

/TYP/AMNT/STREAM

INDEX	1310001	002740	01350	1360	1430	0030														
MILES	0324.30	0139.30	074.70	062.50	001.50	000.10														
PARAMETER	NUMBER	MEAN	VARIANCE	STAN DEV	COEF VAR	STAN ER	MAXIMUM	MINIMUM	BEG DATE	END DATE										
00010 WATER	TEMP	CENT	4	6.37500	76.5625	8.75000	1.37255	4.37500	19.0000	.000000	78/10/25	79/08/15								
00042 ALTITUDE	FEET	AB MSL	1	3930.00				3930.00	3930.00	01/01/01	01/01/01									
00061 STREAM	FLOW,	INST-CFS	2	4.80000	15.6800	3.95980	.824958	2.80000	7.60000	2.00000	78/10/25	79/08/15								
00076 TURB	TURBIDIM	HACH FTU	4	3.85000	9.09666	3.01607	.783394	1.50803	8.20000	1.30000	78/10/25	79/08/15								
00095 CONDUCTIVY	AT 25C	MICROMHO	4	36.7500	93.5833	9.67385	.263234	4.83692	44.0000	23.0000	78/10/25	79/08/15								
00116 INTNSVE	SURVEY	IDENT	5	791608-	.262E+06	.000000		.000000	791608	791608	01/01/01	79/08/15								
00300 DU		MG/L	4	10.0250	2.06925	1.43849	.143490	.719245	11.4000	8.30000	78/10/25	79/08/15								
00335 COD	LOWLEVEL	MG/L	2	13.1000	30.4202	5.51545	.421027	3.90001	17.0000	9.20000	78/10/25	79/05/02								
00400 PH		SU	4	6.64999	.036753	.191712	.028829	.095856	6.80000	6.40000	78/10/25	79/08/15								
00403 LAB	PH	SU	2	6.75000	.245010	.494985	.073331	.350007	7.10000	6.40000	79/05/02	79/08/15								
00410 T ALK	CACU3	MG/L	4	14.5000	9.00000	3.00000	.206897	1.50000	17.0000	11.0000	78/10/25	79/08/15								
00425 HCU3 ALK	CACU3	MG/L	4	14.5000	9.00000	3.00000	.206897	1.50000	17.0000	11.0000	78/10/25	79/08/15								
00430 CU3 ALK	CACU3	MG/L	4	.750000	.250000	.500000	.666667	.250000	1.00000	.000000	78/10/25	79/08/15								
00500 RESIDUE	TOTAL	MG/L	4	54.8000	129.362	11.3737	.207550	5.68687	64.0000	38.2000	78/10/25	79/08/15								
00530 RESIDUE	TOT NFLT	MG/L	4	6.25000	45.4167	6.73919	1.07827	3.36959	16.0000	1.50000	78/10/25	79/08/15								
00610 NH3+NH4-	N TOTAL	MG/L	4	.202250	.074180	.272360	1.34665	.136180	.602000	.022000	78/10/25	79/08/15								
00615 NO2-N	TOTAL	MG/L	3	.008333	.000140	.011846	1.42155	.006839	.022000	.001000	79/01/25	79/08/15								
00620 NO3-N	TOTAL	MG/L	4	.126500	.007288	.085372	.674876	.042686	.253000	.070000	78/10/25	79/08/15								
00625 TOT KJEL	N	MG/L	4	.720000	.439933	.663275	.921215	.331637	1.70000	.250000	78/10/25	79/08/15								
00665 PHOS-TOT		MG/L P	4	.102500	.009692	.098446	.960451	.049223	.230000	.020000	78/10/25	79/08/15								
00900 TOT HARD	CACU3	MG/L	4	13.0000	25.3333	5.03322	.387171	2.51661	20.0000	8.00000	78/10/25	79/08/15								
00916 CALCIUM	CA-TOT	MG/L	4	2.70000	2.92000	1.70880	.632889	.854400	4.80000	.800000	78/10/25	79/08/15								
00927 MAGNESIUM	MG,TOT	MG/L	4	.924999	.042500	.206155	.222870	.103077	1.10000	.700000	78/10/25	79/08/15								
00929 SODIUM	NA,TOT	MG/L	4	2.85000	.596664	.772441	.271032	.386220	3.60000	1.80000	78/10/25	79/08/15								
00937 POTASSIUM	K,TOT	MG/L	4	1.05000	.056667	.238049	.226713	.119024	1.30000	.800000	78/10/25	79/08/15								
00940 CHLORIDE	CL	MG/L	3	3.73333	2.61334	1.61658	.433014	.933335	5.20000	2.00000	79/01/25	79/08/15								
00945 SULFATE	SU4-TOT	MG/L	4	10.0000	.000000	.000000		.000000	10.0000	10.0000	78/10/25	79/08/15								
00951 FLUORIDE	F,TOTAL	MG/L	4	.110000	.003933	.062716	.570148	.031358	.190000	.040000	78/10/25	79/08/15								
00956 SILICA	TOTAL	MG/L	4	16.7500	29.7500	5.45436	.325633	2.72718	23.5000	11.0000	78/10/25	79/08/15								
01002 ARSENIC	AS,TOT	UG/L	4	10.0000	.000000	.000000		.000000	10.0000	10.0000	78/10/25	79/08/15								
01027 CADMIUM	CD,TOT	UG/L	4	2.00000	4.00000	2.00000	1.00000	1.00000	5.00000	1.00000	78/10/25	79/08/15								
01042 COPPER	CU,TOT	UG/L	4	10.0000	.000000	.000000		.000000	10.0000	10.0000	78/10/25	79/08/15								
01045 IRON	FE,TOT	UG/L	4	612.500	115758	340.233	.555482	170.116	1110.00	340.000	78/10/25	79/08/15								
01051 LEAD	PB,TOT	UG/L	4	50.0000	.000000	.000000		.000000	50.0000	50.0000	78/10/25	79/08/15								
01055 MANGNESE	MN	UG/L	4	20.0000	200.000	14.1421	.707107	7.07107	40.0000	10.0000	78/10/25	79/08/15								
01077 SILVER	AG,TOT	UG/L	2	1.00000	.000000	.000000		.000000	1.00000	1.00000	78/10/25	79/01/25								
01092 ZINC	ZN,TOT	UG/L	4	1.00000	.000000	.000000		.000000	1.00000	1.00000	78/10/25	79/08/15								
01501 ALPHA	TOTAL	PC/L	4	1.53250	.606891	.779032	.508341	.389516	2.55000	.680000	78/10/25	79/08/15								
03501 BETA	TOTAL	PC/L	4	1.49750	.194024	.440482	.294145	.220241	1.95000	1.10000	78/10/25	79/08/15								

2020187
 45 50 50.0 115 27 30.0 2
 ELK CR AT MOUTH
 16049 IDAHO
 PACIFIC NORTHWEST 130800
 LOKER SNAKE
 21IDSURV 790519
 0000 CLASS 00

/TTPA/AMBNT/STREAM

INDEX	1310001	002740	01350	1360	1430	0030												
MILES	0324.30	0139.30	074.70	062.50	001.50	000.10	PARAMETER	NUMBER	MEAN	VARIANCE	STAN DEV	COEF VAR	STAND ER	MAXIMUM	MINIMUM	BEG DATE	END DATE	
31616	FEC COLI	MFM-FCUR	/100ML	3	458.333	153808	392.184	.855674	226.428	760.000	15.0000	79/01/25	79/08/15					
31679	FECSTREP	MF M-ENI	/100ML	3	375.666	110967	333.116	.886734	192.325	650.000	5.00000	79/01/25	79/08/15					
70300	RESIDUE	DISS-180	C MG/L	2	47.0000	2.00000	1.41421	.030090	1.00000	48.0000	46.0000	78/10/25	79/01/25					
70507	PHOS-T	DRTHD	MG/L P	4	.012250	.000016	.004031	.329071	.002016	.017000	.008000	78/10/25	79/08/15					
71900	MERCURY	HG,TOTAL	UG/L	4	.500000	.000000	.000000	.000000	.000000	.500000	.500000	78/10/25	79/08/15					

