

REPORT OF

ANALYTICAL EVALUATION PROGRAM

STANDARD REFERENCE WATER SAMPLES NUMBERS 50, 51, 52 and 53

U.S. GEOLOGICAL SURVEY

WATER RESOURCES DIVISION

Lakewood, Colorado

December 1975

STANDARD REFERENCE WATER SAMPLES NUMBERS 50, 51, 52 AND 53

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 numbers 50, 51, 52, and 53 distributed on October 24, 1975.

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 which 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 150 gallons of each sample was collected. Sample Nos. 52 and 53 were 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- $\mu$ 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 - NOS. 50 and 51

Silica (SiO <sub>2</sub> )	Fluoride (F)
Calcium (Ca)	Nitrate Nitrogen (NO <sub>3</sub> -N)
Magnesium (Mg)	Dissolved Solids (residue)
Sodium (Na)	Specific Conductance
Potassium (K)	pH
Bicarbonate (HCO <sub>3</sub> )	Boron (B)
Sulfate (SO <sub>4</sub> )	Strontium (Sr)
Chloride (Cl)	

DETERMINATIONS - NOS. 52 and 53

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)

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" and "zero" 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: Livesay  
CALIFORNIA, Menlo Park: Hem  
CALIFORNIA, Menlo Park: Presser  
CALIFORNIA, Menlo Park: Kennedy  
COLORADO, Lakewood: Barnett  
FLORIDA, Ocala: Kirkland  
GEORGIA, Doraville: Leifeste  
NEW YORK, Albany: Malo  
UTAH, Salt Lake City: McAvoy

Other

ALABAMA, University: Geological Survey of Alabama, Lloyd  
ALABAMA, University: Geological Survey of Alabama, Malatino  
ARIZONA, Little Rock: Department of Pollution Control & Ecology  
CALIFORNIA, Oakland: East Bay Municipal Utility District  
FLORIDA, West Palm Beach: Florida Flood Control District  
GEORGIA, Athens: Department of Horticulture  
GEORGIA, Atlanta: Department of Natural Resources  
GEORGIA, Atlanta: Environmental Protection Division  
KANSAS, Lawrence: Kansas Geological Survey  
KANSAS, Topeka: Department of Health  
MASSACHUSETTS, Wellesley Hills: Department of Public Works  
MISSOURI, Columbia: Environmental Trace Substances Center  
MISSOURI, Jefferson City: Bureau of Environmental Health  
MONTANA, Butte: Montana Bureau of Mines & Geology

Other--continued

NEVADA, Carson City: Bureau of Environmental Health  
NEW MEXICO, Gallup: Soil & Water Materials  
NEW YORK, Hauppauge: Department of Environmental Control  
NEW YORK, Long Island: County Water Authority  
NORTH DAKOTA, Bismarck: North Dakota State Labs  
OHIO, Dayton: Miami Conservancy District  
OKLAHOMA, Oklahoma City: Oklahoma Water Resources Board  
PENNSYLVANIA, West Chester: Chester County Health Department  
SOUTH CAROLINA, Columbia: Division of Analytical Services  
SOUTH DAKOTA, Brookings: Water Quality Laboratory  
TENNESSEE, Chattanooga: Laboratory Branch  
TENNESSEE, Knoxville: Environmental Engineering Lab  
VIRGINIA, Manassas: Occoquan Watershed Monitoring Laboratory  
VIRGINIA, Richmond: Consolidated Laboratories  
WASHINGTON, Olympia: Washington Department of Ecology  
WEST VIRGINIA, Morgantown: Geological & Economic Survey  
WISCONSIN, Delafield: Department of Natural Resources  
WYOMING, Laramie: Wyoming Department of Agriculture

Foreign

BRAZIL, Minas Gerais, Belo Horizonte: Cia De Pesquisa De Recursos  
Minerais

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	2	8.0	0.1	MOLYBOSILICATE, APHA STD METH, 13ED, 1971
11-75	3	5.9	26.3	REJECT MOLYBDATE BLUE, USGS TWRI BKS CH A1
11-75	4			NOT DETERMINED
11-75	5	7.6	5.1	ATOMIC ABS-DIRECT
11-75	6			NOT DETERMINED
11-75	7	8.0	0.1	TECHNICON AUTOANALYZER, MOLYBOSILICATE
11-75	8	8.0	0.1	MOLYBDATE BLUE, USGS TWRI BKS CH A1
11-75	9			NOT DETERMINED
11-75	11			NOT DETERMINED
11-75	12	8.2	2.4	TECHNICON AUTOANALYZER, MOLYBOSILICATE
11-75	13	7.4	7.6	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	14			NOT DETERMINED
11-75	15			NOT DETERMINED
11-75	16	8.2	2.4	TECHNICON AUTOANALYZER, MOLYBOSILICATE
11-75	17	8.5	6.1	MOLYBDATE BLUE, USGS TWRI BKS CH A1
11-75	18			NOT DETERMINED
11-75	19	8.3	3.6	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	20	8.7	8.6	MOLYBDATE BLUE, USGS TWRI BKS CH A1
11-75	21	7.0	12.6	MOLYBDATE BLUE, USGS TWRI BKS CH A1
11-75	22			NOT DETERMINED
11-75	23	8.4	4.9	MOLYBDATE BLUE, USGS TWRI BKS CH A1
11-75	24			NOT DETERMINED
11-75	25	8.1	1.1	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	27			NOT DETERMINED
11-75	28	7.1	11.4	TECHNICON AUTOANALYZER, MOLYBOSILICATE
11-75	29	7.6	5.1	TECHNICON AUTOANALYZER, MOLYBOSILICATE
11-75	30			NOT DETERMINED
11-75	31			NOT DETERMINED
11-75	32			NOT DETERMINED
12-75	33			NOT DETERMINED
11-75	34			NOT DETERMINED
11-75	35	7.5	6.4	ATOMIC ABS-DIRECT
11-75	37			NOT DETERMINED
11-75	38	8.2	2.4	TECHNICON AUTOANALYZER, MOLYBOSILICATE
11-75	39	9.2	14.8	OTHER ← not given
11-75	40			NOT DETERMINED
11-75	41			NOT DETERMINED
11-75	42			NOT DETERMINED
11-75	43	13	62.3	REJECT MOLYBOSILICATE, APHA STD METH, 13ED, 1971
11-75	44			NOT DETERMINED
11-75	45	8.2	2.4	MOLYBOSILICATE, APHA STD METH, 13ED, 1971

TOTAL RANGE	5.9	-	13	AVERAGE DEVIATION	0.4100	SAMPLE 50
MEAN	8.0105			95 PCT.CONF.INTVL OF MEAN	8.0105 ±0R-	0.2625
STANDARD DEVIATION	0.5446					SI02

M-50

SiO<sub>2</sub>

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	2	88	96.5	REJECT EDTA TITRIMETRIC, APHA STD METH, 13ED, 1971
11-75	3	46	2.7	EDTA TITRIMETRIC, APHA STD METH, 13ED, 1971
11-75	4	68	51.8	REJECT ATOMIC ABS-DIRECT
11-75	5	45	0.5	EDTA TITRIMETRIC, APHA STD METH, 13ED, 1971
11-75	6	43	4.0	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	7	43	4.0	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	8	46	2.7	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	9	35	21.9	ATOMIC ABS-DIRECT
11-75	11	40	10.7	ATOMIC ABS-DIRECT
11-75	12	48	7.2	ATOMIC ABS-DIRECT
11-75	13	47	4.9	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	14	44	1.8	ATOMIC ABS-DIRECT
11-75	15			NOT DETERMINED
11-75	16	46	2.7	ATOMIC ABS-DIRECT
11-75	17	42	6.2	ATOMIC ABS-DIRECT
11-75	18	51	13.9	ATOMIC ABS-DIRECT
11-75	19	47	4.9	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	20	41	8.5	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	21	46	2.7	COMPLEXOMETRIC, USGS TWRI BKS CH A1
11-75	22	34	24.1	ATOMIC ABS-DIRECT
11-75	23	44	1.8	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	24			NOT DETERMINED
11-75	25	51	13.9	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	27	40	10.7	ATOMIC ABS-DIRECT
11-75	28	46	2.7	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	29			NOT DETERMINED
11-75	30	47	4.9	EMISSION-FLAME
11-75	31	42	6.2	EDTA TITRIMETRIC, APHA STD METH, 13ED, 1971
11-75	32	48	7.2	ATOMIC ABS-DIRECT
12-75	33			NOT DETERMINED
11-75	34	36	19.6	ATOMIC ABS-DIRECT
11-75	35	50	11.6	EDTA TITRIMETRIC, APHA STD METH, 13ED, 1971
11-75	37	51	13.9	ATOMIC ABS-DIRECT
11-75	38	45	0.5	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	39	45	7.2	EDTA TITRIMETRIC, APHA STD METH, 13ED, 1971
11-75	40	46	2.7	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	41	45	0.5	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	42	47	4.9	ATOMIC ABS-DIRECT
11-75	43	44	1.8	COMPLEXOMETRIC, USGS TWRI BKS CH A1
11-75	44	49	9.4	ATOMIC ABS-DIRECT
11-75	45	93	107.6	REJECT EDTA TITRIMETRIC, APHA STD METH, 13ED, 1971

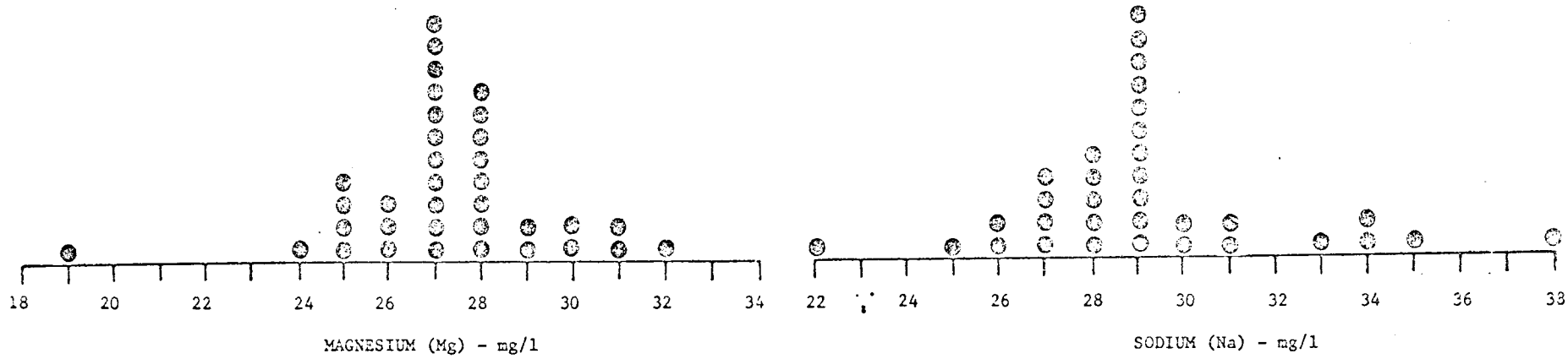
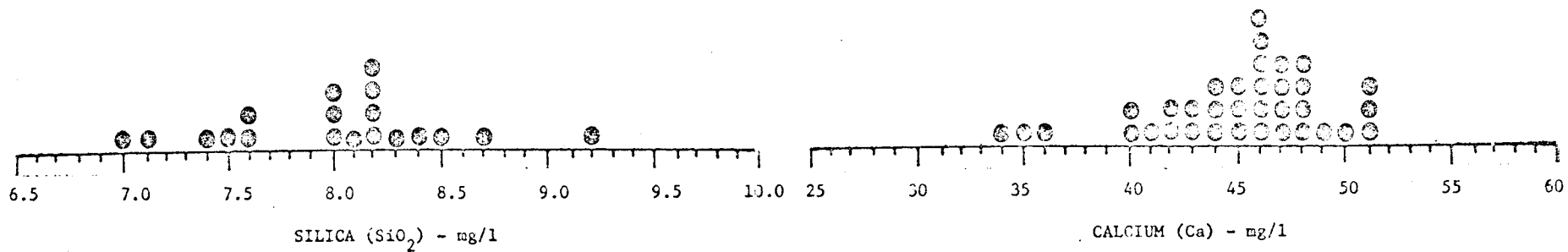
TOTAL RANGE	34	-	93		SAMPLE 50
MEAN		44.7939		AVERAGE DEVIATION	3.1955
STANDARD DEVIATION		4.2411		95 PCT.CONF.INTVL OF MEAN	44.7939 +OR- 1.4765
					CA

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	2	25	9.1	TITRIMETRIC-EDTA, ASTM METHOD B, D1126-67
11-75	3	28	1.8	CALCULATION, USGS TWRI BKS CH A1
11-75	4	19	30.9	REJECT ATOMIC ABS-DIRECT
11-75	5	27	1.8	TITRIMETRIC-EDTA, ASTM METHOD B, D1126-67
11-75	6	28	1.8	ATOMIC ABS-DIRECT
11-75	7	27	1.8	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	8	29	5.5	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	9	28	1.8	ATOMIC ABS-DIRECT
11-75	11	26	5.5	ATOMIC ABS-DIRECT
11-75	12	29	5.5	ATOMIC ABS-DIRECT
11-75	13	27	1.8	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	14	25	9.1	ATOMIC ABS-DIRECT
11-75	15			NOT DETERMINED
11-75	16	28	1.8	ATOMIC ABS-DIRECT
11-75	17	24	12.7	ATOMIC ABS-DIRECT
11-75	18	32	16.4	ATOMIC ABS-DIRECT
11-75	19	28	1.8	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	20	26	5.5	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	21	27	1.8	CALCULATION, USGS TWRI BKS CH A1
11-75	22			NOT DETERMINED
11-75	23	27	1.8	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	24			NOT DETERMINED
11-75	25	27	1.8	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	27	27	1.8	ATOMIC ABS-DIRECT
11-75	28	27	1.8	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	29			NOT DETERMINED
11-75	30	27	1.8	ATOMIC ABS-DIRECT
11-75	31	25	9.1	CALCULATION, USGS TWRI BKS CH A1
11-75	32	28	1.8	ATOMIC ABS-DIRECT
12-75	33			NOT DETERMINED
11-75	34	30	9.1	ATOMIC ABS-DIRECT
11-75	35	25	9.1	TITRIMETRIC-EDTA, ASTM METHOD B, D1126-67
11-75	37	31	12.7	ATOMIC ABS-DIRECT
11-75	38	28	1.8	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	39	26	5.5	CALCULATION, USGS TWRI BKS CH A1
11-75	40	27	1.8	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	41	30	9.1	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	42	27	1.8	ATOMIC ABS-DIRECT
11-75	43	28	1.8	CALCULATION, USGS TWRI BKS CH A1
11-75	44	31	12.7	ATOMIC ABS-DIRECT
11-75	45	55	100.0	REJECT TITRIMETRIC-EDTA, ASTM METHOD B, D1126-67

TOTAL RANGE	19	-	55		SAMPLE 50
MEAN		27.4998		1.3823	
STANDARD DEVIATION		1.8299		27.4998 +OR- 0.6371	MG
				95 PCT.CONF.INTVL OF MEAN	

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN		METHOD
11-75	2	2.8	90.4	REJECT	OTHER -- <i>NO robot</i>
11-75	3	26	10.8		EMISSION-FLAME
11-75	4	26	3.9		ATOMIC ABS-DIRECT
11-75	5	29	0.5		ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-75	6	29	0.5		ATOMIC ABS-DIRECT
11-75	7	29	0.5		ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-75	8	29	0.5		ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-75	9	25	14.2		ATOMIC ABS-DIRECT
11-75	11	27	7.4		ATOMIC ABS-DIRECT
11-75	12	31	6.3		ATOMIC ABS-DIRECT
11-75	13	14	52.0	REJECT	EMISSION-FLAME
11-75	14	27	7.4		EMISSION-FLAME
11-75	15			NOT DETERMINED	
11-75	16	29	0.5		ATOMIC ABS-DIRECT
11-75	17	30	2.9		EMISSION-FLAME
11-75	18	34	16.6		ATOMIC ABS-DIRECT
11-75	19	28	3.9		ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-75	20	34	16.6		ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-75	21	27	7.4		OTHER <i>REMARKS - 2.1</i>
11-75	22			NOT DETERMINED	
11-75	23	29	0.5		ATOMIC ABS-DIRECT
11-75	24			NOT DETERMINED	
11-75	25	40	37.2	REJECT	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-75	27	28	3.9		ATOMIC ABS-DIRECT
11-75	28	29	0.5		ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-75	29			NOT DETERMINED	
11-75	30	33	13.2		ATOMIC ABS-DIRECT
11-75	31	31	6.3		EMISSION-FLAME
11-75	32	28	3.9		ATOMIC ABS-DIRECT
12-75	33			NOT DETERMINED	
11-75	34	29	0.5		EMISSION-ARC/SPARK
11-75	35	30	2.9		EMISSION-FLAME
11-75	37	29	0.5		ATOMIC ABS-DIRECT
11-75	38	28	3.9		ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-75	39	29	0.5		ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-75	40	29	0.5		ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-75	41	26	10.8		ATOMIC ABS-DIRECT
11-75	42	38	30.4		EMISSION-ARC/SPARK
11-75	43	22	24.5		ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-75	44	27	7.4		ATOMIC ABS-DIRECT
11-75	45	35	20.1		EMISSION-FLAME

TOTAL RANGE	2.8	-	40			SAMPLE 50
MEAN	29.1513			AVERAGE DEVIATION	2.0385	
STANDARD DEVIATION	3.0426			95 PCT.CONF.INTVL OF MEAN	29.1513 +OR- 1.0752	NA



SAMPLE NO. 50



DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	2	14	18.9	OTHER <i>in selective</i>
11-75	3	12	1.9	EMISSION-FLAME
11-75	4	10	15.0	ATOMIC ABS-DIRECT
11-75	5	12	1.9	ATOMIC ABS-DIRECT
11-75	6	13	10.4	ATOMIC ABS-DIRECT
11-75	7	12	1.9	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	8	12	1.9	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	9	11	6.5	EMISSION-FLAME
11-75	11	12	1.9	ATOMIC ABS-DIRECT
11-75	12	9.2	21.8	ATOMIC ABS-DIRECT
11-75	13	12	1.9	EMISSION-FLAME
11-75	14	12	1.9	EMISSION-FLAME
11-75	15			NOT DETERMINED
11-75	16	10	15.0	ATOMIC ABS-DIRECT
11-75	17	11	6.5	EMISSION-FLAME
11-75	18	16	35.9	REJECT ATOMIC ABS-DIRECT
11-75	19	12	1.9	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	20	12	1.9	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	21	11	6.5	OTHER <i>emission flame</i>
11-75	22			NOT DETERMINED
11-75	23	12	1.9	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	24			NOT DETERMINED
11-75	25	20	69.9	REJECT ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	27	12	1.9	ATOMIC ABS-DIRECT
11-75	28	11	6.5	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	29			NOT DETERMINED
11-75	30	12	1.9	ATOMIC ABS-DIRECT
11-75	31	11	6.5	EMISSION-FLAME
11-75	32	12	1.9	ATOMIC ABS-DIRECT
12-75	33			NOT DETERMINED
11-75	34	12	1.9	EMISSION-ARC/SPARK
11-75	35	12	1.9	EMISSION-FLAME
11-75	37	11	6.5	ATOMIC ABS-DIRECT
11-75	38	12	1.9	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	39	12	1.9	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	40	12	1.9	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	41	11	6.5	ATOMIC ABS-DIRECT
11-75	42	12	1.9	ATOMIC ABS-DIRECT
11-75	43	12	1.9	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	44	13	10.4	ATOMIC ABS-DIRECT
11-75	45	14	18.9	EMISSION-FLAME

TOTAL RANGE	9.2	-	20			SAMPLE 50
MEAN	11.7705			AVERAGE DEVIATION	0.6769	
STANDARD DEVIATION	0.9700			95 PCT.CONF.INTVL OF MEAN	11.7705 +OR- 0.3377	K

K

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	2	28	21.6	ELECTROMETRIC TITRATION, USGS TWRI BK5 CH A1
11-75	3	24	4.2	AUTOMATED ELECTROMETRIC TITRATION
11-75	4	24	4.2	INDICATOR, APHA STD METH, 13ED, 1971
11-75	5	21	8.8	ELECTROMETRIC TITRATION, USGS TWRI BK5 CH A1
11-75	6			NOT DETERMINED
11-75	7	26	12.9	AUTOMATED ELECTROMETRIC TITRATION
11-75	8	29	25.9	ELECTROMETRIC TITRATION, USGS TWRI BK5 CH A1
11-75	9			NOT DETERMINED
11-75	11	18	21.8	INDICATOR, APHA STD METH, 13ED, 1971
11-75	12			NOT DETERMINED
11-75	13	22	4.5	ELECTROMETRIC TITRATION, USGS TWRI BK5 CH A1
11-75	14	21	8.8	POTENTIOMETRIC, APHA STD METH, 13ED, 1971
11-75	15			NOT DETERMINED
11-75	16	20	13.2	POTENTIOMETRIC, APHA STD METH, 13ED, 1971
11-75	17	23	0.1	ELECTROMETRIC TITRATION, USGS TWRI BK5 CH A1
11-75	18	32	38.9	INDICATOR, APHA STD METH, 13ED, 1971
11-75	19	24	4.2	ELECTROMETRIC TITRATION, USGS TWRI BK5 CH A1
11-75	20	24	4.2	OTHER - CLARIFIED
11-75	21	24	4.2	ELECTROMETRIC TITRATION, USGS TWRI BK5 CH A1
11-75	22	26	12.9	INDICATOR, APHA STD METH, 13ED, 1971
11-75	23	22	4.5	AUTOMATED ELECTROMETRIC TITRATION
11-75	24			NOT DETERMINED
11-75	25	18	21.8	POTENTIOMETRIC, APHA STD METH, 13ED, 1971
11-75	27	22	4.5	INDICATOR, APHA STD METH, 13ED, 1971
11-75	28	23	0.1	AUTOMATED ELECTROMETRIC TITRATION
11-75	29	24	4.2	ELECTROMETRIC TITRATION, USGS TWRI BK5 CH A1
11-75	30	27	17.2	INDICATOR, APHA STD METH, 13ED, 1971
11-75	31	24	4.2	POTENTIOMETRIC, APHA STD METH, 13ED, 1971
11-75	32	12	47.9	ELECTROMETRIC TITRATION, USGS TWRI BK5 CH A1
12-75	33	20	13.2	INDICATOR, APHA STD METH, 13ED, 1971
11-75	34	20	13.2	POTENTIOMETRIC, APHA STD METH, 13ED, 1971
11-75	35	24	4.2	INDICATOR, APHA STD METH, 13ED, 1971
11-75	37			NOT DETERMINED
11-75	38	25	8.6	AUTOMATED ELECTROMETRIC TITRATION
11-75	39	27	17.2	INDICATOR, APHA STD METH, 13ED, 1971
11-75	40	24	4.2	ELECTROMETRIC TITRATION, USGS TWRI BK5 CH A1
11-75	41			NOT DETERMINED
11-75	42			NOT DETERMINED
11-75	43	24	4.2	INDICATOR, APHA STD METH, 13ED, 1971
11-75	44	26	12.9	INDICATOR, APHA STD METH, 13ED, 1971
11-75	45	12	47.9	INDICATOR, APHA STD METH, 13ED, 1971

TOTAL RANGE 12 - 32  
MEAN 23.0301  
STANDARD DEVIATION 4.1268

AVERAGE DEVIATION 2.9348  
95 PCT.CONF.INTVL OF MEAN 23.0301 +OR- 1.4583

SAMPLE 50

HC03

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	2	95	3.5	TURBIDIMETRIC
11-75	3	98	0.4	OTHER - <i>not given</i>
11-75	4			NOT DETERMINED
11-75	5	100	1.6	VOLUMETRIC THORIN, USGS TWRI BK5 CH A1
11-75	6			NOT DETERMINED
11-75	7	96	2.5	TECHNICON AUTOANALYZER, METHYL THYMOL BLUE
11-75	8	96	2.5	VOLUMETRIC THORIN, USGS TWRI BK5 CH A1
11-75	9	88	10.6	TURBIDIMETRIC
11-75	11	100	1.6	GRAVIMETRIC, APHA STD METH, 13ED, 1971
11-75	12	84	35.0	REJECT TECHNICON AUTOANALYZER, METHYL THYMOL BLUE
11-75	13	210	113.4	REJECT OTHER - <i>Indirect AA</i>
11-75	14	77	21.8	OTHER - <i>not given</i>
11-75	15			NOT DETERMINED
11-75	16	85	13.6	TURBIDIMETRIC
11-75	17	100	1.6	GRAVIMETRIC, APHA STD METH, 13ED, 1971
11-75	18	95	3.5	TURBIDIMETRIC
11-75	19	55	44.1	REJECT VOLUMETRIC THORIN, USGS TWRI BK5 CH A1
11-75	20	96	2.5	VOLUMETRIC THORIN, USGS TWRI BK5 CH A1
11-75	21	100	1.6	VOLUMETRIC THORIN, USGS TWRI BK5 CH A1
11-75	22			NOT DETERMINED
11-75	23	100	1.6	OTHER - <i>Thorn used</i>
11-75	24			NOT DETERMINED
11-75	25	110	11.8	TURBIDIMETRIC
11-75	27	100	1.6	TURBIDIMETRIC
11-75	28	99	0.6	TECHNICON AUTOANALYZER, METHYL THYMOL BLUE
11-75	29			NOT DETERMINED
11-75	30	99	0.6	TURBIDIMETRIC
11-75	31	180	82.9	REJECT TURBIDIMETRIC
11-75	32	110	11.8	TURBIDIMETRIC
12-75	33	110	11.8	TURBIDIMETRIC
11-75	34	110	11.8	TURBIDIMETRIC
11-75	35	98	0.4	GRAVIMETRIC, APHA STD METH, 13ED, 1971
11-75	37			NOT DETERMINED
11-75	38	96	2.5	TECHNICON AUTOANALYZER, METHYL THYMOL BLUE
11-75	39	100	1.6	TURBIDIMETRIC
11-75	40			NOT DETERMINED
11-75	41			NOT DETERMINED
11-75	42	100	1.6	TURBIDIMETRIC
11-75	43	96	2.5	GRAVIMETRIC, APHA STD METH, 13ED, 1971
11-75	44	110	11.8	VOLUMETRIC THORIN, USGS TWRI BK5 CH A1
11-75	45	92	6.5	OTHER - <i>not given</i>

TOTAL RANGE	55	-	210				SAMPLE 50
MEAN		98.4283		AVERAGE DEVIATION	5.1123		
STANDARD DEVIATION		7.5347		95 PCT.CONF.INTVL OF MEAN	98.4283 +OR-	2.9219	S04

