

REPORT OF
ANALYTICAL EVALUATION PROGRAM
STANDARD REFERENCE WATER SAMPLES NUMBERS 28 AND 29

0.16 ± .28
.47 ± .12
4
3

U.S. GEOLOGICAL SURVEY
WATER RESOURCES DIVISION

Denver, Colorado

June 1969

STANDARD REFERENCE WATER SAMPLES NUMBERS 28 AND 29

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 34 laboratories for Standard Reference Water Samples numbers 28 and 29 distributed on May 1, 1969.

The "Instructions for Analysis and Reporting Results" specified only that the pH and/or alkalinity determinations be performed first. No other required order of performing the determinations, nor restriction on methods and equipment was given. This program operates as a quality control tool to enable each laboratory to detect deficiencies. Participating laboratories are identified in this report by a pre-assigned code number.

PREPARATION OF SAMPLES

Approximately 150 gallons of each sample was collected. Sample No. 28 was acidified to a pH of about 1.8 with nitric acid and then 11 minor elements were added. Thymol was added to both samples and each sample was then filtered through a 0.45 μ 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

Sample No. 28

Sample No. 29

| | | |
|----------------|---------------------------------|-----------------------|
| Aluminum (Al) | Silica (SiO ₂) | Boron (B) |
| Iron (Fe) | Calcium (Ca) | Specific conductance |
| Manganese (Mn) | Magnesium (Mg) | (μ mhos at 25°C) |
| Chromium (Cr) | Sodium (Na) | pH |
| Copper (Cu) | Potassium (K) | Strontium (Sr) |
| Lead (Pb) | Bicarbonate (HCO ₃) | |
| Zinc (Zn) | Carbonate (CO ₃) | |
| Strontium (Sr) | Sulfate (SO ₄) | |
| Arsenic (As) | Chloride (Cl) | |
| Cadmium (Cd) | Fluoride (F) | |
| Silver (Ag) | Nitrate (NO ₃) | |

PARTICIPATING LABORATORIES

U.S. Geological Survey

| | |
|------------------------|----------------------------|
| Alabama, Tuscaloosa | New Mexico, Albuquerque |
| Alaska, Anchorage | New York, Albany |
| Arizona, Tucson | North Carolina, Raleigh |
| Arkansas, Little Rock | Ohio, Columbus |
| California, Menlo Park | Oklahoma, Oklahoma City |
| California, Sacramento | Oregon, Portland |
| D.C., Washington | Pennsylvania, Philadelphia |
| Florida, Ocala | Puerto Rico, San Juan |
| Hawaii, Honolulu | Texas, Austin |
| Kansas, Lawrence | Utah, Salt Lake City |
| Louisiana, Baton Rouge | Virginia, Charlottesville |
| Nebraska, Lincoln | Washington, Tacoma |
| Nevada, Carson City | Wyoming, Worland |

Other

Arizona, Tucson: Univ. Arizona, Dept. Agr. Chemistry & Soils
 Colorado, Denver: Board of Water Commissioners, WQ Lab
 Georgia, Atlanta: State Water Quality Control Board
 Kansas, Lawrence: State Geological Survey
 Kansas, Topeka: State Dept. Health, Sanitary Engineering Lab
 North Dakota, Bismarck: State Laboratories Dept.
 Ohio, Cincinnati: Federal Water Pollution Control Admin.
 South Dakota, Brookings: State Univ., Water Resources Research

STATISTICAL EVALUATION

A statistical analysis of the data has established the most reliable estimate of the true value for each of the various determinations reported. Mathematical calculations are the same as those used previously.

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 the 1964 Book of ASTM Standards, Part 30, p. 512-516.