2020188
 45 51 30.0 115 28 30.0 2
 AMERICAN RIVER AT MOUTH
 16049 IDAHO
 PACIFIC NORTHWEST 130800
 LOWER SNAKE
 211DSURV 790519
 0000 CLASS 00

/TTPA/AMBNT/STREAM

INDEX 1310001 002740 01350 1360 1430
 MILES 0324.30 0139.30 074.70 062.50 000.10

PARAMETER	TEMP	CENT	NUMBER	MEAN	VARIANCE	STAN DEV	COEF VAR	STAN ER	MAXIMUM	MINIMUM	BEG DATE	END DATE
00010 WATER	TEMP	CENT	4	5.62500	71.2292	8.43974	1.50040	4.21987	18.0000	.000000	78/10/25	79/08/15
00042 ALTITUDE	FEET	AB MSL	1	3840.00					3840.00	3840.00	01/01/01	01/01/01
00061 STREAM	FLOW	INST-CFS	2	19.6000	5.12061	2.26288	.115453	1.60009	21.2000	18.0000	78/10/25	79/08/15
00076 TURB	TRBIDMTK	HACH FTU	4	2.57500	5.90250	2.42951	.943498	1.21475	6.20000	1.10000	78/10/25	79/08/15
00095 CONDUCTVY	AT 25C	MICROMHO	4	30.7500	84.2500	9.17878	.298497	4.58939	36.0000	17.0000	78/10/25	79/08/15
00116 INTNSVE	SURVEY	IDENT	5	791608	.262E+06	.000000		.000000	791608	791608	01/01/01	79/08/15
00300 DO		MG/L	4	10.4750	3.87606	1.96877	.187950	.984385	12.6000	8.80000	78/10/25	79/08/15
00335 COD	LOWLEVEL	MG/L	2	11.5500	21.1252	4.59622	.397941	3.25002	14.8000	8.30000	78/10/25	79/05/02
00400 PH		SU	4	6.72499	.422577	.650059	.096663	.325030	7.60000	6.10000	78/10/25	79/08/15
00403 LAB	PH	SU	2	6.70000	.080002	.282846	.042216	.200002	6.90000	6.50000	79/05/02	79/08/15
00410 T ALK	CACU3	MG/L	4	12.7500	4.25000	2.06155	.161690	1.03078	15.0000	10.0000	78/10/25	79/08/15
00425 HCO3 ALK	CACU3	MG/L	4	12.7500	4.25000	2.06155	.161690	1.03078	15.0000	10.0000	78/10/25	79/08/15
00430 CO3 ALK	CACU3	MG/L	4	.750000	.250000	.500000	.666667	.250000	1.00000	.000000	78/10/25	79/08/15
00500 RESIDUE	TOTAL	MG/L	4	46.3000	62.7617	7.92223	.171106	3.96111	54.0000	35.2000	78/10/25	79/08/15
00530 RESIDUE	TOT NFLT	MG/L	4	4.72500	12.8359	3.56272	.758247	1.79136	10.0000	.000000	78/10/25	79/08/15
00610 NH3+NH4-	N TOTAL	MG/L	4	.029500	.000187	.013675	.463553	.006837	.049000	.017000	78/10/25	79/08/15
00615 NO2-N	TOTAL	MG/L	1	.003000					.003000	.003000	79/01/25	79/01/25
00620 NO3-N	TOTAL	MG/L	2	.101000	.007200	.084853	.840127	.060000	.161000	.041000	78/10/25	79/01/25
00625 TOT KJEL	N	MG/L	4	.260000	.029400	.171464	.659478	.085732	.500000	.100000	78/10/25	79/08/15
00630 NO2&NO3	N-TOTAL	MG/L	2	.068000	.000008	.002829	.041609	.002001	.070000	.066000	79/05/02	79/08/15
00645 PHOS-TOT		MG/L P	4	.062500	.005292	.072744	1.16390	.036372	.170000	.010000	78/10/25	79/08/15
00900 TOT HARD	CACU3	MG/L	4	14.0000	40.0000	6.32456	.451754	3.16228	20.0000	6.00000	78/10/25	79/08/15
00916 CALCIUM	CA-TOT	MG/L	4	3.10000	10.9200	3.30454	1.06598	1.65227	8.00000	.800000	78/10/25	79/08/15
00927 MAGNESIUM	MG, TOT	MG/L	4	.717499	.003226	.056795	.079156	.028397	.800000	.670000	78/10/25	79/08/15
00929 SODIUM	NA, TOT	MG/L	4	2.40000	.246668	.496657	.206941	.248329	2.90000	1.80000	78/10/25	79/08/15
00937 PISSIUM	K, TOT	MG/L	4	.950000	.016667	.129101	.135896	.064550	1.10000	.800000	78/10/25	79/08/15
00940 CHLORIDE	CL	MG/L	4	7.60000	23.1733	4.81386	.633403	2.40693	13.4000	2.00000	78/10/25	79/08/15
00945 SULFATE	SO4-TOT	MG/L	4	10.0000	.000000	.000000		.000000	10.0000	10.0000	78/10/25	79/08/15
00951 FLUORIDE	F, TOTAL	MG/L	4	3.06500	35.4820	5.95667	1.94345	2.97834	12.0000	.080000	78/10/25	79/08/15
00956 SILICA	TOTAL	MG/L	4	16.8250	28.7891	5.36554	.318903	2.68277	23.8000	11.5000	78/10/25	79/08/15
01002 ARSENIC	AS, TOT	UG/L	4	10.0000	.000000	.000000		.000000	10.0000	10.0000	78/10/25	79/08/15
01027 CADMIUM	CD, TOT	UG/L	4	2.00000	4.00000	2.00000	1.00000	1.00000	5.00000	1.00000	78/10/25	79/08/15
01042 COPPER	CU, TOT	UG/L	4	10.0000	.000000	.000000		.000000	10.0000	10.0000	78/10/25	79/08/15
01045 IRON	FE, TOT	UG/L	4	322.500	225.000	15.0000	.046512	7.50000	340.000	310.000	78/10/25	79/08/15
01051 LEAD	PH, TOT	UG/L	4	50.0000	.000000	.000000		.000000	50.0000	50.0000	78/10/25	79/08/15
01055 MANGNESE	MN	UG/L	4	12.5000	25.0000	5.00000	.400000	2.50000	20.0000	10.0000	78/10/25	79/08/15
01077 SILVER	AG, TOT	UG/L	2	1.00000	.000000	.000000		.000000	1.00000	1.00000	78/10/25	79/01/25
01092 ZINC	ZN, TOT	UG/L	3	1.00000	.000000	.000000		.000000	1.00000	1.00000	79/01/25	79/08/15
01501 ALPHA	TOTAL	PC/L	4	.792500	.660891	.812952	1.02581	.406476	1.80000	.070000	78/10/25	79/08/15

2020188
 45 51 30.0 115 28 30.0 2
 AMERICAN RIVER AT MOUTH
 16049 IDAHO
 PACIFIC NORTHWEST 130800
 LOWER SNAKE
 21IDSURV 790519
 0000 CLASS 00