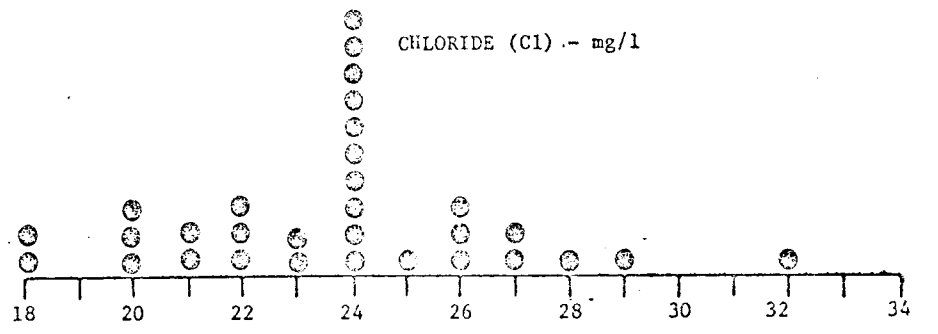
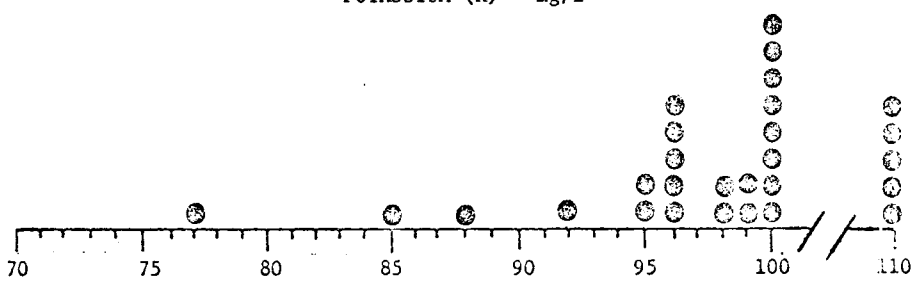
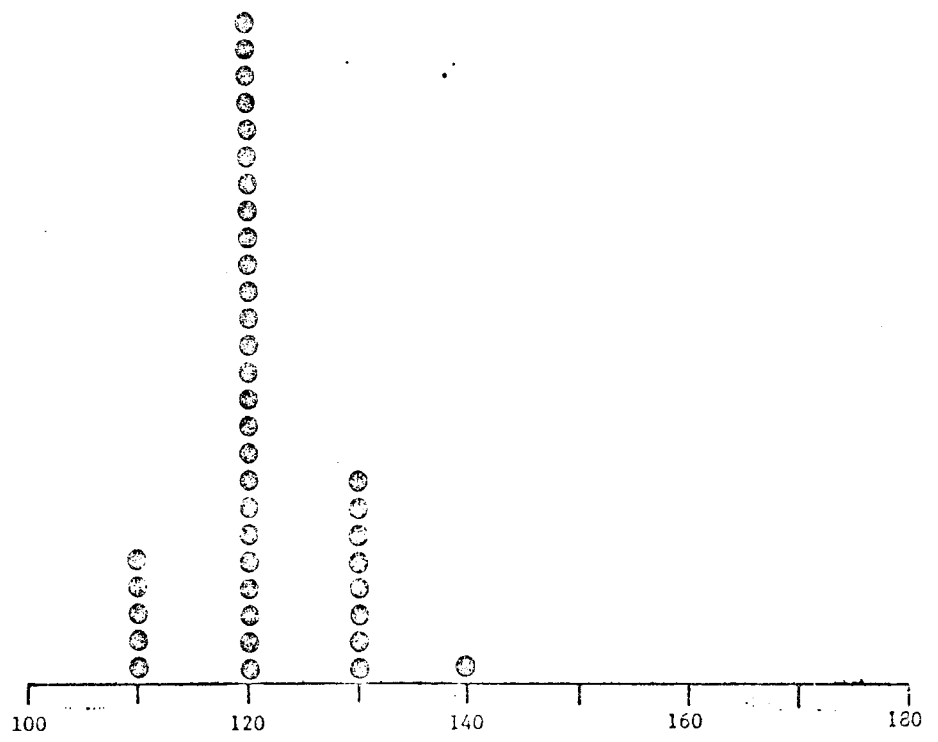
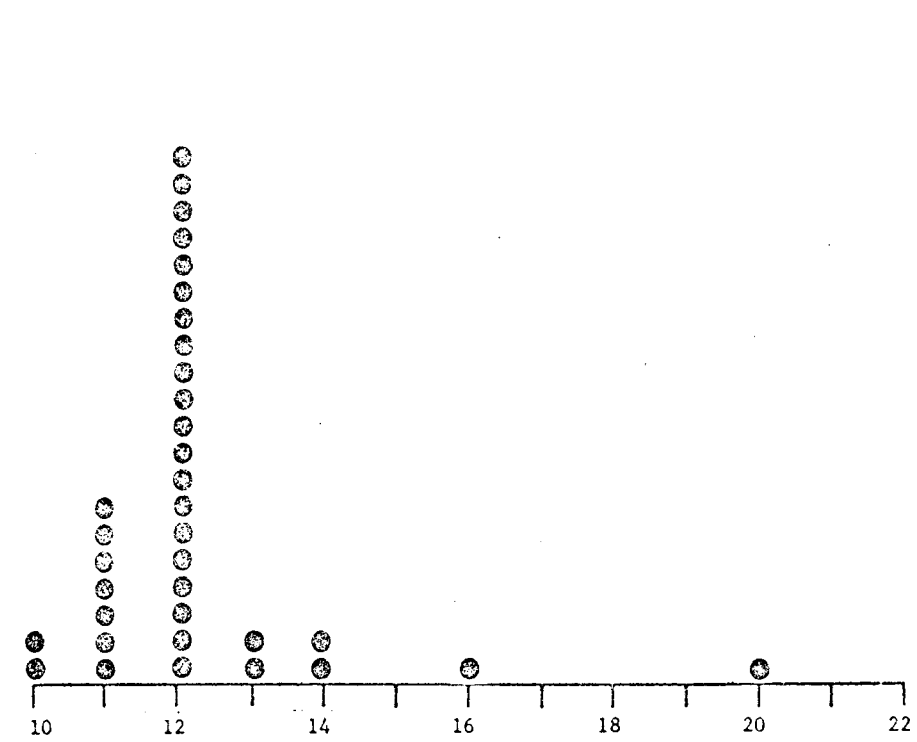
DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	2	130	7.2	MERCURIMETRIC, USGS TWRI BKS CH A1
11-75	3	120	1.1	ION-SELECTIVE ELECTRODE
11-75	4	110	9.3	TECHNICON AUTOANALYZER, MERCURIC THIOCYANATE
11-75	5	120	1.1	MERCURIC NITRATE, APHA STD METH, 13ED, 1971
11-75	6	130	7.2	ION-SELECTIVE ELECTRODE
11-75	7	130	7.2	TECHNICON AUTOANALYZER, MERCURIC THIOCYANATE
11-75	8	120	1.1	MERCURIMETRIC, USGS TWRI BKS CH A1
11-75	9	140	15.4	MOHR, USGS TWRI BKS CH A1
11-75	11	120	1.1	MERCURIC NITRATE, APHA STD METH, 13ED, 1971
11-75	12	120	1.1	TECHNICON AUTOANALYZER, MERCURIC THIOCYANATE
11-75	13	120	1.1	ION-SELECTIVE ELECTRODE
11-75	14	110	9.3	MERCURIC NITRATE, APHA STD METH, 13ED, 1971
11-75	15	120	1.1	MERCURIC NITRATE, APHA STD METH, 13ED, 1971
11-75	16	110	9.3	MERCURIC NITRATE, APHA STD METH, 13ED, 1971
11-75	17	120	1.1	MERCURIMETRIC, USGS TWRI BKS CH A1
11-75	18	120	1.1	MERCURIC NITRATE, APHA STD METH, 13ED, 1971
11-75	19	120	1.1	MERCURIMETRIC, USGS TWRI BKS CH A1
11-75	20	120	1.1	MOHR, USGS TWRI BKS CH A1
11-75	21	120	1.1	MOHR, USGS TWRI BKS CH A1
11-75	22			NOT DETERMINED
11-75	23	120	1.1	MOHR, USGS TWRI BKS CH A1
11-75	24	130	7.2	MOHR, USGS TWRI BKS CH A1
11-75	25	110	9.3	ION-SELECTIVE ELECTRODE
11-75	27	130	7.2	MERCURIC NITRATE, APHA STD METH, 13ED, 1971
11-75	28	130	7.2	TECHNICON AUTOANALYZER, MERCURIC THIOCYANATE
11-75	29	120	1.1	SILVER NITRATE, ASTM METHOD B, D512-67
11-75	30	120	1.1	OTHER - SMOKE
11-75	31	120	1.1	MERCURIC NITRATE, APHA STD METH, 13ED, 1971
11-75	32	120	1.1	MERCURIC NITRATE, APHA STD METH, 13ED, 1971
12-75	33	120	1.1	ARGONOMETRIC, APHA STD METH, 13ED, 1971
11-75	34	120	1.1	MERCURIC NITRATE, APHA STD METH, 13ED, 1971
11-75	35	130	7.2	ARGONOMETRIC, APHA STD METH, 13ED, 1971
11-75	37	120	1.1	ION-SELECTIVE ELECTRODE
11-75	38	120	1.1	TECHNICON AUTOANALYZER, MERCURIC THIOCYANATE
11-75	39	120	1.1	MOHR, USGS TWRI BKS CH A1
11-75	40	120	1.1	TECHNICON AUTOANALYZER, MERCURIC THIOCYANATE
11-75	41			NOT DETERMINED
11-75	42	120	1.1	MERCURIC NITRATE, APHA STD METH, 13ED, 1971
11-75	43	130	7.2	MOHR, USGS TWRI BKS CH A1
11-75	44	110	9.3	ARGONOMETRIC, APHA STD METH, 13ED, 1971
11-75	45	120	1.1	MERCURIC NITRATE, APHA STD METH, 13ED, 1971

TOTAL RANGE 110 - 140  
MEAN 121.2813  
STANDARD DEVIATION 6.5612

AVERAGE DEVIATION 4.5361  
95 PCT.CONF.INTVL OF MEAN 121.2813 ±0R-

2.1233

SAMPLE 50  
CL



SAMPLE NO. 50

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	2	2.1	1.0	MANUAL ION-SELECTIVE ELECTRODE
11-75	3	2.5	20.2	ION-SELECTIVE ELECTRODE, USGS TWRI BKS CH A1
11-75	4	2.0	3.8	MANUAL ION-SELECTIVE ELECTRODE
11-75	5	2.0	3.8	ION-SELECTIVE ELECTRODE, USGS TWRI BKS CH A1
11-75	6	1.8	13.5	MANUAL ION-SELECTIVE ELECTRODE
11-75	7	2.3	10.6	ZIRCONIUM-ERIOCHROME R, USGS TWRI BKS CH A1
11-75	8	2.7	29.8	ION-SELECTIVE ELECTRODE, USGS TWRI BKS CH A1
11-75	9	2.2	5.8	ION-SELECTIVE ELECTRODE, USGS TWRI BKS CH A1
11-75	11	2.1	1.0	ION-SELECTIVE ELECTRODE, USGS TWRI BKS CH A1
11-75	12			NOT DETERMINED
11-75	13	2.0	3.8	ION-SELECTIVE ELECTRODE, USGS TWRI BKS CH A1
11-75	14			NOT DETERMINED
11-75	15			NOT DETERMINED
11-75	16			NOT DETERMINED
11-75	17	3.1	49.0	REJECT SPADNS, APHA STD METH, 13ED, 1971
11-75	18	2.0	3.8	SPADNS, APHA STD METH, 13ED, 1971
11-75	19	2.0	3.8	ION-SELECTIVE ELECTRODE, USGS TWRI BKS CH A1
11-75	20	2.2	5.8	OTHER <del>ION-SELECTIVE</del> <sup>SPADNS</sup>
11-75	21	1.7	18.3	ZIRCONIUM-ERIOCHROME R, USGS TWRI BKS CH A1
11-75	22			NOT DETERMINED
11-75	23	2.0	3.8	MANUAL ION-SELECTIVE ELECTRODE
11-75	24			NOT DETERMINED
11-75	25	2.2	5.8	SPADNS, APHA STD METH, 13ED, 1971
11-75	27	2.2	5.8	ION-SELECTIVE ELECTRODE, USGS TWRI BKS CH A1
11-75	28	1.9	8.7	TECHNICON AUTOANALYZER, ION-SELECTIVE ELECTRODE
11-75	29			NOT DETERMINED
11-75	30	2.0	3.8	MANUAL ION-SELECTIVE ELECTRODE
11-75	31			NOT DETERMINED
11-75	32			NOT DETERMINED
12-75	33			NOT DETERMINED
11-75	34			NOT DETERMINED
11-75	35	2.5	20.2	ION-SELECTIVE ELECTRODE, USGS TWRI BKS CH A1
11-75	37			NOT DETERMINED
11-75	38	2.0	3.8	ZIRCONIUM-ERIOCHROME R, USGS TWRI BKS CH A1
11-75	39	2.1	1.0	OTHER <del>ION-SELECTIVE</del> <sup>SPADNS</sup>
11-75	40			NOT DETERMINED
11-75	41			NOT DETERMINED
11-75	42	1.9	8.7	ION-SELECTIVE ELECTRODE, USGS TWRI BKS CH A1
11-75	43	1.5	27.9	OTHER <del>ION-SELECTIVE</del> <sup>SPADNS</sup>
11-75	44	2.1	1.0	MANUAL ION-SELECTIVE ELECTRODE
11-75	45			NOT DETERMINED

TOTAL RANGE	1.5	-	3.1			SAMPLE 50
MEAN		2.0800		AVERAGE DEVIATION	0.1792	
STANDARD DEVIATION		0.2517		95 PCT.CONF.INTVL OF MEAN	2.0800 <OR>	0.1039 F

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN		METHOD
11-75	2	1.3	17.8		TECHNICON AUTOANALYZER, CADMIUM REDUCTION
11-75	3	0.9	18.5		PHENOLDISULFONIC ACID, APHA STD METH, 13ED, 1971
11-75	4	1.2	8.7		TECHNICON AUTOANALYZER, CADMIUM REDUCTION
11-75	5	1.0	9.4		BRUCINE, APHA STD METH, 13ED, 1971
11-75	6	1.1	0.3		TECHNICON AUTOANALYZER, CADMIUM REDUCTION
11-75	7	1.1	0.3		TECHNICON AUTOANALYZER, CADMIUM REDUCTION
11-75	8	1.1	0.3		BRUCINE, USGS TWRI, BKS CH A1
11-75	9	1.1	0.3		TECHNICON AUTOANALYZER, CADMIUM REDUCTION
11-75	11	1.2	8.7		BRUCINE, APHA STD METH, 13ED, 1971
11-75	12	1.1	0.3		TECHNICON AUTOANALYZER, CADMIUM REDUCTION
11-75	13	5.8	425.4	REJECT	PHENOLDISULFONIC ACID, APHA STD METH, 13ED, 1971
11-75	14	1.1	0.3		TECHNICON AUTOANALYZER, CADMIUM REDUCTION
11-75	15	1.2	8.7		MANUAL CADMIUM REDUCTION-DIAZOTIZATION
11-75	16	1.1	0.3		TECHNICON AUTOANALYZER, CADMIUM REDUCTION
11-75	17	0.7	36.6	REJECT	PHENOLDISULFONIC ACID, APHA STD METH, 13ED, 1971
11-75	18	0.6	45.6	REJECT	BRUCINE, APHA STD METH, 13ED, 1971
11-75	19	1.0	9.4		BRUCINE, USGS TWRI, BKS CH A1
11-75	20				NOT DETERMINED
11-75	21				NOT DETERMINED
11-75	22	1.1	0.3		TECHNICON AUTOANALYZER, CADMIUM REDUCTION
11-75	23				NOT DETERMINED
11-75	24				NOT DETERMINED
11-75	25	48	*****	REJECT	OTHER - <i>in solution</i>
11-75	27	1.3	17.8		BRUCINE, APHA STD METH, 13ED, 1971
11-75	28	1.0	9.4		TECHNICON AUTOANALYZER, CADMIUM REDUCTION
11-75	29	0.9	18.5		TECHNICON AUTOANALYZER, CADMIUM REDUCTION
11-75	30	1.0	9.4		OTHER <i>Brucine method</i>
11-75	31	1.0	9.4		BRUCINE, APHA STD METH, 13ED, 1971
11-75	32				NOT DETERMINED
12-75	33				NOT DETERMINED
11-75	34	1.3	17.8		BRUCINE, APHA STD METH, 13ED, 1971
11-75	35	3.7	235.2	REJECT	PHENOLDISULFONIC ACID, APHA STD METH, 13ED, 1971
11-75	37	1.1	0.3		OTHER <i>DCU 9043</i>
11-75	38	1.1	0.3		TECHNICON AUTOANALYZER, CADMIUM REDUCTION
11-75	39	1.0	9.4		PHENOLDISULFONIC ACID, APHA STD METH, 13ED, 1971
11-75	40	1.2	8.7		TECHNICON AUTOANALYZER, CADMIUM REDUCTION
11-75	41				NOT DETERMINED
11-75	42	1.2	8.7		TECHNICON AUTOANALYZER, CADMIUM REDUCTION
11-75	43	5.0	353.0	REJECT	PHENOLDISULFONIC ACID, APHA STD METH, 13ED, 1971
11-75	44				NOT DETERMINED
11-75	45	1.8	63.1	REJECT	PHENOLDISULFONIC ACID, APHA STD METH, 13ED, 1971

TOTAL RANGE 0.6 - 48  
MEAN 1.1038  
STANDARD DEVIATION 0.1113

AVERAGE DEVIATION 0.0822  
95 PCT.CONF.INTVL OF MEAN 1.1038 ±CR-

0.0822  
1.1038 ±CR- 0.0450  
SAMPLE 50  
N03-N

102-N

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	2	522	21.7	RESIDUE-ON-EVAPORATION, ASTM METHOD R, D1888-67
11-75	3	417	2.8	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
11-75	4	370	13.7	RESIDUE-FILTERABLE, APHA STD METH, 13ED, 1971
11-75	5			NOT DETERMINED
11-75	6			NOT DETERMINED
11-75	7	436	1.7	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
11-75	8	416	3.0	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
11-75	9	408	4.9	RESIDUE-FILTERABLE, APHA STD METH, 13ED, 1971
11-75	11	379	11.6	RESIDUE-FILTERABLE, APHA STD METH, 13ED, 1971
11-75	12			NOT DETERMINED
11-75	13	484	12.8	RESIDUE-ON-EVAPORATION, ASTM METHOD R, D1888-67
11-75	14	495	15.4	RESIDUE-FILTERABLE, APHA STD METH, 13ED, 1971
11-75	15	471	9.8	RESIDUE-FILTERABLE, APHA STD METH, 13ED, 1971
11-75	16	400	6.7	RESIDUE-FILTERABLE, APHA STD METH, 13ED, 1971
11-75	17	482	12.4	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
11-75	18	420	2.1	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
11-75	19	441	2.8	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
11-75	20	414	3.5	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
11-75	21	370	13.7	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
11-75	22	426	0.7	RESIDUE-FILTERABLE, APHA STD METH, 13ED, 1971
11-75	23			NOT DETERMINED
11-75	24			NOT DETERMINED
11-75	25	476	11.0	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
11-75	27	415	3.2	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
11-75	28	424	1.1	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
11-75	29			NOT DETERMINED
11-75	30	390	9.1	RESIDUE-FILTERABLE, APHA STD METH, 13ED, 1971
11-75	31	431	0.5	RESIDUE-FILTERABLE, APHA STD METH, 13ED, 1971
11-75	32	432	0.7	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
12-75	33	472	10.0	RESIDUE-FILTERABLE, APHA STD METH, 13ED, 1971
11-75	34			NOT DETERMINED
11-75	35	444	3.5	RESIDUE-FILTERABLE, APHA STD METH, 13ED, 1971
11-75	37	338	21.2	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
11-75	38			NOT DETERMINED
11-75	39	400	6.7	RESIDUE-FILTERABLE, APHA STD METH, 13ED, 1971
11-75	40			NOT DETERMINED
11-75	41			NOT DETERMINED
11-75	42	483	12.6	RESIDUE-FILTERABLE, APHA STD METH, 13ED, 1971
11-75	43	360	16.1	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
11-75	44	42	90.2	REJECT RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
11-75	45	451	5.2	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1

TOTAL RANGE	42	-	522	SAMPLE 50		
MEAN		428.8972	AVERAGE DEVIATION	34.3598		
STANDARD DEVIATION		43.7424	95 PCT.CONF.INTVL OF MEAN	428.8972	+OR-	16.3318 DSRD180



DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	2	650	1.5	DIRECT READING INSTRUMENT
11-75	3	684	3.6	WHEATSTONE BRIDGE
11-75	4	625	5.3	DIRECT READING INSTRUMENT
11-75	5	680	3.0	DIRECT READING INSTRUMENT, USGS TWRI BK5 CH A1
11-75	6	663	0.5	DIRECT READING INSTRUMENT
11-75	7	685	3.8	DIRECT READING INSTRUMENT
11-75	8	620	6.1	DIRECT READING INSTRUMENT, USGS TWRI BK5 CH A1
11-75	9	630	4.5	WHEATSTONE BRIDGE
11-75	11	659	0.1	WHEATSTONE BRIDGE
11-75	12			NOT DETERMINED
11-75	13	566	14.2	DIRECT READING INSTRUMENT
11-75	14	690	4.6	WHEATSTONE BRIDGE
11-75	15	676	2.4	WHEATSTONE BRIDGE
11-75	16	650	1.5	WHEATSTONE BRIDGE
11-75	17	670	1.5	WHEATSTONE BRIDGE, USGS TWRI BK5 CH A1
11-75	18	633	4.1	WHEATSTONE BRIDGE
11-75	19	678	2.7	DIRECT READING INSTRUMENT, USGS TWRI BK5 CH A1
11-75	20	689	4.4	WHEATSTONE BRIDGE, USGS TWRI BK5 CH A1
11-75	21	692	4.9	WHEATSTONE BRIDGE, USGS TWRI BK5 CH A1
11-75	22			NOT DETERMINED
11-75	23	695	5.3	DIRECT READING INSTRUMENT, USGS TWRI BK5 CH A1
11-75	24	674	2.1	DIRECT READING INSTRUMENT, USGS TWRI BK5 CH A1
11-75	25	700	6.1	DIRECT READING INSTRUMENT, USGS TWRI BK5 CH A1
11-75	27	695	5.3	DIRECT READING INSTRUMENT
11-75	28	581	12.0	DIRECT READING INSTRUMENT
11-75	29	675	2.3	DIRECT READING INSTRUMENT
11-75	30	670	1.5	DIRECT READING INSTRUMENT
11-75	31	608	7.9	DIRECT READING INSTRUMENT
11-75	32	657	0.4	DIRECT READING INSTRUMENT
12-75	33			NOT DETERMINED
11-75	34	626	5.1	DIRECT READING INSTRUMENT
11-75	35	680	3.0	WHEATSTONE BRIDGE
11-75	37	620	6.1	DIRECT READING INSTRUMENT
11-75	38	678	2.7	DIRECT READING INSTRUMENT, USGS TWRI BK5 CH A1
11-75	39	730	10.6	WHEATSTONE BRIDGE, USGS TWRI BK5 CH A1
11-75	40	681	3.2	WHEATSTONE BRIDGE, USGS TWRI BK5 CH A1
11-75	41			NOT DETERMINED
11-75	42	660	0.0	DIRECT READING INSTRUMENT, USGS TWRI BK5 CH A1
11-75	43			NOT DETERMINED
11-75	44	628	4.8	DIRECT READING INSTRUMENT
11-75	45	660	0.0	DIRECT READING INSTRUMENT

TOTAL RANGE 566 - 730

MEAN 659.9412

STANDARD DEVIATION 34.8663

AVERAGE DEVIATION

95 PCT.CONF.INTVL OF MEAN

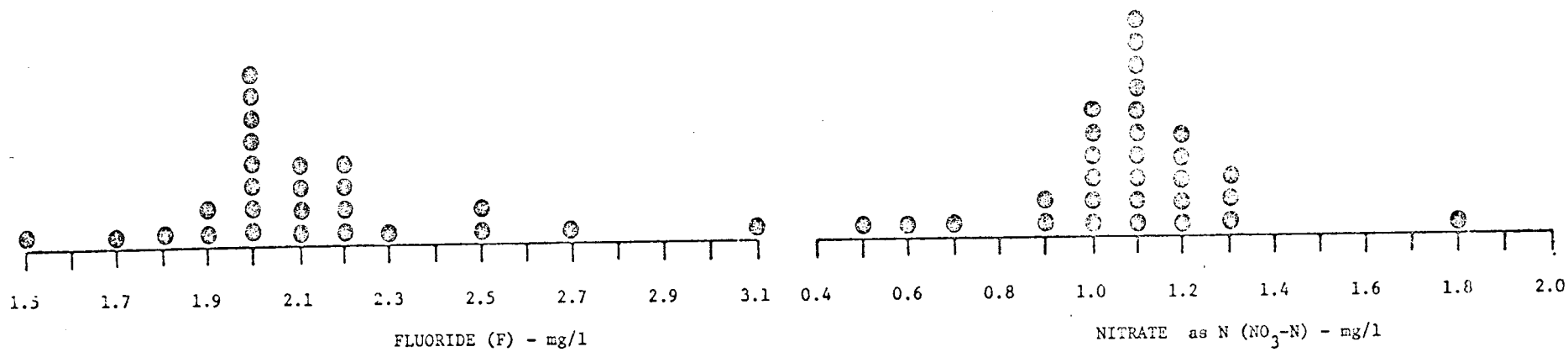
27.0130

659.9412 +OR-

11.7085

SAMPLE 50

SP.COND



DISSOLVED SOLIDS - mg/l  
 No Graphical presentation  
 due to scatter of data

SPECIFIC CONDUCTANCE - micromhos/cm at 25°C  
 No Graphical presentation  
 due to scatter of data

SAMPLE NO. 59

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	2	7.2	3.0	ELECTROMETRIC
11-75	3	7.5	1.0	ELECTROMETRIC
11-75	4	7.7	3.7	ELECTROMETRIC
11-75	5	7.4	0.3	ELECTROMETRIC
11-75	6	6.9	7.0	ELECTROMETRIC
11-75	7	7.2	3.0	ELECTROMETRIC, USGS TWRI BKS CH A1
11-75	8	7.2	3.0	ELECTROMETRIC, USGS TWRI BKS CH A1
11-75	9	7.0	5.7	ELECTROMETRIC
11-75	11	7.3	1.7	ELECTROMETRIC
11-75	12	7.7	3.7	ELECTROMETRIC
11-75	13	7.9	6.4	ELECTROMETRIC
11-75	14	7.5	1.0	ELECTROMETRIC
11-75	15	7.0	5.7	ELECTROMETRIC
11-75	16	7.7	3.7	ELECTROMETRIC
11-75	17	7.6	2.4	ELECTROMETRIC, USGS TWRI BKS CH A1
11-75	18	7.4	0.3	ELECTROMETRIC
11-75	19	7.6	2.4	ELECTROMETRIC, USGS TWRI BKS CH A1
11-75	20	7.5	1.0	ELECTROMETRIC, USGS TWRI BKS CH A1
11-75	21	7.7	3.7	ELECTROMETRIC, USGS TWRI BKS CH A1
11-75	22	7.4	0.3	ELECTROMETRIC
11-75	23	7.5	1.0	ELECTROMETRIC, USGS TWRI BKS CH A1
11-75	24	7.5	1.0	ELECTROMETRIC, USGS TWRI BKS CH A1
11-75	25	7.3	1.7	ELECTROMETRIC, USGS TWRI BKS CH A1
11-75	27	7.4	0.3	ELECTROMETRIC
11-75	28	7.7	3.7	ELECTROMETRIC
11-75	29	7.4	0.3	ELECTROMETRIC, USGS TWRI BKS CH A1
11-75	30	7.6	2.4	ELECTROMETRIC
11-75	31	7.4	0.3	ELECTROMETRIC
11-75	32	7.6	2.4	ELECTROMETRIC
12-75	33	7.4	0.3	ELECTROMETRIC
11-75	34	7.5	1.0	ELECTROMETRIC
11-75	35	7.3	1.7	ELECTROMETRIC
11-75	37	7.3	1.7	ELECTROMETRIC
11-75	38	7.5	1.0	ELECTROMETRIC, USGS TWRI BKS CH A1
11-75	39	7.4	0.3	ELECTROMETRIC
11-75	40	7.3	1.7	ELECTROMETRIC, USGS TWRI BKS CH A1
11-75	41			NOT DETERMINED
11-75	42	7.4	0.3	ELECTROMETRIC
11-75	43	7.3	1.7	ELECTROMETRIC, USGS TWRI BKS CH A1
11-75	44	7.0	5.7	ELECTROMETRIC
11-75	45	7.7	3.7	ELECTROMETRIC

TOTAL RANGE	6.9	-	7.9			SAMPLE 50
MEAN		7.4225		AVERAGE DEVIATION	0.1697	
STANDARD DEVIATION		0.2213		95 PCT.CONF.INTVL OF MEAN	7.4225 +OR- 0.0707	PH

PH

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	2			NOT DETERMINED
11-75	3	420	84.5	CARMINE, USGS BK5 CH A1
11-75	4			NOT DETERMINED
11-75	5	50	78.0	CARMINE, USGS BK5 CH A1
11-75	6			NOT DETERMINED
11-75	7	220	3.4	CARMINE, USGS BK5 CH A1
11-75	8			NOT DETERMINED
11-75	9			NOT DETERMINED
11-75	11			NOT DETERMINED
11-75	12			NOT DETERMINED
11-75	13			NOT DETERMINED
11-75	14			NOT DETERMINED
11-75	15			NOT DETERMINED
11-75	16	340	49.3	CURCUMIN, APHA STD METH, 13ED, 1971
11-75	17	140	38.5	CARMINE, USGS BK5 CH A1
11-75	18	250	9.8	DIANTHRIMIDE, USGS BK5 CH A1
11-75	19	280	23.0	DIANTHRIMIDE, USGS BK5 CH A1
11-75	20			NOT DETERMINED
11-75	21			NOT DETERMINED
11-75	22			NOT DETERMINED
11-75	23	210	7.8	DIANTHRIMIDE, USGS BK5 CH A1
11-75	24			NOT DETERMINED
11-75	25			NOT DETERMINED
11-75	27			NOT DETERMINED
11-75	28	200	12.2	DIANTHRIMIDE, USGS BK5 CH A1
11-75	29			NOT DETERMINED
11-75	30			NOT DETERMINED
11-75	31			NOT DETERMINED
11-75	32			NOT DETERMINED
12-75	33			NOT DETERMINED
11-75	34			NOT DETERMINED
11-75	35			NOT DETERMINED
11-75	37	210	7.8	OTHER <i>azomethine H</i>
11-75	38	170	25.3	DIANTHRIMIDE, USGS BK5 CH A1
11-75	39	300	31.8	CURCUMIN, APHA STD METH, 13ED, 1971
11-75	40			NOT DETERMINED
11-75	41			NOT DETERMINED
11-75	42			NOT DETERMINED
11-75	43			NOT DETERMINED
11-75	44			NOT DETERMINED
11-75	45	170	25.3	CARMINE, USGS BK5 CH A1

