

REPORT OF
ANALYTICAL EVALUATION PROGRAM
STANDARD REFERENCE WATER SAMPLES NOS. 58 and 59

STANDARD REFERENCE WATER SAMPLES NUMBERS 58, AND 59

PURPOSE AND PLAN

As a means of providing an independent and objective evaluation of the water-quality data published by the U.S. Geological Survey and other cooperating laboratories, standard reference water samples are prepared and distributed at regular intervals. This report summarizes the analytical results submitted by 42 laboratories for Standard Reference Water Samples Nos. 58 and 59 distributed on October 29, 1976.

The "Instructions for Analysis and Reporting Results" did not specify any particular order for performing the determinations, nor were any restrictions placed on methods or instruments. Presumably, each laboratory made only those determinations that it routinely makes in the course of its normal operations. This program operates as a quality-control tool to enable the participating laboratories to detect deficiencies in their analytical programs. Laboratories are identified in this report only by a preassigned code number.

PREPARATION OF SAMPLES

Approximately 300 gallons of each sample was collected. Sample No. 59 was acidified to a pH of about 1.5 with nitric acid and then the minor elements were added. Thymol was added to all the samples and each sample was then filtered through a 0.45- μ m membrane filter into a large polyethylene drum. Each sample was mixed overnight with a motor-driven stirrer, pumped through an ultraviolet (2537A) sterilizer and packaged in sterile teflon bottles under ultraviolet radiation.

DETERMINATIONS - NO. 58

Silica (SiO₂)
Calcium (Ca)
Magnesium (Mg)
Sodium (Na)
Potassium (K)
Bicarbonate (HCO₃)

Sulfate (SO₄)
Chloride (Cl)
Fluoride (F)
Dissolved Solids (residue)
Specific Conductance
pH
Strontium (Sr)

DETERMINATIONS - NO. 59

Aluminum (Al)	Cadmium (Cd)	Mercury (Hg)
Iron (Fe)	Chromium, total (Cr)	Molybdenum (Mo)
Manganese (Mn)	Cobalt (Co)	Nickel (Ni)
Arsenic (As)	Copper (Cu)	Selenium (Se)
Barium (Ba)	Lead (Pb)	Silver (Ag)
Beryllium (Be)	Lithium (Li)	Zinc (Zn)
		Antimony (Sb)

STATISTICAL EVALUATION

A statistical evaluation of the data has established the most reliable estimate of the true value for each of the various constituents determined. Reported values of "less than" were considered as "not determined" and hence do not enter into the computation of the means, standard deviations, etc. Mathematical computations are the same as those used previously for similar Standard Reference Water Samples of this type.

The mean, average deviation, percent deviation from the mean, standard deviation, and total range were calculated for each determination. Confidence limits about the mean were also calculated in order to define the concentration range within which the true value may be expected to fall with a confidence level of 95 percent. Outlying values were rejected on the basis of statistical tests as outlined in ASTM Recommended Practice for Dealing with Outlying Observations (1969 Book of ASTM Standards, Part 30, p. 429-445).

REPORTED VALUES

The following section shows the reported value for each determination by each participating laboratory, and a graphical presentation of each reported value and the frequency of its occurrence. Each reported value has been rounded off, when necessary, to conform to official USGS policy on reporting analytical data. A few extreme values are not shown on the scale.

A summary shows the number of laboratories reporting values for each determination and the percentage of values rejected. The percentages of unrejected values falling within the 95-percent confidence interval, within one standard deviation ($X \pm STD$), and within two standard deviations ($X \pm 2 STD$) are also given.

PARTICIPATING LABORATORIES

U.S. Geological Survey

ARIZONA, Yuma: Kister
CALIFORNIA, Menlo Park: Brown
COLORADO, Denver 023
FLORIDA, Ocala: Kirkland

FLORIDA, Tampa: Joyner
GEORGIA, Doraville 032
NEW YORK, Albany 027

Other

ALABAMA, University: Geological Survey of Alabama, Lloyd
ALABAMA, University: Geological Survey of Alabama, Malatino
CALIFORNIA, LaVerne: Metropolitan Water District
CALIFORNIA, Oakland: East Bay Municipal Utility District
CALIFORNIA, Davis: Radiobiology Lab. U.C.D.
COLORADO, Denver: Denver Water Department
DELAWARE, Newark: Delaware Geological Survey
FLORIDA, W. Palm Beach: Central & South Florida Flood Control
District
GEORGIA, Athens: Department of Horticulture
GEORGIA, Atlanta: Department of Natural Resources
GEORGIA, Atlanta: Environmental Protection Division
ILLINOIS, Northbrook: NALCO, Environmental Science
KANSAS, Lawrence: Kansas Geological Survey
KANSAS, Topeka: Environmental Laboratories
MASSACHUSETTS, Wellesley Hills: Department of Public Works

Other--continued

MISSOURI, Columbia: Environmental Trace Substances Center
MONTANA, Butte: Montana Bureau of Mines & Geology
NEVADA, Reno: Bureau of Laboratories and Research
NEW MEXICO: Gallup: Soil & Water Materials
NEW YORK, Hauppauge: Suffolk Environmental Control
NEW YORK, Oakdale: Suffolk County Water Authority
NORTH DAKOTA, Bismarck: North Dakota State Labs
OHIO, Dayton: Miami Conservancy District
OKLAHOMA, Oklahoma City: Oklahoma State Health Department
PENNSYLVANIA, West Chester: Chester County Health Department
SOUTH CAROLINA, Columbia: Division of Analytical Services
SOUTH DAKOTA, Brookings: Water Quality Laboratory
TENNESSEE, Chattanooga: TVA
TENNESSEE, Knoxville: Dept. of Civil Engineering
VIRGINIA, Manassas: Occoquan Monitoring Laboratory
WASHINGTON, Olympia: Department of Ecology
WEST VIRGINIA, Morgantown: Geological Survey
WISCONSIN, Delafield: Department of Natural Resources
WYOMING, Laramie: Wyoming Department of Agriculture

BRAZIL, Belo Horizonte: C'ia De Pesquisa De Recursos Minerais

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-76	1	6.8	6.4	TECHNICON AUTOANALYZER, MOLYBDOSILICATE
12-76	2	6.5	1.7	MOLYBDATE BLUE, USGS TWRI BK5 CH A1
12-76	3	7.1	11.1	MOLYBDOSILICATE, APHA STD METH, 13ED, 1971
12-76	5	6.0	6.1	ATOMIC ABS-DIRECT
12-76	6	4.7	26.5	MOLYBDATE BLUE, USGS TWRI BK5 CH A1
11-76	7	5.8	9.3	ATOMIC ABS-DIRECT
11-76	8			NOT DETERMINED
11-76	9	6.2	3.0	OTHER
12-76	10	6.7	4.8	TECHNICON AUTOANALYZER, MOLYBDOSILICATE
11-76	11			NOT DETERMINED
11-76	12	6.7	4.8	MOLYBDOSILICATE, APHA STD METH, 13ED, 1971
11-76	13			NOT DETERMINED
11-76	14			NOT DETERMINED
12-76	15			NOT DETERMINED
11-76	16			NOT DETERMINED
12-76	17			NOT DETERMINED
11-76	18	7.7	20.5	MOLYBDOSILICATE, APHA STD METH, 13ED, 1971
12-76	19	6.4	0.1	ATOMIC ABS-DIRECT
12-76	20			NOT DETERMINED
11-76	21			NOT DETERMINED
11-76	22			NOT DETERMINED
12-76	23	5.9	7.7	TECHNICON AUTOANALYZER, MOLYBDOSILICATE
11-76	24	6.0	6.1	MOLYBDATE BLUE, USGS TWRI BK5 CH A1
11-76	25	7.1	11.1	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
12-76	26			NOT DETERMINED
12-76	27	6.8	6.4	TECHNICON AUTOANALYZER, MOLYBDOSILICATE
12-76	28	3.3	48.4	REJECT OTHER
12-76	29	6.2	3.0	TECHNICON AUTOANALYZER, MOLYBDOSILICATE
12-76	30	3.6	43.7	REJECT ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
12-76	31			NOT DETERMINED
11-76	32	6.5	1.7	TECHNICON AUTOANALYZER, MOLYBDOSILICATE
11-76	33			NOT DETERMINED
11-76	35	6.6	3.3	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-76	37	5.4	15.5	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
12-76	38			NOT DETERMINED
11-76	40	6.7	4.8	TECHNICON AUTOANALYZER, MOLYBDOSILICATE
12-76	42	6.5	1.7	MOLYBDATE BLUE, USGS TWRI BK5 CH A1
12-76	44	7.0	9.5	MOLYBDATE BLUE, USGS TWRI BK5 CH A1
12-76	45	6.1	4.6	ATOMIC ABS-DIRECT
12-76	46	11	72.1	REJECT HETEROPOLY BLUE, APHA STD METH, 13ED, 1971
12-76	47			NOT DETERMINED
11-76	49	6.0	6.1	MOLYBDOSILICATE, APHA STD METH, 13ED, 1971

TOTAL RANGE	3.3	-	11		
MEAN		6.3917		AVERAGE DEVIATION	0.4681
STANDARD DEVIATION		0.6199		95 PCT.CONF.INTVL OF MEAN	6.3917 +OR- 0.2618
					SAMPLE 58
					SI02

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-76	1	11	4.9	ATOMIC ABS-DIRECT
12-76	2			NOT DETERMINED
12-76	3	13	12.4	EDTA TITRIMETRIC, APHA STD METH, 13ED, 1971
12-76	5	5.0	56.0	REJECT ATOMIC ABS-DIRECT
12-76	6	13	12.4	EDTA TITRIMETRIC, APHA STD METH, 13ED, 1971
11-76	7	12	3.7	ATOMIC ABS-DIRECT
11-76	8	10	13.6	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-76	9	12	3.7	OTHER
12-76	10	10	13.6	ATOMIC ABS-DIRECT
11-76	11	23	98.8	REJECT ATOMIC ABS-DIRECT
11-76	12	11	4.9	EDTA TITRIMETRIC, APHA STD METH, 13ED, 1971
11-76	13	8.2	29.1	ATOMIC ABS-DIRECT
11-76	14			NOT DETERMINED
12-76	15	12	3.7	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-76	16			NOT DETERMINED
12-76	17	13	12.4	EMISSION-FLAME
11-76	18	12	3.7	EDTA TITRIMETRIC, APHA STD METH, 13ED, 1971
12-76	19	14	21.0	EDTA TITRIMETRIC, APHA STD METH, 13ED, 1971
12-76	20	9.2	20.5	OTHER
11-76	21			NOT DETERMINED
11-76	22	12	3.7	ATOMIC ABS-DIRECT
12-76	23	12	3.7	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-76	24	12	3.7	COMPLEXOMETRIC, USGS TWRI BK5 CH A1
11-76	25	11	4.9	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
12-76	26	12	3.7	ATOMIC ABS-DIRECT
12-76	27	11	4.9	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
12-76	28	19	64.2	REJECT ATOMIC ABS-DIRECT
12-76	29	12	3.7	ATOMIC ABS-DIRECT
12-76	30	12	3.7	ATOMIC ABS-DIRECT
12-76	31	10	13.6	EMISSION-FLAME
11-76	32	11	4.9	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-76	33	15	29.6	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-76	35	11	4.9	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-76	37	13	12.4	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
12-76	38	12	3.7	EDTA TITRIMETRIC, APHA STD METH, 13ED, 1971
11-76	40	12	3.7	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
12-76	42	12	3.7	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
12-76	44	12	3.7	ATOMIC ABS-DIRECT
12-76	45	11	4.9	ATOMIC ABS-DIRECT
12-76	46	10	13.6	ATOMIC ABS-DIRECT
12-76	47			NOT DETERMINED
11-76	49	10	13.6	COMPLEXOMETRIC, USGS TWRI BK5 CH A1

TOTAL RANGE	5.0	-	23				
MEAN		11.5705		AVERAGE DEVIATION	1.0346		SAMPLE 58
STANDARD DEVIATION		1.3485		95 PCT.CONF.INTVL OF MEAN	11.5705 +0R-	0.4695	CA

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-76	1	2.0	3.6	ATOMIC ABS-DIRECT
12-76	2			NOT DETERMINED
12-76	3	1.8	6.7	CALCULATION, USGS TWRI BKS CH A1
12-76	5	2.0	3.6	ATOMIC ABS-DIRECT
12-76	6	0.4	79.3	REJECT CALCULATION, USGS TWRI BKS CH A1
11-76	7	1.9	1.6	ATOMIC ABS-DIRECT
11-76	8	1.9	1.6	ATOMIC ABS-DIRECT
11-76	9	2.0	3.6	OTHER
12-76	10	1.5	22.3	ATOMIC ABS-DIRECT
11-76	11	6.0	210.8	REJECT ATOMIC ABS-DIRECT
11-76	12	2.5	29.5	OTHER
11-76	13	1.9	1.6	ATOMIC ABS-DIRECT
11-76	14			NOT DETERMINED
12-76	15	1.9	1.6	ATOMIC ABS-DIRECT
11-76	16			NOT DETERMINED
12-76	17	1.8	6.7	EMISSION-FLAME
11-76	18	4.3	122.8	REJECT ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
12-76	19	1.2	37.8	TITRIMETRIC-EDTA, ASTM METHOD B, D1126-67
12-76	20	2.0	3.6	OTHER
11-76	21			NOT DETERMINED
11-76	22	2.1	8.8	ATOMIC ABS-DIRECT
12-76	23	1.9	1.6	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-76	24	1.9	1.6	CALCULATION, USGS TWRI BKS CH A1
11-76	25	2.4	24.3	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
12-76	26	2.0	3.6	ATOMIC ABS-DIRECT
12-76	27	2.0	3.6	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
12-76	28	2.2	14.0	ATOMIC ABS-DIRECT
12-76	29	2.0	3.6	ATOMIC ABS-DIRECT
12-76	30	1.9	1.6	ATOMIC ABS-DIRECT
12-76	31	1.0	48.2	ATOMIC ABS-DIRECT
11-76	32	1.8	6.7	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-76	33	2.0	3.6	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-76	35	2.3	19.2	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-76	37	1.9	1.6	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
12-76	38	1.0	48.2	TITRIMETRIC-EDTA, ASTM METHOD B, D1126-67
11-76	40	2.0	3.6	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
12-76	42	2.1	8.8	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
12-76	44	2.0	3.6	ATOMIC ABS-DIRECT
12-76	45	1.8	6.7	ATOMIC ABS-DIRECT
12-76	46			NOT DETERMINED
12-76	47			NOT DETERMINED
11-76	49	3.0	55.4	CALCULATION, USGS TWRI BKS CH A1