/TYPA/AMBNT/STREAM

INDEX 1310001 002740 01350 1360 1430
 MILES 0324.30 0139.30 074.70 062.50 000.10

PARAMETER				NUMBER	MEAN	VARIANCE	STAN DEV	COEF VAR	STAND ER	MAXIMUM	MINIMUM	BEG DATE	END DATE
03501 BETA	TOTAL	PC/L		4	1.45250	.098359	.313622	.215919	.156811	1.71000	1.00000	78/10/25	79/08/15
31616 FEC COLI	MFM-FCBR	/100ML		4	202.500	77791.0	278.910	1.37733	139.455	600.000	7.00000	78/10/25	79/08/15
31679 FECSTREP	MF M-ENT	/100ML		4	147.250	39026.2	197.551	1.34160	98.7753	425.000	4.00000	78/10/25	79/08/15
70300 RESIDUE	DISS-180	C MG/L		2	41.0000	8.00000	2.82843	.068986	2.00000	43.0000	39.0000	78/10/25	79/01/25
70507 PHOS-T	DRTHD	MG/L P		4	.024000	.001510	.038859	1.61911	.019429	.082000	.001000	78/10/25	79/08/15
71900 MERCURY	HG,TOTAL	UG/L		4	.500000	.000000	.000000		.000000	.500000	.500000	78/10/25	79/08/15

2020189
 45 51 30.0 115 28 25.0 2
 SF CLWTR-RED R JOIN AMERICAN RIV
 16049 IDAHO
 PACIFIC NORTHWEST 130800
 LOWER SNAKE
 21IDSURV 790519
 0000 CLASS 00

/TYP/AMBNT/STREAM

INDEX 1310001 002740 01350 1360
 MILES 0324.30 0139.30 074.70 062.60
 PARAMETER

PARAMETER	NUMBER	MEAN	VARIANCE	STAN DEV	COEF VAR	STAND ER	MAXIMUM	MINIMUM	BEG DATE	END DATE
00010 WATER TEMP CENT	4	5.75000	65.0833	8.06742	1.40303	4.03371	17.5000	.000000	78/10/25	79/08/15
00042 ALTITUDE FEET AB MSL	1	3840.00					3840.00	3840.00	01/01/01	01/01/01
00061 STREAM FLOW, INST-CFS	2	36.0000	50.0000	7.07107	.196419	5.00000	41.0000	31.0000	78/10/25	79/08/15
00076 TURB TRBDPMK HACH FTU	4	6.47500	44.6358	6.68100	1.03182	3.34050	15.0000	1.10000	78/10/25	79/08/15
00095 CONDUCTVY AT 25C MICRUMHO	4	43.2500	114.250	10.6888	.247139	5.34439	52.0000	28.0000	78/10/25	79/08/15
00116 INTNSVE SURVEY IDENT	5	791608	.262E+06	.000000		.000000	791608	791608	01/01/01	79/08/15
00300 DU MG/L	4	10.6500	3.88338	1.97063	.185036	.985315	12.5000	8.80000	78/10/25	79/08/15
00335 CUD LOWLEVEL MG/L	2	9.64999	39.6052	6.29327	.652153	4.45001	14.1000	5.20000	78/10/25	79/05/02
00400 PH SU	4	6.64999	.116765	.341709	.051385	.170855	7.10000	6.30000	78/10/25	79/08/15
00403 LAB PH SU	2	6.85000	.125000	.353553	.051614	.250000	7.10000	6.60000	79/05/02	79/08/15
00410 T ALK CACU3 MG/L	4	18.2500	22.9167	4.78713	.262309	2.39357	22.0000	12.0000	78/10/25	79/08/15
00425 HCU3 ALK CACU3 MG/L	3	17.0000	25.0000	5.00000	.294118	2.88675	22.0000	12.0000	79/01/25	79/08/15
00430 CU3 ALK CACU3 MG/L	3	.666667	.333334	.577351	.866026	.333334	1.00000	.000000	79/01/25	79/08/15
00500 RESIDUE TOTAL MG/L	4	61.0000	44.6667	6.68331	.109562	3.34166	67.0000	52.0000	78/10/25	79/08/15
00530 RESIDUE TOT NFLT MG/L	4	9.75000	91.5833	9.56992	.981530	4.78496	19.0000	1.00000	78/10/25	79/08/15
00610 NH3+NH4-N TOTAL MG/L	4	.022000	.000021	.004546	.206643	.002273	.028000	.017000	78/10/25	79/08/15
00615 NO2-N TOTAL MG/L	1	.001000					.001000	.001000	79/01/25	79/01/25
00620 NO3-N TOTAL MG/L	2	.053500	.002244	.047376	.885536	.033500	.087000	.020000	78/10/25	79/01/25
00625 TOT KJEL N MG/L	4	.360000	.065400	.255735	.710375	.127867	.700000	1.00000	78/10/25	79/08/15
00630 NO2&NO3 N-TOTAL MG/L	2	.039500	.001861	.043134	1.09199	.030500	.070000	.009000	79/05/02	79/08/15
00665 PHOS-TOT MG/L P	4	.045000	.000567	.023805	.528995	.011902	.070000	.020000	78/10/25	79/08/15
00900 TOT HARD CACU3 MG/L	4	14.0000	18.6667	4.32049	.308607	2.16025	18.0000	8.00000	78/10/25	79/08/15
00916 CALCIUM CA-TOT MG/L	4	5.60000	24.3200	4.93153	.880631	2.46577	12.0000	1.60000	78/10/25	79/08/15
00927 MGNSIUM MG, TOT MG/L	4	.872500	.015692	.125269	.143575	.062635	1.00000	.700000	78/10/25	79/08/15
00929 SODIUM NA, TOT MG/L	4	3.27500	.649170	.805711	.246019	.402855	3.80000	2.10000	78/10/25	79/08/15
00937 PTSSIUM K, TOT MG/L	4	.825000	.022500	.150001	.181820	.075001	1.00000	.700000	78/10/25	79/08/15
00940 CHLORIDE CL MG/L	4	5.30000	7.82668	2.79762	.527853	1.39881	8.00000	2.00000	78/10/25	79/08/15
00945 SULFATE SU4-TOT MG/L	4	10.0000	.000000	.000000		.000000	10.0000	10.0000	78/10/25	79/08/15
00951 FLUORIDE F, TOTAL MG/L	4	.160000	.006467	.080415	.502597	.040208	.210000	.040000	78/10/25	79/08/15
00956 SILICA TOTAL MG/L	4	17.6250	25.2292	5.02286	.284985	2.51143	24.0000	12.5000	78/10/25	79/08/15
01002 ARSENIC AS, TOT UG/L	4	10.0000	.000000	.000000		.000000	10.0000	10.0000	78/10/25	79/08/15
01027 CADMIUM CD, TOT UG/L	4	2.00000	4.00000	2.00000	1.00000	1.00000	5.00000	1.00000	78/10/25	79/08/15
01042 COPPER CU, TOT UG/L	4	10.0000	.000000	.000000		.000000	10.0000	10.0000	78/10/25	79/08/15
01045 IRON FE, TOT UG/L	4	377.500	15291.7	123.659	.327575	61.8297	510.000	220.000	78/10/25	79/08/15
01051 LEAD PB, TOT UG/L	4	50.0000	.000000	.000000		.000000	50.0000	50.0000	78/10/25	79/08/15
01055 MANGNESE MN UG/L	4	10.0000	.000000	.000000		.000000	10.0000	10.0000	78/10/25	79/08/15
01077 SILVER AG, TOT UG/L	2	1.00000	.000000	.000000		.000000	1.00000	1.00000	78/10/25	79/08/15
01092 ZINC ZN, TOT UG/L	3	1.00000	.000000	.000000		.000000	1.00000	1.00000	78/10/25	79/01/25
01501 ALPHA TOTAL PCAL	4	.752500	.265158	.514935	.540615	.257468	1.40000	.220000	78/10/25	79/08/15

2020189

45 51 30.0 115 28 25.0 2
SF CLWTR-RED R JOIN AMERICAN RIV
16049 IOAHO
PACIFIC NORTHWEST 130800
LOWER SNAKE
21IDSURV 790519
0000 CLASS 00