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. 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 ($\bar{X} \pm \text{STD}$), and within two standard deviations ($\bar{X} \pm 2 \text{ STD}$) are also given.

| DATE MO-YR | CODE | REPORTED VALUE | PCT. DEV. FROM MEAN | METHOD |
|---------------|-------|-------------------|------------------------|---|
| 6-69 | 1 63 | 0.7 1 | 15.4 | FERRON-ORTHOPHENANTHROLINE, USGS WSP 1454, D#3A-1 |
| 6-69 | 2 47 | | | NOT DETERMINED |
| 6-69 | 4 70 | 0.7 1 | 15.4 | FERRON-ORTHOPHENANTHROLINE, USGS WSP 1454, D#3A-1 |
| 6-69 | 5 53 | | | NOT DETERMINED |
| 6-69 | 6 32 | | | NOT DETERMINED |
| 6-69 | 7 79 | | | NOT DETERMINED |
| 6-69 | 9 67 | 0.5 1 | 17.6 | FERRON-ORTHOPHENANTHROLINE, USGS WSP 1454, D#3A-1 |
| 6-69 | 11 46 | 0.7 1 | 15.4 | FERRON-ORTHOPHENANTHROLINE, USGS WSP 1454, D#3A-1 |
| 6-69 | 12 49 | | | NOT DETERMINED |
| 6-69 | 13 45 | 0.7 1 | 15.4 | FERRON-ORTHOPHENANTHROLINE, USGS WSP 1454, D#3A-1 |
| 6-69 | 14 73 | 0.6 1 | 1.1 | FERRON-ORTHOPHENANTHROLINE, USGS WSP 1454, D#3A-1 |
| 6-69 | 15 15 | | | NOT DETERMINED |
| 6-69 | 16 69 | 0.6 1 | 1.1 | FERRON-ORTHOPHENANTHROLINE, USGS WSP 1454, D#3A-1 |
| 6-69 | 17 62 | 0.6 1 | 1.1 | FERRON-ORTHOPHENANTHROLINE, USGS WSP 1454, D#3A-1 |
| 6-69 | 18 48 | | | NOT DETERMINED |
| 6-69 | 19 78 | 0.5 1 | 17.6 | FERRON-ORTHOPHENANTHROLINE, USGS WSP 1454, D#3A-1 |
| 6-69 | 20 27 | 0.1 20 | 83.5 | REJECT OTHER |
| 6-69 | 21 51 | 0.6 1 | 1.1 | FERRON-ORTHOPHENANTHROLINE, USGS WSP 1454, D#3A-1 |
| 6-69 | 22 71 | | | NOT DETERMINED |
| 6-69 | 23 57 | 0.6 1 | 1.1 | FERRON-ORTHOPHENANTHROLINE, USGS WSP 1454, D#3A-1 |
| 6-69 | 24 5 | 0.2 7 | 67.0 | REJECT ALUMINON, APHA STD. METH., 1965 |
| 6-69 | 25 45 | 0.6 1 | 1.1 | FERRON-ORTHOPHENANTHROLINE, USGS WSP 1454, D#3A-1 |
| 6-69 | 26 56 | 0.5 1 | 17.6 | FERRON-ORTHOPHENANTHROLINE, USGS WSP 1454, D#3A-1 |
| 6-69 | 27 25 | | | NOT DETERMINED |
| 6-69 | 28 76 | | | NOT DETERMINED |
| 6-69 | 29 66 | 0.6 1 | 1.1 | FERRON-ORTHOPHENANTHROLINE, USGS WSP 1454, D#3A-1 |
| 6-69 | 30 60 | | | NOT DETERMINED |
| 6-69 | 31 10 | | | NOT DETERMINED |
| 6-69 | 33 69 | | | NOT DETERMINED |
| 6-69 | 34 41 | 0.6 20 | 1.1 | OTHER |
| 6-69 | 35 2 | | | NOT DETERMINED |
| 6-69 | 36 16 | 1.2 20 | 97.8 | REJECT OTHER |

| | | | | | | |
|--------------------|-----|--------|-----|-----------------------------|----------------|-----------|
| TOTAL RANGE | 0.1 | - | 1.2 | | | SAMPLE 28 |
| MEAN | | 0.6067 | | AVERAGE DEVIATION | 0.0493 | |
| STANDARD DEVIATION | | 0.0704 | | 95 PCT. CONF. INTVL OF MEAN | 0.6067 ±0.0390 | AL |