TOTAL RANGE 0.4
MEAN 1.9303
STANDARD DEVIATION 0.3762

0.0
AVERAGE DEVIATION 0.2294
95 PCT.CONF.INTVL OF MEAN 1.9303 +OR- 0.1330

SAMPLE 58

MG

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-76	1	3.1	6.3	ATOMIC ABS-DIRECT
12-76	2			NOT DETERMINED
12-76	3	10	202.2	REJECT ATOMIC ABS-DIRECT
12-76	5	3.0	9.3	EMISSION-FLAME
12-76	6	3.3	0.3	EMISSION-FLAME
11-76	7	3.3	0.3	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-76	8	3.7	11.8	ATOMIC ABS-DIRECT
11-76	9	2.8	15.4	OTHER
12-76	10	2.9	12.4	ATOMIC ABS-DIRECT
11-76	11	2.2	33.5	ATOMIC ABS-DIRECT
11-76	12	3.3	0.3	EMISSION-FLAME
11-76	13			NOT DETERMINED
11-76	14			NOT DETERMINED
12-76	15	3.0	9.3	ATOMIC ABS-DIRECT
11-76	16			NOT DETERMINED
12-76	17			NOT DETERMINED
11-76	18	3.5	5.8	EMISSION-FLAME
12-76	19	4.6	39.0	EMISSION-FLAME
12-76	20	2.8	15.4	OTHER
11-76	21			NOT DETERMINED
11-76	22	2.8	15.4	ATOMIC ABS-DIRECT
12-76	23	3.1	6.3	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-76	24	3.3	0.3	EMISSION-FLAME
11-76	25	3.4	2.7	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
12-76	26	3.3	0.3	ATOMIC ABS-DIRECT
12-76	27	3.2	3.3	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
12-76	28	1.2	63.7	REJECT ATOMIC ABS-DIRECT
12-76	29	3.2	3.3	ATOMIC ABS-DIRECT
12-76	30	3.7	11.8	EMISSION-FLAME
12-76	31	4.0	20.9	ATOMIC ABS-DIRECT
11-76	32	3.3	0.3	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-76	33	3.0	9.3	ATOMIC ABS-DIRECT
11-76	35	3.2	3.3	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-76	37	3.6	8.8	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
12-76	38	3.0	9.3	ATOMIC ABS-DIRECT
11-76	40	3.5	5.8	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
12-76	42	3.4	2.7	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
12-76	44	3.5	5.8	EMISSION-FLAME
12-76	45	4.2	26.9	ATOMIC ABS-DIRECT
12-76	46	3.4	2.7	ATOMIC ABS-DIRECT
12-76	47			NOT DETERMINED
11-76	49	3.6	8.8	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1

TOTAL RANGE	1.2	-	10				SAMPLE 58
MEAN		3.3091		AVERAGE DEVIATION	0.3080		
STANDARD DEVIATION		0.4411		95 PCT.CONF.INTVL OF MEAN	3.3091 +OR-	0.1559	NA

DETERMINATION	NO. LABS REPORTING	PCT. OF VALUES REJECTED	PCT. OF UNREJECTED VALUES WITHIN		
			95 PCT. CI	X +OR- STD	X +OR- 2STD
SI02	27	11	29	79	92
CA	37	8	41	62	94
MG	36	8	67	79	91
NA	35	6	36	79	91
K	34	6	41	72	94
HC03	34	3	45	70	94
S04	31	0	45	81	90
CL	37	3	42	69	97
F	29	7	56	74	89
DSRD180	31	3	27	73	93
SP.COND	37	11	33	79	94
PH	39	0	23	62	92
SR	15	0	67	73	87

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-76	1	280	12.9	ATOMIC ABS-FLAMELESS
12-76	2			NOT DETERMINED
12-76	3	400	24.4	ATOMIC ABS-DIRECT
12-76	5	300	6.7	ATOMIC ABS-DIRECT
12-76	6			NOT DETERMINED
11-76	7	300	6.7	ATOMIC ABS-DIRECT
11-76	8			NOT DETERMINED
11-76	9	340	5.7	OTHER
11-76	11			NOT DETERMINED
11-76	12	300	6.7	ATOMIC ABS-DIRECT
11-76	13	270	16.0	ATOMIC ABS-DIRECT
11-76	14			NOT DETERMINED
12-76	15			NOT DETERMINED
11-76	16			NOT DETERMINED
12-76	17	820	155.0	REJECT EMISSION-FLAME
11-76	18	1600	397.5	REJECT OTHER
12-76	19			NOT DETERMINED
12-76	20			NOT DETERMINED
11-76	22			NOT DETERMINED
12-76	23	400	24.4	ATOMIC ABS-CHELATION/EXTRACTION: USGS PROVISIONAL
11-76	25	340	5.7	ATOMIC ABS-CHELATION/EXTRACTION: USGS PROVISIONAL
12-76	26	330	2.6	ATOMIC ABS-DIRECT
12-76	27	330	2.6	ATOMIC ABS-CHELATION/EXTRACTION: USGS PROVISIONAL
12-76	28	170	47.1	REJECT ATOMIC ABS-FLAMELESS
12-76	29	330	2.6	ATOMIC ABS-CHELATION/EXTRACTION: USGS PROVISIONAL
12-76	30	300	6.7	ATOMIC ABS-FLAMELESS
12-76	31	250	22.3	ATOMIC ABS-FLAMELESS
11-76	32	340	5.7	ATOMIC ABS-CHELATION/EXTRACTION: USGS PROVISIONAL
11-76	33			NOT DETERMINED
11-76	35	340	5.7	ATOMIC ABS-CHELATION/EXTRACTION: USGS PROVISIONAL
11-76	37			NOT DETERMINED
12-76	38	300	6.7	ATOMIC ABS-DIRECT
12-76	42			NOT DETERMINED
12-76	44	350	8.8	ATOMIC ABS-DIRECT
12-76	45	310	3.6	ATOMIC ABS-DIRECT
12-76	46			NOT DETERMINED
12-76	47			NOT DETERMINED
11-76	49			NOT DETERMINED

TOTAL RANGE 170
MEAN
STANDARD DEVIATION

- 1600
321.5774
38.4798

AVERAGE DEVIATION
95 PCT.CONF.INTVL OF MEAN

29.9169
321.5774 +OR- 18.5474

SAMPLE 59
AL

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-76	1	30	19.8	ATOMIC ABS-FLAMELESS
12-76	2	30	19.8	BIPYRIDINE: USGS TWRI BK5 CH A1
12-76	3	10	73.3	ATOMIC ABS-DIRECT
12-76	5	20	46.6	ATOMIC ABS-FLAMELESS
12-76	6	60	60.3	PHENANTHROLINE: APHA STD METH, 13ED
11-76	7	40	6.9	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
11-76	8	50	33.6	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
11-76	9	20	46.6	OTHER
11-76	11			NOT DETERMINED
11-76	12	40	6.9	ATOMIC ABS-DIRECT
11-76	13	40	6.9	ATOMIC ABS-DIRECT
11-76	14	50	33.6	ATOMIC ABS-DIRECT
12-76	15	50	33.6	ATOMIC ABS-DIRECT
11-76	16			NOT DETERMINED
12-76	17	40	6.9	ATOMIC ABS-FLAMELESS
11-76	18	160	327.6	REJECT OTHER
12-76	19	20	46.6	ATOMIC ABS-DIRECT
12-76	20	60	60.3	OTHER
11-76	22	40	6.9	ATOMIC ABS-DIRECT
12-76	23	40	6.9	TECHNICON AUTOANALYZER, BIPYRIDINE
11-76	25	30	19.8	BIPYRIDINE: USGS TWRI BK5 CH A1
12-76	26	40	6.9	ATOMIC ABS-DIRECT
12-76	27	50	33.6	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
12-76	28	20	46.6	ATOMIC ABS-DIRECT
12-76	29			NOT DETERMINED
12-76	30	40	6.9	ATOMIC ABS-FLAMELESS
12-76	31	20	46.6	ATOMIC ABS-DIRECT
11-76	32	40	6.9	TECHNICON AUTOANALYZER, BIPYRIDINE
11-76	33	220	487.9	REJECT ATOMIC ABS-DIRECT
11-76	35	20	46.6	BIPYRIDINE: USGS TWRI BK5 CH A1
11-76	37			NOT DETERMINED
12-76	38	60	60.3	ATOMIC ABS-DIRECT
12-76	42	70	87.1	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
12-76	44	110	194.0	REJECT PHENANTHROLINE: APHA STD METH, 13ED
12-76	45	30	19.8	ATOMIC ABS-DIRECT
12-76	46	40	6.9	PHENANTHROLINE: APHA STD METH, 13ED
12-76	47	40	6.9	ATOMIC ABS-DIRECT
11-76	49	20	46.6	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1

TOTAL RANGE	10	-	220			SAMPLE 59
MEAN		37.4192		AVERAGE DEVIATION	11.5505	
STANDARD DEVIATION		14.5986		95 PCT.CONF.INTVL OF MEAN	37.4192 +OR- 5.3541	FE

DATE MO-YR	CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHOD
11-76	1	140	13.4	ATOMIC ABS-DIRECT
12-76	2			NOT DETERMINED
12-76	3	140	13.4	ATOMIC ABS-DIRECT
12-76	5			NOT DETERMINED
12-76	6	200	23.7	ATOMIC ABS-DIRECT
11-76	7	160	1.1	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
11-76	8	150	7.2	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
11-76	9	150	7.2	OTHER
11-76	11	150	7.2	ATOMIC ABS-DIRECT
11-76	12	160	1.1	ATOMIC ABS-DIRECT
11-76	13	200	23.7	ATOMIC ABS-DIRECT
11-76	14	150	7.2	ATOMIC ABS-DIRECT
12-76	15	160	1.1	ATOMIC ABS-DIRECT
11-76	16			NOT DETERMINED
12-76	17	160	1.1	ATOMIC ABS-DIRECT
11-76	18	200	23.7	OTHER
12-76	19	170	5.1	ATOMIC ABS-DIRECT
12-76	20	150	7.2	OTHER
11-76	22	160	1.1	ATOMIC ABS-DIRECT
12-76	23	160	1.1	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
11-76	25	170	5.1	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
12-76	26	160	1.1	ATOMIC ABS-DIRECT
12-76	27	150	7.2	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
12-76	28	160	1.1	ATOMIC ABS-DIRECT
12-76	29	160	1.1	ATOMIC ABS-DIRECT
12-76	30	150	7.2	ATOMIC ABS-FLAMELESS
12-76	31	150	7.2	ATOMIC ABS-DIRECT
11-76	32	150	7.2	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
11-76	33	190	17.5	ATOMIC ABS-DIRECT
11-76	35	180	11.3	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
11-76	37	160	1.1	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
12-76	38	140	13.4	ATOMIC ABS-DIRECT
12-76	42	170	5.1	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
12-76	44	140	13.4	PERSULFATE: APHA STD METH, 13ED
12-76	45	160	1.1	ATOMIC ABS-DIRECT
12-76	46	200	23.7	ATOMIC ABS-DIRECT
12-76	47	160	1.1	ATOMIC ABS-DIRECT
11-76	49	150	7.2	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1

TOTAL RANGE	140	-	200				SAMPLE 59
MEAN		161.7130		AVERAGE DEVIATION		12.8320	
STANDARD DEVIATION		17.5710		95 PCT.CONF.INTVL OF MEAN		161.7130 +OR- 6.0292	MN

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-76	1	21	12.2	OTHER
12-76	2			NOT DETERMINED
12-76	3	30	25.4	OTHER
12-76	5			NOT DETERMINED
12-76	6			NOT DETERMINED
11-76	7	39	63.0	ATOMIC ABS-HYDRIDE(ZINC): USGS PROVISIONAL
11-76	8			NOT DETERMINED
11-76	9			NOT DETERMINED
11-76	11			NOT DETERMINED
11-76	12			NOT DETERMINED
11-76	13	23	3.9	SILVER DIETHYLDITHIOCARBAMATE: APHA STD METH. 13ED
11-76	14			NOT DETERMINED
12-76	15			NOT DETERMINED
11-76	16			NOT DETERMINED
12-76	17			NOT DETERMINED
11-76	18	40	67.2	OTHER
12-76	19			NOT DETERMINED
12-76	20	21	12.2	ATOMIC ABS-HYDRIDE(ZINC): USGS PROVISIONAL
11-76	22			NOT DETERMINED
12-76	23	21	12.2	ATOMIC ABS-HYDRIDE(ZINC): USGS PROVISIONAL
11-76	25	23	3.9	SILVER DIETHYLDITHIOCARBAMATE-REVISION: USGS PROVISIONAL
12-75	26	20	16.4	OTHER
12-76	27	23	3.9	ATOMIC ABS-HYDRIDE(ZINC): USGS PROVISIONAL
12-76	28			NOT DETERMINED
12-76	29	22	8.1	ATOMIC ABS-HYDRIDE(ZINC): USGS PROVISIONAL
12-76	30			NOT DETERMINED
12-76	31	17	29.0	ATOMIC ABS-HYDRIDE(SODIUM BOROHYDRIDE)
11-76	32	20	16.4	ATOMIC ABS-HYDRIDE(ZINC): USGS PROVISIONAL
11-75	33			NOT DETERMINED
11-76	35	15	37.3	SILVER DIETHYLDITHIOCARBAMATE-REVISION: USGS PROVISIONAL
11-76	37			NOT DETERMINED
12-76	38			NOT DETERMINED
12-76	42			NOT DETERMINED
12-76	44			NOT DETERMINED
12-76	45			NOT DETERMINED
12-76	46			NOT DETERMINED
12-76	47			NOT DETERMINED
11-76	49			NOT DETERMINED

TOTAL RANGE	15	-	40				SAMPLE 59
MEAN		23.9285		AVERAGE DEVIATION	5.3163		
STANDARD DEVIATION		7.4054		95 PCT.CONF.INTVL OF MEAN	23.9285 +OR-	4.2750	AS

