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**EFFECTS OF IMPOUNDMENT ON
WATER AND SEDIMENT IN THE
ARKANSAS RIVER AT
PUEBLO RESERVOIR**

**Prepared and submitted to the Bureau of Reclamation,
Lower Missouri Region, Fryingpan-Arkansas Project,
Colorado**

by

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INTRODUCTION

The primary objective of this study was to determine what concentration changes in major and minor inorganic chemicals would occur in the water of the Arkansas River after the completion of Pueblo Dam.

Secondary objectives included determining the fate of selected inorganic chemicals in the reservoir environment, predicting anticipated water quality changes with time and changing operation, and evaluating water quality in terms of criteria for various beneficial uses.

SUMMARY

Concentrations of major and minor inorganic chemicals (Ag, Cu, Fe, Mn, Zn, Co, Pb, Cd, Hg, Li, Na, K, Hg, Ni, Mg, and Ca) were monitored within the dissolved fraction and suspended fraction of water of the Arkansas River from 1972 to 1974 prior to impoundment by the Pueblo Dam, and the inlet, outlet, and pool of Pueblo Reservoir from 1974 to 1976. In addition, other limnological parameters included dissolved oxygen, conductivity, pH, turbidity, alkalinity, sulfate, temperature, hardness, chloride, total dissolved solids, and total suspended matter. Pre-impoundment and impoundment sediments were analyzed for K, Na, Ca, Mg, Li, Cu, Cd, Pb, Fe, Mn, Zn, and Mo and compared.

The dissolved and suspended levels of all the parameters average much less than the recommended or maximum permissible limits for the beneficial uses of the reservoir (public water supplies, fisheries, irrigation, and recreation). Where those criteria exist, on only rare instances were any individual samples collected that had trace metal concentrations even approaching, much less exceeding, the various recognized water use criteria. Dissolved oxygen and temperature data indicate nearly ideal growth conditions for salmonid fishes.

Interesting seasonal, surface, and spatial trends were observed for most parameters. Parameters excepted were those that normally averaged less than detectable limits such that trends could not be followed. The most frequent seasonal trend observed was the classic high winter values corresponding to slow runoff conditions and low summer values corresponding to fast runoff conditions (temperature excepted). The data indicate that the reservoir may be acting as a buffer to the normal seasonal fluctuations maintaining higher dissolved solids concentrations later into the spring. Spatial and surface trends indicate that evaporation is having somewhat of a concentrative effect on all dissolved solids and that certain metals are being precipitated into the sediments.

The trends of iron, manganese, and zinc were particularly interesting because their seasonal, surface, and spatial trends did not seem to follow the classical outlines, and these metals frequently showed depth profiles with the higher dissolved concentrations occurring at the bottom. The data for these elements indicate that there is exchange taking place between the reservoir water and the sediments. The sediments at times released metal ions into the water, but more frequently metal ions were taken up by the sediment. The sediment data support this inference in that they show that the sediments are being enriched (loaded) in a number of trace metals (Fe, Mn, Zn, and perhaps Mg, Cu, Cd, Pb) near the inlet of the reservoir, particularly near site F. This inlet region of the reservoir appears to be an important area for the dumping of suspended fraction metals and the precipitation of dissolved fraction metals.

Chemically, the reach of the Arkansas River known as Pueblo Reservoir could be summarized as the "average" North American river. The positive implications of the aforementioned statement are beyond the scope of this summary.

APPLICATION

The results of this study have been and continue to be of interest to those concerned with and involved in the assessment and impact of water quality and sediment changes affecting the Arkansas River as a result of the formation of Pueblo Reservoir. Continued use of these baseline data of pre- and post-impoundment conditions in assessment of future water quality management programs is inevitable.

HISTORICAL REVIEW

In May 1972, Drs. Herrmann and Mahan at USC (University of Southern Colorado) were awarded an NSF institutional grant by the USC Faculty Research Committee for the implementation of an operational capability for heavy metals monitoring and the study of selected heavy metals in the surface waters of the Arkansas River and selected tributaries. From September 1972 to April 1974, general limnological and trace metal data were collected from two sites along the Arkansas River. River samples were collected monthly where the Pueblo Reservoir-North Marina is now situated (approximately 2 miles upstream from the dam) and where the Northside (Pueblo northside waterworks) head gate is located (approximately 3 miles downstream from the dam). A 2-year set of data on river

conditions just prior to permanent pool formation was acquired and is hereafter called pre-impoundment data.

In July 1974, the team of Mahan, Herrmann, and student assistants were awarded the current contract to monitor gross and trace inorganic constituents of the water and sediment of Pueblo Reservoir, its inlet, and outlet. In June 1974, the impoundment phase of the project commenced. This publication, therefore, is the culmination of the past four years' effort in the study of pre-impoundment and impoundment conditions in the reach of the Arkansas River now known as Pueblo Reservoir.

METHODS AND MATERIALS

Water Sampling

Nine sampling sites were chosen for the duration of the project. Six of the sites were distributed over the reservoir surface (fig. 1, sites A-F). In addition, there were two outlet sites (H and I, fig. 1) selected. The primary site (H) was 2 miles downstream from the reservoir near the headgate of the intake of the flume of the northside Pueblo waterworks, and one (I) was immediately below the stilling basin at the dam. The location of the inlet sampling site (G) moved up or down the river channel, depending on the reservoir level. Sites A and B were situated so that water conditions on either side of the old diversion dam could be monitored. The others were chosen so that fairly representative samples could be collected over the total area of the reservoir.

Samples from these sites were normally collected on a monthly basis beginning in June 1974 and continuing until March 1976. Access problems, usually ice cover, prevented the collection of samples at some of the sites from time to time. Reservoir samples were collected at the surface at 3- by 5-metre depth intervals using a non-metallic Van Dorn sampler. Samples at the inlet and outlet sites were collected at the surface only. Temperature and dissolved oxygen were determined as samples were collected. The water samples were then removed to the laboratory for immediate processing and analysis.

Sediment Sampling

During the fall of 1973, sediment cores 50-mm in length and approximately 10 mm in diameter were collected from the Arkansas River flood plain at 31 different sites (fig. 2) in areas within the basin to be flooded by the reservoir. With the aid of the Bureau of Reclamation diving team from Denver, three 100- by 10-mm

sediment cores were collected from each of the three sites (B, D, and E) in June 1974. The samples were collected by divers from the reservoir floor using PVC (polyvinyl chloride) coring devices. The same PVC devices were also used to collect sediments from sites C, F, and G.

Water Sample Processing

After being removed to the laboratory immediately after collection, the samples were filtered through 0.45 µm membrane filters. The filtrate was defined as the "dissolved fraction" of the sample, while the portion of the sample retained by the filter was defined as the "suspended fraction" of the sample [1]. Any colloidal or other material in the samples less than 0.45 µm in diameter passed through the filter and was counted as part of the dissolved fraction. The first 200 ml of each sample was filtered through a tared filter which was then dried at a temperature of 35 to 45°C, weighed and then stored for later dissolution and analysis. The dissolution was effected using a HCl-HNO₃ digestion procedure [1, 2].

Sediment Sample Processing

After drying, 10- to 20-mg samples were dissolved by the HCl-HNO₃ procedure already described. In this case no Millipore filter was dissolved, only the sediment. Samples prepared in this manner were analyzed by atomic absorption (AA). Ten-mg portions of other dried samples were mixed with graphite and borax and compressed into a pellet for analysis by X-ray fluorescence spectrometry.

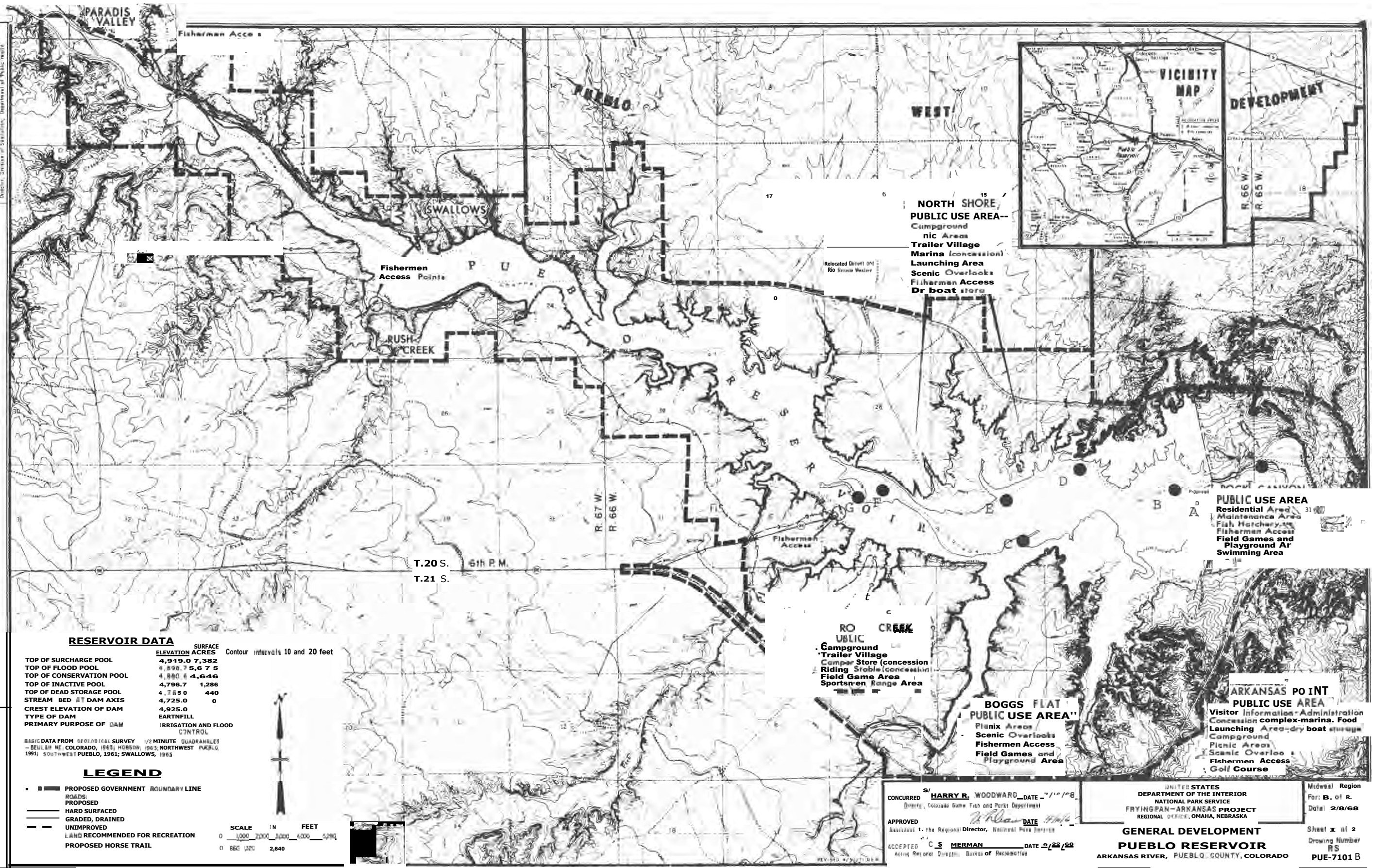
Analysis

Tables 1 and 2 summarize the methods used for the chemical and spectrometric analysis performed on the solubilized samples collected during the course of this project. The tables give the method used for each parameter, detection limit, uncertainty, and sample fraction analyzed. The detection limit was defined as twice the peak-to-peak noise for the spectrophotometric or emission measurements as observed in the laboratory.

Analysis of the dissolved fractions were performed as soon as possible after collection. To minimize losses, mercury analyses were always done the same day the samples were collected or not at all. Analyses for other metals were performed the same day or within

¹ Numbers in brackets refer to items in the bibliography.

STATE OF COLORADO
 DEPARTMENT OF NATURAL RESOURCES
 DIVISION OF WATER RESOURCES
 DATE: 7/9/68



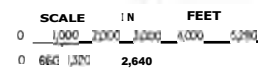
RESERVOIR DATA

	SURFACE ELEVATION	ACRES
TOP OF SURCHARGE POOL	4,919.0	7,382
TOP OF FLOOD POOL	4,898.7	5,675
TOP OF CONSERVATION POOL	4,880.6	4,646
TOP OF INACTIVE POOL	4,796.7	1,286
TOP OF DEAD STORAGE POOL	4,765.0	440
STREAM BED AT DAM AXIS	4,725.0	0
CREST ELEVATION OF DAM	4,925.0	
TYPE OF DAM	EARTHFILL	
PRIMARY PURPOSE OF DAM	IRRIGATION AND FLOOD CONTROL	

BASIC DATA FROM GEOLOGICAL SURVEY 1/2 MINUTE QUADRANGLES - DENVER NE, COLORADO, 1963; HOBBS DN, 1963; NORTHWEST PUEBLO, 1991; SOUTHWEST PUEBLO, 1961; SWALLOW, 1963

LEGEND

- PROPOSED GOVERNMENT BOUNDARY LINE
- PROPOSED ROADS
- HARD SURFACED
- GRADED, DRAINED
- UNIMPROVED
- LAND RECOMMENDED FOR RECREATION
- PROPOSED HORSE TRAIL

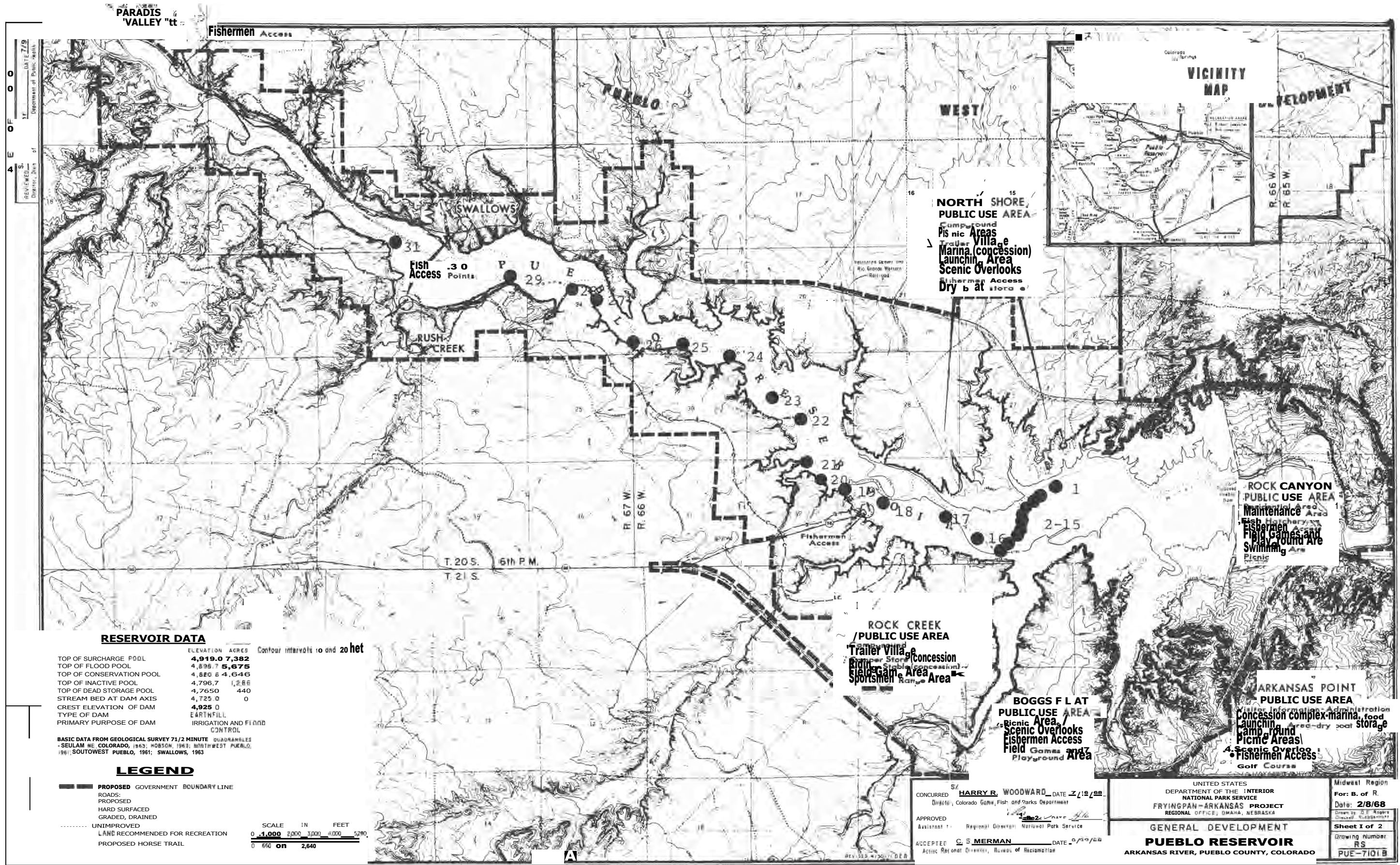


CONCURRED BY **HARRY R. WOODWARD** DATE **7/11/68**
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 Assistant to the Regional Director, National Park Service
 ACCEPTED **C. S. MERMAN** DATE **8/22/68**
 Acting Regional Director, Bureau of Reclamation

UNITED STATES
 DEPARTMENT OF THE INTERIOR
 NATIONAL PARK SERVICE
FRYING PAN-ARKANSAS PROJECT
 REGIONAL OFFICE, OMAHA, NEBRASKA
GENERAL DEVELOPMENT
PUEBLO RESERVOIR
 ARKANSAS RIVER, PUEBLO COUNTY, COLORADO

Midwest Region
 For: **B. of R.**
 Date: **2/8/68**
 Sheet **x** of **2**
 Drawing Number
RS
PUE-7101 B

Figure 1.—Pueblo Reservoir water sampling and impoundment sediment sampling sites.



PARADIS VALLEY "tt"

Fishermen Access

PUEBLO

WEST

VICINITY MAP

DEVELOPMENT

NORTH SHORE PUBLIC USE AREA
 Campground
 Picnic Areas
 Trailer Village
 Marina (concession)
 Launching Area
 Scenic Overlooks
 Fishermen Access
 Dry boat storage

ROCK CANYON PUBLIC USE AREA
 Maintenance Area
 Fishermen Field Games and Swimming Area
 Picnic

ROCK CREEK PUBLIC USE AREA
 Trailer Village
 Picnic Area
 Field Game Area
 Sportsmen Range Area

BOGGS FLAT PUBLIC USE AREA
 Picnic Area
 Scenic Overlooks
 Fishermen Access
 Field Games and Playground Area

ARKANSAS POINT PUBLIC USE AREA
 Concession complex-marina, food
 Launching Ramp, Dry boat storage
 Picnic Areas
 Field Games and Playground Area
 Scenic Overlooks
 Fishermen Access
 Golf Course

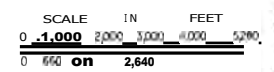
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PRIMARY PURPOSE OF DAM	IRRIGATION AND FLOOD CONTROL		

BASIC DATA FROM GEOLOGICAL SURVEY 7 1/2 MINUTE QUADRANGLES
 - SEULAM NE COLORADO, 1963; HOBSON 1963; NORTHWEST PUEBLO, 1961; SOUTHWEST PUEBLO, 1961; SWALLOWS, 1963

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- PROPOSED GOVERNMENT BOUNDARY LINE
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- LAND RECOMMENDED FOR RECREATION
- PROPOSED HORSE TRAIL



CONCURRED HARRY R. WOODWARD DATE 2/18/68
 Director, Colorado Game, Fish and Parks Department

APPROVED [Signature]
 Assistant Regional Director, National Park Service

ACCEPTED C. S. MERMAN DATE 0/30/68
 Acting Regional Director, Bureau of Reclamation

UNITED STATES DEPARTMENT OF THE INTERIOR
 NATIONAL PARK SERVICE
 FRYINGPAN-ARKANSAS PROJECT
 REGIONAL OFFICE, OMAHA, NEBRASKA

GENERAL DEVELOPMENT
PUEBLO RESERVOIR
 ARKANSAS RIVER, PUEBLO COUNTY, COLORADO

Midwest Region
 For: B. of R.
 Date: **2/8/68**
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Sheet 1 of 2
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Figure 2.—Pueblo Reservoir pre-impoundment sediment sampling sites.

Table 1.—Detection limits and uncertainties for the gross limnological parameters

Parameter	Method	Detection Limits (mg/I)	Uncertainty	Fractional Analysis
Temperature	Thermometer or Thermistor		0.1 °C	Raw
Turbidity	Photometric [1, 2]	2 JTU*	1 JTU*	Raw
pH	Meter		0.1	Raw
Cond.	Meter		10 µS/cm	Diss.
p-Alk	Titrimetric [4]	1	1 mg/I	Diss.
t-Alk	Titrimetric [4]	1	1 mg/I	Diss.
Cl	Titrimetric [4]	0.3	0.3 mg/I	Diss.
t-Hdns	Titrimetric [4]	1	1 mg/I	Diss.
Ca-Hdns	Titrimetric [4]	1	1 mg/I	Diss.
Mg-Hdns	Subtraction [4]	2	1 mg/I	Diss.
SO ₄ -2	Turbidimetric [4]	2	1 mg/I	Diss.
D.O.	Titrimetric [4]	1	1 mg/I	Raw
D.O.	Probet		0.1 mg/I	Raw

Raw = Unfiltered water
Diss. = Dissolved fraction

*Jackson turbidity units
NISI Model 54 oxygen meter
and Model 5419 probe

Table 2.—Detection limits and uncertainties for trace metal analysis

Parameter	Method	Detection Limits (mg/I)	Uncertainty (mg/l)	Fraction Analyzed
Ag	AA-APDC-MIBK Extr. [1, 2]	0.0002	0.0002	Diss.
Ag	AA-Direct Asp.	.002	.002	Susp., sed.
As	Spectrophotometric (AgDDC, 300-ml sample) [4]	.003	.003	Diss.
Cd	AA-Direct Asp. [1, 2]	.001	.001	Diss., susp., sed.
Co	AA-Direct Asp. [1, 2]	.02	.02	Susp., sed.
Co	AA-APDC-MIBK Extr. [1, 2]	.002	.002	Diss.
Cu	AA-Direct Asp. [1,2]	.002	.002	Diss., susp., sed.
Fe	AA-Direct Asp. [1, 2]	.01	.01	Susp., sed.
Fe	AA-APDC-MIBK Extr. [1, 2]	.001	.001	Diss.
Li	AA-Direct Asp. [1, 2]	.001	.001	Diss., susp., sed.
Mn	AA-Direct Asp. [1, 2]	.002	.002	Diss., susp., sed.
Hg	Flameless AA (100 ml) [5]	.01 pg/I	.01 pg/I	Diss.
Pb	AA-Direct Asp. [1, 2]	.05	.05	Susp., sed.
Pb	AA-APDC-MIBK Extr. [1,2]	.001	.001	Diss.
Ni	AA-Direct Asp. [1, 2]	.02	.02	Susp., sed.
Ni	AA-APDC-MIBK Extr. [1,2]	.001	.001	Diss.
Na	FP-Direct Asp. [1, 2]	.1	.1	Diss.
	FP-Direct Asp. [1, 2]	.23	.1	Diss., susp., sed.
	FP-Direct Asp. [1,2]	.01	.01	
Ca	FP-Direct Asp. [1, 2]	.01	.01	Susp., sed.
Mg	AA-Direct Asp. [1, 2]	.02	.01	Susp., sed.
Zn	AA-Direct Asp. [1,2]	.001	.001	Diss., susp., sed.

Diss. = Dissolved fraction
Susp. = Suspended fraction
Sed. = Sediments

2 or 3 days of collection. These procedures were followed to minimize losses of the metal ions to the container walls or volatilization to the atmosphere as in the case of mercury. This procedure obviated the necessity of adding HNO₃ or other preservatives and consequently eliminated the introduction of foreign substances with the potential of introducing major sources of contamination.

Table 1 lists the parameters analyzed by chemical and physical methods. These are, for the most part, typical parameters measured in limnological studies. Therefore, the parameters in table 1 will be referred to as the "gross limnological parameters" throughout this report. Figure 3 gives the observed correlation between TDS (total dissolved solids) and conductivity in Pueblo Reservoir. The results are fully consistent with the work reported by Hem [3] within the range measured.

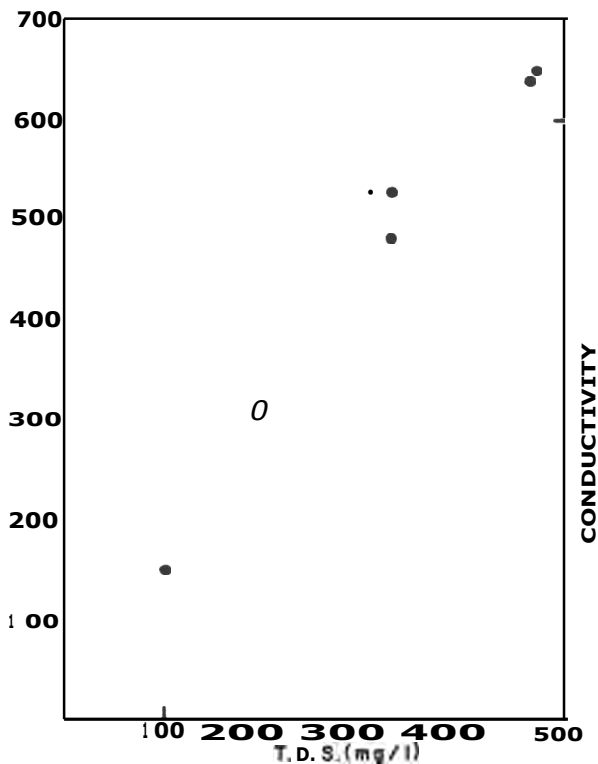


Figure 3.—Relationship between total dissolved solids and specific conductance in Pueblo Reservoir.

Table 2 gives the methods used for the analysis of the trace metals. These include: flame atomic absorption spectrophotometry analysis with direct aspiration of the sample (AA-Direct Asp.), flame atomic absorption analysis after preconcentration of the sample by the ammonium pyrolydinedithiocarbamate-methyl isobutyl ketone extraction technique [1, 2] (AA-APDC-MIBK-Extr.) and flame photometry (FP-Direct Asp.). Arsenic

was analyzed using the silver diethyldithiocarbamate spectrophotometric method [4] after concentrating samples by evaporation from 300 ml to 25 to 50 ml. Mercury was analyzed using the flameless atomic absorption cold vapor technique using 100-mg samples [5].

In table 2 the detection limits for the spectrophotometric or photometric determinations are equal to twice the normal peak-to-peak noise. In some cases the detection limit observed for some parameters is not as low as might be expected because of unusually large or inconsistent reagent blank signals encountered. This was a particular problem with suspended and sediment samples analyzed for Ca, Mg, and Na, for which there were large reagent blank signals.

Sediments were also analyzed for some metals using X-ray fluorescence spectroscopy. Table 3 lists the metals analyzed by X-ray fluorescence and the approximate detection limits obtained in these experiments.

Table 3.— X-ray fluorescence parameters and detection limits

Trace Metal	Detection Limits (mg/g)
Fe	50 (0.005 percent)
Mn	20 (0.002 percent)
Mo	50 (0.005 percent)
Zn	10 (0.010 percent)

Data

The data obtained in the present study are tabulated in appendices A and B. Appendix C presents the data for the dissolved fraction obtained from the pre-impoundment study of the river at locations which subsequently were designated outlet site H and reservoir E, respectively. Appendix D lists the discharge data for the Arkansas River near Portland [6], covering the impoundment study period.² Appendix A presents the data from the dissolved sample fractions; data from the suspended fractions appear in appendix B. The tables in appendices A and B list the data by parameter, sampling date, sampling site (A, B, C, D, etc.), and depth (surface, 3 metres, 5 metres, etc.) for each sampling year (June 1974 to May 1975, and June 1975 to March 1976). Asterisks indicate that either no analysis was performed for that parameter on a sample collected or that no sample was collected at all at that site on the date indicated. Any value listed as zero should be interpreted as meaning "not detectable." Detectable limits for various parameters are given in

² Colorado State Division of Water Resources, personal communication.

tables 1 and 2 for the dissolved and suspended fractions of the samples. The far right-hand column of each table in appendices A and B is the average and standard deviation for each parameter for the sampling year that appears in the table.

The tables in appendices A and B were produced from computer printouts of the data. Because a consistent format was needed to computerize the data, the values listed do not in all cases reflect the proper number of significant figures. Tables 1 and 2 also summarize where the uncertainty appears and also give the approximate magnitude of that uncertainty for each parameter.

Table 4 (sediment data) was not generated by computer and in all cases the proper uncertainty is reflected in the number of significant figures displayed. All data in table 4 are in units of mg/g (milligrams per gram) dry weight. The values for parameters marked with asterisks were obtained by X-ray fluorescence spectroscopy.

RESULTS AND DISCUSSION

Seasonal Trends (Dissolved Fraction)

Figures 4 through 16 plot the values obtained for dissolved parameters at the inlet and outlet of the reservoir as well as the average value obtained for all samples collected in the reservoir pool as a function of time. The most frequent seasonal trend observed is that of maxima occurring during the winter months when runoff is low, and minima occurring in the summer months when the runoff is high, thereby producing a maximum dilution effect.

During the summer it was noted that the inlet values for most parameters were lower than for the outlet or pool. The inlet values rose rapidly during the fall, becoming higher than the pool average and outlet during the winter and early spring months. This behavior indicates that the reservoir is acting as a buffer zone, somewhat leveling the normal seasonal trends observed for the river.

Obvious exceptions to the general trends described above are the seasonal trends observed for temperature and turbidity. The minimum for temperatures obviously occurs in midwinter and the maximum in midsummer. Turbidity maxima occur in late spring during the highest runoff periods and are at a minimum during the midwinter months. The anomalous trends of iron (fig. 16), zinc (fig. 14), and manganese (fig. 15) are discussed in those sections. Many of the trace metals were at levels below or very near detectable limits of measurement, making the observation of trends difficult and in many cases impossible.

Figure 23 plots the seasonal trends observed for hardness, alkalinity, and sulfate in the Arkansas River (1972-1974) before formation of the reservoir. The same general trends were observed for the pre-impoundment river as for the reservoir (1974-76) with an important subtle difference. In the pre-impoundment river, maxima were obtained for those parameters during December, followed by a gradual decrease in concentration to a minimum in June or July. In the reservoir a drop in concentration was not observed until April or May of the first year and was still high during the last sampling during March 1976. These data would also seem to indicate, as in the case of the evidence cited before, that the reservoir is acting as a buffer to the seasonal trends. However, it should be noted that during the two impoundment sampling years, the inlet values for these and other parameters also remained high until April or May, somewhat negating the buffering argument based solely on the pre-, post-impoundment comparison. Other arguments, however, tend to reinforce the buffering mechanism.

Surface and Spatial Trends (Dissolved Fraction)

Figures 17 and 18 are spatial plots of the average of the temperature and calcium hardness at the various sites moving from the outlet west to the inlet for the months of March, July, and December for both sampling years. Figures 19 through 21 plot the values obtained at the surface versus site moving east to west for selected parameters for the month of November 1974. During July, the average reservoir temperature generally declined moving toward the inlet, while during March of each year the average temperature rose (fig. 18). In the month of December the temperature fell moving toward the outlet in 1974 and rose during 1975. Similar trends were observed for calcium hardness. During July of both years, there was a slight decrease in calcium hardness concentration moving toward the inlet as there was for March 1975. In March 1976, the reservoir pool was about constant with regard to calcium hardness, while slightly higher at the inlet and outlet. During December 1974, calcium hardness was about constant over all sites, while in December 1975, a curious crown shaped curve was obtained with the lowest values at the inlet and outlet and rising to a maximum at the center of the reservoir. Trends observed for samples collected at the surface (figs. 19 and 20) show a slight decrease in the values moving east to west for all the parameters listed except manganese, which showed a sharp increase going east to west. An examination of the data indicates that during most of the months of sampling, slight increases or decreases in values do occur for most parameters moving east to west over the reservoir. In some cases there is a definite increase or decrease at and near the inlet (site F) of the reservoir. In some cases (as in the case of calcium hardness) during

Table 4.-Concentrations (mg/g dry wt) of selected elements from pre-impoundment (1-31) and impoundment (B, C, D, E, F, G) sediments of the Arkansas River - Pueblo Reservoir

SITE	K	Na	Ca	Mg	Li	Cu	Cd	Pb	Fe	Fe ²⁺	Mn	Mn ²⁺	Zn	Zn ²⁺	Mn ³⁺	
1	3030	498	20,660	3000	6.65	28.6	4.75	40.0	16,400	9160	267	201	79	71	ND	
2	2410	247	24,840	2210	5.55	24.6	3.70	57.0	14,900	5460	218	51	55	81	ND	
3	1990	228	27,940	1950	5.05	24.8	3.70	ND	14,900	5170	192	194	47	ND	ND	
4	1440	285	25,050	1960	5.05	15.4	3.70	40.0	15,400	7550	214	195	60	28	ND	
5	2130	114	28,800	1920	4.75	15.4	3.70	40.0	14,200	7100	198	133	34	14	<50	
6	3580	205	20,340	3240	11.00	28.0	2.80	75.0	16,700	9940	320	262	73	42	ND	
7	1620	114	32,430	2320	2.30	15.4	3.45	57.0	10,800	6740	169	96	23	ND	ND	
8	1990	114	32,960	1930	3.65	24.8	3.90	ND	13,800	7690	182	176	33	20	ND	
9	2260	152	29,760	1970	5.05	20.8	3.45	35.5	13,800	7490	208	196	42	12	ND	
10	1870	76	27,940	1780	4.50	17.0	ND	41.0	12,400	7150	195	82	26	ND	ND	
11	2000	156	34,040	1890	4.50	20.0	3.70	30.0	13,000	7220	189	133	27	ND	ND	
12	3770	1100	15,480	2060	8.30	18.4	3.90	112.0	16,300	10,500	389	357	135	118	ND	
13	3330	94	29,970	3320	8.55	32.4	4.10	46.0	17,800	11,200	320	288	121	126	ND	
14	3050	1020	35,220	4030	9.65	37.5	4.10	67.5	18,200	11,500	344	318	137	111	ND	
15	3940	6060	31,360	4380	10.45	30.6	4.10	53.5	17,700	11,300	344	305	117	104	ND	
16	3320	304	13,560	2970	5.55	25.8	3.25	132.0	14,500	10,600	346	366	54	54	ND	
17	2840	94	32,430	2120	3.65	20.0	3.25	57.0	12,100	5620	286	213	72	ND	ND	
18	4840	156	13,800	1930	7.75	35.1	4.10	51.5	11,800	8440	373	290	131	130	ND	
19	3600	388	26,220	4470	10.45	36.7	5.00	75.0	19,700	13,400	488	491	227	147	ND	
20	3120	560	26,220	3820	9.10	26.0	4.35	57.0	17,000	10,800	313	264	120	97	ND	
21	3690	1562	49,550	4620	7.20	35.5	6.50	137.5	14,500	9180	382	285	185	157	ND	
22	3890	205	20,130	3290	11.30	25.0	5.00	44.5	13,500	9890	308	281	131	107	ND	
23	4160	574	16,020	3680	11.30	36.3	5.00	62.5	19,200	12,800	378	342	205	135	ND	
24	3360	544	28,040	3740	6.40	36.5	6.50	142.0	19,100	10,200	1200	795	230	120	ND	
25	3930	708	16,020	3290	9.90	24.0	3.45	80.0	19,900	10,800	325	259	116	94	ND	
26	2760	456	78,220	3060	4.75	37.7	7.35	80.0	10,000	4080	304	34	245	134	ND	
27	2840	331	13,680	2790	5.55	106.0	6.30	80.0	--	12,900	479	466	129	114	ND	
28	3850	890	24,040	5470	14.20	35.6	5.33	50.8	17,300	10,100	284	213	105	61	ND	
29	3300	731	22,800	4260	8.85	27.0	4.10	62.5	17,400	10,600	285	250	193	183	ND	
30	4190	956	14,820	4380	8.00	52.2	4.10	85.5	19,200	12,700	366	324	224	233	ND	
31	3930	278	9,040	2030	8.00	52.2	2.80	105.0	17,400	9250	262	234	113	74	ND	
B	3760	285	31,150	4940	9.65	36.5	4.75	53.5	20,300	13,300	346	207	--	137	ND	
C	2480	285	32,860	3150	5.55	38.1	3.25	39.0	16,500	8620	292	214	184	76	ND	
D	2250	300	31,580	3590	7.45	17.2	4.35	209.0	18,600	10,000	279	239	226	199	ND	
E	3760	506	18,440	4940	7.45	40.1	4.75	75.0	26,300	16,300	594	496	252	236	ND	
F	3310	285	11,260	4940	8.55	58.8	6.05	157.0	27,000	15,100	911	732	1070	555	ND	
G	2480	164	10,420	3290	8.55	33.0	3.25	66.0	15,900	6680	302	209	238	148	ND	
X (SITE 1-31)	3100 ±860	619 ±1072	26,500 ±12810	3030 ±1040	7.30 ±2.80	31.1 ±16.8	4.20 ±1.35	65.0 ±34.0	16,900 ±2450	9240 ±2450	327 ±182	260 ±145	113 ±68	83 ±61	-	-

Analysis by X-ray fluorescence spectrometry.

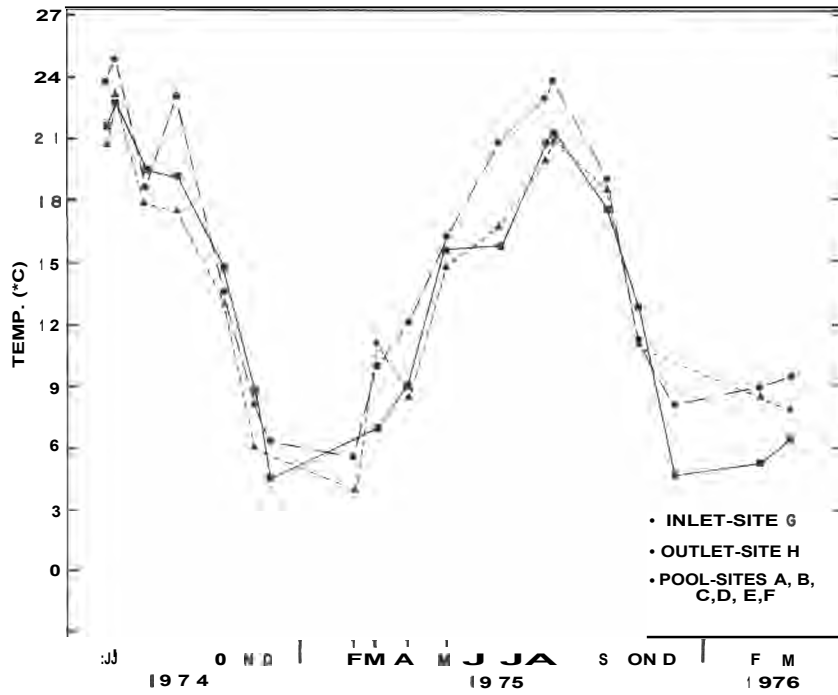


Figure 4.—Monthly variations in temperature for the inlet, outlet, and pool, 1974-76.

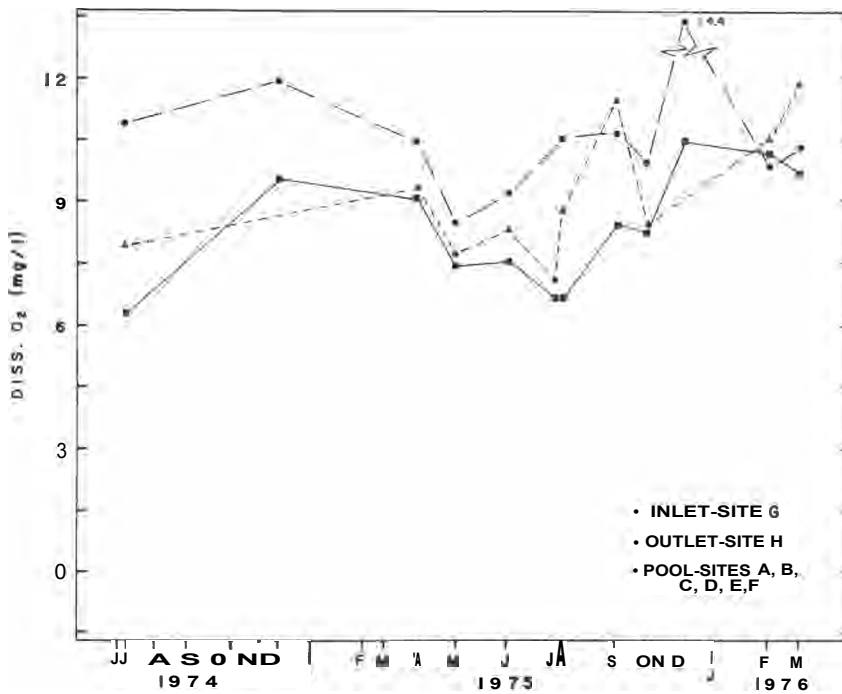


Figure 5.—Monthly variations in dissolved oxygen for the inlet, outlet, and pool, 1974-76.

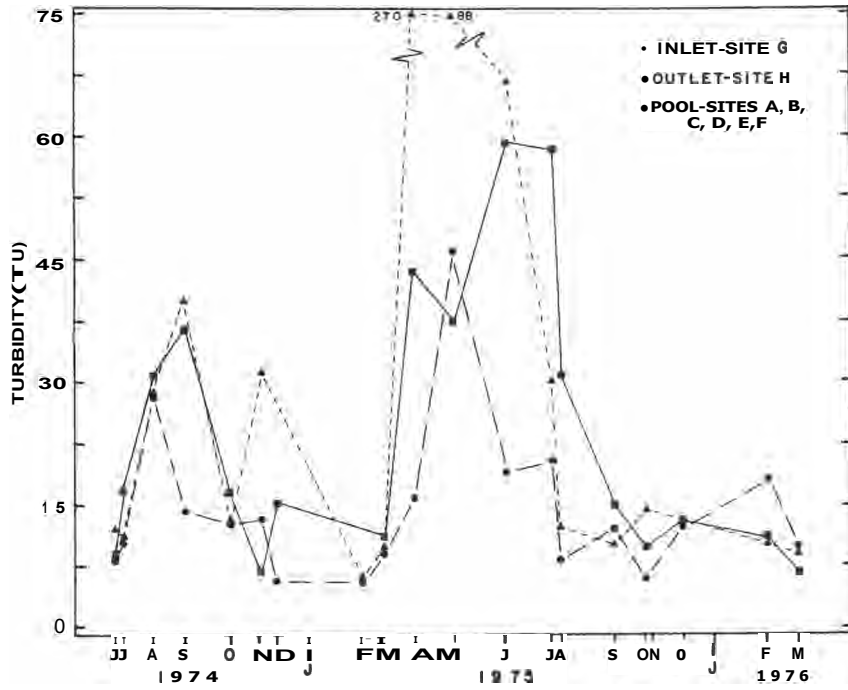


Figure 6.—Monthly variations in turbidity for the inlet, outlet, and pool, 1974-76.

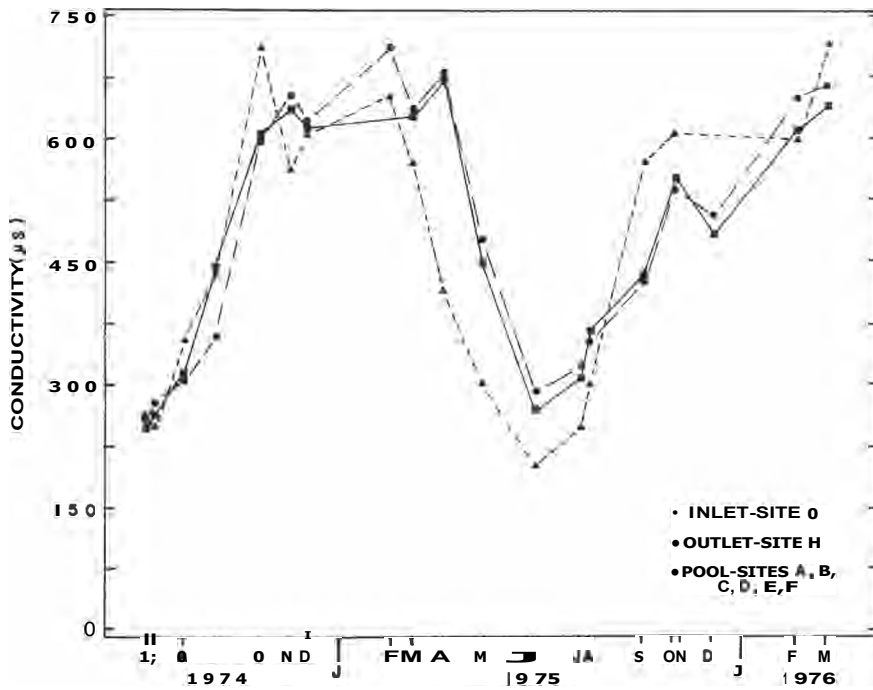


Figure 7.—Monthly variations in conductivity for the inlet, outlet, and pool, 1974-76.

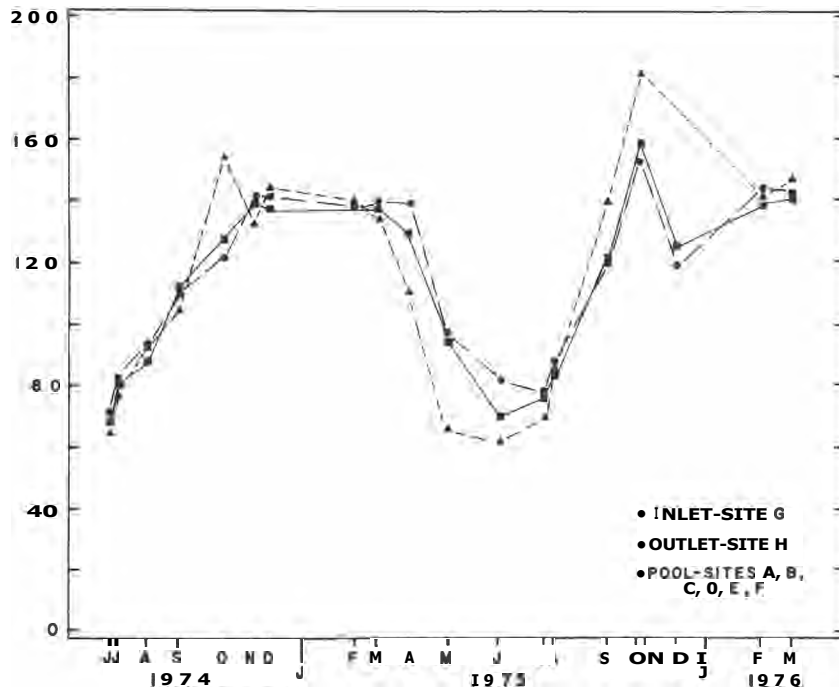


Figure 8.—Monthly variations in total alkalinity for the inlet, outlet, and pool, 1974-76.

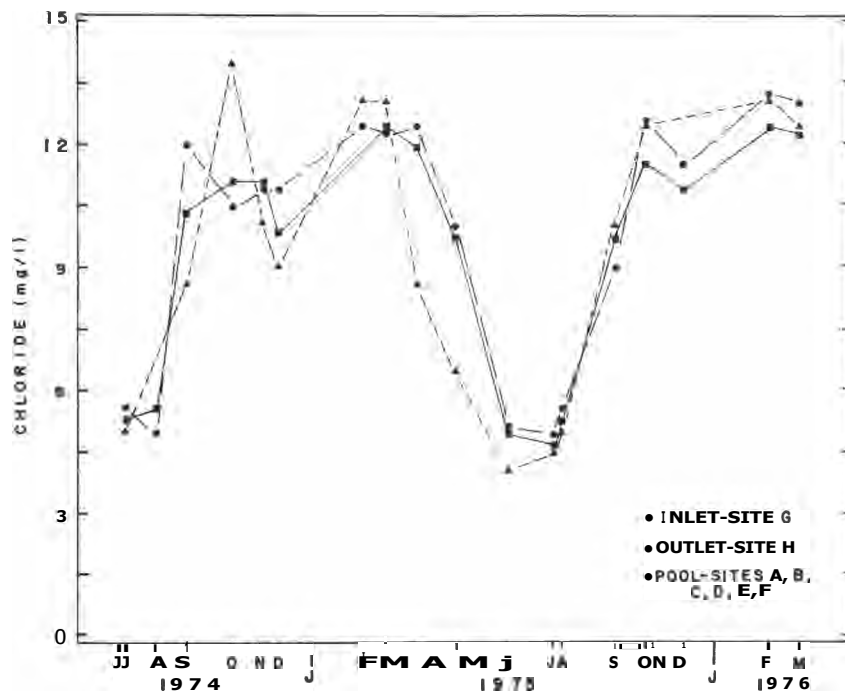


Figure 9.—Monthly variations in chloride for the inlet, outlet, and pool, 1974-76.

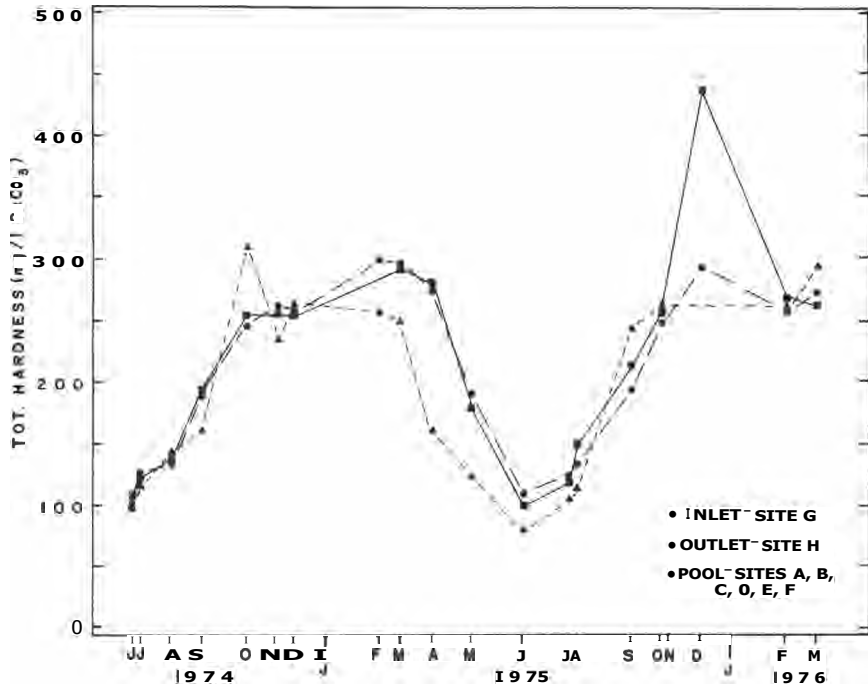


Figure 10.—Monthly variations in total hardness for the inlet, outlet, and pool, 1974-76.

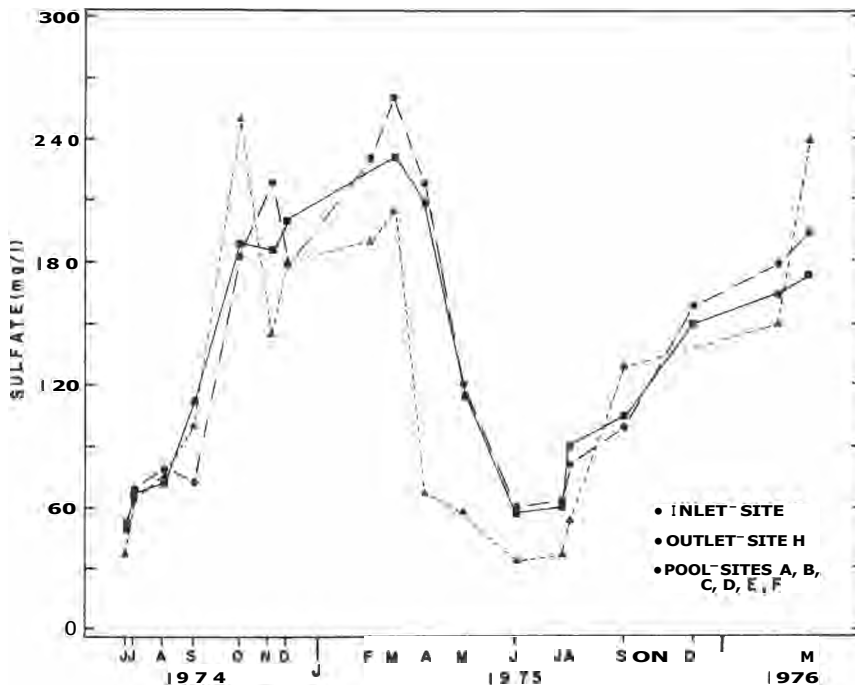


Figure 11.—Monthly variations in sulfate for the inlet, outlet, and pool, 1974-76.

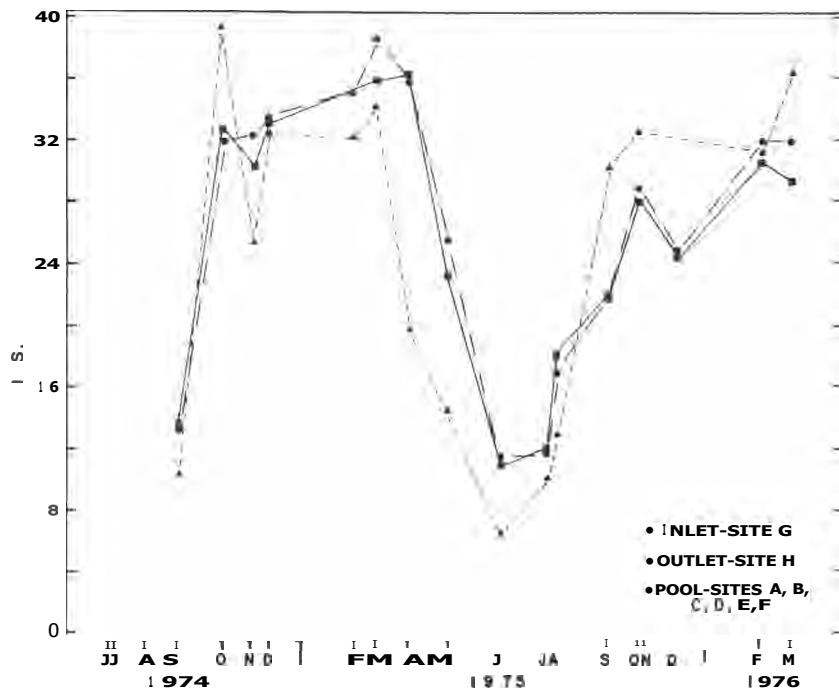


Figure 12.—Monthly variations in dissolved sodium for the inlet, outlet, and pool, 1974-76.

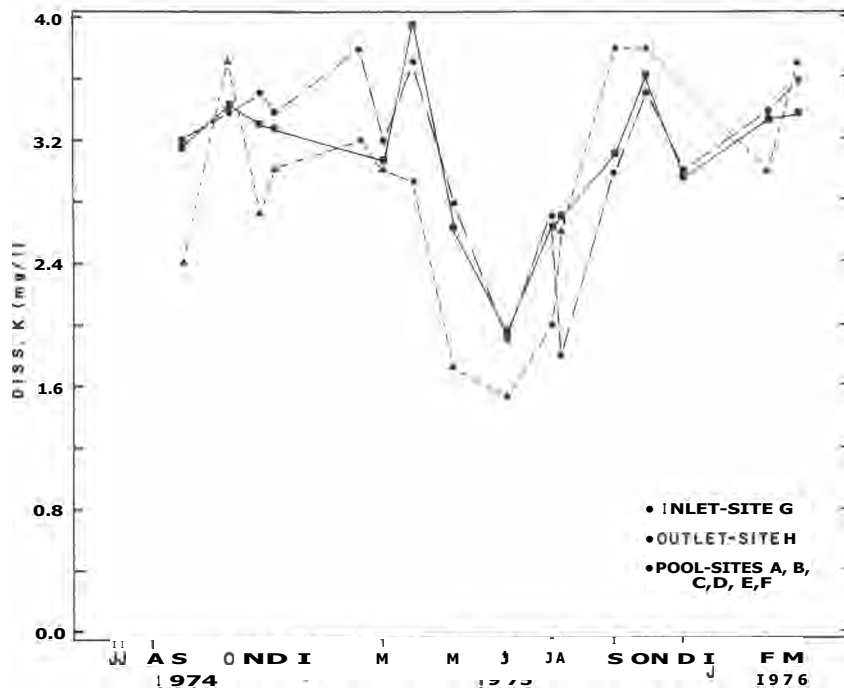


Figure 13.—Monthly variations in dissolved potassium for the inlet, outlet, and pool, 1974-76.

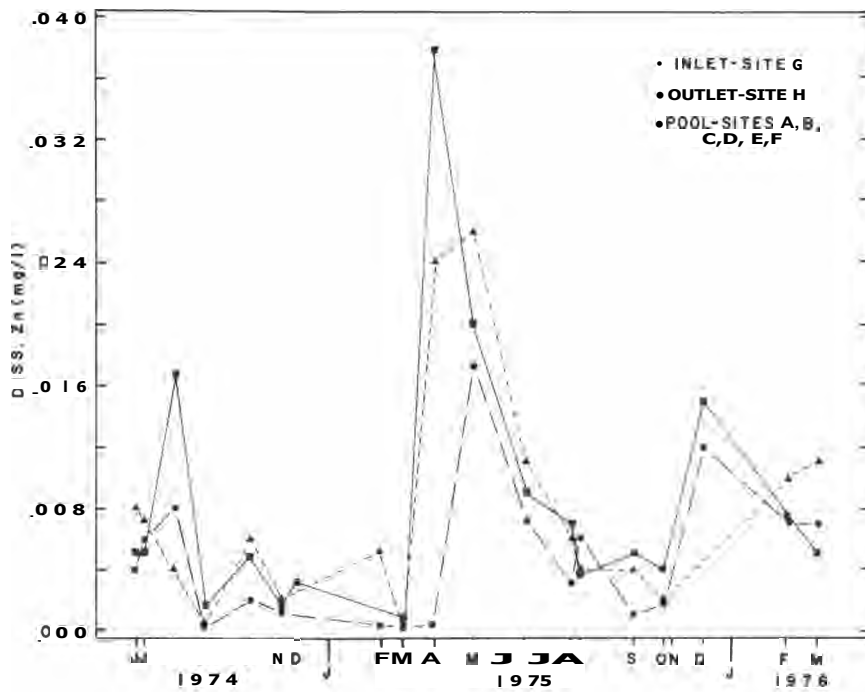


Figure 14.—Monthly variations in dissolved zinc for the inlet, outlet, and pool, 1974-76.