| DATE MO-YR | CODE | REPORTED VALUE | PCT. DEV. FROM MEAN | METHOD |
|---------------|------|--------------------|------------------------|---|
| 6-69 | 1 | 0.09 ² | 24.1 | BIPYRIDINE, USGS WSP 1454, D#19A-1 |
| 6-69 | 2 | 0.12 ² | 1.2 | BIPYRIDINE, USGS WSP 1454, D#19A-1 |
| 6-69 | 4 | 0.17 ⁹ | 43.4 | ATOMIC ABSORPTION |
| 6-69 | 5 | 0.07 ⁹ | 41.0 | ATOMIC ABSORPTION |
| 6-69 | 6 | 0.11 ³ | 7.2 | PHENANTHROLINE, APHA STD. METH., 1965 |
| 6-69 | 7 | 0.11 ² | 7.2 | BIPYRIDINE, USGS WSP 1454, D#19A-1 |
| 6-69 | 9 | 0.11 ³ | 7.2 | PHENANTHROLINE, APHA STD. METH., 1965 |
| 6-69 | 11 | 0.30 ⁹ | 153.0 | REJECT ATOMIC ABSORPTION |
| 6-69 | 12 | 0.13 ² | 9.6 | BIPYRIDINE, USGS WSP 1454, D#19A-1 |
| 6-69 | 13 | 0.13 ¹ | 9.6 | BIPYRIDINE, USGS WSP 1454, D#19A-1 |
| 6-69 | 14 | 0.11 ¹ | 7.2 | BIPYRIDINE, USGS WSP 1454, D#19A-1 |
| 6-69 | 15 | 0.11 ³ | 7.2 | PHENANTHROLINE, APHA STD. METH., 1965 |
| 6-69 | 16 | 0.10 ⁶ | 15.7 | FERRON-ORTHOPHENANTHROLINE, USGS WSP 1454, D#3A-1 |
| 6-69 | 17 | 0.10 ² | 15.7 | BIPYRIDINE, USGS WSP 1454, D#19A-1 |
| 6-69 | 18 | 0.09 ² | 24.1 | BIPYRIDINE, USGS WSP 1454, D#19A-1 |
| 6-69 | 19 | 0.13 ⁸ | 9.6 | FERRON-ORTHOPHENANTHROLINE, USGS WSP 1454, D#3A-1 |
| 6-69 | 20 | 0.11 ⁹ | 7.2 | ATOMIC ABSORPTION |
| 6-69 | 21 | 0.11 ⁸ | 7.2 | FERRON-ORTHOPHENANTHROLINE, USGS WSP 1454, D#3A-1 |
| 6-69 | 22 | 0.16 ² | 34.9 | BIPYRIDINE, USGS WSP 1454, D#19A-1 |
| 6-69 | 23 | 0.14 ² | 18.1 | BIPYRIDINE, USGS WSP 1454, D#19A-1 |
| 6-69 | 24 | 0.10 ³ | 15.7 | PHENANTHROLINE, APHA STD. METH., 1965 |
| 6-69 | 25 | 0.11 ¹ | 7.2 | BIPYRIDINE, USGS WSP 1454, D#19A-1 |
| 6-69 | 26 | 0.16 ³⁰ | 34.9 | OTHER |
| 6-69 | 27 | 0.03 ³ | 74.7 | REJECT PHENANTHROLINE, APHA STD. METH., 1965 |
| 6-69 | 28 | 0.13 ² | 9.6 | BIPYRIDINE, USGS WSP 1454, D#19A-1 |
| 6-69 | 29 | 0.11 ⁹ | 7.2 | ATOMIC ABSORPTION |
| 6-69 | 30 | 0.27 ¹ | 127.7 | REJECT ATOMIC ABSORPTION |
| 6-69 | 31 | 0.15 ¹ | 26.5 | ATOMIC ABSORPTION |
| 6-69 | 33 | 0.12 ¹ | 1.2 | BIPYRIDINE, USGS WSP 1454, D#19A-1 |
| 6-69 | 34 | 0.12 ² | 1.2 | BIPYRIDINE, USGS WSP 1454, D#19A-1 |
| 6-69 | 35 | 0.31 ⁹ | 161.4 | REJECT ATOMIC ABSORPTION |
| 6-69 | 36 | 0.12 ⁹ | 1.2 | ATOMIC ABSORPTION |