/TYPA/AMBNT/STREAM

INDEX 1310001 002740 01350 1360
MILES 0324.30 0139.30 074.70 062.60

PARAMETER				NUMBER	MEAN	VARIANCE	STAN DEV	COEF VAR	STAND ER	MAXIMUM	MINIMUM	BEG DATE	END DATE
03501 BETA	TOTAL	PC/L		4	1.46500	.359902	.599918	.409501	.299959	2.00000	.610000	78/10/25	79/08/15
31616 FEC COLI	MFM-FCBR	/100ML		4	226.250	182483	427.180	1.88809	213.590	867.000	8.00000	78/10/25	79/08/15
31679 FECSTREP	MF M-ENT	/100ML		4	39.5000	5233.00	72.3395	1.83138	36.1697	148.000	2.00000	78/10/25	79/08/15
70300 RESIDUE	DISS-180	C MG/L		2	46.0000	8.00000	2.82843	.061488	2.00000	48.0000	44.0000	78/10/25	79/01/25
70507 PHOS-P	ORTHO	MG/L P		4	.015750	.000139	.011786	.748337	.005893	.030000	.003000	78/10/25	79/08/15
71900 MERCURY	HG, TOTAL	UG/L		4	.500000	.000000	.000000		.000000	.500000	.500000	78/10/25	79/08/15

RAW DATA

STORED RETRIEVAL DATE 80/07/15

2020185
45 50 35.0 115 26 45.0 2
LLK CR AB ELK CITY EFFLUENT
16049 IDAHO
PACIFIC NORTHWEST 130800
LOWER SNAKE
21IDSURV 790519

ZIYPA/ABBIT/STREAM

INPLX 1310001 002740 01350 1360 1430 0030
MILES 0320.30 0159.30 074.70 062.50 001.50 000.90

DATE	TIME	DEPTH	INSVE	WATER	ALTITUDE	STREAM	DU	DU	BUD	COD	COD	BOD
FROM	OF		SURVEY	TEMP	FEET	FLOW,	MG/L	PROBE	5 DAY	LOWLEVEL	HI LEVEL	56 DAY
TO	DAY	FEET	IDENT	CENT	AB MSL	INST-CFS		MG/L	MG/L	MG/L	MG/L	MG/L
01/01/01			791608		3940							
78/10/25	11	00	791608	0.5		4	12.2			9.4		
79/01/25	12	20	791608	0.0			11.8					
79/05/02	10	30	791608	0.0			8.6			19.7		
79/08/15	14	05	791608	20.0			9.2		30.0K			

STORED RETRIEVAL DATE 80/07/15

2020185
45 50 35.0 115 26 45.0 2
ELK CR AB ELK CITY EFFLUENT
16049 IDAHO
PACIFIC NORTHWEST 130800
LOWER SNAKE
2110SURV 790519

ZIYPA/AMNH/STREAM

INDEX 1310001 002740 01350 1369 1430 0030
MILES 0324.30 0139.30 074.70 062.50 001.50 000.90

DATE	TIME	DEPTH	PH	LAB	TOT COLI	FEC COLI	FEC SREP	NO2&NO3	NO3-N	NH3+NH4-	NO2-N	TOT KJEL
FROM	OF	FEET	SU	PH	MFIMENDO	MF-MFCBR	MF M-LN1	N-TOTAL	TOTAL	N TOTAL	TOTAL	N
TO	DAY	FEET	SU	SU	/100ML	/100ML	/100ML	MG/L	MG/L	MG/L	MG/L	MG/L
78/10/25	11 00		6.60				88	12		0.103	0.322	0.660
79/01/25	12 20		6.40			600L	1000L	0.31		0.174		0.400
79/05/02	10 30		6.20			13	13	0.13		0.023		0.200
79/08/15	14 05		7.60	6.5		600L	1800	0.07K		0.132		0.530

STORE RETRIEVAL DATE 80/07/15

2020185
45 50 35.0 115 26 45.0 2
ELK CR AB ELK CITY EFFLUENT
16049 IDAHO
PACIFIC NORTHWEST 130800
LOWER SNAKE
211DSURV 790519

ZTYP/AMONT/STREAM

INDEX 131001 002740 01350 1360 1430 0030
MILLS 0324.30 0139.30 074.70 062.50 001.50 000.90

DATE	TIME	DEPTH	PHOS-TOT	PO4	PHOS-T	PHOS-TOT	TURB	TURB	CONDUCTIVY	CONDUCTIVY	SUSP SED	SEDIMENT
FROM	OF			PO4	ORTHO	HYDRO	TRIDMTR	JKSN	FIELD	AT 25C	CONC	PHOS-T
TO	DAY	FLEI	MG/L P	MG/L	MG/L P	MG/L P	HACH FTU	JTU	MICROMHO	MICROMHO	MG/L	PERCENT
78/10/25	11	00	0.060		0.001		1.2				42	
79/01/25	12	20	0.070		0.032		2.2				51	
79/05/02	10	30	0.050		0.001		6.2				24	
79/08/15	14	05	0.120		0.040		7.8				43	

SECRET RETRIEVAL DATE 89/07/15

2020185
45 50 35.0 115 26 45.0 2
ELK CR AB CLK CITY EFFLUENT
16049 IDAHO
PACIFIC NORTHWEST 130800
LOWER SNAKE
211DSURV 790519

/IYPA/ANALYST/STREAM

INDEX 1310001 002700 01350 1360 1430 0030
MILES 0324.30 0139.30 074.70 062.50 001.50 000.90

DATE	TIME	DEPTH	RESIDUE	RESIDUE	RESIDUE	RESIDUE	RESIDUE	B MOD	CYANIDE	ALPHA	BETA
FROM	OF	TOT	DISS-100	TOTAL	TOT VOL	DRY WGT	CN-TOT	TOTAL	TOTAL	PC/L	PC/L
TO	DAY	FEET	MG/L	C	MG/L	MG/L	MG/L	MG/KG-B	MG/L	PC/L	PC/L
78/10/25	11 00		26			55					
79/01/25	12 20		6			62					
79/05/02	10 30		10			52					
79/08/15	14 05		8			56					

2020185
 45 50 35.0 115 26 45.0 2
 ELK CR AB ELK CITY EFFLUENT
 16049 IDAHO
 PACIFIC NORTHWEST 130800
 LOWER SNAKE
 211DSURV 790519

/IYPA/AMBN/T/STREAM

INDEX 1310001 002740 01350 1360 1430 0030
 WILLS 0324.30 0139.30 074.70 062.50 001.50 000.90

DATE	TIME	DEPTH	T ALK	HC03 ALK	CU3 ALK	TOT HARD	CALCIUM	MAGNESIUM	SODIUM	POTASSIUM	CHLORIDE	CHLORINE
FROM	OF	FEET	CAC03	CAC03	CAC03	CAC03	CA-TOT	MG, TOT	NA, TOT	K, TOT	CL	TOT RESD
TO	DAY	FEET	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L

78/10/25 11 00
 79/01/25 12 20
 79/08/15 14 05

11
 2K
 5

2020186
 45 50 45.0 115 26 55.0 2
 ELK CITY LAGOON
 16049 IDAHO
 PACIFIC NORTHWEST 130800
 LOWER SHAKE
 211DSURV 790519

ZTYPA/AMBN1/STREAM

INDEX 1310001 002740 01350 1360 1430 0030
 MILES 0524.50 0139.30 074.70 062.50 001.50 000.60

DATE	TIME	DEPTH	INTNSVE	WATER	ALTITUDE	STREAM	00300	00299	00310	00335	00340	00355
FROM	OF		SURVEY	TEMP	FEET	FLOW	DU	DU	BUD	CUD	COD	BUD
TO	DAY	FEET	IDENT	CENT	AB MSL	INST-CFS	MG/L	PROBE	5 DAY	LOWLEVEL	HI LEVEL	56 DAY
								MG/L	MG/L	MG/L	MG/L	MG/L
01/01/01			791608		3935							
78/10/25	11	20	791608	4.0			1.5			109.0		
79/05/02	10	50	791608	12.0			3.6			197.0		