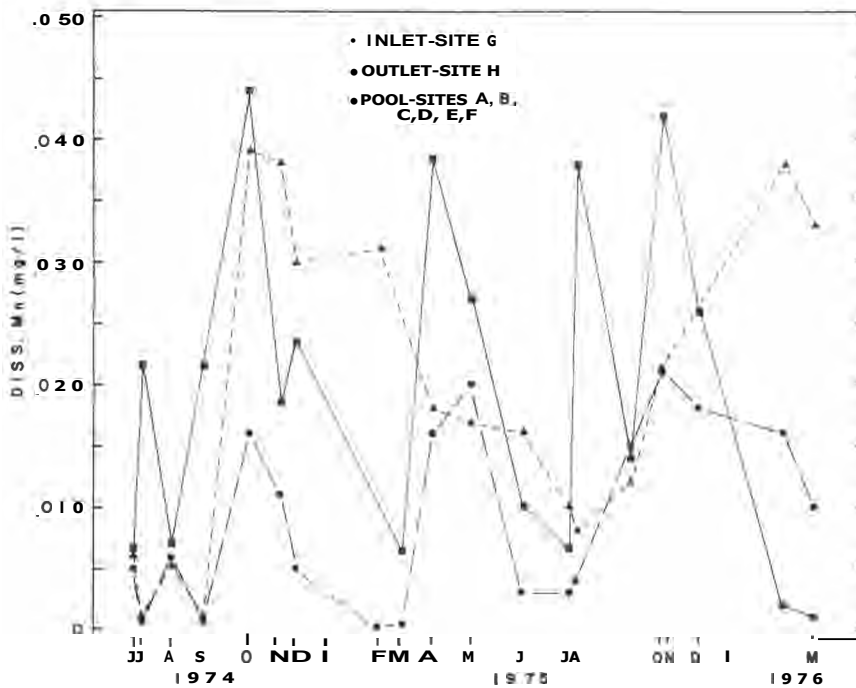


Figure 15.—Monthly variations in dissolved manganese for the inlet, outlet, and pool, 1974-76.

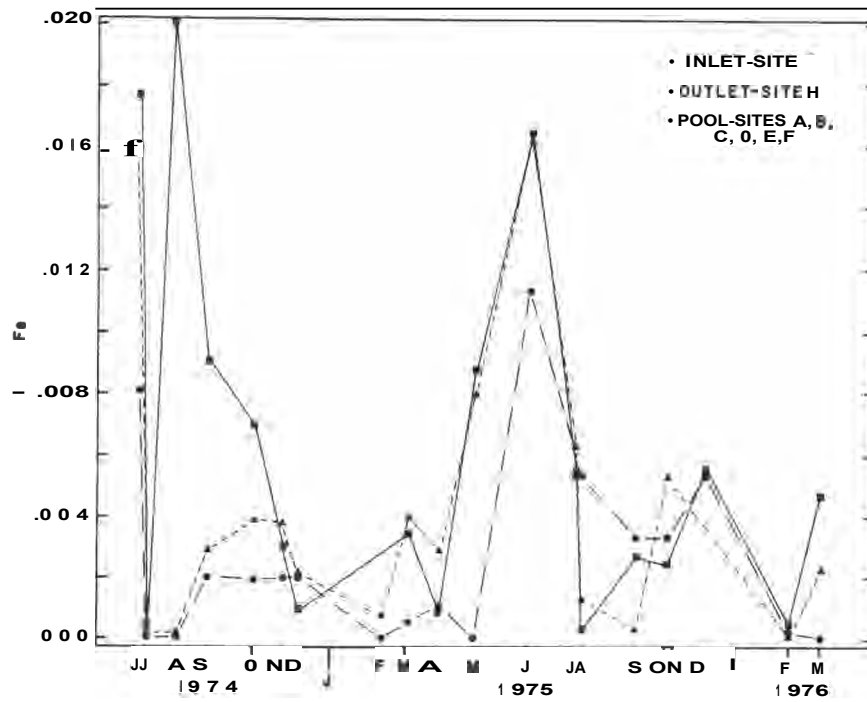


Figure 16.—Monthly variations in dissolved iron for the inlet, outlet, and pool, 1974-76.

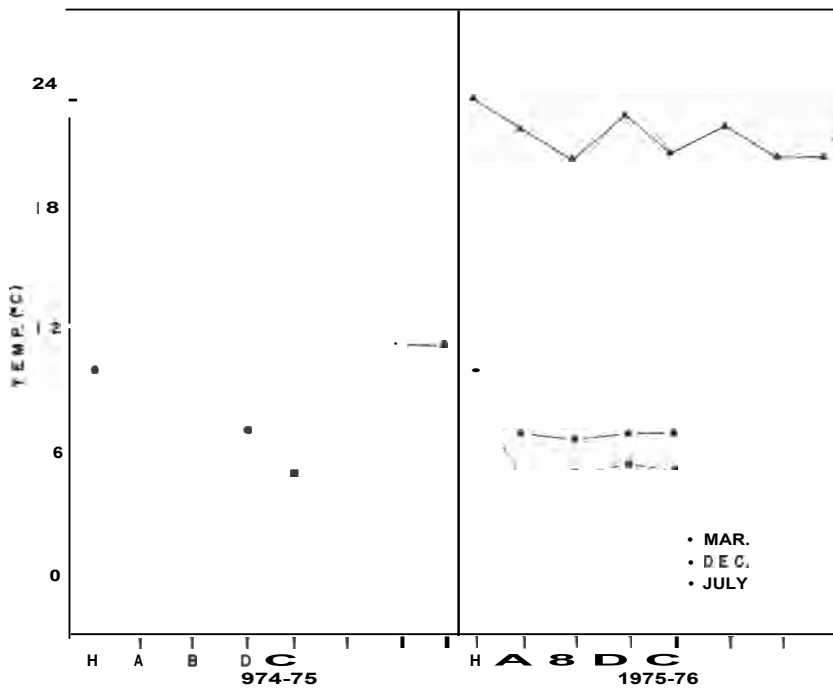


Figure 17.—Spatial variation in temperature for 3 months each year from the outlet site (H) west to the inlet site (G).

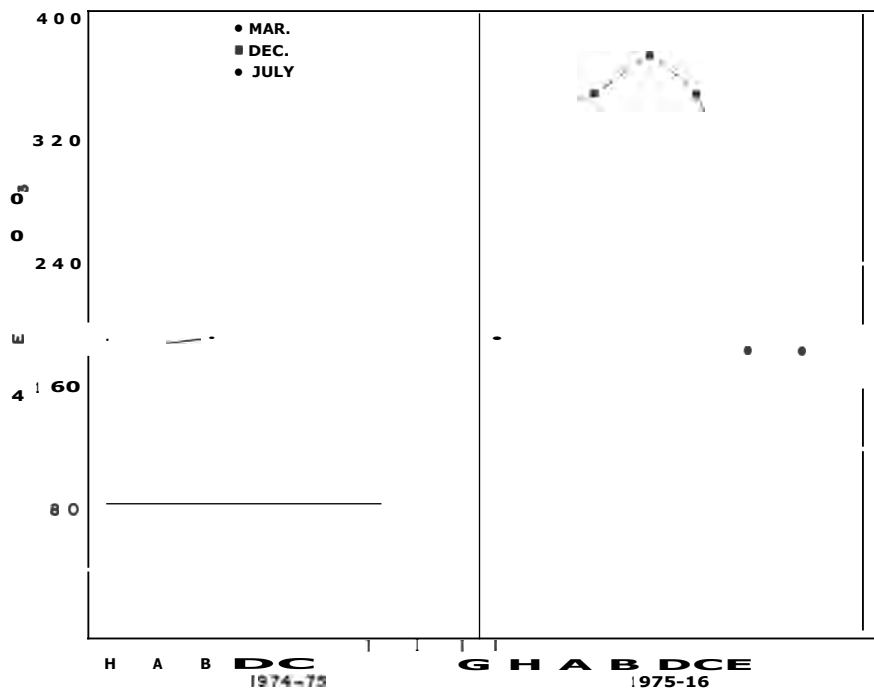


Figure 18.—Spatial variation in calcium hardness for 3 months each year from the outlet site (H) west to the inlet site (G).

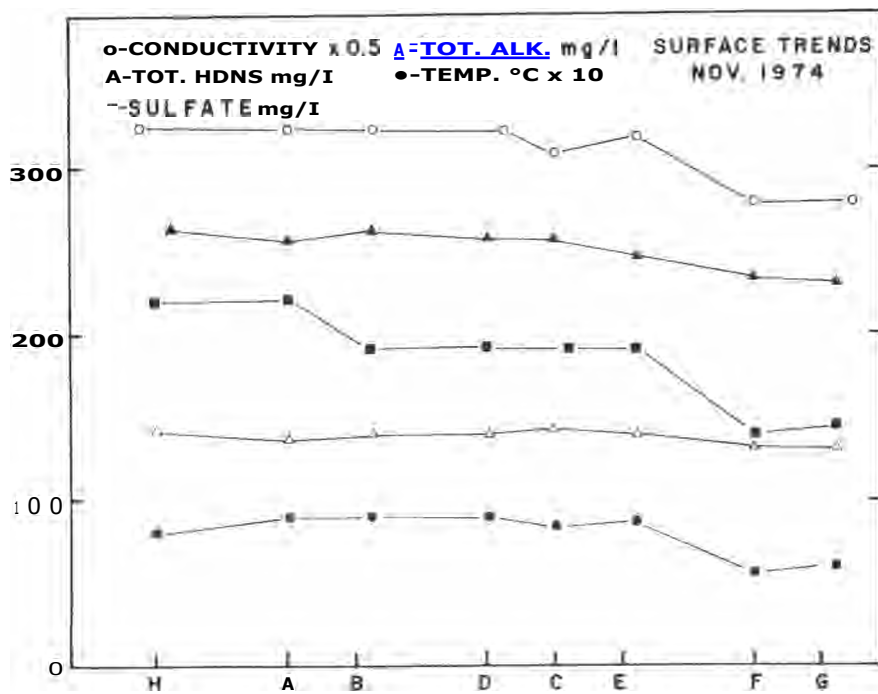


Figure 19.—Surface trends from outlet site (H) to inlet site (G) for conductivity, total hardness, sulfate, total alkalinity, and temperature, November 1974.

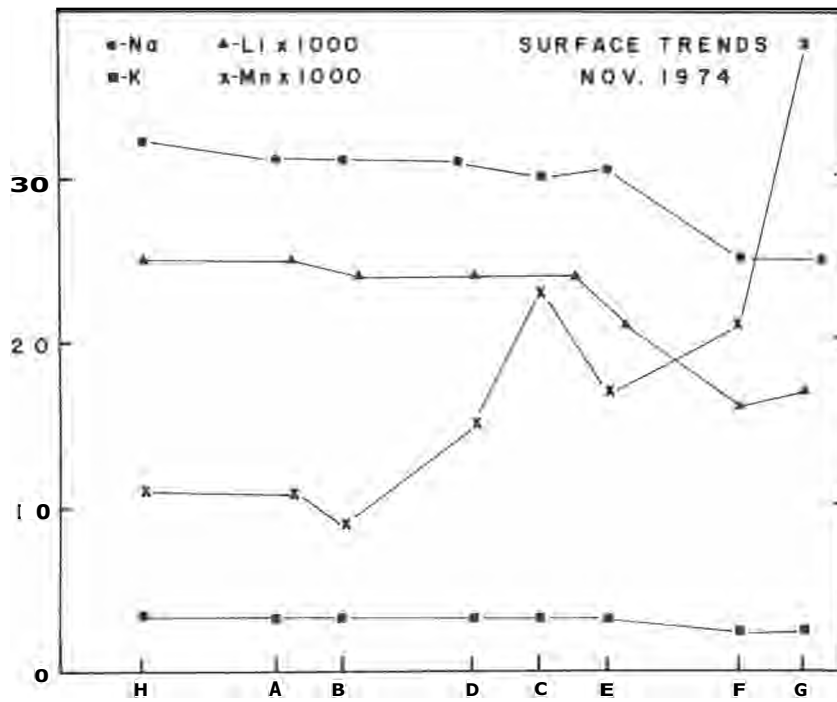


Figure 20.—Surface trends from outlet site (H) to inlet site (G) for sodium, potassium, lithium, and manganese, November 1974.

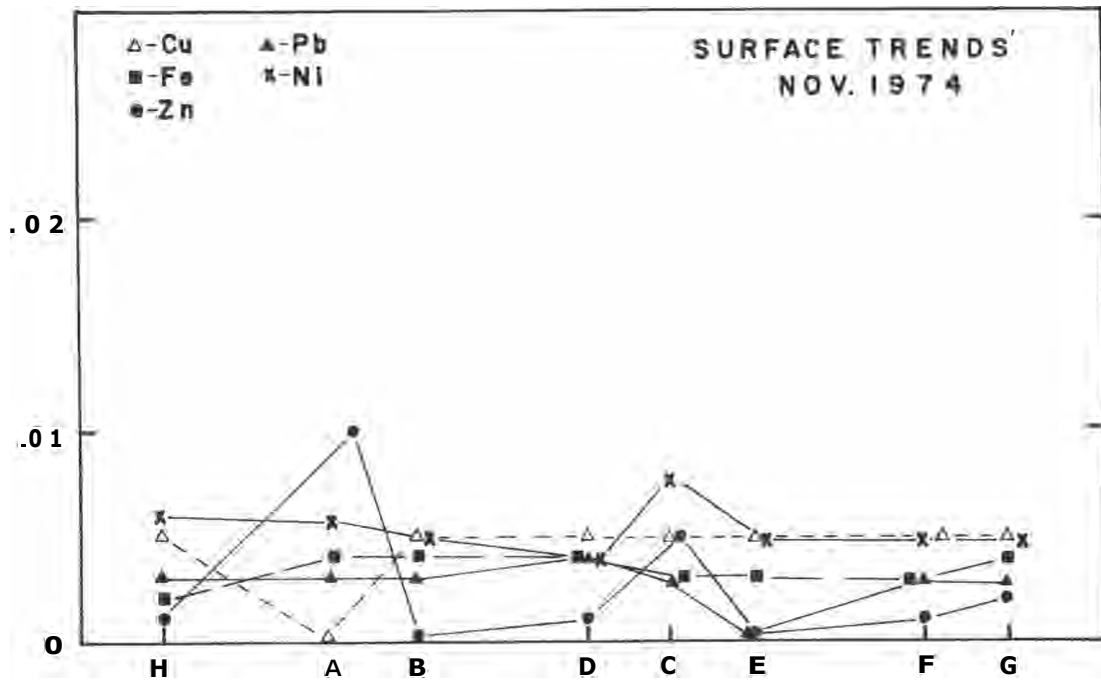


Figure 21.—Surface trends from outlet site (H) to inlet site (G) for dissolved copper, iron, zinc, lead, and nickel, November 1974.

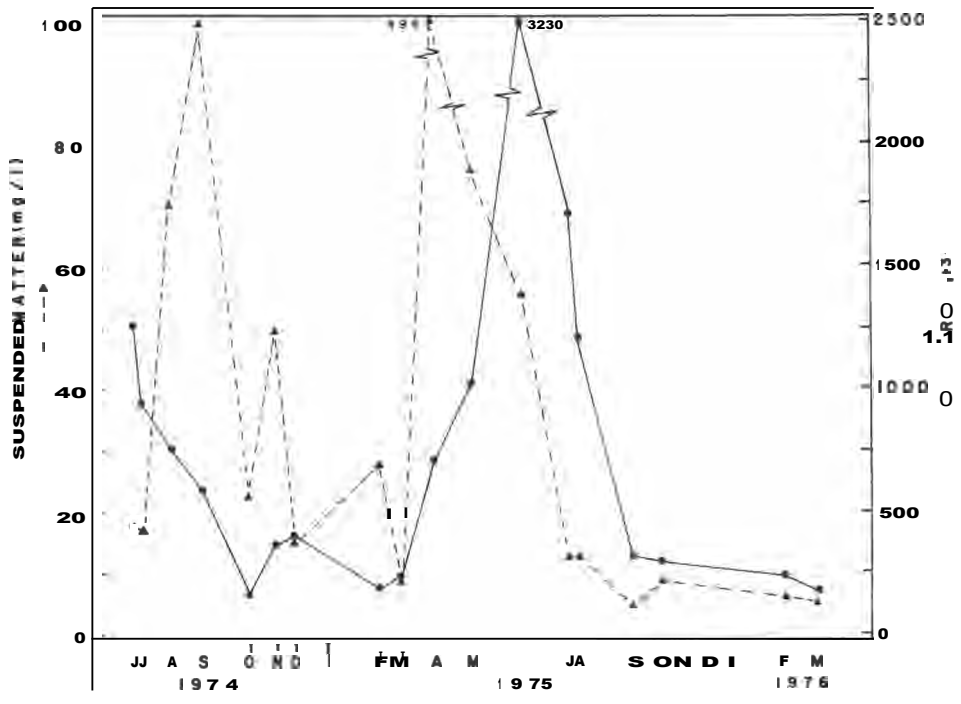


Figure 22.—Monthly variations in suspended matter and discharge, 1974-76.

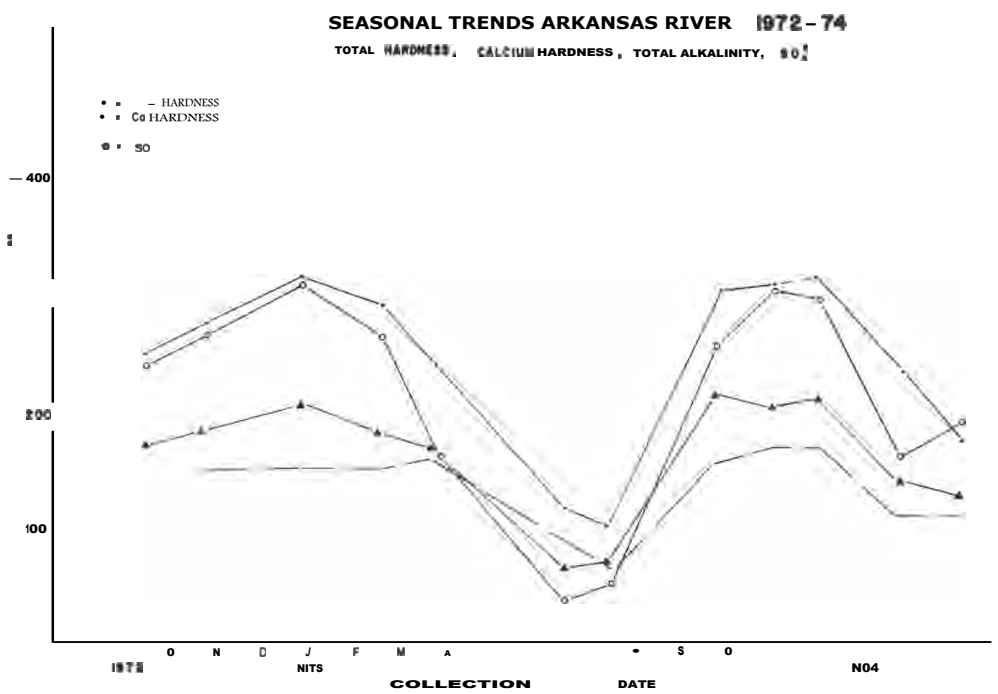


Figure 23.—Seasonal trends of total hardness, total alkalinity, calcium hardness, and sulfate in Arkansas River, 1972-74.

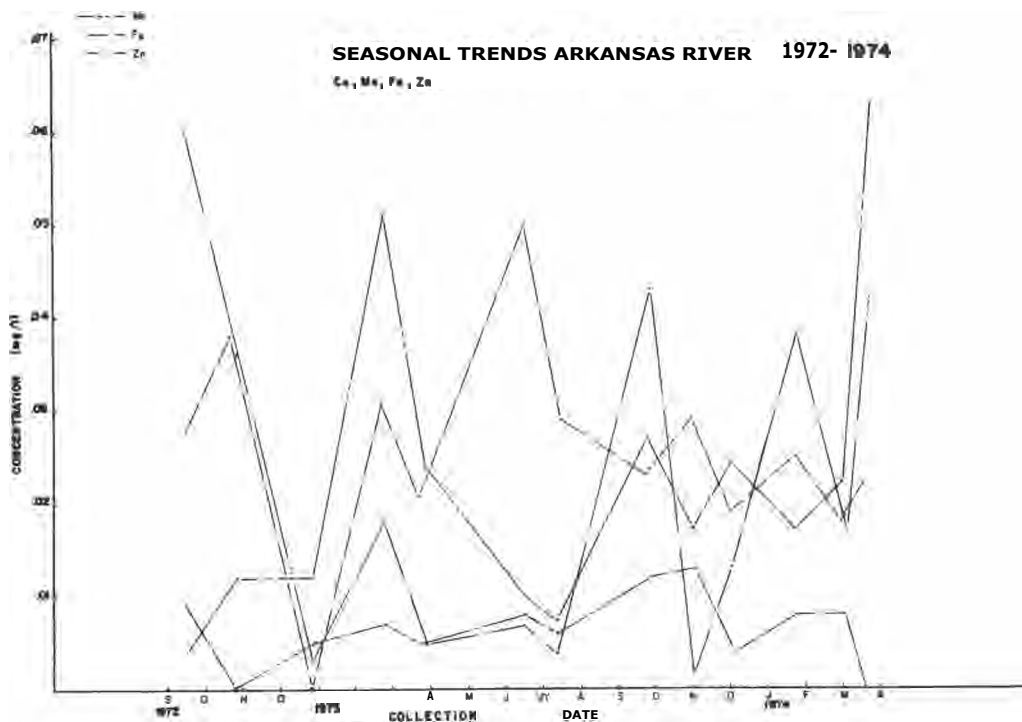


Figure 24.—Seasonal trends of dissolved copper, manganese, iron, and zinc in Arkansas River, 1972-74.

the month of December 1975, there was an increase in concentration toward the center of the reservoir from both ends. During the same sampling period, similar trends were observed for total hardness, zinc, lead, and nickel concentrations, while the dissolved concentrations of sulfate, potassium, and mercury decreased toward the center. Manganese and iron increased toward the inlet during November 1974, while just about everything else decreased.

These observed trends would seem to arise from a number of mechanisms involving several variables, including:

1. The concentrative effect of evaporation from the reservoir pool.
2. The varying quality of the water entering the reservoir due to seasonal or source effects coupled with a buffering effect of the reservoir.
3. The prevailing weather conditions (those at the time of sampling and effects of recent runoffs from local rain or snow).

The first effect mentioned would always have a tendency to concentrate the dissolved solids, which would

predict decreasing concentrations moving toward the inlet of the reservoir, which is the most commonly observed trend.

The second effect is one in which water of higher or lower concentration in dissolved solids is feeding the reservoir. Water of lower concentration of ions feeds the reservoir in the spring and early summer, creating a dilution effect which would result in a decreasing concentration trend moving toward the inlet. However, water feeding the pool in winter will normally contain higher concentrations of dissolved ions, which will tend to create an increasing concentration gradient moving toward the inlet. Diverted water will have a similar effect, depending on its quality.

The third effect is that of prevailing weather conditions. Runoff from local rain will tend to feed the reservoir with water containing relatively low concentrations of various dissolved ions; whereas, runoff from snow, because it is slower, will have a higher dissolved ion concentration.

An inverse effect would be expected for the suspended loads being carried into the reservoir, i.e., rain, high; snow, low. The phenomena such as observed in calcium hardness curves (fig. 18) and other ion concentrations

during December 1975, must be a reflection of opposing mechanisms in operation. It is difficult to completely assess these trends in the absence of a detailed statistical analysis of the data.

Surface and spatial trends of particularly interesting parameters such as iron and manganese are discussed in greater detail in those sections.

Depth Profiles

The most common trend observed with depth was an increasing ion concentration for many parameters, the most obvious indicators being conductivity, hardness, sulfate, zinc, iron, sodium, and especially manganese. D.O. (dissolved oxygen) at times was observed to decrease with depth, but only once to less than 50 percent of saturation at one site. A definite increasing concentration trend with depth was observed for at least one parameter during every month sampled at sites A and B during the period of July 1974 to May 1975. No obvious trends were observed at any other sites. The most clear case of localized stratification was observed the first sampling year during April 1975, at sites A and B where, for example, at site A the D.O. dropped from 10.2 to 5.1 mg/I, total conductivity rose from 675 to 1200 $\mu\text{S}/\text{cm}$, t-hardness rose from 272 to 560 mg/I going from the surface to the bottom. Similar conditions prevailed at site B where, for example, manganese rose from not being detectable at the surface to 0.401 mg/I at the bottom.

During the second year, depth trends were observed at sites A and B from June 1975 through September 1975, after which the depth trends seemed to disappear. However, during the month of August, a very sharp depth profile was noted for several parameters, including an increase from 0.001 mg/I Mn at the surface to 0.627 mg/I at the bottom, accompanied by a decrease in D.O. from 7.3 to 2.3 mg/I. Also, slight depth profiles were observed at this time at deep sites D and E. The presence of the old Arkansas River diversion dam in the proximity of sites A and B may have a prominent effect in causing stratification in that localized area. The trace metal that was most prominent in the observation of depth profiles was manganese and is discussed in that section of this report.

Suspended Fraction Trends

It is difficult to assess the trends in the suspended fractions other than the principal one that the concentration of the trace metals increases with the total suspended matter. The data must be further refined statistically to give the trace metal concentration within the suspended matter before any trends can emerge.

Preface to Individual Parameters

The following sections discuss and summarize the findings of this study with regard to each of the individual parameters. Repeated reference and comparisons are made to the studies of Durfor and Becker [7], Durum and Haffty [8], Kopp and Kroner [9], and Durum, Hem, and Heidel [10]. These studies are described and the numbers with which comparisons were made are discussed. Durfor and Becker [7] surveyed the water supplies of the 100 largest cities of the United States. Values used for comparison are the median values which are also used by Durum and Haffty [8]. Durum and Haffty surveyed the minor elements content of the major streams of the world, but only the median values for North American rivers are used. Kopp and Kroner [9] surveyed the trace metals of the surface waters of the United States from 1962-67, reporting both suspended and dissolved data. In their summaries, however, they report the frequency of detection for an element and then the mean of the values of those samples in which the element was detected. This would seem to produce higher values than in this study and in comparison to the two other studies just cited. Durum, *et al.* [10] surveyed As, Cd, Cr, Co, Pb, Hg, and Zn in the surface waters of the United States, which included three sites on the Arkansas River, one near the Pueblo waterworks (site H).

Water Analysis — Field Measurements

Temperature. — The grand mean temperatures ($^{\circ}\text{C}$) of the reservoir pool for 1974-75 and 1975-76 were 13.5 (56.3 F) and 12.4 (54.3 F), respectively. The variations in pool, inlet, and outlet values are illustrated in figure 4. The highest monthly means for 1974-75 and 1975-76 were 22.9 (73.2 F) [July] and 21.3 (70.8 F) [August], respectively. December had the lowest monthly mean of the months in which samples were collected in each year, 4.4 (39.9 F), 1974; 4.9 (40.8 F), 1975. Seasonal trends were observed during each year; depth trends were not evident except on a few occasions; spatial and surface trends were not pronounced (figs. 17 and 19). For most sampling periods, near-isothermal conditions prevailed. In terms of water use criteria [11], temperatures recorded to date have not approached acceptable maximums for recreation, public water supplies, or agriculture. Mean summer maximums slightly exceed the maximum temperatures recommended for growth of salmonids [20 C (68 F)]. Interestingly, growth rates of rainbow trout in Pueblo Reservoir have been spectacular.³

³ Wurm, D., Colorado Division of Wildlife, personal communication.

Dissolved Oxygen. — Concentrations of D.O. were usually slightly lower for the means of the reservoir pool than those for either the inlet or outlet (fig. 5). The mean D.O. levels for the pool for 1974 and 1975 were 8.2 and 8.8 mg/I, respectively, with highest monthly means (9.6 and 10.6) occurring in December and lowest monthly means (6.4 and 6.7) in July. For most depths D.O. concentrations were near or at saturation except on a few rare occasions. For good growth and general well-being, D.O. levels for cold-water biota (especially trout and salmon) should not be below 6 mg/I. For successful spawning, assuming adequate gravel substrata are also available, D.O. levels must not be below 7 mg/I. From the D.O. data available, trout growth should not be adversely affected, but successful spawning may be a problem for certain trout species in Pueblo Reservoir.

Water Analysis — Laboratory Measurements

Turbidity. — Monthly changes in inlet, outlet, and pool turbidities are shown in figure 6. Inlet values were usually greater than either those for the outlet or the pool, especially during periods of high river discharge or after heavy rainstorm events. For the pool, mean annual turbidities for 1974 and 1975 were 24 and 25, respectively. Highest and lowest monthly pool averages were 43 (April) and 59 (June) and 7 (December) and 7 (March) for each respective year. For public water supplies or farmstead use, turbidities which are virtually absent are most desirable. For fish and aquatic life, turbidities should not exceed 25 JTU (Jackson turbidity units) for warm-water lakes or 10 JTU for cold-water lakes. Obviously, from figure 6, Pueblo Reservoir turbidities periodically exceeded both of these desirable maxima for aquatic life. What adverse effects these higher turbidities may have on trout and other fishes are beyond the scope of this study.

pH. — The range in pH for 1974 and 1975 was 6.9 to 8.7 and 7.0 to 8.8, respectively. The low pH values were always those for bottom samples closest to the sediments and the highest values for those samples near the surface in the photofixation zones. For most months, pH values were exceptionally uniform over the pool. Freshwater organisms usually require pH conditions with the range 6.0 to 9.0. These water quality extremes were not exceeded during this study. Public water supplies should have a pH range of 6.0 to 8.5. On most occasions the water of Pueblo Reservoir did not exceed this upper limit, and never exceeded the lower.

Specific conductance. — Annual fluctuations of conductivity are shown in figure 7 for the inlet, outlet, and reservoir pool. The mean annual values for 1974 and 1975 were 511 and 480 μmhos , respectively. The

highest and lowest monthly averages in 1974 and 1975 were 680 (April) and 645 (March) and 249 (June) and 271 (June), respectively. No applicable water quality criteria could be found for specific conductance [11].

Total dissolved solids (filterable residue). — As pointed out by Cole [12] and Hem [3], a near-linear relationship exists for concurrent TDS and conductivity measurements for a given lake or stream if taken through the seasons. Such a relationship existed in Pueblo Reservoir for the 1974-76 study period. Figure 3 can be used to calculate TDS values for those months with highest and lowest mean conductivities for each year: 480 (April 1975), 466 (March 1976), and 170 (June 1974), 185 (June 1975). A desirable level of < 200 mg/I TDS is recommended for surface water for public water supplies. A permissible maximum of 500 mg/I has also been established.⁴ Pueblo Reservoir water never exceeded the permissible value, while reservoir water frequently had values < 200 mg/I TDS and hence satisfied the desirable maximum. Farmstead water use criteria list a TDS desirable level of < 500 mg/I. TDS levels < 10,000 mg/I are recommended if water is used for livestock drinking. Irrigation water with < 500 mg/I TDS will usually not be detrimental to crops and is recommended. For livestock and irrigation use, therefore, TDS levels in the pool are acceptable. No applicable water quality criteria for TDS have been established for aquatic wildlife and freshwater organisms.

Total alkalinity. — Contrary to Lind [13] and EPA [1, 2], filtered water samples were used for t-alk (total alkalinity) determinations. Little, if any, difference was recorded depending on whether filtered or raw water samples were titrated. Changes in t-alk (mg/I as CaCO_3) for the inlet, outlet, and reservoir pool are illustrated in figure 8. Generally, pre-impoundment concentrations were of the same order of magnitude and temporal occurrence (fig. 23) as for the outlet of the reservoir. The annual means for 1974 and 1975 were nearly the same, 116 and 177, respectively. Fall months showed the highest monthly means, 140 (November) and 160 (October), respectively; June in both years showed the lowest monthly averages, 68 and 71, respectively. If a value of 116 mg/I CaCO_3 is converted to CO_3^{2-} , the mean pool concentration as CO_3^{2-} would be 70 mg/I. Wetzel [15] found the mean CO_3^{2-} composition of

⁴ On December 24, 1975, the EPA published "National Interim Primary Drinking Water Regulations" [14], which propose no standard for TDS. According to EPA, there will be no TDS standard proposed in the secondary regulations when they are published later this year.

rivers in North America to be 68 mg/I. By this comparison, it might be said that the reach of Arkansas River known as Pueblo Reservoir is an "average" carbonate river. Alkalinity greater than 400 mg/I for public water supplies is usually considered undesirable. Pueblo Reservoir water never approached such a level. For aquatic wildlife and freshwater organisms no maximum has been established, but 20 mg/I is the minimum. Again, the reservoir waters are quite acceptable regarding such a minimum.

Chloride. – Chloride is the third most common anion in temperate waters. On the basis of milli-equivalents (Cole [12] and Wetzel [15]). The seasonal concentrations of chloride in the inlet, outlet, and pool are shown in figure 9. All three were usually closely related from month to month. The annual mean chloride levels for the pool for 1974 and 1975 were 9.8 and 9.3 mg/I, respectively. The highest and lowest monthly averages for the pool for 1974 and 1975 were 12.5 (March) and 12.5 (February) and 5.3 (July) and 4.6 (July), respectively. Wetzel [15] cites the mean chloride concentration of North American rivers as 8 mg/I. Again, the mean concentration in Pueblo Reservoir water closely approximates the "average" North American river. Pre-impoundment chloride concentrations (appendix C) were more extreme and variable than those during the 1974-76 impoundment period. Chloride in water for use as a public water supply should not exceed a desirable maximum of 250 mg/I. Irrigation water should not exceed 700 mg/I chloride. In neither application is there evidence that water of Pueblo Reservoir exceeds such maxima.

Sulfate. – Annual mean sulfate concentrations for the reservoir pool for 1974 and 1975 were 152 and 121 mg/I, respectively. The highest and lowest monthly averages were 232 (March) and 175 (March) and 51 (June) and 56 (June), respectively. In both 1974 and 1975, March was highest and June lowest (fig. 11). During pre-impoundment river conditions (fig. 23), highest sulfate concentrations were usually higher than pool highs and occurred in either December or January. Lowest sulfate concentrations during pre- and post-impoundment periods were in June and were much the same. A sulfate concentration of < 50 mg/I is a desirable level as a criterion for water use as a public water supply. A permissible maximum of 250 mg/I has also been established [11]. Pool water of Pueblo Reservoir rarely satisfied the former criterion level, but never exceeded the latter.

Total hardness. – Hardness in natural waters is chiefly due to dissolved calcium and magnesium ions. The seasonal changes in total hardness as mg/I CaCO_3 for the reservoir inlet, outlet, and pool are shown in figure 10.

The mean annual averages of total hardness for 1974 and 1975 were 215 and 232, respectively. The highest monthly means for each year were 283 (March) and 439 (December), respectively. The lowest monthly averages for each year both occurred in June and were 106 and 102, respectively. Hardness of more than 300 to 500 mg/I as CaCO_3 is excessive for public water supplies. Only rarely did water of Pueblo Reservoir exceed the 300 level maximum. The term hardness should be avoided in reference to water quality requirements for aquatic life.

Calcium hardness. – Calcium hardness as mg/I CaCO_3 and the equivalent concentration as calcium alone are listed below for the appropriate pool means of the dissolved fraction only:

	1974		
	Annual Mean	Highest Monthly	Lowest Monthly
mg/I CaCO_3	149	185 (Dec., Mar.)	74 (June)
mg/I Ca	60	74	30
	1975		
	Annual Mean	Highest Monthly	Lowest Monthly
mg/I CaCO_3	167	329 (Dec.)	78 (June)
mg/I Ca	67	132	31

The calcium content (mg/I) in the suspended fraction for each of the aforementioned categories in the same order were as follows:

	1974			1975		
	0.66 (Apr.)	1.65 (Oct., Nov.)	0.16	0.50 (July)	1.49 (Mar.)	0.28
mg/I Ca						

The dissolved calcium levels were about 100 times greater than the suspended calcium levels. Dissolved calcium content was usually greatest during highest discharge (June). The seasonal trends of calcium hardness for the reservoir pool for the 1974-76 study period followed that of pre-impoundment river conditions of 1972-74 (fig. 23). No specific water quality criteria have been established for dissolved or suspended calcium concentrations. From table 4 it is apparent that little, if any, calcium enrichment or accumulation has occurred in the inlet sediments.

Magnesium hardness. – Magnesium hardness as mg/I CaCO_3 was measured in the dissolved fraction water from the inlet, outlet, and pool of Pueblo Reservoir.

The following tabulation of pool means gives the magnesium hardness as mg/l CaCO₃ and mg/I Mg:

	1974		
	Annual Mean	Highest Monthly	Lowest Monthly
mg/I CaCO ₃	66	104 (Apr.)	32 (Aug.)
mg/I Mg	16	25	8

	1975		
	Annual Mean	Highest Monthly	Lowest Monthly
mg/I CaCO ₃	65	110 (Dec.)	28 (June)
mg/I Mg	16	26	7

The magnesium concentration (mg/I) in the suspended fraction for each of the aforementioned categories in the same order were as follows:

	1974		1975	
	Annual Mean	Highest Monthly	Lowest Monthly	Lowest Monthly
mg/I Mg	0.21 (Oct.)	0.37 (June)	0.05 (June)	0.03 (Dec.)

No single month appears to consistently have either highest or lowest means for either fraction. The annual means were the same for the dissolved fraction, but were much greater in the first year of filling (1974-75) for the suspended fraction. The seasonal trend for magnesium hardness in the pool closely resembled that for total hardness (fig. 10). Again, no specific recommended concentration maxima for various water uses could be found for either dissolved or suspended magnesium. From table 4 it appears that magnesium enrichment has occurred in the suspended unloading sites of E and F. More statistical study of the data in table 4 would be necessary for verification.

Sodium. – The sodium concentration (mg/I) in the dissolved and suspended fractions of pool water for each impoundment water year were tabulated as follows:

	1974		
	Annual Mean	Highest Monthly	Lowest Monthly
Dissolved	29.4	36.4 (Apr.)	13.5 (Aug.)
Suspended	0.08	0.26 (Apr.)	0.01 (Aug.)

	1975		
	Annual Mean	Highest Monthly	Lowest Monthly
Dissolved	22.6	30.6 (Feb.)	11.2 (June)
Suspended	0.23	0.42 (Oct., Jul.)	0.02 (June)

The 1974 data in the aforementioned tabulation are skewed somewhat to higher values since sodium analysis was begun in September 1974, and low values for June, July, and August were not available. The monthly changes in dissolved sodium for the inlet, outlet, and pool are shown in figure 12. The levels of suspended sodium in the reservoir pool were similar to those for two permanent natural ponds on the Pawnee National Grasslands [16]. No specific water quality criteria for sodium could be found. The acceptable use levels for sodium are usually considered under conductivity and TDS. Significant sodium changes in the pool sediments were not evident (table 4).

Potassium. – Seasonal fluctuations of dissolved potassium were not as pronounced as for sodium, sulfate, chloride, etc. (fig. 13). In fact, a seasonal trend of relatively stable dissolved potassium concentrations were especially evident for the reservoir pool. This same condition of relatively uniform potassium concentrations on a year-around basis has been reported by Hem [3] and Herrmann [16]. Mean potassium concentrations of the dissolved and suspended fractions of pool water for various criteria are listed below:

	1974		
	Annual Mean	Highest Monthly	Lowest Monthly
Dissolved	3.3	4.0 (Apr.)	2.6 (May)
Suspended	0.09	0.26 (Apr.)	0.02 (Nov.)

	1975		
	Annual Mean	Highest Monthly	Lowest Monthly
Dissolved	3.0	3.6 (Oct.)	0.9 (June)
Suspended	0.07	0.18 (June)	0.04 (Sept., Oct., Feb.)

The annual means for dissolved and suspended potassium were very similar. No prescribed water use criteria could be found specifically for potassium; no significant accumulation of potassium in the pool sediments could be inferred from the data in table 4.

Lithium. – Lithium is potentially toxic to plants [17]. For this reason a limit of 2.5 mg/I was suggested by the U.S. Federal Water Pollution Control Administration (now the Environmental Protection Agency) in 1968. Durum and Haffty [8] show a median concentration of dissolved lithium of 0.0011 mg/I in the rivers of North America, while Durfor and Becker [7] reported 0.002 mg/I lithium. The mean value for lithium in the Arkansas River and Pueblo Reservoir was consistently higher than these values, averaging 0.017 ± 0.004 mg/I and 0.014 ± 0.004 mg/I in the pool for the two sampling years of the project, and 0.015 ± 0.007 mg/I and 0.013 ± 0.008 mg/I at the inlet. The lithium in the suspended fraction was nearly negligible at 0.0007 ± 0.003 mg/I and 0.0006 ± 0.002 mg/I, respectively, for the pool. The trends observed for lithium follow the trend observed for sodium very closely (figs. 12 and 20). The surface trend for lithium follows the sodium curve (fig. 20) very closely, although the concentration of lithium is about 1000 times less. In April 1975, a decreasing surface trend was observed for sodium and lithium, with sodium concentrations almost exactly 1000 times greater than lithium at all sampling sites. Seasonal trends and depth profiles for lithium also parallel sodium quite closely.

Copper. – It has been suggested by Garrels and Christ [18] that cupric oxide or hydroxy-carbonate minerals would tend to limit the solubility of copper in aerated water to about 0.064 mg/I at a pH of 7.0, decreasing to 0.006 mg/I at a pH of 8.0. Hem [3] notes, however, that higher values have been observed. Dissolved copper levels for Pueblo Reservoir averaged 0.004 ± 0.001 mg/I during the 1974-75 sampling year and 0.004 ± 0.002 mg/I during the 1975-76 sampling year. The highest average for the pool was 0.001 ± 0.005 mg/I (December 1975), and the lowest averaged less than detectable limits on three separate sampling dates. The dissolved levels observed are completely consistent with predictions of Garrels and Christ [18], considering the prevalent pH's of about eight. Hem [3] also notes that copper is essential to the nutrition of plants and animals. However, no mechanism for copper removal besides inorganic precipitation is necessary to explain the observed levels.

The suspended levels of copper were comparable to the dissolved levels. The reservoir pool average for the 1974-75 sampling year was 0.004 ± 0.001 mg/I and $0.006 \pm$

0.003 mg/I during the 1974-76 sampling year. The highest pool average for a single month was 0.015 ± 0.007 mg/I (December 1975). Nondetectable low averages were recorded for five monthly sampling periods.

A seasonal trend with a maximum value occurring during the early winter months was observed for dissolved copper. Comparison of the pool trend to the river at the inlet and outlet reveals a similar trend. Figure 24 drawn from the pre-impoundment data in appendix C also indicates a seasonal trend. The average dissolved copper level at the two sites monitored during the pre-impoundment study was 0.008 ± 0.005 mg/I (somewhat higher than the average for the reservoir pool), while the average copper values obtained at the inlet of the reservoir were consistent with the reservoir pool, 0.004 ± 0.003 mg/I and 0.004 ± 0.005 mg/I for each year, respectively. No definite surface or spatial trend was observed for copper.

Kopp and Kroner [9] detected copper in 74 percent of the dissolved samples and 62 percent of the suspended samples collected from the surface waters of the United States. Means of 0.015 mg/I (dissolved) and 0.26 mg/I (suspended) were recorded from the samples in which copper was detected.

Copper in the sediments averaged 31 ± 17 mg/I in the pre-impoundment flood plain and only slightly higher at 37 ± 13 mg/I in the samples collected in the reservoir. At site F near the inlet, however, sediments yielded 59 mg/I copper, indicating some copper loading into the sediments may be occurring near the inlet.

Zinc. – Solubility controls do not tend to limit the concentrations of zinc observed in natural water, but rather the availability of zinc from rock and soil [3] or from pollution sources. A significant source of zinc in the Arkansas River is from the mine drainages in the Leadville area, particularly California Gulch [19]. Durum, et al. [10] reported zinc in a range of 0.010 to 0.050 mg/I in most samples obtained from surface waters, but occasionally values exceeding 5.0 mg/I, the recommended upper limit for drinking water, were observed. In this study a mean of 0.010 ± 0.015 mg/I zinc was observed the first sampling year (1974-75) and 0.007 ± 0.002 mg/I during the second (1975-76). The low average occurred in March 1975, at 0.001 ± 0.002 mg/I. The high average was 0.038 ± 0.122 mg/I in April 1975. That average included several extreme values obtained from samples taken at the bottom of the reservoir, including a value of 0.268 mg/I obtained at site A bottom at a depth of 15 metres.

The average dissolved zinc for the pre-impoundment study was 0.014 ± 0.015 mg/I, while the average value obtained at the reservoir inlet were somewhat lower at 0.008 ± 0.009 mg/I and 0.007 ± 0.004 mg/I, respectively, for the 1974-75 and 1975-76 sampling years. These values compare to the range obtained by Durum, *etal.* [10] of 0.010 to 0.050 mg/I for most samples and the mean of Kopp and Kroner [9] of 0.064 mg/I obtained from the 75.5 percent of the samples in which zinc was detected.

Plots made to show seasonal trends for the pre-impoundment river (fig. 24) produced highly scattered data points. A similar plot for dissolved zinc (fig. 14) in the present study shows that the inlet and outlet zinc rises and falls with the reservoir pool (averages), but the pool maxima are always higher. The concentration in the suspended fraction was 0.021 ± 0.030 mg/I and 0.010 ± 0.010 mg/I, respectively, for the two years with a low average of 0.003 ± 0.005 (March 1976). Higher levels of suspended zinc occurred generally during the first sampling year. These values compared to Kopp and Kroner [9] of 0.062 mg/I mean obtained for the 62 percent of the samples in which zinc was detected. Our data (even taking into account the differences in methods of obtaining the means) indicate that the zinc loads in the Arkansas River and Pueblo Reservoir are lower than average.

Zinc values tended to be highly variable in both the dissolved and suspended fractions. There does not seem to be a definite seasonal trend (fig. 14) as observed for most of the gross limnological parameters, but rather a trend that could better correlate with the concentration of suspended matter carried into the reservoir. Excellent evidence for this mechanism can be seen by comparing figure 14 with figure 22 giving the concentration of suspended matter carried into the reservoir. An excellent correlation is observed and is consistent with the prediction of Hem [3] that dissolved zinc concentration is a function of the zinc available in rock and soil. Another possible important source of zinc is from exchange with the sediments. As already noted there were occasions when there was an increase in zinc concentration with depth, with extreme concentrations observed at the bottom. A review of the trace zinc content in the sediments of the reservoir indicate that there is abundant zinc available for exchange. Furthermore, it should be noted that the average zinc content in the reservoir sediments is 4 to 5 times greater than the trace zinc content of the pre-impoundment flood plain sediments, which indicates zinc loading into the sediments. The greatest loading appears to be occurring around site F, which is near the inlet of the reservoir at the conservation pool level.

Zinc appears to be a key element in relating sedimentation of the reservoir to water quality with regard to trace metals. A more thorough statistical analysis of the data with regard to zinc would be helpful.

Manganese. - Manganese was perhaps the most interesting element studied because of its unpredictability. When thermal stratification occurs in lakes and rivers, it is observed that manganese deposited there under oxidizing conditions may be dissolved. At pH's near neutrality the predominant dissolved species would be the Mn^{+2} , and concentrations as high as 1.0 and 10 mg/I would be stable in aerated water. Small increases in pH, however, will shift the manganese equilibria toward the formation of crystalline oxides, principally $MnO_2(s)$. Manganese can also exist in dissolved form as complex ions with organic material and also forms the $MnHCO_3$ complex ion and the $MnSO_4$ ion pair, both of which can be important species in natural water [3].

In this study, manganese was detected at highly variable levels. The average dissolved value obtained for the reservoir pool was 0.022 ± 0.090 mg/I and 0.016 ± 0.016 mg/I for the two sampling years. Those can be compared to inlet averages of 0.016 ± 0.015 mg/I and 0.020 ± 0.012 mg/I and pre-impoundment river levels averaging 0.025 ± 0.017 mg/I. A single high value of 0.63 mg/I is reported for August 1975, at the bottom of the reservoir at site B.

The highest monthly average was October 1974, at 0.044 ± 0.035 mg/I, and the lowest was July 1975, at 0.007 ± 0.009 mg/I. In the suspended fraction, averages of 0.022 ± 0.014 mg/I and 0.056 ± 0.058 mg/I were obtained. June 1975 was the highest monthly average at 0.20 ± 0.11 mg/I, and the lowest monthly average was 0.006 ± 0.001 mg/I in December 1975. These values compare to Kopp and Kroner [9] means of 0.074 mg/I in the 31 percent of the samples in which dissolved manganese was detected and 0.105 mg/I in the 93 percent of the samples in which suspended manganese was detected.

The data in table 4 indicate that there was abundant manganese in the flood plain sediments, and sedimentation during the first year of the reservoir enriched the sediments further with manganese, particularly at site F near the inlet.

Figures 15 and 24 plot the seasonal trends observed in the river and reservoir (1974-75) and the pre-impoundment river (1972-74), respectively. The pre-impoundment river (fig. 24) does not indicate the classic winter high/summer low trend, but rather, exhibits widely scattered points. The plots for the inlet, outlet, and

reservoir averages in figure 15 are more interesting. The river at the inlet curve does follow a classic winter high/summer low seasonal trend, while the sketch for the reservoir averages does not consistently follow such a trend. The data in figure 15 further indicate that the dissolved manganese at the inlet is consistently higher than at the outlet, and the pool average (at least at the peaks) is higher than either. The behavior of the manganese in the reservoir pool can be readily explained in terms of exchange of manganese with the sediments. As mentioned previously in this report, there were sharp depth profiles observed at times (particularly at sites A and B) for temperature, D.O., zinc, iron, manganese, and others. This particular trend was observed for manganese more consistently than most other parameters. The extreme values seem to account for the high averages obtained for the reservoir at unexpected times. The suspended material does not seem to contain enough soluble manganese to account for some of the extreme values observed. Therefore, at times the manganese must be released by the sediments into the water. This mechanism appears to be working both ways. Figures 19 and 20 show the surface trends observed for several parameters, including manganese for the November 1974 sampling. All the parameters show slight to very marked decreases, moving from the outlet to the inlet through the reservoir pool, except manganese, which shows a very marked increase. This indicates that during this period the dissolved manganese is being precipitated in the reservoir and is enriching the sediments. The sediment data (table 4) indicate that this mechanism may be very important at the upper end of the reservoir. The composition of the sediments at sites E and F appear to be significantly enriched in manganese relative to the rest of the reservoir and the pre-impoundment flood plain sediments (sites 19 and 24 excepted).

Iron. — Hem [3] discusses the solubility controls on iron. Iron can be dissolved to a considerable extent in the form of the ferrous ion (Fe^{+2}), which is observed in ground and other un oxygenated water. However, in flowing streams and other oxygenated water, iron will be oxidized to the ferric ion (Fe^{+3}) and, at pH's encountered higher than three, will be precipitated as $\text{Fe}(\text{OH})_3$ or FeCO_3 . However, there are other mechanisms by which iron can exist as part of the dissolved fraction. One is in the form as colloidal ferric hydroxide ($\text{Fe}(\text{OH})_3$), another of complexed iron if organic material is present, and still another is the formation of ion pairs such as FeSO_4 .

Kopp and Kroner [9] reported a mean of 0.052 mg/I dissolved in surface waters of the United States and 3.0 mg/I in the suspended fraction. The reservoir pool in this study averaged values of 0.006 ± 0.004 mg/I and

0.005 ± 0.003 mg/I dissolved iron, respectively, in the 2-year study. Corresponding average concentrations at the inlet were 0.004 ± 0.005 mg/I and 0.005 ± 0.006 mg/I. In the pre-impoundment study an average concentration of 0.030 ± 0.016 mg/I was obtained. It should be noted, however, that a change in analytical procedure was made going from the pre-impoundment to the post-impoundment study. During the pre-impoundment study, iron was analyzed by direct aspiration AA. Most of concentrations observed were very close to the detection limits. In the post-impoundment phase, the more sensitive extraction technique was used.

In the suspended fraction, corresponding averages for the pool were 0.53 ± 0.87 mg/I and 0.31 ± 0.31 mg/I and for the inlet 1.80 ± 3.3 mg/I and 0.30 ± 0.42 mg/I. The standard deviations obtained indicate a high degree of scattering.

The sediment data are also interesting. An average composition of about 1.6 percent Fe was obtained by AA for pre-impoundment flood-plain samples, and nowhere did iron exceed 2.0 percent in composition. However, the sediments at sites E and F were running 2.6 and 2.7 percent iron, respectively, after 1 year, indicating possible accumulation of iron in the sediments. The X-ray analysis gave lower values, but the same trends were observed.

The trends observed with dissolved iron are quite interesting as was the case with zinc and manganese. The seasonal trends as plotted in figure 16 for the inlet, outlet, and pool average for the dissolved fraction compared to the 1972-74 Arkansas River (fig. 24) appear to correlate fairly closely with peaks occurring from early spring through the summer and into the fall with lowest values during midwinter, almost an inverse seasonal effect. At first glance it might appear that, like zinc, the maxima for dissolved iron correlates well with the suspended matter load of the river and reservoir. However, close comparison with figure 22 reveals that iron correlates with streamflow rather than suspended matter.

Figure 21 does not indicate a pronounced surface trend for iron during November 1974. Plots showing spatial trends produced, in most cases, scattered data points. One exception was March 1975, in which the iron concentration was observed to be increasing as it moved toward the inlet. Depth profiles for iron were commonly observed at the same times and at the same sites as were observed for manganese and zinc.

Further examination of the iron data may prove useful in elucidating depositional mechanisms.

Cobalt. – Hem [3] noted that concentrations of cobalt in natural waters are probably limited by factors other than simple solubility relationships. One mechanism suggested is control of cobalt concentrations through absorption by colloidal particles of oxides and hydroxides of iron, manganese, and other metals. The upper limit of solubility of Co is about 0.005 mg/I [10] in river waters.

Durum, *et al.* [10] reported in their study of the surface waters of the United States that cobalt was most commonly below 0.001 mg/I, but 37 percent of the samples were in a range from 0.001 to 0.005 mg/I. Kopp and Kroner [9] reported dissolved cobalt in only 3 percent of their samples with a mean concentration of 0.017 mg/I. Durum, *et al.* [10] reported that the Arkansas River for a Pueblo waterworks sample was below 0.001 mg/I. In this study, the reservoir yielded averages of 0.002 ± 0.001 mg/I and < 0.001 mg/I, respectively, during the two sampling years. The highest single concentration recorded was 0.030 mg/I recorded in August 1974, at site B - 9 metres depth. The highest average month was July 1974, 0.006 ± 0.006 mg/I. No discernible trends were noted.

Nickel. – The behavior of nickel in natural water has been reported to be similar to that of cobalt [3]. The median concentration in North American rivers reported by Durum and Haffty [8] was 0.010 mg/I. A median value of less than 0.0027 mg/I is reported by Durfor and Becker [7] for 100 water supplies in the United States. Kopp and Kroner [9] report detecting dissolved nickel in 16 percent of their samples with a mean of 0.019 mg/I and suspended nickel in 3 percent of samples collected having a mean of 0.029 mg/I. In this study a mean of 0.002 ± 0.001 mg/I was obtained for both sampling years. The high average month was December 1975, with 0.006 ± 0.002 mg/I dissolved Ni. Nickel in the suspended fractions averaged less than detectable limits. Dissolved nickel levels were generally near the detectable limit, resulting in points that were fairly widely scattered. However, it does appear in plotting the first year data using the inlet, outlet, and pool averages for each month that there is a classic seasonal effect. It also appears that the inlet values during the first year of the study were generally higher than the pool average and the outlet. This was not, however, reflected in the spatial plots for the months selected. These plots, in fact, seem to indicate that the nickel was lower during those months.

Lead. – Garrels and Christ [17] indicate that the solubility of Pb^{2+} in natural water is probably controlled by the solubility of $PbCO_3$ and $PbSO_4$, both of which are relatively insoluble. Lead concentration in natural sources would, therefore, be limited by the solubilities

to about 0.002 mg/I. Lead, however, is widespread particularly from use as an antiknock additive in gasoline engines and subsequent dispersal through exhaust [3], and is also found in the mine drainage from the Leadville area [19]. Durfor and Becker [7] reported a median value of about 0.004 mg/I for public water supplies, while Durum and Haffty [8] reported a median value of 0.004 mg/I for North American rivers. Durum, *et al.* [10] reported lead detected in 63 percent of the samples in concentrations ranging from 0.001 to 0.050 mg/I. The reports noted that few samples were collected containing greater than 0.050 mg/I. Lead was reported as occurring widely in a range from 0.006 to 0.050 mg/I. A single sample collected from the Arkansas River near the waterworks was reported to contain 0.002 mg/I lead. Kopp and Kroner [9] reported rather high mean values of 0.023 mg/I for 19 percent of the samples in which dissolved lead was detected and a mean of 0.120 mg/I in the 3 percent of the samples in which suspended lead was detected.

The average dissolved lead level reported for the reservoir pool during the 1974-75 sampling year was 0.001 ± 0.001 mg/I and for the second year was less than the detectable limit. A majority of samples collected during the entire study reported in appendices A and B were at less than detectable limits. The highest reservoir pool average was 0.003 ± 0.001 mg/I in November 1974. In August 1974, a single sample collected at the bottom of site A contained 0.022 mg/I Pb. Because of the preponderance of samples near or below detectable limits, no discernible trends were observed.