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-76	1	500	4.7	ATOMIC ABS-DIRECT
12-76	2			NOT DETERMINED
12-76	3	0	100.0	ATOMIC ABS-DIRECT
12-76	5			NOT DETERMINED
12-76	6			NOT DETERMINED
11-76	7	500	4.7	ATOMIC ABS-DIRECT
11-76	8			NOT DETERMINED
11-76	9			NOT DETERMINED
11-76	11			NOT DETERMINED
11-76	12	500	4.7	ATOMIC ABS-DIRECT
11-76	13	100	79.1	ATOMIC ABS-DIRECT
11-76	14			NOT DETERMINED
12-76	15			NOT DETERMINED
11-76	16			NOT DETERMINED
12-76	17	500	4.7	EMISSION-FLAME
11-76	18	1300	172.1	REJECT ATOMIC ABS-DIRECT
12-76	19	500	4.7	ATOMIC ABS-DIRECT
12-76	20			NOT DETERMINED
11-76	22			NOT DETERMINED
12-76	23	600	25.6	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
11-76	25	600	25.6	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
12-76	26	600	25.6	ATOMIC ABS-DIRECT
12-76	27	600	25.6	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
12-76	28			NOT DETERMINED
12-76	29	600	25.6	ATOMIC ABS-DIRECT
12-76	30			NOT DETERMINED
12-76	31	500	4.7	OTHER
11-76	32	600	25.6	OTHER
11-76	33			NOT DETERMINED
11-76	35	600	25.6	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
11-76	37	13000	****	REJECT ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
12-76	34	200	58.1	ATOMIC ABS-DIRECT
12-76	42			NOT DETERMINED
12-76	44	500	4.7	ATOMIC ABS-DIRECT
12-76	45	600	25.6	ATOMIC ABS-DIRECT
12-76	46			NOT DETERMINED
12-76	47			NOT DETERMINED
11-76	49			NOT DETERMINED

TOTAL RANGE	0	- 13000				SAMPLE 59
MEAN		477.7756	AVERAGE DEVIATION	125.9271		
STANDARD DEVIATION		183.2885	95 PCT.CONF.INTVL OF MEAN	477.7756 +OR-	91.1551	BA

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-76	1	10	0.0	OTHER
12-76	2			NOT DETERMINED
12-76	3			NOT DETERMINED
12-76	5			NOT DETERMINED
12-76	6			NOT DETERMINED
11-76	7	10	0.0	EMISSION-PLASMA
11-76	8			NOT DETERMINED
11-76	9			NOT DETERMINED
11-76	11			NOT DETERMINED
11-76	12	20	100.0	REJECT OTHER
11-76	13			NOT DETERMINED
11-76	14			NOT DETERMINED
12-76	15			NOT DETERMINED
11-76	16			NOT DETERMINED
12-76	17			NOT DETERMINED
11-76	18			NOT DETERMINED
12-76	19			NOT DETERMINED
12-76	20			NOT DETERMINED
11-76	22			NOT DETERMINED
12-76	23	10	0.0	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
11-76	25	10	0.0	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
12-76	26			NOT DETERMINED
12-76	27	10	0.0	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
12-76	28			NOT DETERMINED
12-76	29			NOT DETERMINED
12-76	30			NOT DETERMINED
12-76	31	10	0.0	OTHER
11-76	32	10	0.0	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
11-76	33			NOT DETERMINED
11-76	35	10	0.0	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
11-76	37			NOT DETERMINED
12-76	38			NOT DETERMINED
12-76	42			NOT DETERMINED
12-76	44			NOT DETERMINED
12-76	45	10	0.0	ATOMIC ABS-DIRECT
12-76	46			NOT DETERMINED
12-76	47			NOT DETERMINED
11-76	49			NOT DETERMINED

TOTAL RANGE	10	-	20				SAMPLE 59
MEAN		10.0000		AVERAGE DEVIATION	0.0000		
STANDARD DEVIATION		0.0000		95 PCT.CONF.INTVL OF MEAN	10.0000 +OR-	0.0000	8E

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-76	1	3	33.3	ATOMIC ABS-FLAMELESS
12-76	2			NOT DETERMINED
12-76	3	3	33.3	ATOMIC ABS-DIRECT
12-76	5	5	11.1	ATOMIC ABS-FLAMELESS
12-76	6			NOT DETERMINED
11-76	7	4	11.1	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-76	8	5	11.1	ATOMIC ABS-DIRECT
11-76	9	6	33.3	OTHER
11-76	11	14	211.1	REJECT ATOMIC ABS-CHELATION/EXTRACTION: EPA
11-76	12	5	11.1	ATOMIC ABS-FLAMELESS
11-76	13	10	122.2	REJECT ATOMIC ABS-DIRECT
11-76	14	5	11.1	ATOMIC ABS-DIRECT
12-76	15	5	11.1	ATOMIC ABS-DIRECT
11-76	16			NOT DETERMINED
12-76	17	6	33.3	ATOMIC ABS-FLAMELESS
11-76	18	6	33.3	OTHER
12-76	19	5	11.1	ATOMIC ABS-DIRECT
12-76	20	7	55.6	OTHER
11-76	22	4	11.1	ATOMIC ABS-FLAMELESS
12-76	23	4	11.1	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-76	25	3	33.3	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
12-76	26	4	11.1	ATOMIC ABS-FLAMELESS
12-76	27	4	11.1	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
12-76	28	3	33.3	ATOMIC ABS-FLAMELESS
12-76	29	4	11.1	ATOMIC ABS-CHELATION/EXTRACTION: EPA
12-76	30	4	11.1	ATOMIC ABS-FLAMELESS
12-76	31	4	11.1	ATOMIC ABS-FLAMELESS
11-76	32	6	33.3	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-76	33			NOT DETERMINED
11-76	35	4	11.1	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-76	37	4	11.1	ANODIC STRIPPING VOLTAMMETRY
12-76	38	3	33.3	ATOMIC ABS-DIRECT
12-76	42	4	11.1	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
12-76	44	19	322.2	REJECT ATOMIC ABS-CHELATION/EXTRACTION: EPA
12-76	45			NOT DETERMINED
12-76	46			NOT DETERMINED
12-76	47	6	33.3	ATOMIC ABS-CHELATION/EXTRACTION: EPA
11-76	49			NOT DETERMINED

TOTAL RANGE	3	-	19			SAMPLE 59
MEAN		4.5000	AVERAGE DEVIATION	0.9286		
STANDARD DEVIATION		1.1055	95 PCT.CONF.INTVL OF MEAN	4.5000 +OR-	0.4287	CD

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-76	1	23	24.1	ATOMIC ABS-FLAMELESS
12-76	2			NOT DETERMINED
12-76	3	20	34.0	ATOMIC ABS-DIRECT
12-76	5	31	2.4	ATOMIC ABS-FLAMELESS
12-76	6			NOT DETERMINED
11-76	7	29	4.2	PERMANGANATE-AZIDE: USGS TWRI BK5 CH A1
11-76	8	33	9.0	ATOMIC ABS-DIRECT
11-76	9	14	53.8	OTHER
11-76	11			NOT DETERMINED
11-76	12	31	2.4	ATOMIC ABS-FLAMELESS
11-76	13	32	5.7	ATOMIC ABS-DIRECT
11-76	14	20	34.0	ATOMIC ABS-DIRECT
12-76	15	35	15.6	ATOMIC ABS-DIRECT
11-76	16			NOT DETERMINED
12-76	17	33	9.0	ATOMIC ABS-FLAMELESS
11-76	18	40	32.1	OTHER
12-76	19	28	7.5	ATOMIC ABS-DIRECT
12-76	20	43	42.0	OTHER
11-76	22	40	32.1	ATOMIC ABS-DIRECT
12-76	23	30	0.9	ATOMIC ABS-DIRECT: USGS PROVISIONAL
11-76	25	28	7.5	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
12-76	26	35	15.6	ATOMIC ABS-DIRECT
12-76	27	30	0.9	ATOMIC ABS-DIRECT: USGS PROVISIONAL
12-76	28	28	7.5	ATOMIC ABS-FLAMELESS
12-76	29	22	27.4	ATOMIC ABS-CHELATION/EXTRACTION: EPA
12-76	30	31	2.4	ATOMIC ABS-FLAMELESS
12-76	31	31	2.4	ATOMIC ABS-FLAMELESS
11-76	32	40	32.1	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-76	33			NOT DETERMINED
11-76	35	31	2.4	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-76	37			NOT DETERMINED
12-76	38	26	14.2	ATOMIC ABS-DIRECT
12-76	42			NOT DETERMINED
12-76	44	34	12.3	ATOMIC ABS-DIRECT
12-76	45			NOT DETERMINED
12-76	46			NOT DETERMINED
12-76	47	30	0.9	ATOMIC ABS-DIRECT
11-76	49			NOT DETERMINED

TOTAL RANGE 14
MEAN
STANDARD DEVIATION

- 43
30.2855
6.5481

AVERAGE DEVIATION
95 PCT.CONF.INTVL OF MEAN

4.6939
30.2855 +0R-

SAMPLE 59
2.5393 CR TOT

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-76	1	0.9	1.4	ATOMIC ABS-DIRECT
12-76	2			NOT DETERMINED
12-76	3	6.5	632.4	REJECT ATOMIC ABS-DIRECT
12-76	5	0.9	1.4	EMISSION-FLAME
12-76	6	0.6	32.4	EMISSION-FLAME
11-76	7	0.9	1.4	ATOMIC ABS-DIRECT
11-76	8	1.0	12.7	EMISSION-FLAME
11-76	9	0.8	9.9	OTHER
12-76	10	0.9	1.4	ATOMIC ABS-DIRECT
11-76	11	0.9	1.4	ATOMIC ABS-DIRECT
11-76	12	1.0	12.7	ATOMIC ABS-DIRECT
11-76	13			NOT DETERMINED
11-76	14			NOT DETERMINED
12-76	15	0.9	1.4	ATOMIC ABS-DIRECT
11-76	16			NOT DETERMINED
12-76	17	1.0	12.7	EMISSION-FLAME
11-76	18	0.9	1.4	EMISSION-FLAME
12-76	19	1.6	80.3	REJECT EMISSION-ARC/SPARK
12-76	20	0.7	21.1	OTHER
11-76	21			NOT DETERMINED
11-76	22	0.9	1.4	ATOMIC ABS-DIRECT
12-76	23	0.8	9.9	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-76	24	1.0	12.7	EMISSION-FLAME
11-76	25	1.2	35.2	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
12-76	26	0.9	1.4	ATOMIC ABS-DIRECT
12-76	27	0.9	1.4	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
12-76	28			NOT DETERMINED
12-76	29	0.7	21.1	ATOMIC ABS-DIRECT
12-76	30	0.9	1.4	EMISSION-FLAME
12-76	31	0.6	32.4	ATOMIC ABS-DIRECT
11-76	32	0.9	1.4	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-76	33	0.5	43.7	ATOMIC ABS-DIRECT
11-76	35	1.2	35.2	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-76	37	1.0	12.7	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
12-76	38	0.8	9.9	ATOMIC ABS-DIRECT
11-76	40	0.9	1.4	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
12-76	42	1.0	12.7	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
12-76	44	0.7	21.1	EMISSION-FLAME
12-76	45	0.8	9.9	ATOMIC ABS-DIRECT
12-76	46			NOT DETERMINED
12-76	47			NOT DETERMINED
11-76	49	1.3	46.5	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1

TOTAL RANGE	0.5	-	6.5		SAMPLE 58
MEAN		0.8875		AVERAGE DEVIATION	0.1172
STANDARD DEVIATION		0.1699		95 PCT.CONF.INTVL OF MEAN	0.8875 +OR- 0.0610 K

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-76	1	32	0.4	POTENTIOMETRIC, APHA STD METH, 13ED, 1971
12-76	2	32	0.4	ELECTROMETRIC TITRATION, USGS TWRI BK5 CH A1
12-76	3	41	27.6	INDICATOR, APHA STD METH, 13ED, 1971
12-76	5	30	6.6	POTENTIOMETRIC, APHA STD METH, 13ED, 1971
12-76	6	44	37.0	AUTOMATED ELECTROMETRIC TITRATION
11-76	7	33	2.7	ELECTROMETRIC TITRATION, USGS TWRI BK5 CH A1
11-76	8			NOT DETERMINED
11-76	9			NOT DETERMINED
12-76	10	70	117.9	REJECT INDICATOR, APHA STD METH, 13ED, 1971
11-76	11	20	37.7	INDICATOR, APHA STD METH, 13ED, 1971
11-76	12	31	3.5	INDICATOR, APHA STD METH, 13ED, 1971
11-76	13	28	12.8	POTENTIOMETRIC, APHA STD METH, 13ED, 1971
11-76	14			NOT DETERMINED
12-76	15			NOT DETERMINED
11-76	16			NOT DETERMINED
12-76	17			NOT DETERMINED
11-76	18	33	2.7	OTHER
12-76	19	28	12.8	INDICATOR, APHA STD METH, 13ED, 1971
12-76	20	35	9.0	POTENTIOMETRIC, APHA STD METH, 13ED, 1971
11-76	21			NOT DETERMINED
11-76	22	41	27.6	INDICATOR, APHA STD METH, 13ED, 1971
12-76	23	26	19.1	AUTOMATED ELECTROMETRIC TITRATION
11-76	24	34	5.8	ELECTROMETRIC TITRATION, USGS TWRI BK5 CH A1
11-76	25	32	0.4	ELECTROMETRIC TITRATION, USGS TWRI BK5 CH A1
12-76	26	32	0.4	POTENTIOMETRIC, APHA STD METH, 13ED, 1971
12-76	27	40	24.5	AUTOMATED ELECTROMETRIC TITRATION
12-76	28	27	15.9	POTENTIOMETRIC, APHA STD METH, 13ED, 1971
12-76	29	34	5.8	POTENTIOMETRIC, APHA STD METH, 13ED, 1971
12-76	30	28	12.8	ELECTROMETRIC TITRATION, USGS TWRI BK5 CH A1
12-76	31	29	9.7	INDICATOR, APHA STD METH, 13ED, 1971
11-76	32	30	6.6	AUTOMATED ELECTROMETRIC TITRATION
11-76	33	48	49.4	POTENTIOMETRIC, APHA STD METH, 13ED, 1971
11-76	35	34	5.8	ELECTROMETRIC TITRATION, USGS TWRI BK5 CH A1
11-76	37	16	50.2	ELECTROMETRIC TITRATION, USGS TWRI BK5 CH A1
12-76	38	22	31.5	INDICATOR, APHA STD METH, 13ED, 1971
11-76	40	31	3.5	ELECTROMETRIC TITRATION, USGS TWRI BK5 CH A1
12-76	42	32	0.4	ELECTROMETRIC TITRATION, USGS TWRI BK5 CH A1
12-76	44	36	12.1	ELECTROMETRIC TITRATION, USGS TWRI BK5 CH A1
12-76	45			NOT DETERMINED
12-76	46	44	37.0	INDICATOR, APHA STD METH, 13ED, 1971
12-76	47	24	25.3	INDICATOR, APHA STD METH, 13ED, 1971
11-76	49	33	2.7	INDICATOR, APHA STD METH, 13ED, 1971