TOTAL RANGE	50	-	420	AVERAGE DEVIATION	69.4672	SAMPLE 50
MEAN		227.6921		95 PCT.CONF.INTVL OF MEAN	227.6921 +OR-	56.6471
STANDARD DEVIATION		93.7329				B

B

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	2			NOT DETERMINED
11-75	3			NOT DETERMINED
11-75	4			NOT DETERMINED
11-75	5	540	19.0	ATOMIC ABS-DIRECT
11-75	6			NOT DETERMINED
11-75	7	680	1.9	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	8			NOT DETERMINED
11-75	9			NOT DETERMINED
11-75	11			NOT DETERMINED
11-75	12			NOT DETERMINED
11-75	13	680	1.9	ATOMIC ABS-DIRECT
11-75	14			NOT DETERMINED
11-75	15			NOT DETERMINED
11-75	16	750	12.4	ATOMIC ABS-DIRECT
11-75	17			NOT DETERMINED
11-75	18			NOT DETERMINED
11-75	19	840	25.9	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	20			NOT DETERMINED
11-75	21			NOT DETERMINED
11-75	22			NOT DETERMINED
11-75	23			NOT DETERMINED
11-75	24			NOT DETERMINED
11-75	25	670	0.5	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	27			NOT DETERMINED
11-75	28	640	4.0	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	29			NOT DETERMINED
11-75	30			NOT DETERMINED
11-75	31			NOT DETERMINED
11-75	32			NOT DETERMINED
12-75	33			NOT DETERMINED
11-75	34			NOT DETERMINED
11-75	35			NOT DETERMINED
11-75	37	640	4.0	ATOMIC ABS-DIRECT
11-75	38	590	11.5	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	39			NOT DETERMINED
11-75	40	640	4.0	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	41			NOT DETERMINED
11-75	42			NOT DETERMINED
11-75	43			NOT DETERMINED
11-75	44			NOT DETERMINED
11-75	45			NOT DETERMINED

TOTAL RANGE	540	-	840			SAMPLE 50
MEAN		666.9980		AVERAGE DEVIATION	57.0000	
STANDARD DEVIATION		82.6034		95 PCT.CONF.INTVL OF MEAN	666.9980	•OR- 59.0868 SR



DETERMINATION	NO. LABS REPORTING	PCT. OF VALUES REJECTED	PCT. OF UNREJECTED VALUES WITHIN		
			95 PCT. CI	X +OR- STD	X +OR- 2STD
SI02	21	10	42	74	95
CA	37	8	35	74	91
MG	36	6	56	71	97
NA	36	8	39	73	94
K	36	6	59	79	91
HC03	33	0	45	79	91
SO4	32	13	61	71	96
CL	39	0	64	64	97
F	26	4	48	76	92
NO3-N	33	21	38	81	100
DSRD180	31	3	40	63	93
SP.COND	36	0	25	72	92
PH	40	0	23	65	95
B	13	0	46	77	92
SR	10	0	60	70	90

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	2	9.0	15.4	MOLYBDOSILICATE, APHA STD METH, 13ED, 1971
11-75	3	8.3	22.0	MOLYBDATE BLUE, USGS TWRI BK5 CH A1
11-75	4			NOT DETERMINED
11-75	5	9.9	7.0	ATOMIC ABS-DIRECT
11-75	6			NOT DETERMINED
11-75	7	11	3.4	TECHNICON AUTOANALYZER, MOLYBDOSILICATE
11-75	8	11	3.4	MOLYBDATE BLUE, USGS TWRI BK5 CH A1
11-75	9			NOT DETERMINED
11-75	11			NOT DETERMINED
11-75	12	11	3.4	TECHNICON AUTOANALYZER, MOLYBDOSILICATE
11-75	13	10	6.0	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-75	14			NOT DETERMINED
11-75	15			NOT DETERMINED
11-75	16	11	3.4	TECHNICON AUTOANALYZER, MOLYBDOSILICATE
11-75	17	11	3.4	MOLYBDATE BLUE, USGS TWRI BK5 CH A1
11-75	18			NOT DETERMINED
11-75	19	12	12.8	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-75	20	12	12.8	MOLYBDATE BLUE, USGS TWRI BK5 CH A1
11-75	21	10	6.0	MOLYBDATE BLUE, USGS TWRI BK5 CH A1
11-75	22			NOT DETERMINED
11-75	23	11	3.4	MOLYBDATE BLUE, USGS TWRI BK5 CH A1
11-75	24			NOT DETERMINED
11-75	25	12	12.8	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-75	27			NOT DETERMINED
11-75	28	9.6	9.8	TECHNICON AUTOANALYZER, MOLYBDOSILICATE
11-75	29	10	6.0	TECHNICON AUTOANALYZER, MOLYBDOSILICATE
11-75	30			NOT DETERMINED
11-75	31			NOT DETERMINED
11-75	32			NOT DETERMINED
12-75	33			NOT DETERMINED
11-75	34			NOT DETERMINED
11-75	35	11	3.4	ATOMIC ABS-DIRECT
11-75	37			NOT DETERMINED
11-75	38	11	3.4	TECHNICON AUTOANALYZER, MOLYBDOSILICATE
11-75	39	12	12.8	OTHER
11-75	40			NOT DETERMINED
11-75	41			NOT DETERMINED
11-75	42			NOT DETERMINED
11-75	43	15	41.0	REJECT MOLYBDOSILICATE, APHA STD METH, 13ED, 1971
11-75	44			NOT DETERMINED
11-75	45	10	6.0	MOLYBDOSILICATE, APHA STD METH, 13ED, 1971

TOTAL RANGE	8.3	-	15			SAMPLE 51
MEAN		10.6400		AVERAGE DEVIATION	0.8320	
STANDARD DEVIATION		1.0226		95 PCT.CONF.INTVL OF MEAN	10.6400 +OR- 0.4786	SI02

M-51

SiO<sub>2</sub>



DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	2	27	8.5	EDTA TITRIMETRIC, APHA STD METH, 13ED, 1971
11-75	3	25	0.5	EDTA TITRIMETRIC, APHA STD METH, 13ED, 1971
11-75	4	29	16.5	ATOMIC ABS-DIRECT
11-75	5	25	0.5	EDTA TITRIMETRIC, APHA STD METH, 13ED, 1971
11-75	6	24	3.5	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-75	7	25	0.5	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-75	8	26	4.5	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-75	9	18	27.7	ATOMIC ABS-DIRECT
11-75	11	22	11.6	ATOMIC ABS-DIRECT
11-75	12	27	8.5	ATOMIC ABS-DIRECT
11-75	13	26	4.5	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-75	14	24	3.5	ATOMIC ABS-DIRECT
11-75	15			NOT DETERMINED
11-75	16	25	0.5	ATOMIC ABS-DIRECT
11-75	17	24	3.5	ATOMIC ABS-DIRECT
11-75	18	25	0.5	ATOMIC ABS-DIRECT
11-75	19	26	4.5	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-75	20	23	7.6	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-75	21	26	4.5	COMPLEXOMETRIC, USGS TWRI BK5 CH A1
11-75	22	19	23.6	ATOMIC ABS-DIRECT
11-75	23	25	0.5	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-75	24			NOT DETERMINED
11-75	25	36	44.7	REJECT ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-75	27	23	7.6	ATOMIC ABS-DIRECT
11-75	28	26	4.5	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-75	29			NOT DETERMINED
11-75	30	25	0.5	EMISSION-FLAME
11-75	31	24	3.5	EDTA TITRIMETRIC, APHA STD METH, 13ED, 1971
11-75	32	26	4.5	ATOMIC ABS-DIRECT
12-75	33			NOT DETERMINED
11-75	34	18	27.7	ATOMIC ABS-DIRECT
11-75	35	28	12.5	EDTA TITRIMETRIC, APHA STD METH, 13ED, 1971
11-75	37	28	12.5	ATOMIC ABS-DIRECT
11-75	38	26	4.5	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-75	39	11	55.8	REJECT EDTA TITRIMETRIC, APHA STD METH, 13ED, 1971
11-75	40	26	4.5	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-75	41	25	0.5	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-75	42	27	8.5	ATOMIC ABS-DIRECT
11-75	43	25	0.5	COMPLEXOMETRIC, USGS TWRI BK5 CH A1
11-75	44	28	12.5	ATOMIC ABS-DIRECT
11-75	45	53	113.0	REJECT EDTA TITRIMETRIC, APHA STD METH, 13ED, 1971

TOTAL RANGE	11	-	53		SAMPLE 51
MEAN		24.8622		AVERAGE DEVIATION	1.7544
STANDARD DEVIATION		2.5674		95 PCT.CONF.INTVL OF MEAN	24.8622 +OR- 0.8938 CA

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN		METHOD
11-75	2	7.0	5.2		TITRIMETRIC-EDTA, ASTM METHOD B, D1126-67
11-75	3	6.7	0.7		CALCULATION, USGS TWRI BKS CH A1
11-75	4	6.2	6.8		ATOMIC ABS-DIRECT
11-75	5	6.2	6.8		TITRIMETRIC-EDTA, ASTM METHOD B, D1126-67
11-75	6	6.8	2.2		ATOMIC ABS-DIRECT
11-75	7	7.0	5.2		ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	8	7.4	11.3		ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	9	10	50.3	REJECT	ATOMIC ABS-DIRECT
11-75	11	6.3	5.3		ATOMIC ABS-DIRECT
11-75	12	7.2	8.2		ATOMIC ABS-DIRECT
11-75	13	6.4	3.8		ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	14	6.0	9.8		ATOMIC ABS-DIRECT
11-75	15			NOT DETERMINED	
11-75	16	5.9	11.3		ATOMIC ABS-DIRECT
11-75	17	5.9	11.3		ATOMIC ABS-DIRECT
11-75	18	7.0	5.2		ATOMIC ABS-DIRECT
11-75	19	6.6	0.8		ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	20	6.9	3.7		ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	21	6.0	9.8		CALCULATION, USGS TWRI BKS CH A1
11-75	22			NOT DETERMINED	
11-75	23	6.5	2.3		ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	24			NOT DETERMINED	
11-75	25	7.1	6.7		ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	27	7.2	8.2		ATOMIC ABS-DIRECT
11-75	28	6.1	8.3		ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	29			NOT DETERMINED	
11-75	30	7.0	5.2		ATOMIC ABS-DIRECT
11-75	31	4.9	26.3	REJECT	CALCULATION, USGS TWRI BKS CH A1
11-75	32	6.6	0.8		ATOMIC ABS-DIRECT
12-75	33			NOT DETERMINED	
11-75	34	11	65.4	REJECT	ATOMIC ABS-DIRECT
11-75	35	6.1	8.3		TITRIMETRIC-EDTA, ASTM METHOD B, D1126-67
11-75	37	6.3	5.3		ATOMIC ABS-DIRECT
11-75	38	6.7	0.7		ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	39	18	140.5	REJECT	CALCULATION, USGS TWRI BKS CH A1
11-75	40	6.4	3.8		ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	41	7.9	18.6		ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	42	6.9	3.7		ATOMIC ABS-DIRECT
11-75	43	7.0	5.2		CALCULATION, USGS TWRI BKS CH A1
11-75	44	6.9	3.7		ATOMIC ABS-DIRECT
11-75	45	13	95.4	REJECT	TITRIMETRIC-EDTA, ASTM METHOD B, D1126-67

TOTAL RANGE

4.9

-

16

MEAN

6.6516

AVERAGE DEVIATION

0.4048

SAMPLE 51

STANDARD DEVIATION

0.4878

95 PCT.CONF.INTVL OF MEAN

6.6516 +OR-

0.1789

MG

45

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN		METHOD
11-75	2	2.0	91.5	REJECT	OTHER
11-75	3	22	6.5		EMISSION-FLAME
11-75	4	23	2.2		ATOMIC ABS-DIRECT
11-75	5	20	15.0		ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	6	24	2.0		ATOMIC ABS-DIRECT
11-75	7	23	2.2		ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	8	24	2.0		ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	9	18	23.5		ATOMIC ABS-DIRECT
11-75	11	22	6.5		ATOMIC ABS-DIRECT
11-75	12	25	6.3		ATOMIC ABS-DIRECT
11-75	13	21	10.7		EMISSION-FLAME
11-75	14	21	10.7		EMISSION-FLAME
11-75	15			NOT DETERMINED	
11-75	16	29	23.3		ATOMIC ABS-DIRECT
11-75	17	24	2.0		EMISSION-FLAME
11-75	18	30	27.5		ATOMIC ABS-DIRECT
11-75	19	23	2.2		ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	20	27	14.8		ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	21	22	6.5		OTHER
11-75	22			NOT DETERMINED	
11-75	23	24	2.0		ATOMIC ABS-DIRECT
11-75	24			NOT DETERMINED	
11-75	25	43	82.8	REJECT	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	27	22	6.5		ATOMIC ABS-DIRECT
11-75	28	23	2.2		ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	29			NOT DETERMINED	
11-75	30	29	23.3		ATOMIC ABS-DIRECT
11-75	31	25	6.3		EMISSION-FLAME
11-75	32	23	2.2		ATOMIC ABS-DIRECT
12-75	33			NOT DETERMINED	
11-75	34	24	2.0		EMISSION-ARC/SPARK
11-75	35	25	6.3		EMISSION-FLAME
11-75	37	23	2.2		ATOMIC ABS-DIRECT
11-75	38	23	2.2		ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	39	23	2.2		ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	40	23	2.2		ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	41	22	6.5		ATOMIC ABS-DIRECT
11-75	42	26	10.5		EMISSION-ARC/SPARK
11-75	43	17	27.7		ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	44	22	6.5		ATOMIC ABS-DIRECT
11-75	45	28	19.0		EMISSION-FLAME

TOTAL RANGE	2.0	-	43			SAMPLE 51
MEAN		23.5292		AVERAGE DEVIATION	2.0346	
STANDARD DEVIATION		2.8202		95 PCT.CONF.INTVL OF MEAN	23.5292 •OR-	0.9818 NA



DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN		METHOD
11-75	2	6.0	51.1	REJECT	OTHER
11-75	3	4.4	10.8		EMISSION-FLAME
11-75	4	4.1	3.3		ATOMIC ABS-DIRECT
11-75	5	3.9	1.8		ATOMIC ABS-DIRECT
11-75	6	4.3	8.3		ATOMIC ABS-DIRECT
11-75	7	4.1	3.3		ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-75	8	4.3	8.3		ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-75	9	3.0	24.4		EMISSION-FLAME
11-75	11	4.0	0.8		ATOMIC ABS-DIRECT
11-75	12	3.0	24.4		ATOMIC ABS-DIRECT
11-75	13	4.0	0.8		EMISSION-FLAME
11-75	14	3.6	9.3		EMISSION-FLAME
11-75	15				NOT DETERMINED
11-75	16	10	151.9	REJECT	ATOMIC ABS-DIRECT
11-75	17	3.5	11.8		EMISSION-FLAME
11-75	18	5.0	26.0		ATOMIC ABS-DIRECT
11-75	19	3.9	1.8		ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-75	20	3.9	1.8		ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-75	21	3.4	14.4		OTHER
11-75	22				NOT DETERMINED
11-75	23	3.9	1.8		ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-75	24				NOT DETERMINED
11-75	25	21	429.0	REJECT	ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-75	27	4.3	8.3		ATOMIC ABS-DIRECT
11-75	28	2.9	26.9		ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-75	29				NOT DETERMINED
11-75	30	4.0	0.8		ATOMIC ABS-DIRECT
11-75	31	3.8	4.3		EMISSION-FLAME
11-75	32	3.9	1.8		ATOMIC ABS-DIRECT
12-75	33				NOT DETERMINED
11-75	34	5.5	38.5		EMISSION-ARC/SPARK
11-75	35	4.3	8.3		EMISSION-FLAME
11-75	37	3.4	14.4		ATOMIC ABS-DIRECT
11-75	38	3.8	4.3		ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-75	39	3.8	4.3		ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-75	40	3.8	4.3		ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-75	41	3.9	1.8		ATOMIC ABS-DIRECT
11-75	42	4.0	0.8		ATOMIC ABS-DIRECT
11-75	43	4.7	18.4		ATOMIC ABS-DIRECT, USGS TWRI BK5 CH A1
11-75	44	4.2	5.8		ATOMIC ABS-DIRECT
11-75	45	4.4	10.8		EMISSION-FLAME

TOTAL RANGE	2.9	-	21			SAMPLE 51
MEAN		3.9697		AVERAGE DEVIATION	0.3688	
STANDARD DEVIATION		0.5306		95 PCT.CONF.INTVL OF MEAN	3.9697 +OR- 0.1875	K

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	2	52	26.9	ELECTROMETRIC TITRATION, USGS TWRI RK5 CH A1
11-75	3	75	5.4	AUTOMATED ELECTROMETRIC TITRATION
11-75	4	65	8.6	INDICATOR, APHA STD METH, 13ED, 1971
11-75	5	72	1.2	ELECTROMETRIC TITRATION, USGS TWRI RK5 CH A1
11-75	6			NOT DETERMINED
11-75	7	77	8.3	AUTOMATED ELECTROMETRIC TITRATION
11-75	8	80	12.5	ELECTROMETRIC TITRATION, USGS TWRI RK5 CH A1
11-75	9			NOT DETERMINED
11-75	11	60	15.6	INDICATOR, APHA STD METH, 13ED, 1971
11-75	12			NOT DETERMINED
11-75	13	73	2.6	ELECTROMETRIC TITRATION, USGS TWRI RK5 CH A1
11-75	14	72	1.2	POTENTIOMETRIC, APHA STD METH, 13ED, 1971
11-75	15			NOT DETERMINED
11-75	16	62	12.8	POTENTIOMETRIC, APHA STD METH, 13ED, 1971
11-75	17	68	4.4	ELECTROMETRIC TITRATION, USGS TWRI RK5 CH A1
11-75	18	53	16.7	INDICATOR, APHA STD METH, 13ED, 1971
11-75	19	76	6.8	ELECTROMETRIC TITRATION, USGS TWRI RK5 CH A1
11-75	20	74	4.0	OTHER
11-75	21	74	4.0	ELECTROMETRIC TITRATION, USGS TWRI RK5 CH A1
11-75	22	85	19.5	INDICATOR, APHA STD METH, 13ED, 1971
11-75	23	73	2.6	AUTOMATED ELECTROMETRIC TITRATION
11-75	24			NOT DETERMINED
11-75	25	61	14.2	POTENTIOMETRIC, APHA STD METH, 13ED, 1971
11-75	27	62	12.8	INDICATOR, APHA STD METH, 13ED, 1971
11-75	28	78	9.7	AUTOMATED ELECTROMETRIC TITRATION
11-75	29	72	1.2	ELECTROMETRIC TITRATION, USGS TWRI RK5 CH A1
11-75	30	73	2.6	INDICATOR, APHA STD METH, 13ED, 1971
11-75	31	72	1.2	POTENTIOMETRIC, APHA STD METH, 13ED, 1971
11-75	32	37	48.0	ELECTROMETRIC TITRATION, USGS TWRI RK5 CH A1
12-75	33	62	12.8	INDICATOR, APHA STD METH, 13ED, 1971
11-75	34	59	17.1	POTENTIOMETRIC, APHA STD METH, 13ED, 1971
11-75	35	73	2.6	INDICATOR, APHA STD METH, 13ED, 1971
11-75	37			NOT DETERMINED
11-75	38	74	4.0	AUTOMATED ELECTROMETRIC TITRATION
11-75	39	73	2.6	INDICATOR, APHA STD METH, 13ED, 1971
11-75	40	75	5.4	ELECTROMETRIC TITRATION, USGS TWRI RK5 CH A1
11-75	41			NOT DETERMINED
11-75	42			NOT DETERMINED
11-75	43	73	2.6	INDICATOR, APHA STD METH, 13ED, 1971
11-75	44	77	8.3	INDICATOR, APHA STD METH, 13ED, 1971
11-75	45	18	74.7	INDICATOR, APHA STD METH, 13ED, 1971

TOTAL RANGE 18  
MEAN  
STANDARD DEVIATION

- 85  
71.1288  
7.4554

AVERAGE DEVIATION  
95 PCT.CONF.INTVL OF MEAN

5.7524  
71.1288 ±0R-

2.7343

SAMPLE 51  
HC03

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	2	78	12.7	TURBIDIMETRIC
11-75	3	66	4.6	OTHER
11-75	4			NOT DETERMINED
11-75	5	68	1.7	VOLUMETRIC THORIN, USGS TWRI BKS CH A1
11-75	6			NOT DETERMINED
11-75	7	69	0.3	TECHNICON AUTOANALYZER, METHYL THYMOL BLUE
11-75	8	68	1.7	VOLUMETRIC THORIN, USGS TWRI BKS CH A1
11-75	9	65	6.0	TURBIDIMETRIC
11-75	11	70	1.2	GRAVIMETRIC, APHA STD METH, 13ED, 1971
11-75	12	16	76.9	TECHNICON AUTOANALYZER, METHYL THYMOL BLUE
11-75	13	150	116.8	OTHER
11-75	14	52	24.8	OTHER
11-75	15			NOT DETERMINED
11-75	16	160	131.3	REJECT TURBIDIMETRIC
11-75	17	69	0.3	GRAVIMETRIC, APHA STD METH, 13ED, 1971
11-75	18	66	4.6	TURBIDIMETRIC
11-75	19	0.5	99.3	REJECT VOLUMETRIC THORIN, USGS TWRI BKS CH A1
11-75	20	65	6.0	VOLUMETRIC THORIN, USGS TWRI BKS CH A1
11-75	21	68	1.7	VOLUMETRIC THORIN, USGS TWRI BKS CH A1
11-75	22			NOT DETERMINED
11-75	23	68	1.7	OTHER
11-75	24			NOT DETERMINED
11-75	25	83	20.0	TURBIDIMETRIC
11-75	27	75	8.4	TURBIDIMETRIC
11-75	28	71	2.6	TECHNICON AUTOANALYZER, METHYL THYMOL BLUE
11-75	29			NOT DETERMINED
11-75	30	67	3.2	TURBIDIMETRIC
11-75	31	310	348.1	REJECT TURBIDIMETRIC
11-75	32	73	5.5	TURBIDIMETRIC
12-75	33	70	1.2	TURBIDIMETRIC
11-75	34	71	2.6	TURBIDIMETRIC
11-75	35	71	2.6	GRAVIMETRIC, APHA STD METH, 13ED, 1971
11-75	37			NOT DETERMINED
11-75	38	66	4.6	TECHNICON AUTOANALYZER, METHYL THYMOL BLUE
11-75	39	71	2.6	TURBIDIMETRIC
11-75	40			NOT DETERMINED
11-75	41			NOT DETERMINED
11-75	42	66	4.6	TURBIDIMETRIC
11-75	43	65	6.0	GRAVIMETRIC, APHA STD METH, 13ED, 1971
11-75	44	84	21.4	VOLUMETRIC THORIN, USGS TWRI BKS CH A1
11-75	45	63	8.9	OTHER

TOTAL RANGE	0.5	-	310				SAMPLE 51
MEAN		69.1850	AVERAGE DEVIATION	4.1454			
STANDARD DEVIATION		6.1646	95 PCT.CONF.INTVL OF MEAN	69.1850 +OR-	2.4392		S04

57

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	2	9.3	8.1	MERCURIMETRIC, USGS TWRI BKS CH A1
11-75	3	8.3	3.5	ION-SELECTIVE ELECTRODE
11-75	4	9.0	4.7	TECHNICON AUTOANALYZER, MERCURIC THIOCYANATE
11-75	5	7.7	10.5	MERCURIC NITRATE, APHA STD METH, 13ED, 1971
11-75	6	10	16.3	ION-SELECTIVE ELECTRODE
11-75	7	8.9	3.5	TECHNICON AUTOANALYZER, MERCURIC THIOCYANATE
11-75	8	7.8	9.3	MERCURIMETRIC, USGS TWRI BKS CH A1
11-75	9	8.0	7.0	MOHR, USGS TWRI BKS CH A1
11-75	11	7.2	16.3	MERCURIC NITRATE, APHA STD METH, 13ED, 1971
11-75	12	7.9	8.1	TECHNICON AUTOANALYZER, MERCURIC THIOCYANATE
11-75	13	6.6	23.3	ION-SELECTIVE ELECTRODE
11-75	14	6.0	30.2	MERCURIC NITRATE, APHA STD METH, 13ED, 1971
11-75	15	9.7	12.8	MERCURIC NITRATE, APHA STD METH, 13ED, 1971
11-75	16	9.0	4.7	MERCURIC NITRATE, APHA STD METH, 13ED, 1971
11-75	17	0.8	90.7	REJECT MERCURIMETRIC, USGS TWRI BKS CH A1
11-75	18	10	16.3	MERCURIC NITRATE, APHA STD METH, 13ED, 1971
11-75	19	28	225.6	REJECT MERCURIMETRIC, USGS TWRI BKS CH A1
11-75	20	8.4	2.3	MERCURIMETRIC THIOCYANATE, ASTM METHOD C, D512-67
11-75	21	9.5	10.5	MOHR, USGS TWRI BKS CH A1
11-75	22			NOT DETERMINED
11-75	23	8.4	2.3	MOHR, USGS TWRI BKS CH A1
11-75	24	8.9	3.5	MOHR, USGS TWRI BKS CH A1
11-75	25	7.3	15.1	ION-SELECTIVE ELECTRODE
11-75	27	11	27.9	MERCURIC NITRATE, APHA STD METH, 13ED, 1971
11-75	28	8.3	3.5	TECHNICON AUTOANALYZER, MERCURIC THIOCYANATE
11-75	29	8.2	4.7	SILVER NITRATE, ASTM METHOD B, D512-67
11-75	30	10	16.3	OTHER
11-75	31	10	16.3	MERCURIC NITRATE, APHA STD METH, 13ED, 1971
11-75	32	8.0	7.0	MERCURIC NITRATE, APHA STD METH, 13ED, 1971
12-75	33	7.5	12.8	ARGENOMETRIC, APHA STD METH, 13ED, 1971
11-75	34	13	51.2	REJECT MERCURIC NITRATE, APHA STD METH, 13ED, 1971
11-75	35	8.9	3.5	ARGENOMETRIC, APHA STD METH, 13ED, 1971
11-75	37	8.5	1.2	ION-SELECTIVE ELECTRODE
11-75	38	8.5	1.2	TECHNICON AUTOANALYZER, MERCURIC THIOCYANATE
11-75	39	10	16.3	MOHR, USGS TWRI BKS CH A1
11-75	40	8.3	3.5	TECHNICON AUTOANALYZER, MERCURIC THIOCYANATE
11-75	41			NOT DETERMINED
11-75	42	10	16.3	MERCURIC NITRATE, APHA STD METH, 13ED, 1971
11-75	43	10	16.3	MOHR, USGS TWRI BKS CH A1
11-75	44	6.5	24.4	ARGENOMETRIC, APHA STD METH, 13ED, 1971
11-75	45	8.0	7.0	MERCURIC NITRATE, APHA STD METH, 13ED, 1971