2020186
 45 50 45.0 115 26 55.0 2
 ELK CITY LAGOON
 16049 IDAHO
 PACIFIC NORTHWEST 130800
 LOWER SNAKE
 21IDSURV 790519

ZIYPA/ZAMBNI/STREAM

INDEX 1310001 002740 01350 1360 1430 0030
 MILLS 0524.50 0139.50 074.70 062.50 001.50 000.60

DATE	TIME	DEPTH	PH	LAB	TOT COLI	FEC COLI	FELSTREP	NO2&NO3	NO3-N	NH3+NH4-N	NO2-N	TOT KjEL
FROM	OF	FEET	SU	PH	MFIMENDU	MF M-FCBR	MF M-ENT	N-TOTAL	TOTAL	N TOTAL	TOTAL	N
TO	DAY	FEET	SU	SU	/100ML	/100ML	/100ML	MG/L	MG/L	MG/L	MG/L	MG/L
78/10/25	11	20	6.60			72	6		0.020	9.640	0.019	15.300
79/05/02	10	50	7.00	7.3	1740	136		0.011	12.300	0.003	21.200	

2020186
 45 50 45.0 115 26 55.0 2
 ELK CITY LAGOON
 16049 IDAHO
 PACIFIC NORTHWEST 130800
 LOWER SNAKE
 211DSURV 790519

ZIYPA/A-BB1/SIRLAM

INDEX 1310001 002740 01350 1360 1430 0030
 MILES 0524.30 0139.50 074.70 062.50 001.50 000.60

DATE	TIME	DEPTH	PHOS-TOT	PHOS-T	PHOS-TOT	TURB	TURB	CONDUCTIVY	CONDUCTIVY	SUSP SED	SEDIMENT
FROM	OF	FEET	MG/L P	MG/L P	MG/L P	HAZ	FTU	FIELD	AT 25C	CONC	PHOS-T
TO	DAY							MICROMHO	MICROMHO	MG/L	PERCENT
76/10/25	11 20		6.400		4.870		23.0			331	
79/05/02	10 50		6.600		5.600		6.8			321	

STORE RETRIEVAL DATE 80/07/15

2020186
45 50 45.0 115 26 55.0 2
ELK CITY LAGOON
16049 IDAHO
PACIFIC NORTHWEST 130800
LOWER SNAKE
2110SURV 790519

ZIYPA/ARBIT/STREAM

INDEX 1310001 002740 01550 1360 1430 0050
MILES 0524.50 0139.30 074.70 062.50 001.50 000.60

DATE	TIME	DEPTH	RESIDUE	RESIDUE	RESIDUE	RESIDUE	B MUD	CYANIDE	ALPHA	BETA
FROM	OF	FEET	TOT VOL	DISS-180	TOTAL	TOT VOL	DRY WGT	CR-101	TOTAL	TOTAL
TO	DAY	FEET	MG/L	C MG/L	MG/L	MG/L	MG/KG-B	MG/L	PC/L	PC/L
			00530	70300	00500	00505	01023	00720	01501	03501

78/10/25 11 20
79/05/02 10 50

262
95

475
235

2020186
 45 50 45.0 115 26 55.0 2
 ELK CITY LAGOON
 16049 IDAHO
 PACIFIC NORTHWEST 130800
 LOWER SNAKE
 211DSURV 790519

ZIYPAZABG1/STREAM
 INDEX 1310001 002790 01350 1360 1430 0030
 MILES 0324.30 0139.30 074.70 002.50 001.50 000.60

DATE	TIME	DEPTH	H ALK	HCO3 ALK	CO3 ALK	TOT HARD	CALCIUM	MAGNESIUM	SODIUM	POTASSIUM	CHLORIDE	50060
FROM	OF	FEET	CA-CO3	CA-CO3	CA-CO3	CA-CO3	CA-TOT	MG, TOT	NA, TOT	K, TOT	CL	CHLORINE
10	DAY		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	TOT RESD
												MG/L

78/10/25 11 20

2020187
 45 50 50.0 115 27 30.0 2
 ELK CR AT MOUTH
 16049 IDAHO
 PACIFIC NORTHWEST 130800
 LOWER SNAKE
 2110SURV 790519

/1YPA/AMBI/S/STREAM

INCLX 1310001 002740 01350 1360 1430 0030
 411LS 0329.50 0139.50 074.70 002.50 001.50 000.10

DATE	TIME	DEPTH	INSTRV	WATER	ALTITUDE	STREAM	DU	DU	BUD	CUD	CUD	BUD
FROM	OF		SURVEY	TEMP	FEET	FLOW,		PROBE	5 DAY	LOWLEVEL	HI LEVEL	56 DAY
ID	DAY	FEET	IDENT	CENT	AB MSL	INST-CFS	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
01/01/01			791608		3930							
78/10/25	11 30		791608	1.0		2	11.4			9.2		
79/01/25	12 00		791608	0.0			11.0					
79/05/02	11 10		791608	5.5			8.3			17.0		
79/08/15	13 20		791608	19.0		8	9.4					

2020187
 45 50 50.0 115 27 30.0 2
 ELK CR AT MOUTH
 18049 IDANI
 PACIFIC NORTHWEST 130800
 LOWER SNAKE
 211DSURV 790519

/TYP/A/AMBI/STREAM

INDEX 1510001 002740 01350 1560 1430 0030
 MILLS 0324.50 9139.30 074.70 062.50 001.50 000.10

DATE FROM TO	TIME OF DAY	DEPTH FEET	PH SU	LAB PH SU	TOT COLI MFINENDU /100ML	FEC COLI MFM-FCBR /100ML	FECSTREP MF M-ENT /100ML	NO2KN03 N-TOTAL MG/L	NO3-N TOTAL MG/L	NH3+NH4- N-TOTAL MG/L	NO2-N TOTAL MG/L	TOT KjEL N MG/L
78/10/25	11 30		6.60						0.081	0.602		0.250
79/01/25	12 00		6.40			600L	650		0.253	0.148	0.001	1.700
79/05/02	11 10		6.80	7.1		15	5		0.102	0.022	0.022	0.400
79/08/15	13 20		6.80	6.4		760	472		0.070R	0.037	0.002	0.530

2020187
 45 50 50.0 115 27 30.0 2
 ELK CR AT MOUTH
 16049 IDAHO
 PACIFIC NORTHWEST 130800
 LOWER SNAKE
 211DSURV 790519

ZIYPAZ/AMOUNT/STREAM

INDEX 1310001 002740 01350 1360 1430 0030
 MILES 0320.50 0139.50 074.70 062.50 001.50 000.10

DATE	TIME	DEPTH	PHOS-TOT	PHOS-T	PHOS-TOT	TURB	TURB	CONDUCTIVY	CONDUCTIVY	SUSP SED	SEDIMENT
FROM	OF		PHOS-T	PHOS-T	PHOS-TOT	TURB	TURB	CONDUCTIVY	CONDUCTIVY	SUSP SED	SEDIMENT
TO	DAY	FEET	MG/L P	MG/L	MG/L P	HACH FTU	JTSN	FIELD	AT 25C	CONC	PHOS-T
							JTU	MICROMHO	MICROMHO	MG/L	PERCENT
76/10/25	11 30		0.130		0.017		1.3			44	
79/01/25	12 00		0.320		0.014		2.6			43	
79/05/02	11 10		0.230		0.008		8.2			23	
79/08/15	13 20		0.030		0.010		3.3			37	