TOTAL RANGE 16
 MEAN
 STANDARD DEVIATION

- 70
 32.1210
 6.8500

AVERAGE DEVIATION
 95 PCT.CONF.INTVL OF MEAN

4.8668
 32.1210 +OR-

2.4206

SAMPLE 58
 HC03

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-76	1	15	7.7	TECHNICON AUTOANALYZER, METHYL THYMOL BLUE
12-76	2			NOT DETERMINED
12-76	3	14	0.5	TURBIDIMETRIC
12-76	5			NOT DETERMINED
12-76	6	7.8	44.0	OTHER
11-76	7	15	7.7	VOLUMETRIC THORIN, USGS TWRI BK5 CH A1
11-76	8	9.0	35.4	TURBIDIMETRIC
11-76	9			NOT DETERMINED
12-76	10			NOT DETERMINED
11-76	11	12	13.9	GRAVIMETRIC, APHA STD METH, 13ED, 1971
11-76	12	16	14.8	GRAVIMETRIC, APHA STD METH, 13ED, 1971
11-76	13			NOT DETERMINED
11-76	14	24	72.3	OTHER
12-76	15	12	13.9	TECHNICON AUTOANALYZER, METHYL THYMOL BLUE
11-76	16			NOT DETERMINED
12-76	17			NOT DETERMINED
11-76	18	3.2	77.0	OTHER
12-76	19	25	79.4	GRAVIMETRIC, APHA STD METH, 13ED, 1971
12-76	20	13	6.7	TURBIDIMETRIC
11-76	21			NOT DETERMINED
11-76	22	14	0.5	TECHNICON AUTOANALYZER, METHYL THYMOL BLUE
12-76	23	12	13.9	TECHNICON AUTOANALYZER, METHYL THYMOL BLUE
11-76	24	15	7.7	VOLUMETRIC THORIN, USGS TWRI BK5 CH A1
11-76	25	12	13.9	VOLUMETRIC THORIN, USGS TWRI BK5 CH A1
12-76	26	14	0.5	TURBIDIMETRIC
12-76	27	11	21.0	TECHNICON AUTOANALYZER, METHYL THYMOL BLUE
12-76	28	16	14.8	TURBIDIMETRIC
12-76	29	18	29.2	TURBIDIMETRIC
12-76	30	22	57.9	OTHER
12-76	31	15	7.7	TURBIDIMETRIC
11-76	32	12	13.9	TECHNICON AUTOANALYZER, METHYL THYMOL BLUE
11-76	33			NOT DETERMINED
11-76	35	10	28.2	VOLUMETRIC THORIN, USGS TWRI BK5 CH A1
11-76	37	14	0.5	TURBIDIMETRIC
12-76	38	13	6.7	TURBIDIMETRIC
11-76	40	15	7.7	TECHNICON AUTOANALYZER, METHYL THYMOL BLUE
12-76	42	15	7.7	VOLUMETRIC THORIN, USGS TWRI BK5 CH A1
12-76	44	9.9	28.9	GRAVIMETRIC, APHA STD METH, 13ED, 1971
12-76	45			NOT DETERMINED
12-76	46	14	0.5	TURBIDIMETRIC
12-76	47			NOT DETERMINED
11-76	49	14	0.5	GRAVIMETRIC, APHA STD METH, 13ED, 1971

TOTAL RANGE 3.2 - 25
MEAN 13.9322
STANDARD DEVIATION 4.3156

AVERAGE DEVIATION 2.8529
95 PCT.CONF.INTVL OF MEAN 13.9322 +0R- 1.5828

SAMPLE 58
S04

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-76	1	1.5	12.6	TECHNICON AUTOANALYZER, MERCURIC THIOCYANATE
12-76	2	0.1	94.2	MOHR, USGS TWRI BK5 CH A1
12-76	3	0.0	100.0	MOHR, USGS TWRI BK5 CH A1
12-76	5	2.0	16.5	MERCURIC NITRATE, APHA STD METH, 13ED, 1971
12-76	6	2.4	39.8	SILVER NITRATE, ASTM METHOD B, D512-67
11-76	7	1.7	1.0	MERCURIC NITRATE, APHA STD METH, 13ED, 1971
11-76	8	0.0	100.0	ARGENOMETRIC, APHA STD METH, 13ED, 1971
11-76	9			NOT DETERMINED
12-76	10	4.0	133.0	TECHNICON AUTOANALYZER, MERCURIC THIOCYANATE
11-76	11	2.1	22.3	MERCURIC NITRATE, APHA STD METH, 13ED, 1971
11-76	12	1.0	41.7	ARGENOMETRIC, APHA STD METH, 13ED, 1971
11-76	13			NOT DETERMINED
11-76	14	0.1	94.2	MERCURIC NITRATE, APHA STD METH, 13ED, 1971
12-76	15	2.2	28.2	TECHNICON AUTOANALYZER, MERCURIC THIOCYANATE
11-76	16	9.8	470.9	REJECT MOHR, USGS TWRI BK5 CH A1
12-76	17			NOT DETERMINED
11-76	18	1.0	41.7	MERCURIMETRIC, USGS TWRI BK5 CH A1
12-76	19	1.8	4.9	ARGENOMETRIC, APHA STD METH, 13ED, 1971
12-76	20	2.5	45.6	MERCURIC NITRATE, APHA STD METH, 13ED, 1971
11-76	21	2.4	39.8	MOHR, USGS TWRI BK5 CH A1
11-76	22	0.5	70.9	ARGENOMETRIC, APHA STD METH, 13ED, 1971
12-76	23	1.5	12.6	TECHNICON AUTOANALYZER, MERCURIC THIOCYANATE
11-76	24	2.2	28.2	MOHR, USGS TWRI BK5 CH A1
11-76	25	1.9	10.7	MERCURIMETRIC, USGS TWRI BK5 CH A1
12-76	26	1.8	4.9	MERCURIC NITRATE, APHA STD METH, 13ED, 1971
12-76	27	1.7	1.0	TECHNICON AUTOANALYZER, MERCURIC THIOCYANATE
12-76	28	1.2	30.1	ION-SELECTIVE ELECTRODE
12-76	29	3.0	74.8	MERCURIC NITRATE, APHA STD METH, 13ED, 1971
12-76	30	0.6	65.0	ION-SELECTIVE ELECTRODE
12-76	31	2.0	16.5	OTHER
11-76	32	1.8	4.9	TECHNICON AUTOANALYZER, MERCURIC THIOCYANATE
11-76	33	3.0	74.8	MERCURIC NITRATE, APHA STD METH, 13ED, 1971
11-76	35	1.9	10.7	MERCURIMETRIC, USGS TWRI BK5 CH A1
11-76	37	1.7	1.0	ION-SELECTIVE ELECTRODE
12-76	38	3.0	74.8	MERCURIC NITRATE, APHA STD METH, 13ED, 1971
11-76	40	1.4	18.4	TECHNICON AUTOANALYZER, MERCURIC THIOCYANATE
12-76	42	1.5	12.6	MERCURIMETRIC THIOCYANATE, ASTM METHOD C, D512-67
12-76	44	1.8	4.9	TECHNICON AUTOANALYZER, MERCURIC THIOCYANATE
12-76	45			NOT DETERMINED
12-76	46	1.5	12.6	MERCURIC NITRATE, APHA STD METH, 13ED, 1971
12-76	47			NOT DETERMINED
11-76	49	3.0	74.8	MOHR, USGS TWRI BK5 CH A1

TOTAL RANGE 0.0
MEAN 1.7167
STANDARD DEVIATION 0.9204

0.0 - 9.8
AVERAGE DEVIATION
95 PCT.CONF.INTVL OF MEAN

0.6768
1.7167 +0R- 0.3114

SAMPLE 58
CL

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-76	1	0.1	89.2	REJECT MANUAL ION-SELECTIVE ELECTRODE
12-76	2	0.9	2.8	ZIRCONIUM-ERIOCHROME R, USGS TWRI BK5 CH A1
12-76	3	0.9	2.8	- MANUAL ION-SELECTIVE ELECTRODE
12-76	5			NOT DETERMINED
12-76	6	0.6	35.2	- ION-SELECTIVE ELECTRODE, USGS TWRI BK5 CH A1
11-76	7	0.9	2.8	- ION-SELECTIVE ELECTRODE, USGS TWRI BK5 CH A1
11-76	8	0.9	2.8	- MANUAL ION-SELECTIVE ELECTRODE
11-76	9			NOT DETERMINED
12-76	10			NOT DETERMINED
11-76	11	1.0	8.0	- MANUAL ION-SELECTIVE ELECTRODE
11-76	12	0.9	2.8	- MANUAL ION-SELECTIVE ELECTRODE
11-76	13	0.9	2.8	- MANUAL ION-SELECTIVE ELECTRODE
11-76	14			NOT DETERMINED
12-76	15			NOT DETERMINED
11-76	16			NOT DETERMINED
12-76	17			NOT DETERMINED
11-76	18			NOT DETERMINED
12-76	19	1.2	29.6	- ION-SELECTIVE ELECTRODE, USGS TWRI BK5 CH A1
12-76	20	0.9	2.8	- MANUAL ION-SELECTIVE ELECTRODE
11-76	21			NOT DETERMINED
11-76	22	0.8	13.6	- MANUAL ION-SELECTIVE ELECTRODE
12-76	23	0.8	13.6	- ION-SELECTIVE ELECTRODE, USGS TWRI BK5 CH A1
11-76	24	0.9	2.8	ZIRCONIUM-ERIOCHROME R, USGS TWRI BK5 CH A1
11-76	25	1.0	8.0	- ION-SELECTIVE ELECTRODE, USGS TWRI BK5 CH A1
12-76	26	0.9	2.8	OTHER
12-76	27	0.9	2.8	TECHNICON AUTOANALYZER, ION-SELECTIVE ELECTRODE
12-76	28			NOT DETERMINED
12-76	29	0.9	2.8	- MANUAL ION-SELECTIVE ELECTRODE
12-76	30	1.0	8.0	- ION-SELECTIVE ELECTRODE, USGS TWRI BK5 CH A1
12-76	31	1.9	105.2	REJECT MANUAL ION-SELECTIVE ELECTRODE
11-76	32	1.1	18.8	ZIRCONIUM-ERIOCHROME R, USGS TWRI BK5 CH A1
11-76	33			NOT DETERMINED
11-76	35	0.9	2.8	- ION-SELECTIVE ELECTRODE, USGS TWRI BK5 CH A1
11-76	37	0.9	2.8	SPADNS, APHA STD METH, 13ED, 1971
12-76	38	0.8	13.6	SPADNS, APHA STD METH, 13ED, 1971
11-76	40	1.0	8.0	ZIRCONIUM-ERIOCHROME R, USGS TWRI BK5 CH A1
12-76	42	0.9	2.8	- ION-SELECTIVE ELECTRODE, USGS TWRI BK5 CH A1
12-76	44	1.0	8.0	SPADNS, APHA STD METH, 13ED, 1971
12-76	45			NOT DETERMINED
12-76	46	1.2	29.6	SPADNS, APHA STD METH, 13ED, 1971
12-76	47			NOT DETERMINED
11-76	49	0.9	2.8	OTHER

TOTAL RANGE	0.1	-	1.9				SAMPLE 58
MEAN	0.9259		AVERAGE DEVIATION	0.0809			
STANDARD DEVIATION	0.1196		95 PCT.CONF.INTVL OF MEAN	0.9259 +OR-	0.0473		F

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-76	1	56	14.1	RESIDUE-FILTERABLE, APHA STD METH, 13ED, 1971
12-76	2			NOT DETERMINED
12-76	3	92	41.1	RESIDUE-FILTERABLE, APHA STD METH, 13ED, 1971
12-76	5	64	1.8	RESIDUE-FILTERABLE, APHA STD METH, 13ED, 1971
12-76	6	57	12.6	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
11-76	7	63	3.4	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
11-76	8	124	90.2	REJECT RESIDUE-FILTERABLE, APHA STD METH, 13ED, 1971
11-76	9			NOT DETERMINED
12-76	10			NOT DETERMINED
11-76	11	75	15.0	RESIDUE-FILTERABLE, APHA STD METH, 13ED, 1971
11-76	12	56	14.1	RESIDUE-FILTERABLE, APHA STD METH, 13ED, 1971
11-76	13	52	20.2	RESIDUE-FILTERABLE, APHA STD METH, 13ED, 1971
11-76	14			NOT DETERMINED
12-76	15			NOT DETERMINED
11-76	16			NOT DETERMINED
12-76	17			NOT DETERMINED
11-76	18	65	0.3	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
12-76	19	70	7.4	RESIDUE-FILTERABLE, APHA STD METH, 13ED, 1971
12-76	20	66	1.2	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
11-76	21			NOT DETERMINED
11-76	22	59	9.5	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
12-76	23	74	13.5	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
11-76	24	58	11.0	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
11-76	25	51	21.8	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
12-76	26	62	4.9	RESIDUE-FILTERABLE, APHA STD METH, 13ED, 1971
12-76	27	61	6.4	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
12-76	28	96	47.2	RESIDUE-FILTERABLE, APHA STD METH, 13ED, 1971
12-76	29	66	1.2	RESIDUE-FILTERABLE, APHA STD METH, 13ED, 1971
12-76	30	77	18.1	RESIDUE-ON-EVAPORATION, ASTM METHOD B, D1888-67
12-76	31	61	6.4	RESIDUE-FILTERABLE, APHA STD METH, 13ED, 1971
11-76	32	66	1.2	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
11-76	33			NOT DETERMINED
11-76	35	54	17.2	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
11-76	37	80	22.7	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
12-76	38			NOT DETERMINED
11-76	40	58	11.0	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
12-76	42	58	11.0	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
12-76	44	62	4.9	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
12-76	45			NOT DETERMINED
12-76	46	76	16.6	RESIDUE-FILTERABLE, APHA STD METH, 13ED, 1971
12-76	47	61	6.4	RESIDUE-FILTERABLE, APHA STD METH, 13ED, 1971
11-76	49	60	8.0	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1

TOTAL RANGE	51	-	124	AVERAGE DEVIATION	8.0533	SAMPLE 58
MEAN		65.1998		95 PCT.CONF.INTVL OF MEAN	65.1998 +OR-	4.0301 DSRD180
STANDARD DEVIATION		10.7940				