TOTAL RANGE
MEAN
STANDARD DEVIATION

0.03

0.1186
0.0226

0.31

AVERAGE DEVIATION
95 PCT. CONF. INTVL OF MEAN

0.0170

0.1186 +OR-

0.0087

SAMPLE 28

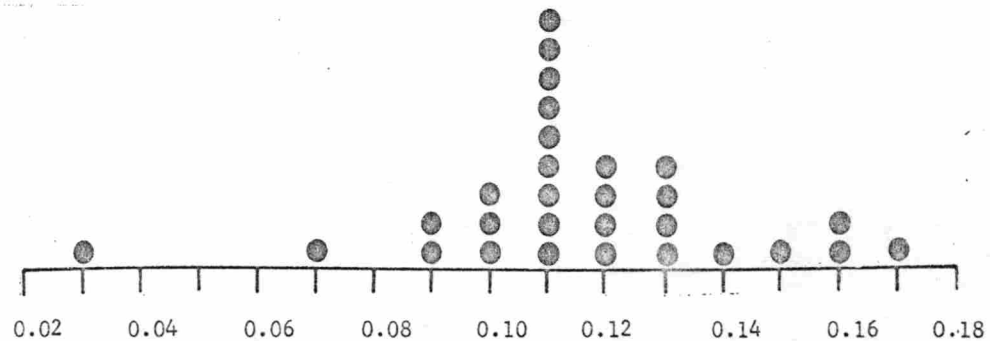
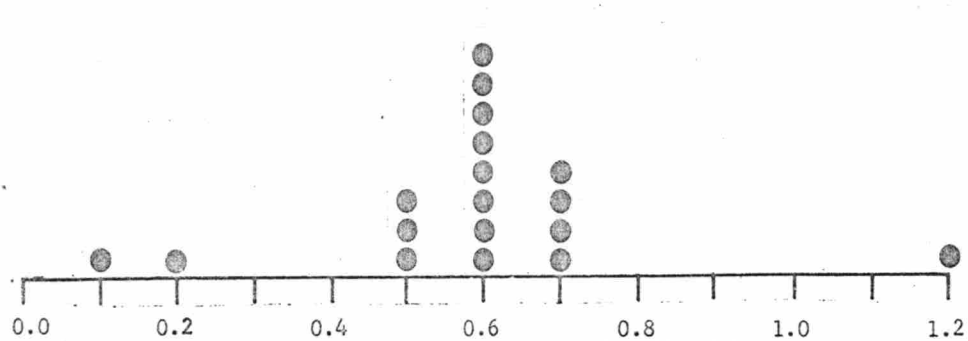
FE

| DATE MO-YR | CODE | REPORTED VALUE | PCT. DEV. FROM MEAN | METHOD |
|---------------|------|-------------------|------------------------|---|
| 6-69 | 1 | 0.06 8 | 15.7 | ATOMIC ABSORPTION (AQUEOUS) |
| 6-69 | 2 | | | NOT DETERMINED |
| 6-69 | 4 | 0.06 8 | 15.7 | ATOMIC ABSORPTION (AQUEOUS) |
| 6-69 | 5 | 0.06 8 | 15.7 | ATOMIC ABSORPTION (AQUEOUS) |
| 6-69 | 6 | | | NOT DETERMINED |
| 6-69 | 7 | | | NOT DETERMINED |
| 6-69 | 9 | 0.07 8 | 1.7 | ATOMIC ABSORPTION (AQUEOUS) |
| 6-69 | 11 | 0.06 8 | 15.7 | ATOMIC ABSORPTION (AQUEOUS) |
| 6-69 | 12 | | | NOT DETERMINED |
| 6-69 | 13 | 0.07 8 | 1.7 | ATOMIC ABSORPTION (AQUEOUS) |
| 6-69 | 14 | 0.08 8 | 12.4 | ATOMIC ABSORPTION (AQUEOUS) |
| 6-69 | 15 | 0.08 4 | 12.4 | PERSULFATE, ALPHA STD. METH., 1965 |
| 6-69 | 16 | 0.06 8 | 15.7 | ATOMIC ABSORPTION (AQUEOUS) |