STORE RETRIEVAL DATE 80/07/15

2020187
45 50 50.0 115 27 30.0 2
ELK CR AT MOUTH
16049 IDAHO
PACIFIC NORTHWEST 130800
LOWER SNAKE
211DSURV 790519

7IYPA/ARB11/STREAM

INDEX 1310001 002740 01350 1360 1450 0030
MILES 0524.30 0139.30 074.70 062.50 001.50 000.10

DATE	TIME	DEPTH	RESIDUE	RESIDUE	RESIDUE	RESIDUE	B MUD	CYANIDE	ALPHA	BETA
FROM	OF		TOT NFL1	DISS-180	TOTAL	TOT VOL	DRY WGT	CN-TOT	TOTAL	TOTAL
TO	DAY	FEET	MG/L	C	MG/L	MG/L	MG/KG-B	MG/L	PC/L	PC/L
78/10/25	11	30	2K	46	59				2	2
79/01/25	12	00	6	48	64				1	1
79/05/02	11	10	10		58				1	2
79/08/15	13	20	2		38				3	1

2020187
 45 50 50.0 115 27 30.0 2
 ELK CR AT MOUTH
 16049 IDAHO
 PACIFIC NORTHWEST
 LOWER SNAKE
 211DSURV 790519

130800

ZIYPA/AMBN1/STREAM

INDEX 1310001 002740 01350 1360 1430 0030
 MILES 0324.30 0139.30 074.70 062.50 001.50 000.10

DATE	TIME	DEPTH	00410 ALK	00425 HCO3 ALK	00430 CO3 ALK	00900 TOT HARD	00916 CALCIUM	00927 MGNESIUM	00929 SODIUM	00937 POTASSIUM	00940 CHLORIDE	50060 CHLORINE
FROM	OF	FEET	CACO3	CALCO3	CACO3	CACO3	CA-TOT	MG, TOT	NA, TOT	K, TOT	CL	TOT RESD
TO	DAY		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
78/10/25	11	30	17	17	1K	12	2.0	1.1	3.60	1.20		
79/01/25	12	00	17	17	1K	12	3.2	1.1	2.80	1.30		2K
79/05/02	11	10	11	11	1K	8	0.8	0.7	1.80	0.80		4
79/08/15	13	20	13	13	0	20	4.8	0.8	3.20	0.90		5

STORED RETRIEVAL DATE 08/07/15

2020187
45 50 50.0 115 27 30.0 2
ELK CR AT MOUTH
16049 IDAHO
PACIFIC NORTHWEST 130800
LOWER SNAKE
2110SURV 790519

/TYP/AMBN/STREAM

INDEX 1310001 002740 01350 1360 1430 0030

MILES 0324.50 0159.50 074.70 062.50 001.50 000.10

DATE	TIME	DEPTH	SULFATE	FLUORIDE	FLUORIDE	SILICA	IRON	IRON	IRON	MANGNESE	MANGNESE	ARSENIC
FROM	OF		SO4-TOT	F,TOTAL	F,DISS	TOTAL	FE,TOT	FE,DISS	FE	MN	MN,DISS	AS,TOT
TO	DAY	FEET	MG/L	MG/L	MG/L	MG/L	UG/L	UG/L	MG/L	UG/L	UG/L	UG/L
78/10/25	11	50	10K	0.12		23.5	1110			40.0		10K
79/01/25	12	00	10K	0.19		18.5	490			20.0		10K
79/05/02	11	10	10K	0.04K		14.0	340			10.0		10K
79/08/15	13	20	10K	0.09		11.0	510			10.0		10K

STORE RETRIEVAL DATE 00/07/15

2020187
45 50 50.0 115 27 30.0 2
ELK CR AT MOUTH
16049 ICAHD
PACIFIC NORTHWEST 130800
LOWER SNAKE
21IDSURV 790519

ZIYPA/ARBNT/STICLAW

INDEX 1310001 002740 01350 1360 1430 0030
MILES 0324.30 0159.30 074.70 002.50 001.50 000.10

DATE	TIME	DEPTH	ARSENIC	BORON	CADMIUM	CADMIUM	CHROMIUM	CHROMIUM	CHROMIUM	NICKEL	COPPER	COPPER
FROM	OF	FEET	AS, DISS	B, TOT	CD, TOT	CD, DISS	CR, TOT	HEX-VAL	CR, DISS	NI, TOTAL	CU, TOT	CU, DISS
TO	DAY	FEET	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L

78/10/25	11	50				1K						10K
79/01/25	12	00				1K						10K
79/05/02	11	10				1K						10K
79/08/15	13	20				5K						10K

START RETRIEVAL DATE 00707/15

2020187
45 50 50.0 115 27 30.0 2
ELK CR AT MOUTH
16049 IDAHO
PACIFIC NORTHWEST 130800
LUNER SNAKE
211DSURV 790519

ZIYPA/ANDBIT/STREAM

INDEX 1310001 002740 01350 1360 1430 0030
MILES 0324.30 0139.50 070.70 062.50 001.50 000.10

DATE	TIME	DEPTH	LEAD	LEAD	SILVER	SILVER	ZINC	ZINC	CESIUM	ANTIMONY	ANTIMONY	MERCURY
FROM	OF		Pb, TOT	Pb, DISS	Ag, TOT	Ag, DISS	Zn, TOT	Zn, DISS	Cs, SUSP	Sb, TOT	Sb, DISS	Hg, TOTAL
TO	DAY	FEET	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
78/10/25	11 30		50K		1.0K		1K					0.5K
79/01/25	12 00		50K		1.0K		1K					0.5K
79/05/02	11 10		50K				1K					0.5K
79/08/15	13 20		50K				1K					0.5K

STORED RETRIEVAL DATE 80707715

2020188
 45 51 30.0 115 28 30.0 2
 AMERICAN RIVER AT MOUTH
 16049 IDAHO
 PACIFIC NORTHWEST 130800
 LOWER SNAKE
 21IDSURV 790519

/1YPA/AFBNT/STREAM

INDEX 1310001 002740 01350 1300 1450

FILES 0524.30 0139.30 074.70 062.50 000.10

DATE FROM TO	TIME OF DAY	DEPTH FEET	INSTRUMENT SURVEY IDENT	WATER TEMP CENT	ALTITUDE FEET AB MSL	STREAM FLOW, INST-CFS	DU MG/L	DU PROBE MG/L	BOD 5 DAY MG/L	COD LOWLEVEL MG/L	COD HI LEVEL MG/L	BOD 56 DAY MG/L
01/01/01			791608		3840							
78/10/25	11 45		791608	0.5		18	12.6			8.3		
79/01/25	13 00		791608	0.0			11.7					
79/05/02	11 20		791608	4.0			8.8			14.8		
79/08/15	11 40		791608	18.0		21	8.8					

STORED RETRIEVAL DATE 07/07/15

2020188
 45 51 30.0 115 28 30.0 2
 AMERICAN RIVER AT MOUTH
 16049 IDAHO
 PACIFIC NORTHWEST 130800
 LOWER SNAKE
 211DSURV 790519

/IYPA/AGGREGATE/STREAM

INDEX 1510001 002740 01350 1360 1430
 MILES 0324.30 0139.30 074.70 062.50 000.10

DATE	TIME	DEPTH	PH	LAB	TOT COLI	FEC COLI	FECSTREP	NO2&NO3	NO3-N	NH3+NH4-	NO2-N	TOT KjEL
FROM	OF	FEET	SU	PH	MFINDU	MF-FCB	MF M-ENI	N-TOTAL	TOTAL	N TOTAL	TOTAL	N
TO	DAY			SU	/100ML	/100ML	/100ML	MG/L	MG/L	MG/L	MG/L	MG/L
78/10/25	11	45	6.60			10	8		0.041	0.026		0.250
79/01/25	13	00	6.40			600L	152		0.161	0.049	0.003	0.100K
79/05/02	11	20	6.10	6.9		7	4	0.07		0.017		0.500
79/08/15	11	40	7.60	6.5		193K	425	0.07K		0.026		0.190

2020188
 45 51 30.0 115 28 30.0 2
 AMERICAN RIVER AT MOUTH
 16049 IDAHO
 PACIFIC NORTHWEST 130800
 LOWER SNAKE
 21IDSURV 790519