Lead levels in the Arkansas River at the two sites sampled during the pre-impoundment study were 0.006 ± 0.010 mg/I. This average included two unusually high values of 0.041 and 0.017 mg/I which, if deleted from the average, gives a mean of 0.003 ± 0.003 mg/I. The reservoir inlet yielded an average of 0.001 ± 0.001 mg/I lead for each year of the present study. The lead concentration due to suspended matter in all cases was not detectable.

Lead was considered to be one of the more important metals to monitor because of the potential for lead loading into reservoir from the Leadville mining district [19] and from the operating of gasoline powered boats on the reservoir. No such effect was observed during this study. An examination of the dissolved and suspended data only, however, revealed that the average lead composition of the pre-impoundment sediments (table 4) was 65 ± 34 mg/I, while the average for the reservoir at sites B, C, D, E, F, and G, is 100 ± 68 mg/I with 157 mg/I at site F near the inlet and 209 mg/I at site D. This would seem to point toward some lead enrichment of the sediments, particularly near the inlet of the reservoir.

Cadmium. – Hem [3] notes that the concentrations of cadmium in water is small, with most studies [7, 9], reporting concentrations generally below 0.010 mg/I, which is the upper limit of cadmium recommended by the U.S.PHS⁵. The results of this study are consistent with these reported results. Inspection of the data tables indicates that most samples yielded cadmium values below the detectable limit of about 0.001 mg/I. The highest value obtained in the dissolved fraction was a spurious 0.049 mg/I obtained at site B - 3 metre in August 1975. The highest monthly average was 0.011 ± 0.001 mg/I obtained in May 1975. This is above the maximum permissible limit for drinking water [14]. These values were not, however, characteristic of the reservoir at any other time. The average for the suspended cadmium was below detectable limits. Kopp and Kroner [9] reported no instances of detection of cadmium in the suspended fraction and detected cadmium in only 3 percent of the dissolved samples. These detectable instances provided a mean of 0.0095 mg/I.

Cadmium was detected in nearly all the sediments, averaging 4.2 ± 1.4 mg/I in the pre-impoundment flood plain and 4.4 ± 1.1 mg/I in the reservoir. Again, however, site F yielded sediments with a slightly higher cadmium content of 6.1 mg/I, which points to possible cadmium loading in the sediments in that area.

Mercury. – Mercury like lead, cadmium, and arsenic was included in this study because of its potential deleterious effect on public health. Hem [3] noted that very few natural waters contain detectable concentrations of mercury. That statement was made before the development and widespread use of the flameless AA method for the analysis of mercury. In this study mercury levels as low as 0.01 pg/I were detected in laboratory analyses. The highest concentration measured was 0.54 $\mu\text{g/l}$ in August 1974, at the inlet of the reservoir. Approximately half the samples analyzed for dissolved mercury showed detectable levels. Most of those showing detectable levels were below 1 pg/I. The mean for all samples collected in the pool was 0.02 ± 0.01 pg/I and 0.02 ± 0.3 pg/I, respectively, for the two sampling years. The reservoir inlet averaged higher during the first year at 0.01 ± 0.02 pg/I and lower in the second year at less than detectable limits. The high average month was December 1975, at 0.07 ± 0.11 pg/I and low average was less than detectable limits which occurred during several months. No discernible trends

were noted. Durum, *et al.* [10] detected mercury in only 7 percent of their samples (detectable limit, 0.1 $\mu\text{g/l}$). The highest value obtained was 4.3 pg/I. All three Arkansas River sampling sites yield concentrations <0.1 pg/I.

Silver. – Solubility relationships indicate that silver concentrations in natural water should be between 0.0001 and 10 mg/I [3]. Data on public water supplies show a median concentration of 0.0002 mg/I and in rivers about 0.0001 mg/I. The data from this study appear to be in this range, varying from nondetectable concentrations < 0.001 mg/I (actually about 0.0002 mg/I) for most samples up to a maximum concentration of 0.009 mg/I at site E-surface in June 1974. There were many more samples that had detectable levels of silver than appear in the computer generated tables because the program was designed to print 0.0 for any value that was fed in as < 0.001. The silver data could be statistically refined.

Arsenic. – Kopp and Kroner [9] detected levels of arsenic in 5.5 percent of the samples collected in lakes and rivers nationwide over a 5-year period at a 0.01 mg/I detection level. Durum, *et al.* [10] reported that 79 percent of 727 samples collected nationwide contained less than 0.010 mg/I. At the Arkansas River Pueblo waterworks site, arsenic was not detectable. Only 2 percent of the samples had more than the 0.050 mg/I U.S.PHS maximum permissible limit. In this study, samples were not as frequently analyzed for arsenic as for the other parameter; however, the results indicate that in most cases the dissolved arsenic concentration was less than the detectable limit of 0.003 mg/I. In the first year of the sampling, arsenic averaged 0.001 ± 0.001 mg/I and less than detectable limits in the second. The highest single value obtained was 0.021 mg/I at the C bottom site in October 1974.

Sediment Chemistry

Additional statistical analysis of the data in table 4 and more sediment samples and analyses in the future will be required before final conclusions can be drawn regarding which parameters and how much of each are being unloaded in Pueblo Reservoir as basin sediments. The data generated to date show definite increases in iron, manganese, and zinc in the reservoir sediments of the variable inlet sites (E, F, and G) compared to pre-impoundment flood-plain sediments. In addition, magnesium, copper, cadmium, and lead concentrations appear to be increasing.

Recent inlet sediments (sites E, F, and G, table 4) of Pueblo Reservoir contained copper, iron, manganese,

⁵ "Drinking Water Standards," Title 42-Public Health; Chapter 1-Public Health Service, Dept. of Health, Education and Welfare; Part 72, Interstate Quarantine, Federal Register 2152, March 6, 1962.

and zinc concentrations approaching or even exceeding those for sediments of the Arkansas River just a few miles downstream from the outfall of California Gulch [19]. California Gulch is the greatest contributor of heavy or trace metals in the upper Arkansas River [20, 21]. In years to come, the downstream carry of these heavy or trace metals may accumulate in the Pueblo Reservoir. The environmental impact of such potential downstream loading has not yet been clearly identified [22].

CONCLUSIONS

The following is a summary of conclusions and recommendations based on the data results of this publication:

1. Normal seasonal trends of certain parameters have been slightly altered by the formation of Pueblo Reservoir.
2. Surface trends, spatial trends, and depth profiles were also observed for certain dates, parameters, and sites.
3. The dissolved and suspended levels of all the parameters averaged much less than the recommended or maximum permissible limits of various water use criteria [11]. A very few isolated samples were observed to approach or exceed maximum permissible or recommended limits for the various beneficial uses.
4. Dissolved oxygen and temperature conditions in the reservoir pool would support salmonid fishes year-around. Observed growth rates of rainbow trout tend to support the belief of prevailing optimum growth conditions for such cold-water species.
5. Zinc, iron, and manganese concentrations in inlet sediments have increased noticeably when compared to baseline pre-impoundment sediments. Other metals may be increasing, but at a slower rate of accumulation or enrichment. It is recommended that reservoir sediments be sampled and analyzed on a 3- to 4-year basis.
6. Annual means, highest monthly means, and lowest monthly means of dissolved and suspended fractions have been reported but not correlated. Additional statistical analysis of the two fractions, discharge, suspended matter, and the sediments should provide supportive data regarding loading rates of each parameter and the fate of each.
7. For reasons of reliability due to changing conditions, it is recommended that a 1-year study of the dissolved and suspended water fractions be similarly analyzed and studied on an approximate 4-year basis.
8. The data, when compared to those of Durum and Haffty [8], Durfor and Becker [7], Kopp and Kroner [9], and Durum, *et al.* [10] appear to indicate that the Arkansas River and Pueblo Reservoir have dissolved solids concentrations in general and trace metals concentrations more specifically, making the Arkansas River and Pueblo Reservoir fairly average North American surface waters and water supplies. This being the case, it would appear that the data from this study would have widespread predictive value when applied to present projects and in assessing the impact on water quality of planned or projected projects of a similar nature given the quality of the water that feeds or would feed such projects.

BIBLIOGRAPHY

- [1] Environmental Protection Agency, "Methods for Chemical Analysis of Water and Wastes," GPO, 298 pp., 1974.
- [2] Environmental Protection Agency, "Methods for Chemical Analysis of Water and Wastes," GPO, 312 pp., 1971.
- [3] Hem, J. D. "Study and Interpretation of the Chemical Characteristics of Natural Water," 2nd ed., U.S. Geol. Surv. Water Supply Paper 1473, 363 pp., 1970.
- [4] American Public Health Association, "Standard Methods for the Examination of Water and Wastewater," 13th edition, American Public Health Assoc., Washington D.C., 874 pp., 1971.
- [5] Hatch, W. R., and Ott, W. L., *Anal. Chem.*, vol. 40, p. 2085, 1968.
- [6] "Water Resources Data for Colorado," Parts 1 and 2, U.S. Geol. Surv., 1974-76.
- [7] Durfor, D. N., and Becker, E., "Public Water Supplies of the 100 Largest Cities in the United States, 1962," U.S. Geol. Surv. Water Supply Paper 1812, 364 pp., 1964.
- [8] Durum, W. H., and Haffty, J., *Geochim. et Cosmochim Acta*, vol. 24, pp. 1-11, 1963.
- [9] Kopp, J. F., and Kroner, R. C., "Trace Metals in Waters of the United States – A Five Year Summary of Trace Metals in Rivers and Lakes of the United States (Oct. 1, 1962-Sept. 30, 1967)," U.S. Dept. Interior, Fed. Water Poll. Contr. *Admin.*, 1969.
- [10] Durum, W. H., Hem, J. D., and Heidel, S. G., "Reconnaissance of Selected Minor Elements in Surface Waters of the United States, October 1970," U.S. Geol. Surv. Circular 643, 49 pp., 1971.
- [11] "Water Quality Criteria," U.S. Dept. Interior, Fed. Water Poll. Control Admin. 234 pp., 1968.
- [12] Cole, G. A., "Textbook of Limnology," C. V. Mosby, St. Louis, 283 pp., 1975.
- [13] Lind, O. T., "Handbook of Common Methods in Limnology," C. V. Mosby, St. Louis, 154 pp., 1974.
- [14] Environmental Protection Agency, "National Interim Primary Drinking Water Regulations," Federal Register 40 (248); 59566-59588, 1975.
- [15] Wetzel, R. G., "Limnology," W. B. Saunders Co., Philadelphia, 743 pp., 1975.
- [16] Herrmann, S. J., "Analysis and Structure of Four Lentic Communities on the Colorado (U.S.A.) Shortgrass Prairie," *Int. Revue der gesamten Hydrobiol.* (In Press).
- [17] Bingham, F. T., Page, A. L., and Bradford, G. R., "Tolerance of Plants to Lithium," *Soil Science*, vol. 98, pp. 4-8, 1964.
- [18] Garrels, R. M., and Christ, C. L., "Solution Minerals, and Equilibria," Harper and Row, New York, 1964.
- [19] LaBounty, J. F., Sartoris, J. J., Klein, L. D., Mond, E. F., and Salman, H. A., "Assessment of Heavy Metals Pollution in the Upper Arkansas River of Colorado," U.S. Bur. Reclam. Tech. Rep. REC-ERC-75-5, 1975.
- [20] Moran, R. E., and Wentz, D. A., "Effects of Metal-mine Drainage on Water Quality in Selected Areas of Colorado, 1972-73," Colorado Water Resources Circular No. 25, U.S. Geol. Surv., Denver, 248 pp., 1974.
- [21] Wentz, D. A., "Effect of Mine Drainage on the Quality of Streams in Colorado, 1971-72," Colorado Water Resources Circular No. 21, U.S. Geol. Surv., *Colo.*, 117 pp., 1974.
- [22] Bureau of Reclamation, U.S. Dept. Interior "Draft Environmental Statement, Fryingspan-Arkansas Project, Colorado," 1974.

APPENDIX A – Dissolved Fraction, Impoundment Data

SITE A - S (SURFACE)

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

DATE	27V174	11V1174	8V11174	71X74	19X74	16X174	6X1174	1175	221175	1711175	191V75	23V75	AVERAGE	AND	S.D.
TEMP. C	22.0	23.0	20.1	19.8	13.9	9.0	5.0	*****	*****	8.1	9.2	11.0	14.82	+0R-	6.57
TOTAL MG/L	*****	8.0	*****	*****	*****	*****	9.4	*****	*****	*****	10.2	8.4	7.00	+ER-	0.9
TURB. JTO	9.0	8.0	16.0	7.0	8.0	5.0	0.0	*****	*****	7.0	16.0	7.0	8.90	+NR-	5.90
PH	8.2	8.0	7.4	8.1	8.3	8.5	3.5	*****	*****	8.3	8.4	8.0	8.17	+0R-	0.33
COND. 25 C	254.0	280.0	300.0	430.0	550.0	650.0	600.0	*****	*****	680.0	675.0	450.0	486.90	+CR-	167.54
ALK.	0.0	0.0	0.0	0.0	0.0	5.0	*****	*****	*****	0.0	0.0	0.0	5.00	+CP-	0.0
T ALK.	67.0	81.0	78.0	105.0	117.0	137.0	122.0	*****	*****	138.0	135.0	95.0	107.30	+NR-	26.09
CL-	0.0	5.0	5.0	9.0	10.0	10.0	10.0	*****	*****	12.0	12.5	11.5	9.44	+0R-	2.76
T HONS	103.0	119.0	155.0	188.0	251.0	256.0	254.0	*****	*****	292.0	272.0	160.0	207.00	+CR-	66.96
CA HONS	71.0	86.0	110.0	130.0	153.0	177.0	185.0	*****	*****	188.0	173.0	124.0	139.70	+0R-	42.02
MG HENS	32.0	33.0	45.0	58.0	98.0	79.0	69.0	*****	*****	104.0	59.0	50.0	67.30	+CR-	27.01
SO4	54.0	68.0	75.0	140.0	168.0	220.0	290.0	*****	*****	240.0	210.0	124.0	158.90	+0R-	80.33
NO3	*****	*****	*****	15.5	30.2	31.3	32.6	*****	*****	35.6	35.0	23.0	29.11	+NR-	7.36
K	*****	*****	*****	3.2	3.2	3.4	3.2	*****	*****	3.2	3.8	2.6	3.23	+0R-	0.35
CU	0.013	0.0	0.004	0.004	0.005	0.0	0.004	*****	*****	0.0	0.009	0.007	0.0047	+CR-	0.0040
PN	0.0	0.0	0.0	0.0	0.0	0.003	0.003	*****	*****	0.0	0.0	0.0	0.0010	+CR-	0.0011
ZN	0.004	0.0	0.005	0.006	0.007	0.010	0.0	*****	*****	0.010	0.005	0.022	0.0070	+0R-	0.0062
MN	0.0	0.0	0.004	0.0	0.021	0.011	0.009	*****	*****	0.0	0.012	0.023	0.0082	+CR-	0.0086
FE	0.010	0.0	0.030	0.003	0.050	0.004	0.002	*****	*****	0.001	0.002	0.012	0.0114	+0R-	0.0162
AS	0.0	0.0	*****	*****	0.0	*****	*****	*****	*****	0.003	0.003	0.003	0.0011	+CR-	0.0012
HG (ppb/L)	*****	0.110	3.0	*****	*****	*****	0.040	*****	*****	0.0	0.0	0.0	0.0422	+CR-	0.0458
AG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.001	0.0005	+CR-	0.0002
NI	0.0	0.0	0.0	0.003	0.005	0.006	0.0	*****	*****	0.006	0.003	0.0	0.0025	+CR-	0.0024
BP	0.0	0.0	0.0	*****	0.002	0.002	0.0	*****	*****	0.0	0.0	1.0	0.0008	+NR-	0.0007
CP	*****	*****	0.0	0.0	0.0	0.005	0.0	*****	*****	0.0	0.011	0.012	0.0038	+CR-	0.0050
BT	*****	*****	0.011	0.0	0.015	0.025	0.025	*****	*****	0.014	0.035	0.012	0.0172	+CR-	0.0107

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + CR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE A - S (SURFACE)

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE; DISSOLVED FRACTION REPORTED ONLY.

DATE	18V175	28V175	SV11175	261X75	31X75	1X175	4X1175	1176	261176	2311176	AVERAGE	AND	S.D.
TEMP. C	13.3	23.0	22.9	19.0	11.3	*****	4.1	*****	5.5	6.2	13.50	+OR-	7.86
O.O. MG/L	8.1	6.9	7.2	5.1	9.3	*****	10.9	*****	11.0	5.8	8.51	+OR-	1.58
TURB. JTU	19.0	18.0	9.0	5.0	2.0	*****	10.0	*****	16.0	5.0	10.50	+OR-	6.48
PH	8.1	8.2	8.0	8.2	8.5	*****	7.5	*****	8.3	8.2	6.14	+OR-	0.26
COND. 25 C	280.0	300.0	320.0	400.0	550.0	*****	500.0	*****	610.0	630.0	446.75	+OR-	142.07
P ALK.	0.0	0.0	0.0	*****	*****	*****	*****	*****	*****	*****	0.0	+OR-	0.0
T ALK.	69.0	77.0	78.0	100.0	158.0	*****	121.0	*****	140.0	140.0	110.38	+OR-	34.05
CL-	5.0	4.5	5.5	9.3	12.5	*****	10.0	*****	12.5	11.0	6.75	+OR-	3.33
T HDNS	110.0	115.0	123.0	204.0	245.0	*****	463.0	*****	270.0	265.0	225.00	+OR-	117.01
CA HDNS	78.0	85.0	92.0	150.0	176.0	*****	339.0	*****	175.0	185.0	100.00	+OR-	84.70
MG HDNS	32.0	30.0	36.0	54.0	65.0	*****	124.0	*****	55.0	80.0	65.00	+OR-	33.59
Sq4	54.0	58.0	70.0	110.0	*****	*****	150.0	*****	170.0	200.0	116.00	+OR-	58.44
NA	12.9	10.9	13.3	20.9	27.0	*****	24.6	*****	30.6	27.2	20.52	+OR-	7.62
K	1.9	2.5	2.8	2.9	3.4	*****	3.1	*****	3.6	3.3	2.54	+OR-	0.55
CU	0.005	0.0	0.0	0.0	0.0	*****	0.020	*****	0.0	C.C17	0.0056	+OR-	0.0082
PB	0.0	0.0	0.001	0.0	0.0	*****	0.001	*****	0.0	0.0	0.0006	+OR-	0.0002
ZN	0.006	0.003	C.0	0.019	0.004	*****	0.015	*****	0.007	0.007	0.0077	+OR-	0.0062
MN	0.005	0.0	C.CC2	0.017	0.044	*****	0.031	*****	0.0	0.010	0.0137	+OR-	0.0160
FE	0.0	0.002	0.001	0.018	0.002	*****	0.008	*****	0.0	0.006	0.0047	+OR-	0.0060
AS	0.0	*****	0.0	*****	*****	*****	*****	*****	*****	*****	0.0005	+OR-	0.0
HG (UG/L)	0.010	*****	0.050	*****	*****	*****	0.050	*****	0.020	*****	0.0325	+OR-	0.0206
AG	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+OR-	C.000C
NI	0.0	0.001	C.0	0.002	0.0	*****	0.006	*****	0.0	C.0	0.0014	+OR-	0.0015
CO	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+OR-	0.0000
CC	C.003	0.0	C.0	0.0	0.0	*****	0.0	*****	0.003	C.0	0.0611	+OR-	0.0012
LI	0.005	0.006	0.007	C.013	0.017	*****	0.016	*****	0.022	0.022	0.0135	+OR-	0.0065

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND o.o INDICATES THE PARAMETER WAS NOT DETECTABLE

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF o.o + 0P - o.o INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE A - 3 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

DATE	27V174	11V1174	8V11174	7IX74	19X74	16X174	8X1174	1175	221175	1711175	19V175	23V75	AVERAGE	AND	S.D.
TEMP. C	*****	23.9	19.9	20.0	14.3	9.0	5.1	*****	*****	8.5	9.0	17.0	13.86	+OR-	6.74
O.O. MG/L	*****	7.3	*****	*****	*****	*****	9.8	*****	*****	*****	10.1	9.3	9.12	+OR-	1.26
TURB. JTU	*****	4.0	5.0	11.0	6.0	5.0	8.0	*****	*****	7.0	16.0	7.0	7.44	+CR-	3.78
PH	*****	7.7	7.7	8.3	8.2	8.5	8.5	*****	*****	8.3	8.5	8.2	8.21	+OR-	0.31
COND. 25 C	*****	285.0	310.0	430.0	500.0	610.0	600.0	*****	*****	660.0	690.0	450.0	509.44	+CR-	148.00
P ALK.	*****	0.0	0.0	0.0	0.0	6.0	*****	*****	*****	0.0	0.0	0.0	6.00	+OR-	0.0
I ALK.	*****	75.0	87.0	97.0	120.0	140.0	126.0	*****	*****	119.0	100.0	95.0	109.44	+CR-	23.07
CL-	*****	5.0	5.5	11.0	10.0	11.5	9.0	*****	*****	12.0	12.5	9.5	9.56	+OR-	2.70
T HONS	*****	116.0	137.0	175.0	250.0	262.0	255.0	*****	*****	292.0	274.0	162.0	215.89	+OR-	64.24
CA HONS	*****	114.0	95.0	135.0	194.0	176.0	185.0	*****	*****	186.0	170.0	130.0	150.78	+OR-	41.35
MG HONS	*****	32.0	42.0	40.0	56.0	36.0	70.0	*****	*****	104.0	104.0	52.0	65.11	+CR-	27.39
SO4	*****	65.0	72.0	133.0	170.0	194.0	240.0	*****	*****	230.0	194.0	122.0	157.78	+PR-	63.85
NA	*****	*****	*****	13.5	29.7	32.5	32.0	*****	*****	35.0	35.3	23.0	28.83	+CR-	8.00
K	*****	*****	*****	3.2	3.2	3.4	3.3	*****	*****	3.1	3.0	2.7	3.24	+CR	0.33
CU	*****	0.0	0.005	0.007	0.006	0.007	0.004	*****	*****	0.0	0.008	0.007	0.0050	+OR-	0.0028
PR	*****	0.0	0.0	0.0	0.001	0.004	0.002	*****	*****	0.0	0.6	0.0	0.011	+CR-	0.0012
ZN	*****	0.005	0.005	0.002	0.006	0.001	0.0	*****	*****	0.0	0.005	0.017	0.0047	+OR-	0.0051
MN	*****	0.0	0.003	0.0	0.023	0.011	0.004	*****	*****	0.0	0.011	0.021	0.0088	+CR	0.0087
FE	*****	0.0	0.0	0.001	0.012	0.004	0.001	*****	*****	0.001	0.0	0.012	0.0036	+CR-	0.0049
AS	*****	0.0	*****	*****	0.0	*****	*****	*****	*****	0.0	*****	*****	0.0005	+CR-	0.0
HG (UG/L)	*****	0.020	0.0	*****	*****	*****	0.040	*****	*****	0.0	0.020	*****	0.0162	+CR	0.0165
AG	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	0.0005	+CR	0.0000
NI	*****	0.0	0.0	0.002	0.002	0.004	0.0	*****	*****	0.001	0.001	0.0	0.0013	+CR	0.0012
CO	*****	0.0	0.0	*****	0.004	0.002	0.0	*****	*****	0.0	0.0	0.0	0.0011	+CR	0.0013
CC	*****	0.004	0.0	0.0	0.0	0.005	0.0	*****	*****	0.0	0.014	0.010	0.0039	+CR-	0.0050
LI	*****	0.006	0.012	0.006	0.015	0.025	0.022	*****	*****	0.015	0.015	0.012	0.0164	+OR-	0.0094

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + CR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE A - 3 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

DATE	18V175	28V1175	9V11175	261X75	31X75	1X175	4X1175	1175	261176	2311176	AVERAGE AND S.D.
TEMP. C	18.1	22.0	22.3	18.0	18.0	*****	4.2	*****	5.2	6.7	f4.31 *DR= 7.63
D.O. MG/L	7.4	6.7	7.2	7.8	8.8	*****	10.8	*****	10.8	9.7	8.65 *DR= 1.63
TURB. JTU	21.0	18.0	7.0	8.0	2.0	*****	7.0	*****	5.0	5.0	8.88 *DR= 6.79
PH	8.1	8.3	8.3	8.3	8.4	*****	7.7	*****	8.4	8.1	8.20 *DR= 0.23
COND. 25 C	280.0	300.0	320.0	400.0	530.0	*****	500.0	*****	620.0	630.0	447.50 +UP-141.90
• ALK.	0.0	0.0	0.0	*****	*****	*****	*****	*****	*****	*****	0.0 *DR= 0.0
T ALK.	75.0	78.0	79.0	112.0	164.0	*****	125.0	*****	137.0	137.0	113.38 *DR= 33.21
CL-	5.0	4.5	5.0	9.0	12.5	*****	11.0	*****	12.5	12.0	8.94 *DR= 3.58
T HONS	113.0	116.0	129.0	200.0	249.0	*****	461.0	*****	260.0	265.0	214.13 *DR=115.48
CA HONS	84.0	85.0	12.0	151.0	174.0	*****	326.0	*****	176.0	148.0	159.25 *DR= 79.99
4G HDNS	29.0	31.0	37.0	49.0	75.0	*****	135.0	*****	84.0	75.0	64.88 *DR= 35.95
NO ₃	54.0	52.0	68.0	100.0	*****	*****	150.0	*****	170.0	184.0	111.14 +OR- 56.32
NA	12.0	10.0	13.3	21.4	27.0	*****	24.4	*****	30.8	30.5	21.25 *DR= 8.30
K	1.9	2.5	2.3	2.9	3.4	*****	2.9	*****	3.3	3.3	2.81 *DR= 0.54
CU	0.005	0.0	0.0	0.0	0.0	*****	0.011	*****	0.0	0.011	0.0037 *DR=0.0048
PB	0.0	0.0	0.0	0.0	0.0	*****	0.001	*****	0.0	0.0	0.0006 *DR=0.0002
ZN	0.006	0.003	0.0	0.006	0.005	*****	0.014	*****	0.007	0.010	0.0064 *DR=0.0041
MN	0.011	0.0	0.0	0.013	0.040	*****	0.031	*****	0.0	0.0	0.0121 *DR=0.0155
FE	0.011	0.003	0.001	0.012	0.002	*****	0.004	*****	0.0	0.005	0.0048 *DR=0.0044
AS	0.001	*****	0.0	*****	*****	*****	*****	*****	*****	*****	0.0007 *DR=0.0004
HG (µG/L)	0.0	*****	0.020	*****	*****	*****	0.060	*****	0.020	*****	0.0251 *DR=0.0250
AG	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005 *DR=0.0000
NI	0.0	0.001	0.0	0.002	0.0	*****	0.004	*****	0.0	0.0	0.0012 *UR=0.0013
CO	0.04	0.0	0.0	0.0	0.0	*****	0.001	*****	0.0	0.0	0.0010 *DR=0.0012
CD	0.003	0.005	0.0	0.0	0.0	*****	0.0	*****	0.004	0.0	0.0016 *DR=0.0015
LI	0.005	0.006	0.006	0.013	0.017	*****	0.016	*****	0.022	0.016	0.0128 *DR=0.0063

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 DR = 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE A - 6 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

DATE	21V174	11V1174	01V1174	71X74	19X74	16X174	08X1174	1175	221175	1711175	191V75	23V75	AVERAGE	AND	S.D.
TEMP. C	****	23.0	23.1	19.1	14.2	9.0	5.0	****	****	5.4	6.0	16.5	13.54	+CR-	6.71
O.O. MG/L	****	6.8	****	****	****	****	9.8	****	****	****	10.0	1.7	8.32	+CR-	1.47
TURB. JTU	****	6.0	****	10.0	8.0	8.0	4.0	****	****	7.0	12.0	8.0	7.88	+CR-	2.42
PH	****	1.7	7.0	8.3	6.3	8.6	8.5	****	****	6.3	6.5	8.3	8.23	+CR-	0.35
COND. 25 C	****	250.0	320.0	440.0	550.0	630.0	605.0	****	****	670.0	675.0	450.0	510.00	+CR-	154.13
P ALK.	****	6.0	0.0	7.0	0.0	6.0	****	****	****	C.0	0.0	0.0	6.50	+CR-	0.71
T ALK.	****	80.0	87.0	76.0	120.0	140.0	126.0	****	****	140.0	15.0	95.0	113.22	+CR-	23.82
CL-	****	5.0	5.0	11.5	10.0	11.0	11.0	****	****	12.5	12.5	10.0	9.83	+CR-	2.88
I HDNS	****	114.0	131.0	179.0	249.0	262.0	254.0	****	****	295.0	271.0	182.0	215.22	+CR-	65.25
CA HDNS	****	83.0	111.0	132.0	151.0	174.0	185.0	****	****	169.0	175.0	130.0	147.78	+CR-	36.46
MG HDNS	****	31.0	20.0	47.0	98.0	80.0	69.0	****	****	106.0	9.0	52.0	67.94	+CR-	31.42
SI%	****	64.0	76.0	140.0	178.0	186.0	243.0	****	****	235.0	190.0	120.0	158.78	+CR-	63.43
NA	****	****	****	13.0	29.2	32.5	32.3	****	****	36.8	25.3	23.0	28.87	+CR-	8.32
K	****	****	****	3.3	3.2	3.4	3.2	****	****	3.0	3.8	2.7	3.23	+CR-	0.34
CU	****	0.0	0.006	0.0	0.005	0.007	0.004	****	****	0.0	0.006	0.006	0.0039	+CR-	0.0027
PR	****	0.0	0.0	0.0	0.001	0.003	0.002	****	****	0.0	0.0	0.0	C.0010	+CR-	0.0009
ZN	****	0.006	0.007	C.J	0.033	0.001	0.0	****	****	0.0	0.003	0.019	0.0045	+CR-	0.0060
MN	****	0.0	0.004	0.005	0.024	0.011	0.008	****	****	0.0	0.011	0.023	0.0097	+CR-	0.0087
FE	****	0.0	0.0	0.001	0.004	0.004	0.002	****	****	0.004	C.0	0.013	0.0033	+CR-	0.0040
AS	****	0.0	****	****	0.0	****	****	****	****	0.0	****	****	0.0005	+CR-	0.0
HG (pG/L)	****	0.0	0.050	****	****	****	0.040	****	****	0.0	0.020	****	0.0222	+CR-	0.0226
AG	****	C.0	0.0	0.0	0.0	0.0	0.0	****	****	0.0	0.0	0.0	0.0005	+CR-	0.0000
NI	****	0.0	0.0	0.005	0.003	0.005	0.002	****	****	0.003	0.002	0.002	0.0026	+CR-	0.0016
CO	****	0.0	0.3	****	0.002	0.002	0.0	****	****	0.0	C.0	0.001	0.0009	+CR-	0.0007
CC	****	0.003	0.0	0.0	0.0	0.005	0.0	****	****	0.0	0.006	0.010	0.0029	+CR-	0.0034
LI	****	0.007	0.013	0.007	0.015	0.025	0.023	****	****	0.014	0.037	0.012	C. C170	+CR-	0.0097

**** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + CR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

SITE A - 6 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

DATE	10VI175	20VI175	30VI175	26IX75	31X75	1X175	4X1175	1176	261176	2311176	AVERAGE AND STD
TEMP. C	17.9	21.0	22.2	17.9	16.2	*****	4.9	*****	6.0	6.3	14.05 +0.8 7.15
D.O. MG/L	7.5	6.5	7.2	6.4	8.3	*****	10.4	*****	10.4	9.4	6.52 +1.8 1.49
TURB. JTU	27.0	18.0	7.0	7.0	*****	*****	10.0	*****	5.0	5.0	11.49 +1.8 6.26
PH	8.3	8.1	8.3	8.3	8.3	*****	7.7	*****	8.3	8.3	8.14 +0.8 0.22
COND. 25 C	280.0	300.0	320.0	400.0	540.0	*****	510.0	*****	620.0	630.0	450.00 +60.143.33
P ALK.	0.0	0.0	0.0	*****	*****	*****	*****	*****	*****	*****	0.0 +0.0 0.0
T ALK.	76.0	77.0	78.0	116.0	154.0	*****	120.0	*****	145.0	136.0	112.75 +10.0 32.03
CL ⁻	5.0	4.5	5.0	10.0	13.0	*****	11.0	*****	12.5	12.0	4.11 +0.8 3.67
T HONS	113.0	120.0	129.0	199.0	257.0	*****	455.0	*****	277.0	265.0	224.00 +40.0 114.43
CA HONS	85.0	85.0	92.0	163.0	180.0	*****	341.0	*****	173.0	185.0	163.50 +20.0 87.00
MG HONS	28.0	31.0	37.0	36.0	77.0	*****	114.0	*****	104.0	80.0	44.38 +10.0 34.68
SO ₄	58.0	56.0	68.0	100.0	*****	*****	145.0	*****	170.0	200.0	114.14 +12.0 57.85
NA	12.0	11.1	13.9	20.7	27.0	*****	23.6	*****	30.6	29.3	21.00 +1.0 7.87
K	1.9	2.6	2.2	2.0	3.5	*****	2.9	*****	3.0	3.3	2.77 +0.8 0.53
CU	0.007	0.0	0.0	0.0	0.0	*****	0.013	*****	0.0	0.0	0.0029 +0.0 0.0047
PB	0.001	0.0	0.001	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0006 +0.0 0.0009
ZN	0.0007	0.001	0.0	0.004	0.003	*****	0.014	*****	0.037	0.007	0.0051 +0.8 0.0171
MN	0.010	0.001	0.0	0.003	0.043	*****	0.027	*****	0.0	0.0	0.0107 +0.0 0.0155
FE	0.011	0.003	0.001	0.005	0.002	*****	3.004	*****	0.0	0.0	0.0046 +1.8 0.0092
AS	0.0	*****	0.0	*****	*****	*****	*****	*****	*****	*****	0.0005 +1.8 0.0
HG (G/L)	0.0	*****	0.020	*****	*****	*****	0.070	*****	0.010	*****	0.0251 +0.8 0.0310
AG	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0006 +0.8 0.0006
91	0.001	0.0	0.0	0.0	0.0	*****	0.005	*****	0.0	0.0	0.0011 +0.8 0.0016
92	0.006	0.0	0.0	0.0	0.0	*****	0.001	*****	0.0	0.0	0.0012 +0.8 0.0016
CC	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005 +1.8 0.0005
LI	0.005	0.004	0.000	C.C13	0.017	*****	0.019	*****	0.021	0.018	0.0170 +1.8 0.0063

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THAT PARAMETER WAS NOT DETECTABLE

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE A - 9 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE: DISSOLVED FFACITLN REPORTED ONLY.

DATE	27VI174	11V1174	EV11174	7IX74	19X74	16X174	6X1174	1175	221175	1711175	191V75	23V75	AVERAGE	A10	S.D.
TEMP. C	*****	*****	1.0	18.9	*****	9.1	4.8	*****	*****	5.4	9.1	15.0	11.61	*CR=	6.01
O.O. MG/L	*****	*****	*****	*****	*****	*****	10.0	*****	*****	*****	1,000	7.0	9.00	*CR=	1.73
TURF. JTU	*****	*****	12.0	15.0	*****	5.0	5.0	*****	*****	6.0	12.0	8.0	9.00	*CR=	4.00
PH	*****	*****	7.5	7.7	*****	8.6	8.5	*****	*****	8.4	8.0	8.3	8.23	*CR=	0.45
COND. 25 C	*****	*****	330.0	560.0	*****	680.0	650.0	*****	*****	650.0	650.0	450.0	572.86	*CR=	136.22
P ALK.	*****	*****	0.0	0.0	*****	5.0	*****	*****	*****	0.0	0.0	0.0	5.00	*CR=	0.0
T ALK.	*****	*****	86.0	117.0	*****	140.0	128.0	*****	*****	140.0	115.0	105.0	118.71	*CR=	19.44
CL-	*****	*****	5.5	10.5	*****	12.0	12.0	*****	*****	12.5	12.5	10.0	10.71	+OR=	2.50
T HDNS	*****	*****	133.0	229.0	*****	262.0	250.0	*****	*****	297.0	271.0	200.0	233.86	*CR=	53.47
CA HDNS	*****	*****	100.0	153.0	*****	174.0	184.0	*****	*****	187.0	170.0	135.0	158.29	*CR=	31.12
MG HDNS	*****	*****	33.0	71.0	*****	88.0	66.0	*****	*****	105.0	101.0	65.0	75.57	+CR=	24.35
SO4	*****	*****	77.0	190.0	*****	190.0	260.0	*****	*****	230.0	190.0	120.0	181.29	*CR=	61.74
NA	*****	*****	*****	16.0	*****	32.5	3.1	*****	*****	38.0	35.0	26.0	30.68	*CR=	8.37
K	*****	*****	*****	4.1	*****	3.4	3.3	*****	*****	3.1	3.9	2.8	3.43	+CR=	0.49
CU	*****	*****	*****	0.0	*****	0.005	0.003	*****	*****	0.0	0.006	0.006	0.0035	*CR=	0.0026
PB	*****	*****	0.0	0.0	*****	0.004	0.003	*****	*****	0.0	0.0	0.0	0.0014	*CR=	0.0015
ZN	*****	*****	0.006	0.002	*****	0.001	0.0	*****	*****	0.0	0.004	0.019	0.0047	*CR=	0.0066
MN	*****	*****	0.004	0.008	*****	0.039	0.331	*****	*****	0.0	0.0	0.020	0.0261	+CR=	0.0312
FE	*****	*****	*****	0.004	*****	0.002	0.001	*****	*****	0.003	0.0	0.305	0.0026	*CR=	0.0017
AS	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	*4.***	*****	0.0005	*CR=	0.00
HG (µG/L)	*****	*****	0.050	*****	*****	*****	0.330	*****	*****	0.0	0.0020	*****	0.0251	*CR=	0.0206
AG	*****	*****	0.0	0.0	*****	0.0	0.0	*****	*****	0.0	0.0	0.0	0.0005	+CR=	0.00
NI	*****	*****	0.0	0.001	*****	0.004	0.0	*****	*****	0.003	0.0002	0.0	0.0016	+CR=	0.0014
CR	*****	*****	0.0	*****	*****	0.001	0.0	*****	*****	0.0	0.0	0.0	0.0006	*CR=	0.0007
CD	*****	*****	0.0	0.0	*****	0.0	0.0	*****	*****	0.0	0.0	0.0010	0.0019	+CR=	0.0036
LI	*****	*****	0.013	0.009	*****	0.023	0.322	*****	*****	0.014	0.036	0.013	0.0186	*CR=	0.0092

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + CR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE A - 9 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

DATE	18V175	28V1175	5V11175	28I175	31X75	1X175	4X1175	1176	261176	2311176	AVERAGE AND S.D.	
TEMP. C	15.0	20.5	22.1	17.4	17.0	*****	4.9	*****	5.5	6.2	13.64	+OR- 7.05
D.O. MG/L	7.3	6.1	6.9	8.4	8.3	*****	10.7	*****	10.8	9.3	0.47	+OR- 1.71
TOPS. JTU	23.0	20.0	7.0	7.0	*****	*****	8.0	*****	9.0	7.0	11.57	+OR- 6.88
PH	7.8	7.8	8.3	8.3	8.4	*****	7.8	*****	8.3	8.1	8.10	+OR- 0.26
COND. 25 C	300.0	340.0	320.0	420.0	550.0	*****	510.0	*****	620.0	650.0	404.75	+OR- 138.04
P ALK.	0.0	0.0	0.0	*****	*****	*****	*****	*****	*****	*****	0.0	+OR- 0.0
T ALK.	74.0	78.0	64.0	106.0	152.0	*****	125.0	*****	138.0	125.0	107.75	+OR- 32.53
CL-	5.0	4.5	5.0	9.0	11.0	*****	11.0	*****	12.5	12.5	8.61	+OR- 3.47
T HDNS	120.0	132.0	130.0	215.0	245.0	*****	445.0	*****	261.0	267.0	226.88	+OR- 107.33
CA HENS	87.0	98.0	93.0	141.0	180.0	*****	351.0	*****	133.0	186.0	156.65	+OR- 86.43
MC HMS	33.0	34.0	37.0	74.0	05.0	*****	54.0	*****	128.0	81.0	68.25	+OR- 33.45
SO4	70.0	73.0	72.0	95.0	*****	*****	149.0	*****	160.0	196.0	118.43	+OR- 51.26
NA	14.5	12.6	14.1	20.4	27.0	*****	24.4	*****	30.6	29.3	21.61	+OR- 7.23
K	2.1	2.5	2.6	2.8	3.5	*****	2.9	*****	3.4	3.4	2.95	+OR- 0.48
CU	0.006	0.0	0.0	0.0	0.0	*****	0.011	*****	0.0	0.0	0.0025	+OR- 0.0039
P8	0.001	0.0	0.001	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0006	+OR- 0.0002
EN	0.006	0.004	0.0	0.005	0.003	*****	0.012	*****	0.006	0.004	0.0051	+OR- 0.0033
MN	0.003	0.004	0.003	0.0	0.049	*****	0.021	*****	0.0	0.0	0.0102	+OR- 0.0171
FE	0.014	0.002	0.0	0.010	0.303	*****	0.014	*****	0.0	0.053	0.0121	+OR- 0.0175
AS	0.0	*****	0.0	*****	*****	*****	*****	*****	*****	*****	0.0005	+OR- 0.0
HG (pG/L)	0.020	*****	0.020	*****	*****	*****	0.060	*****	0.020	*****	0.0300	+OR- 0.0200
AG	0.0	0.0	0.0	0.0	0.0	*****	0.001	*****	0.0	0.0	0.0006	+OR- 0.0002
NI	0.001	0.0	0.0	0.0	0.0	*****	0.007	*****	0.0	0.0	0.0019	+OR- 0.0023
CD	0.003	0.0	0.0	0.0	0.0	*****	0.001	*****	0.0	0.0	0.0009	+OR- 0.0009
CD	0.0	0.0	0.0	0.003	0.0	*****	0.0	*****	0.0	0.0	0.0006	+OR- 0.0006
LI	0.005	0.005	0.006	0.013	0.017	*****	0.015	*****	0.021	0.018	0.0127	+OR- 0.0061

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND O.O INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + OR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE A - 12 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE; DISSOLVED FRACTION REPORTED ONLY.

DATE	27VI74	11VII74	8VII174	7IX74	19X74	16XI74	6XII74	1175	22II75	17III75	19IV75	23V75	AVERAGE	AND	S.D.
TEMP. C	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	11.20	+OR-	2.97
O.O. MG/L	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	8.45	+OR-	2.05
TURB. JTU	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	36.00	+CR-	25.46
PH	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	8.35	+OR-	0.35
COND. 25 C	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	595.00	+OR-	120.21
P ALK.	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	+OR-	0.0
- ALK.	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	117.50	+OR-	17.68
CL-	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	11.25	+OR-	1.77
I HDNS	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	237.50	+OR-	48.75
CA HDNS	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	160.00	+CR-	28.28
MG HDNS	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	77.50	+OR-	20.51
SQA	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	160.00	+OR-	48.08
NA	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	30.65	+CR-	6.58
K	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	3.40	+OP-	0.71
Cu	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0055	+OR-	0.0007
PB	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	C.0005	+OR-	0.0007
ZN	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0110	+LR-	0.0113
MN	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	C.0190	+OR-	0.0170
FE	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0027	+CR-	0.0032
AS	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	+CR-	0.0
HG (UG/L)	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0100	+CR-	0.0
NI	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0005	+OR-	0.0004
CO	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	C.0005	+CR-	0.0
CD	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	C.0057	+CR-	0.0074
LI	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0255	+CR-	0.0177

NOTE ***** INDICATES NO DETERMINATION (S MAX) AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

SITE A - 12 METRE DEPTH

NOTE: ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

DATE	18V1175	28V1175	5V11175	261175	311175	181175	4X1175	1176	261176	2311176	AVERAGE	AND S.D.
TEMP. C	*****	*****	*****	*****	*****	*****	*****	*****	5.5	6.5	6.00	+OR- 0.71
O.O. MG/L	*****	*****	*****	*****	*****	*****	*****	*****	10.0	9.6	9.80	+OR- 0.28
TURB. JTU	*****	*****	*****	*****	*****	*****	*****	*****	10.0	8.0	9.00	+OR- 1.41
PH	*****	*****	*****	*****	*****	*****	*****	*****	8.3	8.3	8.30	+OR- 0.00
COND. 25 C	*****	*****	*****	*****	*****	*****	*****	*****	620.0	650.0	635.00	+OR- 21.21
P ALK.	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	+OR- 0.0
T ALK.	*****	*****	*****	*****	*****	*****	*****	*****	132.0	140.0	136.00	+OR- 5.66
CL-	*****	*****	*****	*****	*****	*****	*****	*****	12.5	12.5	12.50	+OR- 0.0
T HONS	*****	*****	*****	*****	*****	*****	*****	*****	269.0	267.0	268.00	+OR- 1.41
EA HONS	*****	*****	*****	*****	*****	*****	*****	*****	166.0	165.0	165.50	+OR- 0.71
MS HONS	*****	*****	*****	*****	*****	*****	*****	*****	83.0	82.0	82.50	+OR- 0.71
SO4	*****	*****	*****	*****	*****	*****	*****	*****	170.0	194.0	182.00	+OR- 16.97
NA	*****	*****	*****	*****	*****	*****	*****	*****	30.6	29.5	30.05	+OR- 0.78
K	*****	*****	*****	*****	*****	*****	*****	*****	3.3	3.4	3.35	+OR- 0.07
CU	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	+OR- 0.0
PB	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	+OR- 0.0
ZN	*****	*****	*****	*****	*****	*****	*****	*****	0.007	0.004	0.0055	+OR- 0.0021
MN	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	+OR- 0.0
FE	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.002	0.0012	+OR- 0.0011
AS	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0	+OR- 0.0
HG (UG/L)	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	+OR- 0.0
AG	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	+OR- 0.0
NIT	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	+OR- 0.0
CO	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	+OR- 0.0
CD	*****	*****	*****	*****	*****	*****	*****	*****	0.004	0.0	0.0022	+OR- 0.0025
LI	*****	*****	*****	*****	*****	*****	*****	*****	0.021	0.017	0.0190	+OR- 0.0028

NOTE: ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE: AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 +OR- 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

SITE A - BOTTOM - 15 METRE DEPTH)

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

DATE	27VI74	11VII74	28VII74	7IX74	19X74	16X174	6XI174	1175	221175	1711175	19105	23V75	AVERAGE	AND	S.D.
	8m	10m	10m	8.5m	11m	12m				9m	15m	12m			
TEMP C	*****	21.1	19.1	13.5	14.7	9.0	4.9	*****	*****	5.4	8.0	13.3	12.67	+CR-	6.12
D.O. MG/L	*****	5.5	*****	*****	*****	*****	10.0	*****	*****	*****	5.1	7.0	6.90	+CR-	2.22
TURB. JTU	*****	60.0	21.0	16.0	190.0	18.0	10.0	*****	*****	6.0	15.0	54.0	43.33	+CR-	58.20
PH	*****	7.2	7.3	7.6	8.1	8.5	3.3	*****	*****	8.4	8.0	8.1	7.94	+CR-	0.47
COND. 25 C	*****	250.0	330.0	580.0	580.0	650.0	740.0	*****	*****	650.0	*****	510.0	610.00	+CR-	271.11
P ALK.	*****	0.0	0.0	0.0	0.0	3.0	*****	*****	*****	0.0	0.0	0.0	3.00	+CR-	0.0
T ALK.	*****	83.0	91.0	120.0	121.0	142.0	147.0	*****	*****	140.0	155.0	105.0	122.67	+CR-	25.52
CL-	*****	5.5	8.5	12.0	10.5	12.0	3.5	*****	*****	12.5	15.0	10.0	10.50	+CR-	2.78
I HDNS	*****	121.0	135.0	236.0	244.0	264.0	302.0	*****	*****	292.0	560.0	203.0	261.89	+CR-	128.35
CA HDNS	*****	85.0	122.0	167.0	164.0	178.0	201.0	*****	*****	187.0	295.0	140.0	171.00	+CR-	58.53
MG HDNS	*****	36.0	13.0	69.0	80.0	86.0	101.0	*****	*****	105.0	265.0	63.0	90.89	+CR-	71.67
SO4	*****	65.0	78.0	200.0	176.0	190.0	300.0	*****	*****	230.0	590.0	126.0	212.78	+CR-	146.28
NA	*****	*****	*****	16.0	31.1	32.5	39.9	*****	*****	38.6	78.0	2.0	37.44	+CR-	19.61
K	*****	*****	*****	4.5	3.3	3.4	3.6	*****	*****	3.1	8.2	2.4	3.86	+CR-	1.15
CU	*****	0.011	0.005	0.005	0.006	0.005	0.003	*****	*****	0.0	0.008	0.005	0.0054	+CR-	0.0029
PH	*****	0.0	0.022	0.0	0.0	0.003	0.0	*****	*****	0.0	0.007	0.0	0.0039	+CR-	0.0071
ZIN	*****	0.004	0.252	C.002	0.003	0.001	0.0	*****	*****	0.0	0.005	0.019	C.0319	+CR-	0.0827
MN	*****	0.0	0.003	0.097	0.146	0.039	0.068	*****	*****	0.0	0.208	0.031	0.0726	+CR-	0.0882
FE	*****	0.0	0.030	0.003	0.003	0.002	0.0	*****	*****	0.003	0.001	0.005	0.0053	+CR-	0.0094
AS	*****	0.008	*****	*****	0.0	*****	*****	*****	*****	0.0	*****	*****	0.0030	+CR-	0.0043
HG (UG/L)	*****	0.0	0.0	*****	*****	*****	0.020	*****	*****	0.0	0.020	*****	0.0083	+CR-	0.0107
AG	*****	0.0	0.0	0.0	0.008	0.0	0.0	*****	*****	0.0	0.0	0.0	0.0013	+CR-	0.0025
NI	*****	0.0	0.0	0.001	0.004	0.004	0.0	*****	*****	0.003	0.006	0.0	0.0022	+CR-	0.0021
CO	*****	0.016	0.0	*****	0.002	0.001	0.0	*****	*****	0.0	0.0	0.0	C.0027	+CR-	0.0354
CD	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.611	0.0017	+CR-	0.035
LI	*****	*****	0.012	0.010	0.017	0.023	0.030	*****	*****	0.014	0.089	0.013	0.0260	+CR-	0.0263

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + CR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE A - BOTTOM (10- 17 METRE DEPTH)

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

DATE	18VI175	28VII175	SVIII175	28IX175	31X175	1X175	4XII175	1176	26III176	23III176	AVERAGE AND S.D.
	10m	10.5m	10.5m	10.5m	10m		12m		17m	17m	
T.F.P. C	14.0	21.5	21.3	17.8	14.2	*****	5.0	*****	5.9	7.0	13.34 *OR= 6.72
D.D. MG/L	7.6	6.5	6.6	8.4	8.3	*****	10.8	*****	11.4	9.7	8.64 *OR= 1.77
TURB. JTU	19.0	16.0	5.0	10.0	*****	*****	14.0	*****	8.0	8.0	12.00 *OR= 4.36
PH	7.8	7.8	8.3	8.3	8.4	*****	8.1	*****	8.4	8.3	8.17 *OR= 0.25
CONC. 25 C	310.0	310.0	350.0	425.0	570.0	*****	510.0	*****	620.0	650.0	468.13 *OR=138.41
T-ALK.	0.0	0.0	0.0	*****	*****	*****	*****	*****	*****	*****	0.0 *OR= 0.0
T-ALK.	74.0	78.0	65.0	131.0	158.0	*****	123.0	*****	141.0	145.0	110.63 *OR= 36.02
CL-	5.0	4.5	5.5	10.0	10.0	*****	11.5	*****	12.5	12.5	8.88 *OR= 3.48
T HDNS	122.0	127.0	137.0	215.0	263.0	*****	464.0	*****	273.0	268.0	233.63 *OR=113.50
CA HDNS	87.0	94.0	99.0	146.0	176.0	*****	349.0	*****	193.0	184.0	166.00 *OR= 85.32
MG HDNS	35.0	33.0	38.0	69.0	87.0	*****	115.0	*****	80.0	84.0	67.63 *OR= 29.72
SC4	78.0	61.0	88.0	95.0	*****	*****	150.0	*****	170.0	166.0	115.43 *OR= 45.21
NA	15.3	11.8	15.1	20.4	27.6	*****	24.2	*****	30.9	29.3	21.82 *OR= 7.25
K	2.2	2.7	2.6	3.0	3.6	*****	3.0	*****	3.3	3.5	2.99 *OR= 0.48
CU	0.007	0.0	0.005	0.0	0.014	*****	0.039	*****	0.0	0.008	0.0061 *OR=0.0050
PB	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005 *OR=0.0000
ZN	0.008	C.CC4	0.004	0.009	0.004	*****	0.013	*****	0.000	C.CC7	0.0071 *OR=0.0031
MN	0.004	C.CC1	0.002	0.009	0.047	*****	0.035	*****	0.0	C.0	C.C124 *OR=0.0182
FE	0.014	0.039	0.001	0.004	0.002	*****	0.005	*****	0.0	C.CC4	0.0087 *OR=0.0130
AS	0.0	*****	C.0	*****	*****	*****	*****	*****	*****	*****	0.0005 *OR=0.0
HG (µG/L)	0.010	*****	0.020	*****	*****	*****	0.060	*****	0.0	*****	0.0226 *OR=0.0262
AG	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	C.0	0.0005 *OR=0.0000
NI	0.001	0.0	0.0	0.003	0.0	*****	0.008	*****	0.0	0.0	0.0018 *OR=0.0026
CO	0.002	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	C.0	0.0007 *OR=0.0005
CC	0.0	0.0	0.0	0.001	0.0	*****	0.0	*****	0.0	0.0	0.0006 *OR=0.0002
LI	0.007	0.004	0.008	C.012	0.017	*****	0.016	*****	0.021	0.C21	0.0132 *OR=0.0065

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE B - S (SURFACE)

NOTE ALL CONCENTRATION PARAMETERS APE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSCLVED FRACTION REPORTED ONLY.