| 6-69 | 17 | 0.10 | 40.4 | ATOMIC ABSORPTION (AQUEOUS) |
| 6-69 | 18 | 0.08 | 12.4 | ATOMIC ABSORPTION (AQUEOUS) |
| 6-69 | 19 | 0.0 | 100.0 | REJECT ATOMIC ABSORPTION (AQUEOUS) |
| 6-69 | 20 | 0.06 | 15.7 | ATOMIC ABSORPTION (AQUEOUS) |
| 6-69 | 21 | 0.10 | 40.4 | ATOMIC ABSORPTION (AQUEOUS) |
| 6-69 | 22 | 0.08 | 12.4 | ATOMIC ABSORPTION (AQUEOUS) |
| 6-69 | 23 | 0.06 8 | 15.7 | ATOMIC ABSORPTION (AQUEOUS) |
| 6-69 | 24 | 0.02 9 | 71.9 | REJECT PERMANGANATE, USGS WSP 1454, D'24A-1 |
| 6-69 | 25 | 0.06 8 | 15.7 | ATOMIC ABSORPTION (AQUEOUS) |
| 6-69 | 26 | 0.07 8 | 1.7 | ATOMIC ABSORPTION (AQUEOUS) |
| 6-69 | 27 | 0.08 20 | 12.4 | OTHER |
| 6-69 | 28 | | | NOT DETERMINED |
| 6-69 | 29 | 0.06 8 | 15.7 | ATOMIC ABSORPTION (AQUEOUS) |
| 6-69 | 30 | 0.09 | 26.4 | ATOMIC ABSORPTION (AQUEOUS) |
| 6-69 | 31 | 0.05 | 29.8 | ATOMIC ABSORPTION (AQUEOUS) |
| 6-69 | 33 | 0.06 | 15.7 | ATOMIC ABSORPTION (AQUEOUS) |
| 6-69 | 34 | 0.06 | 15.7 | ATOMIC ABSORPTION (AQUEOUS) |
| 6-69 | 35 | 0.08 10 | 12.4 | ATOMIC ABSORPTION (EXTRACTION) |
| 6-69 | 36 | 0.09 8 | 26.4 | ATOMIC ABSORPTION (AQUEOUS) |