/IYPA/AMNT/STREAM

INDEX 1510001 002740 01350 1560 1430
 MILES 0324.50 0139.50 074.70 062.50 000.10

DATE	TIME	DLPTH	PHOS-TOT	P04	PHOS-T	PHOS-TOT	TURB	TURB	CONDUCTVY	CONDUCTVY	SUSP SED	SEDIMENT
FROM	OF				ORTHO	HYDRO	IRIDIMTK	JKSN	FIELD	AT 25C	CONC.	PHOS-T
TO	DAY	FEET	MG/L P	MG/L	MG/L P	MG/L P	HAZD FTU	JFU	MICROMHO	MICROMHO	MG/L	PERCENT
76/10/25	11 45		0.030		0.003		1.1				35	
79/01/25	13 00		0.010K		0.001K		1.3				36	
79/05/02	11 20		0.170		0.082		6.2				17	
79/08/15	11 40		0.040		0.010		1.7				35	

STORET REFRIEVAL DATE 00/07/15

2020188
45 51 30.0 115 28 30.0 2
AMERICAN RIVER AT MOUTH
16049 IDAHO
PACIFIC NORTHWEST 150800
LOWER SNAKE
211DSURV 790519

/CYPA/AMBIT/STREAM

INDEX 131001 002740 01350 1360 1430

MILLS 0324.30 0139.30 074.70 062.50 000.10

DATE	TIME	DEPTH	RESIDUE	RESIDUE	RESIDUE	RESIDUE	U MUD	CYANIDE	ALPHA	BETA
FROM	OF	TOT DEPT	TOT MG/L	DISS-180	TOTAL	TOT VOL	DRY WGT	CN-101	TOTAL	TOTAL
TO	DAY	FEET	MG/L	C MG/L	MG/L	MG/L	MG/KG-B	MG/L	PC/L	PC/L
78/10/25	11 45		26	39	54				2	2
79/01/25	13 00		4	43	48			0.1K	2	2
79/05/02	11 20		10		48			0.2	1	1
79/08/15	11 40		3		35			1	2	2

STORED RETRIEVAL DATE 80/07/15

2020188
 45 51 30.0 115 28 30.0 2
 AMERICAN RIVER AT MOUTH
 16049 IDAHO
 PACIFIC NORTHWEST 130800
 LOWER SNAKE
 211DSURV 790519

/TYPE/DEPTH/STREAM

INDEX 1310001 002700 01350 1360 1430
 MILES 0320.30 0139.30 074.70 062.50 000.10

DATE	TIME	DEPTH	T ALK	HEUS ALK	CO3 ALK	TOT HARD	CALCIUM	MAGNESIUM	SODIUM	POTASSIUM	CHLORIDE	CHLORINE
FROM	OF	FEET	CALUS	CALUS	CALUS	CAC03	CA-TOT	MG, TOT	NA, TOT	K, TOT	CL	TOT RESD
TO	DAY		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
78/10/25	11	45	15	15	1K	18	2.0	0.7	2.90	1.00	9	
79/01/25	13	00	13	13	1K	12	1.6	0.8	2.20	1.10	2K	
79/05/02	11	20	10	10	1K	0	0.8	0.7	1.80	0.80	6	
79/08/15	11	40	13	13	0	20	8.0	0.7	2.70	0.90	13	

SECRET RETRIEVAL DATE 80707/15

2020188
45 51 30.0 115 28 30.0 2
AMERICAN RIVER AT MOUTH
16049 IDAHO
PACIFIC NORTHWEST 130800
LOWER SNAKE
211DSURV 790519

/TTPA/AMBIT/STREAM

INDEX 1510001 002740 01350 1360 1430
BILLS 0524.50 0139.50 074.70 062.50 000.10

DATE	TIME	DEPTH	SULFATE	FLUORIDE	FLUORIDE	SILICA	IRON	IRON	IRON	MANGNESE	MANGNESE	ARSENIC
FROM	OF	FEET	SO4-TOT	F,TOTAL	F,DISS	TOTAL	FE,TOT	FE,DISS	FE	MN	MN,DISS	AS,TOT
TO	DAY		MG/L	MG/L	MG/L	MG/L	UG/L	UG/L	MG/L	UG/L	UG/L	UG/L
78/10/25	11 45		10K	12.00		23.8	310			20.0		10K
79/01/25	13 00		10K	0.10K		18.0	330			10.0K		10K
79/05/02	11 20		10K	0.08		14.0	310			10.0		10K
79/08/15	11 40		10K	0.08		11.5	340			10.0		10K

STORED RETRIEVAL DATE 80/07/15

2020188
45 51 30.0 115 28 30.0 2
AMERICAN RIVER AT MOUTH
16049 IDAHO
PACIFIC NORTHWEST 130800
LOWER SNAKE
211DSURV 790519

ZIYPA/AMBIT/STREAM

INDEX 1310001 002740 01350 1360 1450
MILES 0324.30 0139.30 074.70 062.50 000.10

DATE	TIME	DEPTH	ARSENIC	BORON	CADMIUM	CADMIUM	CHROMIUM	CHROMIUM	CHROMIUM	CHROMIUM	NICKEL	COPPER	COPPER
FROM	OF	FEET	AS, DISS	B, TOT	CD, TOT	CD, DISS	CR, TOT	HEX-VAL	CR, DISS	NI, TOTAL	CU, TOT	CU, DISS	CU, DISS
TO	DAY	FEET	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
78/10/25	11	45											1K
79/01/25	13	00											1K
79/05/02	11	20											1K
79/08/15	11	40											5K

10K
10K
10K
10K

2020188
 45 51 30.0 115 28 30.0 2
 AMERICAN RIVER AT MOUTH
 16049 IDAHO
 PACIFIC NORTHWEST 130800
 LOWER SNAKE
 2110SURV 790519

ZIYPA/AMNH/STREAM

INDEX 1310001 002740 01350 1300 1430
 MILLS 0524.30 0139.30 074.70 062.50 000.10

DATE	TIME	DEPTH	LEAD	LEAD	SILVER	SILVER	ZINC	ZINC	CESIUM	ANTIMONY	ANTIMONY	71900
FROM	OF		Pb, TOT	Pb, DISS	Ag, TOT	Ag, DISS	Zn, TOT	Zn, DISS	Cs, SUSP	Sb, TOT	Sb, DISS	Hg, TOTAL
ID	DAY	FEET	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
78/10/25	11 45		50K		1.0K							0.5K
79/01/25	13 00		50K		1.0K		1K					0.5K
79/05/02	11 20		50K				1K					0.5K
79/08/15	11 40		50K				1K					0.5K

STORE/RETRIEVAL DATE 8070/715

2020189
45 51 30.0 115 28 25.0 2
SF CLWTR-RED R JOIN AMERICAN RIV
16049 IDAHO
PACIFIC NORTHWEST 130800
LOWER SNAKE
21IDSURV 790519

/1YPA/ARROW/STREAM

INDEX 1510001 002740 01350 1360
MILES 0320.30 0139.30 074.70 062.60

DATE FROM TO	TIME OF DAY	DEPTH FEET	INSTR SURVEY IDENT	WATER TEMP CENT	ALTIITUDE FEET AB MSL	STREAM FLOW, INST-CFS	00042	00061	00300	00299	00310	00335	00340	00355
							DO	DO	DO	DO	5 DAY	LOWLEVEL	HI LEVEL	800
							MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	56 DAY
														MG/L
01/01/01			791608		3840									
78/10/25	12	00	791608	1.0		31	12.5					5.2		
79/01/25	11	30	791608	0.0			12.2							
79/05/02	11	30	791608	4.5			9.1					14.1		
79/08/15	11	35	791608	17.5		41	8.8							

STORE RETRIEVAL DATE 80/07/15

2020189
45 51 30.0 115 28 25.0 2
SF CLWTR-RED R JOHN AMERICAN RIV
16049 IDAHO
PACIFIC NORTHWEST 130800
LOWER SWAKE
211DSURV 790519