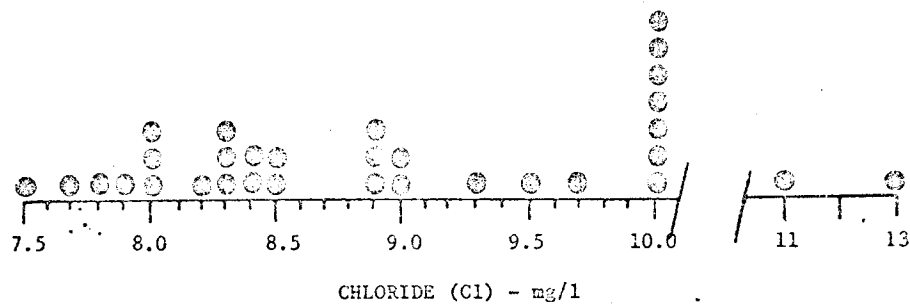
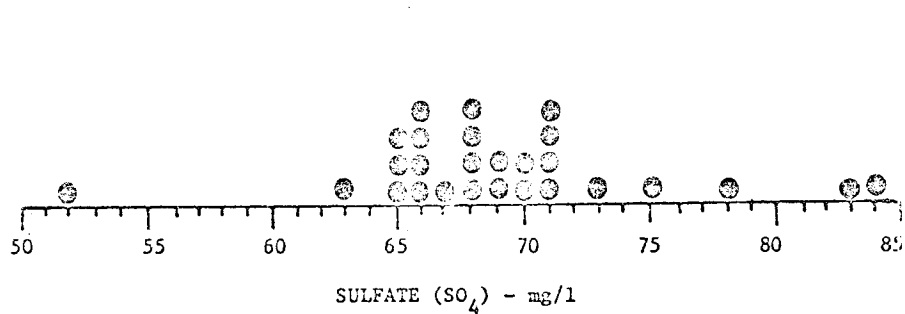
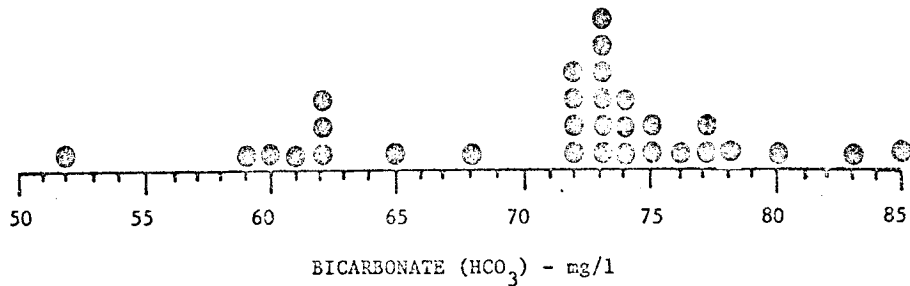
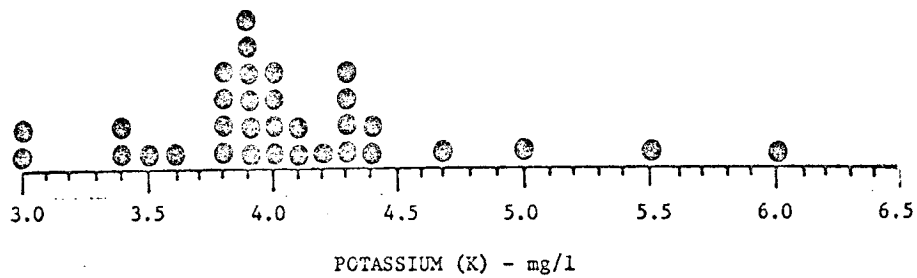
TOTAL RANGE 0.8 - 28  
 MEAN 8.5999  
 STANDARD DEVIATION 1.1484

AVERAGE DEVIATION  
 95 PCT.CONF.INTVL OF MEAN

0.9222  
 8.5999 ±0R- 0.3885

SAMPLE 51  
 CL





SAMPLE NO. 51

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	2	0.9	2.3	MANUAL ION-SELECTIVE ELECTRODE
11-75	3	1.2	30.3	ION-SELECTIVE ELECTRODE, USGS TWRI BK5 CH A1
11-75	4	0.8	13.1	MANUAL ION-SELECTIVE ELECTRODE
11-75	5	0.9	2.3	ION-SELECTIVE ELECTRODE, USGS TWRI BK5 CH A1
11-75	6			NOT DETERMINED
11-75	7	0.9	2.3	ZIRCONIUM-ERIOCHROME R, USGS TWRI BK5 CH A1
11-75	8	1.0	8.6	ION-SELECTIVE ELECTRODE, USGS TWRI BK5 CH A1
11-75	9	1.0	8.6	ION-SELECTIVE ELECTRODE, USGS TWRI BK5 CH A1
11-75	11	1.0	8.6	ION-SELECTIVE ELECTRODE, USGS TWRI BK5 CH A1
11-75	12			NOT DETERMINED
11-75	13	0.1	89.1	REJECT ION-SELECTIVE ELECTRODE, USGS TWRI BK5 CH A1
11-75	14			NOT DETERMINED
11-75	15			NOT DETERMINED
11-75	16			NOT DETERMINED
11-75	17	0.9	2.3	SPADMS, APHA STD METH, 13ED, 1971
11-75	18	0.9	2.3	SPADMS, APHA STD METH, 13ED, 1971
11-75	19	1.0	8.6	ION-SELECTIVE ELECTRODE, USGS TWRI BK5 CH A1
11-75	20	0.7	24.0	OTHER
11-75	21	0.7	24.0	ZIRCONIUM-ERIOCHROME R, USGS TWRI BK5 CH A1
11-75	22			NOT DETERMINED
11-75	23	0.9	2.3	MANUAL ION-SELECTIVE ELECTRODE
11-75	24			NOT DETERMINED
11-75	25	1.0	8.6	SPADMS, APHA STD METH, 13ED, 1971
11-75	27	1.0	8.6	ION-SELECTIVE ELECTRODE, USGS TWRI BK5 CH A1
11-75	28	0.8	13.1	TECHNICON AUTOANALYZER, ION-SELECTIVE ELECTRODE
11-75	29			NOT DETERMINED
11-75	30	0.9	2.3	MANUAL ION-SELECTIVE ELECTRODE
11-75	31			NOT DETERMINED
11-75	32			NOT DETERMINED
12-75	33			NOT DETERMINED
11-75	34			NOT DETERMINED
11-75	35	1.1	19.5	ION-SELECTIVE ELECTRODE, USGS TWRI BK5 CH A1
11-75	37			NOT DETERMINED
11-75	38	0.9	2.3	ZIRCONIUM-ERIOCHROME R, USGS TWRI BK5 CH A1
11-75	39	0.9	2.3	OTHER
11-75	40			NOT DETERMINED
11-75	41			NOT DETERMINED
11-75	42	0.9	2.3	ION-SELECTIVE ELECTRODE, USGS TWRI BK5 CH A1
11-75	43	0.9	2.3	OTHER
11-75	44	0.9	2.3	MANUAL ION-SELECTIVE ELECTRODE
11-75	45			NOT DETERMINED

TOTAL RANGE	0.1	-	1.2				
MEAN		0.9208		AVERAGE DEVIATION		0.0778	SAMPLE 51
STANDARD DEVIATION		0.1103		95 PCT.CONF.INTVL OF MEAN		0.9208 +OR- 0.0466	F

F

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	2	0.6	31.8	TECHNICON AUTOANALYZER, CADMIUM REDUCTION
11-75	3	0.6	31.8	PHENOLDISULFONIC ACID, APHA STD METH, 13ED, 1971
11-75	4	0.4	12.1	TECHNICON AUTOANALYZER, CADMIUM REDUCTION
11-75	5	0.5	9.8	BRUCINE, APHA STD METH, 13ED, 1971
11-75	6	0.4	12.1	TECHNICON AUTOANALYZER, CADMIUM REDUCTION
11-75	7	0.5	9.8	TECHNICON AUTOANALYZER, CADMIUM REDUCTION
11-75	8	0.4	12.1	BRUCINE, USGS TWRI, BKS CH A1
11-75	9	0.4	12.1	TECHNICON AUTOANALYZER, CADMIUM REDUCTION
11-75	11	0.4	12.1	BRUCINE, APHA STD METH, 13ED, 1971
11-75	12	0.5	9.8	TECHNICON AUTOANALYZER, CADMIUM REDUCTION
11-75	13	2.3	405.3	REJECT PHENOLDISULFONIC ACID, APHA STD METH, 13ED, 1971
11-75	14	0.5	9.8	TECHNICON AUTOANALYZER, CADMIUM REDUCTION
11-75	15	0.5	31.8	MANUAL CADMIUM REDUCTION-DIAZOTIZATION
11-75	16	0.4	12.1	TECHNICON AUTOANALYZER, CADMIUM REDUCTION
11-75	17	0.2	56.1	PHENOLDISULFONIC ACID, APHA STD METH, 13ED, 1971
11-75	18	0.4	12.1	BRUCINE, APHA STD METH, 13ED, 1971
11-75	19	0.5	9.8	BRUCINE, USGS TWRI, BKS CH A1
11-75	20			NOT DETERMINED
11-75	21			NOT DETERMINED
11-75	22	0.5	9.8	TECHNICON AUTOANALYZER, CADMIUM REDUCTION
11-75	23			NOT DETERMINED
11-75	24			NOT DETERMINED
11-75	25	53	*****	REJECT OTHER
11-75	27	0.7	53.8	BRUCINE, APHA STD METH, 13ED, 1971
11-75	28	0.4	12.1	TECHNICON AUTOANALYZER, CADMIUM REDUCTION
11-75	29	0.4	12.1	TECHNICON AUTOANALYZER, CADMIUM REDUCTION
11-75	30	0.4	12.1	OTHER
11-75	31	0.3	34.1	BRUCINE, APHA STD METH, 13ED, 1971
11-75	32	0.5	9.8	TECHNICON AUTOANALYZER, HYDRAZINE REDUCTION
12-75	33			NOT DETERMINED
11-75	34	0.5	9.8	BRUCINE, APHA STD METH, 13ED, 1971
11-75	35	1.9	317.4	REJECT PHENOLDISULFONIC ACID, APHA STD METH, 13ED, 1971
11-75	37	0.4	12.1	OTHER
11-75	38	0.4	12.1	TECHNICON AUTOANALYZER, CADMIUM REDUCTION
11-75	39			NOT DETERMINED
11-75	40	0.5	9.8	TECHNICON AUTOANALYZER, CADMIUM REDUCTION
11-75	41			NOT DETERMINED
11-75	42	0.5	9.8	TECHNICON AUTOANALYZER, CADMIUM REDUCTION
11-75	43	0.9	97.7	REJECT PHENOLDISULFONIC ACID, APHA STD METH, 13ED, 1971
11-75	44	0.4	12.1	PHENOLDISULFONIC ACID, APHA STD METH, 13ED, 1971
11-75	45	5.5	*****	REJECT PHENOLDISULFONIC ACID, APHA STD METH, 13ED, 1971

TOTAL RANGE	0.2	-	53				SAMPLE 51
MEAN		0.4552		AVERAGE DEVIATION	0.0778		
STANDARD DEVIATION		0.0985		95 PCT.CONF.INTVL OF MEAN	0.4552 +OR-	0.0375	N03-N

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	2	174	11.7	RESIDUE-ON-EVAPORATION, ASTM METHOD B, D1888-67
11-75	3	194	1.6	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
11-75	4	186	5.6	RESIDUE-FILTERABLE, APHA STD METH, 13ED, 1971
11-75	5			NOT DETERMINED
11-75	6			NOT DETERMINED
11-75	7	203	3.0	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
11-75	8	200	1.5	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
11-75	9	172	12.7	RESIDUE-FILTERABLE, APHA STD METH, 13ED, 1971
11-75	11	190	3.6	RESIDUE-FILTERABLE, APHA STD METH, 13ED, 1971
11-75	12			NOT DETERMINED
11-75	13	256	29.9	REJECT RESIDUE-ON-EVAPORATION, ASTM METHOD B, D1888-67
11-75	14	197	0.0	RESIDUE-FILTERABLE, APHA STD METH, 13ED, 1971
11-75	15	223	13.2	RESIDUE-FILTERABLE, APHA STD METH, 13ED, 1971
11-75	16	210	6.6	RESIDUE-FILTERABLE, APHA STD METH, 13ED, 1971
11-75	17	200	1.5	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
11-75	18	196	0.5	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
11-75	19	199	1.0	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
11-75	20	196	0.5	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
11-75	21	144	26.9	REJECT RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
11-75	22	194	1.6	RESIDUE-FILTERABLE, APHA STD METH, 13ED, 1971
11-75	23			NOT DETERMINED
11-75	24			NOT DETERMINED
11-75	25	210	6.6	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
11-75	27	203	3.0	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
11-75	28	194	1.6	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
11-75	29			NOT DETERMINED
11-75	30	210	6.6	RESIDUE-FILTERABLE, APHA STD METH, 13ED, 1971
11-75	31	196	0.5	RESIDUE-FILTERABLE, APHA STD METH, 13ED, 1971
11-75	32	202	2.5	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
12-75	33	202	2.5	RESIDUE-FILTERABLE, APHA STD METH, 13ED, 1971
11-75	34			NOT DETERMINED
11-75	35	205	4.0	RESIDUE-FILTERABLE, APHA STD METH, 13ED, 1971
11-75	37	164	16.8	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
11-75	38			NOT DETERMINED
11-75	39	190	3.6	RESIDUE-FILTERABLE, APHA STD METH, 13ED, 1971
11-75	40			NOT DETERMINED
11-75	41			NOT DETERMINED
11-75	42	225	14.2	RESIDUE-FILTERABLE, APHA STD METH, 13ED, 1971
11-75	43	180	8.7	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
11-75	44	18	90.9	REJECT RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1
11-75	45	203	3.0	RESIDUE-ON-EVAPORATION, USGS TWRI BK5 CH A1

TOTAL RANGE	18	-	256			SAMPLE 51
MEAN		197.0702	AVERAGE DEVIATION	9.7143		
STANDARD DEVIATION		13.5972	95 PCT.CONF.INTVL OF MEAN	197.0702 +OR-	5.2729	DSRD180

USFD. 150

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	2	300	0.3	DIRECT READING INSTRUMENT
11-75	3	308	2.3	WHEATSTONE BRIDGE
11-75	4	278	7.6	DIRECT READING INSTRUMENT
11-75	5	306	1.7	DIRECT READING INSTRUMENT, USGS TWRI BK5 CH A1
11-75	6	281	6.7	DIRECT READING INSTRUMENT
11-75	7	307	2.0	DIRECT READING INSTRUMENT
11-75	8	306	1.7	DIRECT READING INSTRUMENT, USGS TWRI BK5 CH A1
11-75	9	280	7.0	WHEATSTONE BRIDGE
11-75	11	302	0.3	WHEATSTONE BRIDGE
11-75	12			NOT DETERMINED
11-75	13	242	19.6	REJECT DIRECT READING INSTRUMENT
11-75	14	320	6.3	WHEATSTONE BRIDGE
11-75	15	306	1.7	WHEATSTONE BRIDGE
11-75	16	300	0.3	WHEATSTONE BRIDGE
11-75	17	306	1.7	WHEATSTONE BRIDGE, USGS TWRI BK5 CH A1
11-75	18	290	3.7	WHEATSTONE BRIDGE
11-75	19	312	3.6	DIRECT READING INSTRUMENT, USGS TWRI BK5 CH A1
11-75	20			NOT DETERMINED
11-75	21	307	2.0	WHEATSTONE BRIDGE, USGS TWRI BK5 CH A1
11-75	22			NOT DETERMINED
11-75	23	320	6.3	DIRECT READING INSTRUMENT, USGS TWRI BK5 CH A1
11-75	24	306	1.7	DIRECT READING INSTRUMENT, USGS TWRI BK5 CH A1
11-75	25	325	8.0	DIRECT READING INSTRUMENT, USGS TWRI BK5 CH A1
11-75	27	312	3.6	DIRECT READING INSTRUMENT
11-75	28	303	0.7	DIRECT READING INSTRUMENT
11-75	29	315	4.6	DIRECT READING INSTRUMENT
11-75	30	300	0.3	DIRECT READING INSTRUMENT
11-75	31	261	13.3	DIRECT READING INSTRUMENT
11-75	32	297	1.3	DIRECT READING INSTRUMENT
12-75	33			NOT DETERMINED
11-75	34	288	4.3	DIRECT READING INSTRUMENT
11-75	35	310	3.0	WHEATSTONE BRIDGE
11-75	37	280	7.0	DIRECT READING INSTRUMENT
11-75	38	311	3.3	DIRECT READING INSTRUMENT, USGS TWRI BK5 CH A1
11-75	39	360	19.6	REJECT WHEATSTONE BRIDGE, USGS TWRI BK5 CH A1
11-75	40	305	1.3	WHEATSTONE BRIDGE, USGS TWRI BK5 CH A1
11-75	41			NOT DETERMINED
11-75	42	300	0.3	DIRECT READING INSTRUMENT, USGS TWRI BK5 CH A1
11-75	43			NOT DETERMINED
11-75	44	292	3.0	DIRECT READING INSTRUMENT
11-75	45	300	0.3	DIRECT READING INSTRUMENT

TOTAL RANGE 242  
MEAN  
STANDARD DEVIATION

- 360  
301.0278  
13.6782

AVERAGE DEVIATION  
95 PCT.CONF.INTVL OF MEAN

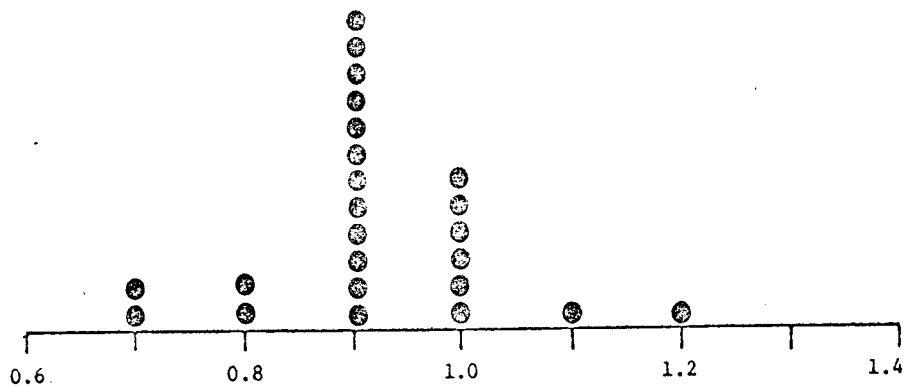
10.1473  
301.0278 +OR-

SAMPLE 51  
4.8336 SP.COND

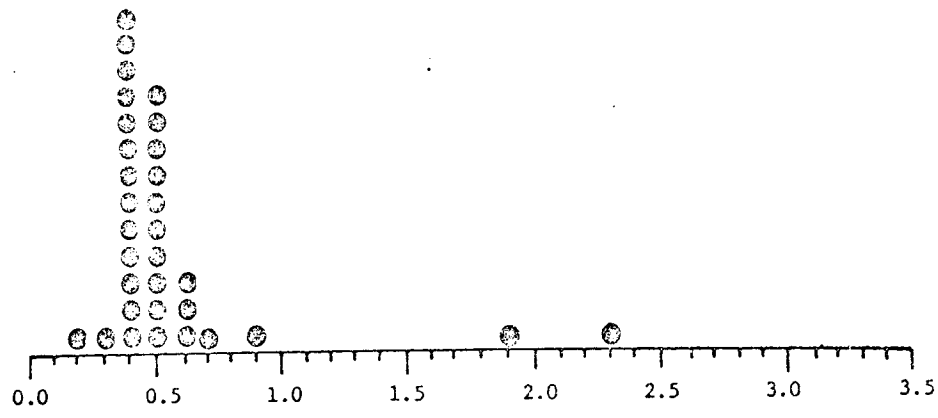
ST. 10.1

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	2	7.4	6.1	ELECTROMETRIC
11-75	3	7.9	0.3	ELECTROMETRIC
11-75	4	8.1	2.8	ELECTROMETRIC
11-75	5	7.9	0.3	ELECTROMETRIC
11-75	6	7.9	0.3	ELECTROMETRIC
11-75	7	7.7	2.3	ELECTROMETRIC, USGS TWRI BK5 CH A1
11-75	8	7.4	6.1	ELECTROMETRIC, USGS TWRI BK5 CH A1
11-75	9	7.4	6.1	ELECTROMETRIC
11-75	11	7.7	2.3	ELECTROMETRIC
11-75	12	8.0	1.5	ELECTROMETRIC
11-75	13	8.3	5.3	ELECTROMETRIC
11-75	14	7.9	0.3	ELECTROMETRIC
11-75	15	7.7	2.3	ELECTROMETRIC
11-75	16	8.1	2.8	ELECTROMETRIC
11-75	17	8.0	1.5	ELECTROMETRIC, USGS TWRI BK5 CH A1
11-75	18	7.8	1.0	ELECTROMETRIC
11-75	19	8.2	4.1	ELECTROMETRIC, USGS TWRI BK5 CH A1
11-75	20	7.9	0.3	ELECTROMETRIC, USGS TWRI BK5 CH A1
11-75	21	7.1	9.9	ELECTROMETRIC, USGS TWRI BK5 CH A1
11-75	22	7.9	0.3	ELECTROMETRIC
11-75	23	8.1	2.8	ELECTROMETRIC, USGS TWRI BK5 CH A1
11-75	24	8.0	1.5	ELECTROMETRIC, USGS TWRI BK5 CH A1
11-75	25	7.4	6.1	ELECTROMETRIC, USGS TWRI BK5 CH A1
11-75	27	8.0	1.5	ELECTROMETRIC
11-75	28	8.1	2.8	ELECTROMETRIC
11-75	29	7.8	1.0	ELECTROMETRIC, USGS TWRI BK5 CH A1
11-75	30	8.0	1.5	ELECTROMETRIC
11-75	31	7.9	0.3	ELECTROMETRIC
11-75	32	8.0	1.5	ELECTROMETRIC
12-75	33	7.7	2.3	ELECTROMETRIC
11-75	34	8.0	1.5	ELECTROMETRIC
11-75	35	8.1	2.8	ELECTROMETRIC
11-75	37	8.0	1.5	ELECTROMETRIC
11-75	38	8.1	2.8	ELECTROMETRIC, USGS TWRI BK5 CH A1
11-75	39	8.1	2.8	ELECTROMETRIC
11-75	40	8.0	1.5	ELECTROMETRIC, USGS TWRI BK5 CH A1
11-75	41			NOT DETERMINED
11-75	42	8.0	1.5	ELECTROMETRIC
11-75	43	8.0	1.5	ELECTROMETRIC, USGS TWRI BK5 CH A1
11-75	44	7.5	4.8	ELECTROMETRIC
11-75	45	8.1	2.8	ELECTROMETRIC

TOTAL RANGE	7.1	-	8.3			
MEAN		7.8800		AVERAGE DEVIATION	0.1980	SAMPLE 51
STANDARD DEVIATION		0.2604		95 PCT.CONF.INTVL OF MEAN	7.8800 +OR- 0.0832	PH



FLUORIDE (F) - mg/l



NITRATE as N (NO<sub>3</sub>-N) - mg/l

DISSOLVED SOLIDS - mg/l  
 No Graphical presentation  
 due to scatter of data

SPECIFIC CONDUCTANCE - micromhos/cm at 25°C  
 No Graphical presentation  
 due to scatter of data

SAMPLE NO. 51

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	2			NOT DETERMINED
11-75	3	180	292.2	REJECT CARMINE, USGS BK5 CH A1
11-75	4			NOT DETERMINED
11-75	5			NOT DETERMINED
11-75	6			NOT DETERMINED
11-75	7	20	56.4	CARMINE, USGS BK5 CH A1
11-75	8			NOT DETERMINED
11-75	9			NOT DETERMINED
11-75	11			NOT DETERMINED
11-75	12			NOT DETERMINED
11-75	13			NOT DETERMINED
11-75	14			NOT DETERMINED
11-75	15			NOT DETERMINED
11-75	16	70	52.5	CURCUMIN, APHA STD METH, 13ED, 1971
11-75	17	10	78.2	CARMINE, USGS BK5 CH A1
11-75	18	80	74.3	DIANTHRIMIDE, USGS BK5 CH A1
11-75	19	50	8.9	DIANTHRIMIDE, USGS BK5 CH A1
11-75	20			NOT DETERMINED
11-75	21			NOT DETERMINED
11-75	22			NOT DETERMINED
11-75	23	20	56.4	DIANTHRIMIDE, USGS BK5 CH A1
11-75	24			NOT DETERMINED
11-75	25			NOT DETERMINED
11-75	27			NOT DETERMINED
11-75	28	20	56.4	DIANTHRIMIDE, USGS BK5 CH A1
11-75	29			NOT DETERMINED
11-75	30			NOT DETERMINED
11-75	31			NOT DETERMINED
11-75	32			NOT DETERMINED
12-75	33			NOT DETERMINED
11-75	34			NOT DETERMINED
11-75	35			NOT DETERMINED
11-75	37	19	58.6	OTHER
11-75	38			NOT DETERMINED
11-75	39	100	117.9	CURCUMIN, APHA STD METH, 13ED, 1971
11-75	40			NOT DETERMINED
11-75	41			NOT DETERMINED
11-75	42			NOT DETERMINED
11-75	43			NOT DETERMINED
11-75	44			NOT DETERMINED
11-75	45	70	52.5	CARMINE, USGS BK5 CH A1

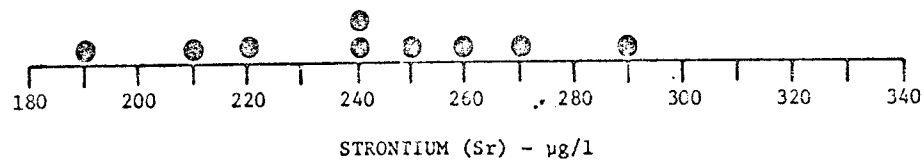
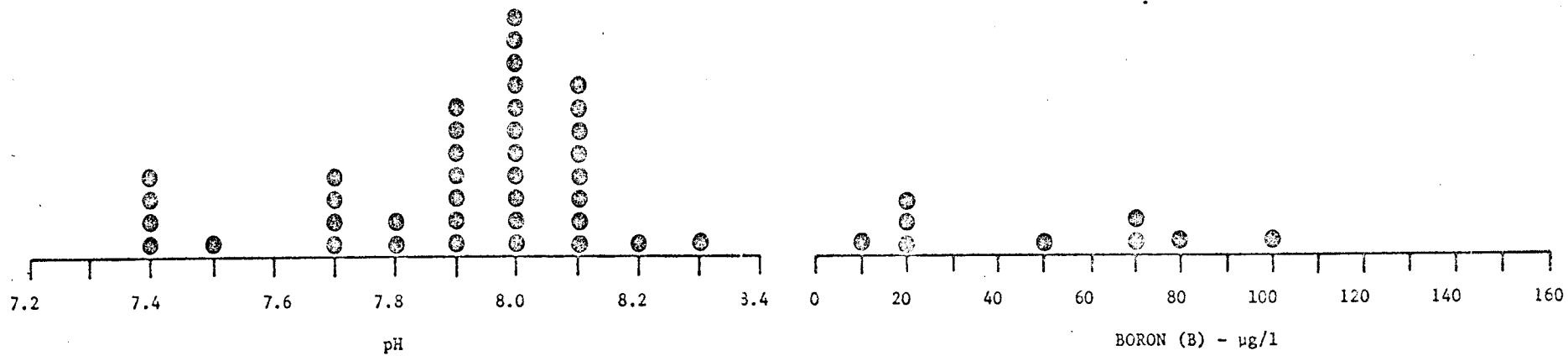
TOTAL RANGE	10	-	180				SAMPLE 51
MEAN		45.8999		AVERAGE DEVIATION	28.1000		
STANDARD DEVIATION		32.1332		95 PCT.CONF.INTVL OF MEAN	45.8999	*CR-	22.9851
							B

E



DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	2			NOT DETERMINED
11-75	3			NOT DETERMINED
11-75	4			NOT DETERMINED
11-75	5	190	21.2	ATOMIC ABS-DIRECT
11-75	6			NOT DETERMINED
11-75	7	240	0.5	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	8			NOT DETERMINED
11-75	9			NOT DETERMINED
11-75	11			NOT DETERMINED
11-75	12			NOT DETERMINED
11-75	13	270	12.0	ATOMIC ABS-DIRECT
11-75	14			NOT DETERMINED
11-75	15			NOT DETERMINED
11-75	16	370	53.5	REJECT ATOMIC ABS-DIRECT
11-75	17			NOT DETERMINED
11-75	18			NOT DETERMINED
11-75	19	210	12.9	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	20			NOT DETERMINED
11-75	21			NOT DETERMINED
11-75	22			NOT DETERMINED
11-75	23			NOT DETERMINED
11-75	24			NOT DETERMINED
11-75	25	250	3.7	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	27			NOT DETERMINED
11-75	28	260	7.8	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	29			NOT DETERMINED
11-75	30			NOT DETERMINED
11-75	31			NOT DETERMINED
11-75	32			NOT DETERMINED
12-75	33			NOT DETERMINED
11-75	34			NOT DETERMINED
11-75	35			NOT DETERMINED
11-75	37	220	8.8	ATOMIC ABS-DIRECT
11-75	38	290	20.3	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	39			NOT DETERMINED
11-75	40	240	0.5	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	41			NOT DETERMINED
11-75	42			NOT DETERMINED
11-75	43			NOT DETERMINED
11-75	44			NOT DETERMINED
11-75	45			NOT DETERMINED

TOTAL RANGE	190	-	370				SAMPLE 51
MEAN		241.1109	AVERAGE DEVIATION		23.4567		
STANDARD DEVIATION		31.0017	95 PCT.CONF.INTVL OF MEAN		241.1109 +OR-	23.8299	SR



SAMPLE NO. 51

DETERMINATION	NO. LABS REPORTING	PCT. OF VALUES REJECTED	PCT. OF UNREJECTED VALUES WITHIN		
			95 PCT. CI	X +OR- STD	X +OR- 2STD
SI02	21	5	40	65	95
CA	37	8	38	76	91
MG	36	14	19	68	97
NA	36	6	41	76	94
K	36	8	48	76	94
HC03	33	6	32	68	97
SO4	32	16	48	81	89
CL	39	8	28	64	94
F	25	4	50	75	88
NO3-N	34	15	0	79	93
DSRD180	31	10	43	79	93
SP.COND	35	6	27	73	97
PH	40	0	23	80	98
B	11	9	10	70	100
SR	10	10	56	67	100