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-76	1	101	5.1	WHEATSTONE BRIDGE
12-76	2	100	4.0	DIRECT READING INSTRUMENT, USGS TWRI BK5 CH A1
12-76	3	100	4.0	WHEATSTONE BRIDGE
12-76	5	89	8.4	DIRECT READING INSTRUMENT
12-76	6	99	3.0	WHEATSTONE BRIDGE, USGS TWRI BK5 CH A1
11-76	7	103	7.2	DIRECT READING INSTRUMENT, USGS TWRI BK5 CH A1
11-76	8	97	0.9	DIRECT READING INSTRUMENT
11-76	9			NOT DETERMINED
12-76	10	220	128.9	REJECT DIRECT READING INSTRUMENT
11-76	11	92	4.3	WHEATSTONE BRIDGE
11-76	12	97	0.9	DIRECT READING INSTRUMENT
11-76	13	80	16.8	DIRECT READING INSTRUMENT
11-76	14	108	12.4	WHEATSTONE BRIDGE
12-76	15	92	4.3	DIRECT READING INSTRUMENT
11-76	16	99	3.0	DIRECT READING INSTRUMENT
12-76	17			NOT DETERMINED
11-76	18	92	4.3	DIRECT READING INSTRUMENT
12-76	19	100	4.0	WHEATSTONE BRIDGE
12-76	20	102	6.1	DIRECT READING INSTRUMENT
11-76	21	938	875.9	REJECT DIRECT READING INSTRUMENT, USGS TWRI BK5 CH A1
11-76	22	93	3.2	DIRECT READING INSTRUMENT
12-76	23	97	0.9	WHEATSTONE BRIDGE, USGS TWRI BK5 CH A1
11-76	24	97	0.9	WHEATSTONE BRIDGE, USGS TWRI BK5 CH A1
11-76	25	98	2.0	WHEATSTONE BRIDGE, USGS TWRI BK5 CH A1
12-76	26	95	1.2	DIRECT READING INSTRUMENT
12-76	27	93	3.2	DIRECT READING INSTRUMENT, USGS TWRI BK5 CH A1
12-76	28			NOT DETERMINED
12-76	29	92	4.3	DIRECT READING INSTRUMENT
12-76	30	80	16.8	WHEATSTONE BRIDGE
12-76	31	890	825.9	REJECT DIRECT READING INSTRUMENT
11-76	32	99	3.0	DIRECT READING INSTRUMENT, USGS TWRI BK5 CH A1
11-76	33	1020	961.2	REJECT DIRECT READING INSTRUMENT
11-76	35	96	0.1	WHEATSTONE BRIDGE, USGS TWRI BK5 CH A1
11-76	37	97	0.9	DIRECT READING INSTRUMENT, USGS TWRI BK5 CH A1
12-76	38	89	7.4	DIRECT READING INSTRUMENT
11-76	40	95	1.2	DIRECT READING INSTRUMENT, USGS TWRI BK5 CH A1
12-76	42	95	1.2	WHEATSTONE BRIDGE, USGS TWRI BK5 CH A1
12-76	44	97	0.9	WHEATSTONE BRIDGE, USGS TWRI BK5 CH A1
12-76	45			NOT DETERMINED
12-76	46	107	11.3	DIRECT READING INSTRUMENT
12-76	47	102	6.1	DIRECT READING INSTRUMENT
11-76	49			NOT DETERMINED

TOTAL RANGE	80	- 1020			SAMPLE 58
MEAN		96.1210	AVERAGE DEVIATION	4.4665	
STANDARD DEVIATION		6.1378	95 PCT.CONF.INTVL OF MEAN	96.1210 +OR- 2.1690	SP.COND

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-76	1	7.6	0.7	ELECTROMETRIC
12-76	2	7.4	2.0	ELECTROMETRIC
12-76	3	7.4	2.0	ELECTROMETRIC
12-76	5	7.8	3.3	ELECTROMETRIC
12-76	6	8.0	6.0	ELECTROMETRIC, USGS TWRI BK5 CH A1
11-76	7	7.8	3.3	ELECTROMETRIC, USGS TWRI BK5 CH A1
11-76	8	7.3	3.3	ELECTROMETRIC
11-76	9			NOT DETERMINED
12-76	10	7.7	2.0	ELECTROMETRIC, USGS TWRI BK5 CH A1
11-76	11	7.2	4.6	ELECTROMETRIC
11-76	12	7.7	2.0	ELECTROMETRIC
11-76	13	7.7	2.0	ELECTROMETRIC
11-76	14	7.8	3.3	ELECTROMETRIC
12-76	15	7.6	0.7	ELECTROMETRIC
11-76	16	7.6	0.7	ELECTROMETRIC, USGS TWRI BK5 CH A1
12-76	17			NOT DETERMINED
11-76	18	7.7	2.0	ELECTROMETRIC
12-76	19	7.4	2.0	ELECTROMETRIC
12-76	20	7.9	4.7	ELECTROMETRIC
11-76	21	7.4	2.0	ELECTROMETRIC, USGS TWRI BK5 CH A1
11-76	22	7.7	2.0	ELECTROMETRIC
12-76	23	7.6	0.7	ELECTROMETRIC, USGS TWRI BK5 CH A1
11-76	24	7.7	2.0	ELECTROMETRIC, USGS TWRI BK5 CH A1
11-76	25	7.4	2.0	ELECTROMETRIC, USGS TWRI BK5 CH A1
12-76	26	7.4	2.0	ELECTROMETRIC
12-76	27	7.6	0.7	ELECTROMETRIC, USGS TWRI BK5 CH A1
12-76	28	7.3	3.3	ELECTROMETRIC
12-76	29	7.5	0.6	ELECTROMETRIC
12-76	30	7.8	3.3	ELECTROMETRIC
12-76	31	7.9	4.7	ELECTROMETRIC
11-76	32	7.6	0.7	ELECTROMETRIC, USGS TWRI BK5 CH A1
11-76	33	7.4	2.0	ELECTROMETRIC
11-76	35	7.4	2.0	ELECTROMETRIC, USGS TWRI BK5 CH A1
11-76	37	7.3	3.3	ELECTROMETRIC, USGS TWRI BK5 CH A1
12-76	38	7.6	0.7	ELECTROMETRIC
11-76	40	7.1	5.9	ELECTROMETRIC, USGS TWRI BK5 CH A1
12-76	42	7.4	2.0	ELECTROMETRIC, USGS TWRI BK5 CH A1
12-76	44	7.8	3.3	ELECTROMETRIC, USGS TWRI BK5 CH A1
12-76	45			NOT DETERMINED
12-76	46	7.1	5.9	ELECTROMETRIC
12-76	47	7.3	3.3	ELECTROMETRIC
11-76	49	7.5	0.6	ELECTROMETRIC, USGS TWRI BK5 CH A1

TOTAL RANGE 7.1
MEAN 7.5487
STANDARD DEVIATION 0.2235

- 8.0
AVERAGE DEVIATION 0.1886
95 PCT.CONF.INTVL OF MEAN 7.5487 ±0R-

0.1886
0.0723
PH

SAMPLE 58

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-76	1	30	53.6	ATOMIC ABS-DIRECT
12-76	2			NOT DETERMINED
12-76	3			NOT DETERMINED
12-76	5			NOT DETERMINED
12-76	6			NOT DETERMINED
11-76	7	70	8.2	ATOMIC ABS-DIRECT
11-76	8			NOT DETERMINED
11-76	9			NOT DETERMINED
12-76	10			NOT DETERMINED
11-76	11			NOT DETERMINED
11-76	12	70	8.2	ATOMIC ABS-DIRECT
11-76	13			NOT DETERMINED
11-76	14			NOT DETERMINED
12-76	15			NOT DETERMINED
11-76	16			NOT DETERMINED
12-76	17	60	7.2	EMISSION-FLAME
11-76	18			NOT DETERMINED
12-76	19			NOT DETERMINED
12-76	20			NOT DETERMINED
11-76	21			NOT DETERMINED
11-76	22			NOT DETERMINED
12-76	23	70	8.2	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-76	24			NOT DETERMINED
11-76	25	70	8.2	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
12-76	26			NOT DETERMINED
12-76	27	70	8.2	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
12-76	28			NOT DETERMINED
12-76	29	120	85.6	ATOMIC ABS-DIRECT
12-76	30	80	23.7	ATOMIC ABS-DIRECT
12-76	31			NOT DETERMINED
11-76	32	70	8.2	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-76	33			NOT DETERMINED
11-76	35	70	8.2	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-76	37	10	84.5	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
12-76	38	40	38.1	ATOMIC ABS-DIRECT
11-76	40	70	8.2	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
12-76	42			NOT DETERMINED
12-76	44			NOT DETERMINED
12-76	45	70	8.2	ATOMIC ABS-DIRECT
12-76	46			NOT DETERMINED
12-76	47			NOT DETERMINED
11-76	49			NOT DETERMINED

TOTAL RANGE	10	-	120				SAMPLE 58
MEAN		64.6665		AVERAGE DEVIATION	15.8223		
STANDARD DEVIATION		24.4560		95 PCT.CONF.INTVL OF MEAN	64.6665 +OR-	13.5446	SR

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-76	1	6	5.4	ATOMIC ABS-FLAMELESS
12-76	2			NOT DETERMINED
12-76	3	0	100.0	OTHER
12-76	5			NOT DETERMINED
12-76	6			NOT DETERMINED
11-76	7	5	12.2	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BKS CH A1
11-76	8			NOT DETERMINED
11-76	9	13	128.4	OTHER
11-76	11			NOT DETERMINED
11-76	12			NOT DETERMINED
11-76	13			NOT DETERMINED
11-76	14			NOT DETERMINED
12-76	15			NOT DETERMINED
11-76	16			NOT DETERMINED
12-76	17	6	5.4	ATOMIC ABS-FLAMELESS
11-76	18	8	40.5	OTHER
12-76	19			NOT DETERMINED
12-76	20			NOT DETERMINED
11-76	22			NOT DETERMINED
12-76	23	6	5.4	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BKS CH A1
11-76	25	5	12.2	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BKS CH A1
12-76	26			NOT DETERMINED
12-76	27	5	12.2	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BKS CH A1
12-76	28	5	12.2	ATOMIC ABS-FLAMELESS
12-76	29			NOT DETERMINED
12-76	30	2	64.9	ATOMIC ABS-FLAMELESS
12-76	31			NOT DETERMINED
11-76	32	7	23.0	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BKS CH A1
11-76	33			NOT DETERMINED
11-76	35	6	5.4	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BKS CH A1
11-76	37			NOT DETERMINED
12-76	38			NOT DETERMINED
12-76	42			NOT DETERMINED
12-76	44			NOT DETERMINED
12-76	45			NOT DETERMINED
12-76	46			NOT DETERMINED
12-76	47			NOT DETERMINED
11-76	49			NOT DETERMINED

TOTAL RANGE 0
MEAN
STANDARD DEVIATION

- 13
5.6923 AVERAGE DEVIATION
3.0107 95 PCT.CONF.INTVL OF MEAN

1.8698
5.6923 +OR- 1.8195

SAMPLE 59
CO

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD	
11-76	1	200	18.0	ATOMIC ABS-FLAMELESS	
12-76	2			NOT DETERMINED	
12-76	3	220	9.8	ATOMIC ABS-DIRECT	
12-76	5	220	9.8	ATOMIC ABS-DIRECT	
12-76	6			NOT DETERMINED	
11-76	7	240	1.6	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1	
11-76	8			NOT DETERMINED	
11-76	9			NOT DETERMINED	
11-76	11	320	31.3	ATOMIC ABS-DIRECT	
11-76	12	240	1.6	ATOMIC ABS-DIRECT	
11-76	13	230	5.7	ATOMIC ABS-DIRECT	
11-76	14	240	1.6	ATOMIC ABS-DIRECT	
12-76	15	230	5.7	ATOMIC ABS-DIRECT	
11-76	16			NOT DETERMINED	
12-76	17	230	5.7	ATOMIC ABS-DIRECT	
11-76	18			NOT DETERMINED	
12-76	19	260	6.6	ATOMIC ABS-DIRECT	
12-76	20	250	2.5	OTHER	
11-76	22	270	10.8	ATOMIC ABS-DIRECT	
12-76	23	230	5.7	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1	
11-76	25	260	6.6	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1	
12-76	26	230	5.7	ATOMIC ABS-DIRECT	
12-76	27	240	1.6	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1	
12-76	28	230	5.7	ATOMIC ABS-DIRECT	
12-76	29	230	5.7	ATOMIC ABS-DIRECT	
12-76	30	24	90.2	REJECT ATOMIC ABS-FLAMELESS	
12-76	31	230	5.7	ATOMIC ABS-DIRECT	
11-76	32	320	31.3	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1	
11-76	33			NOT DETERMINED	
11-76	35	270	10.8	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1	
11-76	37	220	9.8	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1	
12-76	38	230	5.7	ATOMIC ABS-DIRECT	
12-76	42	250	2.5	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1	
12-76	44	230	5.7	ATOMIC ABS-DIRECT	
12-76	45	230	5.7	ATOMIC ABS-DIRECT	
12-76	46			NOT DETERMINED	
12-76	47	240	1.6	ATOMIC ABS-DIRECT	
11-76	49	280	14.9	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1	
TOTAL RANGE		24	- 320		SAMPLE 59
MEAN		243.7914	AVERAGE DEVIATION	19.7138	
STANDARD DEVIATION		27.1784	95 PCT.CONF.INTVL OF MEAN	243.7914 +OR- 10.3360	CU

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-76	1	15	24.9	ATOMIC ABS-FLAMELESS
12-76	2			NOT DETERMINED
12-76	3	0	100.0	OTHER
12-76	5	22	10.2	ATOMIC ABS-FLAMELESS
12-76	6			NOT DETERMINED
11-76	7	22	10.2	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-76	8	15	24.9	ATOMIC ABS-FLAMELESS
11-76	9	82	310.8	REJECT OTHER
11-76	11			NOT DETERMINED
11-76	12	14	29.9	ATOMIC ABS-FLAMELESS
11-76	13	50	150.5	OTHER
11-76	14			NOT DETERMINED
12-76	15	22	10.2	OTHER
11-76	16			NOT DETERMINED
12-76	17	14	29.9	ATOMIC ABS-FLAMELESS
11-76	18			NOT DETERMINED
12-76	19	44	120.4	ATOMIC ABS-FLAMELESS
12-76	20	21	5.2	OTHER
11-76	22	11	44.9	ATOMIC ABS-FLAMELESS
12-76	23	19	4.8	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-76	25	14	29.9	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
12-76	26	13	34.9	ATOMIC ABS-FLAMELESS
12-76	27	22	10.2	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
12-76	28	10	49.9	ATOMIC ABS-FLAMELESS
12-76	29	37	85.3	ATOMIC ABS-CHELATION/EXTRACTION, EPA
12-76	30	15	24.9	ATOMIC ABS-FLAMELESS
12-76	31	9	54.9	ATOMIC ABS-FLAMELESS
11-76	32	22	10.2	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-76	33			NOT DETERMINED
11-76	35	18	9.8	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-76	37	22	10.2	ANODIC STRIPPING VOLTAMMETRY
12-76	38	25	25.2	ATOMIC ABS-CHELATION/EXTRACTION: APHA STD METH, 13ED
12-76	42	22	10.2	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
12-76	44	31	55.3	ATOMIC ABS-CHELATION/EXTRACTION, EPA
12-76	45			NOT DETERMINED
12-76	46			NOT DETERMINED
12-76	47	10	49.9	ATOMIC ABS-CHELATION/EXTRACTION, EPA
11-76	49			NOT DETERMINED