| | | | | | | | |
|--------------------|-----|--------|------|---------------------------|--|--------------------|-----------|
| TOTAL RANGE | 0.0 | - | 0.10 | | | | |
| MEAN | | 0.0712 | | AVERAGE DEVIATION | | 0.0118 | SAMPLE 28 |
| STANDARD DEVIATION | | 0.0139 | | 95 PCT.CONF.INTVL OF MEAN | | 0.0712 +OR- 0.0058 | MN |

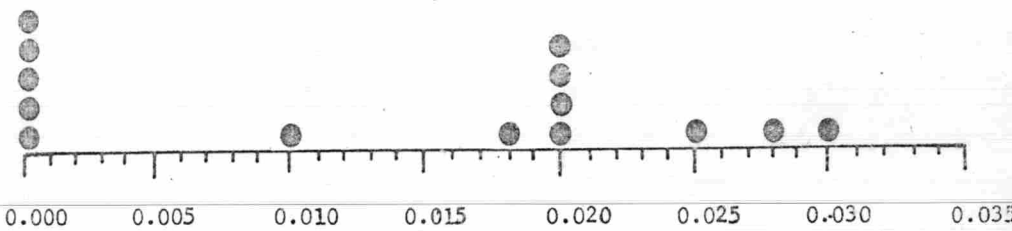
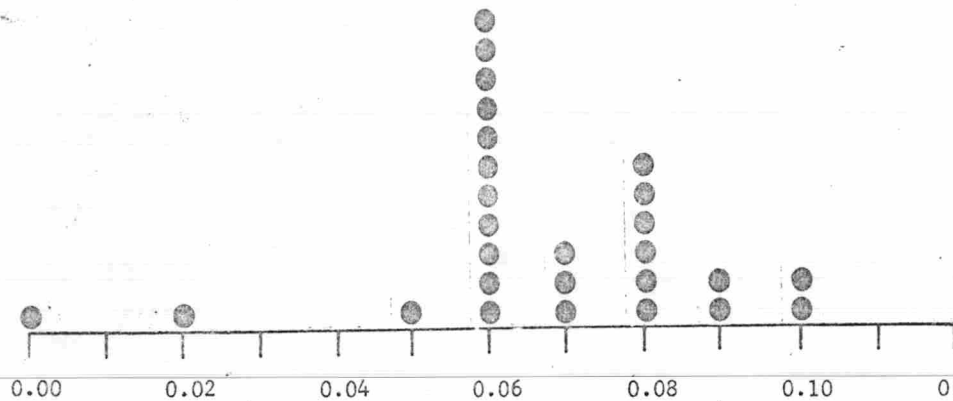
| DATE MO-YR | CODE | REPORTED VALUE | PCT.DEV. FROM MEAN | METHOD |
|---------------|------|-------------------|-----------------------|---|
| 6-69 | 1 | 0.0 3 | 100.0 | ATOMIC ABSORPTION (DIRECT) |
| 6-69 | 2 | | | NOT DETERMINED |
| 6-69 | 4 | 0.028 3 | 74.3 | ATOMIC ABSORPTION (DIRECT) |
| 6-69 | 5 | 0.025 5 | 55.6 | ATOMIC ABSORPTION (OXIDATION-EXTRACTION) |
| 6-69 | 6 | | | NOT DETERMINED |
| 6-69 | 7 | | | NOT DETERMINED |
| 6-69 | 9 | 0.020 3 | 24.5 | ATOMIC ABSORPTION (DIRECT) |
| 6-69 | 11 | 0.0 5 | 100.0 | ATOMIC ABSORPTION (OXIDATION-EXTRACTION) |
| 6-69 | 12 | | | NOT DETERMINED |
| 6-69 | 13 | 0.0 6 | 100.0 | DIPHENYLCARBAZIDE-PERMANGANATE AZIDE, USGS WSP 1454,D-12B |
| 6-69 | 14 | | | NOT DETERMINED |
| 6-69 | 15 | | | NOT DETERMINED |
| 6-69 | 16 | 0.020 5 | 24.5 | ATOMIC ABSORPTION (OXIDATION-EXTRACTION) |
| 6-69 | 17 | | | NOT DETERMINED |
| 6-69 | 18 | | | NOT DETERMINED |
| 6-69 | 19 | | | NOT DETERMINED |
| 6-69 | 20 | 0.020 3 | 24.5 | ATOMIC ABSORPTION (DIRECT) |
| 6-69 | 21 | 0.030 3 | 86.7 | ATOMIC ABSORPTION (DIRECT) |
| 6-69 | 22 | | | NOT DETERMINED |
| 6-69 | 23 | 0.020 3 | 24.5 | ATOMIC ABSORPTION (DIRECT) |
| 6-69 | 24 | | | NOT DETERMINED |
| 6-69 | 25 | 0.0 3 | 100.0 | ATOMIC ABSORPTION (DIRECT) |
| 6-69 | 26 | | | NOT DETERMINED |
| 6-69 | 27 | | | NOT DETERMINED |
| 6-69 | 28 | | | NOT DETERMINED |
| 6-69 | 29 | | | NOT DETERMINED |
| 6-69 | 30 | 0.0 3 | 100.0 | ATOMIC ABSORPTION (DIRECT) |
| 6-69 | 31 | 0.050 5 | 211.2 | ATOMIC ABSORPTION (DIRECT) |
| 6-69 | 33 | 0.010 5 | 37.8 | ATOMIC ABSORPTION (OXIDATION-EXTRACTION) |
| 6-69 | 34 | | | NOT DETERMINED |
| 6-69 | 35 | 0.018 5 | 12.0 | ATOMIC ABSORPTION (OXIDATION-EXTRACTION) |
| 6-69 | 36 | | | NOT DETERMINED |

| | | | | | | |
|--------------------|--------|---|---------------------------|----------------|--------|-----------|
| TOTAL RANGE | 0.0 | - | 0.050 | | | |
| MEAN | 0.0161 | | AVERAGE DEVIATION | 0.0115 | | SAMPLE 28 |
| STANDARD DEVIATION | 0.0145 | | 95 PCT.CONF.INTVL OF MEAN | 0.0161 +0.0115 | 0.0081 | CR |