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	1	350	11.8	EMISSION-ARC/SPARK
11-75	2	420	5.8	ATOMIC ABS-DIRECT
11-75	3			NOT DETERMINED
11-75	4			NOT DETERMINED
11-75	5	340	14.3	ATOMIC ABS-DIRECT
11-75	6			NOT DETERMINED
11-75	7	410	3.3	ATOMIC ABS-CHELATION/EXTRACTION: USGS PROVISIONAL
11-75	8			NOT DETERMINED
11-75	9	440	10.9	ATOMIC ABS-DIRECT
11-75	11			NOT DETERMINED
11-75	12			NOT DETERMINED
11-75	13			NOT DETERMINED
11-75	14			NOT DETERMINED
11-75	15			NOT DETERMINED
11-75	16	200	49.6	ATOMIC ABS-DIRECT
11-75	17	340	14.3	FERRON-ORTHOPHENANTHROLINE: USGS TWRI BKS CH A1
11-75	18			NOT DETERMINED
11-75	19	480	20.9	ATOMIC ABS-CHELATION/EXTRACTION: USGS PROVISIONAL
11-75	20			NOT DETERMINED
11-75	22			NOT DETERMINED
11-75	23			NOT DETERMINED
11-75	25	60	84.9	REJECT OTHER <i>ethylene Cyane R</i> <i>APHA</i>
11-75	27			NOT DETERMINED
11-75	28	390	1.7	ATOMIC ABS-DIRECT
11-75	30	480	20.9	ATOMIC ABS-DIRECT
11-75	31			NOT DETERMINED
11-75	32	340	14.3	ATOMIC ABS-FLAMELESS
12-75	33	390	1.7	ATOMIC ABS-DIRECT
11-75	34			NOT DETERMINED
11-75	35			NOT DETERMINED
11-75	37			NOT DETERMINED
11-75	38	410	3.3	ATOMIC ABS-CHELATION/EXTRACTION: USGS PROVISIONAL
11-75	40	580	46.1	ATOMIC ABS-FLAMELESS
11-75	41	370	6.8	NEUTRON ACTIVATION
11-75	42			NOT DETERMINED
11-75	43			NOT DETERMINED
11-75	44			NOT DETERMINED
11-75	45	410	3.3	NEUTRON ACTIVATION

TOTAL RANGE	60	-	580			SAMPLE 52
MEAN		396.8735	AVERAGE DEVIATION	56.8750		
STANDARD DEVIATION		82.3583	95 PCT.CONF.INTVL OF MEAN	396.8735	+OR-	43.8764 AL

T-52

A1

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	1	260	2.2	EMISSION-ARC/SPARK
11-75	2	260	5.1	ATOMIC ABS-DIRECT
11-75	3	270	1.4	PHENANTHROLINE: APHA STD METH, 13ED
11-75	4	230	16.0	ATOMIC ABS-DIRECT
11-75	5	260	5.1	ATOMIC ABS-DIRECT
11-75	6	250	8.7	ATOMIC ABS-DIRECT
11-75	7	260	5.1	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	8	260	5.1	BIPYRIDINE: USGS TWRI BKS CH A1
11-75	9	270	1.4	ATOMIC ABS-DIRECT
11-75	11	680	148.3	REJECT ATOMIC ABS-DIRECT
11-75	12			NOT DETERMINED
11-75	13	450	64.3	REJECT ATOMIC ABS-FLAMELESS
11-75	14	300	9.5	ATOMIC ABS-DIRECT
11-75	15	290	5.9	ATOMIC ABS-DIRECT
11-75	16	250	8.7	ORTHOPHENANTHROLINE: ASTM METHOD A, D1068-74
11-75	17	270	1.4	PHENANTHROLINE: APHA STD METH, 13ED
11-75	18	240	12.4	PHENANTHROLINE: APHA STD METH, 13ED
11-75	19	320	16.8	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	20	250	8.7	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	22	340	24.1	ATOMIC ABS-DIRECT
11-75	23			NOT DETERMINED
11-75	25	360	31.4	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	27	240	12.4	ATOMIC ABS-DIRECT
11-75	28	260	5.1	TECHNICON AUTOANALYZER, BIPYRIDINE
11-75	30	260	5.1	ATOMIC ABS-DIRECT
11-75	31	250	8.7	ATOMIC ABS-DIRECT
11-75	32	260	5.1	ATOMIC ABS-DIRECT
12-75	33	270	1.4	ATOMIC ABS-DIRECT
11-75	34	550	100.8	REJECT ATOMIC ABS-DIRECT
11-75	35	660	141.0	REJECT ATOMIC ABS-DIRECT
11-75	37	290	5.9	ATOMIC ABS-DIRECT
11-75	38	250	8.7	TECHNICON AUTOANALYZER, BIPYRIDINE
11-75	40	270	1.4	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	41	290	5.9	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	42	300	9.5	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	43	130	52.5	REJECT ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	44	270	1.4	ATOMIC ABS-DIRECT
11-75	45	320	16.8	ORTHOPHENANTHROLINE: ASTM METHOD A, D1068-74

TOTAL RANGE	130	-	680			SAMPLE 52
MEAN		273.8809		AVERAGE DEVIATION	22.6632	
STANDARD DEVIATION		29.8526		95 PCT.CONF.INTVL OF MEAN	273.8689 +OR-	10.9486 FE

F

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	1	40	14.3	EMISSION-ARC/SPARK
11-75	2	40	14.3	ATOMIC ABS-DIRECT
11-75	3	10	71.4	ATOMIC ABS-DIRECT
11-75	4			NOT DETERMINED
11-75	5	30	14.3	ATOMIC ABS-DIRECT
11-75	6	40	14.3	ATOMIC ABS-DIRECT
11-75	7	40	14.3	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	8			NOT DETERMINED
11-75	9	30	14.3	ATOMIC ABS-DIRECT
11-75	11			NOT DETERMINED
11-75	12			NOT DETERMINED
11-75	13	30	14.3	ATOMIC ABS-FLAMELESS
11-75	14			NOT DETERMINED
11-75	15			NOT DETERMINED
11-75	16	50	42.9	ATOMIC ABS-DIRECT
11-75	17	40	14.3	PERSULFATE: ALPHA STD METH; 13ED
11-75	18	20	42.9	ATOMIC ABS-DIRECT
11-75	19	40	14.3	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	20	20	42.9	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	22	30	14.3	ATOMIC ABS-DIRECT
11-75	23			NOT DETERMINED
11-75	25	50	42.9	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	27	30	14.3	ATOMIC ABS-DIRECT
11-75	28	50	42.9	ATOMIC ABS-DIRECT
11-75	30	30	14.3	ATOMIC ABS-DIRECT
11-75	31	20	42.9	ATOMIC ABS-DIRECT
11-75	32	30	14.3	ATOMIC ABS-FLAMELESS
12-75	33	40	14.3	ATOMIC ABS-DIRECT
11-75	34	30	14.3	ATOMIC ABS-DIRECT
11-75	35	40	14.3	ATOMIC ABS-DIRECT
11-75	37			NOT DETERMINED
11-75	38	40	14.3	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	40	40	14.3	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	41	30	14.3	NEUTRON ACTIVATION
11-75	42	200	471.4	REJECT ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	43	50	42.9	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	44	40	14.3	ATOMIC ABS-DIRECT
11-75	45			NOT DETERMINED

TOTAL RANGE 10 - 200

SAMPLE 52.

MEAN 34.9998  
STANDARD DEVIATION 10.0000

AVERAGE DEVIATION 8.2143  
95 PCT.CONF.INTVL OF MEAN 34.9998 +OR- 3.0779

8.2143  
34.9998 +OR- 3.0779

MN

MN

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	1			NOT DETERMINED
11-75	2			NOT DETERMINED
11-75	3			NOT DETERMINED
11-75	4			NOT DETERMINED
11-75	5	6	37.3	ATOMIC ABS-HYDRIDE(ZINC): USGS PROVISIONAL
11-75	6			NOT DETERMINED
11-75	7	9	5.9	ATOMIC ABS-HYDRIDE(ZINC): USGS PROVISIONAL
11-75	8			NOT DETERMINED
11-75	9			NOT DETERMINED
11-75	11			NOT DETERMINED
11-75	12			NOT DETERMINED
11-75	13			NOT DETERMINED
11-75	14			NOT DETERMINED
11-75	15			NOT DETERMINED
11-75	16	10	4.6	SILVER DIETHYLDITHIOCARBAMATE: APHA STD METH, 13ED
11-75	17	15	56.9	SILVER DIETHYLDITHIOCARBAMATE: USGS TWRI BK5 CH A1
11-75	18			NOT DETERMINED
11-75	19	12	25.5	SILVER DIETHYLDITHIOCARBAMATE-REVISION: USGS PROVISIONAL
11-75	20			NOT DETERMINED
11-75	22	9	5.9	ATOMIC ABS-HYDRIDE(SODIUM BOROHYDRIDE)
11-75	23			NOT DETERMINED
11-75	25			NOT DETERMINED
11-75	27	12	25.5	ATOMIC ABS-HYDRIDE(ZINC): USGS PROVISIONAL
11-75	28	12	25.5	ATOMIC ABS-HYDRIDE(ZINC): USGS PROVISIONAL
11-75	30	11	19.0	ATOMIC ABS-HYDRIDE(SODIUM BOROHYDRIDE)
11-75	31	4	58.2	SILVER DIETHYLDITHIOCARBAMATE: APHA STD METH, 13ED
11-75	32	10	4.6	OTHER - <del>not given</del>
12-75	33	7	26.8	OTHER - <del>not given</del>
11-75	34			NOT DETERMINED
11-75	35			NOT DETERMINED
11-75	37	12	25.5	ATOMIC ABS-HYDRIDE(SODIUM BOROHYDRIDE)
11-75	38	1	89.5	ATOMIC ABS-HYDRIDE(ZINC): USGS PROVISIONAL
11-75	40			NOT DETERMINED
11-75	41			NOT DETERMINED
11-75	42	6	37.3	SILVER DIETHYLDITHIOCARBAMATE: APHA STD METH, 13ED
11-75	43			NOT DETERMINED
11-75	44			NOT DETERMINED
11-75	45	17	77.8	NEUTRON ACTIVATION

TOTAL RANGE 1  
MEAN  
STANDARD DEVIATION

- 17  
9.5625  
4.0656

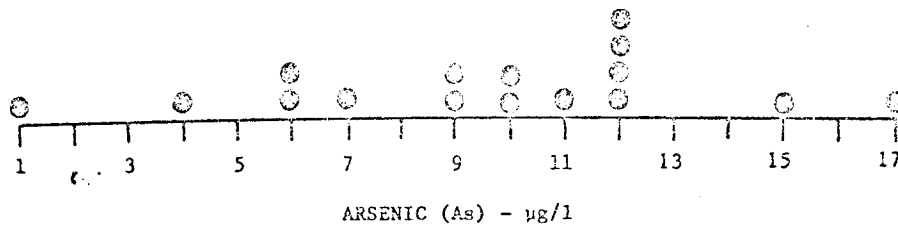
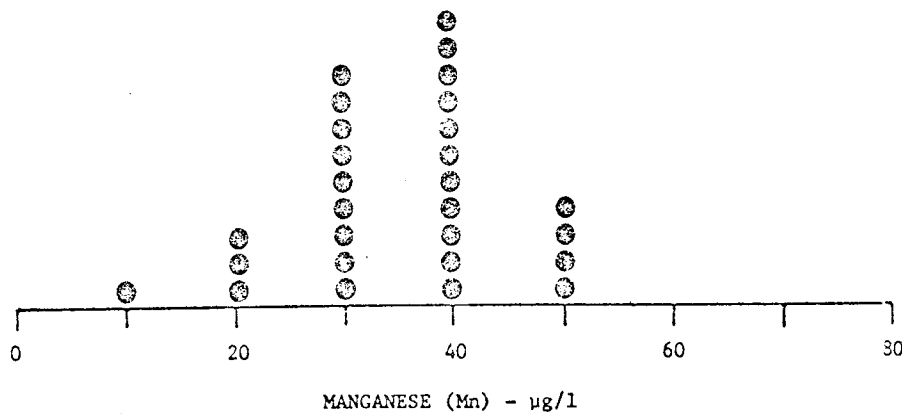
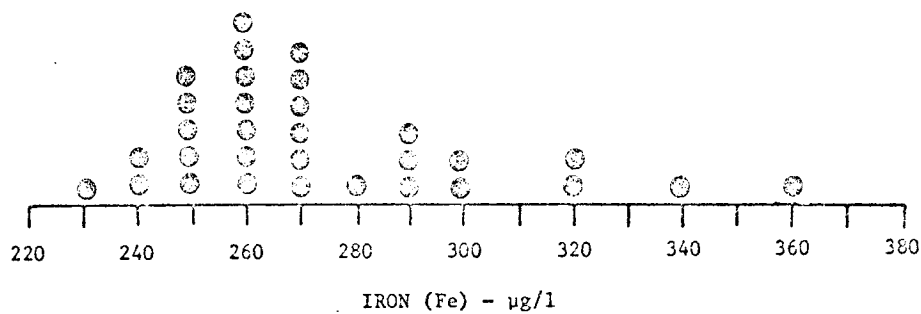
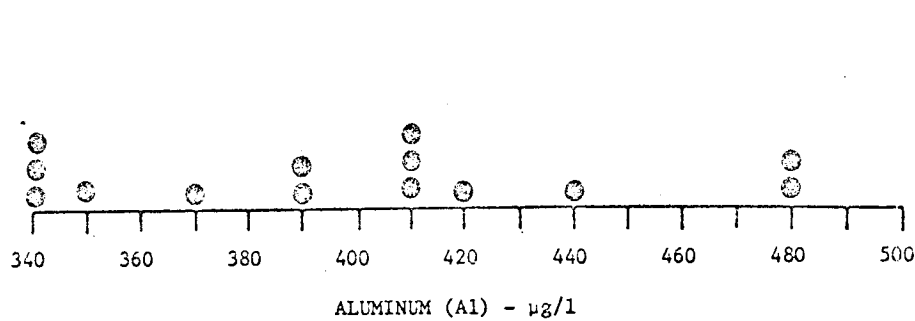
AVERAGE DEVIATION  
95 PCT.CONF.INTVL OF MEAN

3.1172  
9.5625 +OR- 2.1659

SAMPLE 52.

AS

45



SAMPLE NO. 52



DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	1	300	16.1	EMISSION-ARC/SPARK
11-75	2			NOT DETERMINED
11-75	3			NOT DETERMINED
11-75	4			NOT DETERMINED
11-75	5	300	16.1	ATOMIC ABS-DIRECT
11-75	6			NOT DETERMINED
11-75	7	300	16.1	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	8			NOT DETERMINED
11-75	9	100	61.3	ATOMIC ABS-DIRECT
11-75	11			NOT DETERMINED
11-75	12			NOT DETERMINED
11-75	13			NOT DETERMINED
11-75	14			NOT DETERMINED
11-75	15			NOT DETERMINED
11-75	16	400	54.9	ATOMIC ABS-DIRECT
11-75	17	300	16.1	ATOMIC ABS-DIRECT
11-75	18			NOT DETERMINED
11-75	19	300	16.1	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	20			NOT DETERMINED
11-75	22	200	22.6	ATOMIC ABS-DIRECT
11-75	23			NOT DETERMINED
11-75	25			NOT DETERMINED
11-75	27			NOT DETERMINED
11-75	28	300	16.1	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	30	200	22.6	ATOMIC ABS-DIRECT
11-75	31			NOT DETERMINED
11-75	32	200	22.6	OTHER <i>not given</i>
12-75	33			NOT DETERMINED
11-75	34			NOT DETERMINED
11-75	35			NOT DETERMINED
11-75	37			NOT DETERMINED
11-75	38			NOT DETERMINED
11-75	40			NOT DETERMINED
11-75	41	200	22.6	ATOMIC ABS-DIRECT
11-75	42			NOT DETERMINED
11-75	43			NOT DETERMINED
11-75	44			NOT DETERMINED
11-75	45			NOT DETERMINED

TOTAL RANGE	100	-	400			SAMPLE 52
MEAN		258.3330		AVERAGE DEVIATION	65.2777	
STANDARD DEVIATION		79.2960		95 PCT.CONF.INTVL OF MEAN	258.3330 +OR- 50.3826	BA

*Er*

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	1	20	0.0	EMISSION-ARC/SPARK
11-75	2			NOT DETERMINED
11-75	3			NOT DETERMINED
11-75	4			NOT DETERMINED
11-75	5			NOT DETERMINED
11-75	6			NOT DETERMINED
11-75	7	20	0.0	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	8			NOT DETERMINED
11-75	9			NOT DETERMINED
11-75	11			NOT DETERMINED
11-75	12			NOT DETERMINED
11-75	13			NOT DETERMINED
11-75	14			NOT DETERMINED
11-75	15			NOT DETERMINED
11-75	16	20	0.0	ATOMIC ABS-DIRECT
11-75	17			NOT DETERMINED
11-75	18			NOT DETERMINED
11-75	19	10	50.0	REJECT ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	20			NOT DETERMINED
11-75	22			NOT DETERMINED
11-75	23			NOT DETERMINED
11-75	25			NOT DETERMINED
11-75	27			NOT DETERMINED
11-75	28	20	0.0	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	30			NOT DETERMINED
11-75	31			NOT DETERMINED
11-75	32			NOT DETERMINED
12-75	33			NOT DETERMINED
11-75	34			NOT DETERMINED
11-75	35			NOT DETERMINED
11-75	37			NOT DETERMINED
11-75	38			NOT DETERMINED
11-75	40			NOT DETERMINED
11-75	41			NOT DETERMINED
11-75	42			NOT DETERMINED
11-75	43			NOT DETERMINED
11-75	44			NOT DETERMINED
11-75	45	20	0.0	ATOMIC ABS-DIRECT

TOTAL RANGE	10	-	20				SAMPLE 52
MEAN		20.0000		AVERAGE DEVIATION	0.0		
STANDARD DEVIATION		0.0		95 PCT.CONF.INTVL OF MEAN	20.0000	+OR-	0.0

BE

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	1			NOT DETERMINED
11-75	2	5.	75.3	ATOMIC ABS-CHELATION/EXTRACTION, EPA
11-75	3			NOT DETERMINED
11-75	4			NOT DETERMINED
11-75	5	1	64.9	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-75	6	4	40.3	ATOMIC ABS-DIRECT
11-75	7	3	5.2	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-75	8			NOT DETERMINED
11-75	9	5	75.3	ATOMIC ABS-DIRECT
11-75	11	9	215.6	REJECT ATOMIC ABS-CHELATION/EXTRACTION, EPA
11-75	12	3	5.2	OTHER
11-75	13	2	29.9	ATOMIC ABS-FLAMELESS
11-75	14	1	64.9	ATOMIC ABS-FLAMELESS
11-75	15	3	5.2	ATOMIC ABS-FLAMELESS
11-75	16	1	64.9	ATOMIC ABS-CHELATION/EXTRACTION, EPA
11-75	17	2	29.9	ATOMIC ABS-DIRECT
11-75	18			NOT DETERMINED
11-75	19	2	29.9	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-75	20	2	29.9	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-75	22	3	5.2	ATOMIC ABS-CHELATION/EXTRACTION, EPA
11-75	23			NOT DETERMINED
11-75	25	5	75.3	ANODIC STRIPPING VOLTAMMETRY
11-75	27	3	5.2	ATOMIC ABS-DIRECT
11-75	28	2	29.9	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-75	30	4	40.3	ATOMIC ABS-DIRECT
11-75	31	3	5.2	ATOMIC ABS-DIRECT
11-75	32	2	29.9	ATOMIC ABS-FLAMELESS
12-75	33	3	5.2	ATOMIC ABS-FLAMELESS
11-75	34			NOT DETERMINED
11-75	35			NOT DETERMINED
11-75	37	4	40.3	ATOMIC ABS-FLAMELESS
11-75	38	2	29.9	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-75	40	3	5.2	ATOMIC ABS-FLAMELESS
11-75	41	2	29.9	ATOMIC ABS-CHELATION/EXTRACTION, EPA
11-75	42	2	29.9	ATOMIC ABS-DIRECT
11-75	43			NOT DETERMINED
11-75	44			NOT DETERMINED
11-75	45	5	75.3	ATOMIC ABS-DIRECT

TOTAL RANGE 1  
MEAN  
STANDARD DEVIATION

9  
2.8518  
1.2311  
AVERAGE DEVIATION  
95 PCT.CONF.INTVL OF MEAN

0.9794  
2.8518 +OR- 0.4871

SAMPLE 52.  
CD

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	1	4	36.4	EMISSION-ARC/SPARK
11-75	2	20	218.2	REJECT ATOMIC ABS-DIRECT; USGS PROVISIONAL
11-75	3			NOT DETERMINED
11-75	4			NOT DETERMINED
11-75	5			NOT DETERMINED
11-75	6	8	27.3	ATOMIC ABS-DIRECT
11-75	7	10	59.1	ATOMIC ABS-DIRECT; USGS PROVISIONAL
11-75	8			NOT DETERMINED
11-75	9	11	75.0	ATOMIC ABS-DIRECT
11-75	11			NOT DETERMINED
11-75	12	5	20.5	OTHER - PA FLOWERS
11-75	13	3	52.3	ATOMIC ABS-FLAMELESS
11-75	14	4	36.4	ATOMIC ABS-FLAMELESS
11-75	15	7	11.4	ATOMIC ABS-FLAMELESS
11-75	16	6	4.5	ATOMIC ABS-CHELATION/EXTRACTION, EPA
11-75	17	6	4.5	ATOMIC ABS-DIRECT
11-75	18			NOT DETERMINED
11-75	19	5	20.5	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BKS CH A1
11-75	20			NOT DETERMINED
11-75	22	6	4.5	ATOMIC ABS-DIRECT
11-75	23			NOT DETERMINED
11-75	25			NOT DETERMINED
11-75	27	8	27.3	OTHER - not given
11-75	28	40	536.4	REJECT ATOMIC ABS-DIRECT; USGS PROVISIONAL
11-75	30	8	27.3	ATOMIC ABS-DIRECT
11-75	31			NOT DETERMINED
11-75	32	4	36.4	ATOMIC ABS-FLAMELESS
12-75	33	4	36.4	ATOMIC ABS-FLAMELESS
11-75	34			NOT DETERMINED
11-75	35	10	59.1	ATOMIC ABS-DIRECT
11-75	37			NOT DETERMINED
11-75	38	4	36.4	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BKS CH A1
11-75	40	5	20.5	ATOMIC ABS-FLAMELESS
11-75	41	6	4.5	ATOMIC ABS-DIRECT; USGS PROVISIONAL
11-75	42			NOT DETERMINED
11-75	43			NOT DETERMINED
11-75	44			NOT DETERMINED
11-75	45	8	27.3	ATOMIC ABS-DIRECT

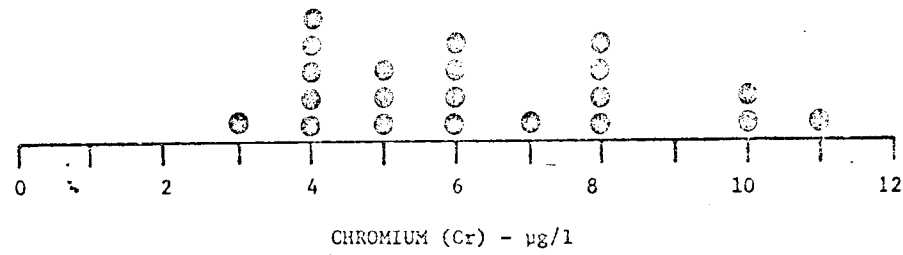
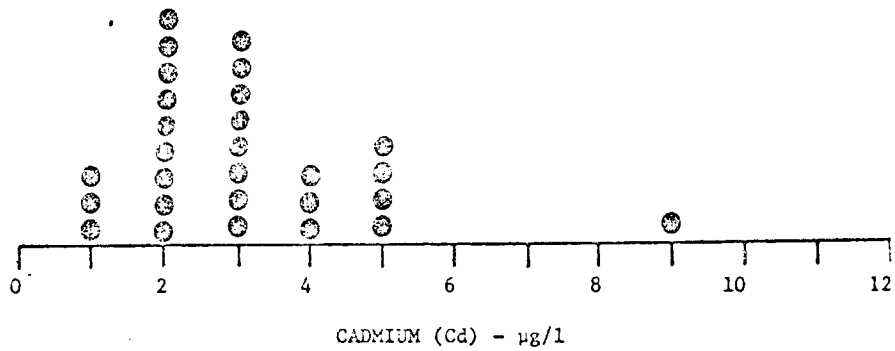
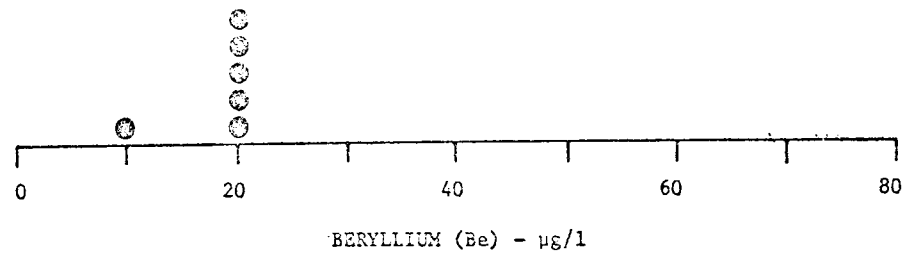
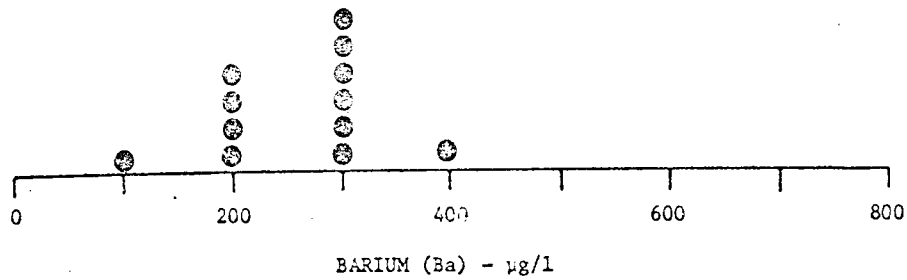
TOTAL RANGE 3  
MEAN  
STANDARD DEVIATION

40  
6.2857  
2.2835  
AVERAGE DEVIATION  
95 PCT.CONF.INTVL OF MEAN

1.8775  
6.2857 +CR- 1.0394 CR TOT

SAMPLE 52

*G. H.*



SAMPLE NO. 52

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	1	4	8.1	EMISSION-ARC/SPARK
11-75	2			NOT DETERMINED
11-75	3			NOT DETERMINED
11-75	4			NOT DETERMINED
11-75	5	2	45.9	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BKS CH A1
11-75	6			NOT DETERMINED
11-75	7	4	8.1	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BKS CH A1
11-75	8			NOT DETERMINED
11-75	9			NOT DETERMINED
11-75	11			NOT DETERMINED
11-75	12			NOT DETERMINED
11-75	13	1	73.0	ATOMIC ABS-FLAMELESS
11-75	14			NOT DETERMINED
11-75	15			NOT DETERMINED
11-75	16	6	62.2	ATOMIC ABS-CHELATION/EXTRACTION, EPA
11-75	17			NOT DETERMINED
11-75	18			NOT DETERMINED
11-75	19	3	18.9	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BKS CH A1
11-75	20			NOT DETERMINED
11-75	22			NOT DETERMINED
11-75	23			NOT DETERMINED
11-75	25			NOT DETERMINED
11-75	27			NOT DETERMINED
11-75	28			NOT DETERMINED
11-75	30			NOT DETERMINED
11-75	31			NOT DETERMINED
11-75	32			NOT DETERMINED
12-75	33	3	18.9	ATOMIC ABS-FLAMELESS
11-75	34			NOT DETERMINED
11-75	35			NOT DETERMINED
11-75	37			NOT DETERMINED
11-75	38	5	35.1	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BKS CH A1
11-75	40	3	18.9	ATOMIC ABS-FLAMELESS
11-75	41			NOT DETERMINED
11-75	42			NOT DETERMINED
11-75	43			NOT DETERMINED
11-75	44			NOT DETERMINED
11-75	45	6	62.2	NEUTRON ACTIVATION