ZIYPA/ANALYSIS/STREAM

INDEX 1310001 002740 01350 1360
MILLS 0324.30 0159.30 074.70 062.60

DATE	TIME	DEPTH	PH	LAB	TOT COLI	FEC COLI	FECSTREP	NO2&NO3	NO3-N	NH3+NH4-N	NO2-N	TOT KJEL
FROM	OF	FEET	SU	PH	MFIMENDU	MF-MFCBR	MF N-ENT	N-TOTAL	TOTAL	N TOTAL	TOTAL	N
TO	DAY	FEET	SU	SU	/100ML	/100ML	/100ML	MG/L	MG/L	MG/L	MG/L	MG/L
78/10/25	12	00	6.70		16		4		0.020	0.022		0.250
79/01/25	11	30	6.50		8		2K		0.087	0.028	0.001	0.100K
79/05/02	11	30	6.30	7.1	14		4	0.01		0.017		0.700
79/08/15	11	35	7.10	6.6	867		148	0.07K		0.021		0.390

STORE RETRIEVAL DATE 80707/15

2020169
 45 51 50.0 115 28 25.0 2
 SF CLATR-RED R JOIN AMERICAN RIV
 16049 IDAHO
 PACIFIC NORTHWEST 130800
 LOWER SNAKE
 21IDSURV 790519

ZIYPA/AD/BNT/STREAM

INDEX 1310001 002740 01350 1360
 MILES 0324.50 0139.50 074.70 062.00

DATE	TIME	DEPTH	PHOS-TOT	T P04	PHOS-T	PHOS-TOT	TURB	TURB	CONDUCTIVY	CONDUCTIVY	SUSP SED	SEDIMENT
FROM	OF	FEET	MG/L P	P04	MG/L P	MG/L P	HAZ FTU	JKSJ	FIELD	AT 25C	CONC	PHOS-T
TO	DAY			MG/L				JTU	MICROMHU	MICROMHU	MG/L	PERCENT
78/10/25	12	00	0.030		0.003		1.2				52	
79/01/25	11	30	0.020		0.020		1.1				44	
79/05/02	11	50	0.070		0.030		8.6				28	
79/08/15	11	55	0.060		0.010K		15.0				49	

START RETRIEVAL DATE 80/07/15

2020189
45 51 30.0 115 28 25.0 2
SF CLWTR-RED R JOIN AMERICAN RIV
16049 IDAHO
PACIFIC NORTHWEST 130800
LOWER SNAKE
211DSURV 790519

71YPA/AMBIT/STREAM

INDEX 1310001 002740 01350 1360
MILES 0324.50 0139.50 074.70 002.60

DATE	TIME	DEPTH	RESIDUE		RESIDUE	RESIDUE	RESIDUE	RESIDUE	RESIDUE	RESIDUE	RESIDUE	RESIDUE
			TOT	WFLI	DISS-180	TOTAL	TOT VOL	DRY WGT	CN-TOT	ALPHA	BETA	
FROM	OF	FLEET	MG/L	C	MG/L	MG/L	MG/L	MG/KG-B	MG/L	PC/L	PC/L	PC/L
78/10/25	12 00			2K	44		60					
79/01/25	11 30			1K	48		52					
79/05/02	11 30			17			67			0.2		1
79/08/15	11 35			19			65			1		2
										1		2

STORE RETRIEVAL DATE 80707/15

2020189
45 51 30.0 115 28 25.0 2
SF CLWTR-KED R JOIN AMERICAN RIV
16049 IDAHO
PACIFIC NORTHWEST 130800
LOWER SNAKE
211DSURV 790519

ZIYPA/AMBIT/STREAM

INCLX 1310001 002740 01350 1360
MILLS 0324.30 0139.30 074.70 062.60

DATE	TIME	DEPTH	T ALK	HCO3 ALK	CO3 ALK	TOT HARD	CALCIUM	MAGNESIUM	SODIUM	POTASSIUM	CHLORIDE	CHLORINE
FROM	OF	FLEET	CACU3	CACU3	CACU3	CACU3	CA-TOT	MG, TOT	NA, TOT	K, TOT	CL	TOT RESD
TO	DAY	FLEET	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
78/10/25	12	00	22			18	4.0	1.0	3.80	0.90		8
79/01/25	11	30	22	22	1K	14	4.0	0.9	3.40	1.00		2K
79/05/02	11	30	12	12	1K	8	1.6	0.7	2.10	0.70		4
79/08/15	11	35	17	17	0	16	12.8	0.9	3.80	0.70		7

STORED RETRIEVAL DATE 80707715

2020189
45 51 30.0 115 28 25.0 2
SF CLAIR-RED R JOIN AMERICAN RIV
16049 IDAHO
PACIFIC NORTHWEST 130800
LOWER SNAKE
211DSURV 790519

ZIYPA/AMBIENT/STREAM

INDEX 1310001 002740 01350 1360
MILES 0324.30 0139.30 074.70 002.60

DATE	TIME	DEPTH	SULFATE	FLUORIDE	FLUORIDE	SILICA	IRON	IRON	IRON	MANGNESE	MANGNESE	ARSENIC
FROM	OF		SO4-TOT	F,TOTAL	F,DISS	TOTAL	FE,TOT	FE,DISS	FE	MN	MN,DISS	AS,TOT
TO	DAY	FEET	MG/L	MG/L	MG/L	MG/L	UG/L	UG/L	MG/L	UG/L	UG/L	UG/L
78/10/25	12	00	10K	0.21		24.0	350			10.0		10K
79/01/25	11	30	10K	0.20		19.0	220			10.0K		10K
79/05/02	11	30	10K	0.04K		15.0	430			10.0		10K
79/08/15	11	35	10K	0.19		12.5	510			10.0		10K

SECRET RETRIEVAL DATE 80/07/15

2020189
45 51 30.0 115 28 25.0 2
SF CLWTR-RED R JOIN AMERICAN RIV
16049 IDARD
PACIFIC NORTHWEST 130800
LOWER SNAKE
2110SURV 790519

ZIYPA/AMBR1/STREAM

INDEX 1310001 002740 01550 1360
MILES 0324.30 0139.30 074.70 062.00

DATE	TIME	DEPTH	ARSENIC	BORON	CADMIUM	CADMIUM	CHROMIUM	CHROMIUM	CHROMIUM	NICKEL	COPPER	COPPER
FROM	OF		AS, DISS	B, TOT	CD, TOT	CD, DISS	CR, TOT	HEX-VAL	CR, DISS	NI, TOTAL	CU, TOT	CU, DISS
TO	DAY	FEET	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
78/10/25	12	00					1K					10K
79/01/25	11	30					1K					10K
79/05/02	11	30					1K					10K
79/08/15	11	35					5K					10K

2020189
 45 51 50.0 115 28 25.0 2
 SF CLWTR-RED R JOIN AMERICAN RIV
 16049 IDAHO
 PACIFIC NORTHWEST 130800
 LOWER SNAKE
 211DSURV 790519

ZIYPA/AMBN1/STREAM

INDEX 1310001 002740 01350 1360

MILES 0324.30 0139.30 074.70 062.60

DATE	TIME	DEPTH	LEAD	LEAD	SILVER	SILVER	ZINC	ZINC	CESIUM	ANTIMONY	ANTIMONY	MERCURY
FROM	OF		Pp,TOT	Pp,DISS	AG,TOT	AG,DISS	ZN,TOT	ZN,DISS	CS,SUSP	SB,TOT	SB,DISS	HG,TOTAL
TO	DAY	FEET	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
78/10/25	12	00	50K		1.0K							0.5K
79/01/25	11	50	50K		1.0K		1K					0.5K
79/05/02	11	50	50K				1K					0.5K
79/08/15	11	35	50K				1K					0.5K