TOTAL RANGE	0	-	82			SAMPLE 59
MEAN		19.9628	AVERAGE DEVIATION	7.5912		
STANDARD DEVIATION		10.7040	95 PCT.CONF.INTVL OF MEAN	19.9628 +OR-	4.2353	P8

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-76	1	50	0.0	ATOMIC ABS-DIRECT
12-76	2			NOT DETERMINED
12-76	3			NOT DETERMINED
12-76	5	20	60.0	EMISSION-FLAME
12-76	6			NOT DETERMINED
11-76	7	60	20.0	ATOMIC ABS-DIRECT
11-76	8			NOT DETERMINED
11-76	9			NOT DETERMINED
11-76	11	30	40.0	ATOMIC ABS-DIRECT
11-76	12	50	0.0	EMISSION-FLAME
11-76	13	50	0.0	ATOMIC ABS-DIRECT
11-76	14			NOT DETERMINED
12-76	15			NOT DETERMINED
11-76	16			NOT DETERMINED
12-76	17			NOT DETERMINED
11-76	18	50	0.0	ATOMIC ABS-DIRECT
12-76	19			NOT DETERMINED
12-76	20			NOT DETERMINED
11-76	22	60	20.0	ATOMIC ABS-DIRECT
12-76	23	60	20.0	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-76	25	60	20.0	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
12-76	26			NOT DETERMINED
12-76	27	50	0.0	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
12-76	28			NOT DETERMINED
12-76	29	60	20.0	EMISSION-FLAME
12-76	30	50	0.0	ATOMIC ABS-FLAMELESS
12-76	31			NOT DETERMINED
11-76	32	60	20.0	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-76	33			NOT DETERMINED
11-76	35	60	20.0	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-76	37	30	40.0	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
12-76	38	50	0.0	ATOMIC ABS-DIRECT
12-76	42			NOT DETERMINED
12-76	44			NOT DETERMINED
12-76	45			NOT DETERMINED
12-76	46			NOT DETERMINED
12-76	47			NOT DETERMINED
11-76	49			NOT DETERMINED

TOTAL RANGE	20	-	60			SAMPLE 59
MEAN		49.9998		AVERAGE DEVIATION	8.2354	
STANDARD DEVIATION		12.2474		95 PCT.CONF.INTVL OF MEAN	49.9998 +0R-	6.2973 LI

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-76	1	0.7	17.8	ATOMIC ABS-FLAMELESS: EPA
12-76	2			NOT DETERMINED
12-76	3	0.7	17.8	OTHER
12-76	5			NOT DETERMINED
12-76	6			NOT DETERMINED
11-76	7	0.4	32.7	ATOMIC ABS-FLAMELESS: EPA
11-76	8	0.8	34.6	ATOMIC ABS-FLAMELESS: EPA
11-76	9			NOT DETERMINED
11-76	11			NOT DETERMINED
11-76	12	0.6	0.9	% " 0 QKF PF OR ' OIJ6
11-76	13	0.5	15.9	ATOMIC ABS-FLAMELESS: EPA
11-76	14			NOT DETERMINED
12-76	15			NOT DETERMINED
11-76	16	0.0	100.0	ATOMIC ABS-FLAMELESS: EPA
12-76	17	0.4	32.7	TECHNICON AUTOANALYZER, ATOMIC ABS-FLAMELESS: EPA
11-76	18			NOT DETERMINED
12-76	19	1.0	68.2	ATOMIC ABS-FLAMELESS: EPA
12-76	20	0.8	34.6	ATOMIC ABS-FLAMELESS: EPA
11-76	22			NOT DETERMINED
12-76	23	0.5	15.9	ATOMIC ABS-FLAMELESS: USGS PROVISIONAL
11-76	25	0.6	0.9	ATOMIC ABS-FLAMELESS: USGS PROVISIONAL
12-76	26	0.8	34.6	ATOMIC ABS-FLAMELESS: EPA
12-76	27	0.7	17.8	OTHER
12-76	28			NOT DETERMINED
12-76	29	0.3	49.5	ATOMIC ABS-FLAMELESS: EPA
12-76	30			NOT DETERMINED
12-76	31			NOT DETERMINED
11-76	32	0.3	49.5	ATOMIC ABS-FLAMELESS: USGS PROVISIONAL
11-76	33			NOT DETERMINED
11-76	35	0.6	0.9	ATOMIC ABS-FLAMELESS: USGS PROVISIONAL
11-76	37			NOT DETERMINED
12-76	38			NOT DETERMINED
12-76	42			NOT DETERMINED
12-76	44	2.3	286.9	REJECT ATOMIC ABS-FLAMELESS: EPA
12-76	45			NOT DETERMINED
12-76	46			NOT DETERMINED
12-76	47	1.0	68.2	ATOMIC ABS-FLAMELESS: EPA
11-76	49			NOT DETERMINED

TOTAL RANGE	0.0	-	2.3				SAMPLE 59
MEAN		0.5944		AVERAGE DEVIATION	0.1957		
STANDARD DEVIATION		0.2555		95 PCT.CONF.INTVL OF MEAN	0.5944 +OR-	0.1270	HG

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-76	1	30.0000	*****	REJECT OTHER
12-76	2			NOT DETERMINED
12-76	3			NOT DETERMINED
12-76	5			NOT DETERMINED
12-76	6			NOT DETERMINED
11-76	7			NOT DETERMINED
11-76	8			NOT DETERMINED
11-76	9			NOT DETERMINED
11-76	11			NOT DETERMINED
11-76	12			NOT DETERMINED
11-76	13			NOT DETERMINED
11-76	14			NOT DETERMINED
12-76	15			NOT DETERMINED
11-76	16			NOT DETERMINED
12-76	17			NOT DETERMINED
11-76	18			NOT DETERMINED
12-76	19			NOT DETERMINED
12-76	20			NOT DETERMINED
11-76	22			NOT DETERMINED
12-76	23	1	50.0	ATOMIC ABS-CHELATION/EXTRACTION: USGS PROVISIONAL
11-76	25	2	0.0	ATOMIC ABS-CHELATION/EXTRACTION: USGS PROVISIONAL
12-76	26			NOT DETERMINED
12-76	27	2	0.0	ATOMIC ABS-CHELATION/EXTRACTION: USGS PROVISIONAL
12-76	28			NOT DETERMINED
12-76	29			NOT DETERMINED
12-76	30			NOT DETERMINED
12-76	31			NOT DETERMINED
11-76	32	3	50.0	ATOMIC ABS-CHELATION/EXTRACTION: USGS PROVISIONAL
11-76	33			NOT DETERMINED
11-76	35	2	0.0	ATOMIC ABS-CHELATION/EXTRACTION: USGS PROVISIONAL
11-76	37			NOT DETERMINED
12-76	38			NOT DETERMINED
12-76	42			NOT DETERMINED
12-76	44			NOT DETERMINED
12-76	45			NOT DETERMINED
12-76	46			NOT DETERMINED
12-76	47			NOT DETERMINED
11-76	49			NOT DETERMINED

TOTAL RANGE	1	-	30					
MEAN		2.0000	AVERAGE DEVIATION	0.4000				SAMPLE 59
STANDARD DEVIATION		0.7071	95 PCT.CONF.INTVL OF MEAN	2.0000 +OR-	0.8778			MO

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-76	1	8	22.4	ATOMIC ABS-FLAMELESS
12-76	2			NOT DETERMINED
12-76	3	10	3.1	ATOMIC ABS-DIRECT
12-76	5			NOT DETERMINED
12-76	6			NOT DETERMINED
11-76	7	9	12.8	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-76	8	8	22.4	ATOMIC ABS-DIRECT
11-76	9	1240	*****	REJECT OTHER
11-76	11			NOT DETERMINED
11-76	12	11	6.6	ATOMIC ABS-FLAMELESS
11-76	13	10	3.1	ATOMIC ABS-DIRECT
11-76	14			NOT DETERMINED
12-76	15	15	45.4	ATOMIC ABS-DIRECT
11-76	16			NOT DETERMINED
12-76	17	10	3.1	ATOMIC ABS-FLAMELESS
11-76	18			NOT DETERMINED
12-76	19			NOT DETERMINED
12-76	20	12	16.3	OTHER
11-76	22	50	384.7	REJECT ATOMIC ABS-DIRECT
12-76	23	10	3.1	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-76	25	9	12.8	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
12-76	26			NOT DETERMINED
12-76	27	7	32.1	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
12-76	28	9	12.8	ATOMIC ABS-FLAMELESS
12-76	29	10	3.1	ATOMIC ABS-DIRECT
12-76	30	7	32.1	ATOMIC ABS-FLAMELESS
12-76	31	17	64.8	ATOMIC ABS-FLAMELESS
11-76	32	12	16.3	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-76	33			NOT DETERMINED
11-76	35	10	3.1	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-76	37			NOT DETERMINED
12-76	38			NOT DETERMINED
12-76	42			NOT DETERMINED
12-76	44	12	16.3	ATOMIC ABS-DIRECT
12-76	45			NOT DETERMINED
12-76	46			NOT DETERMINED
12-76	47	25	142.3	REJECT ATOMIC ABS-CHELATION/EXTRACTION, EPA
11-76	49			NOT DETERMINED

TOTAL RANGE 7
MEAN
STANDARD DEVIATION

- 1240
10.3158
2.5178
AVERAGE DEVIATION
95 PCT.CONF.INTVL OF MEAN

1.8005
10.3158 +OR- 1.2136

SAMPLE 59
NI

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-76	1	2	43.5	OTHER
12-76	2			NOT DETERMINED
12-76	3	5	41.3	OTHER
12-76	5			NOT DETERMINED
12-76	6			NOT DETERMINED
11-76	7	4	13.0	ATOMIC ABS-HYDRIDE (STANNOUS CHLORIDE): USGS PROVISIONAL
11-76	8			NOT DETERMINED
11-76	9			NOT DETERMINED
11-76	11			NOT DETERMINED
11-76	12			NOT DETERMINED
11-76	13			NOT DETERMINED
11-76	14			NOT DETERMINED
12-76	15			NOT DETERMINED
11-76	16			NOT DETERMINED
12-76	17			NOT DETERMINED
11-76	18			NOT DETERMINED
12-76	19	4	13.0	OTHER
12-76	20	9	154.3	REJECT ATOMIC ABS-HYDRIDE (STANNOUS CHLORIDE): USGS PROVISIONAL
11-76	22			NOT DETERMINED
12-76	23	3	15.2	ATOMIC ABS-HYDRIDE (STANNOUS CHLORIDE): USGS PROVISIONAL
11-76	25	4	13.0	ATOMIC ABS-HYDRIDE (STANNOUS CHLORIDE): USGS PROVISIONAL
12-76	26	3	15.2	OTHER
12-76	27	4	13.0	OTHER
12-76	28			NOT DETERMINED
12-76	29	2	43.5	ATOMIC ABS-HYDRIDE (STANNOUS CHLORIDE): USGS PROVISIONAL
12-76	30			NOT DETERMINED
12-76	31	4	13.0	ATOMIC ABS-HYDRIDE (SODIUM BOROHYDRIDE)
11-76	32	5	41.3	ATOMIC ABS-HYDRIDE (STANNOUS CHLORIDE): USGS PROVISIONAL
11-76	33			NOT DETERMINED
11-76	35	3	15.2	ATOMIC ABS-HYDRIDE (STANNOUS CHLORIDE): USGS PROVISIONAL
11-76	37			NOT DETERMINED
12-76	38			NOT DETERMINED
12-76	42			NOT DETERMINED
12-76	44	3	15.2	OTHER
12-76	45			NOT DETERMINED
12-76	46			NOT DETERMINED
12-76	47			NOT DETERMINED
11-76	49			NOT DETERMINED

TOTAL RANGE	2	-	9				SAMPLE 59
MEAN		3.5385		AVERAGE DEVIATION	0.8047		
STANDARD DEVIATION		0.9674		95 PCT.CONF.INTVL OF MEAN	3.5385 +OR-	0.5847	SE

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-76	1	2	8.6	ATOMIC ABS-FLAMELESS
12-76	2			NOT DETERMINED
12-76	3	0	100.0	REJECT ATOMIC ABS-DIRECT
12-76	5	3	37.1	ATOMIC ABS-FLAMELESS
12-76	6			NOT DETERMINED
11-76	7	2	8.6	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-76	8			NOT DETERMINED
11-76	9			NOT DETERMINED
11-76	11			NOT DETERMINED
11-76	12	3	37.1	ATOMIC ABS-DIRECT
11-76	13	7	220.0	REJECT ATOMIC ABS-DIRECT
11-76	14			NOT DETERMINED
12-76	15	3	37.1	ATOMIC ABS-DIRECT
11-76	16			NOT DETERMINED
12-76	17	2	8.6	ATOMIC ABS-FLAMELESS
11-76	18			NOT DETERMINED
12-76	19	8	265.7	REJECT ATOMIC ABS-DIRECT
12-76	20	2	8.6	OTHER
11-76	22			NOT DETERMINED
12-76	23	2	8.6	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-76	25	2	8.6	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
12-76	26	2	8.6	ATOMIC ABS-FLAMELESS
12-76	27	2	8.6	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
12-76	28			NOT DETERMINED
12-76	29	10	357.1	REJECT ATOMIC ABS-DIRECT
12-76	30	2	8.6	ATOMIC ABS-FLAMELESS
12-76	31	2	8.6	ATOMIC ABS-FLAMELESS
11-76	32	5	128.6	REJECT ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-76	33			NOT DETERMINED
11-76	35	2	8.6	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-76	37	83	*****	REJECT OTHER
12-76	38	2	8.6	ATOMIC ABS-DIRECT
12-76	42			NOT DETERMINED
12-76	44	2	8.6	ATOMIC ABS-DIRECT
12-76	45			NOT DETERMINED
12-76	46			NOT DETERMINED
12-76	47			NOT DETERMINED
11-76	49			NOT DETERMINED