DATE	27VI74	11VII74	05VII74	7IX74	19X74	16XI74	6XII74	1175	221175	1711175	19IV75	23V75	AVERAGE	AND	S.D.
TEMP. C	22.1	23.9	20.1	20.0	14.1	9.0	4.8	*****	*****	7.2	5.2	17.0	14.74	+CR-	6.53
D.O. MG/L	*****	7.8	*****	*****	*****	*****	9.2	*****	*****	*****	10.1	8.3	8.65	+CR-	1.01
TURB. JTU	5.0	9.0	4.0	7.0	8.0	5.0	4.0	*****	*****	7.0	8.0	8.0	6.30	+CR-	1.77
PH	8.2	7.9	7.5	8.4	8.1	8.6	8.5	*****	*****	3.4	8.6	2.2	8.24	+CR-	0.34
COND. 25 C	244.0	270.0	320.0	420.0	560.0	650.0	605.0	*****	*****	660.0	725.0	480.0	491.90	+CR-	173.67
P ALK.	0.0	*****	0.0	8.0	0.0	5.0	*****	*****	*****	0.0	0.0	0.0	5.50	+CR-	0.71
T ALK.	70.0	78.0	84.0	107.0	120.0	140.0	134.0	*****	*****	139.0	78.0	54.0	104.20	+CR-	27.49
CL-	0.0	5.0	8.5	13.0	9.5	11.0	10.0	*****	*****	12.0	12.5	9.5	9.78	+CR-	2.20
T HDNS	112.0	116.0	136.0	179.0	235.0	262.0	252.0	*****	*****	252.0	276.0	133.0	204.30	+CR-	67.87
CA HMS	75.0	85.0	104.0	122.0	156.0	174.0	180.0	*****	*****	186.0	1.0	130.0	139.20	+CR-	41.76
NO HDNS	37.0	31.0	32.0	57.0	79.0	88.0	72.0	*****	*****	106.0	50.0	53.0	65.10	+CR-	27.19
514	48.0	63.0	74.0	106.0	109.0	192.0	210.0	*****	*****	195.0	190.0	140.0	136.20	+CR-	61.34
VA	*****	*****	*****	10.5	30.3	31.3	33.6	*****	*****	36.6	35.3	23.0	28.67	+CR-	9.15
K	*****	*****	*****	3.1	3.4	3.4	3.2	*****	*****	3.1	3.5	2.0	3.24	+CR-	0.40
CU	0.013	0.0	0.004	0.003	0.005	0.005	0.003	*****	*****	0.0	0.006	0.005	0.0047	+CR-	0.0037
PB	0.0	0.0	0.0	0.0	0.0	0.003	0.0	*****	*****	0.0	0.0	0.0	0.0007	+CR-	0.0008
ZN	0.003	0.0	0.008	0.302	0.005	0.0	0.0	*****	*****	0.0	0.002	0.0020	0.0042	+CR-	0.0061
MN	0.001	0.0	0.004	*****	0.024	0.009	0.010	*****	*****	0.0	0.035	0.023	0.0119	+CR-	0.0125
FE	0.018	0.0	0.0	0.009	0.003	0.002	0.001	*****	*****	0.003	0.0	0.0024	0.0361	+CR-	0.0083
AS	0.0	0.0	*****	*****	0.002	*****	*****	*****	*****	0.0	*****	*****	0.0009	+CR-	0.0007
AG (IJG/L)	*****	0.020	0.0	*****	*****	*****	0.100	*****	*****	0.0	0.0	*****	0.0243	+CR-	0.032
AE	0.0	0.0	0.0	0.0	0.0	0.001	0.0	*****	*****	0.0	0.0	0.0	0.0005	+CR-	0.0002
NI	0.0	0.0	0.0	0.012	0.005	0.005	0.0	*****	*****	0.001	0.002	0.0	0.0027	+CR-	0.0037
CO	0.0	0.0	0.0	*****	0.001	0.001	0.0	*****	*****	0.0	0.0	0.0	0.0006	+CR-	0.0007
CC	*****	0.004	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0010	0.0019	+CR-	0.0032
LI	*****	*****	0.012	0.006	0.015	0.024	0.024	*****	*****	0.015	0.038	0.111	0.0181	+CR-	0.0101

ACTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + CR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE B - SURFACE

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

DATE	18V175	28V1175	5V11175	26IX75	31X75	1X175	4X1175	1176	261176	2311176	AVERAGE	AND S.D.
TEMP. C	18.5	23.0	22.9	18.8	12.1	*****	5.0	*****	5.0	6.9	14.02	+OR= 7.74
0.3. MG/C.	7.9	6.7	7.3	8.3	8.0	*****	10.8	*****	10.8	9.7	8.79	+OR= 1.54
TURB. JTU	25.0	10.0	10.0	4.0	*****	*****	8.0	*****	8.0	8.0	11.43	+OR= 6.73
PH	8.0	8.0	8.3	8.3	8.4	*****	9.0	*****	8.3	8.3	0.20	+OR= 0.17
COND. 25 C	290.0	290.0	320.0	420.0	540.0	*****	500.0	*****	610.0	660.0	453.75	+OR=145.99
D ALK.	0.0	0.0	0.0	*****	*****	*****	*****	*****	*****	*****	0.0	+OR= 0.0
T ALK.	78.0	78.0	78.0	97.0	156.0	*****	125.0	*****	135.0	134.0	110.13	+OR= 31.13
CL-	5.0	4.5	5.5	10.0	11.0	*****	12.0	*****	12.5	12.0	9.13	+OR= 3.50
T HCNS	113.0	116.0	130.0	216.0	263.0	*****	460.0	*****	270.0	204.0	224.00	+OR=115.65
CA HCNS	82.0	87.0	93.0	143.0	181.0	*****	345.0	*****	200.0	185.0	104.50	+OR= 86.95
MG HCNS	31.0	29.0	37.0	73.0	82.0	*****	115.0	*****	70.0	75.0	64.50	+OR= 30.02
SO4	55.0	50.0	68.0	99.0	*****	*****	149.0	*****	170.0	180.0	110.00	+OR= 55.61
NA	11.9	11.1	14.1	20.4	20.8	*****	23.6	*****	30.5	29.2	20.95	+OR= 7.81
K	1.9	2.5	2.2	3.0	3.6	*****	3.1	*****	3.4	3.4	2.9	+OR= 0.62
CU	0.305	0.0	0.009	0.0	0.014	*****	0.011	*****	0.0	0.0	0.0051	+OR=0.0055
PB	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+OR=0.0000
ZN	0.005	0.002	0.0	0.007	0.004	*****	0.015	*****	0.007	0.010	0.0063	+OR=0.0046
MN	0.010	0.001	0.0	0.0	0.037	*****	0.027	*****	0.0	0.0	0.0052	+OR=0.0144
FE	0.012	0.005	0.001	0.003	0.002	*****	0.003	*****	0.0	0.000	0.0044	+OR=0.0041
AS	0.0	*****	0.0	*****	*****	*****	*****	*****	*****	*****	0.0005	+OR=0.000
HG (UG/L)	0.004	*****	0.010	*****	*****	*4**	0.000	*****	0.010	*****	0.1500	+OR=0.2960
AG	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+OR=0.0000
NI	0.0	0.0	0.0	0.001	0.0	*****	0.005	*****	0.0	0.004	0.0017	+OR=0.0018
CO	0.002	0.001	0.0	0.0	0.0	*****	0.001	*****	0.0	0.0	0.0008	+OR=0.0005
CD	0.0	0.0	0.001	0.010	0.0	*****	0.0	*****	0.005	0.0	0.0037	+OR=0.0039
LI	0.002	0.004	0.001	0.015	0.018	*****	0.018	*****	0.021	0.018	0.0125	+OR=0.0069

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + OR = 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

SITE B - 3 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE; DISSOLVED FRACTION REPORTED ONLY.

DATE	27VI74	11V1174	08VII174	7IX74	19X74	16XI174	6XII174	1175	221175	1711175	19IV75	231015	AVERAGE	Ar,0	SD,0
TEMP. C	*****	23.1	20.2	19.8	14.5	9.0	4.9	*****	*****	7.0	5.1	16.0	13.73	+CR-	6.51
O.O. MG/L	*****	7.0	*****	*****	*****	*****	9.5	*****	*****	*****	10.2	8.4	8.77	+CF-	1.40
TURBIDITY JTU	*****	5.0	8.0	9.0	8.0	7.0	3.0	*****	*****	7.0	11.0	7.0	1.56	+CR-	2.01
PH	*****	7.5	7.7	8.4	8.3	8.6	3.5	*****	*****	6.5	8.0	8.3	8.27	+CR-	0.40
CUND. 25 C	*****	240.0	305.0	410.0	500.0	600.0	800.0	*****	*****	660.0	810.0	900.0	507.22	+CR=161.32	
P ALK.	*****	0.0	0.0	4.0	0.0	6.0	*****	*****	*****	0.0	0.0	0.0	5.00	+CR-	1.41
T ALK.	*****	80.0	120.0	119.0	121.0	140.0	136.0	*****	*****	130.0	100.0	90.0	115.78	+CR-	24.05
CL-	*****	6.0	3.5	8.0	11.0	11.5	10.0	*****	*****	12.5	14.5	8.5	9.28	+CR-	3.07
T HDNS	*****	116.0	129.0	179.0	253.0	265.0	252.0	*****	*****	294.0	270.0	184.0	215.78	+CR-	65.22
CA HDNS	*****	80.0	115.0	127.0	154.0	178.0	177.0	*****	*****	185.0	170.0	130.0	146.22	+CR-	35.50
MG HDNS	*****	36.0	14.0	52.0	99.0	87.0	75.0	*****	*****	109.0	100.0	50.0	69.56	+CR-	32.49
NO3	*****	07.0	76.0	112.0	174.0	194.0	210.0	*****	*****	275.0	180.0	116.0	156.89	+CR-	68.68
NA	*****	*****	*****	10.0	29.8	31.2	32.6	*****	*****	3.6	0.0	23.1	2.37	+CR-	9.21
K	*****	*****	*****	3.2	3.2	3.4	3.3	*****	*****	3.1	3.9	2.7	3.26	+CR-	0.36
CU	*****	0.0	0.004	0.0	0.006	0.005	0.003	*****	*****	0.0	0.037	0.005	0.0035	+CR=0.0025	
PB	*****	0.0	0.0	0.0	0.0	0.003	0.002	*****	*****	0.0	0.0	0.0	0.0009	+CR=0.0005	
ZN	*****	0.0	0.005	0.0	0.003	0.001	0.0	*****	0.4***	0.0	0.004	0.002	0.0039	+CR=0.0063	
MN	*****	0.0	0.004	0.0	0.023	0.011	0.000	*****	*****	0.0	0.000	C.C24	0.0088	+CR=0.0091	
FE	*****	0.0	0.0	0.001	0.031	0.002	0.001	*****	*****	0.000	0.0	0.005	0.0053	+CR=0.0100	
AS	*****	0.0	*****	*****	0.002	*****	*****	*****	*****	0.0	*****	*****	C.0010	+CR=0.0009	
HG (U/G/L)	*****	0.040	0.0	*****	*****	*****	0.340	*****	*****	0.0	C.010	*****	0.0182	+CR=0.0203	
AG	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	C.0005	+CR=0.0000	
NI	*****	0.0	0.0	0.002	0.006	0.007	0.0	*****	*****	0.002	0.001	0.0	0.0022	+CR=0.0025	
CO	*****	0.016	0.0	*****	0.002	0.001	0.0	*****	*****	0.0	0.0	0.0	0.0027	+CR=0.0054	
CC	*****	0.0	0.0	0.0	0.0	0.005	0.0	*****	*****	0.0	0.000	0.012	C.0031	+CR=0.0043	
LI	*****	0.005	0.012	0.008	0.015	0.024	0.022	*****	*****	0.011	0.000	0.011	0.0167	+CR=0.0097	

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER AS NOT DETECTABLE.

NOTE AN AVERAGE ANC STANDARD DEVIATION VALUE OF 0.0 + CR - 0.0 INDICATES THE PARAMETER AS NOT DETECTABLE

SITE B - 3 METRE DEPTH

NOT ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

CAT #	18V175	28V175	5V1175	261X75	31X75	1X175	4X1175	1175	261176	231176	AVERAGE	AND S.D.
TEMP. C	17.7	21.9	22.5	17.8	14.0	****	4.5	****	5.0	6.8	19.77	+OR= 7.42
NO ₃ -N MG/L	7.6	7.6	7.1	3.3	6.6	****	10.6	****	10.0	9.7	8.39	+OR= 1.36
TURB. JTU	30.0	14.0	9.0	5.0	*****	****	8.0	*****	5.0	5.0	10.86	+OR= 9.04
PH	7.7	8.0	8.1	8.3	8.4	****	8.0	****	8.3	8.4	6.15	+OR= 0.24
COND. 25 C	290.0	300.0	320.0	400.0	550.0	****	500.0	****	620.0	650.0	451.75	+OR=145.79
P ALK.	0.0	0.0	0.0	*****	*****	****	****	****	****	****	0.0	+OR= 0.0
T ALK.	75.0	78.0	79.0	99.0	152.0	****	127.0	****	140.0	140.0	111.25	+OR= 32.01
CL-	5.0	4.5	5.5	10.0	11.0	****	10.5	****	10.5	12.5	8.6	+OR= 3.15
T HDNS	112.0	116.0	130.0	213.0	237.0	****	475.0	****	268.0	265.0	227.25	+OR=119.15
CA HCNS	80.0	90.0	91.0	139.1	178.0	*****	339.0	*****	187.0	165.0	161.38	+OR= 34.46
MG HDNS	32.0	28.0	37.0	74.0	50.0	****	136.0	****	81.0	80.0	65.88	+OR= 35.61
NO ₂ -N	52.0	58.0	68.0	100.0	*****	*****	148.0	****	150.0	170.0	108.57	+OR= 49.15
NA	11.9	11.1	14.1	20.4	26.8	****	23.6	*****	30.7	29.3	26.99	+OR= 7.86
K	1.9	2.5	2.2	3.0	3.6	*****	2.9	*****	3.2	3.2	2.81	+OR= 0.57
CU	0.004	0.0	0.006	0.0	0.011	****	0.011	*****	0.0	0.016	0.0065	+OR=0.0055
PB	0.001	0.0	0.0	0.0	0.0	****	0.004	****	0.0	0.0	0.0010	+OR=0.0012
ZN	0.005	0.002	0.0	0.003	0.004	****	0.017	****	0.006	0.005	0.0054	+OR=0.0050
MN	0.012	0.003	0.0	0.0	0.033	*****	0.021	****	0.0	0.008	0.0104	+OR=0.0133
FE	0.012	0.002	0.001	0.010	0.0	****	0.004	****	0.0	0.003	0.0041	+OR=0.0044
AS	0.0	****	0.0	*****	*****	****	****	****	****	****	0.0005	+OR=0.0
HG (UG/L)	0.010	****	0.020	****	****	****	0.050	****	0.010	*****	0.0225	+OR=0.0189
AG	0.0	0.0	0.0	0.0	0.0	****	0.0	*****	0.0	0.0	0.0005	+OR=0.0000
NI	0.0	0.0	0.0	0.004	0.0	****	0.008	****	0.0	0.0	0.0015	+OR=0.0028
CO	0.006	0.0	0.0	0.0	0.0	****	0.001	****	0.0	0.0	0.0012	+OR=0.0019
CC	0.0	0.0	0.049	0.0	0.0	****	0.0	****	0.004	0.0	0.0070	+OR=0.0170
LI	0.004	0.003	0.006	0.014	0.016	****	0.014	****	0.021	0.018	0.0122	+OR=0.0066

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + OR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE B - 6 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

DATE	27VI74	11VII74	8VIII74	7IX74	19X74	16X174	6XI174	1175	221175	1711175	19IV75	23V75	AVERAGE AND STD.
TEMP. C	*****	23.1	20.0	19.9	14.9	9.0	4.9	*****	*****	5.6	5.3	16.0	13.63 +CR= 6.69
D.O. MG/L	*****	7.0	*****	*****	*****	*****	9.4	*****	*****	*****	10.1	6.3	8.70 +CR= 1.35
TURB. JTU	*****	4.0	9.0	10.0	8.0	5.0	3.0	*****	*****	7.0	10.0	7.0	6.78 +CP= 2.54
PH	*****	7.3	7.6	8.4	8.3	8.6	8.6	*****	*****	8.4	8.6	8.3	8.23 +CR= 0.47
COND. 25 C	*****	240.0	320.0	430.0	560.0	600.0	600.0	*****	*****	640.0	675.0	400.0	509.44 +CR=150.17
p ALK.	*****	0.0	0.0	5.0	0.0	5.0	*****	*****	*****	0.0	0.0	0.0	5.00 +CR= 0.03
T ALK.	*****	80.0	84.0	109.0	120.0	140.0	137.0	*****	*****	138.0	130.0	95.0	115.78 +CR= 24.64
CL-	*****	5.0	6.5	8.0	11.5	11.0	8.5	*****	*****	12.5	12.5	5.5	9.44 +CR= 2.66
T HENS	*****	113.0	128.0	199.0	246.0	268.0	253.0	*****	*****	245.0	267.0	182.0	216.78 +CR= 64.81
CA HDNS	*****	80.0	103.0	123.0	130.0	184.0	180.0	*****	*****	190.0	175.0	132.0	149.67 +CR= 40.84
MG HDNS	*****	33.0	25.0	54.0	66.0	84.0	73.0	*****	*****	105.0	52.0	50.0	64.89 +CR= 26.66
SO4	*****	64.0	74.0	112.0	174.0	194.0	180.0	*****	*****	240.0	14.0	110.0	150.00 +CR= 60.30
NA	*****	*****	*****	9.0	29.8	31.1	32.6	*****	*****	57.3	35.3	23.1	28.31 +CR= 9.64
K	*****	*****	*****	3.2	3.2	3.4	3.3	*****	*****	3.1	3.4	2.6	3.24 +CR= 0.39
CU	*****	0.0	0.005	0.004	0.011	0.003	0.003	*****	*****	0.0	0.001	0.004	0.0042 +CR=0.0033
PB	*****	0.0	0.0	0.0	0.0	0.004	0.001	*****	*****	C.0	C.	0.0	0.0005 +CR=0.0012
ZN	*****	0.0	0.003	0.006	0.005	0.001	0.0	*****	*****	0.0	0.004	0.016	0.0041 +CR=0.0049
MN	*****	0.0	0.005	0.0	0.027	0.007	0.009	*****	*****	0.0	0.0	0.017	0.0074 +CR=0.0092
FE	*****	0.0	0.0	0.0	0.004	0.003	0.0	*****	*****	0.001	0.001	0.005	0.0022 +CR=0.0028
AS	*****	0.0	*****	*****	0.0	*****	*****	*****	*****	0.0	*****	*****	0.0005 +CR=0.0
HG (MC/L)	*****	0.020	0.0	*****	*****	*****	0.020	*****	*****	0.0	C.0	*****	C.0083 +CR=0.0107
AG	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	C.	L.0	C.0005 +CR=0.0000
NI	*****	0.0	0.0	0.001	0.003	0.006	0.001	*****	*****	0.001	0.0	C.0	C.0016 +CR=0.0018
CO	*****	0.0	0.0	*****	0.002	0.002	0.0	*****	*****	0.0	C.0	0.0	C.0009 +CR=0.0007
PP	*****	0.003	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.010	0.0018 +CR=0.0032
LI	*****	0.009	0.013	0.007	0.012	0.024	0.024	*****	*****	0.012	0.036	0.011	C.0167 +CR=0.0100

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER AS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SIT B - 6 METRE DEPTH

NOTE ALL COCONCENTRATION PARAMETERS ARE REPORTED AS 'G/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION FERTILIZED ONLY.

DATE	18V175	28VI175	5VII175	26IX75	31X75	1X175	4XI175	1176	26II176	23I1176	AVERAGE	AND S.D.
TrMP. C	17.4	20.0	22.0	17.2	14.0	****	4.7	****	4.5	6.8	13.37	+0H- 6.97
O.O. MG/L	7.4	6.4	6.7	8.3	8.4	****	10.6	****	10.0	9.6	8.45	+0H 1.57
TURB. JTU	27.0	20.0	10.0	4.0	****	****	10.0	****	10.0	9.0	12.86	+0R 7.84
PH	7.7	7.6	8.3	8.3	8.4	****	7.9	****	8.4	8.4	8.12	+0R 0.34
COND. 25 C	300.0	310.0	320.0	400.0	550.0	****	510.0	****	520.0	650.0	457.50	+0R-143.20
P ALK.	0.0	0.0	0.0	****	****	****	****	****	****	****	0.0	+0K- 0.0
T ALK.	75.0	78.0	85.0	113.0	152.0	****	125.0	****	140.0	133.0	112.63	+0H 29.87
CL	5.0	4.5	5.0	9.0	11.0	****	12.0	****	12.5	12.0	6.68	+0K- 3.51
T IDNS	112.0	122.0	130.0	213.0	245.0	****	483.0	****	265.0	265.0	22.50	+0R-114.24
CA HDNS	82.0	7.0	3.0	141.0	179.0	****	365.0	****	199.0	189.0	167.90	+0H- 92.47
MG HDNS	30.0	30.0	37.0	72.0	80.0	****	95.0	****	66.0	76.0	59.60	+0H- 23.96
514	53.0	62.0	65.0	95.0	****	****	150.0	****	170.0	170.0	109.29	+0H- 52.60
NA	11.9	11.7	14.5	20.5	26.0	****	21.6	****	30.9	28.9	21.10	+0H- 7.68
K	1.8	2.7	2.3	3.1	3.5	****	3.0	****	3.3	3.2	2.26	+0R- 0.57
CU	0.005	0.0	0.0	0.0	0.008	****	0.011	****	0.0	0.012	0.0047	+0R 0.0050
PN	0.001	0.0	0.0	0.002	0.0	****	0.004	****	0.0	0.002	0.0016	+0R 0.0007
FN	0.006	0.004	0.0	0.004	0.005	****	0.016	****	0.006	0.011	0.0060	+0P-0.0048
MN	0.012	0.003	0.0	0.011	0.003	****	0.021	****	0.0	0.0	0.0108	+0P 0.0132
	0.012	0.001	0.0	0.0	0.003	****	0.004	****	0.0	C.035	0.0073	+0H 0.0118
AS	0.0	****	0.0	****	****	****	****	****	****	****	0.0005	+0P-0.0
HG (UG/L)	0.020	****	0.040	****	****	****	0.050	****	0.030	****	0.0350	+0R-0.0129
AG	0.0	0.0	0.0	0.0	0.0	****	0.0	****	0.0	0.0	0.0005	+0H 0.0006
NI	0.0	0.0	0.001	0.005	0.0	****	0.006	****	0.0	0.004	0.0022	+0R 0.0023
CO	0.003	0.0	0.0	0.0	0.0	****	0.001	****	0.0	0.0	0.0005	+un-0.0005
CC	0.0	0.0	0.0	0.0	0.0	****	0.0	****	0.004	0.0	0.0005	+0H 0.0012
LT	0.004	0.004	0.006	0.013	0.014	****	0.014	****	0.021	0.018	0.0126	+0R-0.0062

NOTE **** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + 0.0 - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

SITE B - 9 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

DATE	27V174	11V1174	8V11174	71X74	19X74	16X174	6X1174	1175	221175	1711175	19IV75	23V75	AVERAGE	AND S.D.
TEMP. C	*****	20.9	19.9	18.9	14.8	9.0	4.9	*****	*****	5.4	5.1	14.8	13.08	+OR- 6.18
DO MG/L	*****	3.5	*****	*****	*****	*****	9.5	*****	*****	*****	9.5	7.4	7.57	+CR- 2.93
TURB. JTU	*****	5.0	22.0	10.0	10.0	6.0	3.0	*****	*****	5.0	4.0	8.0	8.67	+OR- 5.57
PH	*****	7.0	7.5	7.7	8.2	8.0	6.5	*****	*****	8.3	8.0	8.4	8.09	+CR- 0.56
CONC. 25 C	*****	245.0	330.0	530.0	550.0	650.0	600.0	*****	*****	600.0	675.0	490.0	525.56	+C -150.11
P ALK.	*****	0.0	0.0	0.0	0.0	5.0	3.0	*****	*****	0.0	0.0	0.0	4.00	+CR- 1.41
T ALK.	*****	80.0	87.0	130.0	120.0	142.0	138.0	*****	*****	140.0	140.0	100.0	119.67	+OR- 24.46
CL-	*****	6.5	0.0	11.0	10.0	11.5	11.0	*****	*****	12.5	12.5	10.0	10.63	+04- 1.92
T HDNS	*****	119.0	134.0	221.0	240.0	276.0	250.0	*****	*****	295.0	270.0	195.0	222.89	+CP- 62.35
TA HDNS	*****	85.0	93.0	147.0	152.0	196.0	160.0	*****	*****	188.0	177.0	135.0	151.44	+OR- 40.58
MG HMS	*****	34.0	41.0	74.0	88.0	80.0	70.0	*****	*****	107.0	93.0	50.0	71.44	+CR- 24.11
S34	*****	73.0	77.0	140.0	176.0	194.0	200.0	*****	*****	250.0	220.0	136.0	162.89	+OR- 61.31
NA	*****	*****	*****	10.0	29.8	30.3	32.6	*****	*****	37.1	35.3	29.4	28.64	+CR- 9.07
K	*****	*****	*****	4.0	3.2	3.4	3.3	*****	*****	3.3	3.8	2.8	3.40	+CR- 0.40
CU	*****	0.0	0.0	0.006	0.006	0.0	0.303	*****	*****	0.0	0.006	0.007	0.0033	+CR-0.0029
PB	*****	0.0	0.001	0.0	0.001	0.003	0.0	*****	*****	0.0	0.0	0.0	0.0009	+CR-0.0008
ZN	*****	0.007	0.008	0.0	0.003	0.0	0.0	*****	*****	0.0	0.001	0.016	0.0041	+CR-0.0053
MN	*****	0.070	0.004	0.001	0.029	0.010	0.008	*****	*****	0.0	0.007	0.009	0.0256	+CR-0.0332
FE	*****	0.0	0.025	0.0	0.003	0.003	0.001	*****	*****	0.001	0.0	0.002	0.0041	+CR-0.0079
AS	*****	0.0	*****	*****	0.0	*****	*****	*****	*****	0.0	*****	*****	0.0005	+CR-0.0
HG (µG/L)	*****	0.080	0.0	*****	*****	*****	0.020	*****	*****	0.0	0.000	*****	0.0282	+CR-0.0333
AG	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.001	0.0	0.0006	+CP-0.0002
NI	*****	0.0	0.0	0.001	0.003	0.006	0.003	*****	*****	0.001	0.003	1.0	0.0021	+CR-0.0019
CO	*****	0.0	0.030	*****	0.002	0.002	0.0	*****	*****	0.0	0.0	0.0	0.0046	+CP-0.0103
CD	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.013	0.0019	+CR-0.0042
LI	*****	*****	0.011	0.009	0.013	0.023	0.023	*****	*****	0.013	0.038	0.013	0.0179	+OR-0.0097

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + CP - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE 8 - 9 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

DATE	18V1175	28V1175	9V11175	261X75	31X75	1X175	481175	1176	261176	2311176	AVERAGE AND S.D.
TEMP. C	15.2	15.5	21.0	17.5	11.0	*****	4.9	*****	5.0	6.1	12.52 +OR- 6.66
D.O. MG/L	7.1	6.3	5.7	8.4	8.1	*****	10.6	*****	10.5	9.8	8.31 +OR- 1.88
TUB. JTU	16.0	24.0	9.0	6.0	*****	*****	12.0	*****	6.0	8.0	11.57 +OR- 6.53
PH	7.9	7.6	8.0	8.3	8.4	*****	8.1	*****	8.3	6.3	8.11 +UR- 0.27
COND. 25 C	300.0	340.0	350.0	410.3	540.0	*****	500.0	*****	620.0	650.0	463.75 +OR- 133.20
P ALK.	0.0	0.0	0.0	*****	*****	*****	*****	*****	*****	*****	0.0 +CR- 0.0
T ALK.	76.0	78.0	85.0	120.0	160.0	*****	124.0	*****	141.0	145.0	116.13 +OR- 32.70
CL-	5.0	5.0	5.0	9.0	11.0	*****	11.0	*****	13.0	12.5	8.94 +OR- 3.47
T HDNS	116.0	135.0	137.0	211.0	246.0	*****	449.0	*****	265.0	270.0	230.63 +OR- 112.97
CA HDNS	85.0	100.0	58.0	150.0	177.0	*****	351.0	*****	196.0	185.0	167.75 +OR- 85.67
MG HDNS	31.0	35.0	35.0	61.0	69.0	*****	114.0	*****	69.0	85.0	62.06 +CR- 28.14
SO4	72.0	79.0	70.0	98.0	*****	*****	149.0	*****	160.0	170.0	114.00 +OR- 44.08
NA	13.8	13.2	15.2	20.5	26.8	*****	23.6	*****	30.7	29.9	21.71 +OR- 7.13
K	2.1	3.0	2.5	3.1	3.6	*****	3.0	*****	3.4	3.4	3.01 +OR- 0.5C
CU	0.007	0.0	0.0	0.0	0.016	*****	0.011	*****	0.0	0.0	0.0046 +OR- 0.0061
PB	0.0	0.0	0.0	0.0	0.0	*****	0.001	*****	0.0	0.0	0.0006 +OR- 0.0002
ZN	0.012	0.004	0.0	0.003	0.004	*****	0.016	*****	0.006	0.005	0.0063 +OR- 0.0051
MN	0.005	0.0	0.0	0.0	0.038	*****	0.027	*****	0.3	0.0	0.0091 +OR- 0.0148
FE	0.011	0.004	0.0	0.0	0.003	*****	0.005	*****	0.0	0.002	0.0033 +OR- 0.0035
AS	0.0	*****	0.0	*****	*****	*****	*****	*****	*****	*****	0.0065 +OR- 0.0
HG WG/LI	0.0	*****	0.040	*****	*****	*****	0.050	*****	0.030	*****	0.0301 +CR- 0.0214
AG	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005 +OR- 0.0000
NI	0.002	0.001	0.001	0.0	0.0	*****	0.005	*****	0.0	0.006	0.0021 +OR- 0.0022
CC	0.004	0.001	0.0	0.0	0.0	*****	0.001	*****	0.0	0.0	0.0011 +OR- 0.0012
CR	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005 +OR- 0.0000
LI	0.007	0.005	0.008	0.013	0.014	*****	0.014	*****	0.022	0.018	0.0126 +OR- 0.0058

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.3 + OR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE B - 12 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

DATE	27V174	11V1174	8V11174	7I 174	19X74	16X174	6X1174	1175	221175	1711175	191V75	23V75	AVERAGE	AND	S.D.	
TEMP. C	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	5.1	13.5	11.35 +OR-	3.18
D.O. MG/L	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	5.5	6.3	6.10 +CR-	2.55
TURB. JTU	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	5.0	5.0	9.00 +CR-	0.0
PH	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	6.6	6.3	8.45 +OR-	0.21
COND. 25 C	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	675.0	500.0	587.50 +OR-	123.74
P ALK.	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0 +OR-	0.0
I ALK.	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	140.0	105.0	122.50 +CP-	24.75
CL-	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	12.5	11.0	11.75 +CR-	1.06
I HDNS	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	270.0	200.0	235.00 +CR-	49.50
CA HDNS	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	177.0	14.0	159.50 +CR-	24.75
MG HDNS	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	53.0	50.0	75.50 +CR-	24.75
SO4	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	20.0	130.0	178.00 +CR-	59.40
NA	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	35.3	25.0	30.65 +CP-	6.58
K	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	3.5	2.0	3.40 +CR-	0.71
CU	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.006	0.004	0.0050 +CR-	0.0014
PH	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005 +CP-	0.0
ZN	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.001	0.018	0.0095 +CR-	0.0120
MN	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.017	0.0087 +CR-	0.0117
FE	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.6	0.0005 +CR-	0.0
AS	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0 +CR-	0.0
HG (UG/L)	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	*****	0.0005 +CR-	0.0
AG	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005 +CR-	0.0
NI	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.002	0.001	0.0015 +CR-	0.0007
CO	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005 +CR-	0.0
CD	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.011	0.0057 +CR-	0.0074
LI	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.030	0.013	0.0245 +CR-	0.0163

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + CR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE B - 12 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

DATE	18V175	28V1175	5V11175	26IX75	31XT5	1X175	4X1175	1176	261176	2311176	AVERAGE	AND S.D.
TEMP. C	14.8	19.3	19.3	17.3	12.1	####	5.0	*****	5.1	6.0	12.42	+OR= 6.32
O.O. MG/L	6.9	6.0	5.0	4.4	7.5	*****	10.8	*****	10.0	5.5	8.01	+OR= 2.03
TURB. JTU	10.0	24.0	11.0	0.0	*****	####	1.1	####	5.0	7.0	10.00	+OR= 6.47
PH	7.7	7.6	7.9	8.3	8.4	*****	8.2	*****	8.3	8.1	8.00	+OR= 0.30
COND. 25 C	310.0	350.0	405.0	410.0	580.0	####	500.0	* *	620.0	650.0	470.10	+OR=128.28
P ALK.	0.0	0.0	0.0	*****	*****	*****	*****	####	*****	####	0.0	+OR= C.0
T ALK.	73.0	78.0	83.0	114.0	160.0	*****	129.0	####	141.0	145.0	119.38	+OR= 33.71
CL-	5.5	5.0	5.0	9.0	12.0	*****	11.5		12.5	12.0	9.00	+OR= 3.40
T HDNS	125.0	140.0	160.0	210.0	260.0	*****	455.0	*****	275.0	268.0	230.00	+OR=108.28
CA HMS	88.0	105.0	120.0	141.0	181.0	##	362.0	####	193.0	100.0	171.00	+OR= 80.10
MG HDNS	37.0	35.0	40.0	60.0	79.0	*****	93.0	####	82.0	88.0	69.38	+OR= 24.27
SD4	85.0	93.0	110.0	98.0	####	*****	150.0	####	170.0	170.0	125.00	+OR= 37.00
VA	15.2	13.9	18.3	20.8	28.1	*****	23.6	####	30.7	25.6	22.52	+OR= 6.52
K	2.3	3.1	3.2	3.1	3.6	*****	3.0	*****	3.4	3.5	3.15	+OR= 0.40
CU	0.0	0.0	0.0	0.0	0.019	*****	0.011	####	0.0	C.0	0.0001	+OR=0.00070
PII	0.0	0.0	0.0	0.00?	0.0	*****	0.002	*****	0.0	C.0	0.0000	+OR=0.00007
ZN	0.006	0.005	0.000	0.003	0.004	####	0.010	####	0.006	0.005	0.0000	+OR=0.0001
NI	0.0	0.0	0.0	0.0	0.038	*****	0.017	####	0.0	0.0	0.0000	+OR=0.0000
FE	0.013	0.009	0.0	0.001	0.002	*****	0.005	####	0.0	C.0	0.0000	+OR=0.0000
AS	0.0	*****	0.0	####	*****	####	*****	####	*****	*****	0.0000	+OR=0.0000
HG (P6/L)	0.0	*****	0.020	####	####	*****	0.050	*****	0.010	*****	0.0201	+OR=0.0214
AG	C.0	0.0	C.0	0.0	0.0	####	####	####	0.0	C.0	0.0000	+OR=0.0000
NI	0.001	0.001	0.0	0.0	0.0	####	u	####	0.0	0.000	0.0000	+OR=0.0000
CO	0.003	0.001	0.0	0.0	0.0	####	0.001	####	0.0	0.0	0.0000	+OR=0.0000
CC	0.0	0.0	0.0	0.0	0.0	####	0.0	*****	0.0	0.0	0.0000	+OR=0.0000
LI	0.005	0.005	0.009	0.013	0.014	####	3.314	*****	0.022	0.100	C.C327	+OR=0.0000

NOTE ***** INDICATES DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + OR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

SITE 8 - 15 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED METALS REPORTED ONLY.

DATE	10VI175	20VII175	5VIII175	28IX175	31X175	1X175	4X1175	26I176	31II176	AVERAGE AND S.D.
TEMP. C	14.9	19.0	18.9	*****	*****	*****	*****	5.1	6.1	16.80 +OR- 6.75
DV04 MG/L	6.9	5.5	4.4	*****	*****	*****	*****	9.8	9.5	7.22 +OR- 2.39
TURBIDITY	17.0	200.0	15.8	*****	*****	*****	*****	6.0	7.0	49.00 +OR- 84.55
PH	7.8	7.7	7.7	*****	*****	*****	*****	8.3	8.2	7.56 +OR- 0.29
CONC. 29 C	310.0	390.0	530.0	*****	*****	*****	*****	620.0	650.0	500.00 +OR- 146.83
P ALK.	C.0	0.0	0.0	*****	*****	*****	*****	*****	*****	0.00 +OR- 0.0
I ALK.	74.0	78.0	83.0	*****	*****	*****	*****	14C.0	145.0	104.00 +OR- 35.33
CL	5.5	5.0	5.5	*****	*****	*****	*****	12.5	12.0	8.10 +OR- 3.60
I HMS	125.0	154.0	210.0	*****	*****	*****	*****	264.0	265.0	203.00 +OR- 63.44
CA HONS	92.0	115.0	158.0	*****	*****	*****	*****	222.0	187.0	154.00 +OR- 52.00
MG HONS	33.3	39.0	52.0	*****	*****	*****	*****	42.0	70.0	40.00 +OR- 17.71
S04	87.0	105.0	170.0	*****	*****	*****	*****	170.0	170.0	140.40 +OR- 41.03
	15.8	15.5	26.0	*****	*****	*****	*****	30.6	29.0	28.50 +OR- 7.37
K	2.3	3.5	4.4	*****	*****	*****	*****	3.0	3.4	3.32 +OR- 0.77
CU	0.004	0.0	0.0	*****	*****	*****	*****	0.8	0.0	0.0012 +OR- 0.0010
P3	0.0	0.0	0.001	*****	*****	*****	*****	0.0	0.0	0.0005 +OR- 0.0002
ZN	0.008	0.002	0.007	*****	*****	*****	*****	0.006	0.003	0.0052 +OR- 0.0020
MN	0.0	0.014	0.009	*****	*****	*****	*****	0.011	C.0	0.0070 +OR- 0.0062
	0.012	0.002	C.0	*****	*****	*****	*****	0.0	0.0	0.0031 +OR- 0.0050
AS	C.0	*****	C.0	*****	*****	*****	*****	*****	*****	0.0005 +OR- 0.0
HN (µG/L)	0.0	*****	C.0	*****	*****	*****	*****	0.0	*****	0.0005 +OR- 0.0
AG	C.0	0.0	0.0	*****	*****	*****	*****	0.0	C.0	0.0005 +OR- 0.0
HT	0.002	0.001	0.0	*****	*****	*****	*****	0.0	C.0	0.0004 +OR- 0.0007
CO	0.003	0.8	C.0	*****	*****	*****	*****	0.0	C.0	0.0010 +OR- 0.0011
CC	0.0	0.0	C.0	*****	*****	*****	*****	0.0	C.0	0.0005 +OR- 0.0
LI	0.005	0.036	0.005	*****	*****	*****	*****	0.022	0.016	0.0122 +OR- 0.0078

NOTE! ***** INDICATES NO DETERMINATION WAS MADE AND 0.3 INDICATES THE PARAMETER IS NOT DETECTABLE

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.00 + OF - 0.0 INDICATES THE PARAMETER IS NOT DETECTABLE

SITE - BOTTOM (S - 15 METRE DEPTH)

NOTE ALL CONCENTRATION PARAMETERS APE REPORTED AS MG/L UNLESS SPECIFIED OTHEPWISE. DISSOLVED FRACTION REPORTED ONLY.

DATE	27VI74	11VII74	28VII74	7IX74	19X74	16XI74	6XII74	1I75	22II75	17III75	19IV75	23V75	AVERAGE	AND	S.D.
	9m	9.7m	9.7m	9.1m	9.1m	10m				10m	15m	13.6m			
TEMP. C	*****	20.9	19.3	18.3	14.7	9.5	4.9	*****	*****	6.0	7.9	13.5	12.83	+CR-	6.04
D.O. MG/L	*****	3.5	*****	*****	*****	*****	9.4	*****	*****	*****	2.7	6.1	5.67	+CR-	2.75
TURB. JTU	*****	5.0	31.0	25.0	14.0	2.0	170.0	*****	*****	44.0	95.0	45.0	47.89	+OR-	53.69
PH	*****	7.0	7.5	7.6	8.0	8.6	8.4	*****	*****	8.5	8.0	8.0	7.96	+CR-	0.52
COND. 25 C	*****	245.0	340.0	540.0	615.0	650.0	600.0	*****	*****	650.0	*****	510.0	603.33	+CR-	290.01
P ALK.	*****	0.0	0.0	0.0	0.0	5.0	*****	*****	*****	0.0	0.0	0.0	5.00	+CR-	0.0
I ALK.	*****	80.0	88.0	134.0	128.0	140.0	142.0	*****	*****	140.0	165.0	106.0	124.78	+OR-	27.30
CL-	*****	6.5	4.5	12.5	11.5	11.5	10.0	*****	*****	12.5	15.0	10.5	10.50	+CR-	3.21
I HDNS	*****	119.0	135.0	228.0	249.0	279.0	255.0	*****	*****	295.0	615.0	204.0	264.33	+CR-	144.59
CA HDNS	*****	85.0	94.0	165.0	137.0	198.0	184.0	*****	*****	192.0	316.0	140.0	174.11	+CR-	67.56
MG HONS	*****	34.0	41.0	63.0	62.0	81.0	71.0	*****	*****	103.0	295.0	58.0	90.22	+CR-	80.91
SO4	*****	73.0	75.0	130.0	130.0	194.0	180.0	*****	*****	250.0	625.0	140.0	205.89	+CR-	167.22
NA	*****	*****	*****	9.0	34.1	30.3	33.0	*****	*****	36.4	84.0	25.1	36.56	+CR-	22.82
K	*****	*****	*****	4.0	3.5	3.4	3.3	*****	*****	3.1	0.5	2.9	3.86	+CR-	1.34
CU	*****	0.0	0.005	0.0	0.007	0.005	0.001	*****	*****	0.0	0.005	0.005	0.0036	+CR-	0.0030
PB	*****	C.0	0.0	0.0	0.0	0.003	0.0	*****	*****	C.0	C.0	0.0	0.0008	+CR-	0.0008
ZN	*****	0.007	0.009	0.0	0.004	0.001	0.0	*****	*****	0.0	0.002	0.016	0.0045	+CR-	0.0053
MN	*****	0.07C	0.004	0.098	0.038	0.009	0.037	*****	*****	0.032	0.401	0.032	C.801	+CR-	0.1237
FE	*****	0.0	0.027	0.003	0.0	0.003	0.001	*****	*****	0.001	0.0	0.001	C.0042	+CR-	0.0086
AS	*****	0.0	*****	*****	0.0	*****	*****	*****	*****	0.0	*****	*****	0.0005	+CR-	0.0
HG (µG/L)	*****	0.080	0.0	*****	*****	*****	0.020	*****	*****	0.0	0.0	*****	0.0203	+CR-	0.0344
AG	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	C.0	C.0	0.0005	+CR-	0.0000
NI	*****	0.0	0.0	C.001	0.034	0.007	0.0	*****	*****	0.003	0.005	0.0	C.0024	+CR-	0.0024
CO	*****	0.0	0.0	*****	0.001	0.001	0.0	*****	*****	0.0	0.0	0.0	C.0006	+CR-	0.0002
CD	*****	*****	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.005	0.011	0.0029	+CR-	0.0044
LI	*****	*****	0.014	0.308	0.016	0.023	0.023	*****	*****	0.014	0.095	0.014	0.0259	+CR-	0.0284

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + CR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE B - BOTTOM (12-19 METRE DEPTH)

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

DATE	18V1175 17m	28V1175 17m	9V1175 16.5m	261X75 12m	31X75 12m	1X175 *****	4X1175 13.2m 5.0	1176 *****	281176 19m	2311176 19m	AVERAGE AND S.D.
TEMP. C	13.8	18.9	17.8	17.8	12.1	*****	5.0	*****	5.3	6.1	12.10 #CR- 5.94
D.O. MG/L	6.1	4.8	2.3	8.4	7.5	*****	10.0	*****	10.0	9.7	7.42 #CR- 2.87
TUPB. JTU	18.0	660.0	200.0	6.0	*****	*****	19.0	*****	8.0	7.0	131.14 #OP-243.50
PH	8.0	7.5	7.4	8.3	8.4	*****	3.2	*****	8.3	8.2	8.04 +OR- 0.38
COND. 25 C	350.0	410.0	780.0	410.0	580.0	*****	510.0	*****	620.0	650.0	538.75 +UR-145.65
P ALK.	0.0	0.0	0.0	*****	*****	*****	*****	*****	*****	*****	0.0 #NI- 0.0
T ALK.	73.0	85.0	102.0	114.0	160.0	*****	125.0	*****	142.0	145.0	118.25 +UR- 30.48
CL-	6.0	5.0	6.0	9.0	12.0	*****	11.2	*****	12.5	13.0	5.34 +OR- 3.28
T HDNS	126.0	161.0	321.0	210.0	260.0	*****	450.0	*****	275.0	264.0	259.13 #UR-181.88
CA HDNS	92.0	124.0	252.0	141.0	181.0	*****	351.0	*****	215.0	180.0	192.00 #UR- 81.85
MG HDNS	34.0	37.0	69.0	69.0	79.0	*****	105.0	*****	60.0	84.0	67.13 +OK- 23.67
S14	92.0	110.0	300.0	98.0	*****	*****	150.0	*****	180.0	168.0	156.86 #UR- 71.95
NA	16.3	15.9	38.8	20.8	28.1	*****	23.5	*****	31.5	29.3	25.52 #UR- 7.90
K	2.4	1.5	6.1	3.1	3.6	*****	3.0	*****	3.2	3.4	3.54 #UR- 1.10
CU	0.006	0.0	0.011	0.0	0.019	*****	0.0	*****	0.0	0.0	0.0048 #CR-0.0065
PB	0.0	0.0	0.0	0.002	0.0	*****	0.0	*****	0.0	0.0	0.0001 #CR-0.0005
ZN	0.007	0.005	0.009	0.003	0.004	*****	0.016	*****	0.007	0.005	0.0076 +04-0.0041
MN	0.003	0.038	0.627	0.0	0.038	*****	0.331	*****	0.0	0.0	0.0523 #UR-0.2167
FF	0.070	0.003	0.002	0.001	0.002	*****	0.005	*****	0.0	0.0	0.0105 +U-C. 0241
AS	0.0	*****	0.0	*****	*****	*****	*****	*a***	*****	*****	0.0005 #CR-0.0
HG (µG/L)	0.0	*****	0.010	*****	*****	*****	0.050	*****	0.0	*****	0.0152 #UR-0.0236
AG	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005 +04-0.0000
NI	0.008	0.0	0.001	0.0	0.0	*****	0.011	*****	0.0	0.003	0.0031 #CR-0.0041
CP	0.005	0.0	0.0	0.0	0.0	*****	0.001	*****	0.0	0.0	0.0011 #CR-0.0016
CC	0.0	0.0	0.005	0.0	0.0	*****	0.0	*****	0.004	0.0	0.0026 #CR-0.0031
LI	0.005	0.006	0.012	0.013	0.014	*****	0.011	*****	0.022	0.017	0.0125 #CR-0.0055

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + OR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

SITE C - S (SURFACE)

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

DATE	27V174	11V11/4	8V11174	71X74	19X/4	16X174	6X1174	1175	221175	1/11175	191V75	23V75	AVERAGE AND S.D.
TEMP. C	22.1	23.1	19.9	20.0	15.6	8.5	3.6	*****	*****	7.0	9.5	16.7	14.60 +CR- 6.94
D.O. MG/L	*****	7.5	*****	*****	*****	*****	9.6	*****	*****	*****	5.6	7.2	6.47 +CR- 1.30
TURB. JTU	5.0	5.0	21.0	18.0	8.0	2.0	5.0	*****	*****	6.0	58.0	9.0	13.70 +CR- 16.71
PH	7.8	8.3	7.9	8.3	8.3	8.6	8.5	*****	*****	8.4	8.5	8.2	8.28 +CR- 0.26
COND. 25 C	254.0	260.0	310.0	400.0	600.0	620.0	600.0	*****	*****	630.0	580.0	400.0	463.40 +CR-154.82
P ALK.	0.0	0.0	C.0	3.0	0.0	6.0	*****	*****	*****	C.0	0.0	C.0	4.50 +CR- 2.12
T ALK.	68.0	78.0	89.0	111.0	125.0	140.0	143.0	*****	*****	138.0	130.0	86.0	110.80 +CR- 28.28
CL-	0.0	5.0	4.0	9.5	11.0	11.0	11.0	*****	*****	12.5	10.5	11.0	9.50 +CR- 2.95
T HDNS	106.0	116.0	140.0	179.0	247.0	158.0	255.0	*****	*****	273.0	225.0	157.0	185.60 +CR- 60.24
CA HDNS	71.0	85.0	101.0	126.0	164.0	182.0	175.0	*****	*****	182.0	154.0	112.0	135.20 +CR- 41.61
MG HDNS	35.0	31.0	39.0	53.0	83.0	76.0	80.0	*****	*****	91.0	72.0	45.0	60.50 +CR- 22.28
SO4	52.0	65.0	70.0	92.0	176.0	192.0	180.0	*****	*****	235.0	144.0	90.0	129.60 +CR- 63.80
NA	*****	*****	*****	16.0	32.3	30.3	32.0	*****	*****	35.7	26.0	2C.0	27.93 +CR- 7.22
K	*****	*****	*****	2.8	3.4	3.3	3.3	*****	*****	3.1	3.8	2.4	3.16 +CR- 0.45
CU	0.011	0.0	0.0	0.0	0.004	0.005	0.002	*****	*****	0.0	0.007	0.006	0.0037 +CR-0.0036
PB	C.0	0.006	0.0	0.0	0.0	0.003	0.0	*****	*****	(i.0	C.0	0.0	0.0013 +CR-0.0018
ZN	0.005	0.0	0.001	0.0	0.004	0.005	0.0	*****	*****	0.0	0.003	0.0019	0.0039 +CR-0.0056
MN	0.003	0.009	0.008	0.0	0.027	0.023	0.028	*****	*****	0.004	0.003	0.032	C.0137 +CR-0.0123
FE	0.018	0.0	0.027	0.0	0.003	0.003	0.001	*****	*****	0.002	0.0	0.010	0.0065 +CR-0.0091
AS	0.0	0.0	*****	*****	*****	*****	*****	*****	*****	0.002	*****	*****	0.0010 +CR-0.0009
HG MG/L)	*****	0.0	0.0	*****	*****	*****	0.020	*****	*****	0.0	0.0	*****	0.0044 +CR-0.0087
AG	0.0	0.0	0.0	C.0	0.0	0.0	0.3	*****	*****	0.0	*****	0.0	C.0005 +CR-0.0000
NI	0.0	0.0	0.002	0.001	0.004	0.008	0.0	*****	*****	C.002	C.0	C.002	0.0021 +CR-0.0024
CO	0.0	0.0	0.0	*****	0.0	0.002	0.0	*****	*****	C.0	C.0	C.CC1	C.0007 +CR-0.0005
CC	*****	0.0	0.0	0.0	0.0	0.005	0.0	*****	*****	0.0	0.0	0.010	0.0021 +CR-0.0033
LI	*****	C.CC7	0.013	0.0	0.016	0.024	0.020	*****	*****	0.009	C.C28	0.010	0.0142 +CR-0.0087

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + CR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE C - SURFACE

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE; DISSOLVED FRACTION REPORTED ONLY.

DATE	18V175	28VII175	SVIII175	26I175	31X75	1X175	4X1175	1176	261176	2311176	AVERAGE	AND	S.D.
TEMP. C	18.9	23.4	23.5	18.3	12.3	*****	5.1	*****	5.9	7.0	14.30	+OR-	7.72
D.O. MG/L	7.9	7.8	8.0	9.7	8.8	*****	10.6	*****	9.8	10.5	9.14	+CR-	1.16
TURB. JTU	39.0	10.0	12.0	10.0	*****	*****	8.0	*****	5.0	6.0	12.86	+OK-	11.78
PH	7.9	8.5	8.2	8.6	8.4	*****	8.1	*****	8.3	8.3	8.29	+OR-	0.22
COND. 25 C	250.0	280.0	320.0	400.0	540.0	*****	510.0	*****	620.0	650.0	446.25	+OR-	155.24
P ALK.	0.0	0.0	0.0	*****	*****	*****	*****	*****	*****	*****	0.0	+OR-	0.0
T ALK.	77.0	77.0	90.0	124.0	162.0	*****	121.0	*****	140.0	145.0	117.00	+OR-	32.36
CL-	5.0	4.5	5.0	10.0	11.5	*****	11.5	*****	12.5	12.5	9.00	+CR-	3.59
T HONS	100.0	113.0	131.0	214.0	250.0	*****	470.0	*****	278.0	263.0	228.13	+OR-	120.88
CA HDNS	75.0	81.0	94.0	140.0	181.0	*****	362.0	*****	226.0	180.0	107.38	+CR-	95.46
MG HDNS	25.0	32.0	37.0	74.0	75.0	*****	108.0	*****	52.0	83.0	60.75	+OR-	28.91
SDG	47.0	45.0	70.0	105.0	*****	*****	145.0	*****	170.0	160.0	106.00	+OR-	53.28
NA	9.7	10.6	15.2	21.9	27.2	*****	23.5	*****	31.2	25.5	21.15	+OR-	8.44
K	1.7	2.4	2.2	3.2	3.6	*****	3.0	*****	3.3	3.3	2.89	+OR-	0.66
CU	0.004	0.0	0.004	0.0	0.011	*****	0.011	*****	0.0	0.0	0.0040	+OR-	0.0040
PB	0.0	0.0	0.0	0.0	0.0	*****	0.004	*****	0.0	0.0	0.0000	+OR-	0.0012
ZN	0.010	0.002	0.004	0.009	0.004	*****	0.015	*****	0.011	0.005	0.0075	+CR-	0.0044
MN	0.012	0.0	0.005	0.0	0.048	*****	0.025	*****	0.0	0.0	0.0115	+OR-	0.0171
FE	0.014	0.004	0.001	0.001	0.001	*****	0.007	*****	0.0	0.0	0.0036	+OR-	0.0048
AS	0.0	*****	0.0	*****	*****	*****	*****	*****	*****	*****	0.0000	+OR-	0.0
HG (UG/L)	0.0	*****	0.010	*****	*****	*****	0.040	*****	0.020	*****	0.0176	+OR-	0.0169
AG	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0000	+CR-	0.0000
NI	0.0	0.001	0.0	0.0	0.0	*****	0.006	*****	0.0	0.005	0.0021	+OR-	0.0025
CO	0.007	0.0	0.0	0.0	0.0	*****	0.001	*****	0.0	0.0	0.0014	+OR-	0.0023
CC	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0000	+OR-	0.0000
LI	0.004	0.003	0.010	0.014	0.014	*****	0.014	*****	0.021	0.017	0.0121	+OR-	0.0062

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + OR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

3 SITE C - 5 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

DATE	18V175	28V1175	5V11175	26JX75	31X75	1X175	4X1175	1176	261176	2311176	AVERAGE	AND S.D.
TEMP. C	*****	*****	*****	*****	*****	*****	*****	*****	5.2	6.2	5.70	+CR- 0.71
O.O. MG/L	*****	*****	*****	*****	*****	*****	*****	*****	5.7	5.7	75	+CR- 0.07
TURB. JTU	*****	*****	*****	*****	*****	*****	*****	*****	5.0	7.0	6.00	+CR- 1.41
PH	*****	*****	*****	*****	*****	*****	*****	*****	8.3	8.3	8.30	+CR- 0.00
COND. 25 C	*****	*****	*****	*****	*****	*****	*****	*****	620.0	650.0	635.00	+CR- 21.21
TALK.	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0	+CR- 0.0
TALK.	*****	*****	*****	*****	*****	*****	*****	*****	142.0	140.0	141.00	+CR- 1.41
CL-	*****	*****	*****	*****	*****	*****	*****	*****	12.5	12.0	12.25	+CR- 0.35
T HMS	*****	*****	*****	*****	*****	*****	*****	*****	270.0	261.0	265.50	+CR- 6.36
CA HDNS	*****	*****	*****	*****	*****	*****	*****	*****	200.0	187.0	193.50	+CR- 9.19
MG HDNS	*****	*****	*****	*****	*****	*****	*****	*****	70.0	74.0	72.00	+CR- 2.83
SO4	*****	*****	*****	*****	*****	*****	*****	*****	170.0	166.0	168.00	+CR- 2.83
NA	*****	*****	*****	*****	*****	*****	*****	*****	29.1	30.1	29.60	+CR- 0.71
K	*****	*****	*****	*****	*****	*****	*****	*****	3.3	3.4	3.35	+CR- 0.07
CU	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	+CR- 0.0
PR	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	+CR- 0.0
ZN	*****	*****	*****	*****	*****	*****	*****	*****	0.007	0.004	0.0055	+CR- 0.0021
MN	*****	*****	*****	*****	*****	*****	*****	*****	0.016	0.0	0.0082	+CR- 0.0110
FE	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	+CR- 0.0
AS	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0	+CR- 0.0
HG (UG/L)	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	+CR- 0.0
AG	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	+CR- 0.0
NI	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	+CR- 0.0
CO	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	+CR- 0.0
CD	*****	*****	*****	*****	*****	*****	*****	*****	0.004	0.0	0.0022	+CR- 0.0025
LI	*****	*****	*****	*****	*****	*****	*****	*****	0.021	0.01y	0.0200	+CR- 0.0014

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + CR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE C - BOTTOM (2.7 - 4 METRE DEPTH)

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

DATE	27V174	11V1174	8VI1174	7IX74	19X74	16XI74	6XI174	1175	221175	1711175	15IV75	23V75	AVERAGE AND S.D.
	3m	3m	3m	3m	2,7m	2,7m	3m			3m	4m		
TEMP. C	**** 24.0	**** 20.0	**** 20.0	**** 15.3	**** 8.0	**** 3.8	****	****	****	**** 7.0	**** 9.1	****	13.40 +CR - 7.41
O.O. MG/L	**** 7.3	****	****	****	****	****	**** 9.6	****	****	****	****	****	8.60 +CR - 1.18
TURB. JTU	**** 7.0	**** 47.0	**** 20.0	**** 10.0	**** 4.0	**** 3.0	****	****	****	**** 6.0	**** 21.0	****	15.50 +CR - 15.24
PH	**** 7.8	**** 7.7	**** 8.4	**** 8.3	**** 8.7	**** 8.4	****	****	****	**** 8.3	**** 8.5	****	8.26 +CR - 0.34
COND. 25 C	**** 290.0	**** 330.0	**** 400.0	**** 600.0	**** 620.0	**** 600.0	****	****	****	**** 610.0	**** 625.0	****	509.38 +CR - 143.64
P ALK	**** 0.0	**** 0.0	**** 1.0	**** 0.0	**** 10.0	**** 2.0	****	****	****	**** 0.0	**** 0.0	****	4.33 +CR - 4.93
T ALK	**** 78.0	**** 94.0	**** 106.0	**** 126.0	**** 139.0	**** 146.0	****	****	****	**** 136.0	**** 135.0	****	120.00 +CR - 24.47
CL-	**** 5.0	**** 5.5	**** 9.0	**** 11.0	**** 11.5	**** 9.5	****	****	****	**** 12.5	**** 12.0	****	9.50 +CR - 2.88
T HDNS	**** 114.0	**** 128.0	**** 183.0	**** 245.0	**** 262.0	**** 256.0	****	****	****	**** 274.0	**** 252.0	****	214.25 +CR - 63.73
CA HDNS	**** 80.0	**** 103.0	**** 122.0	**** 173.0	**** 180.0	**** 190.0	****	****	****	**** 182.0	**** 161.0	****	148.88 +CR - 41.50
MG HDNS	**** 34.0	**** 25.0	**** 61.0	**** 72.0	**** 82.0	**** 66.0	****	****	****	**** 92.0	**** 51.0	****	65.38 +CR - 24.84
SO4	**** 67.0	**** 70.0	**** 84.0	**** 182.0	**** 192.0	**** 190.0	****	****	****	**** 240.0	**** 182.0	****	150.88 +CR - 66.71
NA	**** **a**	****	**** 15.5	**** 32.4	**** 30.0	**** 32.3	****	****	****	**** 35.6	**** 32.7	****	29.75 +CR - 7.21
K	****	****	**** 2.8	**** 3.5	**** 3.3	**** 3.3	****	****	****	**** 3.1	**** 3.9	****	3.32 +CR - 0.37
CU	**** 0.0	**** 0.005	**** 0.0	**** 0.007	**** 0.003	**** 0.002	****	****	****	**** 0.0	**** 0.007	****	0.0032 +CR - 0.0028
PB	**** 0.0	**** 0.001	**** 0.0	**** 0.0	**** 0.004	**** 0.001	****	****	****	**** 0.0	**** 0.0	****	0.0011 +CR - 0.0012
ZN	**** 0.0	**** 0.003	**** 0.0	**** 0.007	**** 0.002	**** 0.0	****	****	****	**** 0.0	**** 0.013	****	0.0034 +CR - 0.0045
MN	**** 0.007	**** 0.007	**** 0.0	**** 0.029	**** 0.022	**** 0.026	****	****	****	**** 0.007	**** 0.010	****	0.0136 +CR - 0.0105
FE	**** 0.0	**** 0.030	**** 0.001	**** 0.003	**** 0.002	**** 0.001	****	****	****	**** 0.004	**** 0.0	****	0.0052 +CR - 0.0101
AS	**** 0.0	****	****	**** 0.012	****	****	****	****	****	**** 0.0	****	****	0.0043 +CR - 0.0066
HG (UG/L)	**** 0.0	**** 0.0	****	****	****	**** 0.040	****	****	****	**** 0.0	**** 0.0	****	0.0084 +CR - 0.0177
AG	**** 0.0	**** 0.0	**** 0.0	**** 0.0	**** 0.0	**** 0.0	****	****	****	**** 0.0	**** 0.0	****	0.0005 +CR - 0.0000
NI	**** 0.0	**** 0.0	**** 0.006	**** 0.005	**** 0.005	**** 0.0	****	****	****	**** 0.002	**** 0.001	****	0.0026 +CR - 0.0024
CE	**** 0.010	**** 0.0	****	**** 0.0	**** 0.002	**** 0.0	****	****	****	**** 0.0	**** 0.0	****	0.0021 +CR - 0.0035
CC	**** 0.0	**** 0.0	**** 0.0	**** 0.0	**** 0.0	**** 0.0	****	****	****	**** 0.0	**** 0.0	****	0.0005 +CR - 0.0000
LI	**** 0.013	**** 0.012	**** 0.0	**** 0.016	**** 0.023	**** 0.020	****	****	****	**** 0.011	**** 0.032	****	0.0159 +CR - 0.0093