TOTAL RANGE 1  
MEAN  
STANDARD DEVIATION

3.7000  
1.6364

AVERAGE DEVIATION  
95 PCT.CONF.INTVL OF MEAN

1.3000  
3.7000 +OR- 1.1705

SAMPLE 52  
CO

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	1	80	1.6	EMISSION-ARC/SPARK
11-75	2	90	10.7	ATOMIC ABS-DIRECT
11-75	3			NOT DETERMINED
11-75	4	400	391.8	REJECT EMISSION-ARC/SPARK
11-75	5	80	1.6	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-75	6	80	1.6	ATOMIC ABS-DIRECT
11-75	7	70	13.9	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
11-75	8			NOT DETERMINED
11-75	9	80	1.6	ATOMIC ABS-DIRECT
11-75	11	20	75.4	REJECT ATOMIC ABS-DIRECT
11-75	12	110	35.2	OTHER - <i>NO FLAMELESS</i>
11-75	13	80	1.6	ATOMIC ABS-FLAMELESS
11-75	14	70	13.9	ATOMIC ABS-DIRECT
11-75	15	70	13.9	ATOMIC ABS-DIRECT
11-75	16	80	1.6	ATOMIC ABS-DIRECT
11-75	17	80	1.6	ATOMIC ABS-DIRECT
11-75	18	80	1.6	ATOMIC ABS-DIRECT
11-75	19	90	10.7	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
11-75	20	80	1.6	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
11-75	22	70	13.9	ATOMIC ABS-DIRECT
11-75	23			NOT DETERMINED
11-75	25	110	35.2	OTHER <i>Atomic Spectroscopy</i>
11-75	27	90	10.7	ATOMIC ABS-DIRECT
11-75	28	60	26.2	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
11-75	30	80	1.6	ATOMIC ABS-DIRECT
11-75	31	70	13.9	ATOMIC ABS-DIRECT
11-75	32	80	1.6	ATOMIC ABS-FLAMELESS
12-75	33	80	1.6	ATOMIC ABS-DIRECT
11-75	34			NOT DETERMINED
11-75	35	110	35.2	ATOMIC ABS-DIRECT
11-75	37	90	10.7	ATOMIC ABS-DIRECT
11-75	38	90	10.7	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
11-75	40	70	13.9	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
11-75	41	90	10.7	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
11-75	42	400	391.8	REJECT ATOMIC ABS-DIRECT
11-75	43	50	38.5	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
11-75	44	80	1.6	ATOMIC ABS-DIRECT
11-75	45			NOT DETERMINED

TOTAL RANGE	20	-	400			SAMPLE 52
MEAN		81.3331		AVERAGE DEVIATION	9.1999	
STANDARD DEVIATION		13.3218		95 PCT.CONF.INTVL OF MEAN	81.3331 +OR- 4.9739	CU

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	1	9	23.5	EMISSION-ARC/SPARK
11-75	2	20	69.9	ATOMIC ABS-CHELATION/EXTRACTION, EPA
11-75	3			NOT DETERMINED
11-75	4			NOT DETERMINED
11-75	5	7	40.5	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BKS CH A1
11-75	6			NOT DETERMINED
11-75	7	8	32.0	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BKS CH A1
11-75	8			NOT DETERMINED
11-75	9	29	146.4	OTHER <i>not given</i>
11-75	11			NOT DETERMINED
11-75	12	4	66.0	OTHER <i>APHA 4190185</i>
11-75	13	5	57.5	ATOMIC ABS-FLAMELESS
11-75	14	7	40.5	ATOMIC ABS-FLAMELESS
11-75	15	10	15.0	ATOMIC ABS-FLAMELESS
11-75	16	29	146.4	ATOMIC ABS-CHELATION/EXTRACTION, EPA
11-75	17	11	6.5	OTHER <i>not given</i>
11-75	18			NOT DETERMINED
11-75	19	7	40.5	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BKS CH A1
11-75	20	12	2.0	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BKS CH A1
11-75	22	20	69.9	ATOMIC ABS-CHELATION/EXTRACTION, EPA
11-75	23			NOT DETERMINED
11-75	25	22	86.9	ANODIC STRIPPING VOLTAMMETRY
11-75	27	12	2.0	ATOMIC ABS-CHELATION/EXTRACTION, EPA
11-75	28	7	40.5	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BKS CH A1
11-75	30	8	32.0	OTHER <i>not given</i>
11-75	31	7	40.5	ATOMIC ABS-CHELATION/EXTRACTION: APHA STD METH, 13ED
11-75	32	6	49.0	ATOMIC ABS-FLAMELESS
12-75	33	9	23.5	ATOMIC ABS-FLAMELESS
11-75	34			NOT DETERMINED
11-75	35			NOT DETERMINED
11-75	37			NOT DETERMINED
11-75	38	6	49.0	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BKS CH A1
11-75	40	8	32.0	ATOMIC ABS-FLAMELESS
11-75	41	6	49.0	ATOMIC ABS-FLAMELESS
11-75	42	7	40.5	ANODIC STRIPPING VOLTAMMETRY
11-75	43			NOT DETERMINED
11-75	44			NOT DETERMINED
11-75	45	30	154.9	OTHER

TOTAL RANGE 4  
MEAN 11.7692  
STANDARD DEVIATION 7.9262

30  
AVERAGE DEVIATION 6.1420  
95 PCT.CONF.INTVL OF MEAN 11.7692 +0R-

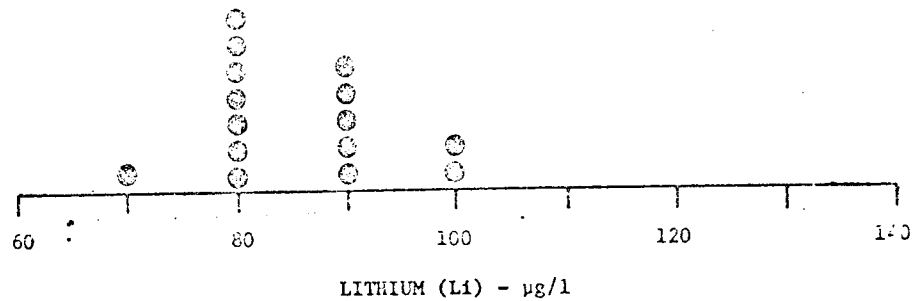
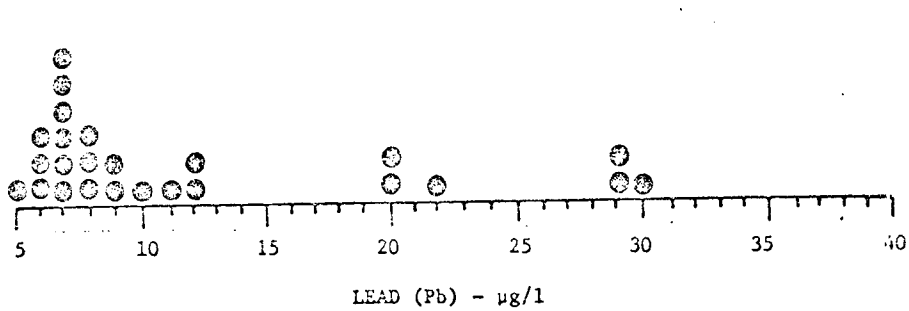
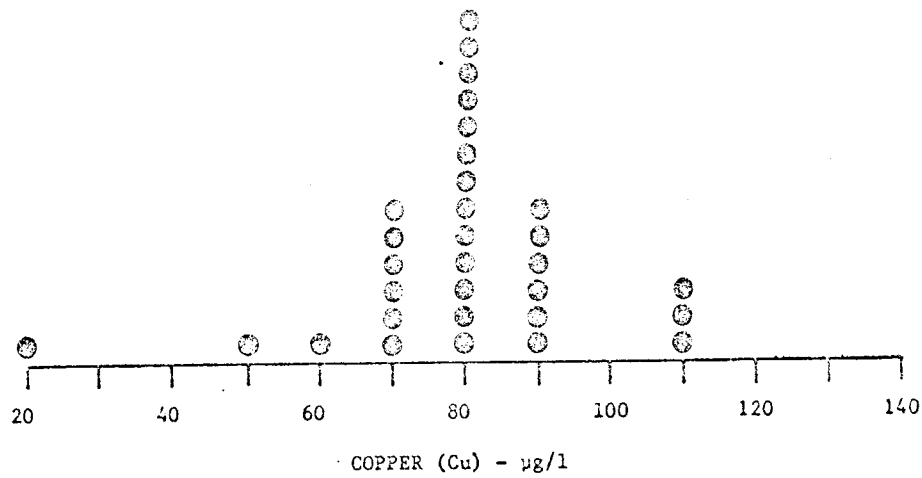
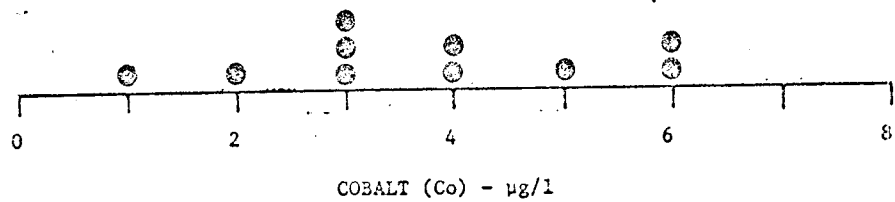
SAMPLE 52  
3.2022  
PB

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DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	1			NOT DETERMINED
11-75	2			NOT DETERMINED
11-75	3			NOT DETERMINED
11-75	4			NOT DETERMINED
11-75	5	90	5.0	ATOMIC ABS-DIRECT
11-75	6			NOT DETERMINED
11-75	7	80	6.7	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	8			NOT DETERMINED
11-75	9			NOT DETERMINED
11-75	11	90	5.0	ATOMIC ABS-DIRECT
11-75	12			NOT DETERMINED
11-75	13	70	18.3	ATOMIC ABS-FLAMELESS
11-75	14			NOT DETERMINED
11-75	15			NOT DETERMINED
11-75	16	100	16.7	ATOMIC ABS-DIRECT
11-75	17			NOT DETERMINED
11-75	18			NOT DETERMINED
11-75	19	90	5.0	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	20			NOT DETERMINED
11-75	22			NOT DETERMINED
11-75	23	80	6.7	ATOMIC ABS-DIRECT
11-75	25	100	16.7	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	27			NOT DETERMINED
11-75	28	80	6.7	ATOMIC ABS-DIRECT
11-75	30			NOT DETERMINED
11-75	31			NOT DETERMINED
11-75	32			NOT DETERMINED
12-75	33			NOT DETERMINED
11-75	34			NOT DETERMINED
11-75	35			NOT DETERMINED
11-75	37			NOT DETERMINED
11-75	38	90	5.0	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	40	80	6.7	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	41	80	6.7	ATOMIC ABS-DIRECT
11-75	42			NOT DETERMINED
11-75	43			NOT DETERMINED
11-75	44	90	5.0	ATOMIC ABS-DIRECT
11-75	45	80	6.7	ATOMIC ABS-DIRECT

TOTAL RANGE	70	-	100			SAMPLE 52
MEAN		85.7141		AVERAGE DEVIATION	7.1429	
STANDARD DEVIATION		8.5163		95 PCT.CONF.INTVL OF MEAN	85.7141 +OR- 4.9163	LI



SAMPLE NO. 52

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	1			NOT DETERMINED
11-75	2			NOT DETERMINED
11-75	3			NOT DETERMINED
11-75	4	0.4	34.1	TECHNICON AUTOANALYZER, ATOMIC ABS-FLAMELESS: EPA
11-75	5	0.8	31.9	ATOMIC ABS-FLAMELESS: ASTM METHOD A, D3223-73
11-75	6			NOT DETERMINED
11-75	7	0.5	17.6	TECHNICON AUTOANALYZER, ATOMIC ABS-FLAMELESS: EPA
11-75	8			NOT DETERMINED
11-75	9			NOT DETERMINED
11-75	11			NOT DETERMINED
11-75	12			NOT DETERMINED
11-75	13			NOT DETERMINED
11-75	14			NOT DETERMINED
11-75	15	0.6	1.1	ATOMIC ABS-FLAMELESS: EPA
11-75	16	0.6	1.1	ATOMIC ABS-FLAMELESS: EPA
11-75	17	0.6	1.1	ATOMIC ABS-FLAMELESS: EPA
11-75	18			NOT DETERMINED
11-75	19	0.7	15.4	ATOMIC ABS-FLAMELESS: USGS PROVISIONAL
11-75	20			NOT DETERMINED
11-75	22	0.5	17.6	ATOMIC ABS-FLAMELESS: EPA
11-75	23	0.6	1.1	ATOMIC ABS-FLAMELESS: EPA
11-75	25			NOT DETERMINED
11-75	27			NOT DETERMINED
11-75	28	0.6	1.1	ATOMIC ABS-FLAMELESS: USGS PROVISIONAL
11-75	30	0.6	1.1	ATOMIC ABS-FLAMELESS: EPA
11-75	31			NOT DETERMINED
11-75	32	0.7	15.4	ATOMIC ABS-FLAMELESS: EPA
12-75	33			NOT DETERMINED
11-75	34			NOT DETERMINED
11-75	35			NOT DETERMINED
11-75	37	0.8	31.9	ATOMIC ABS-FLAMELESS: EPA
11-75	38	0.5	17.6	ATOMIC ABS-FLAMELESS: USGS PROVISIONAL
11-75	40			NOT DETERMINED
11-75	41			NOT DETERMINED
11-75	42	0.6	1.1	ATOMIC ABS-FLAMELESS: ASTM METHOD A, D3223-73
11-75	43			NOT DETERMINED
11-75	44			NOT DETERMINED
11-75	45	1.2	97.8	REJECT ATOMIC ABS-FLAMELESS: ASTM METHOD A, D3223-73

TOTAL RANGE	0.4	-	1.2			SAMPLE 52
MEAN		0.6067		AVERAGE DEVIATION	0.0764	
STANDARD DEVIATION		0.1100		95 PCT.CONF.INTVL OF MEAN	0.6067 +OR- 0.0609	HG

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	1	14	36.6	EMMISSION-ARC/SPARK
11-75	2			NOT DETERMINED
11-75	3			NOT DETERMINED
11-75	4			NOT DETERMINED
11-75	5	10	2.4	OTHER <i>not given</i>
11-75	6			NOT DETERMINED
11-75	7			NOT DETERMINED
11-75	8			NOT DETERMINED
11-75	9			NOT DETERMINED
11-75	11			NOT DETERMINED
11-75	12			NOT DETERMINED
11-75	13			NOT DETERMINED
11-75	14			NOT DETERMINED
11-75	15			NOT DETERMINED
11-75	16			NOT DETERMINED
11-75	17			NOT DETERMINED
11-75	18			NOT DETERMINED
11-75	19	8	22.0	ATOMIC ABS-CHELATION/EXTRACTION: USGS PROVISIONAL
11-75	20			NOT DETERMINED
11-75	22			NOT DETERMINED
11-75	23			NOT DETERMINED
11-75	25			NOT DETERMINED
11-75	27			NOT DETERMINED
11-75	28	9	12.2	ATOMIC ABS-CHELATION/EXTRACTION: USGS PROVISIONAL
11-75	30			NOT DETERMINED
11-75	31			NOT DETERMINED
11-75	32			NOT DETERMINED
12-75	33			NOT DETERMINED
11-75	34			NOT DETERMINED
11-75	35			NOT DETERMINED
11-75	37			NOT DETERMINED
11-75	38			NOT DETERMINED
11-75	40			NOT DETERMINED
11-75	41			NOT DETERMINED
11-75	42			NOT DETERMINED
11-75	43			NOT DETERMINED
11-75	44			NOT DETERMINED
11-75	45			NOT DETERMINED

TOTAL RANGE	8	-	14			SAMPLE 52
MEAN		10.2500		AVERAGE DEVIATION	1.8750	
STANDARD DEVIATION		2.6300		95 PCT.CONF.INTVL OF MEAN	10.2500 +OR- 4.1843	MO

*Mo*

DATE MO-YR	CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHOD
11-75	1	7	33.7	EMISSION-ARC/SPARK
11-75	2			NOT DETERMINED
11-75	3			NOT DETERMINED
11-75	4			NOT DETERMINED
11-75	5	3	42.7	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-75	6	8	52.8	ATOMIC ABS-DIRECT
11-75	7	4	23.6	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-75	8			NOT DETERMINED
11-75	9	6	14.6	ATOMIC ABS-DIRECT
11-75	11			NOT DETERMINED
11-75	12	3	42.7	OTHER <i>As Flawless</i>
11-75	13	3	42.7	ATOMIC ABS-FLAMELESS
11-75	14			NOT DETERMINED
11-75	15	10	91.0	ATOMIC ABS-FLAMELESS
11-75	16			NOT DETERMINED
11-75	17	6	14.6	ATOMIC ABS-DIRECT
11-75	18			NOT DETERMINED
11-75	19	6	14.6	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-75	20			NOT DETERMINED
11-75	22			NOT DETERMINED
11-75	23			NOT DETERMINED
11-75	25			NOT DETERMINED
11-75	27	5	4.5	ATOMIC ABS-DIRECT
11-75	28	1	80.9	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-75	30			NOT DETERMINED
11-75	31			NOT DETERMINED
11-75	32			NOT DETERMINED
12-75	33	5	4.5	ATOMIC ABS-FLAMELESS
11-75	34			NOT DETERMINED
11-75	35			NOT DETERMINED
11-75	37			NOT DETERMINED
11-75	38	2	52.8	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-75	40	4	23.6	ATOMIC ABS-FLAMELESS
11-75	41	4	23.6	ATOMIC ABS-CHELATION/EXTRACTION, EPA
11-75	42			NOT DETERMINED
11-75	43			NOT DETERMINED
11-75	44			NOT DETERMINED
11-75	45	6	14.6	ATOMIC ABS-DIRECT

TOTAL RANGE 1  
MEAN  
STANDARD DEVIATION

- 10  
5.2353  
2.2508

AVERAGE DEVIATION  
95 PCT. CONF. INTVL OF MEAN

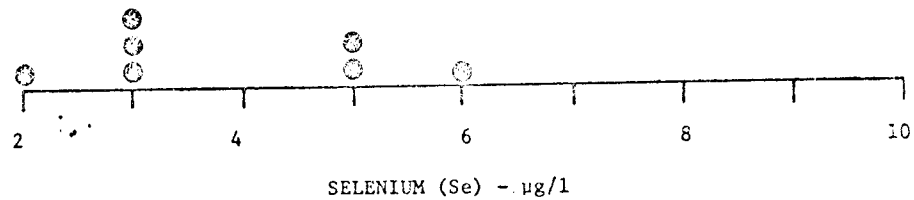
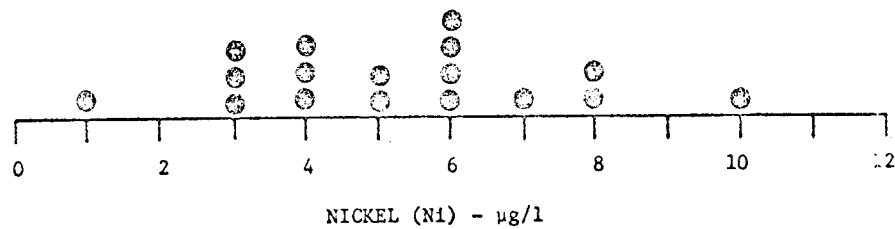
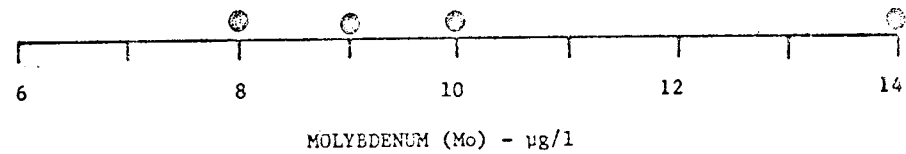
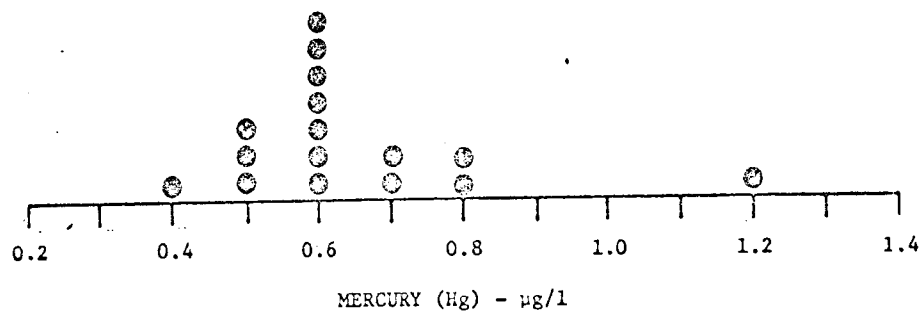
1.7785  
5.2353 +OR- 1.1573

SAMPLE 52  
NI

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	1			NOT DETERMINED
11-75	2			NOT DETERMINED
11-75	3			NOT DETERMINED
11-75	4			NOT DETERMINED
11-75	5			NOT DETERMINED
11-75	6			NOT DETERMINED
11-75	7	5	29.6	ATOMIC ABS-HYDRIDE (STANNOUS CHLORIDE): USGS PROVISIONAL
11-75	8			NOT DETERMINED
11-75	9			NOT DETERMINED
11-75	11			NOT DETERMINED
11-75	12			NOT DETERMINED
11-75	13			NOT DETERMINED
11-75	14			NOT DETERMINED
11-75	15			NOT DETERMINED
11-75	16	3	22.2	ATOMIC ABS-HYDRIDE (STANNOUS CHLORIDE): USGS PROVISIONAL
11-75	17	5	29.6	OTHER <i>not given</i>
11-75	18			NOT DETERMINED
11-75	19			NOT DETERMINED
11-75	20			NOT DETERMINED
11-75	22			NOT DETERMINED
11-75	23			NOT DETERMINED
11-75	25			NOT DETERMINED
11-75	27	19	392.6	REJECT ATOMIC ABS-HYDRIDE (STANNOUS CHLORIDE): USGS PROVISIONAL
11-75	28	3	22.2	ATOMIC ABS-HYDRIDE (STANNOUS CHLORIDE): USGS PROVISIONAL
11-75	30			NOT DETERMINED
11-75	31			NOT DETERMINED
11-75	32	6	55.6	OTHER <i>not given</i>
12-75	33	2	48.1	OTHER <i>not given</i>
11-75	34			NOT DETERMINED
11-75	35			NOT DETERMINED
11-75	37			NOT DETERMINED
11-75	38	3	22.2	ATOMIC ABS-HYDRIDE (STANNOUS CHLORIDE): USGS PROVISIONAL
11-75	40			NOT DETERMINED
11-75	41			NOT DETERMINED
11-75	42			NOT DETERMINED
11-75	43			NOT DETERMINED
11-75	44			NOT DETERMINED
11-75	45			NOT DETERMINED

TOTAL RANGE	2	=	19				SAMPLE 52
MEAN		3.8571		AVERAGE DEVIATION	1.2653		
STANDARD DEVIATION		1.4639		95 PCT.CONF.INTVL OF MEAN	3.8571 +OR-	1.3539	SE

50



SAMPLE NO. 52

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	1	3	32.9	EMMISSION-ARC/SPARK
11-75	2			NOT DETERMINED
11-75	3			NOT DETERMINED
11-75	4			NOT DETERMINED
11-75	5	4	10.5	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-75	6	4	10.5	ATOMIC ABS-DIRECT
11-75	7	3	32.9	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-75	8			NOT DETERMINED
11-75	9	5	11.8	ATOMIC ABS-DIRECT
11-75	11			NOT DETERMINED
11-75	12			NOT DETERMINED
11-75	13	3	32.9	ATOMIC ABS-FLAMELESS
11-75	14			NOT DETERMINED
11-75	15	5	11.8	ATOMIC ABS-FLAMELESS
11-75	16			NOT DETERMINED
11-75	17	14	213.2	REJECT ATOMIC ABS-DIRECT
11-75	18			NOT DETERMINED
11-75	19	3	32.9	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-75	20			NOT DETERMINED
11-75	22	9	101.3	ATOMIC ABS-DIRECT
11-75	23			NOT DETERMINED
11-75	25			NOT DETERMINED
11-75	27	3	32.9	ATOMIC ABS-DIRECT
11-75	28	3	32.9	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-75	30	3	32.9	ATOMIC ABS-DIRECT
11-75	31			NOT DETERMINED
11-75	32	4	10.5	ATOMIC ABS-FLAMELESS
12-75	33			NOT DETERMINED
11-75	34			NOT DETERMINED
11-75	35	10	123.7	ATOMIC ABS-DIRECT
11-75	37			NOT DETERMINED
11-75	38	3	32.9	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-75	40	3	32.9	ATOMIC ABS-FLAMELESS
11-75	41	8	78.9	ATOMIC ABS-DIRECT
11-75	42			NOT DETERMINED
11-75	43			NOT DETERMINED
11-75	44			NOT DETERMINED
11-75	45			NOT DETERMINED

TOTAL RANGE 3  
MEAN  
STANDARD DEVIATION

14  
4.4706  
2.2945

AVERAGE DEVIATION  
95 PCT.CONF.INTVL OF MEAN

1.7232  
4.4706 \*OR= 1.1798

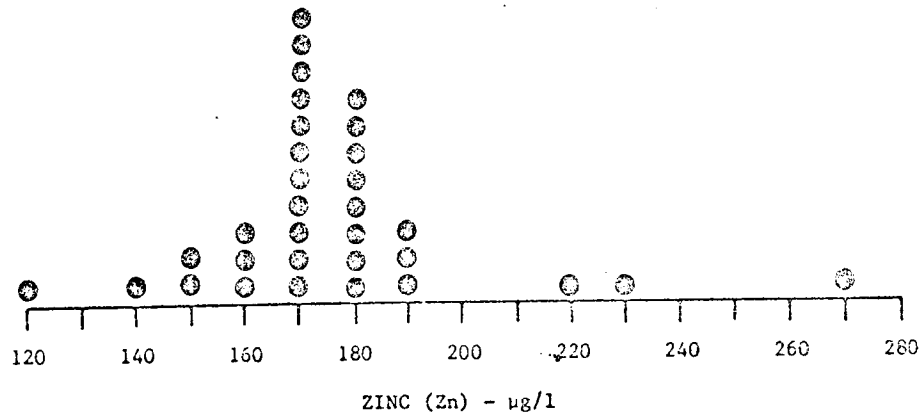
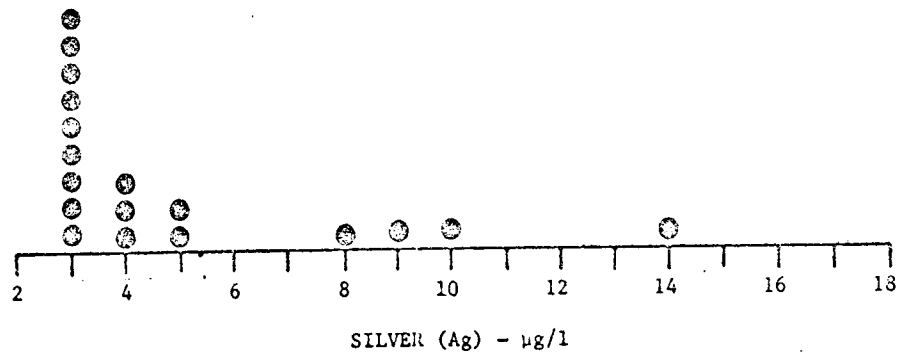
SAMPLE 52  
AG



DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	1	180	3.9	EMISSION-ARC/SPARK
11-75	2	170	1.9	ATOMIC ABS-DIRECT
11-75	3			NOT DETERMINED
11-75	4	180	3.9	ATOMIC ABS-DIRECT
11-75	5	170	1.9	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
11-75	6	160	7.6	ATOMIC ABS-DIRECT
11-75	7	170	1.9	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
11-75	8			NOT DETERMINED
11-75	9	170	1.9	ATOMIC ABS-DIRECT
11-75	11	150	13.4	ATOMIC ABS-DIRECT
11-75	12	520	200.2	REJECT ATOMIC ABS-DIRECT
11-75	13	190	9.7	ATOMIC ABS-DIRECT
11-75	14	170	1.9	ATOMIC ABS-DIRECT
11-75	15	160	7.6	ATOMIC ABS-DIRECT
11-75	16	180	3.9	ATOMIC ABS-DIRECT
11-75	17	180	3.9	ATOMIC ABS-DIRECT
11-75	18	230	32.8	ATOMIC ABS-DIRECT
11-75	19	220	27.0	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
11-75	20	140	19.2	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
11-75	22	270	55.9	REJECT ATOMIC ABS-DIRECT
11-75	23			NOT DETERMINED
11-75	25	170	1.9	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
11-75	27	180	3.9	ATOMIC ABS-DIRECT
11-75	28	150	13.4	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
11-75	30	170	1.9	ATOMIC ABS-DIRECT
11-75	31	190	9.7	ATOMIC ABS-DIRECT
11-75	32	160	7.6	ATOMIC ABS-DIRECT
12-75	33	170	1.9	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
11-75	34			NOT DETERMINED
11-75	35	170	1.9	ATOMIC ABS-DIRECT
11-75	37	180	3.9	ATOMIC ABS-DIRECT
11-75	38	190	9.7	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
11-75	40	170	1.9	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
11-75	41	170	1.9	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
11-75	42	180	3.9	ATOMIC ABS-DIRECT
11-75	43	120	30.7	ATOMIC ABS-DIRECT: USGS TWRI BK5 CH A1
11-75	44	180	3.9	ATOMIC ABS-DIRECT
11-75	45	430	148.2	REJECT ATOMIC ABS-DIRECT