TOTAL RANGE	0	-	83				SAMPLE 59
MEAN		2.1875		AVERAGE DEVIATION	0.3047		
STANDARD DEVIATION		0.4031		95 PCT.CONF.INTVL OF MEAN	2.1875 +OR-	0.2148	AG

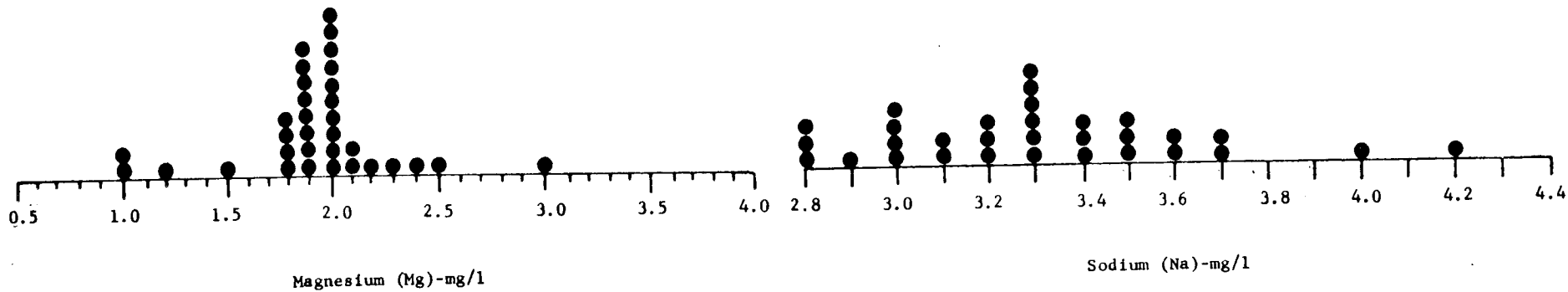
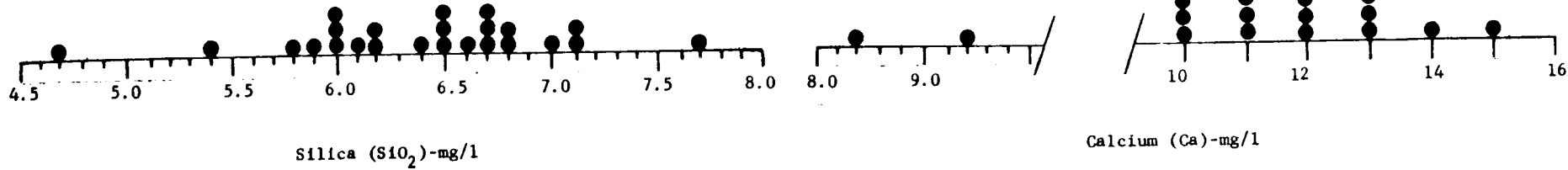
DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-76	1	300	10.3	ATOMIC ABS-DIRECT
12-76	2			NOT DETERMINED
12-76	3	310	7.3	ATOMIC ABS-DIRECT
12-76	5	310	7.3	ATOMIC ABS-DIRECT
12-76	6			NOT DETERMINED
11-76	7	320	4.3	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
11-76	8	330	1.3	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
11-76	9	340	1.6	OTHER
11-76	11	340	1.6	ATOMIC ABS-DIRECT
11-76	12	340	1.6	ATOMIC ABS-DIRECT
11-76	13	300	10.3	ATOMIC ABS-DIRECT
11-76	14	350	4.6	ATOMIC ABS-DIRECT
12-76	15	350	4.6	ATOMIC ABS-DIRECT
11-76	16			NOT DETERMINED
12-76	17	340	1.6	ATOMIC ABS-DIRECT
11-76	18	580	73.4	REJECT OTHER
12-76	19	320	4.3	ATOMIC ABS-DIRECT
12-76	20	350	4.6	OTHER
11-76	22	350	4.6	ATOMIC ABS-DIRECT
12-76	23	330	1.3	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
11-76	25	330	1.3	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
12-76	26	330	1.3	ATOMIC ABS-DIRECT
12-76	27	330	1.3	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
12-76	28	240	28.3	REJECT ATOMIC ABS-DIRECT
12-76	29	360	7.6	ATOMIC ABS-DIRECT
12-76	30	380	13.6	ATOMIC ABS-DIRECT
12-76	31	320	4.3	ATOMIC ABS-DIRECT
11-76	32	340	1.6	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
11-76	33			NOT DETERMINED
11-76	35	330	1.3	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
11-76	37	370	10.6	OTHER <i>Andic Strips</i>
12-76	38	330	1.3	ATOMIC ABS-DIRECT
12-76	42	330	1.3	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
12-76	44	350	4.6	ATOMIC ABS-DIRECT
12-76	45	340	1.6	ATOMIC ABS-DIRECT
12-76	46			NOT DETERMINED
12-76	47	350	4.6	ATOMIC ABS-DIRECT
11-76	49	300	10.3	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1

TOTAL RANGE	240	-	580			
MEAN		334.5137		AVERAGE DEVIATION	14.9843	SAMPLE 59
STANDARD DEVIATION		19.2939		95 PCT.CONF.INTVL OF MEAN	334.5137 +OR- 7.0761	ZN

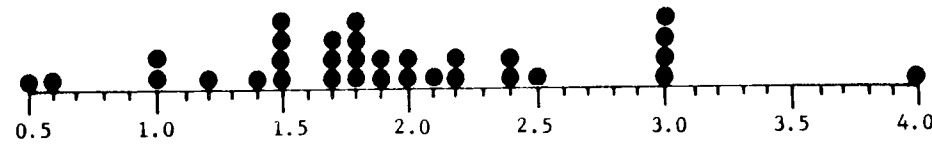
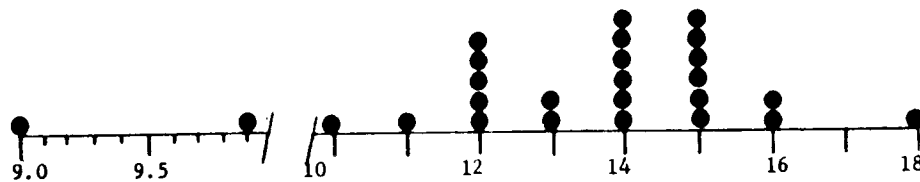
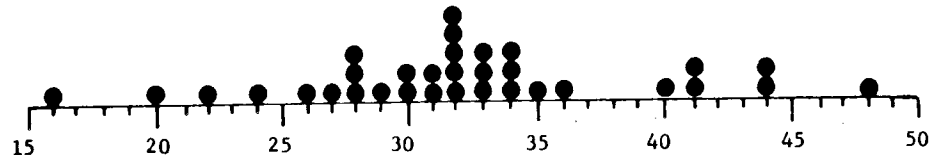
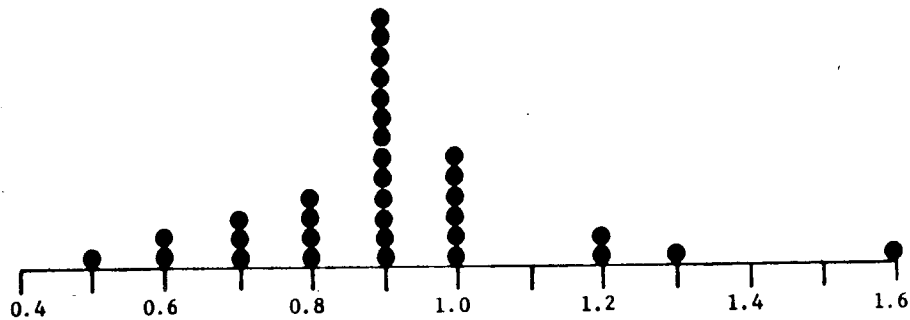
DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-76	1	21	5.0	OTHER
12-76	2			NOT DETERMINED
12-76	3			NOT DETERMINED
12-76	5			NOT DETERMINED
12-76	6			NOT DETERMINED
11-76	7	110	450.0	REJECT OTHER
11-76	8			NOT DETERMINED
11-76	9			NOT DETERMINED
11-76	11			NOT DETERMINED
11-76	12			NOT DETERMINED
11-76	13			NOT DETERMINED
11-76	14			NOT DETERMINED
12-76	15			NOT DETERMINED
11-76	16			NOT DETERMINED
12-76	17			NOT DETERMINED
11-76	18	19	5.0	OTHER
12-76	19			NOT DETERMINED
12-76	20			NOT DETERMINED
11-76	22			NOT DETERMINED
12-76	23	20	0.0	ATOMIC ABS-HYDRIDE (SODIUM BORDHYDRIDE)
11-76	25			NOT DETERMINED
12-76	26			NOT DETERMINED
12-76	27	20	0.0	ATOMIC ABS-HYDRIDE (SODIUM BORDHYDRIDE)
12-76	28			NOT DETERMINED
12-76	29			NOT DETERMINED
12-76	30			NOT DETERMINED
12-76	31			NOT DETERMINED
11-76	32			NOT DETERMINED
11-76	33			NOT DETERMINED
11-76	35			NOT DETERMINED
11-76	37			NOT DETERMINED
12-76	38			NOT DETERMINED
12-76	42			NOT DETERMINED
12-76	44			NOT DETERMINED
12-76	45			NOT DETERMINED
12-76	46			NOT DETERMINED
12-76	47			NOT DETERMINED
11-76	49			NOT DETERMINED

TOTAL RANGE	19	-	110					SAMPLE 59
MEAN		20.0000		AVERAGE DEVIATION		0.5000		
STANDARD DEVIATION		0.8165		95 PCT.CONF.INTVL OF MEAN		20.0000 +OR-	1.2990	SB

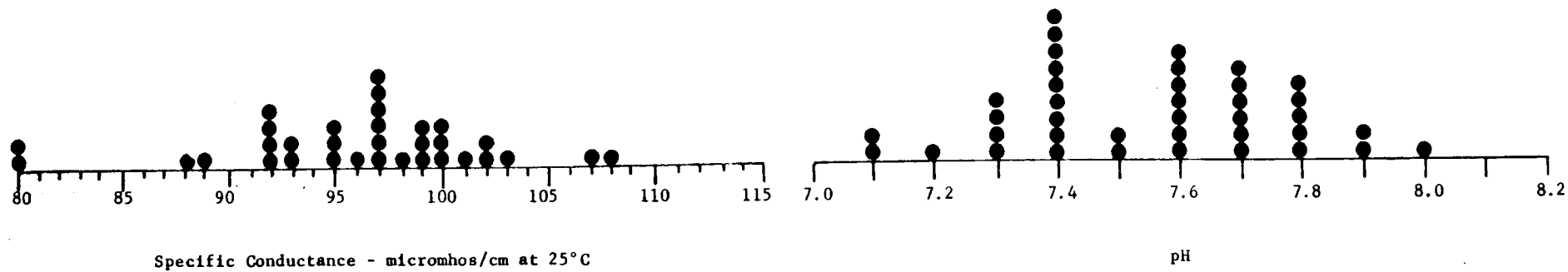
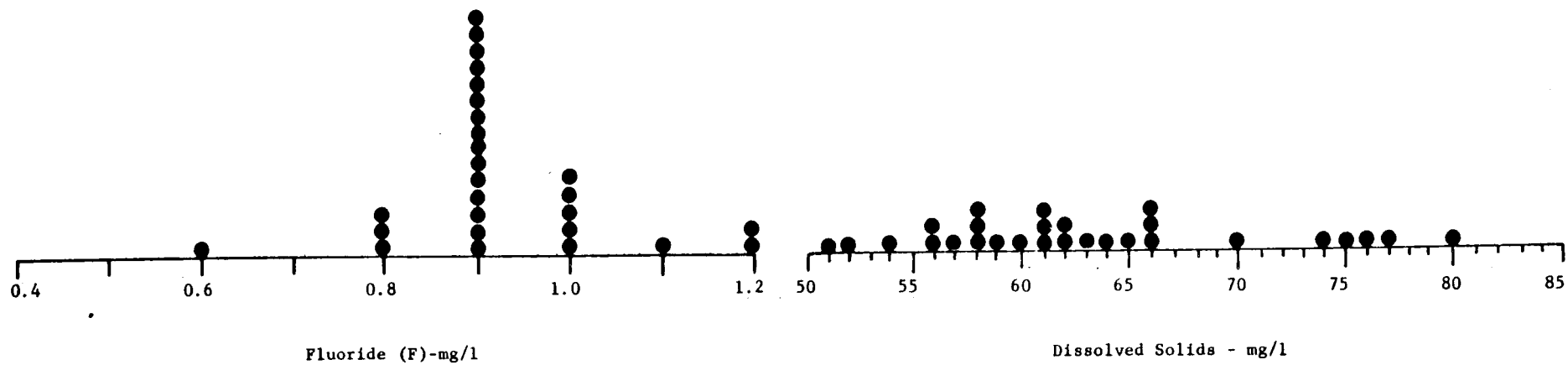
DETERMINATION	NO. LAHS REPORTING	PCT. OF VALUES REJECTED	PCT. OF UNREJECTED VALUES WITHIN		
			95 PCT. CI	X +OR- STD	X +OR- 2STD
AL	22	14	42	74	89
FE	34	9	35	61	97
MN	35	0	34	71	89
AS	14	0	64	79	86
BA	20	10	39	83	89
BE	10	10	0	100	100
CD	31	10	0	61	96
CR TOT	28	0	46	68	96
CO	13	0	69	77	92
CU	30	3	24	86	93
PR	28	4	37	78	93
LI	17	0	41	82	94
HG	19	5	44	72	94
MO	6	17	60	60	100
NI	22	14	37	79	95
SE	14	7	69	69	100
AG	22	27	81	81	81
ZN	33	6	45	74	97
SB	5	20	100	50	100