NOTE **** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + CR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE C - BOTTOM (2.7-5.0 METRE DEPTH)

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

DATE	18V175	28V1175	5V11175	261X75	31X75	1X175	4X1175	1176	261176	2311176	AVERAGE AND S.D.
	3.5m	4m	3m	2.7m	3m		4m		9m	9m	
TEMP. C	17.3	21.0	23.0	18.1	10.3	*****	4.8	*****	5.5	6.2	13.27 +DR- 7.42
O.O. MG/L	7.8	6.8	6.8	9.6	9.4	*****	10.4	*****	9.9	5.8	8.81 +DR- 1.45
TURB. JTU	78.0	30.0	11.0	14.0	2.0	*****	11.0	*****	16.0	8.0	21.25 +DR- 24.30
PH	8.1	8.1	8.2	8.6	8.4	*****	8.2	*****	8.4	8.3	8.25 +DR- 0.17
COND. 25 C	230.0	250.0	330.0	420.0	520.0	*****	500.0	*****	620.0	650.0	445.00 +DR-153.72
P ALK.	0.0	0.0	0.0	*****	*****	*****	*****	*****	*****	*****	0.00 +DR- 0.00
T ALK.	67.0	78.0	91.0	120.0	160.0	*****	128.0	*****	142.0	141.0	115.86 +DR- 33.52
CL-	5.0	4.5	5.5	10.0	11.5	*****	10.5	*****	12.5	12.5	8.66 +DR- 3.43
T HDNS	90.0	114.0	133.0	209.0	258.0	*****	473.0	*****	280.0	263.0	227.50 +DR-123.22
CA HDNS	71.0	84.0	95.0	140.0	177.0	*****	391.0	*****	202.0	187.0	108.34 +DR-107.75
MG HDNS	19.0	30.0	38.0	69.0	81.0	*****	82.0	*****	78.0	76.0	55.13 +DR- 25.76
S14	38.0	47.0	68.0	100.0	*****	*****	149.0	*****	150.0	172.0	103.43 +DR- 54.28
IA	7.9	10.6	15.2	21.9	26.8	*****	23.5	*****	30.6	25.6	20.76 +DR- 8.62
K	1.7	3.4	2.2	3.1	3.6	*****	3.0	*****	3.4	3.4	2.57 +DR- 0.67
CU	0.006	0.0	0.004	0.0	0.009	*****	0.010	*****	0.0	0.0	0.0035 +CF-0.0040
PB	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005 +DR-0.0000
ZN	0.007	0.088	0.007	0.003	0.005	*****	0.016	*****	0.004	0.007	0.0171 +DR-0.0285
MN	0.017	0.008	0.006	0.006	0.044	*****	0.025	*****	0.0	0.0	0.0134 +LK-C.0149
FE	0.014	0.004	0.0	0.0	0.002	*****	0.007	*****	0.0	0.0	0.0036 +DR-0.0048
AS	0.0	*****	0.0	*****	*****	*****	*****	*****	*****	*****	0.0005 +DR-0.0
HG (pG/L)	0.010	*****	0.020	*****	*****	*****	0.060	*****	0.0	*****	0.0226 +DR-0.0262
AG	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005 +DR-0.0000
NI	0.001	0.001	0.0	0.0	0.010	*****	0.006	***A*	0.0	0.0	0.0025 +DR-0.0036
CO	0.0	0.0	0.0	0.0	0.0	*****	0.001	*****	0.0	0.0	0.0006 +DR-0.0002
CC	0.006	0.0	0.0	0.0	0.0	*****	0.0	*****	0.004	0.0	0.0016 +DR-0.0022
LI	0.004	0.0	0.010	0.013	0.012	*****	0.014	*****	0.022	0.015	0.0118 +DR-0.0071

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + DR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE 0 - S (SURFACE)

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

DATE	27V174	11V1174	8V11174	71X74	19X74	16X174	6X1174	1175	221175	1711175	151V75	23V75	AVEKAGF	ANO	St.D.
TEMP. C	22.1	24.3	20.1	19.0	14.9	9.0	4.8	*****	*****	6.0	9.4	17.0	14.66	+CR-	6.95
D.O. MG/L	*****	7.2	*****	*****	*****	*****	9.2	*****	*****	*****	8.7	7.9	8.15	+CR-	0.05
TURB. JTU	8.0	6.0	9.0	10.0	8.0	4.0	3.0	*****	*****	5.0	7.0	7.0	10.10	+CR-	11.76
PH	7.7	7.2	7.5	8.4	8.3	8.7	8.5	*****	*****	8.5	8.5	8.1	8.13	+CR-	0.50
COND. 25 C	212.0	230.0	320.0	430.0	570.0	650.0	600.0	*****	*****	630.0	570.0	400.0	401.70	+CR-	106.13
P. ALK.	0.0	0.0	0.0	4.0	0.0	6.0	*****	*****	0.0	0.0	0.0	0.0	5.00	+CR-	1.41
T. ALK.	65.0	75.0	82.0	109.0	122.0	140.0	141.0	*****	*****	136.0	130.0	65.0	108.50	+CR-	29.28
CL-	0.0	4.5	5.5	11.0	11.0	11.5	10.0	*****	*****	12.5	10.5	5.5	9.58	+CR-	2.73
T. HDMS	58.0	120.0	120.0	186.0	231.0	258.0	252.0	*****	*****	277.0	230.0	155.0	193.30	+OR-	64.90
CA HDMS	72.0	82.0	75.0	124.0	168.0	192.0	177.0	*****	*****	183.0	158.0	112.0	134.13	+OR-	47.20
MG HDMS	26.0	38.0	51.0	62.0	63.0	66.0	75.0	*****	*****	94.0	72.0	45.0	59.20	+CR-	19.76
SDG	47.0	65.0	75.0	92.0	174.0	192.0	170.0	*****	*****	243.0	150.0	96.0	130.10	+CR-	63.79
NA	*****	*****	*****	16.0	30.6	31.2	32.0	*****	*****	36.0	28.0	20.0	27.80	+CR-	7.13
K	*****	*****	*****	3.2	3.2	3.4	3.4	*****	*****	3.1	3.7	2.4	3.20	+CR-	0.40
CU	0.011	0.0	0.004	0.306	0.004	0.005	0.002	*****	*****	0.0	0.007	0.005	0.0045	+CR-	0.0032
PB	0.0	0.0	0.0	0.0	0.0	0.004	0.001	*****	*****	0.0	0.0	0.0	0.0005	+CR-	0.0011
ZN	0.005	0.004	0.006	0.002	0.003	0.001	0.0	*****	*****	0.0	0.007	0.015	0.0053	+CR-	0.0055
MN	0.007	0.008	0.003	0.008	0.020	0.015	0.014	*****	*****	0.0	0.014	0.045	0.0138	+CR-	0.0137
FE	0.018	0.0	0.0	0.120	0.004	0.003	0.001	*****	*****	0.002	0.0	0.015	0.0168	+CR-	0.00369
AS	0.0	0.001	*****	*****	0.0	*****	*****	*****	*****	0.0	*****	*****	C.0006	+CR-	0.0002
HG (µG/L)	*****	0.02C	0.0	*****	*****	*****	0.040	*****	*****	0.0	0.0	*****	0.0123	+CR-	0.0176
AG	0.0	0.001	0.0	0.0	0.0	0.001	0.0	*****	*****	0.0	0.001	0.0	C.0006	+CR-	0.0002
NI	0.0	0.0	0.0	0.302	0.004	0.004	0.0	*****	*****	0.0	C.001	0.002	0.0015	+CR-	0.0014
CO	0.0	0.0	0.0	*****	0.001	0.002	0.0	*****	*****	0.0	0.0	C.001	0.0008	+CR-	0.0005
CD	*****	0.004	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.01	0.0021	+CR-	0.0035
LI	*****	0.007	0.011	0.008	0.015	0.024	0.022	*****	*****	0.013	0.031	0.010	0.0137	+CR-	0.0082

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + CR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

SITE C - SURFACE

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

DATE	18V175	28V175	5V11175	261X75	31X75	1X175	4X1175	1176	261176	2311176	AVEkAuE	AND S.D.
TEMP. C	18.9	23.5	23.0	18.1	15.1	*****	5.1	*****	6.0	7.0	14.59	+DB= 7.59
O.O. MG/L	8.2	8.0	8.5	9.3	7.7	*****	10.8	*****	11.6	10.5	9.32	+CR= 1.47
TURB. JTU	54.0	16.0	10.0	10.0	7.0	*****	14.0	*****	5.0	7.0	15.36	+OR= 16.C4
PH	8.2	8.8	8.3	8.5	8.4	*****	8.2	*****	8.3	8.3	8.37	+DB= 0.20
COND. 25 C	250.0	230.0	320.0	400.0	550.0	*****	520.0	*****	610.0	650.0	447.50	+CR=155.26
P.M.K.	0.0	0.0	0.0	*****	*****	*****	*****	*****	*****	CM*	0.0	+DB= 0.0
T.ALK.	69.0	74.0	90.0	120.0	160.0	*****	132.0	*****	145.0	140.0	116.25	+OR= 34.38
CL-	5.0	4.0	5.0	9.0	12.5	*****	11.0	*****	12.5	12.5	8.54	+DB= 3.74
T.HDNS	101.0	110.0	130.0	200.0	264.0	*****	470.0	*****	271.0	202.0	226.00	+OR=121.46
CA.HDNS	70.0	78.0	92.0	141.0	175.0	*****	351.0	*****	196.0	180.0	160.36	+CR= 91.19
MG.HDNS	31.0	32.0	38.0	55.0	89.0	*****	119.0	*****	*****	82.0	64.29	+CR= 33.63
SO4	43.0	50.0	68.0	100.0	*****	*****	145.0	*****	170.0	176.0	107.83	+OR= 56.40
NA	8.8	10.6	15.0	20.8	27.2	*****	23.5	*****	31.0	25.0	20.77	+CR= 8.50
K	1.7	2.3	2.2	3.1	3.6	*****	3.1	*****	3.5	3.7	2.50	+DB= 0.74
CU	0.0	0.0	0.003	0.0	0.011	*****	0.311	*****	0.0	0.0	0.0034	+CR=0.0047
PB	0.0	0.0	0.0	0.0	0.0	*****	0.003	*****	0.0	C.0	0.0000	+OR=0.0005
ZN	0.006	0.003	0.005	0.003	0.003	*****	0.018	*****	0.004	0.005	0.0059	+OR=0.0050
MN	C.012	0.004	C.004	0.017	0.050	*****	0.029	*****	0.0	0.0	0.0146	+CR=0.0173
FE	0.012	0.006	0.0	0.001	0.002	*****	0.005	*****	0.0	0.001	0.0035	+OR=0.0040
AS	0.0	*****	0.0	*****	*****	*****	*****	*****	*****	*****	0.0005	+02-0.0
HG (pG/L)	0.0	*****	0.010	*****	*****	*****	0.030	*****	0.0	*****	0.0102	+CR=0.0135
AG	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+CR=0.0000
NI	0.001	0.0	0.0	0.0	*****	*****	0.004	*****	0.0	C.0	0.0011	+OR=0.0013
CO	0.0	0.0	0.0	0.0	0.0	*****	0.001	*****	0.0	0.0	0.0006	+OR=0.0002
CC	0.002	0.004	0.006	0.003	0.0	*****	0.0	*****	0.0	0.0	0.0021	+0k-0.0021
LI	0.004	0.004	0.008	0.015	0.012	*****	0.013	*****	0.021	0.018	0.0115	+CR=0.0062

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + CR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE C - 3 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS G/L UNLESS SPECIFIED OTHERWISE; DISSOLVED FRACTION REPORTED ONLY.

DATE	27V174	11V1174	11V1174	71X74	19X74	16X174	6X1174	1175	2211/5	1711175	191V75	23975	AVERAGE	AND	S.E.
TEMP. C	****	24.8	20.0	23.0	15.4	9.0	4.8	****	****	22.5	5.0	18.0	13.94	+CR-	6.94
TURB. MG/L	****	7.5	****	****	****	****	9.2	****	****	****	5.5	7.0	5.30	+PR-	0.08
TURB. JTU	****	4.0	25.0	9.0	6.0	4.0	3.0	****	****	1.0	15.0	7.0	8.67	+CR-	8.05
PH	****	7.2	7.0	8.4	8.3	8.7	8.5	****	****	8.4	5.4	5.1	8.15	+PR-	0.48
COND. 25 C	****	275.0	320.0	420.0	570.0	050.3	000.0	****	****	620.0	600.0	425.0	497.75	+CR-	140.00
P ALK.	****	0.0	0.0	2.0	0.0	7.0	5.0	****	****	0.0	0.0	0.0	4.67	+CR-	2.52
T ALK.	****	100.0	50.0	111.0	123.0	142.0	140.0	****	****	140.0	130.0	80.0	116.22	+PR-	25.24
CL-	****	5.0	0.0	10.0	11.0	11.0	5.0	****	****	12.5	11.5	10.0	8.78	+CR-	3.97
T HDNS	****	116.0	123.0	187.0	232.0	261.0	253.0	****	****	281.0	230.0	1(1.0)	206.67	+PR-	60.21
CA HONS	****	85.0	111.0	17.0	165.0	195.0	195.0	****	****	180.0	150.0	120.0	149.56	+DR-	39.35
MG HMS	****	31.0	12.0	50.0	67.0	60.0	50.0	****	****	95.0	80.0	51.0	57.11	+CR-	25.35
S04	****	64.0	70.0	96.0	174.0	194.0	180.0	****	****	230.0	160.0	110.0	142.00	+CP-	58.79
	****#	*40*#	****	16.5	30.7	31.3	32.6	****	****	35.6	25.6	21.5	28.43	+CR-	6.63
K	****	****	****	3.1	3.4	3.4	3.2	****	****	3.2	3.0	2.5	3.23	+PR-	0.39
CU	****	0.0	0.004	0.004	0.006	0.006	0.003	****	****	0.0	0.007	0.006	0.0041	+CR-	0.0024
PN	****	0.0	0.0	0.0	0.001	0.002	0.0	****	****	0.001	0.0	0.0	0.0008	+CR-	0.0005
ZN	****	0.0	0.003	0.001	0.004	0.0	0.0	****	****	0.0	0.003	0.000	0.0037	+CR-	0.0063
IN	****	0.010	0.004	0.0	0.024	0.014	0.014	****	****	0.0	0.0	0.030	C.115	+CR-	0.0122
FE	****	0.0	0.025	0.005	0.004	0.004	0.001	****	****	C.15	0.0	0.019	0.0082	+CR-	0.0091
AS	****	0.0	****	****	0.002	****	****	****	****	0.005	****	****	0.0025	+CR-	0.0023
MG (MG/L)	****	0.0	0.0	****	****	****	0.040	****	****	0.0	0.0	****	0.0084	+PR-	0.0107
AC	****	0.0	0.0	0.0	0.0	0.0	0.0	****	****	0.0	0.0	0.0	0.6005	+CR-	0.0000
NI	****	0.0	0.0	0.001	0.004	0.005	0.0	****	****	0.0	0.0	0.0	0.0014	+PR-	0.0018
CC	****	0.010	0.0	****	0.0	0.002	0.0	****	****	C.11	C.5	0.0	0.0027	+CR-	0.0054
CC	****	0.0	0.0	0.0	0.0	0.005	0.0	****	****	0.0	0.0	0.010	0.0021	+CR-	0.0033
LI	****	0.005	0.011	0.007	0.015	0.023	0.021	****	****	0.014	0.031	0.010	0.0156	+PR-	0.0080

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + CR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

SITE 0 - 6 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

DATE	27V174	11V1174	8V11174	7IX74	19X74	15X174	6XII74	1175	221175	1111175	19V175	23V75	AVERAGE	AND	S.D.
TEMP. C	*****	22.0	20.1	20.0	15.2	9.0	4.8	*****	*****	6.5	*****	*****	13.94	+CR-	7.12
O.O. MG/L	*****	5.5	*****	*****	*****	*****	9.5	*****	*****	*****	*****	*****	7.50	+CR-	2.83
TURB. JTU	*****	4.0	2.0	12.0	6.0	3.0	2.0	*****	*****	8.0	*****	*****	5.29	+CR-	3.68
PH	*****	7.1	7.5	8.3	8.3	8.6	8.5	*****	*****	8.4	*****	*****	8.10	+CR-	0.57
COND. 25 C	*****	270.0	305.0	430.0	570.0	640.0	600.0	*****	*****	620.0	*****	*****	490.71	+CR-	154.98
P ALK.	*****	0.0	C.0	2.0	0.0	4.0	*****	*****	*****	0.0	*****	*****	3.00	+CR-	1.41
T ALK.	*****	79.0	85.0	107.0	122.0	142.0	142.0	*****	*****	140.0	*****	*****	116.71	+CR-	26.99
CL-	*****	4.5	6.5	10.0	11.0	11.5	9.5	*****	*****	12.5	*****	*****	5.36	+CR-	2.87
T HDNS	*****	118.0	125.0	188.0	232.0	264.0	255.0	*****	*****	285.0	*****	*****	209.57	+CR-	67.36
CA HDNS	*****	85.0	97.0	140.0	105.0	199.0	188.0	*****	*****	186.0	*****	*****	151.43	+CR-	45.62
MG HDNS	*****	33.0	28.0	48.0	67.0	65.0	67.0	*****	*****	59.0	*****	*****	58.14	+CR-	24.21
SO4	*****	65.0	67.0	100.0	172.0	192.0	180.0	*****	*****	250.0	*****	*****	146.57	+CP-	70.33
NI	*****	*****	*****	16.0	30.7	31.9	32.3	*****	*****	35.7	*****	*****	29.32	+CR-	7.67
K	*****	*****	*****	3.2	3.2	3.4	3.3	*****	*****	3.1	*****	*****	3.24	+CP-	0.11
CU	*****	0.0	0.0	*****	0.006	0.007	0.002	*****	*****	0.0	*****	*****	0.0027	+CR-	0.0030
PN	*****	0.0	0.0	0.0	0.0	0.003	0.0	*****	*****	0.0	*****	*****	0.0009	+CP-	0.0009
ZN	*****	0.0	0.003	0.001	0.005	0.0	0.0	*****	*****	0.0	*****	*****	0.0016	+OR-	0.0018
MN	*****	0.012	0.005	0.0	0.027	0.015	0.312	*****	*****	0.0	*****	*****	C.0103	+CR-	0.0094
FE	*****	0.0	0.0	0.0	0.003	0.003	0.001	*****	*****	0.002	*****	*****	C.0015	+CR-	0.0012
AS	*****	0.0	*****	*****	0.001	*****	*****	*****	*****	0.005	*****	*****	0.0022	+CR-	0.0025
HG (UG/L)	*****	0.0	0.0	*****	*****	*****	0.033	*****	*****	C.0	*****	*****	0.0079	+CP-	0.0147
AG	*****	0.0	C.0	0.0	0.3	0.0	0.0	*****	*****	0.0	*****	*****	0.0005	+CR-	0.010
NI	*****	C.0	0.0	0.005	0.003	0.006	0.0	*****	*****	0.002	*****	*****	0.0025	+CR-	0.0023
CO	*****	0.0	0.0	*****	0.001	0.002	0.0	*****	*****	0.0	*****	*****	C.0008	+CR-	0.0006
CC	*****	0.003	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	*****	*****	0.0004	+CR-	0.0009
LI	*****	0.009	0.012	0.007	0.013	0.023	0.024	*****	*****	0.011	*****	*****	0.0141	+CR-	0.0067

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + CR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE D - 5 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

DATE	18V175	28V1175	48V1175	2uIX75	31X75	18T75	48T1175	1T76	261176	2311176	AVERAGE AND S.D.
TOM ^o . C	17.5	20.0	22.5	17.5	13.0	****	4.6	****	5.1	6.2	13.31 +OR- 7.16
O.O. MG/L	7.5	6.9	6.7	8.6	8.3	****	1.6	****	10.2	9.8	8.51 +CR- 1.50
TURBID. JTU	73.0	20.0	15.0	8.0	10.0	****	10.0	****	7.0	5.0	18.50 +OR- 22.53
PH	8.3	8.0	8.3	8.4	8.4	****	8.1	****	8.4	8.3	8.27 +CR- 0.15
COND. 25 C	250.0	300.0	320.0	415.0	560.0	****	510.0	****	620.0	690.0	433.13 +CR-153.66
T ALK.	0.0	0.0	3.0	****	****	****	****	****	****	****	0.00 +CR- 0.0
T ALK.	65.0	76.0	90.0	119.0	156.0	****	126.0	****	144.0	141.0	114.88 +CR- 34.12
CL-	5.0	4.5	5.0	10.0	11.5	****	11.0	****	12.5	12.5	9.00 +CR- 3.55
T HDNS	88.0	111.0	133.0	203.0	245.0	****	461.0	****	277.0	258.0	222.00 +CR-119.84
CA HDNS	65.0	81.0	94.0	143.0	190.0	****	342.0	****	181.0	186.0	100.25 +CR- 88.68
MG HONS	23.0	30.0	39.0	60.0	55.0	****	119.0	****	56.0	72.0	61.75 +CR- 33.02
SD4	19.0	50.0	69.0	100.0	****	****	149.0	****	160.0	160.0	103.71 +OR- 52.64
NA	8.1	11.1	15.2	20.8	27.2	****	23.0	****	31.0	29.1	20.69 +OR- 8.50
K	1.7	2.4	2.2	3.0	3.6	****	2.5	****	3.2	3.3	2.80 +CR- 0.65
CU	0.008	0.0	0.0	0.0	0.016	****	0.011	****	0.011	0.0	0.6060 +CR-0.0063
PR	0.0	0.0	0.0	0.0	0.0	****	0.003	****	0.0	C.0	0.0000 +CR-0.0009
ZN	0.008	0.007	0.005	0.003	0.003	****	0.014	****	0.004	C.0	0.0049 +CR-0.0043
MN	0.006	0.002	C.0	0.013	0.050	****	0.018	****	0.0	C.0	1.0113 +CR-0.0169
FE	0.014	0.004	0.000	0.0	0.002	****	0.005	****	0.0	0.001	0.0034 +CR-0.0046
AS	0.0	****	0.0	****	****	****	****	****	****	****	0.0005 +CR-0.0
HG (µG/L)	0.0	****	0.020	****	****	****	0.030	****	0.0	****	0.0127 +OK-C.0147
AG	0.0	0.0	0.0	0.0	0.0	****	0.0	****	C.0	0.0	0.0005 +CR-0.0000
NI	0.0	0.001	0.002	0.003	****	****	0.004	****	0.0	C.0	0.0016 +CR-0.0014
CO	0.004	0.0	0.0	C.0	0.0	****	0.001	****	0.0	0.0	0.0010 +CR-0.0012
CC	0.0	0.0	0.005	0.003	0.0	****	0.0	****	0.0	0.0	0.0014 +CR-0.0017
LI	0.004	0.004	0.008	C.C15	0.012	****	0.012	****	0.022	0.018	0.0019 +CR-0.0064

NOTE **** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + CR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE D - 9 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

DATE	27V174	11V1174	8V11174	7IX74	19X74	16X174	8X1174	1175	221175	1711175	191V75	23V75	AVERAGE	AND	S.D.
TEMP. C	*****	21.4	19.6	18.5	14.4	9.0	4.8	*****	*****	6.0	*****	*****	13.39	+DR-	6.80
D.O. MG/L	*****	4.8	*****	*****	*****	*****	9.4	*****	*****	*****	*****	*****	7.10	+CR-	3.25
TURB. JTU	*****	5.0	26.0	32.0	8.0	5.0	2.0	*****	*****	8.0	*****	*****	12.29	+CR-	11.73
PH	*****	7.1	7.5	7.9	8.1	8.6	8.4	*****	*****	8.3	*****	*****	7.99	+CR-	0.53
COND. 25 C	*****	255.0	330.0	440.0	650.0	640.0	600.0	*****	*****	580.0	*****	*****	499.29	+CR-	158.65
P ALK.	*****	0.0	0.0	0.0	0.0	5.0	*****	*****	*****	0.0	*****	*****	5.00	+CR-	0.0
T ALK.	*****	80.0	86.0	114.0	130.0	140.0	141.0	*****	*****	145.0	*****	*****	119.43	+OR-	26.94
CL-	*****	5.5	5.5	9.5	11.5	12.0	9.5	*****	*****	12.5	*****	*****	9.43	+CR-	2.92
T HDNS	*****	121.0	132.0	198.0	274.0	262.0	248.0	*****	*****	285.0	*****	*****	217.14	+CR-	67.90
CA HDNS	*****	85.0	110.0	140.0	246.0	196.0	180.0	*****	*****	190.0	*****	*****	164.14	+CR-	55.89
MG HDNS	*****	16.0	22.0	58.0	27.0	66.0	63.0	*****	*****	95.0	*****	*****	53.14	+CP-	26.17
SO4	*****	72.0	71.0	100.0	210.0	184.0	170.0	*****	*****	250.0	*****	*****	151.00	+CR-	70.68
NA	*****	*****	*****	16.0	35.1	30.8	32.0	*****	*****	36.0	*****	*****	30.10	+CR-	8.14
K	*****	*****	*****	3.1	3.5	3.3	3.3	*****	*****	3.1	*****	*****	3.32	+CR-	0.29
CU	*****	0.0	0.0	0.004	0.004	0.0	0.002	*****	*****	0.0	*****	*****	0.0017	+CR-	0.0017
PP	*****	0.0	0.0	0.0	0.0	0.003	0.0	*****	*****	0.0	*****	*****	0.0009	+CR-	0.0009
7N	*****	0.008	0.004	0.0	0.004	0.0	0.0	*****	*****	0.0	*****	*****	0.0026	+CR-	0.0029
9N	*****	0.038	0.002	0.015	0.037	0.015	0.010	*****	*****	0.0	*****	*****	0.0168	+CR-	0.0152
FE	*****	0.0	0.029	0.004	0.003	0.002	0.001	*****	*****	0.003	*****	*****	0.0061	+CR-	0.0102
AS	*****	0.0	*****	*****	0.008	*****	*****	*****	*****	0.0	*****	*****	0.0030	+CR-	0.0043
HG (UG/L)	*****	0.010	0.0	*****	*****	*****	0.020	*****	*****	0.030	*****	*****	0.0151	+CR-	0.0127
AG	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.002	*****	*****	0.0007	+CR-	0.0006
NI	*****	0.0	0.0	0.0	0.005	0.004	0.0	*****	*****	0.0	*****	*****	0.0016	+CR-	0.0020
CO	*****	0.0	0.0	*****	0.001	0.001	0.0	*****	*****	0.0	*****	*****	0.0008	+CR-	0.0006
CC	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	*****	*****	0.0005	+CR-	0.0
LI	*****	0.005	0.010	*****	0.018	0.022	0.022	*****	*****	0.011	*****	*****	0.0153	+CR-	0.0061

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVFRAGF AND STANDARD DEVIATION VALUE OF 0.0 + CR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

SITE D - 10 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

DATE	18V175	26V1175	9V11175	26IX75	31X75	1X175	4X1175	1176	261176	2311176	AVERAGE	AND S.D.
TEMP. C	14.8	19.0	20.0	17.1	13.1	*****	4.9	*****	5.0	6.2	12.51	*OR= 6.31
D.O. MG/L	7.4	6.4	6.4	8.3	8.7	*****	10.6	*****	10.4	9.6	8.47	+CR- 1.66
TURB. JTU	25.0	36.0	20.0	12.0	9.0	*****	12.0	*****	10.0	2.0	15.75	*OR= 10.75
PH	8.2	7.7	7.9	8.3	8.3	*****	8.2	*****	8.4	6.9	8.16	*OR= C.24
COND. 25 C	290.0	310.0	390.0	425.0	550.0	*****	500.0	*****	620.0	650.0	488.88	*OR=135.51
P ALK.	0.0	0.0	0.0	*****	*****	*****	*****	*****	***4*	*****	0.0	*OR= 0.0
T ALK.	75.0	77.0	85.0	120.0	152.0	*****	122.0	*****	145.0	141.0	114.63	*OR= 31.54
CL-	5.5	4.5	5.0	8.0	10.0	*****	10.5	*****	12.5	12.5	8.50	*OR= 3.29
T HONS	113.0	121.0	150.0	200.0	255.0	*****	476.0	*****	266.0	760.0	230.13	*OR=117.23
CA HMS	85.0	87.0	114.0	142.0	180.0	*****	349.0	*****	170.0	163.0	163.75	*OR= 84.54
MG HONS	28.0	33.0	36.0	58.0	75.0	*****	127.0	*****	6.0	77.0	66.25	*OR= 34.47
SO4	75.0	58.0	92.0	95.0	*****	*****	145.0	*****	170.0	164.0	114.14	*OR= 44.91
NA	13.4	12.2	17.6	21.0	27.7	*****	23.0	*****	29.3	29.6	21.72	*OR= 6.91
K	2.1	2.7	2.9	3.1	3.0	*****	2.9	*****	3.3	3.3	3.01	*OR= 0.50
CU	0.004	0.0	0.0	0.0	0.010	*****	0.011	*****	0.0	0.0	0.0034	*OR=0.0045
PB	0.0	0.0	0.0	0.0	0.0	*****	0.002	*****	0.0	0.0	0.0007	*OR=0.0005
ZN	0.014	0.005	0.006	0.006	0.006	*****	0.014	*****	0.004	0.0	0.0069	*OR=0.0047
MN	0.006	0.0	0.003	0.024	0.047	*****	0.018	*****	0.0	0.0	0.0124	*OR=0.0165
FE	0.014	0.002	0.001	0.0	0.003	*****	0.006	*****	0.0	0.0	0.0034	*OR=0.0047
AS	0.0	*****	0.0	*****	*****	*****	*****	*****	*****	*****	0.0005	*OR=0.0
HG (UG/L)	0.0	*****	0.010	*****	*****	*****	0.0050	*****	0.0	*****	0.0152	+JR-0.0236
AG	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	*OR=0.0000
NI	0.0	0.0	0.001	0.001	*****	*****	0.006	*****	0.0	0.0	0.0019	*OR=0.0020
CO	0.003	0.0	0.0	0.0	0.0	*****	0.001	*****	0.0	0.0	0.0005	*OR=0.0005
CC	0.002	0.0	0.0	0.001	0.0	*****	0.0	*****	0.0	0.0	0.0007	*OR=0.0005
LI	0.006	0.002	0.011	0.015	0.012	*****	0.015	*****	0.022	0.018	0.0126	*OR=0.0064

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.3 + OR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

SITE D - 15 METRE DEPTH

NOT ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

DATE	18V175	23V1175	5V11175	25IX75	31X75	1X175	4X1175	1176	261176	2311176	AVERAGE	AND S.D.
TEMP. C	*****	*****	*****	*****	*****	*****	5.0	*****	5.2	6.5	5.57	+0.81
D.O. MG/L	*****	*****	*****	*****	*****	*****	10.6	*****	10.0	9.7	10.10	+0.46
TURB. JTU	*****	*****	*****	*****	*****	*****	14.0	*****	15.0	7.0	12.00	+4.36
PH	*****	*****	*****	*****	*****	*****	6.2	*****	6.4	6.5	6.37	+0.15
CONC. 25 C	*****	*****	*****	*****	*****	*****	500.0	*****	620.0	650.0	590.00	+79.97
P ALK.	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	+0.0
ALK.	*****	*****	*****	*****	*****	*****	125.0	*****	145.0	142.0	137.67	+11.02
CL-	*****	*****	*****	*****	*****	*****	9.5	*****	13.0	12.5	11.67	+1.89
T HDNS	*****	*****	*****	*****	*****	*****	480.0	*****	265.0	265.0	530.67	+124.13
CA HDNS	*****	*****	*****	*****	*****	*****	347.00	*****	175.0	188.0	230.67	+95.77
MG HDNS	*****	*****	*****	*****	*****	*****	133.0	*****	90.0	77.0	100.00	+25.91
SO4	*****	*****	*****	*****	*****	*****	152.0	*****	160.0	164.0	158.67	+6.11
	*****	*****	*****	*****	*****	*****	23.0	*****	36.9	31.1	26.33	+6.42
K	*****	*****	*****	*****	*****	*****	2.9	*****	3.4	3.4	3.23	+0.29
CU	*****	*****	*****	*****	*****	*****	0.009	*****	0.0	0.0	0.0033	+0.0049
PB	*****	*****	*****	*****	*****	*****	0.002	*****	0.0	0.0	0.0010	+0.0009
ZN	*****	*****	*****	*****	*****	*****	0.013	*****	0.006	0.007	0.0087	+0.0038
MN	*****	*****	*****	*****	*****	*****	0.018	*****	0.0	C.0	0.0063	+0.0061
FE	*****	*****	*****	*****	*****	*****	0.007	*****	0.0	0.0	0.0027	+0.0036
AS	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	+0.0
HG (µG/L)	*****	*****	*****	*****	*****	*****	0.050	*****	0.0	*****	0.0252	+0.0350
AG	*****	*****	*****	*****	*****	*****	0.0	*****	0.0	0.0	0.0005	+0.0001
NI	*****	*****	*****	*****	*****	*****	0.009	*****	0.0	C.0	0.0033	+0.0049
CO	*****	*****	*****	*****	*****	*****	0.0	*****	0.0	C.0	0.0005	+0.0001
CC	*****	*****	*****	*****	*****	*****	0.0	*****	0.004	C.0	0.0017	+0.0020
LI	*****	*****	*****	*****	*****	*****	0.013	*****	0.022	0.026	0.0189	+0.0047

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE D - BOTTOM (10-14 MFTRE DEPTH)

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

DATE	21V1174	11V1175	21V1174	11X74	19X74	16X1174	6X1174	1175	221175	1711175	151V75	23V75	AVERAGE	AMP	StDev
	11m	11.5m	10m	10m	10m	10m	10m			10m	10m	14m			
TEMP. C	****	21.1	19.1	18.5	19.2	8.0	8.7	*****	****	6.0	9.1	15.0	12.99	CR=	6.05
DO MG/L	****	3.8	****	****	****	****	8.2	****	****	****	9.4	6.6	7.40	CR=	2.72
TURBID. JTU	****	7.0	75.0	32.0	10.0	8.0	4.0	****	****	8.0	10.0	30.0	60.22	CR=	121.298
PH	****	6.5	7.5	7.8	d.1	8.6	8.5	****	****	5.3	8.5	8.1	8.03	CR=	0.55
CONC. 25 C	****	280.0	290.0	450.0	680.0	640.0	570.0	****	****	****	690.	450.0	505.00	CR=	161.116
P ALK.	****	0.0	0.0	0.0	0.0	4.0	****	****	****	0.0	0.0	0.0	4.00	CR=	0.0
T ALK.	****	84.0	88.0	118.0	135.0	142.0	143.0	****	****	145.0	136.0	90.0	119.89	CR=	25.87
CL-	****	5.0	11.5	13.5	12.0	17.0	7.5	****	****	12.5	12.0	5.5	10.61	CR=	2.76
T HONS	****	122.0	139.0	199.0	291.0	258.0	237.0	****	****	285.0	270.0	100.0	223.22	CR=	63.36
CA HONS	****	85.0	107.0	145.0	203.0	182.0	100.0	****	****	190.0	170.0	130.0	162.67	CR=	52.04
MG HONS	****	37.0	32.0	54.0	28.0	76.0	77.0	****	****	55.0	50.0	50.0	60.56	CR=	26.31
SIH4	****	77.0	74.0	102.0	220.0	184.0	160.0	****	****	250.0	200.0	110.0	155.22	CR=	65.40
NA	****	****	****	16.5	35.6	30.8	32.0	****	****	36.0	34.1	23.0	29.80	CR=	7.33
K	****	****	****	3.1	3.8	3.3	3.3	****	****	3.1	3.0	2.6	3.29	CR=	0.42
CU	****	0.0	0.005	0.0	0.005	0.007	0.002	****	****	0.0	0.006	0.006	0.0016	CR=	0.0027
PB	****	C.0	0.0	0.0	0.0	0.003	0.0	****	****	0.0	C.0	0.0	0.0008	CR=	0.0008
ZN	****	0.009	0.005	0.002	0.005	0.004	0.055	****	****	0.0	0.004	0.020	0.0116	CR=	0.0172
MN	****	C.13C	0.004	0.013	0.103	0.018	0.013	****	****	0.0	C.006	C.040	0.066	CR=	0.0472
FE	****	0.0	0.029	0.002	0.002	0.003	0.002	****	****	0.002	C.0	0.002	0.0049	CR=	0.0091
AS	****	0.0	****	****	****	****	****	****	****	0.0	****	****	0.0005	CR=	0.0
HG (UG/L)	****	0.0	0.040	****	****	****	0.020	****	****	0.0	0.0	****	0.0123	CR=	0.0176
AC	****	C.0	0.0	0.0	0.0	0.0	0.0	****	****	0.002	C.001	0.0	C.0007	CR=	0.0005
NI	****	C.0	C.0	0.001	0.003	0.005	0.0	****	****	C.0	C.0	C.0	0.0013	CR=	0.0016
CO	****	C.010	0.0	****	0.001	0.001	0.0	****	****	C.0	C.0	C.0	0.0028	CR=	0.0061
CE	****	0.0	C.0	C.0	0.0	0.0	0.0	****	****	0.0	C.0	C.011	0.0017	CR=	0.0035
LI	****	0.014	0.011	0.007	0.019	0.022	0.022	****	****	0.011	0.004	0.011	0.0168	CR=	0.0084

NOTE ***** INDICATES NO DETERMINATION AS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.00 + 0.0 - 0.00 INDICATES THE PARAMETER WAS NOT DETECTABLE.

SITE D - BOTTOM (14-21 METRE DEPTH)

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

DATE	18VI75 14m	20VI75 14m	24VI75 14m	26VI75 14m	31X75 14m	1XI75	4XI75 16m	1176	261176 21m	2311176 21m	AVERAGE	AND S.D.
TEMP. C	12.9	18.7	19.5	17.0	13.1	*****	5.0	*****	5.1	6.5	12.22	+0k- 6.03
O.O. MG/L	7.7	4.8	6.8	7.4	8.5	*****	10.6	*****	11.0	9.8	8.32	+CR- 2.09
TURB. JTU	115.0	44.0	40.0	17.0	10.0	*****	16.0	*****	15.0	10.0	33.38	+CR- 35.50
PH	8.2	7.5	7.8	8.2	8.3	*****	8.2	*****	8.4	8.3	8.11	+CR- C.30
COND. 25 C	310.0	360.0	500.0	450.0	560.0	*****	510.0	*****	620.0	650.0	495.00	+Ln-118.68
P ALK.	0.0	0.0	0.0	*****	*****	*****	*****	****4*	*****	*****	0.0	+CR- 0.0
T ALK.	76.0	80.0	83.0	125.0	154.0	*****	130.0	*****	136.0	152.0	117.00	+CR- 32.50
CL-	5.5	5.0	5.0	10.0	11.5	*****	10.0	*****	12.5	12.0	8.94	+CR- 3.25
T HONS	117.0	143.0	195.0	205.0	240.0	*****	463.0	*****	274.0	265.0	237.75	+CR-106.41
CA HCNS	86.0	110.0	146.0	153.0	168.0	*****	361.0	*****	180.0	187.0	173.66	+CR- 83.04
MG HONS	31.0	33.0	49.0	57.0	72.0	*****	102.0	*****	94.0	78.0	63.88	+CR- 26.79
SO4	87.0	95.0	140.0	105.0	*****	****	150.0	*****	170.0	188.0	130.71	+CR- 34.74
NA	15.5	14.9	23.8	24.0	27.7	*****	22.9	*****	30.9	31.1	23.85	+CR- 6.19
K	2.8	3.2	4.1	3.2	4.0	*****	3.0	*****	3.4	3.4	3.32	+CR- 0.57
CU	0.0	0.0	0.0	0.3	*****	*****	0.009	*****	0.0	0.0	0.0017	+CR-0.0032
PR	0.0	0.0	0.0	0.0	0.0	*****	0.002	*****	0.0	0.0	0.0007	+CR-0.0005
ZN	0.005	0.004	0.007	0.005	0.004	*****	0.013	*****	0.008	0.004	0.0062	+CR-0.0031
MN	0.002	0.003	0.125	0.047	0.043	*****	0.020	*****	0.0	0.0	0.0301	+CR-0.0428
FE	0.011	0.003	0.0	0.301	0.003	*****	0.007	*****	0.020	0.002	0.0059	+CR-0.0067
AS	0.0	*****	0.0	*****	*****	*****	*****	*****	*****	*****	0.0005	+CR-0.0
HG (UG/L)	0.0	*****	0.010	*****	*****	*****	0.050	*****	0.0	*****	0.0152	+CR-0.0236
AG	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+CR-0.0000
NI	0.001	0.0	0.001	0.002	*****	*****	0.007	*****	0.0	0.0	0.0016	+CR-0.0024
CO	0.003	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0008	+CR-0.0005
CD	0.001	0.0	0.0	0.0	0.0	*****	0.0	*****	0.005	0.0	0.0011	+CR-0.0016
LI	0.004	0.002	0.005	0.015	*****	*****	0.015	*****	0.022	0.020	0.0124	+CR-0.0077

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + OR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE E - S (SURFACE)

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE; DISSOLVED FRACTION REPORTED ONLY.

DATE	27V174	11V1174	8V11174	71X74	19X74	16X174	6X1174	1175	220175	L711175	191V75	23V75	AVERAGE	ANC	S.D.
TEMP. C	21.5	20.0	20.0	20.0	15.5	8.8	2.7	****	****	7.8	9.2	17.0	14.85	+CR-	7.40
D.O. MG/L	****	6.5	****	****	****	****	9.2	****	****	****	8.8	7.2	7.97	+CR-	1.45
TURB. JTU	9.0	9.0	37.0	15.0	6.0	4.0	3.0	****	****	8.0	50.0	10.0	15.70	+CP-	17.17
PH	7.2	8.2	7.5	8.4	8.4	8.7	8.4	****	****	8.5	8.2	8.0	8.15	+CR-	0.47
COND. 25 C	265.0	245.0	320.0	430.0	590.0	640.0	600.0	****	****	610.0	510.0	380.0	459.00	+CR-	150.94
P ALK.	0.0	0.0	C.0	3.0	0.0	6.0	****	****	****	0.0	0.0	C.0	4.50	+CR-	2.12
T ALK.	65.0	83.0	87.0	109.0	124.0	140.0	149.0	****	****	140.0	124.0	82.0	109.80	+CR-	28.70
CL-	0.0	6.0	6.0	9.0	10.0	10.5	10.0	****	****	12.5	10.0	6.5	7.17	+CR-	2.11
T HDNS	114.0	120.0	130.0	176.0	241.0	248.0	260.0	****	****	275.0	209.0	150.0	191.80	+CR-	61.76
CA HDNS	82.0	84.0	93.0	130.0	169.0	164.0	165.0	****	****	182.0	136.0	110.0	133.50	+CR-	40.15
16 HDNS	32.0	36.0	37.0	46.0	72.0	114.0	75.0	****	****	93.0	66.0	40.0	58.30	+CR-	22.49
504	53.0	63.0	70.0	96.0	180.0	192.0	160.0	****	****	235.0	189.0	78.0	123.10	+CR-	63.55
NA	****	****	****	15.5	31.6	30.8	32.6	****	****	35.7	24.7	19.5	27.20	+CR-	7.49
K	****	****	****	3.1	3.4	3.3	3.1	****	****	3.1	3.5	2.6	3.16	+CR-	0.29
CU	0.008	0.0	0.005	0.0	0.004	0.005	0.002	****	****	0.0	0.006	0.065	0.0036	+CR-	0.0026
PB	0.0	C.0	0.0	0.0	0.0	0.0	0.0	****	****	C.0	C.0	0.0	0.0005	+CR-	0.0000
ZN	C.CC4	C.0	0.034	0.0	0.006	0.0	0.0	****	****	C.0	C.CC4	0.016	C.0068	+CR-	0.0110
MN	0.021	0.010	0.006	0.0	0.030	0.017	0.038	****	****	0.0	C.CC10	0.026	C.0159	+CR-	0.0127
FE	0.022	0.0	0.029	0.018	0.002	0.003	0.002	****	****	0.003	0.0	C.005	C.0085	+CR-	0.0104
AS	0.001	0.0	****	****	0.0	****	****	****	****	0.0	****	****	C.0006	+CR-	0.0002
HG (UG/L)	****	0.023	0.0	****	****	****	0.0	****	****	C.0	C.0	****	0.0050	+CR-	0.0101
AG	0.009	0.0	0.0	0.0	0.0	0.0	0.0	****	****	0.0	C.0	0.0	0.0013	+CR-	0.0027
NI	0.0	0.0	0.0	C.001	0.004	0.005	0.0	****	****	0.0	C.0	C.002	C.0015	+CR-	0.0017
CO	0.0	0.016	0.0	****	0.002	0.002	0.0	****	****	0.0	C.0	C.0	0.0026	+CR-	0.0051
CD	****	****	0.0	0.0	0.0	0.004	0.0	****	****	0.0	C.L	C.CC10	0.0021	+CR-	0.0034
LI	****	****	C.C12	0.004	0.016	0.021	0.024	****	****	0.010	C.CC4	L.C11	0.0152	+CR-	0.0073

NOTE **** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF + CR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

SITE F - SURFACE

NOTE ALL CONCENTRATION PAPCMFTERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE; DISSOLVED FFACTION REPORTED ONLY.

DATE	18V175	28V1175	9V11175	26IX75	31X75	1X175	4X1175	1176	261176	2311176	AVERAGE AND S.D.
TEMP. C	19.5	24.0	22.0	18.0	11.5	*****	5.5	*****	5.5	7.5	14.24 +OR- 7.52
D.O. MG/L	8.3	7.5	7.7	8.5	8.9	*****	10.2	*****	11.6	11.5	9.35 +OK- 1.69
TURB. JTU	50.0	12.0	18.0	12.0	9.0	*****	10.0	*****	9.0	7.0	15.05 +OK- 14.18
PH	8.0	8.8	8.0	7.5	8.3	*****	8.2	*****	8.4	8.3	8.31 +OR- 0.26
COND. 25 C	230.0	290.0	330.0	425.0	500.0	*****	500.0	*****	600.0	640.0	431.13 +OR-148.71
P ALK.	0.0	0.0	0.0	*****	*****	*****	*****	*****	*****	*****	0.0 +OK- 0.0
T ALK.	68.0	75.0	88.0	118.0	156.0	*****	125.0	*****	140.0	141.0	115.88 +OR- 32.99
CL-	5.0	4.0	5.0	10.0	11.5	*****	10.5	*****	12.5	12.5	8.68 +OR- 3.6C
T HMS	95.0	110.0	133.0	205.0	250.0	*****	441.0	*****	261.0	263.0	219.75 +OR-112.62
CA FDNS	70.0	76.0	95.0	150.0	190.0	*****	335.0	*****	175.0	185.0	159.75 +OR- 85.79
MC HDNS	25.0	32.0	38.0	55.0	60.0	*****	106.0	*****	86.0	78.0	60.00 +OR- 28.37
SI4	45.0	44.0	68.0	100.0	*****	*****	150.0	*****	170.0	170.0	106.71 +OR- 56.52
NA	8.6	16.3	15.4	21.5	27.7	*****	22.9	*****	30.1	29.9	21.55 +OR- 7.70
K	1.8	2.3	2.4	3.0	4.3	*****	3.0	*****	3.4	3.5	2.96 +OR- 0.79
CU	0.005	0.0	0.0	0.013	0.011	*****	0.009	*****	0.0	0.0	0.0050 +OR-0.0053
PB	0.0	0.0	0.0	0.0	0.0	*****	0.004	*****	0.0	0.0	0.0000 +OR-0.0012
ZN	0.008	C.CC6	0.0	0.003	0.003	*****	0.014	*****	0.003	0.003	0.0051 +OR-0.0043
MN	0.017	C.CC5	0.003	0.019	0.010	*****	0.023	*****	0.0	0.0	0.0135 +OR-0.0139
FE	0.011	C.CC8	0.001	0.001	0.038	*****	0.007	*****	0.0	0.0	0.0047 +OR-0.0044
AS	0.0	*****	0.0	*****	*****	*****	*****	*****	*****	*****	0.0000 +OR-0.0
HG (UG/L)	0.0	*****	0.010	*****	*****	*****	0.040	*****	0.0	*****	0.0127 +OR-0.0187
AG	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0000 +OR-0.0000
NI	0.001	0.0	0.0	0.002	0.0	*****	0.006	*****	0.0	0.0	0.0014 +OR-0.0015
CO	0.002	0.0	0.0	0.0	0.0	*****	0.001	*****	0.0	0.0	0.0007 +OR-0.0005
CC	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0000 +OR-0.0000
LT	0.004	0.0	0.005	0.015	0.017	*****	0.015	*****	0.022	0.018	0.0126 +OR-0.0074

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE E - 3 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

DATE	27V174	11V1174	8V11174	71X74	19X74	16X174	6X1174	1175	221175	1711175	151V75	23V75	AVERAGE	AND	S.D.
TEMP. C	*****	23.7	20.1	20.0	15.7	8.6	2.9	*****	*****	8.0	*****	*****	14.17	*CR-	7.71
DO MG/L	*****	7.3	*****	*****	*****	*****	10.0	*****	*****	*****	*****	*****	8.65	+CR-	1.91
TURB. JTU	*****	7.0	10.0	19.0	4.0	7.0	3.0	*****	*****	10.0	*****	*****	8.57	*CR-	5.32
PH	*****	7.2	7.7	8.3	8.4	8.6	8.4	*****	*****	8.4	*****	*****	8.14	+CR-	0.50
COND. 25 C	*****	250.0	320.0	410.0	600.0	630.0	620.0	*****	*****	570.0	*****	*****	485.71	+CR-	156.93
P ALK.	*****	0.0	0.0	3.0	0.0	7.0	1.0	*****	*****	0.0	*****	*****	3.67	*CR-	3.06
T ALK.	*****	83.0	88.0	110.0	125.0	140.0	144.0	*****	*****	140.0	*****	*****	118.57	+OR-	25.43
CL-	*****	5.0	5.0	11.0	11.0	10.5	9.5	*****	*****	13.0	*****	*****	9.29	*CR-	3.11
I HDNS	*****	120.0	132.0	187.0	240.0	244.0	259.0	*****	*****	271.0	*****	*****	207.57	*CR-	61.71
CA HDNS	*****	81.0	93.0	133.0	171.0	180.0	186.0	*****	*****	184.0	*****	*****	146.86	*CR-	44.76
MG HMS	*****	39.0	39.0	54.0	69.0	64.0	73.0	*****	*****	87.0	*****	*****	60.71	+CR-	17.84
SD4	*****	60.0	89.0	90.0	162.0	188.0	160.0	*****	*****	225.0	*****	*****	136.29	*CR-	63.58
NA	*****	*****	*****	13.5	32.7	30.0	32.6	*****	*****	35.4	*****	*****	28.84	+CR-	8.79
K	*****	*****	*****	3.0	3.4	3.2	3.1	*****	*****	3.0	*****	*****	3.14	+CR-	0.17
CU	*****	0.0	0.005	0.004	0.005	0.007	0.002	*****	*****	0.0	*****	*****	0.0034	*CR-	0.0025
PP	*****	C.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	*****	*****	0.0005	*CR-	0.0
ZN	*****	0.003	0.006	0.0	0.005	0.001	0.0	*****	*****	0.0	*****	*****	0.0024	+CR-	0.0023
MN	*****	0.018	0.011	0.007	0.032	0.022	0.038	*****	*****	0.023	*****	*****	0.0216	+CR-	0.0109
FF	*****	0.0	C.C34	0.013	0.003	0.003	0.001	*****	*****	0.005	*****	*****	0.0085	*CR-	0.0120
AS	*****	0.0	*****	*****	0.001	*****	*****	*****	*****	0.0	*****	*****	0.0007	*CR-	0.0003
HG (UG/L)	*****	0.040	0.0	*****	*****	*****	0.040	*****	*****	0.0	*****	*****	0.0202	*CR-	0.0228
AG	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	*****	*****	0.0005	*CR-	0.0
NI	*****	0.0	0.0	0.001	0.002	0.006	0.0	*****	*****	0.0	*****	*****	0.0016	+CR-	0.0020
CO	*****	0.0	0.0	*****	0.001	0.0	0.0	*****	*****	0.0	*****	*****	0.0006	+CP-	0.0002
CC	*****	C.CC3	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	*****	*****	0.0009	*CR-	0.0009
LI	*****	0.007	0.012	0.0	0.014	0.020	0.025	*****	*****	0.009	*****	*****	0.0125	*CR-	0.0082

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + CR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE E - 6 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE; DISSOLVED FRACTION REPORTED ONLY.