TOTAL RANGE 120 - 520 SAMPLE 52  
MEAN 173.2247 AVERAGE DEVIATION 13.4233  
STANDARD DEVIATION 20.2298 95 PCT.CONF.INTVL OF MEAN 173.2247 +OR- 7.4194 ZN

7/11



SAMPLE NO. 52

DETERMINATION	NO. LABS REPORTING	PCT. OF VALUES REJECTED	PCT. OF UNREJECTED VALUES WITHIN		
			95 PCT. CI	X +OR- STD	X +OR- 2STD
AL	17	6	50	75	88
FE	36	14	23	77	94
MN	29	3	0	71	96
AS	16	0	31	75	94
BA	12	0	50	83	100
BE	6	17	100	100	100
CD	28	4	30	74	100
CR TOT	23	9	24	57	95
CO	10	0	50	60	100
CU	33	9	43	83	87
PB	26	0	23	77	88
LI	14	0	36	79	100
HG	16	6	47	80	100
MO	4	0	100	75	100
NI	17	0	35	76	94
SE	8	13	71	71	100
AG	18	6	29	82	94
ZN	34	9	61	81	90

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	1	850	7.4	EMISSION-ARC/SPARK
11-75	2	820	3.6	ATOMIC ABS-DIRECT
11-75	3			NOT DETERMINED
11-75	4			NOT DETERMINED
11-75	5	720	9.0	ATOMIC ABS-DIRECT
11-75	6			NOT DETERMINED
11-75	7	810	2.4	ATOMIC ABS-CHELATION/EXTRACTION: USGS PROVISIONAL
11-75	8			NOT DETERMINED
11-75	9	750	5.2	ATOMIC ABS-DIRECT
11-75	11			NOT DETERMINED
11-75	12			NOT DETERMINED
11-75	13			NOT DETERMINED
11-75	14			NOT DETERMINED
11-75	15			NOT DETERMINED
11-75	16	800	1.1	ATOMIC ABS-DIRECT
11-75	17	700	11.5	FERRON- ORTHOPHENANTHROLINE: USGS TWRI 8X5 CH A1
11-75	18			NOT DETERMINED
11-75	19	770	2.7	ATOMIC ABS-CHELATION/EXTRACTION: USGS PROVISIONAL
11-75	20			NOT DETERMINED
11-75	22			NOT DETERMINED
11-75	23			NOT DETERMINED
11-75	25	170	78.5	REJECT OTHER
11-75	27			NOT DETERMINED
11-75	28	770	2.7	ATOMIC ABS-DIRECT
11-75	30	940	18.8	ATOMIC ABS-DIRECT
11-75	31			NOT DETERMINED
11-75	32	700	11.5	ATOMIC ABS-FLAMELESS
12-75	33	860	11.2	ATOMIC ABS-DIRECT
11-75	34			NOT DETERMINED
11-75	35			NOT DETERMINED
11-75	37			NOT DETERMINED
11-75	38	800	1.1	ATOMIC ABS-CHELATION/EXTRACTION: USGS PROVISIONAL
11-75	40	800	1.1	ATOMIC ABS-FLAMELESS
11-75	41	770	2.7	NEUTRON ACTIVATION
11-75	42			NOT DETERMINED
11-75	43			NOT DETERMINED
11-75	44			NOT DETERMINED
11-75	45	780	1.4	NEUTRON ACTIVATION

TOTAL RANGE 170

- 940

SAMPLE 53

MEAN 791.2473  
STANDARD DEVIATION 63.1268

AVERAGE DEVIATION  
95 PCT.CONF.INTVL OF MEAN

46.2500  
791.2473 +OR- 33.6308

AL

T 53

A1

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	1	680	9.5	EMISSION-ARC/SPARK
11-75	2	620	0.1	ATOMIC ABS-DIRECT
11-75	3	620	0.1	PHENANTHROLINE: APHA STD METH, 13ED
11-75	4	550	11.4	ATOMIC ABS-DIRECT
11-75	5	800	28.8	ATOMIC ABS-DIRECT
11-75	6	630	1.5	ATOMIC ABS-DIRECT
11-75	7	610	1.8	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	8	600	3.4	BIPYRIDINE: USGS TWRI BKS CH A1
11-75	9	650	4.7	ATOMIC ABS-DIRECT
11-75	11	800	28.8	ATOMIC ABS-DIRECT
11-75	12			NOT DETERMINED
11-75	13	970	56.2	REJECT ATOMIC ABS-FLAMELESS
11-75	14	680	9.5	ATOMIC ABS-DIRECT
11-75	15	640	3.1	ATOMIC ABS-DIRECT
11-75	16	640	3.1	ORTHOPHENANTHROLINE: ASTM METHOD A, D1068-74
11-75	17	650	4.7	PHENANTHROLINE: APHA STD METH, 13ED
11-75	18	500	19.5	PHENANTHROLINE: APHA STD METH, 13ED
11-75	19	740	19.2	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	20	500	19.5	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	22	690	11.1	ATOMIC ABS-DIRECT
11-75	23			NOT DETERMINED
11-75	25	640	3.1	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	27	600	3.4	ATOMIC ABS-DIRECT
11-75	28	640	3.1	TECHNICON AUTOANALYZER, BIPYRIDINE
11-75	30	600	3.4	ATOMIC ABS-DIRECT
11-75	31	590	5.0	ATOMIC ABS-DIRECT
11-75	32	610	1.8	ATOMIC ABS-DIRECT
11-75	33	530	14.6	ATOMIC ABS-DIRECT
11-75	34	120	80.7	REJECT ATOMIC ABS-DIRECT
11-75	35	300	51.7	REJECT ATOMIC ABS-DIRECT
11-75	37	630	1.5	ATOMIC ABS-DIRECT
11-75	38	590	5.0	TECHNICON AUTOANALYZER, BIPYRIDINE
11-75	40	650	4.7	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	41	640	3.1	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	42	600	3.4	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	43	400	35.6	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	44	620	0.1	ATOMIC ABS-DIRECT
11-75	45	550	11.4	ORTHOPHENANTHROLINE: ASTM METHOD A, D1068-74

TOTAL RANGE 120 - 970  
MEAN 620.9058  
STANDARD DEVIATION 78.0368

AVERAGE DEVIATION 52.4517  
95 PCT.CONF.INTVL OF MEAN 620.9058 +OR- 27.5765

SAMPLE 53

FE

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	1	230	10.6	EMISSION-ARC/SPARK
11-75	2	210	1.0	ATOMIC ABS-DIRECT
11-75	3	240	15.4	ATOMIC ABS-DIRECT
11-75	4	180	13.4	ATOMIC ABS-DIRECT
11-75	5	190	8.6	ATOMIC ABS-DIRECT
11-75	6	200	3.8	ATOMIC ABS-DIRECT
11-75	7	190	8.6	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	8			NOT DETERMINED
11-75	9	210	1.0	ATOMIC ABS-DIRECT
11-75	11			NOT DETERMINED
11-75	12			NOT DETERMINED
11-75	13	210	1.0	ATOMIC ABS-FLAMELESS
11-75	14			NOT DETERMINED
11-75	15			NOT DETERMINED
11-75	16	200	3.8	ATOMIC ABS-DIRECT
11-75	17	180	13.4	PERSULFATE: APHA STD METH, 13ED
11-75	18	180	13.4	ATOMIC ABS-DIRECT
11-75	19	250	25.0	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	20	250	20.2	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	22	200	3.8	ATOMIC ABS-DIRECT
11-75	23			NOT DETERMINED
11-75	25	200	3.8	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	27	200	3.8	ATOMIC ABS-DIRECT
11-75	28	220	5.8	ATOMIC ABS-DIRECT
11-75	30	210	1.0	ATOMIC ABS-DIRECT
11-75	31	190	8.6	ATOMIC ABS-DIRECT
11-75	32	200	3.8	ATOMIC ABS-DIRECT
12-75	33	220	5.8	ATOMIC ABS-DIRECT
11-75	34	20	90.4	REJECT ATOMIC ABS-DIRECT
11-75	35	220	5.8	ATOMIC ABS-DIRECT
11-75	37	210	1.0	ATOMIC ABS-DIRECT
11-75	38	210	1.0	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	40	200	3.8	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	41	210	1.0	NEUTRON ACTIVATION
11-75	42	30	85.6	REJECT ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	43	200	3.8	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	44	210	1.0	ATOMIC ABS-DIRECT
11-75	45	130	37.5	REJECT PERSULFATE: APHA STD METH, 13ED

TOTAL RANGE 20 - 260  
MEAN 207.9296  
STANDARD DEVIATION 19.1571

AVERAGE DEVIATION  
95 PCT.CONF.INTVL OF MEAN

13.8644  
207.9296 +OR- 7.2855

SAMPLE 53  
MN

DAYE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	1			NOT DETERMINED
11-75	2			NOT DETERMINED
11-75	3			NOT DETERMINED
11-75	4			NOT DETERMINED
11-75	5	30	44.9	ATOMIC ABS-HYDRIDE(ZINC); USGS PROVISIONAL
11-75	6			NOT DETERMINED
11-75	7	56	2.9	ATOMIC ABS-HYDRIDE(ZINC); USGS PROVISIONAL
11-75	8			NOT DETERMINED
11-75	9			NOT DETERMINED
11-75	11			NOT DETERMINED
11-75	12			NOT DETERMINED
11-75	13			NOT DETERMINED
11-75	14			NOT DETERMINED
11-75	15			NOT DETERMINED
11-75	16	50	8.1	SILVER DIETHYLDITHIOCARBAMATE; APHA STD METH, 13ED
11-75	17	58	6.6	SILVER DIETHYLDITHIOCARBAMATE; USGS TWRI BK5 CH A1
11-75	18			NOT DETERMINED
11-75	19	66	21.3	SILVER DIETHYLDITHIOCARBAMATE-REVISION; USGS PROVISIONAL
11-75	20			NOT DETERMINED
11-75	22	60	10.3	ATOMIC ABS-HYDRIDE(SODIUM BOROHYDRIDE)
11-75	23			NOT DETERMINED
11-75	25			NOT DETERMINED
11-75	27	65	19.5	ATOMIC ABS-HYDRIDE(ZINC); USGS PROVISIONAL
11-75	28	53	2.6	ATOMIC ABS-HYDRIDE(ZINC); USGS PROVISIONAL
11-75	30	62	14.0	ATOMIC ABS-HYDRIDE(SODIUM BOROHYDRIDE)
11-75	31	32	41.2	SILVER DIETHYLDITHIOCARBAMATE; APHA STD METH, 13ED
11-75	32	74	36.0	OTHER
12-75	33	69	26.8	OTHER
11-75	34			NOT DETERMINED
11-75	35			NOT DETERMINED
11-75	37	540	892.6	REJECT ATOMIC ABS-HYDRIDE(SODIUM BOROHYDRIDE)
11-75	38	56	2.9	ATOMIC ABS-HYDRIDE(ZINC); USGS PROVISIONAL
11-75	40			NOT DETERMINED
11-75	41			NOT DETERMINED
11-75	42	46	15.4	SILVER DIETHYLDITHIOCARBAMATE; APHA STD METH, 13ED
11-75	43			NOT DETERMINED
11-75	44			NOT DETERMINED
11-75	45	39	28.3	NEUTRON ACTIVATION

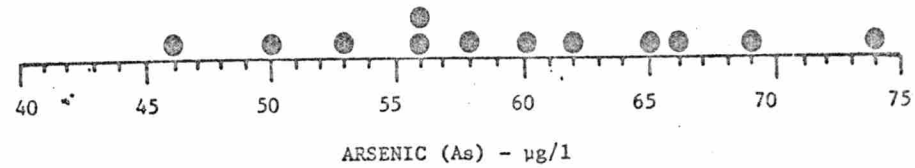
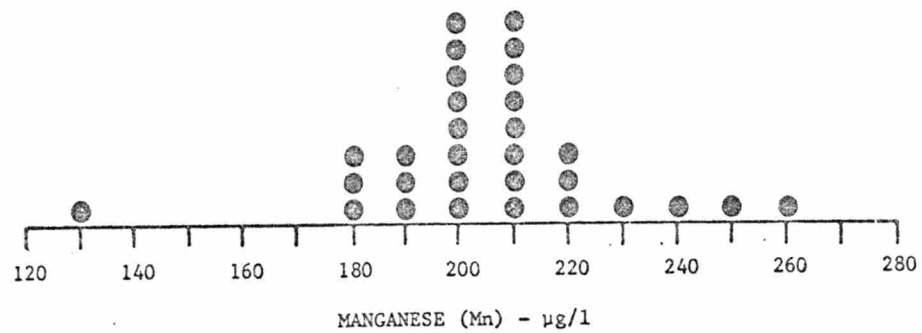
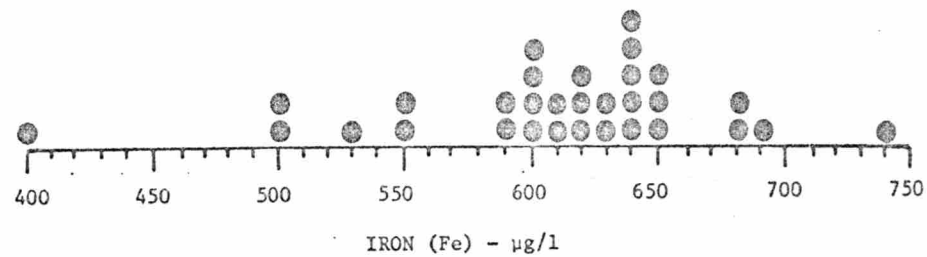
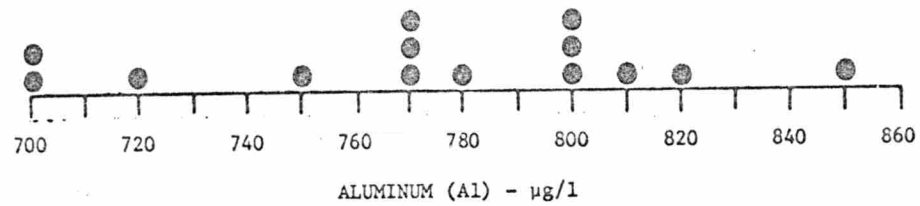
TOTAL RANGE 30  
MEAN  
STANDARD DEVIATION

= 540  
54.3998  
13.0318

AVERAGE DEVIATION  
95 PCT.CONF.INTVL OF MEAN

10.1867  
54.3998 +OR- 7.2175

SAMPLE 53  
AS



SAMPLE NO. 53



DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	1	900	17.9	EMISSION-ARC/SPARK
11-75	2			NOT DETERMINED
11-75	3			NOT DETERMINED
11-75	4			NOT DETERMINED
11-75	5	800	4.8	ATOMIC ABS-DIRECT
11-75	6			NOT DETERMINED
11-75	7	700	8.3	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	8			NOT DETERMINED
11-75	9	500	34.5	REJECT ATOMIC ABS-DIRECT
11-75	11			NOT DETERMINED
11-75	12			NOT DETERMINED
11-75	13			NOT DETERMINED
11-75	14			NOT DETERMINED
11-75	15			NOT DETERMINED
11-75	16	800	4.8	ATOMIC ABS-DIRECT
11-75	17	800	4.8	ATOMIC ABS-DIRECT
11-75	18			NOT DETERMINED
11-75	19	800	4.8	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	20			NOT DETERMINED
11-75	22	700	8.3	ATOMIC ABS-DIRECT
11-75	23			NOT DETERMINED
11-75	25			NOT DETERMINED
11-75	27			NOT DETERMINED
11-75	28	700	8.3	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	30	800	4.8	ATOMIC ABS-DIRECT
11-75	31			NOT DETERMINED
11-75	32	700	8.3	OTHER
12-75	33			NOT DETERMINED
11-75	34			NOT DETERMINED
11-75	35			NOT DETERMINED
11-75	37			NOT DETERMINED
11-75	38			NOT DETERMINED
11-75	40			NOT DETERMINED
11-75	41	700	8.3	ATOMIC ABS-DIRECT
11-75	42			NOT DETERMINED
11-75	43			NOT DETERMINED
11-75	44			NOT DETERMINED
11-75	45			NOT DETERMINED

TOTAL RANGE	500	-	900			SAMPLE 53
MEAN		763.6340	AVERAGE DEVIATION	57.8514		
STANDARD DEVIATION		67.4200	95 PCT.CONF.INTVL OF MEAN	763.6340 +OR-	45.2905	BA

Ba

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	1	60	44.0	EMISSION-ARC/SPARK
11-75	2			NOT DETERMINED
11-75	3			NOT DETERMINED
11-75	4			NOT DETERMINED
11-75	5			NOT DETERMINED
11-75	6			NOT DETERMINED
11-75	7	40	4.0	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	8			NOT DETERMINED
11-75	9			NOT DETERMINED
11-75	11			NOT DETERMINED
11-75	12			NOT DETERMINED
11-75	13			NOT DETERMINED
11-75	14			NOT DETERMINED
11-75	15			NOT DETERMINED
11-75	16	40	4.0	ATOMIC ABS-DIRECT
11-75	17			NOT DETERMINED
11-75	18			NOT DETERMINED
11-75	19	40	4.0	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	20			NOT DETERMINED
11-75	22			NOT DETERMINED
11-75	23			NOT DETERMINED
11-75	25			NOT DETERMINED
11-75	27			NOT DETERMINED
11-75	28	30	28.0	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	30			NOT DETERMINED
11-75	31			NOT DETERMINED
11-75	32			NOT DETERMINED
12-75	33			NOT DETERMINED
11-75	34			NOT DETERMINED
11-75	35			NOT DETERMINED
11-75	37			NOT DETERMINED
11-75	38			NOT DETERMINED
11-75	40			NOT DETERMINED
11-75	41			NOT DETERMINED
11-75	42			NOT DETERMINED
11-75	43			NOT DETERMINED
11-75	44			NOT DETERMINED
11-75	45	40	4.0	ATOMIC ABS-DIRECT

TOTAL RANGE 30  
 MEAN 41.6666  
 STANDARD DEVIATION 9.8319

AVERAGE DEVIATION 6.1111  
 95 PCT.CONF.INTVL OF MEAN 41.6666 +OR- 10.3196

SAMPLE 53  
 BE

Be

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	1			NOT DETERMINED
11-75	2	15	21.4	ATOMIC ABS-CHELATION/EXTRACTION, EPA
11-75	3			NOT DETERMINED
11-75	4			NOT DETERMINED
11-75	5	10	19.1	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BKS CH A1
11-75	6	12	2.9	ATOMIC ABS-DIRECT
11-75	7	12	2.9	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BKS CH A1
11-75	8			NOT DETERMINED
11-75	9	11	11.0	ATOMIC ABS-DIRECT
11-75	11	12	2.9	ATOMIC ABS-CHELATION/EXTRACTION, EPA
11-75	12	37	199.4	REJECT OTHER
11-75	13	12	2.9	ATOMIC ABS-FLAMELESS
11-75	14	6	51.5	ATOMIC ABS-FLAMELESS
11-75	15	20	61.8	ATOMIC ABS-FLAMELESS
11-75	16	8	35.3	ATOMIC ABS-CHELATION/EXTRACTION, EPA
11-75	17	12	2.9	ATOMIC ABS-DIRECT
11-75	18			NOT DETERMINED
11-75	19	11	11.0	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BKS CH A1
11-75	20	10	19.1	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BKS CH A1
11-75	22	14	13.3	ATOMIC ABS-CHELATION/EXTRACTION, EPA
11-75	23			NOT DETERMINED
11-75	25	40	223.6	REJECT ANODIC STRIPPING VOLTAMMETRY
11-75	27	13	5.2	ATOMIC ABS-DIRECT
11-75	28	7	43.4	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BKS CH A1
11-75	30	12	2.9	ATOMIC ABS-DIRECT
11-75	31	15	21.4	ATOMIC ABS-DIRECT
11-75	32	10	19.1	ATOMIC ABS-FLAMELESS
12-75	33	18	45.6	ATOMIC ABS-FLAMELESS
11-75	34			NOT DETERMINED
11-75	35			NOT DETERMINED
11-75	37	19	53.7	ATOMIC ABS-FLAMELESS
11-75	38	11	11.0	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BKS CH A1
11-75	40	13	5.2	ATOMIC ABS-FLAMELESS
11-75	41	12	2.9	ATOMIC ABS-CHELATION/EXTRACTION, EPA
11-75	42			NOT DETERMINED
11-75	43			NOT DETERMINED
11-75	44			NOT DETERMINED
11-75	45	14	13.3	ATOMIC ABS-DIRECT

TOTAL RANGE	6	-	40			SAMPLE 53
MEAN		12.3599		AVERAGE DEVIATION	2.3608	
STANDARD DEVIATION		3.3277		95 PCT.CONF.INTVL OF MEAN	12.3599 +0R-	1.3737 CD

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	1	18	9.8	EMISSION-ARC/SPARK
11-75	2	25	25.3	ATOMIC ABS-DIRECT: USGS PROVISIONAL
11-75	3			NOT DETERMINED
11-75	4	31	55.3	ATOMIC ABS-DIRECT
11-75	5			NOT DETERMINED
11-75	6	26	30.3	ATOMIC ABS-DIRECT
11-75	7	20	0.2	ATOMIC ABS-DIRECT: USGS PROVISIONAL
11-75	8			NOT DETERMINED
11-75	9	17	14.8	ATOMIC ABS-DIRECT
11-75	11			NOT DETERMINED
11-75	12	24	20.2	OTHER
11-75	13	14	29.9	ATOMIC ABS-FLAMELESS
11-75	14	14	29.9	ATOMIC ABS-FLAMELESS
11-75	15	22	10.2	ATOMIC ABS-FLAMELESS
11-75	16	13	34.9	ATOMIC ABS-CHELATION/EXTRACTION: EPA
11-75	17	20	0.2	ATOMIC ABS-DIRECT
11-75	18			NOT DETERMINED
11-75	19	19	4.8	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BKS CH A1
11-75	20			NOT DETERMINED
11-75	22	28	40.3	ATOMIC ABS-DIRECT
11-75	23			NOT DETERMINED
11-75	25			NOT DETERMINED
11-75	27	20	0.2	OTHER
11-75	28	90	350.9	REJECT ATOMIC ABS-DIRECT: USGS PROVISIONAL
11-75	30	22	10.2	ATOMIC ABS-DIRECT
11-75	31			NOT DETERMINED
11-75	32	19	4.8	ATOMIC ABS-FLAMELESS
12-75	33	19	4.8	ATOMIC ABS-FLAMELESS
11-75	34			NOT DETERMINED
11-75	35	20	0.2	ATOMIC ABS-DIRECT
11-75	37			NOT DETERMINED
11-75	38	12	39.9	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BKS CH A1
11-75	40	21	5.2	ATOMIC ABS-FLAMELESS
11-75	41	21	5.2	ATOMIC ABS-DIRECT: USGS PROVISIONAL
11-75	42	20	0.2	ATOMIC ABS-DIRECT
11-75	43			NOT DETERMINED
11-75	44	10	49.9	ATOMIC ABS-DIRECT
11-75	45	24	20.2	ATOMIC ABS-DIRECT

TOTAL RANGE 10

MEAN 19.9599  
STANDARD DEVIATION 4.9538

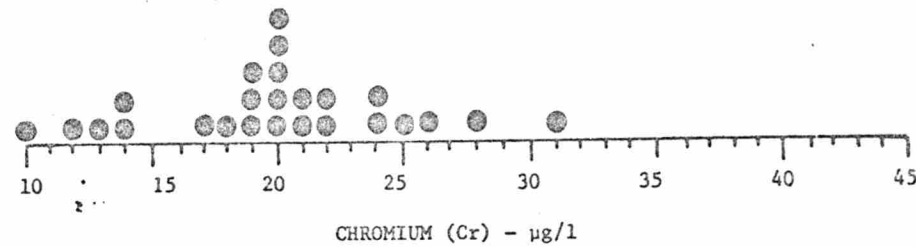
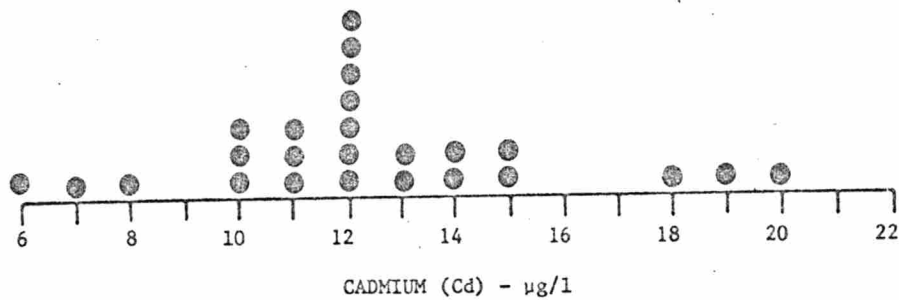
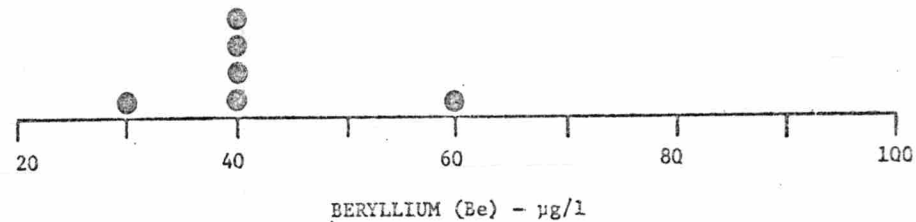
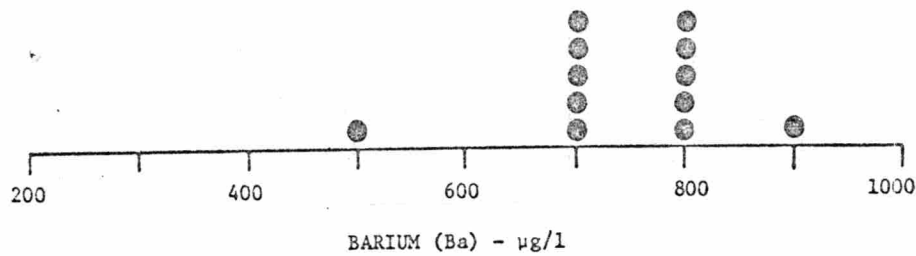
90

AVERAGE DEVIATION  
95 PCT.CONF.INTVL OF MEAN

3.5680  
19.9599 +0R- 2.0449 CR TOT

SAMPLE 53

61 107



SAMPLE NO. 53

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	1	12	28.2	EMISSION-ARC/SPARK
11-75	2			NOT DETERMINED
11-75	3			NOT DETERMINED
11-75	4			NOT DETERMINED
11-75	5	10	6.8	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-75	6			NOT DETERMINED
11-75	7	10	6.8	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-75	8			NOT DETERMINED
11-75	9			NOT DETERMINED
11-75	11			NOT DETERMINED
11-75	12			NOT DETERMINED
11-75	13	4	57.3	ATOMIC ABS-FLAMELESS
11-75	14			NOT DETERMINED
11-75	15			NOT DETERMINED
11-75	16	13	38.8	ATOMIC ABS-CHELATION/EXTRACTION: EPA
11-75	17			NOT DETERMINED
11-75	18			NOT DETERMINED
11-75	19	9	3.9	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-75	20			NOT DETERMINED
11-75	22			NOT DETERMINED
11-75	23			NOT DETERMINED
11-75	25			NOT DETERMINED
11-75	27			NOT DETERMINED
11-75	28	5	46.6	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-75	30			NOT DETERMINED
11-75	31			NOT DETERMINED
11-75	32			NOT DETERMINED
12-75	33	10	6.8	ATOMIC ABS-FLAMELESS
11-75	34			NOT DETERMINED
11-75	35			NOT DETERMINED
11-75	37			NOT DETERMINED
11-75	38	10	6.8	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-75	40	3	68.0	ATOMIC ABS-FLAMELESS
11-75	41			NOT DETERMINED
11-75	42			NOT DETERMINED
11-75	43			NOT DETERMINED
11-75	44			NOT DETERMINED
11-75	45	17	81.6	NEUTRON ACTIVATION