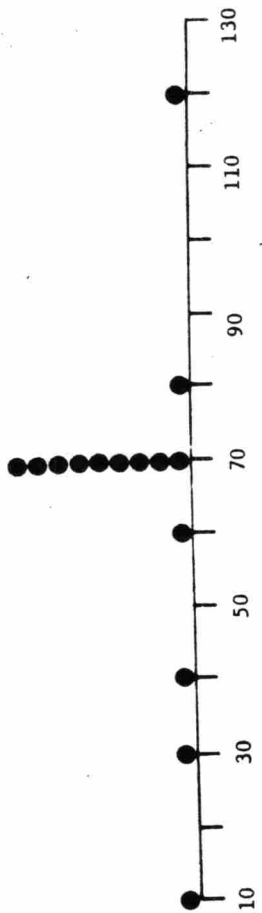
Sample No. 58



Sample No. 58

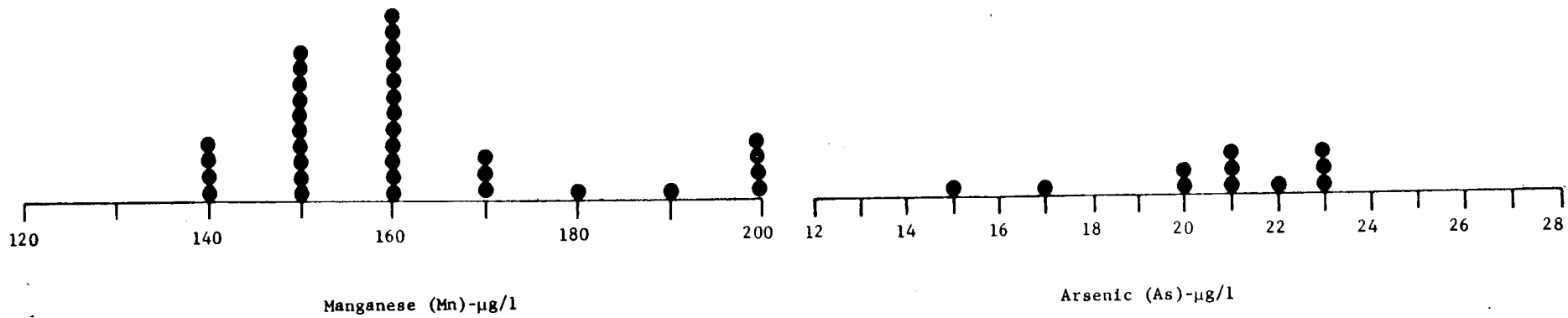
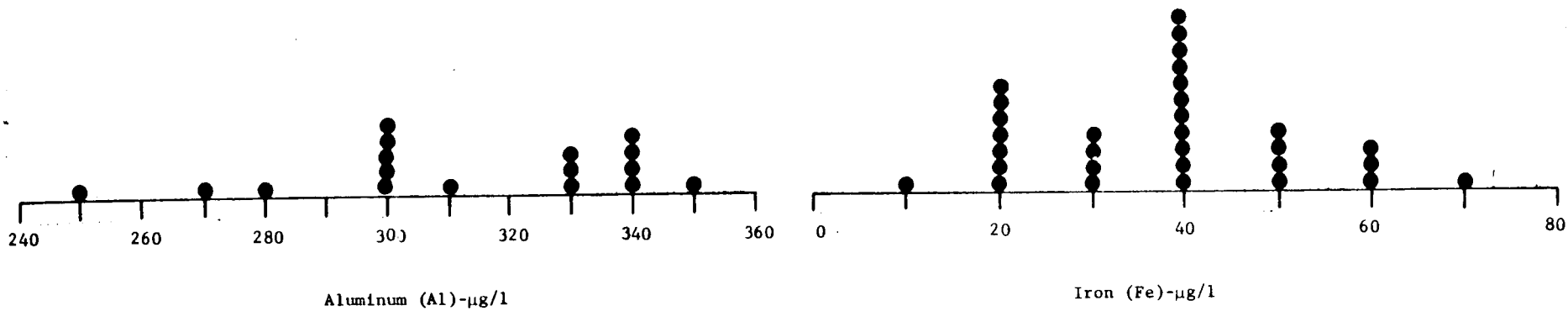


Sample No. 58

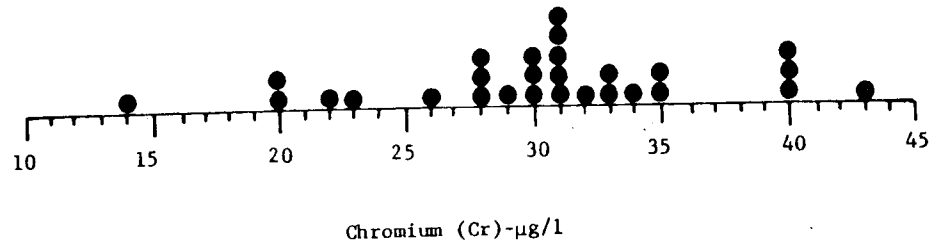
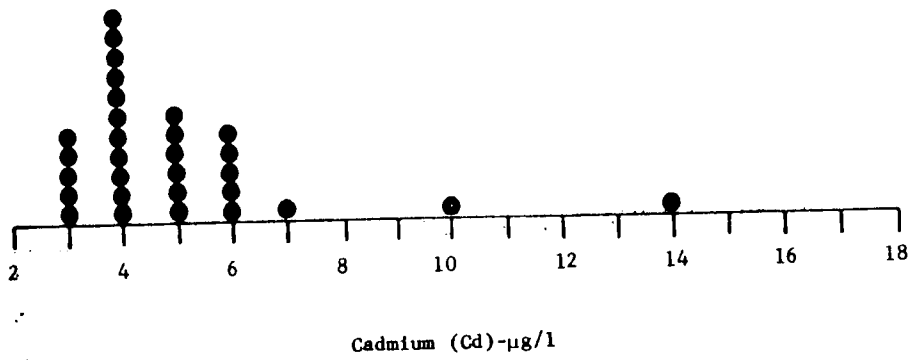
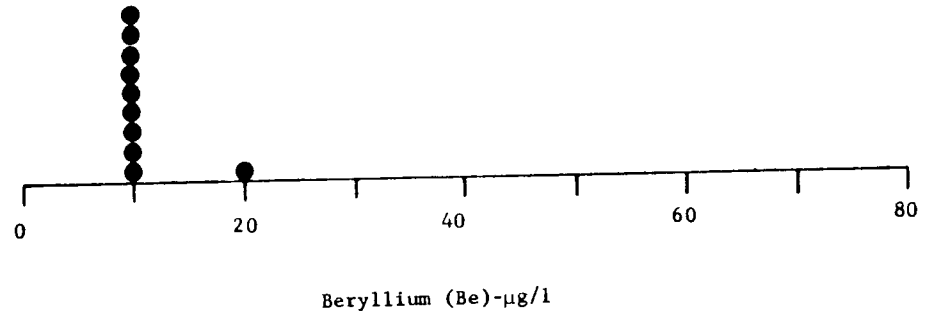
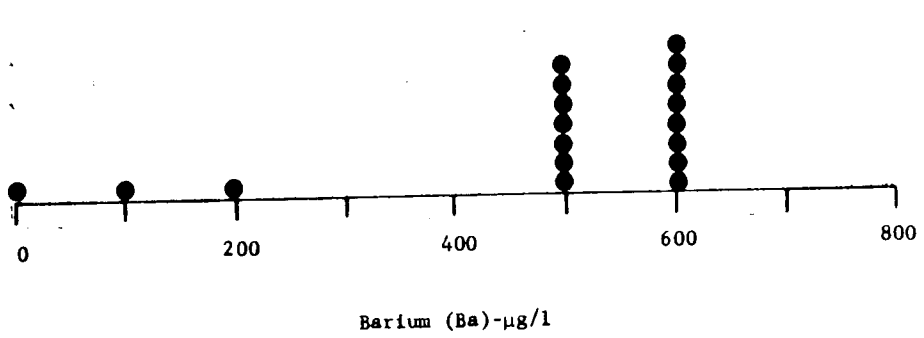


Strontium (Sr)-µg/l

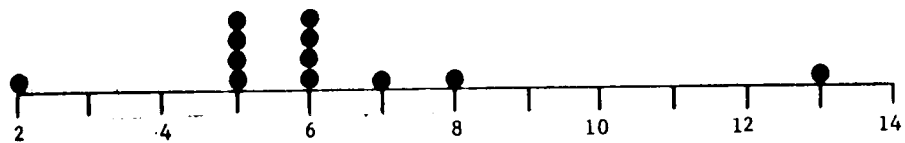
Sample No. 58



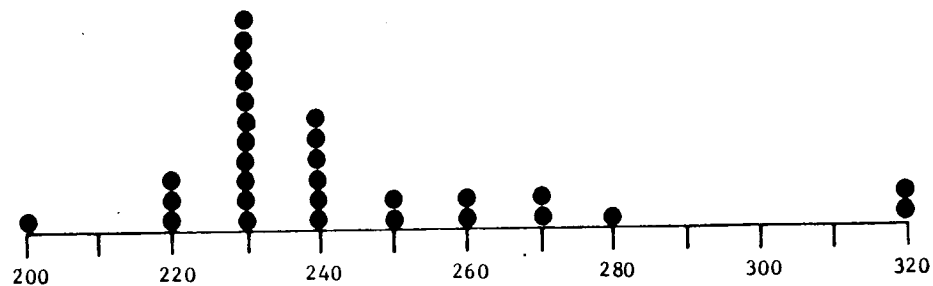
Sample No. 59



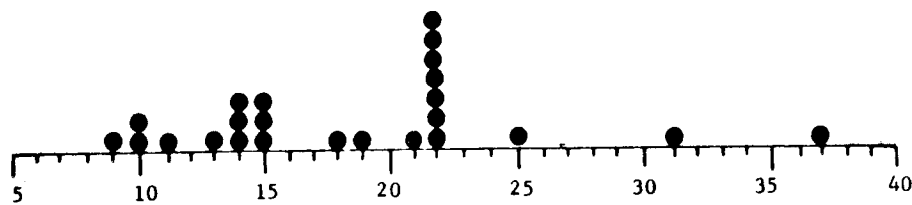
Sample No. 59



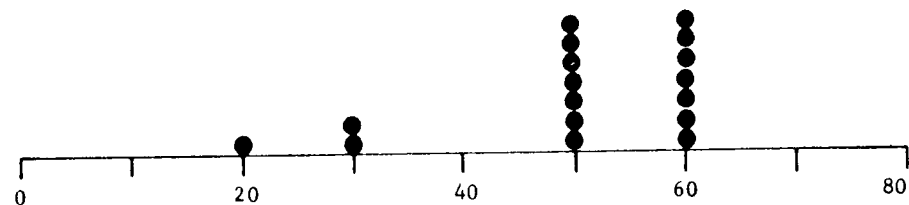
Cobalt (Co)-µg/l



Copper (Cu)-µg/l

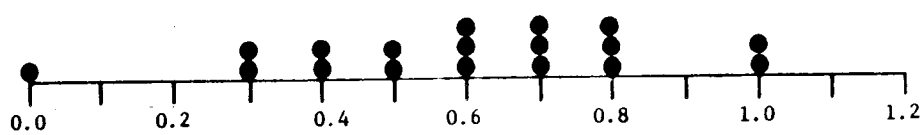


Lead (Pb)-µg/l

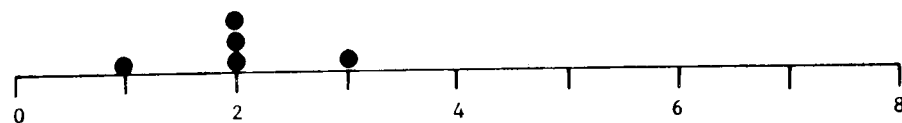


Lithium (Li)-µg/l

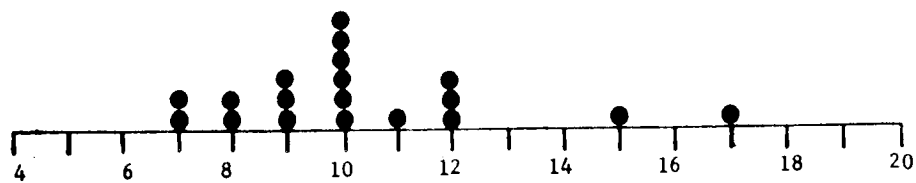
Sample No. 59



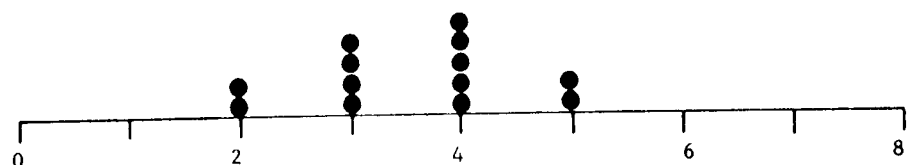
Mercury (Hg)-μg/l



Molybdenum (Mo)-μg/l

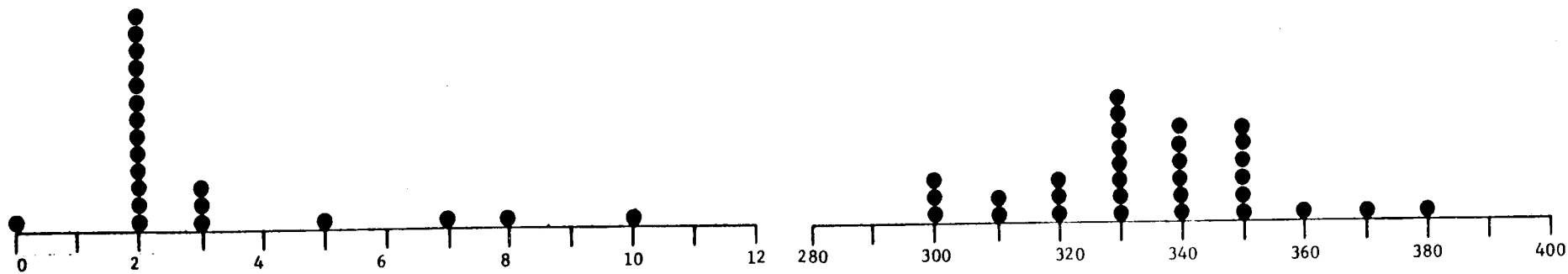


Nickel (Ni)-μg/l



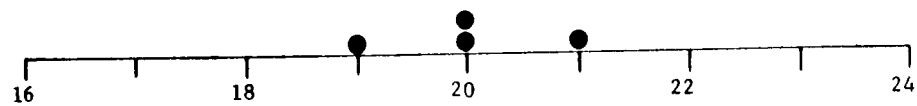
Selenium (Se)-μg/l

Sample No. 59



Silver (Ag)- $\mu\text{g}/\text{l}$

Zinc (Zn)- $\mu\text{g}/\text{l}$



Antimony (Sb)- $\mu\text{g}/\text{l}$

Sample No. 59