DATE	27VI74	11VII74	8VIII74	7IX74	19X74	16XI74	6XII74	1175	221175	1711175	19IV75	23975	AVERAGE	AND	S.D.
TEMP. C	*****	21.8	19.5	20.0	15.7	7.0	3.0	*****	7.0	9.3	*****	12.91	+CR-	7.19	
O.O. MG/L	*****	0.0	*****	*****	*****	*****	9.8	*****	*****	9.4	*****	8.40	+CR-	2.09	
TURB. JTU	*****	14.0	47.0	33.0	18.0	10.0	4.0	*****	*****	11.0	20.0	*****	19.63	+CR-	14.01
PH	*****	7.1	7.7	8.2	8.3	8.5	8.3	*****	*****	8.4	8.4	*****	8.11	+CR-	0.48
COND. 25 C	*****	275.0	300.0	400.0	650.0	500.0	620.0	*****	*****	600.0	630.0	*****	506.88	+CR-	156.04
P ALK.	*****	0.0	0.0	0.0	0.0	3.0	*****	*****	*****	C.0	0.0	*****	3.00	+CR-	0.0
T ALK.	*****	77.0	90.0	114.0	139.0	138.0	145.0	*****	*****	140.0	140.0	*****	122.88	+CR-	26.26
CL-	*****	5.0	5.5	11.0	11.5	10.0	11.0	*****	*****	12.5	11.5	*****	9.75	+CR-	2.87
T HDNS	*****	118.0	137.0	180.0	273.0	239.0	260.0	*****	*****	275.0	260.0	*****	217.75	+CR-	63.52
CA HMS	*****	80.0	100.0	138.0	192.0	167.0	180.0	*****	*****	181.0	174.0	*****	152.50	+CR-	42.31
MG HMS	*****	38.0	37.0	42.0	81.0	72.0	72.0	*****	*****	94.0	88.0	*****	65.25	+CR-	22.92
SO4	*****	60.0	71.0	84.0	205.0	158.0	190.0	*****	*****	225.0	170.0	*****	145.38	+CR-	64.63
NA	*****	*****	*****	12.5	30.0	26.5	33.0	*****	*****	34.8	32.7	*****	29.35	+CR-	8.93
K	*****	*****	*****	2.9	3.8	2.9	3.2	*****	*****	3.0	3.0	*****	3.23	+CR-	0.38
CU	*****	0.0	0.004	0.0	0.005	0.007	0.002	*****	*****	0.0	0.006	*****	0.0032	+CR-	0.0027
PB	*****	0.0	0.0	0.0	0.001	0.004	0.002	*****	*****	0.001	0.0	*****	0.0012	+CR-	0.0012
IN	*****	0.005	0.005	0.0	0.005	0.0	0.0	*****	*****	0.0	0.002	*****	0.0024	+CR-	0.0022
MN	*****	0.036	0.021	0.0	0.058	0.030	0.043	*****	*****	0.0	0.010	*****	C.0249	+CR-	0.0207
FE	*****	0.0	0.030	0.002	0.003	0.004	0.002	*****	*****	C.005	C.0	*****	0.0059	+CR-	0.0099
AS	*****	C.0	*****	*****	0.001	*****	*****	*****	*****	0.0	*****	*****	0.0007	+CR-	0.0003
HG (UG/L)	*****	0.170	0.0	*****	*****	*****	0.030	*****	*****	0.0	0.0	*****	0.0403	+CR-	0.0736
AG	*****	0.0	C.0	0.0	0.0	0.0	0.0	*****	*****	0.0	C.0	*****	0.0005	+CR-	0.0000
NI	*****	0.0	0.0	0.002	0.004	0.006	0.0	*****	*****	0.0	0.0	*****	0.0019	+CR-	0.0021
CO	*****	0.0	0.0	*****	0.0	0.001	0.0	*****	*****	C.0	C.0	*****	0.0006	+CR-	0.0002
CC	*****	0.0	C.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	*****	C.0005	+CR-	0.0000
LI	*****	0.007	0.013	0.006	0.017	0.017	0.025	*****	*****	0.009	0.034	*****	0.0160	+CR-	0.0096

NOTE ***** INDICATES NO DETERMINATION AS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + 0.0 - 0.3 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE **F** - 5 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS **SPECIFIED** OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

DATE	18VI175	28VII175	9VIII175	26IX75	31X75	1XX175	4XI175	1176	261176	2311176	AVERAGE	AND	S.C.
TEMP. C	16.0	24.0	22.0	17.1	11.0	*****	5.0	*****	5.0	6.8	13.36	+CR=	7.53
D.O. MG/L	8.1	7.5	7.0	8.4	8.7	*****	10.6	*****	9.8	10.1	c.77	+CR-	1.28
TURB. JTU	70.0	12.0	22.0	12.0	6.0	*****	10.0	*****	13.0	5.0	10.38	+Cm-	21.89
PH	8.0	8.8	8.0	8.4	6.3	*****	8.2	*****	8.5	8.3	8.31	+CR-	0.26
COND. 25 C	220.0	280.0	350.0	420.0	550.0	*****	500.0	*****	600.0	640.0	445.00	+CR-	152.88
P ALK.	0.0	0.0	0.0	*****	*****	*****	*****	*****	*****	*****	0.0	+CR-	0.0
I ALK.	72.0	75.0	91.0	118.0	162.0	*****	125.0	*****	144.0	149.0	110.50	+CR-	33.95
CL-	5.0	4.0	5.0	10.0	11.5	*****	11.0	*****	12.5	12.0	8.86	+Lm-	3.57
I HDNS	90.0	110.0	140.0	203.0	245.0	*****	455.0	*****	265.0	265.0	221.83	+CR-	116.84
CA HDNS	68.0	78.0	100.0	150.0	171.0	*****	340.0	*****	185.0	185.0	159.83	+CR-	56.73
MG HDNS	22.0	32.0	40.0	53.0	74.0	*****	115.0	*****	80.0	80.0	62.00	+CR-	30.86
S34	38.0	44.0	68.0	97.0	*****	*****	150.0	*****	160.0	160.0	102.43	+CR-	54.27
NA	7.7	16.3	15.7	21.5	27.8	*****	22.9	*****	30.6	25.9	21.55	+CR-	7.98
K	*****	2.3	2.3	3.0	3.5	*****	3.0	*****	3.3	3.5	2.59	+CR-	0.51
CU	0.004	0.0	0.0	0.0	0.011	*****	0.025	*****	0.013	0.0	0.0069	+CR-	0.0085
PI	0.0	0.0	0.0	0.0	0.0	*****	3.0	*****	0.0	0.0	0.0005	+CR-	0.0000
ZN	0.012	0.006	0.0	0.003	0.004	*****	0.014	*****	0.007	0.004	0.0069	+CR-	0.0044
MN	0.022	0.012	0.001	0.013	0.042	*****	0.027	*****	0.0	0.0	0.0147	+CR-	0.0145
FE	0.016	0.004	0.001	0.0	0.004	*****	0.009	*****	0.0	0.001	0.0049	+CR-	0.0053
AS	0.0	*****	0.0	*****	*****	*****	*****	*****	*****	*****	0.0005	+CR-	0.0
HG (UG/L)	0.0	*****	0.020	*****	*****	*****	0.050	*****	0.0	*****	0.0177	+CR-	0.0234
AG	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+CR-	0.0000
NI	0.0	0.002	0.001	0.002	0.0	*****	0.008	*****	0.0	0.0	0.0015	+CR-	0.0026
CO	0.0	0.0	0.0	0.0	0.0	*****	0.002	*****	0.0	0.0	0.0007	+CR-	0.0005
CC	0.004	0.0	0.0	0.004	0.0	*****	0.0	*****	0.005	0.0	0.0015	+CR-	0.0020
LI	0.004	0.002	0.005	0.013	0.014	*****	0.015	*****	0.021	0.016	0.0117	+CR-	0.0064

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + CR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

SITE E - 10 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

DATE	18V175	28V1175	5V11175	26IX75	31X75	1X175	4X1175	1176	261176	2311176	AVERAul	AND S.D.
TEMP. C	0.5	19.0	20.5	19.9	11.0	*****	5.1	*****	5.0	6.5	1.44	+OR- 7.34
D.O. MG/L	8.0	7.3	6.7	8.3	7.3	*****	9.3	*****	10.2	10.3	0.44	+OR- 1.32
TURB. JTU	230.0	65.0	120.0	45.0	15.0	*****	14.0	*****	10.0	9.0	63.50	+OR- 17.44
PH	8.0	7.0	7.6	8.4	8.3	*****	8.2	*****	8.5	8.4	0.07	+OR- C.45
COND. 25 C	230.0	280.0	380.0	520.0	560.0	*****	5.0	*****	620.0	640.0	404.38	+OR-222.19
P ALK.	0.0	0.0	0.0	*****	*****	*****	*****	*****	*****	*****	0.0	+OR- 0.0
T ALK.	60.0	75.0	93.0	148.0	162.0	*****	127.0	*****	140.0	149.0	115.25	+OR- 38.15
CL-	4.5	5.0	5.5	10.0	11.0	*****	11.0	*****	12.5	12.5	5.00	+OR- 3.42
I HDNS	8.4	110.0	145.0	235.0	253.0	*****	339.0	*****	274.0	263.0	203.42	+OR-107.27
CA HDNS	65.0	80.0	105.0	167.0	211.0	*****	210.0	*****	185.0	185.0	151.00	+OR- 58.80
MG HDNS	19.0	30.0	40.0	68.0	42.0	*****	129.0	*****	89.0	78.0	81.00	+UK- 36.38
SD4	35.0	47.0	80.0	130.0	*****	*****	151.0	*****	160.0	168.0	110.14	+OR- 55.44
NA	6.4	10.0	16.9	27.2	28.7	*****	23.3	*****	29.2	30.1	21.47	+OR- 9.28
K	1.6	2.2	2.7	3.5	3.5	*****	3.0	*****	3.5	3.5	2.54	+CF- 0.72
CU	0.003	0.0	0.010	0.0	0.009	*****	0.010	*****	0.0	0.0	0.0042	+OR-0.0046
P3	0.001	0.0	0.0	0.0	0.0	*****	0.002	*****	0.0	C.0	0.0007	+OR-0.0005
ZN	0.014	0.001	0.007	0.004	0.002	*****	0.013	*****	0.006	0.006	0.0046	+UK-0.0047
MN	C.025	0.011	0.043	0.021	0.026	*****	0.012	*****	0.0	C.0	0.0174	+OR-0.0143
FE	0.040	0.007	0.001	0.001	0.004	*****	0.007	*****	0.0	0.001	0.0077	+OR-0.0133
AS	0.0	*****	0.0	*****	*****	*****	*****	*****	*****	*****	0.0065	+OR-0.0
MG (PP/L)	0.0	*****	0.030	*****	*****	*****	0.050	*****	0.0	*****	0.0202	+Lk-0.0242
AG	0.0	0.0	C.0	0.0	0.0	*****	0.0	*****	0.0	C.0	0.0005	+OR-0.0000
NI	0.003	0.0	0.0	0.0	0.0	*****	0.004	*****	0.0	C.0	0.0012	+OR-0.0014
CO	0.002	0.002	0.0	0.0	0.0	*****	0.0	*****	0.0	C.0	0.0005	+OR-0.0007
CC	0.0	0.0	C.0	0.001	0.0	*****	0.0	*****	0.0	0.0	0.0006	+OR-0.0002
LI	0.004	0.002	0.005	0.016	0.014	*****	0.015	*****	0.021	0.020	0.0120	+OR-0.0070

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + OR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE E - BOTTOM (7.2-9 METRE DEPTH)

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

DATE	27V174	11V1174	8V11174	7I174	19X74	16X174	6X1174	1175	221175	1711175	151V75	23475	AVERAGE	AND S.D.
	8m	8m	8m	7.2m	8m	8m	8m	8m	8m	8m	8m	8m		
TEMP. C	*****	21.8	19.2	19.0	15.1	7.0	3.1	*****	*****	*****	*****	*****	12.59	+CR- 7.04
TURB. MG/L	*****	4.3	*****	*****	*****	*****	9.9	*****	*****	*****	*****	*****	7.80	+CR- 3.05
TURB. JTU	*****	195.0	146.0	430.0	40.0	20.0	75.0	*****	*****	42.0	20.0	*****	122.00	+CR-139.05
PH	*****	7.1	7.5	7.8	8.2	8.5	8.2	*****	*****	8.4	8.7	*****	8.05	+CR- 0.54
COND. 25 C	*****	290.0	300.0	395.0	700.0	600.0	620.0	*****	*****	610.0	650.0	*****	520.63	+CR-125.00
P ALK.	*****	0.0	0.0	0.0	0.0	3.0	*****	*****	*****	0.0	0.0	*****	3.00	+CR- 0.0
T ALK.	*****	83.0	86.0	133.0	146.3	138.0	147.0	*****	*****	140.0	130.0	*****	126.38	+CR- 26.25
CL-	*****	5.5	3.5	11.5	12.5	10.0	11.0	*****	*****	13.0	12.5	*****	9.94	+CR- 3.53
T HONS	*****	130.0	134.0	179.0	25.0	239.0	262.0	*****	*****	276.0	262.0	*****	220.88	+CR- 63.72
CA HONS	*****	90.0	98.0	128.0	193.0	167.0	200.0	*****	*****	185.0	175.0	*****	154.50	+CR- 43.25
MG HAS	*****	40.0	36.0	51.0	92.0	72.0	62.0	*****	*****	91.0	87.0	*****	66.38	+CR- 22.66
S34	*****	74.0	70.0	80.0	230.0	162.0	160.0	*****	*****	220.0	170.0	*****	149.00	+CR- 65.50
NA	*****	*****	*****	12.5	38.0	25.2	33.2	*****	*****	35.6	33.1	*****	29.60	+CR- 9.42
K	*****	*****	*****	2.9	3.9	3.0	3.2	*****	*****	3.0	3.7	*****	3.28	+CF- 0.42
CU	*****	0.0	0.006	0.0	0.006	0.005	0.004	*****	*****	0.0	0.006	*****	0.0036	+CR-0.0026
PA	*****	0.0	0.0	0.0	0.001	0.0	0.002	*****	*****	0.0	0.0	*****	0.0007	+CR-0.0005
ZN	*****	0.008	0.003	0.002	0.006	0.0	0.0	*****	*****	0.0	0.002	*****	0.0278	+CR-0.00704
MN	*****	0.050	0.018	0.042	0.119	0.040	0.059	*****	*****	0.0	0.005	*****	0.0422	+CR-0.00172
FE	*****	0.0	0.039	0.007	0.003	0.003	0.002	*****	*****	0.004	0.0	*****	0.0074	+CR-0.00129
AS	*****	0.0	*****	*****	0.0	*****	*****	*****	*****	0.0	*****	*****	0.0005	+CR-0.0
HG (µG/L)	*****	0.0	0.0	*****	*****	*****	0.0	*****	*****	0.0	0.0	*****	0.0005	+CR-0.0
AG	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	*****	0.0005	+CR-0.0000
NI	*****	0.0	0.0	0.0	0.004	0.004	0.0	*****	*****	0.0	0.0	*****	0.0014	+CR-0.00016
CD	*****	0.015	0.0	*****	0.001	0.002	0.0	*****	*****	0.0	0.0	*****	0.0029	+CR-0.00054
CO	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	*****	0.0005	+CR-0.0000
LT	*****	0.011	0.013	0.006	0.021	3.017	0.023	*****	*****	0.013	0.013	*****	0.0171	+CR-0.00085

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 CF - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE E - BOTTOM (10.0-16.5 METRE DEPTH)

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

DATE	18VI75	28VII75	5VII175	26IX75	31X75	1XI75	4X1175	1176	261176	2311176	AVERAGE AND S.D.
	10m	10m	10m	10m	10m		12m		16.5m	16.5m	
TEMP. C	17.5	19.0	20.5	15.9	11.0	*****	5.1	*****	5.1	6.5	12.57 +DN= 6.44
O.O. MG/L	8.0	7.3	6.7	8.3	7.8	*****	10.6	*****	9.7	10.5	8.01 +CR= 1.47
TURB. JTU	230.0	65.0	120.0	45.0	15.0	*****	22.0	*****	17.0	5.6	65.36 +CR= 76.01
PH	8.0	7.0	7.8	8.4	8.3	*****	8.2	*****	8.5	8.9	7.87 +CR= 0.45
COND. 25 C	230.0	280.0	380.0	520.0	560.0	*****	540.0	*****	620.0	640.0	471.25 +DN=155.24
P ALK.	0.0	0.0	0.0	*****	*****	*****	*****	*****	*****	*****	0.0 +DN 0.0
T ALK.	60.0	75.0	93.0	148.0	162.0	*****	172.0	*****	140.0	141.0	116.28 +CR= 37.56
CL ⁻	4.5	5.0	5.5	10.0	11.0	*****	11.0	*****	13.0	12.5	5.06 +CR= 3.5C
✓ HDNS	84.0	110.0	145.0	235.0	253.0	*****	335.0	*****	273.0	265.0	212.50 +DN= 88.76
CA HDNS	65.0	80.0	105.0	167.0	211.0	*****	250.0	*****	185.0	175.0	135.29 +CR= 65.47
MG HDNS	15.0	30.0	40.0	68.0	42.0	*****	85.0	*****	88.0	86.0	57.25 +DN= 27.76
SIO ₄	35.0	47.0	80.0	130.0	*****	*****	160.0	*****	160.0	180.0	113.14 +CR= 58.77
NA	6.4	10.0	10.5	27.2	28.7	*****	24.8	*****	30.7	30.5	21.0 +CR= 5.57
K	1.6	2.2	2.7	3.5	3.5	*****	3.0	*****	3.4	3.5	2.52 +CR= 0.71
CU	0.003	6.0	0.010	0.0	0.009	**4-*	0.005	*****	0.0	0.0	0.0041 +CR=0.0044
PB	0.001	0.0	0.0	0.0	0.0	*****	0.002	*****	0.0	0.0	0.0007 +CR=0.0005
ZN	0.014	0.001	0.007	0.004	0.002	*****	0.017	*****	0.008	0.006	0.0074 +CR=0.0056
MN	0.025	0.011	0.043	0.01	0.026	*****	0.062	*****	0.013	0.0	0.0252 +CR=0.0195
FE	0.040	0.007	0.001	0.001	0.004	*****	0.010	*****	0.0	0.0	0.0080 +CR=0.0134
AS	0.0	*****	0.0	*****	*****	*****	*****	*****	*****	*****	0.0005 +CR=0.0
HG (µG/L)	0.0	*****	0.030	*****	*****	*****	0.040	*****	0.0	*****	0.0177 +CR=0.0203
AG	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005 +CR=0.0005
NT	0.003	0.0	0.0	0.0	0.0	*****	0.005	*****	0.0	0.0	0.0014 +CR 0.0017
CO	0.002	0.002	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005 +3R=0.0007
CC	0.0	0.0	0.0	0.001	0.0	*****	0.0	*****	0.003	0.0	0.0005 +CR=0.0005
LI	0.004	0.002	0.005	0.016	3.014	*****	0.016	*****	0.021	0.020	0.0127 +CR=0.0071

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + CR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE **F - S** (SURFACE)

NOTE ALL CONCENTRATION PARAMETERS **Aw.F** REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

DATE	27VI74	11VII74	28VII74	7IX74	19X74	16XI74	08XII74	1175	22II75	17II75	15IV75	2305	AVERAGE	ANC	S.D.
TEMP. C	20.6	23.0	17.5	17.0	13.0	5.6	*****	*****	*****	11.0	6.1	14.7	14.50	*CR=	5.69
O.O. MG/L	*****	8.0	*****	*****	*****	*****	*****	*****	*****	*****	*****	7.7	8.97	*CR=	0.91
TURB. JTU	13.0	6.0	50.0	28.0	6.0	16.0	*****	*****	*****	12.0	15.20	40.0	40.33	*CR=	60.04
PH	7.9	7.3	7.7	8.0	8.3	8.4	*****	*****	*****	8.5	8.2	7.2	8.07	*CR=	0.38
COND. 25 C	265.0	230.0	330.0	360.0	750.0	550.0	*****	*****	*****	570.0	420.0	290.0	419.44	*CR=	173.10
P ALK.	0.0	0.0	0.0	0.0	0.0	2.0	*****	*****	*****	0.0	0.0	0.0	2.00	+C4-	0.0
T ALK.	72.0	75.0	96.0	103.0	154.0	132.0	*****	*****	*****	136.0	110.0	69.0	104.78	*CR=	31.20
CL-	0.0	5.0	5.5	8.5	14.0	10.0	*****	*****	*****	12.5	5.5	6.0	8.88	*CR=	3.29
I HONS	105.0	115.0	144.0	166.0	293.0	235.0	*****	*****	*****	254.0	166.0	120.0	177.56	+24-	67.41
CA HONS	70.0	78.0	111.0	133.0	192.0	163.0	*****	*****	*****	170.0	110.0	80.0	123.67	*CR=	44.08
1G HONS	35.0	37.0	33.0	33.0	101.0	72.0	*****	*****	*****	84.0	50.0	40.0	53.89	*CR=	25.44
SO4	50.0	62.0	77.0	80.0	240.0	140.0	*****	*****	*****	175.0	70.0	50.0	106.44	*CR=	64.95
NA	*****	*****	*****	10.5	40.1	25.4	*****	*****	*****	33.1	14.0	14.0	23.82	*CR=	11.35
K	*****	*****	*****	2.4	3.4	2.7	*****	*****	*****	3.0	0.0	1.0	2.68	*CR=	0.63
CU	0.010	0.0	0.005	0.005	0.006	0.005	*****	*****	*****	0.0	0.007	0.0	0.0045	*CR=	0.0033
PB	0.0	0.0	0.002	0.0	0.001	0.003	*****	*****	*****	0.0	0.0	0.0	0.0010	*CR=	0.0009
ZN	0.009	0.037	0.001	0.002	0.005	0.001	*****	*****	*****	0.0	0.550	0.044	0.0722	*CR=	0.1799
MN	0.007	0.0	0.010	0.0	0.052	0.021	*****	*****	*****	0.036	0.014	0.025	C.C189	*CR=	0.0174
FF	0.020	0.0	0.036	0.005	0.003	0.005	*****	*****	*****	0.007	0.002	0.005	0.0093	*CR=	0.0115
AS	0.0	0.0	*****	*****	0.0	*****	*****	*****	*****	0.0	*****	*****	C.0005	*CR=	0.0
HG (MG/L)	*****	0.070	0.0	*****	*****	*****	*****	*****	*****	0.0	0.0	*****	0.0179	*CR=	0.0347
AP	0.0	0.0	0.001	0.0	0.006	0.0	*****	*****	*****	C.0	0.0	0.0	0.0012	*CR=	0.0018
NI	0.0	0.0	0.0	0.001	0.004	0.005	*****	*****	*****	0.002	0.001	0.002	0.0018	*CR=	0.0016
CO	0.0	0.0	0.0	*****	0.002	0.001	*****	*****	*****	0.0	0.0	0.0	0.0007	*CR=	0.0005
CC	*****	0.0	0.0	0.0	0.0	0.0	*****	*****	*****	0.0	0.0	0.012	0.0019	*CR=	0.0041
LI	*****	0.009	0.012	0.0	0.021	0.016	*****	*****	*****	0.006	0.021	0.007	0.0116	*CR=	0.0074

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND **0.0** INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF **0.0** INDICATES THE PARAMETER WAS NOT DETECTABLE.

SITE F - SURFACE

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

DATE	18V175	28VII175	SVIII175	26IX75	31X75	1XI75	4X1175	1170	261176	2311176	AVERAGE	AND S.D.
TEMP. C	17.0	20.1	20.5	17.2	10.3	*****	4.9	*****	5.5	7.0	12.81	FOR- 6.00
O.O. MG/L	8.4	7.7	8.5	10.6	9.4	*****	10.8	*****	11.0	10.5	9.61	FOR- 1.28
TURB. JTU	110.0	25.0	17.0	22.1	20.0	*****	13.0	*****	17.0	9.0	26.75	FOR- 33.29
PH	7.9	7.8	8.1	8.6	8.3	*****	8.2	*****	8.5	8.4	8.22	FOR- 0.28
COND. 25 C	210.0	260.0	305.0	570.0	610.0	*****	500.0	*****	610.0	630.0	461.00	FOR- 174.85
P ALK.	0.0	0.0	0.0	*****	*****	*****	*****	*****	*****	*****	0.0	FOR- 0.0
T ALK.	60.0	70.0	83.0	140.0	178.0	*****	125.0	*****	140.0	140.0	117.00	FOR- 41.38
CL-	4.0	4.5	5.0	11.0	11.5	*****	11.0	*****	12.5	12.5	9.00	FOR- 3.78
T HORS	80.0	102.0	119.0	248.0	277.0	*****	299.0	*****	261.0	265.0	206.33	FOR- 85.62
CA HDNS	64.0	73.0	82.0	183.0	209.0	*****	230.0	*****	175.0	185.0	146.36	FOR- 61.83
MG HDNS	16.0	29.0	37.0	65.0	68.0	*****	69.0	*****	86.0	60.0	60.00	FOR- 29.55
SO4	33.0	41.0	55.0	130.0	*****	*****	149.0	*****	160.0	176.0	136.29	FOR- 61.09
NA	6.5	9.8	13.8	29.6	32.4	*****	22.2	*****	30.3	31.7	22.04	FOR- 10.59
K	1.5	2.0	2.1	3.7	3.9	*****	2.9	*****	3.3	3.5	2.85	FOR- 0.88
CU	0.004	0.0	0.0	0.0	0.009	*****	0.011	*****	0.0	0.0	0.0033	FOR- 0.0043
PB	0.0	0.0	0.0	0.0	0.0	*****	0.002	*****	0.0	0.0	0.0007	FOR- 0.0005
ZN	0.014	0.012	0.007	0.004	0.010	*****	0.017	*****	0.005	0.104	0.0051	FOR- 0.0048
MN	0.012	C.C11	0.014	0.042	0.046	*****	0.020	*****	0.0	C.0	0.0182	FOR- 0.0172
FE	0.014	0.014	0.002	0.001	0.007	*****	0.006	*****	0.0	C.0	0.0056	FOR- 0.0057
AS	0.0	*****	0.0	*****	*****	*****	*****	*****	*****	*****	0.0005	FOR- 0.0
HG (UG/L)	0.0	*****	0.050	*****	*****	*****	0.000	*****	0.0	*****	0.0077	FOR- 0.0447
AG	0.0	C.0	0.0	0.0	0.0	*****	0.0	*****	C.0	C.0	0.0005	FOR- 0.0000
NI	0.001	0.001	0.001	0.002	0.008	*****	0.005	*****	0.0	0.0	0.0024	FOR- 0.0027
CO	C.003	C.0	C.0	0.0	0.0	*****	0.003	*****	0.0	C.0	0.0011	FOR- 0.0012
CC	0.0	0.0	C.0	0.001	0.0	4*4**	0.0	*****	0.0	C.0	0.0006	FOR- 0.0002
LI	0.003	0.003	0.006	0.018	0.017	*****	0.012	*****	0.021	0.020	0.0125	FOR- 0.0076

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 FOR- 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

SITE F - BOTTOM (1-3 METRE DEPTH)

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE; DISSOLVED FRACTION REPORTED ONLY.

DATE	27VI74	11VII74	08VIII74	7IX74	19X74	16XI74	05XII74	1175	221175	1711175	19IV75	23V75	AVERAGE	AND S.D.
TEMP. C	*****	2m 23.5	2m 17.7	1m 18.0	1m 12.9	*****	*****	*****	*****	2m 11.0	3m 8.0	*****	15.18	+OR- 5.62
D.O. MG/L	*****	6.0	*****	*****	*****	*****	*****	*****	*****	*****	5.4	*****	8.70	+OR- 0.99
TOR. JTU	*****	8.0	60.0	70.0	4.0	*****	*****	*****	*****	12.0	255.0	*****	68.17	+CR- 95.78
PH	*****	7.5	1.7	8.0	8.3	*****	*****	*****	*****	8.6	8.3	*****	8.07	+OR- 0.41
COND. 25 C	*****	250.0	340.0	370.0	730.0	*****	*****	*****	*****	570.0	420.0	*****	446.67	+CR-174.43
P ALK.	*****	0.0	0.0	0.0	0.0	*****	*****	*****	*****	0.0	0.0	*****	0.0	+OR- 0.0
T ALK.	*****	70.0	91.0	106.0	151.0	*****	*****	*****	*****	136.0	165.0	*****	110.50	+OR- 29.44
CL-	*****	5.5	5.5	10.0	13.0	*****	*****	*****	*****	13.0	8.5	*****	9.25	+CR- 3.39
I HONS	*****	110.0	144.0	155.0	300.0	*****	*****	*****	*****	256.0	166.0	*****	188.50	+OR- 73.16
CA HONS	*****	77.0	99.0	124.0	204.0	*****	*****	*****	*****	174.0	117.0	*****	132.50	+CR- 47.64
MG HONS	*****	33.0	45.0	21.0	96.0	*****	*****	*****	*****	82.0	15.0	*****	54.33	+CR- 28.93
SO4	*****	66.0	78.0	76.0	240.0	*****	*****	*****	*****	180.0	72.0	*****	118.67	+OR- 73.36
NA	*****	*****	*****	10.5	39.2	*****	*****	*****	*****	33.1	19.7	*****	25.62	+OR- 12.96
K	*****	*****	*****	2.5	3.7	*****	*****	*****	*****	2.9	3.0	*****	3.02	+CP- 0.50
CO	*****	0.0	0.006	0.004	0.006	*****	*****	*****	*****	0.0	0.007	*****	0.0040	+OR-0.0029
PB	*****	0.0	0.0	0.0	0.001	*****	*****	*****	*****	0.0	0.0	*****	0.0006	+OR-0.0007
ZN	*****	0.006	0.0	0.002	0.005	*****	*****	*****	*****	0.0	0.009	*****	0.0038	+OR-0.0034
MN	*****	0.0	0.025	0.006	0.059	*****	*****	*****	*****	0.043	C.012	*****	0.0242	+OR-0.0228
FE	*****	0.0	0.030	0.004	0.008	*****	*****	*****	*****	0.005	0.004	*****	0.0036	+CR-0.0108
AS	*****	0.0	*****	*****	0.0	*****	*****	*****	*****	0.0	*****	*****	0.0005	+CR-0.0
HG (UG/L)	*****	0.030	0.020	*****	*****	*****	*****	*****	*****	0.0	0.040	*****	0.0226	+OR-0.0169
AG	*****	0.0	0.0	0.0	0.0	*****	*****	*****	*****	0.0	C.0	*****	C.0005	+CR-0.0
NI	*****	0.0	0.0	0.003	0.001	*****	*****	*****	*****	C.0	0.001	*****	0.0011	+OR-0.0010
CO	*****	0.015	0.030	*****	0.001	*****	*****	*****	*****	0.0	C.0	*****	0.0094	+OR-0.0131
CD	*****	0.003	0.0	0.0	0.0	*****	*****	*****	*****	0.0	C.0	*****	C.0009	+OR-0.0010
LT	*****	0.008	0.013	0.0	0.022	*****	*****	*****	*****	0.009	C.C20	*****	C.0121	+OR-0.0080

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + OR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE F - BOTTOM (2.2-9.0 METRE DEPTH)

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

DATE	18V175	28V175	3V1175	20IX75	3175	1X175	4X1175	1176	261176	2311176	AVERAGE	AND	S.D.
	2.8m	2.2m	3.0m	2.5m	3.0m	*****	5.0m	*****	9.0m	9.0m			
TEMP. C	16.8	19.9	20.0	16.3	10.9	*****	5.1	*****	5.5	6.7	12.65	*CR-	6.37
D.O. MG/L	8.4	7.2	8.3	9.5	6.6	*****	10.8	*****	10.0	9.9	9.05	*CR-	1.16
TURR. JTU	101.0	35.0	25.0	80.0	22.0	*****	14.0	*****	17.0	10.0	38.00	*CR-	33.74
PH	8.1	7.7	8.1	8.0	8.3	*****	3.2	*****	3.5	8.4	8.22	*CR-	0.27
COND. 25 C	210.0	260.0	305.0	570.0	600.0	*****	560.0	*****	620.0	630.0	465.38	*CR-	178.05
P ALK.	0.0	0.0	0.0	*****	*****	*****	*****	*****	*****	*****	0.0	+CR-	0.0
I ALK.	62.0	70.0	85.0	152.0	178.0	*****	140.0	*****	144.0	144.0	121.88	*CR-	43.10
CL-	4.0	5.0	5.0	12.0	12.0	*****	10.5	*****	12.5	12.5	9.19	*CR-	3.81
T HONE	80.0	103.0	121.0	250.0	275.0	*****	314.0	*****	266.0	260.0	208.63	+CR-	91.44
CA HDNS	62.0	74.0	84.0	133.0	210.0	*****	230.0	*****	186.0	185.0	151.75	*CR-	67.04
MG HDNS	18.0	29.0	37.0	67.0	65.0	*****	84.0	*****	80.0	75.0	56.88	*CR-	25.22
SO4	34.0	38.0	50.0	130.0	*****	*****	160.0	*****	160.0	200.0	110.29	*CR-	68.39
NA	6.5	9.9	13.7	26.6	32.4	*****	25.4	*****	30.3	24.3	21.76	*CR-	10.13
K	1.5	2.0	2.0	3.3	3.8	*****	3.0	*****	3.5	3.5	2.85	*CR-	0.92
CU	0.0	0.0	0.011	0.0	0.009	*****	0.018	*****	0.0	0.0	0.0051	+CR-	0.0068
PB	0.0	0.0	0.0	0.0	0.0	*****	0.002	*****	0.0	0.0	1.6007	*CR-	0.0005
ZN	0.014	0.006	0.004	0.004	0.003	*****	0.017	*****	0.007	0.005	0.0075	+CR-	0.0052
MN	0.013	0.022	0.022	0.038	0.055	*****	0.042	*****	0.0	0.0	1.1241	*CR-	0.0197
FE	0.018	0.009	0.002	0.0	0.008	*****	0.006	*****	0.0	0.0	0.0056	+CR-	0.0061
AS	0.0	*****	0.0	*****	*****	*****	*****	*****	*****	*****	0.0005	*CR-	0.0
HG (UG/L)	0.0	*****	0.010	*****	*****	*****	0.030	*****	0.030	*****	0.0301	+CR-	0.0355
AG	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0015	+CR-	0.0000
HIT	0.002	0.0	0.0	0.001	0.0	*****	0.002	*****	0.0	0.0	0.0005	+CR-	0.0007
CO	0.003	0.0	0.0	0.0	0.0	*****	0.002	*****	0.0	0.0	0.0010	+CR-	0.0010
CD	0.025	0.0	0.0	0.003	0.0	*****	0.0	*****	0.0	0.0	0.0039	+CR-	0.0086
LI	0.003	0.003	0.008	0.018	0.017	*****	0.016	*****	0.021	0.020	1.1132	+CR-	0.0074

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + 0.0 - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE G - S (SURFACE-ARKANSAS RIVER INLET)

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

DATE	27VI74	11VII74	14VII74	17IX74	19874	16XI74	6XII74	1175	221175	17II175	16IV75	23V75	AVERAGE	AND	S.D.
TEMP. C	20.7	23.1	17.8	17.3	13.0	0.0	*****	*****	4.0	11.0	8.5	14.8	13.62	+CR=	6.29
D.O. MG/L	*****	0.0	*****	*****	*****	*****	*****	*****	*****	*****	5.0	7.0	0.37	+CR=	0.81
TURB. JTU	11.0	9.0	28.0	40.0	12.0	31.0	*****	*****	0.0	9.0	270.0	80.0	50.40	+CR=	11.00
PH	7.1	8.0	7.7	3.0	0.3	0.5	*****	*****	0.0	0.7	0.2	7.5	8.06	+CR=	0.45
COND. 25 C	254.0	250.0	350.0	440.0	715.0	560.0	0.0	*****	650.0	570.0	410.0	300.0	464.45	+CR=	105.12
P ALK.	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	0.0	3.00	+CR=	0.0
T ALK.	64.0	75.0	92.0	103.0	154.0	131.0	144.0	*****	140.0	134.0	110.0	65.0	110.18	+CR=	32.78
CL-	0.0	5.0	0.0	0.5	14.0	10.0	9.0	*****	13.0	13.0	0.5	0.5	9.72	+CR=	3.08
T HDNS	100.0	100.0	142.0	160.0	307.0	232.0	262.0	*****	200.0	240.0	160.0	120.0	142.41	+CR=	74.62
CA HDNS	70.0	80.0	106.0	117.0	207.0	165.0	185.0	*****	186.0	167.0	115.0	81.0	134.45	+CR=	48.93
MG HDNS	30.0	28.0	36.0	43.0	100.0	67.0	77.0	*****	94.0	82.0	45.0	41.0	58.45	+CR=	26.32
SM4	35.0	63.0	75.0	100.0	200.0	144.0	180.0	*****	190.0	205.0	0.0	50.0	124.00	+CR=	72.76
NA	*****	*****	*****	10.5	39.5	25.2	32.3	*****	32.0	34.3	15.4	14.5	25.96	+CR=	10.31
K	*****	*****	*****	2.4	3.7	2.7	3.0	*****	3.2	3.0	2.5	1.7	2.02	+CR=	0.59
CU	0.008	0.0	0.006	0.0	0.004	0.005	0.004	*****	0.0	0.0	0.006	0.005	0.0036	+CR=	0.0027
PB	0.0	0.0	0.0	0.0	0.0	0.003	0.0	*****	0.0	0.0	0.002	0.002	0.0010	+CR=	0.0007
IN	0.008	0.007	0.004	0.0	0.006	0.002	0.0	*****	0.005	0.0	0.004	0.0026	0.0076	+CR=	0.0090
MN	0.006	0.0	0.005	0.0	0.039	0.001	0.030	*****	0.031	0.0	0.016	0.017	0.0169	+CR=	0.0154
FF	0.016	0.0	0.0	0.003	0.004	0.004	0.002	*****	0.001	0.004	0.003	0.003	0.0042	+CR=	0.0045
AS	0.0	0.0	*****	*****	0.0	*****	*****	*****	*****	0.0	*****	*****	0.005	+CR=	0.0
HG (UG/L)	*****	0.040	0.540	*****	*****	*****	3.3	*****	*****	0.0	0.0	*****	0.1163	+CR=	0.2375
AG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*****	0.0	0.0	0.0	0.0	0.0035	+CR=	0.0000
NT	0.0	0.0	0.0	0.0	0.0	0.005	0.0	*****	0.005	0.004	0.005	0.004	0.0024	+CR=	0.0022
CD	0.0	0.0	0.0	*****	0.001	0.001	0.0	*****	0.0	0.0	0.0	0.007	0.0007	+CR=	0.0005
CC	*****	0.004	0.0	0.0	0.0	0.0	0.0	*****	0.0	0.0	0.0	0.010	0.0018	+CR=	0.0031
LI	*****	0.008	0.014	0.006	0.022	0.017	0.021	*****	0.025	0.009	0.019	0.006	0.0147	+CR=	0.0071

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + CR = 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

SITE G - SURFACE

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

DATE	18V175	28V1175	9V11175	28IX75	31X75	1X175	4X1175	1176	261176	2311176	AVERAGE AND S.D.	
TEMP. C	16.8	20.0	21.0	18.5	11.0	*****	*****	*****	8.8	8.1	14.05	*OR- 5.45
D.O. MG/L	8.4	7.2	8.8	11.6	8.5	*****	*****	*****	10.6	12.0	9.59	*OR- 1.82
TURB. JTU	67.0	30.0	12.0	10.0	14.0	*****	*****	*****	10.0	5.0	21.11	*OR- 21.25
PH	8.0	7.9	8.2	8.7	8.4	*****	*****	*****	8.5	8.3	8.29	+OR- 0.2E
COND. 25 C	200.0	250.0	300.0	570.0	610.0	*****	*****	*****	600.0	720.0	464.29	*OR- 207.75
P ALK.	0.0	0.0	0.0	*****	*****	*****	*****	*****	*****	*****	0.0	*OR- 0.0
T ALK.	61.0	70.0	85.0	140.0	182.0	*****	*****	*****	141.0	147.0	118.00	*OR- 45.81
CL-	4.0	4.5	5.0	10.0	12.5	*****	*****	*****	13.0	12.5	8.79	*OR- 4.13
T HDNS	79.0	103.0	117.0	247.0	253.0	*****	*****	*****	264.0	295.0	194.00	*OR- 90.21
CA HDNS	59.0	74.0	80.0	180.0	181.0	*****	*****	*****	175.0	196.0	13.00	*OR- 60.53
MG HDNS	20.0	29.0	37.0	67.0	77.0	*****	*****	*****	89.0	95.0	59.00	*OR- 30.65
SO4	32.0	36.0	53.0	130.0	*****	*****	*****	*****	153.0	240.0	106.63	*OR- 82.04
NA	6.5	9.9	12.9	30.1	32.3	*****	*****	*****	31.0	40.0	23.33	*OR- 13.27
K	1.5	2.0	2.6	3.8	3.8	*****	*****	*****	3.0	2.7	2.91	*OR- 0.92
CU	0.003	0.0	0.008	0.0	0.013	*****	*****	*****	0.0	0.0	0.0037	*OR- 0.0049
PB	0.007	0.0	0.0	0.0	0.0	*****	*****	*****	0.0	0.0	0.0007	*OR- 0.0006
ZN	0.011	0.006	0.004	0.304	0.002	*****	*****	*****	0.010	0.011	0.0069	*OR- 0.0038
MN	0.016	0.010	0.008	0.012	0.021	*****	*****	*****	0.028	0.033	0.0197	*OR- 0.0117
FE	0.017	0.007	0.002	0.301	0.006	*****	*****	*****	0.0	0.003	0.0052	*OR- 0.0057
AS	0.0	*****	0.0	*****	*****	*****	*****	*****	*****	*****	0.0005	*OR- 0.0
HG (UG/L)	0.0	*****	0.010	*****	*****	*****	*****	*****	0.0	*****	0.0007	*OR- 0.0055
AG	0.0	0.0	0.0	0.0	0.0	*****	*****	*****	0.0	0.0	0.0005	*OR- 0.0
NI	0.0	0.0	0.0	0.0	0.0	*****	*****	*****	0.0	0.0	0.0005	*OR- 0.0
CO	0.0	0.0	0.0	0.0	0.0	*****	*****	*****	0.0	0.0	0.0005	*OR- 0.0
CC	0.0	0.0	0.0	0.302	0.0	*****	*****	*****	0.0	0.0	0.0007	+JR-C.0006
LI	0.003	0.003	0.005	0.018	0.018	*****	*****	*****	0.015	0.022	0.0131	*OR- 0.0080

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + CR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

SITE H (ARK RVR AT HOOT OF NO. 30E WTR TREATMENT PLANT, 1/2 MILES DOWNSTREAM FROM PUEBLO DAM)

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

DATE	27V174	11V1174	8V11174	71X74	19X74	16X174	6X1174	1175	221175	1711175	151V75	23V75	AVERAGE	STD. DEV.
TEMP. C	23.6	24.8	18.6	23.0	13.5	8.0	6.3	*****	5.5	10.0	16.0	16.3	19.87	+CR= 7.06
O.O. MG/L	*****	11.0	*****	*****	*****	*****	12.0	*****	*****	*****	10.5	6.6	10.52	+CR= 1.43
THURB. JTU	8.0	10.0	78.0	14.0	12.0	12.0	5.0	*****	6.0	6.0	16.0	46.0	157.00	+CR= 12.06
PH	8.3	8.3	7.6	8.6	8.2	8.5	8.2	*****	8.2	8.5	8.6	7.5	8.30	+CR= 0.31
COND. 25 C	254.0	275.0	310.0	360.0	600.0	650.0	720.0	*****	710.0	640.0	680.0	420.0	507.18	+CR=175.98
P ALK.	0.0	7.0	0.0	7.0	0.0	4.0	*****	*****	*****	0.0	0.0	0.0	6.00	+CR= 1.73
T ALK.	69.0	81.0	72.0	109.0	121.0	142.0	142.0	*****	140.0	140.0	133.0	97.0	115.64	+CR= 27.34
CL-	0.0	5.5	5.0	12.0	10.5	11.0	11.0	*****	12.5	12.5	1.5	10.0	10.25	+CR= 2.78
T HONS	95.0	110.0	135.0	188.0	244.0	264.0	262.0	*****	294.0	256.0	274.0	140.0	214.73	+CR= 73.71
CA HONS	71.0	82.0	93.0	133.0	111.0	177.0	182.0	*****	205.0	198.0	160.0	131.0	142.09	+CR= 46.00
MG HDNS	74.0	30.0	42.0	55.0	133.0	87.0	80.0	*****	93.0	108.0	194.0	53.0	61.55	+CR= 50.11
SO4	48.0	70.0	79.0	72.0	184.0	220.0	180.0	*****	230.0	260.0	260.0	180.0	153.00	+CR= 76.07
NA	*****	*****	*****	13.0	31.9	32.4	33.6	*****	35.0	38.6	35.4	29.0	30.75	+CR= 8.11
K	* * * *	* * * *	* * * *	3.2	3.4	3.5	3.4	*****	3.8	3.2	3.7	2.8	3.37	+CR= 0.32
CU	0.008	0.0	0.005	0.0	0.0	0.005	0.003	*****	0.0	0.0	0.007	0.006	0.0033	+CR=0.00130
P8	0.0	0.0	0.0	0.0	0.0	0.003	0.0	*****	0.0	0.0	0.007	0.0	0.0013	+CR=0.0020
ZN	0.004	0.008	0.008	0.0	0.002	0.001	0.0	*****	0.0	0.0	0.0	0.0017	0.0017	+CR=0.0051
MN	0.005	0.0	0.006	0.0	0.016	0.011	0.005	*****	*****	0.0	0.018	0.000	0.0000	+CR=0.00172
FE	0.008	0.0	0.0	0.002	0.002	0.002	0.002	*****	0.0	0.0	0.001	0.0	0.0018	+CR=0.0022
AS	0.0	0.0	*****	*****	0.0	*****	*****	*****	*****	0.002	*****	*****	0.0005	+CR=0.0007
HG (µG/L)	*****	0.120	0.0	*****	*****	*****	0.020	*****	*****	0.0	0.0	*****	0.0283	+CR=0.0520
AG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	* * *	0.0	0.0	0.0	0.0	0.0005	+CR=0.0000
NI	0.003	0.0	0.001	0.001	0.0	0.006	0.0	*****	0.006	0.001	0.0012	0.0	0.0020	+CR=0.0021
CO	0.0	0.018	0.0	*****	0.002	0.001	0.0	*****	0.0	0.0	0.0	0.0	0.0024	+CR=0.0055
CC	*****	0.004	0.0	0.0	0.0	0.0	0.0	*****	0.0	0.0	0.0	0.012	0.0020	+CR=0.0037
LI	*****	0.006	0.011	0.0	0.017	0.025	0.023	*****	0.028	0.015	0.006	0.012	0.0175	+CR=0.0105

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND O.O INDICATES THE PARAMETER WAS NOT DETECTABLE

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + CR = 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE H - SURFACE

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

DATE	18VI175	28VI175	5VII175	26IX75	31X75	1XI75	4XI175	1175	261176	2311176	AVERAGE AND S.D.
TEMP. C	21.0	23.2	24.0	19.2	11.3	*****	3.2	*****	8.9	9.5	15.62 +OR 6.85
O.O. MG/L	9.3	*****	10.6	10.8	10.1	*****	14.4	*****	10.0	10.5	10.80 +Le 1.66
TOR. JTU	19.0	20.0	8.0	12.0	6.0	*****	12.0	** **	13.0	10.0	13.13 +OR 5.28
PH	8.0	8.2	8.6	8.6	8.3	*****	8.7	*****	8.5	8.4	8.41 +OR 0.24
COND. 25 C	290.0	320.0	350.0	425.0	540.0	*****	510.0	**	650.0	670.0	405.30 +OR 146.49
P ALK.	0.0	0.0	5.0	*****	*****	*****	*****	*****	*****	*****	5.00 +OR 0.0
7 ALK.	81.0	75.0	85.0	120.0	154.0	*****	120.0	*****	145.0	143.0	115.38 +OK 31.42
CL ⁻	5.0	5.0	5.5	9.0	12.5	*****	11.5	*****	13.0	13.0	5.31 +OR 3.66
T HDNS	112.0	125.0	137.0	196.0	249.0	*****	206.0	*****	265.0	276.0	201.00 +OW 74.24
CA HDNS	30.0	91.0	7.0	136.0	181.0	** **	210.0	*****	140.0	193.0	147.25 +OR 52.56
MG HDNS	32.0	34.0	40.0	60.0	80.0	*****	33.0	*****	75.0	83.0	55.75 +OR 21.89
SOD	60.0	63.0	80.0	98.0	*****	*****	160.0	*****	180.0	154.0	119.25 +OR 57.16
NA	11.4	12.2	15.8	21.9	29.1	*****	23.9	*****	31.9	32.0	22.27 +OR 8.44
K	1.9	2.7	1.8	3.0	3.5	*****	3.0	*****	3.4	3.6	2.86 +OR 0.69
CU	0.003	0.0	0.0	0.010	0.013	*****	0.011	*****	0.0	0.0	0.0049 +OR 0.0053
PR	0.001	0.0	0.001	0.0	0.0	** **	0.0	*****	0.0	0.0	0.0006 +OR 0.0002
ZN	0.007	0.003	0.006	0.001	0.002	*****	0.012	*****	0.007	0.007	0.0036 +OR 0.0035
MN	0.003	0.003	0.004	0.015	0.021	*****	0.018	*****	0.016	0.010	0.0112 +OR 0.0072
FE	0.012	0.006	0.006	0.004	0.004	*****	0.006	*****	0.0	0.0	0.0049 +OR 0.0037
AS	0.0	*****	0.0	*****	*****	*****	*****	*****	*****	*m*	0.0005 +OR 0.0
HG (PP/L)	0.0	*****	0.010	*****	*****	*****	0.000	*****	0.020	*****	0.0276 +OR 0.0358
AG	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005 +OR 0.0000
NI	0.0	0.0	0.0	0.0	0.0	*****	0.006	*****	0.0	0.0	0.0012 +OR 0.0015
CO	0.003	0.0	0.0	0.0	0.0	*****	0.002	*0***	0.0	0.0	0.0010 +OR 0.0010
CC	0.0	0.004	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005 +OR 0.0012
LI	0.006	0.002	0.005	0.015	0.017	*****	0.014	*****	0.024	0.023	0.0137 +OR 0.0076

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + OR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

SITE I (ARKANSAS RIVER BELOW STILLING BASIN OF PUEBLO DAM)

NOTE: ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

DATE	27V174	1191114	EVT1174	71X74	19X74	16X174	6X1174	1175	221175	1711175	191975	23V75	AVEPACr Afq S.O.
TEMP. C	*****	*****	*****	*****	*****	*****	*****	*****	*****	6.5	10.1	16.3	10.57 CR- 4.96
D.O. MG/L	*****	*****	*****	*****	*****	*****	*****	*****	*****	11.2	8.4	9.90	CR- 1.84
TURB. JTU	*****	*****	*****	*****	*****	*****	*****	*****	*****	10.0	16.0	48.00	22.00 +CR- 70.78
PH	*****	*****	*****	*****	*****	*****	*****	*****	*****	8.4	8.0	7.8	8.30 CR- 0.36
COND. 25 C	*****	*****	*****	*****	*****	*****	*****	*****	*****	620.0	675.0	400.0	591.67 CR-100.54
o ALK.	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0	0.0 CR- 0.0
T ALK.	*****	*****	*****	*****	*****	*****	*****	*****	*****	140.0	140.0	97.0	125.67 +CR- 24.83
CL-	*****	*****	*****	*****	*****	*****	*****	*****	*****	12.5	12.5	10.0	11.67 CR- 1.44
I HONS	*****	*****	*****	*****	*****	*****	*****	*****	*****	294.0	278.0	150.0	252.67 CR- 55.18
CA HONS	*****	*****	*****	*****	*****	*****	*****	*****	*****	189.0	176.0	137.0	167.33 CR- 27.06
MG HDNS	*****	*****	*****	*****	*****	*****	*****	*****	*****	105.0	90.0	3.0	85.33 CR- 26.22
SO4	*****	*****	*****	*****	*****	*****	*****	*****	*****	255.0	208.0	120.0	193.00 CR- 68.17
NA	*****	*****	*****	*****	*****	*****	*****	*****	*****	37.9	35.0	25.0	32.83 CR- 8.09
K	*****	*****	*****	*****	*****	*****	*****	*****	*****	3.2	3.6	2.0	3.17 CR- 0.45
CU	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.007	0.003	0.0035 CR-0.0033
RR	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0	0.0005 CR-0.00
ZN	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.001	0.010	0.0065 CR-0.0100
MN	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.010	0.010	0.0095 + CR-0.0074
FE	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.001	0.0	0.003	0.0015 CR-0.0013
AS	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.000	0.000	0.0000 CR-0.00
KG (UG/L)	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.000	3.0005 CR-0.00
AG	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.001	0.0	0.0007 CR-0.0000
NI	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.002	0.0	0.0010 + CR-0.0000
CI	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0	0.0005 CR-0.00
CO	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.011	0.0040 CR-0.0000
LI	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.015	0.015	0.012	0.0207 CR-0.0175

NOTE: ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE: AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.00+ CR- 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

SITE I - SURFACE

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. DISSOLVED FRACTION REPORTED ONLY.

PARAM	18V175	23V1175	5V11175	26IX75	31X75	1X175	4X1175	1176	26I176	23I1176	AVERAGE AND
TEMP. C	18.5	22.0	23.0	*****	*****	*****	*****	*****	*****	*****	21.17 +06- 2.16
BOD MG/L	10.3	*****	10.1	*****	*****	*****	*****	*****	*****	*****	10.20 +0K- 0.14
TUFR. JTU	31.0	18.0	8.0	*****	*****	*****	*****	*****	*****	*****	19.06 +06- 11.53
PH	8.0	8.3	8.3	*****	*a***	*****	*****	*****	*****	*****	8.4C +07- 0.17
CONE. 25 C	290.0	320.0	330.0	*****	*****	*****	*****	*****	*****	*****	313.33 +0K- 20.82
P ALK.	C.0	C.0	0.0	*****	*****	*****	*****	*****	*****	*****	C.0 +UA- 0.0
T ALK.	74.0	78.0	83.0	*****	*****	*****	*****	*****	*****	*****	78.33 +06- 4.51
CL-	5.0	5.0	5.0	*****	*****	*****	*****	*****	*****	*****	5.00 +06- 0.0
T HDNS	111.0	125.0	136.0	*****	*****	*****	*****	*****	*****	*****	124.00 +0K- 12.53
CA HDNS	79.0	91.0	96.0	*****	*****	*****	*****	*****	*****	*****	88.67 +0K- 8.74
MG HDNS	32.0	34.0	40.0	*****	*****	*****	*****	*****	*****	*****	35.33 +06- 4.16
S04	54.0	65.0	73.0	*****	*****	*****	*****	*****	*****	*****	64.00 +06- 9.54
NA	11.4	12.3	15.6	*****	*a**	*****	*****	*****	*****	*****	13.10 +06- 2.21
K	1.9	2.7	2.6	*****	*****	*****	*****	*****	*****	*****	2.40 +Lk- 0.44
CU	0.004	0.0	0.009	*****	*****	*****	*****	*****	*****	*****	0.0045 +06- 0.0043
PR	C.0	0.0	0.0	*****	*****	*****	*****	*****	*****	*****	0.0005 +06- 0.0
ZN	C.012	0.002	0.0	*****	*****	*****	*****	*****	*****	*****	0.0009 +Lk- 0.0003
MN	C.008	0.003	0.0	*****	*****	*****	*****	*****	*****	*****	0.0038 +06- 0.0038
FE	0.190	0.004	0.0	*****	*****	*****	*****	*****	*****	*****	0.0640 +06- 0.1064
AS	C.0	*****	0.0	*****	*****	*****	*****	*****	*****	*****	0.0005 +06- 0.0
HC (MCL)	0.0	*****	0.010	*****	*****	*****	*****	*****	*****	*****	0.0002 +06- 0.0007
AG	C.0	0.0	C.0	*****	*****	*****	*****	*****	*****	*****	0.0015 +06- 0.0
NI	0.003	0.001	0.001	*****	*****	*****	*****	*****	*****	*****	C.CC17 +06- 0.0012
CO	0.003	*****	C.0	*****	*****	*****	*****	*****	*****	*****	0.0017 +UR- 0.0018
CD	0.0	0.004	C.0	*****	*****	*****	*****	*****	*****	*****	0.0017 +UR- 0.0020
LI	0.006	0.005	0.008	*****	*****	*****	*****	*****	*****	*****	0.0103 +06- 0.0015

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + 0.0 - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

APPENDIX B — Suspended Fraction, Impoundment Data

SITE A - S (SURFACE)

NOT ALL CONCENTRATION PARAMETERS ARE REPORTED MC/L UNLESS SPECIFIED OTHERWISE; SUBSTRATE FRACTION REPORTED ONLY

DATE	20X174	11V1174	EV11174	71X75	19X74	16X174	10X174	1175	221174	1711175	19IV75	23V75	AVG/STD	MIN	MAX
PH	0.0	0.0	0.0	0.0	0.0	0.0	0.030	****	*****	0.011	0.010	0.004	0.0058	+0.00	0.004
P5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	0.0005	+0.00	0.0030
PN	0.000	0.000	0.013	0.000	0.005	0.313	0.000	*****	*****	0.000	0.000	0.000	0.0339	+0.00	0.0000
MT	0.010	0.000	0.007	0.010	0.010	0.028	0.010	*****	*****	0.020	0.024	0.010	0.0164	-	0.0070
FF	0.000	0.100	0.170	0.000	0.000	3.130	0.000	*****	*****	0.034	0.099	0.100	0.0000	+0.00	0.0000
AG	0.0	0.0	0.0	0.3	0.0	0.0	0.0	*****	*****	0.3	0.0	0.0	0.0005	+0.00	0.0000
NI	0.0	0.013	0.0	0.010	0.010	0.0	0.000	*****	*****	0.0	C.L	0.0	0.0000	+0.00	0.0000
CO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	0.0005	+CR	0.0000
CD	0.0	0.000	0.0	0.0	0.0	0.0	0.0	*****	**t**	0.0	C.0	0.0	0.0000	+CR	0.0000
LI	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	0.0000	+CR	0.0000
MA	0.0	0.0	0.0	0.0	0.0	0.0	0.31	*****	*****	0.02	0.005	0.000	0.0000	+0.00	0.0000
K	0.01	0.0	0.01	0.0	0.0	0.0	0.0	*****	*****	0.06	0.000	0.000	0.0000	+0.00	0.0000
CA	0.50	0.00	0.05	0.01	0.0	0.02	0.000	*****	*****	0.37	0.005	C.47	0.0000	+0.00	0.273
MG	0.000	0.04	0.05	0.02	0.000	0.04	0.04	*****	*****	0.000	0.000	0.000	0.048	+0.00	0.000
SUSP. MAT.	2.20	2.30	*****	0.00	2.50	0.00	3.00	**a**	*****	6.00	10.00	10.00	0.0000	+0.00	0.0000

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.00 INDICATES THE PARAMETER WAS NOT DETECTABLE

NOTE A4 AVERAGE AND STANDARD DEVIATION VALUE: 0.0 + OR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

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SITE A - S (SURFACE)

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. SUSPENDED FRACTION REPORTED ONLY.

DATE	18V1175	28V1175	SV11175	26IX75	31X75	1X175	4X1175	1175	261176	2311176	AVERAGE	AND	S.D.
CU	0.002	0.005	0.019	0.004	0.002	*****	0.001	*****	0.00	0.0	0.0042	+0R-	0.0062
PB	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+0R-	0.0000
ZN	0.011	0.001	0.006	0.002	0.003	*****	*****	*****	0.0	0.0	0.0034	+0R-	0.0039
MN	0.030	0.004	0.005	0.001	0.001	*****	0.003	*****	0.014	0.011	0.0054	+0R-	0.0054
FF	0.510	0.050	0.110	0.0	0.010	*****	0.010	*****	0.070	0.110	0.1068	+0k-	0.1678
AG	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+0R-	0.0000
NI	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+0R-	0.0000
CO	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+0R-	0.0000
CD	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+0R-	0.0000
LI	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+0R-	0.0000
NA	0.0	0.40	0.32	0.31	0.36	*****	0.14	*****	0.23	0.02	0.423	+0R-	0.153
K	0.07	0.02	0.06	0.01	0.03	*****	*****	*****	0.04	0.05	0.040	+0R-	0.022
CA	0.31	3.07	0.26	0.10	0.14	*****	*****	*****	0.25	0.20	0.153	+0R-	0.092
MG	0.14	0.0	0.0	0.0	0.02	*****	*****	*****	0.05	0.04	0.036	+0R-	0.050
SOSP. MAT.	21.00	4.50	4.00	2.53	3.00	*****	11.30	*****	5.50	7.50	7.375	+0R-	6.151

NOTE ***** INDICATES NO DETERMINATION AS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + CR - 0.0 INDICATES THE PARAMETER AS NOT DETECTABLE.

SITE A - 3 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. SUSPENDED FRACTION REPORTED ONLY.