TOTAL RANGE 3  
MEAN  
STANDARD DEVIATION

17  
9.3636  
4.1054

AVERAGE DEVIATION  
95 PCT.CONF.INTVL OF MEAN

2.9917  
9.3636 +OR- 2.7579

SAMPLE 53  
CO

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN		METHOD
11-75	1	590	33.0	REJECT	EMISSION-ARC/SPARK
11-75	2	430	3.0		ATOMIC ABS-DIRECT
11-75	3			NOT DETERMINED	
11-75	4			NOT DETERMINED	
11-75	5	430	3.0		ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BKS CH A1
11-75	6	420	5.3		ATOMIC ABS-DIRECT
11-75	7	430	3.0		ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	8			NOT DETERMINED	
11-75	9	400	9.8		ATOMIC ABS-DIRECT
11-75	11	260	41.4	REJECT	ATOMIC ABS-DIRECT
11-75	12	20	95.5	REJECT	OTHER
11-75	13	420	5.3		ATOMIC ABS-FLAMELESS
11-75	14	450	1.5		ATOMIC ABS-DIRECT
11-75	15	470	6.0		ATOMIC ABS-DIRECT
11-75	16	430	3.0		ATOMIC ABS-DIRECT
11-75	17	440	0.8		ATOMIC ABS-DIRECT
11-75	18	460	8.2		ATOMIC ABS-DIRECT
11-75	19	450	1.5		ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	20	400	9.8		ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	22	450	1.5		ATOMIC ABS-DIRECT
11-75	23			NOT DETERMINED	
11-75	25	440	0.8		ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	27	490	10.5		ATOMIC ABS-DIRECT
11-75	28	440	0.8		ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	30	460	3.7		ATOMIC ABS-DIRECT
11-75	31	440	0.8		ATOMIC ABS-DIRECT
11-75	32	440	0.8		ATOMIC ABS-DIRECT
12-75	33	440	0.8		ATOMIC ABS-DIRECT
11-75	34			NOT DETERMINED	
11-75	35	480	8.2		ATOMIC ABS-DIRECT
11-75	37	440	0.8		ATOMIC ABS-DIRECT
11-75	38	550	24.0	REJECT	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	40	450	1.5		ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	41	480	8.2		ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	42	80	82.0	REJECT	ATOMIC ABS-DIRECT
11-75	43	220	50.4	REJECT	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	44	430	3.0		ATOMIC ABS-DIRECT
11-75	45			NOT DETERMINED	

TOTAL RANGE	20	-	590			SAMPLE 53
MEAN		443.4590		AVERAGE DEVIATION	17.3367	
STANDARD DEVIATION		22.9682		95 PCT.CONF.INTVL OF MEAN	443.4590 +OR- 9.2791	CU

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	1	50	24.9	EMISSION-ARC/SPARK
11-75	2	110	174.7	REJECT ATOMIC ABS-CHELATION/EXTRACTION, EPA
11-75	3			NOT DETERMINED
11-75	4			NOT DETERMINED
11-75	5	65	62.3	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-75	6	40	0.1	OTHER
11-75	7	39	2.6	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-75	8			NOT DETERMINED
11-75	9	34	15.1	OTHER
11-75	11			NOT DETERMINED
11-75	12	21	47.6	OTHER
11-75	13	23	30.1	ATOMIC ABS-FLAMELESS
11-75	14	27	32.6	ATOMIC ABS-FLAMELESS
11-75	15	48	19.9	ATOMIC ABS-FLAMELESS
11-75	16	49	22.4	ATOMIC ABS-CHELATION/EXTRACTION, EPA
11-75	17	40	0.1	OTHER
11-75	18			NOT DETERMINED
11-75	19	41	2.4	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-75	20	35	12.6	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-75	22	45	12.4	ATOMIC ABS-CHELATION/EXTRACTION, EPA
11-75	23			NOT DETERMINED
11-75	25	40	0.1	ANODIC STRIPPING VOLTAMMETRY
11-75	27	38	5.1	ATOMIC ABS-CHELATION/EXTRACTION, EPA
11-75	28	33	17.6	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-75	30	34	15.1	OTHER
11-75	31	37	7.6	ATOMIC ABS-CHELATION/EXTRACTION: ARHA STD METH, 13ED
11-75	32	26	35.1	ATOMIC ABS-FLAMELESS
12-75	33	56	39.9	ATOMIC ABS-FLAMELESS
11-75	34			NOT DETERMINED
11-75	35			NOT DETERMINED
11-75	37			NOT DETERMINED
11-75	38	40	0.1	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-75	40	48	19.9	ATOMIC ABS-FLAMELESS
11-75	41	29	27.6	ATOMIC ABS-FLAMELESS
11-75	42	48	19.9	ANODIC STRIPPING VOLTAMMETRY
11-75	43			NOT DETERMINED
11-75	44			NOT DETERMINED
11-75	45	50	24.9	OTHER

TOTAL RANGE	21	-	110			SAMPLE 53
MEAN		40.0383		AVERAGE DEVIATION	7.6627	
STANDARD DEVIATION		10.0617		95 PCT.CONF.INTVL OF MEAN	40.0383 +OR- 4.0649	PB

PL



DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	1			NOT DETERMINED
11-75	2			NOT DETERMINED
11-75	3			NOT DETERMINED
11-75	4			NOT DETERMINED
11-75	5	230	7.9	ATOMIC ABS-DIRECT
11-75	6			NOT DETERMINED
11-75	7	200	6.1	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	8			NOT DETERMINED
11-75	9			NOT DETERMINED
11-75	11	130	39.0	REJECT ATOMIC ABS-DIRECT
11-75	12			NOT DETERMINED
11-75	13	190	10.8	ATOMIC ABS-FLAMELESS
11-75	14			NOT DETERMINED
11-75	15			NOT DETERMINED
11-75	16	250	17.3	ATOMIC ABS-DIRECT
11-75	17			NOT DETERMINED
11-75	18			NOT DETERMINED
11-75	19	220	3.2	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	20			NOT DETERMINED
11-75	22			NOT DETERMINED
11-75	23	200	6.1	ATOMIC ABS-DIRECT
11-75	25	200	6.1	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	27			NOT DETERMINED
11-75	28	210	1.4	ATOMIC ABS-DIRECT
11-75	30			NOT DETERMINED
11-75	31			NOT DETERMINED
11-75	32			NOT DETERMINED
12-75	33			NOT DETERMINED
11-75	34			NOT DETERMINED
11-75	35			NOT DETERMINED
11-75	37			NOT DETERMINED
11-75	38	210	1.4	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	40	210	1.4	ATOMIC ABS-DIRECT, USGS TWRI BKS CH A1
11-75	41	220	3.2	ATOMIC ABS-DIRECT
11-75	42			NOT DETERMINED
11-75	43			NOT DETERMINED
11-75	44	230	7.9	ATOMIC ABS-DIRECT
11-75	45	200	6.1	ATOMIC ABS-DIRECT

TOTAL RANGE 130 - 250

MEAN 213.0767

STANDARD DEVIATION 16.5250

AVERAGE DEVIATION

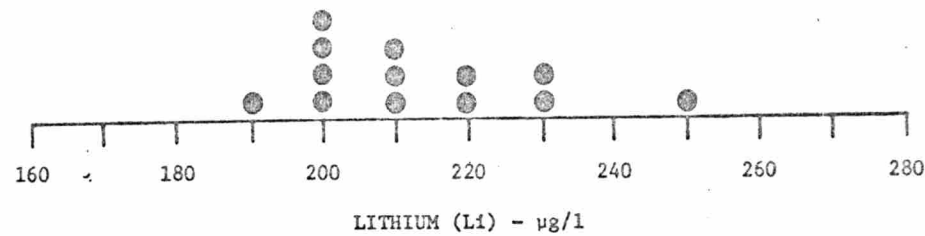
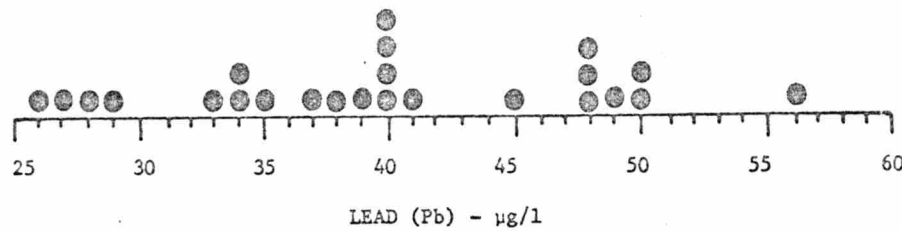
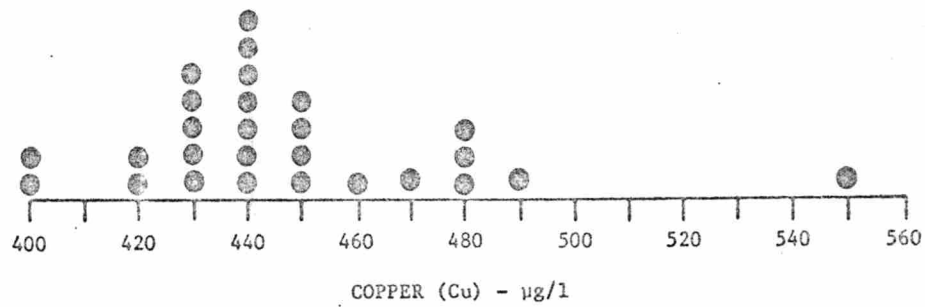
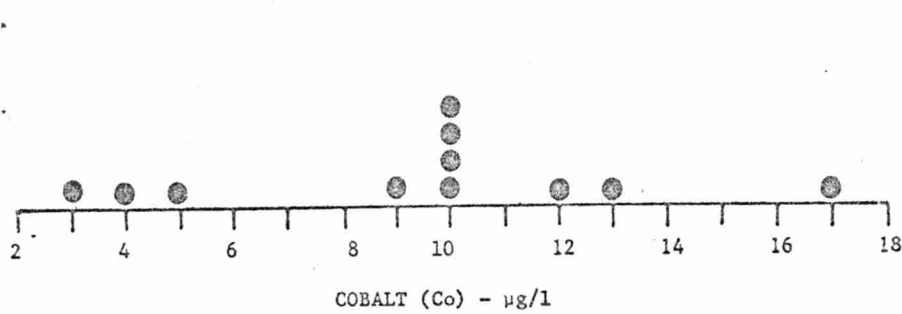
95 PCT.CONF.INTVL OF MEAN

13.0177

213.0767 +OR- 9.9868

SAMPLE 53

LI



SAMPLE NO. 53

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	1			NOT DETERMINED
11-75	2			NOT DETERMINED
11-75	3			NOT DETERMINED
11-75	4	2.0	4.5	TECHNICON AUTOANALYZER, ATOMIC ABS-FLAMELESS: EPA
11-75	5	2.5	19.4	ATOMIC ABS-FLAMELESS: ASTM METHOD A, D3223-73
11-75	6			NOT DETERMINED
11-75	7	2.1	0.3	TECHNICON AUTOANALYZER, ATOMIC ABS-FLAMELESS: EPA
11-75	8			NOT DETERMINED
11-75	9	1.6	23.6	ATOMIC ABS-FLAMELESS: EPA
11-75	11			NOT DETERMINED
11-75	12			NOT DETERMINED
11-75	13			NOT DETERMINED
11-75	14			NOT DETERMINED
11-75	15	1.6	23.6	ATOMIC ABS-FLAMELESS: EPA
11-75	16	1.9	9.3	ATOMIC ABS-FLAMELESS: EPA
11-75	17	2.3	9.9	ATOMIC ABS-FLAMELESS: EPA
11-75	18			NOT DETERMINED
11-75	19	2.3	9.9	ATOMIC ABS-FLAMELESS: USGS PROVISIONAL
11-75	20			NOT DETERMINED
11-75	22	2.2	5.1	ATOMIC ABS-FLAMELESS: EPA
11-75	23	2.0	4.5	ATOMIC ABS-FLAMELESS: EPA
11-75	25			NOT DETERMINED
11-75	27			NOT DETERMINED
11-75	28	2.2	5.1	ATOMIC ABS-FLAMELESS: USGS PROVISIONAL
11-75	30	2.2	5.1	ATOMIC ABS-FLAMELESS: EPA
11-75	31			NOT DETERMINED
11-75	32	2.3	9.9	ATOMIC ABS-FLAMELESS: EPA
12-75	33			NOT DETERMINED
11-75	34			NOT DETERMINED
11-75	35			NOT DETERMINED
11-75	37	4.2	100.6	REJECT ATOMIC ABS-FLAMELESS: EPA
11-75	38	1.9	9.3	ATOMIC ABS-FLAMELESS: USGS PROVISIONAL
11-75	40			NOT DETERMINED
11-75	41			NOT DETERMINED
11-75	42	2.0	4.5	ATOMIC ABS-FLAMELESS: ASTM METHOD A, D3223-73
11-75	43			NOT DETERMINED
11-75	44			NOT DETERMINED
11-75	45	2.4	14.6	ATOMIC ABS-FLAMELESS: ASTM METHOD A, D3223-73
TOTAL RANGE	1.6	-	4.2	SAMPLE 53
MEAN	2.0937			AVERAGE DEVIATION 0.2070
STANDARD DEVIATION	0.2594			95 PCT.CONF.INTVL OF MEAN 2.0937 *OR- 0.1382 HG

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	1	47	22.4	EMMISSION-ARC/SPARK
11-75	2			NOT DETERMINED
11-75	3			NOT DETERMINED
11-75	4			NOT DETERMINED
11-75	5	50	30.2	OTHER
11-75	6			NOT DETERMINED
11-75	7			NOT DETERMINED
11-75	8			NOT DETERMINED
11-75	9			NOT DETERMINED
11-75	11			NOT DETERMINED
11-75	12			NOT DETERMINED
11-75	13			NOT DETERMINED
11-75	14			NOT DETERMINED
11-75	15			NOT DETERMINED
11-75	16	100	160.4	REJECT OTHER
11-75	17			NOT DETERMINED
11-75	18			NOT DETERMINED
11-75	19	32	16.7	ATOMIC ABS-CHELATION/EXTRACTION: USGS PROVISIONAL
11-75	20			NOT DETERMINED
11-75	22			NOT DETERMINED
11-75	23			NOT DETERMINED
11-75	25			NOT DETERMINED
11-75	27			NOT DETERMINED
11-75	28	32	16.7	ATOMIC ABS-CHELATION/EXTRACTION: USGS PROVISIONAL
11-75	30			NOT DETERMINED
11-75	31			NOT DETERMINED
11-75	32			NOT DETERMINED
12-75	33			NOT DETERMINED
11-75	34			NOT DETERMINED
11-75	35			NOT DETERMINED
11-75	37			NOT DETERMINED
11-75	38	31	19.3	ATOMIC ABS-CHELATION/EXTRACTION: USGS PROVISIONAL
11-75	40			NOT DETERMINED
11-75	41			NOT DETERMINED
11-75	42			NOT DETERMINED
11-75	43			NOT DETERMINED
11-75	44			NOT DETERMINED
11-75	45			NOT DETERMINED

TOTAL RANGE	31	-	100			SAMPLE 53
MEAN		38.4000	AVERAGE DEVIATION	8.0800		
STANDARD DEVIATION		9.2898	95 PCT.CONF.INTVL OF MEAN	38.4000 *CR-	11.5329	MO

11

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	1	33	54.1	EMISSION-ARC/SPARK
11-75	2			NOT DETERMINED
11-75	3			NOT DETERMINED
11-75	4	30	40.0	ATOMIC ABS-DIRECT
11-75	5	18	16.0	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-75	6	20	6.6	ATOMIC ABS-DIRECT
11-75	7	20	6.6	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-75	8			NOT DETERMINED
11-75	9	31	44.7	ATOMIC ABS-DIRECT
11-75	11			NOT DETERMINED
11-75	12	19	11.3	OTHER
11-75	13	20	6.6	ATOMIC ABS-FLAMELESS
11-75	14			NOT DETERMINED
11-75	15	20	6.6	ATOMIC ABS-FLAMELESS
11-75	16			NOT DETERMINED
11-75	17	9	58.0	ATOMIC ABS-DIRECT
11-75	18			NOT DETERMINED
11-75	19	14	34.6	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-75	21			NOT DETERMINED
11-75	22	10	53.3	ATOMIC ABS-CHELATION/EXTRACTION, EPA
11-75	23			NOT DETERMINED
11-75	25			NOT DETERMINED
11-75	27	18	16.0	ATOMIC ABS-DIRECT
11-75	28	31	44.7	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-75	30			NOT DETERMINED
11-75	31			NOT DETERMINED
11-75	32			NOT DETERMINED
12-75	33	21	2.0	ATOMIC ABS-FLAMELESS
11-75	34			NOT DETERMINED
11-75	35			NOT DETERMINED
11-75	37			NOT DETERMINED
11-75	38	22	2.7	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-75	40	29	35.4	ATOMIC ABS-FLAMELESS
11-75	41	30	40.0	ATOMIC ABS-CHELATION/EXTRACTION, EPA
11-75	42			NOT DETERMINED
11-75	43			NOT DETERMINED
11-75	44			NOT DETERMINED
11-75	45	12	44.0	ATOMIC ABS-DIRECT

TOTAL RANGE 9  
MEAN 21.4210  
STANDARD DEVIATION 7.4111

33  
AVERAGE DEVIATION 5.9003  
95 PCT.CONF.INTVL OF MEAN 21.4210 +OR- 3.5721

SAMPLE 53  
NI

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	1			NOT DETERMINED
11-75	2			NOT DETERMINED
11-75	3			NOT DETERMINED
11-75	4			NOT DETERMINED
11-75	5			NOT DETERMINED
11-75	6			NOT DETERMINED
11-75	7	50	36.5	ATOMIC ABS-HYDRIDE(STANNOUS CHLORIDE): USGS PROVISIONAL
11-75	8			NOT DETERMINED
11-75	9			NOT DETERMINED
11-75	11			NOT DETERMINED
11-75	12			NOT DETERMINED
11-75	13			NOT DETERMINED
11-75	14			NOT DETERMINED
11-75	15			NOT DETERMINED
11-75	16	30	18.1	ATOMIC ABS-HYDRIDE(STANNOUS CHLORIDE): USGS PROVISIONAL
11-75	17	47	28.3	OTHER
11-75	18			NOT DETERMINED
11-75	19			NOT DETERMINED
11-75	20			NOT DETERMINED
11-75	22			NOT DETERMINED
11-75	23			NOT DETERMINED
11-75	25			NOT DETERMINED
11-75	27	24	34.5	ATOMIC ABS-HYDRIDE(STANNOUS CHLORIDE): USGS PROVISIONAL
11-75	28	38	3.8	ATOMIC ABS-HYDRIDE(STANNOUS CHLORIDE): USGS PROVISIONAL
11-75	30			NOT DETERMINED
11-75	31			NOT DETERMINED
11-75	32	54	47.4	OTHER
12-75	33	38	3.8	OTHER
11-75	34			NOT DETERMINED
11-75	35			NOT DETERMINED
11-75	37			NOT DETERMINED
11-75	38	12	67.2	ATOMIC ABS-HYDRIDE(STANNOUS CHLORIDE): USGS PROVISIONAL
11-75	40			NOT DETERMINED
11-75	41			NOT DETERMINED
11-75	42			NOT DETERMINED
11-75	43			NOT DETERMINED
11-75	44			NOT DETERMINED
11-75	45			NOT DETERMINED

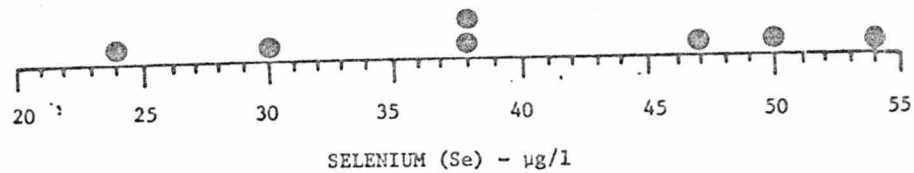
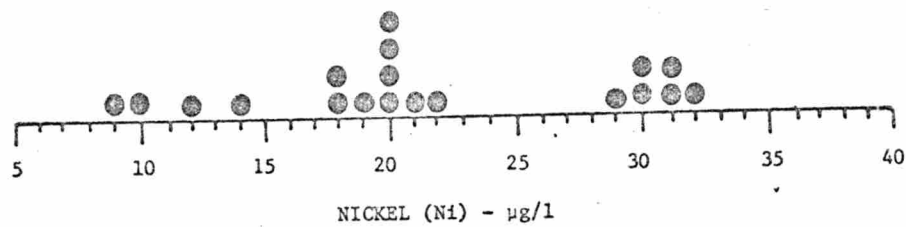
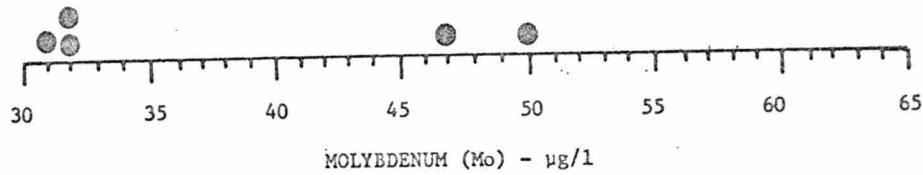
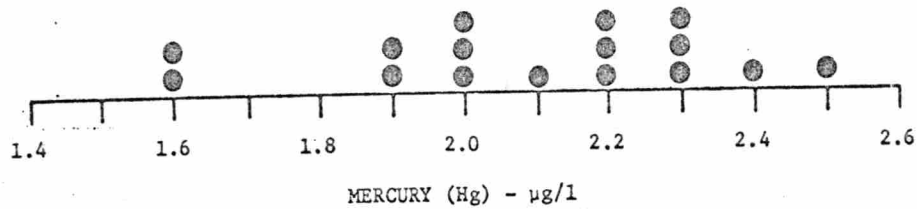
TOTAL RANGE 12  
MEAN  
STANDARD DEVIATION

54  
36.6249  
14.1516

AVERAGE DEVIATION  
95 PCT-CONF.INTVL OF MEAN

10.9688  
36.6249 +OR- 11.8329

SAMPLE 53  
SE



SAMPLE NO. 53

DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	1	10	7.3	EMMISSION-ARC/SPARK
11-75	2			NOT DETERMINED
11-75	3			NOT DETERMINED
11-75	4			NOT DETERMINED
11-75	5	12	28.8	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-75	6	8	14.1	ATOMIC ABS-DIRECT
11-75	7	7	24.9	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-75	8			NOT DETERMINED
11-75	9	6	35.6	ATOMIC ABS-DIRECT
11-75	11			NOT DETERMINED
11-75	12			NOT DETERMINED
11-75	13	8	14.1	ATOMIC ABS-FLAMELESS
11-75	14			NOT DETERMINED
11-75	15	12	28.8	ATOMIC ABS-FLAMELESS
11-75	16	10	7.3	ATOMIC ABS-DIRECT
11-75	17	11	18.1	ATOMIC ABS-DIRECT
11-75	18			NOT DETERMINED
11-75	19	6	35.6	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-75	20			NOT DETERMINED
11-75	22	21	125.4	ATOMIC ABS-DIRECT
11-75	23			NOT DETERMINED
11-75	25			NOT DETERMINED
11-75	27	8	14.1	ATOMIC ABS-DIRECT
11-75	28	6	35.6	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-75	30	9	3.4	ATOMIC ABS-DIRECT
11-75	31			NOT DETERMINED
11-75	32	7	24.9	ATOMIC ABS-FLAMELESS
12-75	33			NOT DETERMINED
11-75	34			NOT DETERMINED
11-75	35	20	114.7	ATOMIC ABS-DIRECT
11-75	37			NOT DETERMINED
11-75	38	7	24.9	ATOMIC ABS-CHELATION/EXTRACTION: USGS TWRI BK5 CH A1
11-75	40	6	35.6	ATOMIC ABS-FLAMELESS
11-75	41	3	67.8	ATOMIC ABS-DIRECT
11-75	42			NOT DETERMINED
11-75	43			NOT DETERMINED
11-75	44			NOT DETERMINED
11-75	45			NOT DETERMINED

TOTAL RANGE 3  
MEAN  
STANDARD DEVIATION

21  
9.3158  
4.5589

AVERAGE DEVIATION  
95 PCT.CONF.INTVL OF MEAN

3.2410  
9.3158 \*OR\* 2.1974

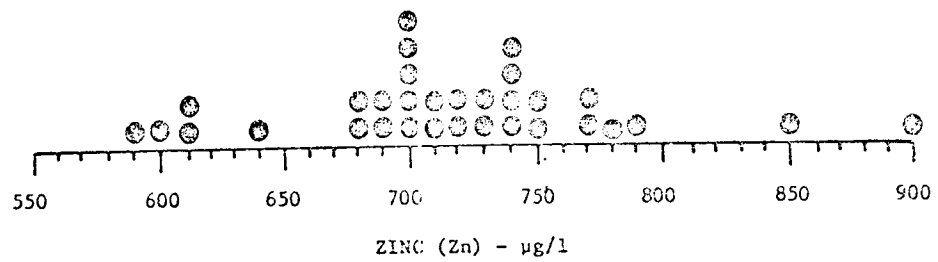
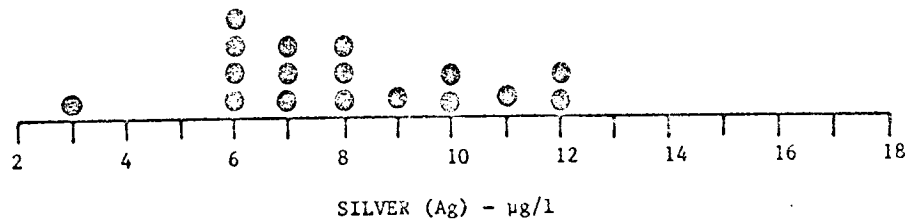
SAMPLE 53  
AG

7



DATE MO-YR	CODE	REPORTED VALUE	PCT.DEV. FROM MEAN	METHOD
11-75	1			NOT DETERMINED
11-75	2	610	15.6	ATOMIC ABS-DIRECT
11-75	3			NOT DETERMINED
11-75	4	710	1.8	ATOMIC ABS-DIRECT
11-75	5	730	1.0	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	6	700	3.1	ATOMIC ABS-DIRECT
11-75	7	700	3.1	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	8			NOT DETERMINED
11-75	9	740	2.4	ATOMIC ABS-DIRECT
11-75	11	640	11.4	ATOMIC ABS-DIRECT
11-75	12	750	3.8	ATOMIC ABS-DIRECT
11-75	13	790	9.3	ATOMIC ABS-DIRECT
11-75	14	700	3.1	ATOMIC ABS-DIRECT
11-75	15	770	6.5	ATOMIC ABS-DIRECT
11-75	16	750	3.8	ATOMIC ABS-DIRECT
11-75	17	850	17.6	ATOMIC ABS-DIRECT
11-75	18	590	18.4	ATOMIC ABS-DIRECT
11-75	19	920	27.3	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	20	710	1.8	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	22	690	4.5	ATOMIC ABS-DIRECT
11-75	23			NOT DETERMINED
11-75	25	680	5.9	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	27	770	6.5	ATOMIC ABS-DIRECT
11-75	28	900	24.5	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	30	680	5.9	ATOMIC ABS-DIRECT
11-75	31	780	7.9	ATOMIC ABS-DIRECT
11-75	32	740	2.4	ATOMIC ABS-DIRECT
12-75	33	740	2.4	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	34			NOT DETERMINED
11-75	35	690	4.5	ATOMIC ABS-DIRECT
11-75	37	700	3.1	ATOMIC ABS-DIRECT
11-75	38	610	15.6	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	40	730	1.0	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	41	740	2.4	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	42	700	3.1	ATOMIC ABS-DIRECT
11-75	43	600	17.0	ATOMIC ABS-DIRECT: USGS TWRI BKS CH A1
11-75	44	720	0.4	ATOMIC ABS-DIRECT
11-75	45	720	0.4	ATOMIC ABS-DIRECT

TOTAL RANGE	590	-	920			SAMPLE 53
MEAN		722.7239		AVERAGE DEVIATION	52.0658	
STANDARD DEVIATION		74.0046		95 PCT.CONF.INTVL OF MEAN	722.7239 +OR- 26.1516	ZN



SAMPLE NO. 53

DETERMINATION	NO. LABS REPORTING	PCT. OF VALUES REJECTED	PCT. OF UNREJECTED VALUES WITHIN		
			95 PCT. CI	X +OR- STD	X +OR- 2STD
AL	17	6	56	69	94
FE	36	8	48	79	91
MN	32	9	28	76	93
AS	16	6	40	67	100
BA	12	8	45	91	91
BE	6	0	67	67	100
CD	27	7	48	76	96
CR TOT	26	4	52	64	92
CO	11	0	55	64	100
CU	32	19	42	65	95
PB	27	4	31	73	95
LI	14	7	38	69	92
HG	17	6	44	75	100
MO	6	17	80	80	100
NI	19	0	47	47	100
SE	8	0	50	75	100
AG	19	0	37	84	89
ZN	33	0	45	76	94