DATE	27V174	11V1174	08V1174	71X74	19X74	16X174	08X1174	1175	221175	1711175	191V75	23V75	AVERAGE	AMP	S.D.
CU	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.004	0.0107	0.001	0.0017	+CR-	0.0023
PB	*4***	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	0.0005	+CR-	0.0000
7N	*****	0.100	0.0	0.0	0.0	0.0	0.0	*****	*****	0.001	0.0001	0.0	0.0117	+CR-	0.0331
AN	*****	0.010	0.007	0.017	0.020	0.033	0.011	*****	*****	0.032	0.024	0.009	0.0181	+CR-	0.0099
FE	*****	0.090	0.170	0.070	0.040	0.080	0.030	*****	*****	0.038	0.170	0.074	0.0813	+CR-	0.0531
NI	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	0.0005	+CR-	0.0000
CO	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	0.0005	+CR-	0.0000
CD	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	0.0005	+CR-	0.0000
LI	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	0.0005	+CR-	0.0000
NA	*****	0.0	0.0	0.0	0.14	0.33	0.29	*****	*****	0.02	0.07	0.06	0.101	+CR-	0.127
V	*****	0.0	0.0	0.01	0.0	0.03	0.01	*****	*****	0.000	0.007	0.00	0.022	+CR-	0.031
CA	*****	0.77	0.06	0.05	0.0	0.30	0.25	*****	*****	0.52	0.51	0.000	0.232	+CR-	0.267
MG	*****	0.04	0.05	0.02	0.02	0.05	0.04	*****	*****	0.11	0.000	0.000	0.052	+CR-	0.029
SUSP. MAT.	*****	3.00	4.90	8.70	3.50	7.50	1.50	*****	*****	7.00	13.00	7.00	6.233	+CR-	3.478

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + CR - 0.0 INDICATES THE PARAMETER AS NOT DETECTABLE

SITE A - 3 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. SUSPENDED FRACTION REPORTED ONLY.

CATE	18V175	26V1175	5V11175	26IX75	31X75	1X175	4X1175	1176	261116	2311176	AVERAGE	AND	S.D.
CU	0.004	0.007	0.013	0.015	0.005	*****	0.013	*****	0.0	0.0	0.0072	+OR-	0.0058
PB	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+OR-	0.0000
ZN	0.023	0.002	0.006	0.016	0.008	*****	0.006	*****	0.0	0.0	0.0077	+OR-	0.0080
MN	0.032	0.007	0.003	0.009	0.012	*****	0.008	*****	0.100	C.C12	0.0229	+OR-	0.0324
FE	0.520	0.120	0.060	0.070	0.080	*****	0.090	*****	0.090	0.060	0.1367	+OR-	0.1551
AG	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+OR-	0.0000
NI	0.030	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.6	0.0042	+OR-	0.0104
CO	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+OR-	0.0000
CE	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+OR-	0.0000
LI	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+OR-	0.0000
NA	0.05	0.41	0.36	0.85	0.44	*****	0.41	*****	0.06	C.C3	0.329	+OR-	0.274
K	0.07	0.04	0.08	0.08	0.05	*****	0.07	*****	0.02	0.04	0.057	+OR-	0.022
CA	0.32	0.14	0.30	0.52	0.15	*****	0.46	*****	0.34	J.24	0.309	+OR-	0.135
MG	0.15	0.02	0.01	0.03	0.0	*****	0.03	*****	0.04	0.04	0.040	+OR-	0.047
SUSP. MAT.	22.50	3.50	3.50	2.50	2.50	*****	6.50	*****	6.00	6.00	6.025	+OR-	6.616

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + OR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE - 6 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. SUSPENDED FRACTION REPORTED ONLY.

DATE	27V174	11V1174	6V11174	7FX74	19X74	16X174	6X1174	1175	221175	1711175	191V75	23V75	AVERAGE	AND S.D.
CU	*****	0.0	0.0	0.0	0.075	0.0	0.0	*****	*****	0.005	0.0	0.004	0.0007	+PR- 0.0246
PB	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	0.0005	+CR- 0.0000
ZN	*****	0.019	0.0	0.0	0.045	0.0	0.0	*****	*****	0.007	0.0	0.007	0.0009	+CR- 0.0149
MN	*****	0.014	0.006	0.024	0.050	0.030	0.016	*****	*****	0.035	0.025	0.010	0.0236	+CR- 0.0135
FE	*****	0.070	0.200	0.080	0.230	0.090	0.040	*****	*****	0.056	0.110	0.120	0.1107	+PR- 0.0645
AG	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	0.0005	+CR- 0.0000
NI	*****	0.010	0.0	0.010	0.060	0.020	0.0	*****	*****	0.0	0.0	0.0	0.0114	+PR- 0.0195
CO	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	C.L	0.0	0.0005	+CR- 0.0000
CD	*****	0.0	0.0	0.001	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	0.0006	+02- 0.0002
LI	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	0.0005	+CR- 0.0000
NA	*****	0.0	0.0	0.0	0.37	0.0	0.10	*****	*****	0.06	0.01	0.44	0.109	+CR- 0.172
<	*****	0.0	0.0	0.02	0.0	0.0	*****	*****	*****	0.02	0.02	0.03	0.011	+CR- 0.012
CA	*****	0.20	0.06	0.05	0.21	0.03	0.16	*****	*****	0.43	0.01	0.31	0.229	+CR- 0.193
MG	*****	0.04	0.06	0.02	0.10	0.04	0.02	*****	*****	0.12	0.10	0.03	0.059	+PR- 0.038
SUSP. MAT.	*****	2.10	*****	6.50	3.00	6.30	2.50	*****	*****	7.50	14.50	7.00	6.225	+CR- 4.008

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.00 + PR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

SITE A - 6 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. SUSPENDED FRACTION REPORTED ONLY

DATE	18V175	28V1175	5V11175	261 X75	31X75	1X175	4X11/5	1176	261176	2311176	AVERAGE ANn	S.D.
CU	0.0	0.007	0.004	0.0u2	0.013	*****	0.014	*****	C.002	0.0	0.0054	OR = 0.0054
PB	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+OR = 0.0000
ZN	0.017	0.003	*****	0.004	0.005	*****	0.304	*****	0.0	0.0	0.0049	+OR = 0.0056
MN	0.026	0.004	*****	0.013	0.011	*****	0.005	*****	0.010	0.010	0.0118	+OR = 0.0079
FE	0.450	0.080	*****	0.030	0.040	*****	0.050	*****	0.070	0.050	0.1157	+OR = 0.1480
AG	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0009	+OR = 0.0000
BT	0.0	0.0	0.0	0.0	0.030	*****	0.0	*****	0.0	0.0	0.0042	+OR = 0.0104
CD	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+OR = 0.0000
CO	0.0	0.0	C.0	0.002	u.0	*****	3.0	*****	0.0	0.0	0.0007	+OR = 0.0005
LT	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+OR = 0.0000
MA	0.0	0.33	*****	0.34	0.45	*****	0.36	*****	0.0	0.08	0.227	+OR = 0.195
K	0.17	0.0	*****	0.02	0.0	*****	0.07	*****	0.04	0.05	0.050	+OR = 0.059
CA	0.22	0.14	*****	0.17	0.51	*****	0.34	*****	0.27	0.25	0.271	+OR = 0.124
MG	0.13	0.01	*****	0.01	0.10	*****	0.02	*****	0.04	0.03	0.049	+JP = 0.047
SUSP. MAT.	23.50	4.50	4.00	2.50	2.00	*****	7.50	*****	5.50	6.50	7.000	+OR = 6.923

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + OR = 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE A - 9 METRE OEP TH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. SUSPENDED PARTICLES REPORTED ONLY.

DATE	27V174	11V1174	8V11174	7I X74	14X74	16X174	8X1174	1175	221175	1711175	19V175	23V75	AVERAGE	AND	S.D.
TO	*****	*****	0.0	0.0	*****	0.0	0.0	*4***	*****	*****	0.002	0.004	0.0013	+CR-	0.0014
PH	*****	*****	0.0	0.0	*****	0.0	0.0	*****	*****	*****		C.0	0.0005	+CR-	0.0
7N	*****	*****	0.0	0.0	*****	0.0	0.0	*****	*****	*****	0.0	0.005	0.0012	+CR-	0.0018
AN	*****	*****	0.021	0.055	*****	0.020		*****	*****	*****	0.020	0.040	0.0313	+CR-	0.0101
FE	* * *	*****	0.420	0.160	*****	0.070	0.040	*****	*****	*****	0.170	0.240	C.1733	+CR-	0.1400
AG	*****	*****	0.0	0.0	*****	0.0	0.0	*****	*****	*****	0.0	0.0	C.0005	+CR-	0.0
NI	*****	*****	0.0	0.010	*****	0.0	0.0	*****	*****	*****	0.0	0.0	0.0021	+CR-	0.0039
CO	*****	*****	0.0	0.0	*****	0.0	0.0	*****	*****	*****	0.0	0.0	C.0005	+CR-	0.0
CC	*****	*****	0.0	0.0	*****	0.0	0.0	*****	*****	*****	0.0	0.0	0.0005		0.0
LI	*****	*****	0.0	0.0	*****	0.0	0.0	*****	*****	*****	0.0	0.0	0.0005	+CR-	0.0
NA	*****	*****	0.0	0.0	*****	3.0	0.0	*****	*****	*****	0.0	0.0	0.075	+CR-	0.130
	*****	*****	0.03	*****	*****	0.0	0.0	*****	*****	*****			0.018	+CR-	0.027
CA	*****	*****	C.02	0.00	*****	0.0	0.0	*****	*****	*****	0.75	0.10	0.172	+CR-	0.200
MG	*****	*****	0.13	0.04	*****	0.03	0.01	*****	*****	*****	0.11	0.02	0.057	+CR-	0.050
SUSP. MAT.	*****	*****	15.80	6.40	*****	6.00	2.50	*****	*****	*****	10.00	7.50	8.867	+CR-	5.337

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANCARD DEVIATION VALUE OF 0.0 + OR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

SITE METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. SUSPENDED FRACTION REPORTED ONLY.

DATE	18V175	28V1175	9V11175	261X75	31X75	1X175	4X1175	1176	261176	2311176	AVERAGE	AND	S.D.
CU	0.0	0.004	0.019	3.0	0.006	*****	0.012	*****	0.0	0.0	0.0054	±0.0068	
PB	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	±0.0000	
PN	0.011	0.005	0.010	0.001	0.002	*****	0.004	*****	0.0	0.0	0.0042	±0.0042	
MN	0.025	0.008	0.006	0.007	0.010	*****	0.006	*****	0.011	0.014	0.0109	±0.0063	
FE	0.410	0.220	0.120	0.020	0.050	*****	0.030	*****	0.050	0.070	0.1275	±0.1276	
AG	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	±0.0000	
NI	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	3.0	0.0	0.0005	±0.0000	
ON	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	±0.0000	
CC	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	±0.0000	
LI	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	±0.0000	
NA	0.0	0.47	0.40	0.21	0.54	*****	0.34	*****	0.04	0.0	0.254	±0.214	
K	0.06	0.08	0.05	0.0	0.02	*****	0.06	*****	0.03	0.03	0.041	±0.026	
CA	0.12	0.34	0.37	0.03	0.50	*****	0.34	*****	0.27	0.19	0.277	±0.165	
MG	0.13	0.04	0.02	0.0	0.12	*****	0.07	*****	0.04	0.03	0.050	±0.048	
SUSP. MAT.	18.00	8.00	6.00	2.00	3.00	*****	8.00	*****	7.00	6.50	7.313	±4.847	

NOTE ***** INDICATES NO DETECTION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 ± 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

WIT A - 12 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE; SUSPENDED FRACTION REPORTED ONLY.

DATE	27VI74	11VII74	05III74	7IX74	19X74	16XI74	08III74	1175	221175	17III75	19IV75	2 15	AVERAGE	AND	S.D.
CU	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.002	0.003	0.0025	+G/-	0.0007
PB	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	+CR-	0.0
MN	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0025	0.010	0.0095	+CR-	0.0007
PK	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0025	0.010	0.0095	+CR-	0.0007
AG	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	+CR-	0.0
NT	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	+CR-	0.0
CO	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	+CR-	0.0
CC	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	+CR-	0.0
LI	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	+CR-	0.0
NI	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.006	0.18	0.120	+CR-	0.085
K	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.007	0.008	0.175	+CR-	0.148
BA	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.007	1.3C	1.185	+CR-	0.445
AG	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	3.15	0.25	0.20u	+CR-	0.0071
SUSP. MAT.	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	21.00	23.00	37.000	+CR-	22.627

NOTE ***** INDICATES No DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 OR - 0.0 INDICATES THE PARAMETER AS NOT DETECTABLE.

SIT A - 12 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. SUSPENDED FRACTION REPORTED ONLY.

DATE	18V175	23V1175	5V11175	24I175	3LY175	1X175	4X1175	1176	24I176	2311176	AVERAGE	AND	S.D.
CU	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	+OK-	0.0
PB	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	+OK-	0.0
7N	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	+OK-	0.0
MN	*****	*****	*****	*****	*****	*****	*****	*****	0.011	0.016	0.0135	+OK-	0.0035
FE	*****	*****	*****	*****	*****	*****	*****	*****	0.060	0.060	0.0600	+OK-	0.0000
AG	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	+OK-	0.0
NI	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	+OK-	0.0
CO	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	+OK-	0.0
CC	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	+OK-	0.0
LI	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	+OK-	0.0
NA	*****	*****	*****	*****	*****	*****	*****	*****	0.03	0.02	0.025	+OK-	0.007
CA	*****	*****	*****	*****	*****	*****	*****	*****	0.32	0.22	0.270	+OK-	0.071
SUSP. MAT.	*****	*****	*****	*****	*****	*****	*****	*****	15.50	10.00	12.750	+OK-	3.889

NOTE ***** INDICATES NO DETERMINATION WAS MADE OR 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + 0.0 - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

SITE A - BOTTOM (8-15 METRE DEPTH)

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. SUSPENDED FRACTION REPORTED ONLY.

DATE	27V174	11V1174	07V1174	71X74	19X74	10X174	6X1174	1175	221175	1711175	191975	23V75	AVERAGE	AND	S.D.
	8m	10m	10m	8.5m	11m	12m	9m	15m	12m						
CU	*****	0.021	0.0	0.0	0.038	0.0	0.0	*****	*****	0.000	0.000	0.003	0.0084	+CR-	0.0129
PP	*****	0.025	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	0.0032	+CR-	0.0082
ZN	*****	0.106	0.0	0.0	0.122	0.0	0.0	*****	*****	C.CC3	0.000	0.019	0.0284	+CR-	0.0489
MN	*****	0.560	0.030	0.063	0.543	0.033	0.035	*****	*****	0.036	0.070	0.180	0.1778	+CR-	0.2309
FE	*****	*****	0.560	0.150	*****	0.300	0.040	*****	*****	0.033	0.180	0.930	0.3104	+CR-	0.3278
AG	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	0.0005	+CR-	0.0000
NI	*****	0.0	0.020	0.0	0.030	0.040	0.0	*****	*****	0.0	0.0	0.0	0.0103	+CR-	0.0156
CO	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	0.0005	+CR-	0.0000
CD	*****	0.0	0.0	0.005	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	0.0010	+CR-	0.0015
LI	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	0.0005	+CR-	0.0000
NA	*****	0.02	0.0	0.0	0.32	0.36	0.06	*****	*****	0.05	0.20	0.18	0.137	+CR-	0.136
K	*****	0.40	0.06	0.0	0.82	0.04	0.0	*****	*****	0.04	*****	0.28	0.205	+CR-	0.288
CA	*****	3.20	0.06	0.05	1.20	0.43	0.13	*****	*****	0.47	0.80	1.50	0.849	+CR-	1.014
MG	*****	0.68	0.16	0.04	6.60	0.09	0.03	*****	*****	0.13	0.16	0.25	0.904	+CR-	2.145
SUSP. MAT.	*****	144.00	19.70	*****	360.00	6.00	2.50	*****	*****	10.00	13.00	53.00	76.025	+CR-	123.985

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + CR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

SITE A - BOTTOM (10-17 METRE DEPTH)

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. SUSPENDED FRACTION REPORTED ONLY.

DATE	18V175 10m	28V175 10.5m	9V1175 10.5m	261X75 10m	31X75 10m	1X175 12m	8X1175 12m	1176 17m	261176 17m	2311176 17m	AVERAGE	ANT)	S.D.
CO	0.0	0.016	0.018	0.001	0.006	*****	0.005	*****	0.0	0.0	0.0055	+OR-	0.0072
RB	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.020	0.0	0.0025	+OR-	0.0069
7N	0.0	0.006	0.004	0.037	0.004	*****	0.001	*****	0.0	C.0	0.0007	+OR-	0.0124
4N	0.017	C.008	0.007	0.048	0.003	*****	0.006	*****	0.011	0.018	0.0147	+OR	0.0144
FE	0.280	0.200	0.090	2.200	0.0	*****	0.070	*****	0.080	0.070	0.3738	+OR-	0.7430
4G	C.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	C.0	0.0005	+OR	0.0000
NI	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+OR-	0.0000
CO	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+UR-	0.0000
CC	0.0	0.0	0.0	0.004	0.0	*****	0.0	*****	0.0	0.0	0.0009	+OR-	0.0012
LI	0.0	0.0	0.0	0.001	0.0	*****	0.0	*****	0.0	0.0	0.0006	+OR	0.0002
NA	0.0	0.35	0.36	0.32	0.39	*****	0.31	*****	0.0	0.0	0.218	+OR	0.180
K	0.05	0.05	0.04	0.29	0.0	*****	0.05	*****	0.04	0.01	0.066	+OR	0.092
	0.0	0.19	0.20	2.00	3.21	*****	0.26	*****	0.28	0.25	0.436	+OR	0.635
4G	0.09	0.03	0.10	0.50	0.03	*****	0.02	*****	0.05	0.04	0.115	+OR-	0.193
SUSP. MAT.	13.00	0.00	5.00	1.50	4.50	*****	11.50	*****	1.00	9.00	0.438	+OR-	4.355

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION FOR 0.0 + PP - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE B - S (SURFACE)

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. SUSPENDED FRACTION REPORTED ONLY.

DATE	27V174	11V1174	0V11174	71X74	19X74	16X174	6X1174	1175	221175	1711175	191V75	23V75	AVERAGE	STD	S.D.
CU	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.00	0.00	0.00	0.0008	+CR-	0.0008
PB	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	0.0005	+CR-	0.0000
ZN	*****	0.115	0.0	0.0	0.0	0.0	0.0	*****	*****	0.001	0.002	0.010	0.0145	+CR-	0.0378
MN	*****	0.010	0.007	0.013	0.025	0.033	0.012	*****	*****	0.025	C.u45	0.028	0.0202	+CR-	0.0097
FE	*****	0.060	0.120	0.050	0.040	0.060	0.040	*****	*****	0.013	0.023	0.130	0.0662	+CR-	0.0384
AG	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	**M	C.0	0.0	0.0	0.0005	+CR-	0.0000
Ni	*****	C.140	0.0	0.0	0.020	0.0	0.0	*****	*****	0.0	0.0	0.0	0.0182	+CR-	0.0461
CO	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	0.0005	+CR-	0.0000
CD	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	0.0005	+CR-	0.0000
LI	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	0.0005	+CR-	0.0000
HA	*****	0.0	0.0	0.0	0.0	0.0	0.20	*****	*****	0.01	0.04	0.04	0.076	+CR-	0.148
K	*****	0.0	0.0	0.0	0.06	0.0	0.0	*****	*****	0.0	0.04	0.02	0.014	+CR-	0.022
CA	*****	3.20	0.02	0.03	0.03	0.01	0.17	*****	*****	0.31	0.02	C.17	0.426	+CR-	1.028
MG	*****	0.04	0.04	0.02	0.02	0.02	0.02	*****	*****	0.07	0.08	0.01	0.036	+CR-	0.025
SUSP. MAT.	3.10	3.10	6.0	4.10	2.50	5.50	1.50	*****	*****	6.50	11.00	6.50	5.070	+CR-	2.808

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + C - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

SITE B - S (SURFACE)

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. SUSPENDED FRACTION REPORTED ONLY.

DATE	18X1175	28V1175	5V11175	261X75	31X75	1X175	4X1175	1176	261176	2311176	AVERAGE	AND	S.D.
C9	0.0	0.005	0.024	0.003	0.007	*****	0.016	*****	0.0	0.0	0.0071	+Lk-	0.0086
PB	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+OR-	0.0000
ZN	0.008	0.003	0.008	0.004	0.010	*****	0.005	*****	0.0	0.0	0.0049	+OR-	0.0036
MN	0.028	0.006	0.006	0.013	0.013	*****	0.006	*****	0.010	0.014	0.0120	+OR-	0.0073
FE	0.490	0.050	0.090	0.050	0.070	*****	0.070	*****	0.070	0.060	0.1167	+OR-	0.1506
AG	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+CR-	0.0000
NI	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+OR-	0.0000
CD	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+OR-	0.0000
CC	0.0	0.002	0.0	0.001	0.0	*****	0.0	*****	0.0	0.0	0.0007	+OR-	0.0005
LI	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+OR-	0.0000
NA	0.0	0.31	0.40	0.49	0.49	*****	0.37	*****	0.04	0.01	0.260	+OR-	0.209
K	0.07	0.0	0.07	0.06	0.04	*****	0.05	*****	0.03	0.05	0.064	+OR-	0.023
CA	0.22	0.05	0.47	0.22	0.14	*****	0.39	*****	0.36	0.27	0.265	+OR-	0.125
MG	0.14	0.0	0.03	0.0	0.16	*****	0.04	*****	0.04	0.04	0.001	+OP-	0.121
SUSP. MAT.	21.50	2.00	4.00	2.50	3.00	*****	14.00	*****	1.50	9.50	7.250	+OR-	7.226

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + OP - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

SITE B - 3 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS $\mu\text{g/L}$ UNLESS SPECIFIED OTHERWISE. SUSPENDED FRACTION REPORTED ONLY.

DATE	27/11/74	11/11/74	08/11/74	7/11/74	19/11/74	16/11/74	08/11/74	11/75	22/11/75	17/11/75	19/11/75	23/11/75	AVERAGE	AND	S.D.
CU	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.002	0.0	0.003	0.0009	+DR-	0.0009
PB	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	C.	0.0	0.0005	+CR-	0.0000
IN	*****	0.025	0.0	0.0	0.003	0.0	0.0	*****	*****	0.001	0.000	0.000	0.0048	+CR-	0.0079
MG	*****	0.015	0.007	0.005	0.022	0.023	0.015	*****	*****	0.034	0.024	0.036	0.0212	+DR-	0.0294
	*****	0.070	0.090	*****	0.040	0.070	0.050	*****	*****	0.034	0.110	0.090	0.0692	+CR-	0.3267
AG	*****	0.0	0.0	0.0	0.0	0.0	0.0	M4*	*****	0.0	0.0	0.0	0.0005	+CR-	0.0030
NI	*****	0.010	0.0	0.0	0.020	0.020	0.0	*****	*****	0.0	C.	0.0	0.0059	+CR-	0.0088
CO	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	C.	0.0	0.0005	+CR-	0.0000
CC	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	C.	0.0	0.0005	+CR-	0.0003
LI	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	C.	0.0	0.0005	+CR-	0.0000
NA	*****	0.0	0.0	0.0	0.0	0.0	0.16	*****	*****	0.04	0.00	0.02	0.065	+CR-	0.109
K	*****	0.0	0.0	0.01	0.06	0.0	0.0	*****	*****	0.04	0.00	0.0	0.018	+CR-	0.023
CA	*****	0.25	0.07	0.03	0.0	0.01	0.13	*****	*****	0.36	0.00	C.US	0.166	+CR-	0.137
MG	*****	0.04	0.06	0.02	0.02	0.03	0.02	*****	*****	0.09	0.00	0.00	0.046	+CR-	0.027
SUSP. MAT.	*****	3.70	6.70	*****	2.50	4.00	2.00	*****	*****	6.50	13.50	0.00	5.675	+CR-	3.663

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE C.F. 0.0 + DR - 0.00 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE 3 - 3 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. SUSPENDED FRACTION REPORTED ONLY.

DATE	161/175	231/1175	SVI1175	261 X75	31X75	1X175	4AI175	1176	261176	2311176	AV61,AGL	AND S.D.
CU	0.0	0.004	0.005	0.004	0.006	*****	0.013	*****	0.0	0.001	0.0042	+OR- 0.0041
PH	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+OR- 0.0000
ZN	0.018	0.002	0.007	0.004	0.007	*****	0.004	*****	0.0	0.0	0.0054	+OK- 0.0057
MN	0.032	0.007	0.006	0.012	0.015	*****	0.006	*****	0.011	0.012	0.0126	+O4- 0.0085
FE	0.550	0.230	0.050	*****	0.110	*****	0.080	*****	0.070	0.000	0.1726	+OR- 0.1752
NO	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.002	0.0	0.0007	+OR- 0.0005
IT	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+OR- 0.0000
CC	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+OR- 0.0000
CC	0.0	0.0	0.0	0.0	0.0	*****	3.0	*****	0.0	0.0	0.0005	+OR- 0.0000
II	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+OR- 0.0030
NA	0.01	0.44	0.40	0.47	0.45	*****	0.44	*****	0.05	0.03	0.274	+UK- 0.2C6
K	0.07	0.02	0.05	0.0	0.35	*****	0.05	*****	0.03	0.03	0.030	+OR- 0.022
CA	0.33	0.15	0.21	0.47	0.27	*****	0.42	*****	0.39	0.26	0.306	+OR- 0.115
MG	0.16	0.0	0.10	0.09	0.02	*****	0.03	*****	0.04	0.04	0.060	+UK- C.053
SUSP. MAT.	24.50	3.50	5.00	4.00	3.00	*****	*****	*****	6.00	8.50	7.780	+OR- 7.599

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE- OF 0.0 + 0.0 - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

SITE R - 6 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. SUSPENDED FRACTION REPORTED ONLY.

DATE	27VI174	11VII174	8VIII174	7IX174	19X174	16XI174	6XII174	1I175	22II175	17III175	10IV175	23V175	AVERAGE	ADD S.D.
CU	*****	*****	0.0	0.0	0.0	0.0	0.0	*****	*****	0.003	0.00	0.0001	0.0009	+PR- 0.0009
PB	*****	*****	0.0	0.0	0.0	0.0	0.0	*****	*****	0.00	0.00	0.0	0.0005	+CP- 0.0000
ZN	*****	*****	0.0	0.0	0.0	0.0	0.005	*****	*****	C.Cu2	0.004	0.012	0.0031	+CP- 0.0040
MN	*****	*****	0.008	0.010	0.022	0.030	0.017	*****	*****	0.035	0.024	0.011	0.0204	+CP- 0.0092
FF	*****	*****	0.100	0.060	0.050	0.070	0.060	*****	*****	0.134	0.090	0.190	0.0917	+C4- 0.0548
AG	*****	*4*4*	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	0.0005	+PR- 0.0000
NI	*****	*****	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	0.0005	+PR- 0.0033
CO	*****	*****	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	0.0005	+PR- 0.0000
CE	*****	*****	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	0.0005	+09- 0.0000
LI	*****	*****	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	0.0005	+PR- 0.0000
NA	*****	*****	0.0	0.0	0.0	0.0	0.07	*****	*****	0.04	0.07	0.07	0.031	+CR- 0.035
K	*****	*****	C.C1	0.02	0.0	0.0	0.0	*****	*****	0.03	0.06	0.02	0.018	+PR- 0.020
CA	*****	*****	0.08	0.03	0.03	0.07	0.09	*****	*****	0.03	0.04	0.11	0.160	+PR- 0.181
MG	*****	*****	0.06	0.01	0.02	0.04	0.02	*****	*****	0.08	0.04	0.02	0.042	+PR- 0.031
SUSP. MAT.	*****	** **	5.10	1.80	2.00	5.50	1.50	*****	*****	7.00	12.50	7.00	5.300	+C - 3.689

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + OR - 0.3 INDICATES THE PARAMETER WAS NOT DETECTABLE.

SITE 8 - 6 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE; SUSPENDED FRACTION REPORTED ONLY.

DATE	18V175	20V1175	SV11175	26IX75	31X75	1X175	4X1175	1176	61176	2311176	AVERAGE AND S.D.
CU	0.0	0.005	0.001	0.003	0.007	*****	0.013	*****	0.002	0.001	0.0041 +0.01- 0.0042
	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005 +0.01- 0.0000
ZN	0.014	0.005	0.0	0.009	0.001	*****	0.004	*****	0.0	0.0	0.0043 +0.01- 0.0049
MN	0.023	0.007	0.002	0.016	0.010	*****	0.005	*****	0.011	0.010	0.0105 +0.01- 0.0066
	0.430	0.110	0.010	0.040	0.030	*****	0.080	*****	0.070	0.060	0.1037 +0.01- 0.1354
AG	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.004	0.0	0.0009 +0.01- 0.0012
NI	0.030	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0042 +0.01- 0.0104
CO	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005 +0.01- 0.0000
CD	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005 +0.01- 0.0000
LI	0.001	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0006 +0.01- 0.0002
NA	0.01	0.36	0.31	0.39	0.37	*****	0.34	*****	0.08	0.09	0.244 +0.01- 0.156
K	0.31	0.01	0.01	0.02	3.3	*****	0.05	*****	0.04	0.0	0.220 +0.01- 0.105
CA	0.07	0.21	0.04	0.12	0.21	*****	0.37	*****	0.40	0.32	0.220 +0.01- 0.136
MG	0.11	3.03	0.0	0.27	0.09	*****	0.04	*****	0.05	0.03	0.073 +0.01- 0.086
SUSP. 4AT.	20.50	3.50	5.00	2.00	3.00	*****	10.00	*****	4.50	*****	7.643 +0.01- 6.349

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.2 CR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

SITE - 9 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. SUSPENDED FRACTION REPORTED ONLY.

DATE	27V174	11V1174	8V11174	7IX74	19X74	16X174	6X1174	1175	221175	1711175	19IV75	23V75	AVERAGE	AND	S.D.
CU	*****	*****	0.0	0.0	0.0	0.0	0.0	*****	*****	0.002	0.001	0.001	0.0008	+CR-	0.0005
PB	*****	*****	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	0.0005	+CR-	0.0000
ZN	*****	*****	0.0	0.007	0.0	0.0	0.008	*****	*****	0.002	0.000	0.011	0.0047	+CP-	0.0043
MN	*****	*****	0.016	0.059	0.033	0.033	0.016	*****	*****	0.033	0.020	0.022	0.0297	+CR-	0.0136
FE	*****	*****	0.330	0.140	*****	0.100	0.050	*****	*444*	0.038	0.063	0.070	0.1139	+CR-	0.1012
AG	*****	*****	0.0	0.0	0.0	0.0	0.0	*****	*4,4*	0.0	0.0	0.0	0.0005	+CR-	0.0000
NI	*****	*****	0.0	0.010	0.0	0.020	0.0	*****	*****	0.0	0.0	0.0	0.0041	+CR-	0.0072
CO	*****	*****	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	0.0005	+CR-	0.0000
CD	*****	*****	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	0.0005	+CR-	0.0000
LI	*****	*****	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	0.0005	+CR-	0.0000
NA	*****	*****	0.0	0.0	0.0	0.34	0.31	*****	*****	0.04	0.07	0.07	0.104	+CR-	0.140
	*****	*****	0.02	0.01	0.0	0.0	0.03	*****	*****	0.03	0.06	0.02	0.021	+CR-	0.019
CA	*****	*****	0.03	0.07	0.0	0.30	0.27	*****	*****	0.23	0.59	0.17	0.233	+CR-	0.198
MG	*****	*****	0.10	0.04	0.02	0.05	0.03	*****	*****	0.07	0.08	0.09	0.060	+CR-	0.029
SUSP. MAT.	*****	*****	10.60	5.20	1.00	7.00	3.00	*****	*****	7.00	13.00	6.50	0.602	+CR-	3.846

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + CR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

SITE B - 9 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE; SUSPENDED FRACTION REPORTED ONLY.

DATE	16V175	28V175	9V1175	261X75	31X/5	1X175	4X1175	1176	261176	2311176	AVERAGE	ANn	S.D.
CU	0.0	0.005	0.000	0.015	0.003	*****	0.020	*****	0.0	0.0	0.0073	UR=	0.0097
PB	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	UR=	0.0000
ZN	0.006	0.006	0.003	0.005	0.000	*****	0.005	*****	0.0	0.0	0.0040	UR=	0.0024
MN	0.016	0.009	0.004	0.017	0.013	*****	0.008	*****	0.005	0.014	0.0112	UR=	0.0045
FE	0.260	0.160	0.070	0.040	0.000	*****	0.090	*****	0.070	0.060	0.1037	UR=	0.0723
AG	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	UR=	0.0000
NI	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	UR=	0.0000
CO	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	UR=	0.0300
CO	0.0	0.0	0.0	0.0	0.001	*****	0.0	*****	0.0	0.0	0.0006	UR=	0.0002
LI	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	UR=	0.0000
NA	0.0	0.34	0.35	0.57	0.41	*****	0.46	*****	0.0	0.05	0.290	UR=	0.205
K	0.04	0.0	0.03	0.05	0.07	*****	0.07	*****	0.03	0.03	0.040	UR=	0.023
CA	0.0	0.73	0.20	0.22	0.25	*****	0.26	*****	0.22	0.20	0.198	UR=	0.082
MG	0.08	0.34	0.01	0.01	0.01	*****	0.04	*****	0.04	0.04	0.034	UR=	0.024
SUSP. MAT.	16.00	6.50	5.00	3.00	*****	*****	10.00	*****	6.00	8.50	7.637	UR=	4.250

NOTE ***** INDICATES NJ DETERMINATION WAS MADE AND 0.00 INDICATES THE PARAMETER WAS NOT DET TABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + 0.0 - 0.00 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE B - 12 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. SUSPENDED FRACTION REPORTED ONLY.

DATE	27V174	11V1174	8V11174	7IX74	19X14	16XI174	6XI174	1175	221175	1711175	191V75	23V75	AVERAGE	AND	S.D.
CU	*****	*****	*****	*****	*****	*****	*****	*****	*****	****	0.002	0.001	0.0015	#OR-	0.0007
PR	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	+CR-	0.0
ZN	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0001	0.0007	+CR-	0.0004
MN	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.027	0.052	0.0395	+CR-	0.0177
FE	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.120	0.430	0.5250	#OR-	0.5728
AG	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	#CR	0.0
NI	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	#CR	0.0
CO	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	#OR-	0.0
CD	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	+CR-	0.0
LI	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	+CR-	0.0
NA	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.02	0.31	0.105	+CR-	0.205
K	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.05	0.03	0.040	+CR-	0.014
CA	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.03	0.26	0.545	#CR	0.403
MG	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.11	0.03	0.070	#CR	0.057
SUSP. MAT.	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	16.00	5.50	10.750	#OR-	7.425

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER AS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + 0.0 - 0.0 INDICATES THE PARAMETER AS NOT DETECTABLE.

SITE B - 12 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE; SUSPENDED FRACTION REPORTED ONLY.

DATE	18V175	28V1175	V11175	261X65	31X75	1X175	4X1175	1176	261176	2311176	AVERAGE AAP S.L.
CO	0.0	0.006	0.020	0.009	0.008	*****	0.309	*****	0.0	0.0	0.0071 +0,- 0.0066
PB	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0000 +0,- 0.0000
ZN	0.0	0.003	0.001	0.001	0.006	*****	0.011	*****	0.0	0.007	0.0037 +0,- 0.0039
MN	0.016	0.012	0.013	0.010	0.018	*****	0.012	*****	0.008	0.015	0.0130 +0,- 0.0093
FE	0.230	0.200	0.110	0.010	0.110	*****	0.340	*****	0.060	0.060	0.1425 +0,- 0.1071
AG	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.002	0.0007 +0,- 0.0005
NI	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.030	0.0042 +0,- 0.0104
CU	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0000 +0,- 0.0000
CC	0.0	0.0	0.0	0.0	0.0	*****	0.001	*****	0.0	0.0	0.0000 +0,- 0.0002
LI	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0000 +0,- 0.0000
NA	0.0	0.42	0.31	0.32	0.45	*****	0.30	*****	0.03	0.04	0.240 +0,- 0.175
K	0.03	0.07	0.05	0.0	0.05	*****	0.09	*****	0.05	0.04	0.048 +0,- 0.026
CA	0.0	0.21	0.14	0.22	0.20	*****	0.54	*****	0.24	0.35	0.236 +0,- 0.157
MG	0.06	0.05	0.02	0.0	0.13	*****	0.09	*****	0.03	0.05	0.054 +0,- 0.041
SUSP. MAT.	11.50	11.00	3.50	1.50	3.00	*****	23.00	*****	7.00	6.50	6.375 +0,- 6.927

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + 0.0 - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE B - 15 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE; SUSPENDED FRACTION REPORTED ONLY.

OATS	18V175	23V1175	9V11175	261X75	31X75	1X175	4X1175	1176	261176	2311176	AVERAGE AND S.D.
CU	0.004	0.030	0.016	*****	*****	*****	*****	0.0	0.0	0.0	0.0162 +OR- 0.0128
PB	0.0	0.0	0.0	*****	*****	*****	*****	0.0	0.0	0.0	0.0009 +uR- 0.0
PN	0.025	0.045	0.006	*****	*****	*****	*****	0.0	0.020	0.0	0.0173 +OR- 0.0175
MN	0.021	0.086	0.035	*****	*****	*****	*****	0.011	0.017	0.0	0.0340 +OR- 0.0304
FE	0.300	4.200	0.130	*****	*****	*****	*****	0.030	0.060	0.0	0.9540 +3k- 1.8170
AG	0.0	0.0	0.0	*****	*****	*****	*****	0.0	0.0	0.0	0.0005 +OR- 0.0
NI	0.030	0.0	0.0	*****	*****	*****	*****	0.0	0.0	0.0	0.0064 +OR- 0.0132
CO	0.0	0.003	0.0	*****	*****	*****	*****	0.0	0.0	0.0	0.0010 +UP- 0.0011
CD	0.0	0.0	0.0	*****	*****	*****	*****	0.0	0.0	0.0	0.0005 +OE- 0.0
LI	0.0	0.002	0.0	*****	*****	*****	*****	0.0	0.0	0.0	0.0008 +OR- 0.0007
NA	0.01	3.83	0.37	*****	*****	*****	*****	0.07	0.02	0.0	0.260 +OR- 0.351
	0.0	0.72	0.06	*****	*****	*****	*****	0.04	0.03	0.0	0.170 +OR- 0.3C8
CA	0.0	4.00	0.27	*****	*****	*****	*****	0.40	0.25	0.0	0.984 +iji- 1.652
MG	0.12	0.85	0.03	*****	*****	*****	*****	0.06	0.04	0.0	0.228 +EM- 0.372
SUSP. MAT.	16.50	241.50	4.50	*****	*****	*****	*****	5.00	9.00	0.0	55.300 +OR-104.200

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + OR - 0.0 INDICATES THE PARAMETER AS NOT DETECTABLE.

IT B - BOTTOM (9-15 METRE DEPTH)

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE; SUSPENDED FRACTION REPORTED ONLY.

DATE	27VI74	11VII74	8VIII74	7IX74	14X74	16XI74	6XII74	1175	22II75	17III75	19IV7	23V75	AVERAGE „NO	5% D.
	9m	9.7m	9.7m	9.1m	9.1m	10m			10m	15m	13.6m			
CU	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.002	C.	0.002	0.0017	+CR- 0.0025
PO	*****	0.024	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	C. 0.031	+CR- 0.0070
ZN	*****	0.012	0.002	0.0	0.0	0.0	0.073	*****	*****	0.014	0.047	0.013	0.0101	+CR- 0.0253
MN	*****	0.030	0.024	0.048	0.055	0.040	0.025	*****	*****	0.082	0.189	0.200	0.0776	+CR- 0.0693
FE	*****	0.090	0.400	0.300	0.240	0.180	0.430	*****	*****	0.500	2.000	0.170	0.5744	+CR- 0.53
AG	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	C.0005	+CR- 0.0000
NI	*****	0.0	0.0	0.010	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	0.0016	+CR- 0.0032
CO	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	C. 0.005	+CR- 0.0000
CC	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	C. 0.005	+CR- 0.0000
LI	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	C.003	0.0	C. 0.008	+CR- 0.0006
NA	*****	0.0	0.0	0.0	0.0	0.0	0.30	*****	*****	0.07	C.20	0.25	C. 0.090	+CR- 0.122
K	*****	0.0	0.03	0.04	0.04	0.0	0.06	*****	*****	0.14	0.05	0.04	C.100	+CR- 0.174
CA	*****	0.08	0.07	0.21	0.24	0.11	0.03	*****	*****	1.30	0.00	0.01	1.217	+CR- 2.607
MG	*****	0.03	0.12	0.03	0.03	0.06	0.14	*****	*****	0.23	0.00	0.02	0.180	+CR- 0.259
SUSP. MAT.	*****	3.20	12.20	12.20	8.50	9.50	19.50	*****	*****	34.00	20.00	24.00	36.211	+CR- 65.264

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + CR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE B - BOTTOM (12.19 METRE DEPTH)

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE; SUSPENDED FRACTION REPORTED ONLY.

DATE	18V175 17m	28V1175 17m	9V11175 16.5m	20IX75 12m	31X75 12m	1X175 4)41175 13.2m	1176 19m	241176 19m	2311176 19m	AV	CR	AND	S.D.
CU	0.0	0.024	C.C25	0.009	0.008	*****	0.021	*****	3.0	0.0	0.0111	+OK-	0.0107
PH	0.0	0.0	C.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+CR-	0.0000
ZN	0.007	0.099	0.076	0.001	0.006	*****	0.008	*****	0.0	0.012	0.0199	+CR-	0.0329
MN	0.02	0.270	C.C56	0.010	0.016	*****	0.015	*****	0.016	0.018	0.0536	+CR-	C.C885
FF	0.360	2.00	3.300	0.010	0.170	*****	0.270	*****	0.100	0.070	0.8158	+CR-	1.2850
AG	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.002	0.0007	+CR-	0.0005
	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+G4-	0.0000
CO	0.0	0.005	0.001	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0016	+CR-	C.0030
CC	0.0	0.003	0.001	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0004	+CR-	0.0005
LI	0.001	0.002	0.002	C.0	0.0	*****	0.0	*****	0.0	C.0	0.0005	+CR-	0.0007
NA	0.01	0.73	0.46	0.32	0.45	*****	0.38	*****	C.0	0.32	0.298	+CR-	0.264
	0.08	2.00	0.56	0.0	0.05	*****	0.11	*****	0.05	0.04	0.361	+CR-	0.686
CA	0.0	23.90	2.40	0.22	0.70	*****	0.75	*****	0.33	0.37	3.484	+CR-	8.286
MG	0.10	3.00	0.68	0.0	0.13	*****	0.08	*****	0.05	0.05	0.505	+CR-	1.028
SUSP. MAT.	17.50	748.50	177.00	1.50	3.00	*****	16.00	*****	6.00	7.00	122.048	+CR-	259.958

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + 0.0 - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE C - S (SURFACE)

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS G/L UNLESS SPECIFIED OTHERWISE; SUSPENDED FRACTION REPORTED ONLY.

DATE	27VI74	11VII74	EVIII74	7IX74	19X74	16XI74	6XII74	1175	22II75	17III75	19IV75	23V75	AVERAGE	AND	S.D.
CU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.002	0.003	0.002	0.0010	+CR-	0.0009
PB	0.0	0.0	C.0	0.0	0.0	0.0	0.0	*****	*****	0.0	C.0	0.0	C.0005	+CR-	0.0000
MN	0.024	0.127	0.002	0.0	0.0	0.0	0.373	*****	*****	0.003	0.019	0.019	0.0262	+CR-	0.0417
MN	0.015	0.015	0.040	0.031	0.008	0.015	0.011	*****	*****	C.042	0.079	0.010	0.0261	+CR-	0.0209
FE	0.090	0.110	*****	0.358	0.100	0.100	0.100	*****	*****	0.110	1.310	C.140	0.2733	+CR-	0.3976
AG	0.0	0.0	C.0	0.0	0.0	0.0	0.0	*****	*****	0.0	C.	0.0	C.0005	+CR-	0.0000
NI	0.0	0.010	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	0.0014	+CR-	0.0030
CO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	C.0005	+CR-	0.0000
CC	0.0	C.0	C.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	C.0005	+CR-	0.0000
LI	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.002	0.0	C.0006	+CR-	0.0005
NA	0.0	0.0	0.0	0.0	0.0	0.0	0.20	*****	*****	0.05	0.05	0.05	0.070	+CR-	0.121
K	0.0	0.02	0.07	0.04	0.02	0.02	3.04	*****	*****	0.02	0.04	0.07	0.063	+CR-	0.100
CA	0.14	0.45	0.30	0.23	0.07	0.0	0.17	*****	*****	0.27	1.40	0.23	0.373	+CR-	0.447
MG	0.03	0.08	0.23	0.09	0.03	0.04	0.04	*****	*****	0.10	0.04	0.04	0.122	+CR-	0.159
SUSP. MAT.	1.30	4.00	25.30	15.70	2.50	4.50	4.00	*****	*****	10.00	53.50	0.00	12.940	+CR-	15.999

NOTE ***** INDICATES NO DETERMINATION WAS AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + C - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE C - S (SURFACE)

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE; SUSPENDED FRACTION REPORTED ONLY.

CATE	18V175	28V1175	9V11175	26I175	31X75	1X175	4X1175	1176	261176	2311176	AVERAGL	AND	S.O.
CU	0.0	0.0	0.014	0.005	0.005	*****	0.013	*****	0.0	0.0	0.0052	+OR-	0.0058
PR	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+OR-	0.0000
ZN	0.024	0.0	0.008	0.001	0.001	*****	0.004	*****	0.0	0.002	0.0051	+UR-	0.0080
MN	0.041	0.005	0.011	0.004	0.004	*****	0.004	*****	0.012	0.018	0.0130	+OR-	0.0123
FE	0.170	0.030	0.160	0.060	0.050	*****	0.040	*****	0.070	0.050	0.1537	+OR-	0.2522
AG	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+UR-	0.0000
VT	0.040	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0054	+UR-	0.0140
CO	0.0	0.0	0.0	0.0	3.0	*****	0.3	*****	0.0	0.0	0.0005	+UR-	0.0000
CD	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+OR-	0.0000
LI	0.001	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0002	+OR-	0.0002
NA	0.0	0.28	0.41	0.42	0.38	*****	0.37	*****	0.0	0.14	0.250	+OR-	0.179
K	0.09	0.0	0.10	0.05	0.05	*****	0.06	*****	0.04	0.03	0.053	+OR-	0.032
CA	0.33	0.01	0.27	0.14	0.34	*****	0.25	*****	0.18	0.34	0.237	+OR-	0.118
MG	0.20	0.0	0.03	0.0	0.38	*****	0.01	*****	0.04	0.07	0.054	+OR-	0.066
SUSP. MAT.	32.00	4.00	4.50	4.00	5.00	*****	4.50	*****	3.50	7.50	4.125	+OR-	9.724

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + OR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE C - 5 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE; SUSPENDED FRACTION REPORTED ONLY.

DATE	18V175	20/1175	9V11175	261X75	31X75	1X175	4X1175	1176	261176	2311176	AVERAGE	AND S.D.
CU	*****	*****	*****	*****	*****	*****	*****	*****	0.002	0.0	0.0012	+OR- 0.0011
PB	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	+OR- 0.0
ZN	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.011	0.0057	+OR- 0.0076
MN	*****	*****	*****	*****	*****	*****	*****	*****	0.017	0.023	0.0200	+OR- 0.0042
FE	*****	*****	*****	*****	*****	*****	*****	*****	0.080	0.040	0.0700	+OR- 0.0141
MG	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	+OR- 0.0
NI	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	+OR- 0.0
CO	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	+OR- 0.0
CD	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	+OR- 0.0
LI	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	+OR- 0.0
NA	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.12	0.060	+OR- 0.084
	*****	*****	*****	*****	*****	*****	*****	*****	0.04	0.0	0.020	+OR- 0.028
CA	*****	*****	*****	*****	*****	*****	*****	*****	0.27	0.40	0.385	+OR- 0.134
MG	*****	*****	*****	*****	*****	*****	*****	*****	0.05	0.05	0.050	+OR- 0.000
SUSP. MAT.	*****	*****	*****	*****	*****	*****	*****	*****	7.50	8.50	8.000	+OR- 0.707

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + CR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE C - BOTTOM 12.7-4 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. SUSPENDED FRACTION REPORTED ONLY.

DATE	27VI74	11V1174	8VIII74	7IX74	14X74	16X174	6XI174	1175	221175	L711175	19IV7	23V75	AVFRAGE	AND	S.D.
		3m	3m	3m	2.7m	2.7m	3m			3m	4m				
GU	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.004	C.L	*****	0.0009	+CR-	0.0012
PB	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	C.C	*****	0.0005	+CR-	0.0000
LN	*****	0.010	0.020	0.002	0.0	0.0	0.0	*****	*****	0.004	C.C05	*****	0.0058	+CR-	0.0069
MN	*****	0.019	0.076	0.035	0.018	0.019	0.010	*****	*****	0.007	0.052	*****	0.0345	+CR-	0.0225
FE	*****	0.140	*****	0.420	0.240	0.150	0.110	*****	*****	0.180	0.490	*****	0.2471	+CR-	0.1490
AG	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	*****	0.0005	+CR-	0.0000
NI	*****	0.0	0.0	0.010	0.030	0.0	0.0	*****	*****	0.0	0.0	*****	0.0054	+CR-	0.0105
CO	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	*****	0.0005	+CR-	0.0000
CG	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	C.13C	*****	0.0167	+CR-	0.0458
LI	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	*****	0.0005	+CR-	0.0000
NA	*****	0.0	0.0	0.0	0.0	0.14	0.13	*****	*****	0.000	0.05	*****	0.048	+CR-	0.055
K	*****	0.0	0.19	0.05	0.07	0.0	0.0	*****	*****	0.000	0.11	*****	0.063	+CR-	0.066
CA	*****	0.23	0.91	0.24	0.22	0.17	0.14	*****	*****	0.60	0.75	*****	0.407	+CR-	0.300
MG	*****	0.05	0.44	0.11	0.07	0.05	0.04	*****	*****	0.17	0.23	*****	0.145	+CR-	0.137
SUSP. MAT.	*****	6.20	88.10	9.80	10.50	8.00	3.00	*****	*****	10.00	27.50	*****	17.887	+CR-	21.554

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + CR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE C - BOTTOM (22.4 METRE DEPTH)

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. SUSPENDED FRACTION REPORTED ONLY.

PATE	18V1175	28V1175	5V11175	261X75	31X75	18175	4X1175	117A	28117A	2311176	AVERAGE AND S.D.	
	3.5m	4m	3m	2.7m	3m		4m		9m	9m		
CU	0.003	0.006	0.005	0.005	0.006	*****	0.014	*****	0.0	0.0	0.0056	+OR- 0.0043
PB	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0000	+OR- 0.0000
ZN	0.066	0.005	0.004	0.012	0.001	*****	0.005	*****	0.0	0.0	0.0117	+OK- 0.0222
MN	0.092	0.023	0.005	0.015	0.005	*****	0.006	*****	0.015	0.041	0.0257	+OR- 0.0252
FE	1.840	0.350	0.110	0.100	0.050	*****	0.050	*****	0.080	0.100	0.3512	+OR- C.6089
AG	0.0	0.0	0.0	0.0	0.0	*4****	0.0	*****	0.0	0.0	0.0000	+OR- 0.0000
NI	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+OK- 0.0000
Co	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0000	+OR- 0.0000
CC	0.0	0.001	0.0	3.0	0.001	*****	0.0	*****	0.0	0.0	0.0007	+OR- 0.0005
LI	0.001	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0000	+OR- 0.0000
NA	0.01	0.41	0.37	0.43	0.34	*****	0.39	*****	0.0	0.05	0.280	+OR- 0.187
K	0.19	0.07	0.02	0.05	0.0	*****	0.05	*****	0.02	0.05	0.05	+OR- 0.060
CA	1.20	0.30	0.18	0.33	0.27	*****	0.44	*****	0.02	0.36	0.421	+OR- 0.323
MG	0.47	0.07	0.048	0.055	0.05	*****	0.05	*****	0.04	0.08	0.177	+OR- 0.207
SUSP. MAT.	73.00	22.00	5.50	10.5	11.50	*****	11.00	*****	7.00	9.00	17.800	+OR- 22.994

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 - 0.3 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE D - s (SURFACE)

NOTE: ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIC OTHERWISE SUSPENDED FRACTION REPORTED ONLY.

DATE	27VI74	11VII74	VII174	7IX74	19X14	16XI74	6XII74	1I75	22II75	17III75	1VII75	23O5	AVERAGE	AND	S.D.
CU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	***	***	0.304	0.0	0.0	0.0008	+CR-	0.0011
PB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	***	***	0.0	0.0	0.0	0.0042	+CR-	0.0119
ZN	0.018	0.005	0.0	0.0	0.0	0.0	0.0	*****	*****	0.019	0.019	0.019	0.0069	+CR-	0.0071
MN	0.016	0.005	0.014	0.020	0.018	0.014	0.012	*****	*****	0.037	0.035	0.005	0.0200	+CR-	0.0144
FE	0.00	0.050	0.20	0.120	0.040	0.050	0.040	****	****	0.067	0.000	0.040	0.1723	+CR-	0.2595
AS	0.0	0.0	0.0	3.0	0.0	0.0	0.0	***	***	0.0	0.0	0.0	0.0005	+CR-	0.0000
NI	0.0	0.0	0.0	0.0	0.0	0.0	0.0	***	***	0.0	0.0	0.0	C.CC05	+CR-	0.0000
CO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	***	***	0.0	0.0	0.0	C.0005	+C4-	0.0000
CC	0.0	0.0	0.0	0.0	3.0	0.0	0.0	***	***	L.0	C.0	0.0	C.0005	CR-	0.0000
BI	0.0	0.0	0.0	0.0	0.0	0.0	0.0	***	***	0.0	0.0	L.0	C.0005	+CR-	0.0002
NA	0.0	0.0	0.0	0.0	0.0	0.0	0.36	***	***	0.05	0.07	0.00	0.082	+C4-	0.135
K	0.0	0.0	0.02	0.01	0.0	0.02	0.0	***	***	0.05	0.02	0.02	0.035	+CR-	0.070
CA	0.14	0.08	0.17	0.05	0.0	0.03	0.25	***	***	0.30	0.07	0.14	0.188	+8-	0.201
MG	0.02	0.03	0.05	0.03	0.02	0.03	0.03	***	***	0.12	0.04	0.02	0.073	+CR-	0.103
SUSP. MAT.	2.80	2.50	11.00	5.30	1.50	5.00	3.00	***	***	7.00	37.00	8.00	8.160	+CR-	10.508

NOTE: ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE: AN AVERAGE AND STANDARD DEVIATION VALUE OF 3.0 + CR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

SITE D - S (SURFACE)

NOTE: ALL CONCENTRATION PARAMETERS REPORTED AS MG/L UNLESS SPECIFIED OTHER USE. SUSPENDED FRACTION REPORTED ONLY.

OATF	18V175	22V1175	9V11175	261X75	31X75	1X176	4X1175	1176	261176	2311176	AVERAGE	MIN	SD
CU	0.0	0.014	0.010	0.012	0.001	*****	0.033	*****	0.001	0.0	0.0090	0.0112	
PR	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0000	0.0000	
ZN	0.029	0.002	0.005	0.007	0.001	*****	0.009	*****	0.0	0.001	0.0028	0.0055	
Mn	0.075	0.010	0.008	0.023	0.005	*****	0.007	*****	0.011	0.016	0.0156	0.0165	
FE	1.050	0.100	0.110	0.050	0.040	*****	0.070	*****	0.040	0.050	0.1912	0.3479	
AG	0.0	0.0	0.0	0.0	0.0	*****	0.3	*****	0.0	0.0	0.0000	0.0000	
NI	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0000	0.0000	
CO	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0000	0.0000	
CO	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0000	0.0000	
LI	0.001	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0000	0.0002	
HA	0.0	0.41	0.37	0.42	0.28	*****	0.44	*****	0.11	0.08	0.284	0.175	
K	0.11	0.34	0.05	0.03	0.0	*****	0.09	*****	0.05	0.02	0.090	0.035	
CA	0.51	0.10	0.18	0.06	0.12	*****	0.55	*****	0.36	0.33	0.270	0.185	
MG	0.26	0.02	0.02	0.02	0.0	*****	0.06	*****	0.05	0.04	0.055	0.084	
SUSP. MAT.	42.50	6.50	6.00	2.50	3.00	*****	8.00	*****	6.30	9.50	10.500	13.137	

NOTE: ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE: AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + 0.0 - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

SITE D - 3 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. SUSPENDED FRACTION REPORTED ONLY.

DATE	27VI74	11VII74	28VIII74	7IX74	19X74	16XI74	6XII74	1I75	22II75	17III75	19IV75	23V75	AVERAGE AND STD. DEV.
CO	*****	0.022	0.0	0.0	0.0	0.0	0.0	*****	*****	0.006	*4***	*****	0.0094 +LR- 0.0000
PB	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	*****	*****	0.6005 +CR- 0.0
MN	*****	0.004	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	*****	*****	0.6010 +CR- 0.0013
MN	*****	0.013	0.013	0.015	0.023	0.019	0.012	*****	*****	0.042	*****	*****	0.0196 +CR- 0.0126
FE	*****	0.110	*****	0.080	0.050	0.050	0.050	*****	*****	0.085	*****	*****	0.0775 +CR- 0.0289
AG	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	*****	*****	0.6005 +CR- 0.0
UT	*****	0.010	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	*****	*****	0.0019 +CR- 0.0036
CO	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	*****	*****	0.0005 +CR- 0.0
CC	*****	0.0	0.0	0.0	0.0	0.3	0.0	*****	*****	0.0	*****	*****	0.0005 +CR- 0.0
LI	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	*****	*****	0.0005 +CR- 0.0
NA	*****	0.0	0.0	0.0	0.0	0.0	0.30	*****	*****	0.04	*****	*****	0.0046 +CR- 0.112
K	*****	0.0	0.02	0.0	0.0	0.0	0.07	*****	*****	0.62	*****	*****	0.016 +LR- 0.026
CA	*****	0.13	0.11	0.02	0.0	0.01	0.27	*****	*****	0.30	*****	*****	0.120 +CP- 0.123
MG	*****	0.04	0.10	0.02	0.31	0.03	0.33	*****	*****	0.09	*****	*****	0.046 +CR- 0.035
SUSP. MAT.	*****	5.00	1.46	1.10	2.00	6.00	3.00	*****	*****	0.00	*****	*****	7.243 +CR- 4.456

NOTE ***** INDICATES NO DETERMINATION MADE AND 0.00 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + CR - 0.00 INDICATES THE PARAMETER WAS NOT DETECTABLE.

SITE D - 6 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. SUSPENDED FRACTION REPORTED ONLY.

DATE	27V174	11V1174	08V11174	71X74	15X74	16X174	08X1174	1175	221175	1711175	191V75	23V75	AVERAGE	AND	S.D.
CU	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.001	*****	*****	0.0006	+CR-	0.0002
P8	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	*****	*****	0.0005	+CR-	0.0
ZN	*****	0.601	0.0	0.0	0.0	0.0	0.018	*****	*****	6.0	*****	*****	0.0031	+09-	0.0066
MN	*****	0.025	0.014	0.025	0.024	0.019	0.015	*****	*****	C.C36	*****	*****	0.0226	+CR-	0.0075
FE	*****	0.080	0.27C	0.120	0.060	0.090	0.060	*****	*****	0.051	*****	*****	0.1044	+CR-	0.0767
AG	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	ma*	*****	0.0005	+CR-	0.0
NI	*****	0.0	0.620	0.010	0.0	0.0	0.020	*****	*****	0.0	*****	*****	0.0074	+CR-	0.003
CO	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	*4**	**A**	0.0005	+CR-	0.0
CD	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	*****	*****	0.0005	+CR-	0.0
LI	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	*****	*****	0.0005	+CR-	0.0
TA	*****	0.0	0.0	0.0	0.0	0.0	0.19	*****	*****	0.05	*****	*****	0.035	+CR-	0.071
K	*****	0.0	0.02	0.02	0.0	0.0	0.0	*****	*****	0.02	*****	*****	0.009	+CR-	0.010
CA	*****	C.C8	0.11	0.07	0.0	0.04	0.27	*****	*****	0.32	*****	*****	0.127	+CR-	0.120
MG	*****	0.02	0.09	0.03	0.02	0.04	0.03	*****	*****	0.10	*****	*****	0.047	+R-	0.034
SUSP. MAT.	*****	3.30	11.70	7.00	3.00	6.50	3.00	*****	*****	7.50	*****	*****	6.000	+Cq-	3.196

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + CR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

SITE 0 - 5 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. SUSPENDED FRACTION REPORTED ONLY.

DATE	18V175	2891175	9V11175	261X75	3IX/5	1x175	4X1175	1176	261176	2311176	AvFRAGE	AND S.D.
CU	0.003	0.006	0.010	0.012	0.007	*****	0.016	*****	0.3	0.0	0.0069	+OR- 0.0056
PB	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+0k- 0.0000
ZN	0.070	0.009	0.0	0.001	0.003	*****	0.006	*****	0.0	0.0	0.0116	+OR- 0.0239
MN	0.090	0.016	0.003	0.005	0.008	*****	0.006	*****	0.011	0.021	0.0200	+0,- 0.0289
FF	1.620	0.240	0.030	0.0	0.070	*****	0.120	*****	0.060	0.060	0.2151	+OR- 0.5483
AG	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+34- 0.0000
HT	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+OR- 0.0000
CO	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+02- 0.0000
DE	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+OR- 0.0000
LI	0.001	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0006	+OR- 0.0002
NA	0.0	0.36	0.36	0.32	0.48	*****	0.35	*****	0.11	0.03	0.251	+OR- 0.178
	0.16	0.02	0.0	0.01	0.01	*****	0.06	*****	0.04	0.02	0.040	+OR- 0.052
CA	1.18	0.24	0.10	0.06	0.47	*****	0.38	*****	0.23	0.23	0.361	+OR- 0.357
MG	0.45	0.06	0.0	0.0	0.11	*****	0.02	*****	0.04	0.04	0.050	+04- 0.150
SUSP. MAT.	69.50	11.00	2.50	3.00	4.00	*****	7.50	*****	6.00	6.50	13.750	+OR- 22.692

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + OR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE D - 9 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. SUSPENDED FRACTION REPORTED ONLY.

DATE	27V174	11V1174	EVIII,4	71 x74	19X74	16X174	6X1174	1175	221175	1711175	111V75	23975	AVERAGE AND S.D.
CU	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	*****	*****	*****	0.0005 +CR- 0.0
PB	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	*****	*****	*****	0.0005 +CR 0.0
ZN	*****	0.0	0.0	*****	0.0	0.0	0.0	*****	*****	*****	*****	*****	0.0005 +CR 0.0
MN	*****	0.042	0.028	*****	0.05	0.019	0.015	*****	*****	*****	*****	*****	0.0318 +CR- 0.0166
FE	*****	0.00	0.600	*****	0.180	0.120	0.040	*****	*****	*****	*****	*****	0.2060 +CR 0.2260
AG	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	*****	*****	*****	0.0005 +CR- 0.0
NI	*****	0.010	0.00	0.0	0.0	0.0	0.0	*****	*****	*****	*****	*****	0.0021 +CR- 0.0039
CO	*****	0.0	0.0	0.0	0.0	0.00	0.0	*****	*****	*****	*****	*****	0.0005 +CR- 0.0
CC	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	*****	*****	*****	0.0005 +CR 0.0
LI	*****	0.0	0.0	0.0	0.0	0.00	0.0	*****	*****	*****	*****	*****	0.0005 +CR- 0.0
NA	*****	0.0	0.0	0.0	0.3	0.28	0.19	*****	*****	*****	*****	*****	0.0079 +CR= 0.124
K	*****	0.00	0.07	0.05	0.06	0.00	0.0	*****	*****	*****	*****	*****	0.037 +CR 0.041
CA	*****	0.05	0.20	0.34	0.04	0.25	0.22	*****	*****	*****	*****	*****	0.183 +CR 0.117
MG	*****	0.05	0.85	0.17	0.05	0.05	0.04	*****	*****	*****	*****	*****	0.068 +CR= 0.050
SUSP. MAT.	*****	1.30	24.00	25.50	8.00	7.00	3.50	*****	*****	*****	*****	*****	11.417 +CR 10.980

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + CR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE D - 10 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. SUSPENDED FRACTION REPORTED ONLY.

DATE	18\7175	28\1175	5\711175	28\1X75	31X75	1X175	4X1175	1176	261176	2311176	AVERAGE AND S.D.	
CU	0.0	0.018	0.017	0.001	0.001	*****	0.009	*****	0.0	0.0	0.0058	0.0076
PB	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0000	0.0000
ZN	0.016	0.026	0.011	0.007	0.001	*****	0.0	*****	0.0	0.006	0.0085	0.0090
MN	0.038	0.031	0.021	0.018	0.003	*****	0.003	*****	0.014	0.021	0.0186	0.0122
FE	0.570	0.520	0.110	0.060	0.010	*****	0.030	*****	0.070	0.070	0.2125	0.2422
AG	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0000	0.0000
NI	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0000	0.0000
CO	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0000	0.0000
CD	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0000	0.0000
LI	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0000	0.0000
NA	0.04	0.41	0.37	0.32	0.55	*****	0.27	*****	0.03	0.09	0.235	0.157
K	0.05	0.13	0.09	0.03	0.0	*****	0.01	*****	0.03	0.0	0.045	0.046
CA	0.33	0.72	0.38	0.13	0.14	*****	0.24	*****	0.25	0.33	0.315	0.186
MG	0.17	0.16	0.06	0.61	0.0	*****	0.02	*****	0.04	0.04	0.065	0.065
SUSP. MAT.	29.00	22.50	11.00	4.00	3.50	*****	3.00	*****	7.00	7.00	11.500	9.262

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 OR - 0.0 INDICATES THE PARAMETER AS NOT DETECTABLE

SITE D - 15 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. SUSPENDED FRACTION REPORTED ONLY.

DATE	18V175	24V1175	SV11175	261X75	31X75	1X175	4X1175	1176	261176	2311176	AVERAGE	AND	S.D.
CU	#####	*****	*****	*****	***#*	#####	0.016	*****	0.0	0.001	0.0056	+,-	0.0088
PB	#####	*****	*****	*****	*****	#####	0.0	#####	0.0	C.0	0.0005	+,-	0.0
ZN	*****	*****	*****	#####	#####	#####	0.0	#####	0.0	C.0	0.0005	+,-	0.0
N	*****	#####	*****	*****	#####	#####	0.003	#####	0.017	0.021	0.0137	+,-	0.0055
FE	#####	#####	*****	#####	#####	#####	0.070	#####	0.100	0.050	0.0733	+,-	0.0252
AG	*****	*****	#####	*****	#####	*****	0.0	#####	0.0	C.0	0.0005	+,-	0.0
NI	*****	*****	*****	#####	*****	#####	0.0	*****	0.0	C.0	0.0005	+,-	0.0
CO	*****	#####	*****	*****	*****	*****	0.0	*****	0.0	C.0	0.0005	+,-	0.0
CD	*****	#####	#####	*****	#####	#####	0.0	#####	0.0	C.0	0.0005	+,-	0.0
LI	*****	*****	#####	#####	#####	*****	0.0	#####	0.0	C.0	0.0005	+,-	0.0
NA	*****	#####	#####	#####	#####	#####	0.32	*****	0.008	0.002	0.140	+,-	0.155
K	#####	#####	*****	#####	#####	#####	0.06	#####	0.03	C.02	0.007	+,-	C.021
CA	*****	#####	#####	#####	*****	*****	0.34	#####	0.29	0.24	0.250	+,-	0.050
MG	*****	#####	*****	*****	#####	*****	*****	#####	0.04	0.004	0.0040	+,-	0.000
SUSP. MAT.	*****	*****	*****	#####	#####	#####	10.00	#####	7.00	9.50	8.333	+,-	1.607

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + OR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE - BOTTOM (10-14 METRE DEPTH)

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. SUSPENDED FRACTION REPORTED ONLY.

LATE	27V174	11V1174	8V1174	71X74	19X74	16X174	8X1174	1175	221175	1711175	191V75	23V75	AVERAGE	ADO	STD.
		11m	11.5m	10m	10m	10m	10m			10m	10m	14m			
CU	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*X.***	0.0006	0.0006	0.022	0.0043	+FR	0.0072
PB	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.040	0.033	0.0085	+FR	0.0160
ZN	*****	C.CC2	0.317	0.003	0.0	0.0	0.0	*****	*****	0.004	0.010	0.210	0.0284	+FR	0.0685
MN	*****	0.049	0.055	0.060	0.055	*****	0.043	*****	*****	0.053	0.003	0.540	0.1647	+FR	0.3133
FE	*****	0.140	0.000	0.000	0.180	0.160	0.260	*****	*****	0.160	*****	7.600	1.2437	+FR	2.656
AG	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	*****	0.0005	+FR	0.0000
HI	*****	0.010	0.020	0.020	0.020	0.020	0.3	*****	*****	C.0	L.L.	L.C30	0.0135	+CP-	0.0110
CO	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.005	0.0010	+FR	0.0015
CC	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.004	0.0004	+FR	0.0012
LI	*****	0.0	0.0	C.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.000	0.0013	+FR	0.3025
O	*****	0.0	0.0	0.0	0.0	0.0	0.06	*****	*****	0.07	0.05	0.74	0.102	+FR-	0.241
K	*****	0.0	0.16	0.07	0.06	0.0	0.0	*****	*****	0.07	0.13	1.50	0.221	+FR	0.483
CA	*****	C.17	0.39	0.29	0.00	0.00	0.25	*****	*****	0.56	0.07	1.00	1.754	+FR	4.335
MG	*****	0.36	0.30	0.15	0.06	0.05	0.08	*****	*****	0.15	0.15	1.50	0.278	+FR-	0.465
SUSP. MAT.	*****	3.50	37.90	22.00	0.33	0.50	12.00	*****	*****	11.50	21.50	404.00	58.322	+FR	130.073

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER AS NOT DETECTABLE

NOTE AN AVERAGE AND STANnArR DEVIATION VALUE OF 0.0 + FR - 0.0 INDICATES PARAMETER WAS NOT DETECTABLE

SITE 0 - BOTTOM (14-21 METRE DEPTH)

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS %/L UNLESS SPECIFIED OTHERWISE. SUSPENDED FRACTION REPORTED ONLY.

DATE	18V175	28V175	5V175	28IX75	31X75	1X175	4X175	1176	28V177	23V176	AVERAGE AND ST. DEV.
	14m	14m	14m	14m	14m		16m		21m	21m	
CU	0.008	0.011	0.013	0.018	0.004	*****	0.02w	*****	0.0	0.0	0.0094 +SD= 0.0075
PB	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005 +SD= 0.0000
ZN	0.110	0.011	0.012	0.012	0.006	*****	0.006	*****	0.0	0.0	0.0197 +SD= 0.0368
MN	0.126	0.030	C.C41	0.034	0.011	*****	0.007	*****	0.018	0.024	0.0374 +SD= 0.0379
FE	3.070	0.570	0.570	0.163	0.110	*****	0.070	*****	0.150	0.100	0.6000 +LR= 1.0191
AG	0.0	0.0	C.0	0.0	0.0	*****	0.0	*****	0.0	0.002	0.0007 +SD= 0.0005
NI	0.0	0.0	0.0	C.0	0.0	*****	0.0	*****	0.0	0.0	0.0005 +Cm= 0.0000
CO	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005 +SD= 0.0000
CR	0.0	0.0	C.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005 +LR= 0.0000
LI	0.002	0.0	C.0	0.0	0.0	*****	0.0	*****	0.0	C.0	0.0007 +SD= 0.0005
NA	0.01	0.40	0.30	0.42	0.47	*****	0.44	*****	0.05	C.C2	0.271 +LR= 0.205
K	0.42	C.10	0.12	0.0	0.12	*****	0.09	*****	0.07	0.02	0.118 +LR= 0.130
CA	2.20	0.52	0.54	0.30	0.24	*****	0.37	*****	0.35	0.30	0.617 +SD= 0.647
MG	0.93	0.15	0.10	0.05	*****	*****	0.08	*****	0.04	0.04	0.155 +SD= 0.325
SUSP. MAT.	134.50	25.00	25.00	7.50	5.50	*****	10.00	*****	10.00	9.00	28.313 +SD= 43.581

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + SD = 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

STIFF C - s (SURFACE)

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE; SUSPENDED FRACTION REPORTED ONLY.

DATE	27V174	11V1174	8V11174	7IX74	19X74	14X174	6X1174	1175	221175	1711175	151V75	23V75	AVERAGE AND S.C.
CO	0.013	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.003	0.007	0.002	0.0028 +CR- 0.0041
NO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	0.0005 +CR- 0.0000
ZN	0.011	0.153	0.007	0.0	0.0	0.0	0.002	*****	*****	0.002	0.022	0.001	C. C206 +CR- 0.0470
MN	0.023	0.017	0.030	0.023	0.011	0.015	0.007	*****	*****	0.043	0.0006	0.001	0.0242 +CR- 0.0184
FE	0.140	0.170	0.550	0.190	0.040	0.070	0.190	*****	*****	0.130	1.140	0.200	0.2040 +CR- 0.3303
AG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	C.0005 +CR- 0.0000
NI	0.010	0.010	0.0	0.0	0.030	0.020	0.0	*****	*****	0.0	0.0	0.0	0.0073 +CR- 0.0104
CU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	C.0005 +CR- 0.0000
CC	0.0	0.0	0.0	0.002	0.0	0.0	0.0	*****	*****	0.0	0.0	0.0	C.0006 +CR- 0.0005
LI	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.001	0.0	0.0005 +CR- 0.0002
NA	0.0	0.0	0.0	0.0	0.0	0.0	3.11	*****	*****	0.07	0.10	0.30	0.0064 +CR- 0.113
K	0.02	0.03	0.07	0.03	0.02	0.0	0.0	*****	*****	0.02	0.03	0.03	0.059 +CR- 0.104
CA	0.16	1.30	0.31	0.13	0.02	0.03	0.17	*****	*****	0.37	0.77	0.32	0.358 +CR- 0.396
MG	0.05	0.06	0.21	0.06	0.03	0.07	0.04	*****	*****	0.13	0.35	0.04	0.106 +CR- 0.115
SUSP. MAT.	4.40	6.90	24.30	10.80	2.50	4.50	4.50	*****	*****	9.50	40.00	8.50	12.340 +JR- 13.970

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + CR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

SITE E - S (SURFACE)

NOTE ALL CONCENTRATION ~~VALUES~~ ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE; SUSPENDED FRACTION REPORTED ONLY.

DATE	18V1175	28V1175	9V11175	26T875	31X75	1X1175	4X1175	1176	261176	2311176	AVERAGE AND STD.
CU	0.004	0.023	0.010	0.0	0.005	*****	0.0014	*****	0.0	0.0	0.0072 #DR= 0.0080
PB	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005 #DR= 0.0000
ZN	0.035	0.003	0.008	0.002	0.004	*****	0.003	*****	0.0	0.0	0.0070 #DR= 0.0116
MN	0.061	0.008	0.015	0.011	0.002	*****	0.001	*****	0.011	0.013	0.0155 +GR- 0.0169
FE	1.160	0.070	0.270	0.070	0.020	*****	0.070	*****	0.070	0.040	0.2137 #DR= 0.3871
AG	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005 #DR= 0.0000
NI	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005 #DR= 0.0000
CO	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005 #DR= 0.0000
CD	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005 #DR= 0.0000
LI	0.001	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005 #DR= 0.0002
MR	0.09	0.41	0.23	0.23	0.11	*****	0.32	*****	0.0	0.0	0.220 #DR= 0.168
X	0.18	0.34	0.05	0.0	0.0	*****	0.03	*****	0.05	0.02	0.040 #DR= 0.057
CA	0.74	0.08	0.31	0.08	0.11	*****	0.33	*****	0.0	0.15	0.225 #DR= 0.237
MG	0.39	0.01	0.06	0.05	0.0	*****	0.02	*****	0.04	0.03	0.075 #DR= 0.129
SUSP. MAT.	87.50	21.00	12.50	7.00	*****	*****	8.00	*****	4.00	6.50	15.214 +0k- 15.299

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + OR - 0.3 INDICATES THE PARAMETER WAS NOT DETECTABLE.

SITE F - 3 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. SUSPENDED FRACTION REPORTED ONLY.

DATE	27V174	11V174	8V1174	7IX74	19X74	16X174	6X1174	1175	221175	1711175	191V75	23V75	AVERAGE	AND	S.D.
CU	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	C.003	C.003	*****	0.0011	+CR-	0.0012
PB	*****	0.0	C.0	0.030	0.0	0.0	0.0	*****	*****	C.0	C.0	*****	C.0042	+CR-	0.0104
ZN	*****	0.066	0.002	0.0	0.0	0.0	0.0	*****	*****	C.004	C.007	*****	C.0101	+CR-	0.0227
MN	*****	0.018	0.033	0.021	0.014	0.015	0.011	*****	*****	0.042	0.044	*****	C.0247	+OR-	0.0131
FE	*****	0.130	0.590	0.210	0.120	0.070	0.150	*****	*****	0.097	C.290	*****	0.2071	+CR-	0.1695
AG	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	*****	C.0005	+CR-	0.0000
NI	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	C.0	*****	C.0005	+OR-	0.0000
CO	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	C.0	0.0	*****	C.0005	+CR-	0.0000
CC	*****	C.0	C.0	0.0	0.0	0.0	0.0	*****	*****	0.0	C.0	*****	0.0005	+CR-	0.0000
LI	*****	C.0	0.0	C.0	0.0	0.0	0.0	*****	*****	0.0	C.0	*****	C.0005	+CR-	0.0000
NA	*****	C.0	0.0	0.0	0.0	0.0	0.30	*****	*****	0.06	C.07	*****	0.054	+CR-	0.104
K	*****	C.0	0.04	0.01	0.06	0.0	0.02	*****	*****	0.04	*****	*****	0.024	+CR-	0.023
CA	*****	0.60	0.30	0.09	0.02	0.05	0.26	*****	*****	0.58	0.56	*****	0.307	+OR-	0.246
MG	*****	0.10	0.21	0.06	0.04	0.04	0.05	*****	*****	0.17	0.18	*****	0.106	+CR-	0.070
SUSP. MAT.	*****	39.30	24.30	6.90	3.50	6.50	6.00	*****	*****	10.00	18.00	*****	14.312	+OR-	12.296

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + CR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE F - 6 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. SUSPENDED FRACTION REPORTED ONLY.

PARAM	27VI174	11V1174	8VI1174	7IX74	19X74	16X174	6XI174	1175	27I175	1711175	191V175	23V75	AVERAGE	AND	S.D.
Cu	*****	0.0	0.0	0.0	0.030	0.0	0.0	*****	*****	0.001	*****	*****	0.0048	+CR-	0.0111
DE	*****	0.0	0.0	0.325	0.0	0.0	0.0	*****	*****	0.0	*****	*****	0.0040	+CR-	0.0093
ZN	*****	0.0015	0.009	0.0	0.0	0.001	0.001	*****	*****	0.004	*****	*****	0.0131	+CR-	0.0249
MN	*****	0.034	0.063	0.040	0.035	0.015	0.014	*****	*****	0.047	*****	*****	C. C363	+CR-	0.0177
P	*****	0.400	*****	0.600	0.50	0.340	0.170	*****	*****	0.160	*****	*****	0.3867	+CR-	0.2082
AG	*****	0.0	0.0	0.3	0.0	0.0	0.3	*****	*****	0.0	*****	*****	0.0005	+CR-	0.0
NI	*****	0.0	0.0	0.0	0.020	0.0	0.0	*****	*****	0.0	*****	*****	0.0033	+CR-	0.0074
CO	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	*****	*****	0.0005	+CR-	0.0
CC	*****	0.0	0.0	0.0	0.0	0.0	0.3	*****	*****	0.0	*****	*****	C.0005	+CR-	0.0
LI	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	*****	*****	0.0005	+CR-	0.0
NA	*****	0.0	0.06	0.0	0.0	0.0	0.42	*****	*****	0.05	*****	*****	0.076	+CR-	0.154
K	*****	0.02	0.10	0.07	0.13	0.07	0.34	*****	*****	0.04	*****	*****	0.069	+CR-	0.056
CA	*****	0.60	0.52	0.34	0.34	0.36	0.35	*****	*****	0.33	*****	*****	0.406	+CR-	0.108
Mg	*****	0.13	0.41	0.16	0.16	0.10	0.08	*****	*****	0.12	*****	*****	0.163	+CR-	0.114
SUSP. MAT.	*****	16.60	51.60	25.00	20.50	10.00	5.00	*****	*****	10.00	*****	*****	17.90	+CR-	15.635

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + CR - 0.0 INDICATES THE PARAMETER AS NOT DETECTABLE

SITE E - 5 METRE DEPTH

NOT ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. SUSPENDED FRACTION REPORTED ONLY.

DATE	18V175	28V1175	9V11175	261X75	31X75	1X175	4X1175	1176	261176	2311176	AVERAGE	AND	S.P.
CU	0.003	0.014	0.008	0.015	0.001	*****	0.010	*****	0.0	0.0	0.0065	+OR-	0.0061
PB	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+OR-	0.0000
ZN	0.069	0.014	0.003	0.004	0.0	*****	0.002	*****	0.0	0.001	0.0117	+OR-	0.0236
MN	0.082	0.025	0.018	0.012	0.001	*****	0.004	*****	0.013	0.019	0.0217	+UK-	0.0256
FE	1.590	0.520	*****	0.050	0.010	*****	0.050	*****	0.090	0.080	0.3388	+OR-	0.5792
AG	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.002	0.0007	+OR-	0.0005
NI	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+OR-	0.0000
CR	0.0	0.0	0.0	0.0	0.001	*****	0.0	*****	0.0	0.0	0.0006	+OR-	0.0002
CC	0.0	0.0	0.0	0.001	0.0	*****	0.0	*****	0.0	0.0	0.0006	+OR-	0.0002
LI	0.001	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0004	+OR-	0.0002
NA	0.02	0.39	0.38	0.40	0.32	*****	0.28	*****	0.08	0.10	0.246	+OR-	0.155
	0.22	0.01	0.06	0.04	0.0	*****	0.03	*****	0.04	3.02	0.053	+OR-	0.070
CA	1.00	0.63	0.32	0.19	0.19	*****	0.20	*****	0.37	0.40	0.412	+OR-	0.280
MG	0.41	0.13	*****	0.02	0.03	*****	0.01	*****	0.06	0.04	0.100	+OR-	0.142
SLAP. MAT.	62.50	21.00	16.50	4.50	5.00	*****	10.00	*****	5.50	8.50	16.688	+OP-	19.418

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + OR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE E - 10 METRE DEPTH

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE; SUSPENDED FRACTION REPORTED IN MG/L

DATE	18VI175	28VI175	5VII175	26IX75	31X75	1XI75	4XI175	1176	261176	2311176	AVERAGE	ANn	S.D.
CU	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	+DB=	0.0
PH	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	+DB=	0.0
ZN	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	+DB=	0.0
MN	*****	*****	*****	*****	*****	*****	*****	*****	0.008	0.024	0.0000	+DB=	0.0113
FE	*****	*****	*****	*****	*****	*****	*****	*****	0.080	0.00	0.0000	+DB=	0.0071
NO	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	+DB=	0.0
NI	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0005	+DB=	0.0
CO	*****	*****	*****	*****	*****	*****	*****	*****	0.0	C.0	0.0005	+DB=	3.0
CE	*****	*****	*****	*****	*****	*****	*****	*****	0.0	G.0	0.0005	+DB=	0.0
LI	*****	*****	*****	*****	*****	*****	*****	*****	0.0	C.0	0.0005	+DB=	C.0
VA	*****	*****	*****	*****	*****	*****	*****	*****	0.09	0.00	0.0005	+DB=	0.007
K	*****	*****	*****	*****	*****	*****	*****	*****	0.03	0.05	0.0000	+DB=	0.014
CA	*****	*****	*****	*****	*****	*****	*****	*****	0.35	0.30	0.0025	+DB=	0.035
MG	*****	*****	*****	*****	*****	*****	*****	*****	0.05	C.C4	0.045	+DB=	0.007
SUSP. MAT.	*****	*****	*****	*****	*****	*****	*****	*****	6.00	11.50	0.750	+DB=	3.889

NOTE ***** INDICATES NO DETERMINATION WAS MADE ANn 0.0 INDICATES THE PAPAmETER WAS NOT DETECTABLE;

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.00 + DB = 0.3 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE E - BOTTOM (7.2- 9 METRE DEPTH)

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE; SUSPENDED FRACTION REPORTED ONLY.

DATE	27VI174	11VII174	08VIII174	7IX174	19X174	16XI174	08XII174	1175	221175	1711175	14IV175	23V75	AVERAGE	AND	S.D.
	8m	8m	8m	8m	7.2m	8m	9m			8m	8m				
CU	*****	0.097	0.0	0.030	0.0	0.0	0.035	*****	*****	0.007	0.007	*****	0.0222	+CR-	0.0332
PB	*****	0.090	0.052	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	*****	0.0181	+CR-	0.0342
ZN	*****	0.858	0.033	0.102	0.0	0.005	0.045	*****	*****	0.020	0.020	*****	0.1362	+CR-	0.2934
MN	*****	0.935	0.120	0.282	0.038	0.045	0.390	*****	*****	0.071	0.060	*****	0.2086	+CR-	0.3034
FE	*****	*****	2.370	*****	1.060	1.030	2.600	*****	*****	0.670	0.900	*****	4.0412	+CR-	4.9085
AG	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	*****	0.0005	+CR-	0.0000
NI	*****	0.050	0.0	0.020	0.020	0.0	0.0	*****	*****	0.0	0.0	*****	0.0116	+CR-	0.0179
CO	*****	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	0.0	0.0	*****	0.0005	+CR-	0.0000
PP	*****	0.005	0.0	0.302	0.0	0.0	0.0	*****	*****	0.0	0.0	*****	0.0016	+CR-	0.0026
LI	*****	0.002	0.0	0.005	0.0	0.0	0.0	*****	*****	0.001	0.0	*****	0.0013	+CA-	0.0016
NA	*****	0.67	0.0	0.08	0.0	0.25	0.43	*****	*****	0.08	0.07	*****	0.198	+CR-	0.240
	*****	*****	0.41	*****	0.14	0.17	0.37	*****	*****	0.15	0.4e	*****	0.240	+CR-	0.119
CA	*****	14.70	0.98	5.00	0.81	0.58	1.60	*****	*****	0.85	1.40	*****	3.340	+CR-	4.874
MG	*****	5.40	0.90	1.70	0.28	3.25	0.68	*****	*****	0.25	0.31	*****	1.219	+CR-	1.761
SUSP. MAT.	*****	860.00	94.50	386.00	44.00	35.50	102.00	*****	*****	31.00	52.00	*****	179.000	+CR-	239.927

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + CR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

SITE E - BOTTOM (10-16.5 METRE DEPTH)

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE; SUSPENDED FRACTION REPORTED ONLY.

DATE	1PV175 10m	28V1175 10m	5V11175 10m	28IX75 10m	31X75 10m	IX175 12m	XX1175 12m	1176 16.5m	28I176 16.5m	23I1176 16.5m	AVLRAGE AND STD
OU	0.011	0.007	0.022	0.0	0.006	*****	0.025	*****	0.0	0.001	0.0051 +OR= 0.0050
P6	C.020	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0029 +OR= 0.0069
ZN	0.010	0.012	0.034	0.013	0.002	*****	0.000	*****	0.001	0.0	0.0331 +OK- C.C715
MM	0.277	0.038	0.070	0.030	0.006	*****	0.007	*** *	0.014	0.025	0.0597 +JK- C.0901
FE	5.40C	0.860	2.300	0.610	0.140	*****	0.000	*****	0.15C	C.C8C	1.7225 +OR= 1.8424
AG	C.0	0.0	0.0	C.0	0.0	*****	0.0	*****	0.3	0.0	0.0005 +LK- C.0000
NI	0.0	C.0	0.0	0.0	0.0	*****	0.0	*****	0.0	C.0	0.000 +OR= 0.0000
SS	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005 +OR= 0.0000
CB	0.0	0.001	0.0	0.0	0.0	*****	3.0	*****	0.0	0.0	0.0006 +OR= 0.0002
LI	0.005	0.0	0.002	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0012 +OR= 0.0010
NA	0.05	0.33	0.42	0.32	0.40	*****	0.32	*****	0.05	0.09	0.222 +OR= 0.151
K	0.73	0.15	0.30	0.10	0.04	*****	0.06	*****	0.05	C.U2	0.101 +OR= 0.256
CA	1.60	0.485	2.00	0.7	0.53	*****	0.47	*****	0.60	0.38	1.160 +C-C- 1.106
MG	1.30	0.26	0.52	0.03	0.13	*****	0.02	*****	0.08	0.05	0.255 +OR= 0.438
SUSP. MAT.	284.50	574.50	112.50	40.00	10.00	*****	4.0	*****	14.00	6.50	0.125 +OR= 95.526

NOTE ***** INDICATES N) DETERMINATION WAS MAOE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + OP - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

s ITC F - S (SURFACE)

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE; SUSPENDED FRACTION REPORTED ONLY.

DATE	27V174	11V1174	8V11174	71X74	19X74	16X174	4X1174	1175	221175	1711175	191V75	23V75	AVERAGE	AND S.C.
CO	0.0	0.0	0.0	0.021	0.0	0.0	*****	*****	*****	0.001	0.019	0.004	0.0053	STD= 0.0084
PB	0.0	0.0	0.0	0.017	0.0	0.0	*****	*****	*****	0.0	0.036	0.0	0.0065	STD= 0.0130
ZN	0.021	0.036	0.032	0.035	0.005	0.038	*****	*****	*****	0.010	0.160	0.071	0.0455	STD= 0.0470
MN	0.026	0.019	0.075	0.095	0.012	0.053	*****	*****	*****	0.013	*****	0.03E	C. C419	STD= 0.0313
FE	0.460	0.190	*****	*****	0.740	1.140	*****	*****	*****	0.210	0.036	0.180	0.7986	STD= 1.3366
AG	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	*****	0.0	0.0	0.0	C. C005	STD= 0.0000
HI	0.010	0.0	0.0	0.0	0.0	0.020	*****	*****	*****	0.0	0.0	0.0	C. C037	STD= 0.006
CC	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	*****	0.0	0.0	0.0	C. C005	STD= 0.0000
CC	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	*****	0.0	0.0	0.0	C. C005	STD= 0.0000
LI	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	*****	0.0	0.0	0.0	C. C011	STD= 0.0018
NA	0.0	0.0	0.0	0.0	0.0	0.0	*****	*****	*****	0.007	0.14	0.02	0.030	STD= 0.0050
K	0.16	0.0	0.17	0.29	0.02	0.17	*****	*****	*****	0.04	0.85	0.12	0.207	STD= 0.272
CA	0.17	0.37	0.51	1.03	3.16	0.70	*****	*****	*****	0.24	0.90	0.00	0.970	STD= 1.503
MG	0.12	0.06	0.59	0.61	0.10	0.32	*****	*****	*****	0.10	1.76	0.21	0.403	STD= 0.463
SUSP. MAT.	11.30	7.50	69.80	107.00	10.50	45.00	*****	*****	*****	9.50	28.50	5.00	64.456	STD= 90.864

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER AS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

SIT F - S (SURFACE)

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. SUSPENDED FRACTION REPORTED ONLY.

DATE	18V175	28V1175	9V11175	261X75	31X75	1X175	4X1175	1176	261176	2311176	AVERAGE AND S.D.
CU	0.002	0.010	0.014	0.010	0.009	*****	0.005	*****	0.0	0.001	0.0064 +OR- 0.0050
PB	0.0	0.0	0.0	0.0	0.0	*****	0.3	*****	0.0	0.0	0.0005 +OR- 0.0000
N	0.100	0.014	0.020	0.011	0.009	*****	0.016	*****	0.0	C.003	0.0217 +OR- 0.0323
MN	0.124	0.017	0.019	0.011	0.010	*****	0.007	*****	0.015	C.024	0.0264 +OR- 0.0390
FE	2.150	0.340	0.630	0.310	0.300	*****	0.120	*****	0.080	0.060	0.4987 +OR- 0.6924
AG	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005 +OR- 0.0000
NI	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005 +OR- 0.0000
CO	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005 +OR- 0.0000
CC	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005 +OR- 0.0300
LI	0.002	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0007 +OR- 0.0005
NA	0.13	0.45	0.4	0.40	0.45	*****	0.44	*****	0.05	C.08	0.292 +OR- 0.175
K	0.29	0.07	0.12	0.09	0.04	*****	0.05	*****	0.04	0.04	0.052 +OR- 0.085
CA	1.30	0.37	0.70	0.35	0.64	*****	0.21	*****	0.31	C.19	0.509 +OR- 0.369
MG	0.61	0.08	0.14	0.10	0.19	*****	0.01	*****	0.05	0.05	0.154 +OR- 0.193
SUSP. MAT.	87.50	14.00	29.00	14.00	15.50	*****	7.50	*****	7.50	6.00	22.625 +OR- 27.210

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + OR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE F - BOTTOM (1-3 METRE DEPTH)

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. SUSPENDED FRACTION REPORTED ONLY.

DATE	27V174	11V1174	8V11174	7IX74	19X14	16X174	6X1174	1175	221175	1711175	191V75	23975	AVERAGE	AND	ST.D.
	2m	2m	1m	1m						2m	3m				
CU	*****	0.0	0.025	0.021	0.0	*****	*****	*****	*****	0.007	0.028	*****	0.0137	+CR-	0.0125
PB	*****	0.0	0.041	0.023	0.0	*****	*****	*****	*****	0.0	C.u57	*****	C.C204	+OR-	0.0243
MN	*****	0.039	0.055	0.067	0.0	*****	*****	*****	*****	0.012	0.290	*****	0.0846	+IP-	0.1069
NI	*****	0.021	0.200	0.121	0.033	*****	*****	*****	*****	0.013	0.530	*****	0.1530	+CR-	0.1964
FE	*****	0.370	*****	*****	1.000	*****	*****	*****	*****	0.200	7.200	*****	2.1925	+OR-	3.3560
UG	*****	0.0	0.0	0.0	0.0	*****	*****	*****	*****	0.0	0.0	*****	0.0005	+CR-	0.0
NI	*****	0.0	0.0	0.020	0.0	*****	*****	*****	*****	C.0	0.0	*****	0.0037	+CR-	0.0080
CO	*****	0.0	0.0	0.0	0.0	*****	*****	*****	*****	C.0	C.0	*****	0.0005	+CR-	0.0
CC	*****	0.0	C.0	0.001	0.0	*****	*****	*****	*****	0.0	C.0	*****	0.0006	+CR-	0.0002
LI	*****	0.0	0.0	0.0	0.0	*****	*****	*****	*****	C.0	0.008	* **	0.0017	+CR-	0.0031
NA	*****	0.0	0.0	0.0	0.0	*****	*****	*****	*****	0.07	3.22	*****	0.049	+OP-	0.088
K	*****	0.01	0.56	0.46	0.14	*****	*****	*****	*****	0.07	1.70	*****	0.490	+OP-	0.632
CA	*****	0.35	1.40	0.81	*****	*****	*****	*****	*****	0.46	8.10	*****	2.232	+CR-	3.305
MG	*****	0.12	0.98	0.28	*****	*****	*****	*****	*****	0.15	1.70	*****	0.646	+OR-	0.685
SUSP. MAT.	*****	13.60	156.00	155.00	40.00	*****	*****	*****	*****	9.00	377.50	*****	131.850	+CR-	143.183

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + CR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE F - BOTTOM (2.2-9 METRE DEPTH)

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. SUSPENDED FRACTION REPORTED ONLY.

DATE	18V175 2.8m	28V1175 2.2m	SV11175 3.0m	261X75 2.5m	31X75 3.0m	1X175	4X1175 5.0m	1176	261176 9.0m	2311176 9.0m	AVERAGE	AND	S.D.
CU	0.015	0.014	0.011	0.001	0.008	*****	0.020	*****	0.0	0.0	0.0087	+OR-	0.0075
PB	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+OR-	0.0000
IN	0.220	0.029	0.021	0.005	0.012	*****	0.012	*****	0.0	0.0	0.0275	+OR-	0.0744
MN	0.284	0.022	0.061	0.017	0.012	*****	0.006	*****	0.017	0.025	0.0555	+OR-	0.0938
FE	4.120	0.520	0.80	0.060	0.520	*****	0.110	*****	0.070	0.060	0.8050	+OR-	1.3792
AG	0.0	0.0	0.0	0.0	0.0	*****	0.0	*4***	0.0	0.0	0.0005	+OR-	0.0000
NI	0.030	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0042	+OR-	0.0104
CO	0.0	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+OR-	0.0000
CD	0.0	0.001	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0006	+OR-	0.0002
LI	0.004	0.0	0.0	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0004	+OR-	0.0012
NA	0.0	0.44	0.38	0.34	0.45	*****	0.41	*****	0.03	0.05	0.263	+OR-	0.199
K	0.53	0.03	0.15	0.0	0.16	*****	0.06	*****	0.03	0.08	0.130	+OR-	0.171
CA	2.10	0.65	1.00	0.11	0.48	*****	0.36	*****	0.31	0.21	0.657	+OR-	0.648
MG	1.20	0.13	0.24	0.45	0.12	*****	0.02	*****	0.04	0.05	0.281	+OR-	0.397
S'JSP. MAT.	174.00	18.50	44.50	105.50	17.50	*****	9.00	*****	8.00	7.00	48.000	+OR-	60.707

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + OR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

SITE o - s (SURFACE)

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE, SUSPENDED FRACTION REPORTED ONLY.

DATE	27V174	11V1174	8V11174	71X74	19X74	16X174	6X1174	1175	221175	1711175	1SIV15	23V75	AVERALL	AND S.D.
CU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*****	0.002	0.0	0.028	0.00E	0.0038	+CR- 0.0083
PB	0.0	0.0	0.026	0.023	0.0	0.0	0.0	*****	0.0	C.0	C.050	C.	0.0094	+CR- 0.0166
IN	0.031	0.049	0.032	0.035	0.005	0.028	0.010	*****	0.023	0.012	0.330	0.140	0.0632	+CR- 0.095j
MN	0.029	0.029	0.082	0.090	0.023	0.043	0.012	*****	0.020	0.013	C.64C	0.110	C. C992	+CR- 0.1825
FE	0.530	0.520	*****	*****	0.510	1.200	0.370	*****	0.430	0.170	*****	1.590	1.8022	+CR- 3.3087
AG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*****	0.0	0.0	0.017	C.0	0.0020	+CR- 0.0050
NI	0.0	0.010	0.0	0.0	0.0	0.0	0.0	*****	0.0	0.0	0.0	0.0	0.0014	+CR- 0.0029
CO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*****	0.0	0.0	0.0	0.0	C.0005	+CR- 0.0000
CC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*****	0.0	0.0	C.0	C.0	C.0005	+CR- 0.0000
LI	0.0	0.0	0.0	0.003	0.0	0.0	0.0	*****	0.0	0.0	0.010	0.002	C.0017	+CR- 0.0029
NA	*****	0.0	0.0	0.0	0.0	0.27	0.10	*****	0.03	0.04	1.22	0.44	0.119	+CR- 0.153
K	C.C4	0.04	0.22	0.31	0.04	0.13	0.07	*****	0.05	C.05	2.20	0.52	0.319	+CR- 0.833
CA	0.39	0.43	0.60	0.96	0.50	0.85	0.39	*****	0.90	0.29	11.90	1.30	1.683	+CR- 3.403
MG	0.15	C.15	0.63	0.63	0.17	0.35	0.12	*****	0.20	0.11	2.10	0.45	0.460	+CR- 0.578
SUSP. MAT.	17.70	16.80	70.00	99.00	22.50	49.00	16.00	*****	275.00	8.50	494.30	78.50	104.136	+CR-150.084

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + CR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE G - S (SURFACE)

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. SUSPENDED FRACTION REPORTED ONLY.

DATE	18VI75	28VII75	9VIII75	26IX75	31X75	1X175	4X1175	1176	261176	2311116	AVERAGE	AND S.D.
CU	0.002	0.012	0.016	0.003	0.006	*****	#####	#####	0.0	0.0	0.0057	+OR- 0.0061
PB	0.0	0.0	0.0	0.0	0.0	#####	#####	#####	0.0	0.0	0.0005	+OR- 0.0
PN	0.062	0.011	0.015	0.001	0.010	#####	#####	#####	0.003	0.003	0.0150	+OR- 0.0213
MN	0.082	0.011	0.013	0.002	0.008	*****	#####	#####	0.007	0.004	0.0181	+OR- 0.0284
FE	1.230	0.250	0.240	0.010	0.160	#####	#####	#####	0.120	0.100	0.3014	+OR- 0.4177
AG	0.0	0.0	0.0	0.0	0.0	#####	#####	#####	0.0	0.0	0.0005	+OR- 0.0
NI	0.0	0.0	0.0	0.0	0.0	#####	#####	#####	0.0	0.0	0.0005	+OR- 0.0
CO	0.0	0.0	0.0	0.0	0.0	*****	#####	#####	0.0	0.0	0.0005	+OR- 0.0
CD	0.0	0.0	0.0	0.0	0.0	#####	#####	#####	0.0	0.0	0.0005	+OR- 0.0
LI	0.001	0.0	0.0	0.0	0.0	*****	#####	#####	0.0	0.0	0.0002	+OR- 0.0002
NA	0.03	0.38	0.42	0.30	0.46	#####	#####	#####	0.12	0.07	0.254	+OR- 0.178
K	0.12	0.04	0.09	0.0	0.10	#####	#####	#####	0.03	0.0	0.054	+OR- 0.049
CA	0.79	0.27	0.39	0.10	0.26	#####	#####	#####	0.20	0.13	0.306	+OR- 0.234
MG	0.37	0.05	0.06	0.01	0.04	#####	#####	#####	0.05	0.02	0.120	+OR- 0.138
SUSP. MAT.	55.50	12.50	12.50	4.50	8.00	#####	#####	#####	6.50	5.50	15.000	+OR- 18.141

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + OR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE H - S (SURFACE)

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE; SUSPENDED FRACTION REPORTED ONLY

DATE	27V174	11V1174	8V11174	71X74	19X74	18X174	6X1174	1175	221175	1711175	151V75	23915	AVERAGE	AND S.D.
CO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*****	0.002	0.003	0.005	0.009	0.0024	+CR- 0.0034
PK	C.0	0.0	0.0	0.0	0.0	0.0	0.0	*****	0.0	C.0	C.	C.0	0.0005	+CR- 0.0000
ZN	0.002	0.011	0.0	0.0	0.0	0.0	0.0	*****	0.007	0.0	0.000	C.C3C	0.0503	+CR- 3.1494
MN	0.019	0.016	0.014	0.017	0.035	0.033	0.018	*****	0.053	0.027	0.050	0.065	0.0315	+CR- 0.0175
FE	0.160	0.130	0.310	0.110	0.490	0.230	0.130	*****	0.320	0.045	0.650	1.570	0.3766	+CR- 0.4350
MG	0.0	0.0	C.0	3.0	0.0	0.0	0.0	*****	0.0	C.0	C.0	0.0	0.0005	+CR- 0.0000
NI	0.0	0.010	0.0	0.0	0.0	0.0	0.020	*****	0.0	C.0	C.0	0.0	0.0031	+CP- 0.0063
CU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*****	0.0	0.0	C.0	C.0	0.0005	+CR- 0.0000
CC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*****	0.0	0.0	C.0	C.0	0.0005	+CR- 0.0000
LI	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*****	0.0	0.0	C.0	0.002	0.0000	+CR- 0.0005
NA	0.0	0.0	0.0	0.0	0.0	0.0	0.14	*****	0.03	0.04	0.011	0.10	0.038	+CP- 0.053
	0.0	0.0	0.03	0.0	0.08	0.0	0.0	*****	0.007	0.0	0.020	0.035	0.067	+CR- 0.112
CA	0.31	0.23	0.21	0.08	0.73	0.27	0.33	*****	1.30	0.24	0.00	0.40	0.821	+CR- 1.334
MS	0.05	0.05	0.10	0.04	0.14	0.08	0.06	*****	0.14	0.08	0.22	0.44	0.132	+CR- 0.130
SUSP. MAT.	7.40	6.00	*****	3.70	22.00	10.50	7.00	*****	24.00	7.00	43.50	100.00	23.100	+CR- 29.817

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + CR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

SITE H S (SURFACE)

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE. SUSPENDED FRACTION REPORTED ONLY.

DATE	18V175	28V11	75 9V11	75 261X75	31X75	1X175	4X1175	1176	261176	2311176	AVERAGE	AND S.D.
CU	0.007	0.012	*****	0.002	0.0	*****	0.008	*****	0.0	0.0	0.0044	+0k- 0.0046
PB	0.0	0.0	*****	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+0k- 0.0
PN	0.045	0.010	*****	0.006	0.009	*****	0.001	*****	0.0	0.005	0.0109	+0k- 0.0154
MN	0.052	0.014	*****	0.023	0.010	*****	0.003	*****	0.016	0.013	0.0187	+0k- 0.0159
FE	1.100	0.240	*****	0.140	0.070	*****	0.0	*****	0.170	0.070	0.2558	+0k- 0.3803
AG	0.0	0.0	*****	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0005	+0k- 0.0
NI	0.060	0.0	*****	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0090	+0k- 0.0225
CD	0.0	0.0	*****	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0009	+0k- 0.0
CC	0.0	0.002	*****	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0007	+0k- 0.0006
	0.001	0.0	*****	0.0	0.0	*****	0.0	*****	0.0	0.0	0.0006	+0k- 0.0002
NA	0.04	0.38	*****	0.35	3.47	*****	0.30	*****	0.11	0.08	0.247	+0k- 0.168
K	0.15	0.10	*****	0.03	0.11	*****	0.07	*****	0.04	0.02	0.074	+0k- 0.048
CA	1.18	0.27	*****	0.31	0.18	*****	0.20	*****	0.47	0.28	0.413	+0k- 0.351
MG	0.32	0.04	*****	0.29	0.01	*****	0.0	*****	0.05	0.04	0.128	+0k- 0.136
SUSP. MAT.	59.50	9.50	*****	7.50	4.00	*****	9.00	*****	12.00	6.00	15.357	+0k- 19.634

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + CR - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

SITE I - S (SURFACE)

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED AS MG/L UNLESS SPECIFIED OTHERWISE; SUMPION F. 0110 METHOD ONLY.

DATE	27VI74	11VII74	28VIII74	7IX74	19X74	15XI74	6XII74	1175	27I75	17II77	19I 75	28V75	94
	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
ZN	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0	0.0010 + 0.0010
ZN	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0	0.0015 + 0.0015
MN	*****	*4***	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0	0.0075 + 0.0075
PH	*****	m**	*****	*****	*****	*****	*****	*****	*****	0.007	0.007	0.007	0.0075 + 0.0075
NO	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0	0.0005 + 0.0005
NI	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0	0.0005 + 0.0005
CO	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0	0.0005 + 0.0005
CR	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0	0.0005 + 0.0005
LI	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0	0.0005 + 0.0005
VA	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0	0.0100 + 0.0100
K	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.02	0.02	0.02	0.033 + 0.033
CA	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.65	0.52	0.33	0.400 + 0.400
MG	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.13	0.00	0.04	0.008 + 0.008
WSP MAT.	*****	*****	*****	*****	*****	*****	*****	*****	*****	0.0	0.0	0.0	0.333 + 0.333

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 0.0 + 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE.

SITE I - S (SURFACE)

NOTE ALL CONCENTRATION PARAMETERS ARE REPORTED MG/L UNLESS SPECIFIED OTHERWISE. SUSPENDED SOLIDION REPORTED ONLY

DATE	10VI75	28VI175	5VI1175	26IX75	31X75	1XI75	6XII75	1176	28II76	25II176	AVERAGE AND
CU	0.001	0.009	0.022	*****	*****	*****	*****	*****	CC***	*****	0.0107 +UP- 0.0106
PH	0.0	0.0	0.0	*****	*****	*****	*****	*****	*****	*****	0.0005 +UP- C.0
ZN	0.017	C.0	C.026	*****	*****	*****	*****	*****	*****	***C*	0.0145 +UP- 0.0129
MN	0.030	0.003	0.008	*****	*****	*****	*****	*****	*****	*****	0.0187 +UP- 0.0144
FE	0.500	0.040	0.120	*****	*****	*****	*****	*****	*****	*****	0.2200 +UR- 0.2450
AG	C.0	0.0	C.0	*****	*****	*****	*****	*****	*****	*****	0.0000 +UP- C.0
II	0.0	0.0	0.0	*****	*****	*****	*****	*****	*****	*****	0.0000 +UP- C.0
CO	0.0	C.0	0.0	*****	*****	*****	*****	*****	*****	*****	0.0000 +CR- C.0
CD	0.0	0.0	C.0	*****	*****	*****	*****	*****	*****	*****	0.0000 +LA- C.0
LI	0.0	0.0	C.0	*****	*****	*****	*****	*****	*****	*****	0.0000 +LK- C.0
NA	0.0	0.28	0.33	*****	*****	*****	*****	*****	*****	*****	0.237 +UP- C.2C6
K	0.000	C.3	0.06	*****	*****	*****	*****	*****	*****	4*****	C.LAC +UP- C.C34
CA	0.34	0.31	0.24	*****	*****	*****	*****	*****	*****	*****	0.287 +UP- C.051
MG	0.15	0.0	0.02	*****	*****	*****	*****	*****	*****	*****	J.C57 +UP- 0.081
SUSP. MAT.	30.5C	5.50	5.00	*****	*****	*****	*****	*****	*****	*****	13.007 +UP- 14.500

NOTE ***** INDICATES NO DETERMINATION WAS MADE AND 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

NOTE AN AVERAGE AND STANDARD DEVIATION VALUE OF 3.0 + UP - 0.0 INDICATES THE PARAMETER WAS NOT DETECTABLE

APPENDIX C – Dissolved Fraction, Pre-impoundment Data

SITE: #1 - North Marina, Arkansas River (Site E Pueblo Reservoir)

NOTE: All concentration parameters are reported as mg/l unless specified otherwise. Dissolved fraction reported only.

DATE	15IX72	27X72	27XI172	191173	2311173	15V173	11V1173	29IX73	4XI73	6XII73	26174	2311174	16IV74
PARAMETER													
Temp. °C	17.5	11.0	10.5	4.3	8.0	16.5	18.5	11.0	6.0	1.0	1.8	4.5	9.9
D.O. mg/l													
Turb. JIU	40	12	16	20	37	280	72	12	10	10	22	20	3
pH	8.4	8.7	8.6	8.7	8.6	8.4	8.5	8.7	2.7	8.7	8.5	8.6	8.8
Cond. 25°C		583	650	639	550	205	220	680		670	460	470	660
p-Alk.													
t-Alk.		156	150	150	160	86	62	158	166	165	110	114	140
Cl					30	5.5	4.0	15	17.5		5.5	11.5	13.5
t-Hdns	248	277	305	287	250	122	102	302	310	315	240	190	280
Ca-Hdns	170	182	210	185	172	64	72	215	205	213	140	130	230
Mg-Hdns	78	95	95	102	78	58	30	87	105	102	100	60	50
SO4 ²⁻	240	270	310	260	160	39	54	256	305	290	180	230	325
Cu	.009	.001	.005	.007	.005	.008	.006	.012	.013	.004	.008	.008	ND
Pb	.006	.001	ND	ND	ND	ND	.001	.008			.041	ND	
Zn	.060	.036	.003	.018	.005	.007	.004	.043	.001	.013	.038	.017	.044
Mn	.004	.012	.012	.051	.024	.010	.007	.027	.017	.026	.017	.022	.065
Fe	.028	.038	ND	.031	.021	.050	.029	.023	.029	.019	.025	.018	.022
As			.003	.009		.006							
Hg (pg/l)	.1	<.01	.02	ND	ND	ND	ND	ND		.2	.5	<.01	ND
A													
Ni								.003		.001	.001	.007	
Co												.015	ND
Cr													
Na													
K													
Li													
Mo													
C													

NOTE: N.D. indicates that the parameter was not detectable. Detectability limits vary from parameter to parameter. (See tables 1 and 2) B O O O spaces indicate that no O O O O O O O O O O O O was made.

SITE: #6 - Arkansas River at Northside Headgate, Pueblo Waterworks (Site H)

NOTE: All concentration parameters are reported as mg/l unless specified otherwise. Dissolved fraction reported only.

DATE	15IX72	27X72	27XI172	191173	2311173	15V173	11V1173	29IX73	4XI73	6XI173	26174	2311174	161V74
PARAMETER													
Temp. °C	17.5	10.8	0.5	4.5	7.5	15.5	18.5	12.7	5.9	0.9	1.9	5.4	7.0
D.O. mg/l										14			
Turb. JTU	5	7	21	16	28	320	78	27	18	35	22	18	4
Cond. 25°C	8.4	8.7	8.5	8.6	8.8	8.6	8.5	8.7	8.9	8.7	8.6	8.6	8.7
		612	650	680	590	210	230	760		690	495	480	550
p-Alk.													
t-Alk.		158	156	158	160	83	75	160	170	170	109	96	141
Cl					27	6	5	8	21.5		6.5	25	13
t-Hdns	278	300	300	310	247	97	107	300	318	285	211	194	270
Ca-Hdns	184	200	210	198	170	66	75	216	223	201	147	144	195
Mg-Hdns	94	100	90	112	79	31	32	84	95	84	74	50	75
SO ₄ ²⁻	300	330	360	300	180	40	57	240	280	340	200	210	250
Cu	.004	.005		.007	.004	.008	.019	.012	.018	.005	.009	.007	.011
Pb	.007	.005	ND	.005	.004	.007	.017	.004			.001	ND	
Zn	.009	.009	.006	.026	.006	.019	.013	.017	.003	.005	.020	.010	.002
Mn	.026	.018	.021	.052	.022	.011	.007	.033	.023	.026	.020	.023	.265
Fe	.011	.073	ND	.042	.030	.046	.029	.031	.046		.025	.015	.044
As			<.003	.010		.006							
Hg(µg/l)	.8	<.01	<.01	<.01	ND	ND	ND	ND		.1	.2	ND	ND
Ag													
Ni								.003			ND	.005	
Co												.017	ND
Cd													
Na													
K													
Li													
Mo													
Cr													

NOTE: N.D. indicates that the parameter was not detectable." Detectability limits vary from parameter to parameter. (See tables 1 and 2) Blank spaces indicate that no sample was made.

APPENDIX D – Arkansas River Discharge Near Portland

ABSTRACT

The water quality of Pueblo Reservoir was studied from June 1974 to March 1976. General limnological parameters included dissolved oxygen, conductivity, pH, turbidity, alkalinity, sulfate, temperature, hardness, chloride, total dissolved solids, and total suspended matter. Concentrations of the following elements were also monitored monthly in both the dissolved and suspended water fractions: Ag, Cu, Fe, Mn, Zn, Co, Pb, Cd, Hg, Li, Na, K, As, Ni, Mg, and Ca. Pre- and post-impoundment water quality conditions were compared. Pre- and post-impoundment sediments were also analyzed for K, Na, Ca, Mg, Li, Cu, Cd, Pb, Fe, Mn, Zn, and Mo, and compared. Interesting seasonal, surface, spatial, and depth trends were observed for most parameters. The most frequent seasonal trend for chemical parameters was that of classic high winter (low discharge) and low summer values (high discharge). Trends for Fe, Mn, and Zn were interesting in that they did not follow classical expectations. The data tend to support the inference that the inlet sediments especially are being enriched with a number of trace metals (Fe, Mn, Zn, and perhaps Mg, Cu, Cd, and Pb). (22 ref)

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DESCRIPTORS— / *water quality / water analysis / *limnology / *trace elements / heavy metals / suspended solids / pre-impoundment / post-impoundment / multiple purpose reservoirs / sediment concentration / chemical wastes / water pollution effect / sediment chemistry

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