ALUMINUM (Al) -- mg/l

IRON (Fe) -- mg/l



MANGANESE (Mn) -- mg/l

CHROMIUM (Cr) -- mg/l

SAMPLE NO. 28

| DATE MO-YR | CODE | REPORTED VALUE | PCT.DEV. FROM MEAN | METHOD |
|---------------|------|-------------------|-----------------------|------------------------------------|
| 6-69 | 1 | 0.26 9 | 7.8 | ATOMIC ABSORPTION (AQUEOUS) |
| 6-69 | 2 | | | NOT DETERMINED |
| 6-69 | 4 | 0.25 9 | 3.6 | ATOMIC ABSORPTION (AQUEOUS) |
| 6-69 | 5 | 0.23 9 | 4.7 | ATOMIC ABSORPTION (AQUEOUS) |
| 6-69 | 6 | | | NOT DETERMINED |
| 6-69 | 7 | | | NOT DETERMINED |
| 6-69 | 9 | 0.02 9 | 91.7 | REJECT ATOMIC ABSORPTION (AQUEOUS) |
| 6-69 | 11 | 0.20 9 | 17.1 | ATOMIC ABSORPTION (AQUEOUS) |
| 6-69 | 12 | | | NOT DETERMINED |
| 6-69 | 13 | 0.24 9 | 0.5 | ATOMIC ABSORPTION (AQUEOUS) |
| 6-69 | 14 | 0.17 9 | 29.5 | ATOMIC ABSORPTION (AQUEOUS) |
| 6-69 | 15 | 0.25 11 | 3.6 | CUPRETHOL, ALPHA STD. METH., 1965 |
| 6-69 | 16 | 0.21 9 | 13.0 | ATOMIC ABSORPTION (AQUEOUS) |
| 6-69 | 17 | 0.24 9 | 0.5 | ATOMIC ABSORPTION (AQUEOUS) |
| 6-69 | 18 | 0.30 9 | 24.4 | ATOMIC ABSORPTION (AQUEOUS) |
| 6-69 | 19 | 0.22 9 | 8.8 | ATOMIC ABSORPTION (AQUEOUS) |
| 6-69 | 20 | 0.24 9 | 0.5 | ATOMIC ABSORPTION (AQUEOUS) |
| 6-69 | 21 | 0.24 9 | 0.5 | ATOMIC ABSORPTION (AQUEOUS) |
| 6-69 | 22 | 0.24 9 | 0.5 | ATOMIC ABSORPTION (AQUEOUS) |
| 6-69 | 23 | 0.24 9 | 0.5 | ATOMIC ABSORPTION (AQUEOUS) |
| 6-69 | 24 | 0.22 11 | 8.8 | CUPRETHOL, ALPHA STD. METH., 1965 |
| 6-69 | 25 | 0.25 9 | 3.6 | ATOMIC ABSORPTION (AQUEOUS) |
| 6-69 | 26 | 0.25 9 | 3.6 | ATOMIC ABSORPTION (AQUEOUS) |
| 6-69 | 27 | | | NOT DETERMINED |
| 6-69 | 28 | | | NOT DETERMINED |
| 6-69 | 29 | 0.24 9 | 0.5 | ATOMIC ABSORPTION (AQUEOUS) |
| 6-69 | 30 | 0.29 9 | 20.2 | ATOMIC ABSORPTION (AQUEOUS) |
| 6-69 | 31 | 0.25 9 | 3.6 | ATOMIC ABSORPTION (AQUEOUS) |
| 6-69 | 33 | 0.23 12 | 4.7 | ATOMIC ABSORPTION (EXTRACTION) 230 |
| 6-69 | 34 | 0.22 9 | 8.8 | ATOMIC ABSORPTION (AQUEOUS) |
| 6-69 | 35 | 0.31 12 | 28.5 | ATOMIC ABSORPTION (EXTRACTION) 310 |
| 6-69 | 36 | | | NOT DETERMINED |

| | | | | | | |
|--------------------|--------|---|------|---------------------------|--------------------|-----------|
| TOTAL RANGE | 0.02 | - | 0.31 | | | SAMPLE 28 |
| MEAN | 0.2412 | | | AVERAGE DEVIATION | 0.0199 | |
| STANDARD DEVIATION | 0.0300 | | | 95 PCT.CONF.INTVL OF MEAN | 0.2412 +OR- 0.0127 | CU |

| DATE MO-YR | CODE | REPORTED VALUE | PCT.DEV. FROM MEAN | METHOD |
|---------------|------|-------------------|-----------------------|---------------------------------------|
| 6-69 | 1 | 0.088 5 | 29.1 | ATOMIC ABSORPTION (EXTRACTION) |
| 6-69 | 2 | | | NOT DETERMINED |
| 6-69 | 4 | 0.060 4 | 12.0 | ATOMIC ABSORPTION (DIRECT) |
| 6-69 | 5 | 0.076 5 | 11.5 | ATOMIC ABSORPTION (EXTRACTION) |
| 6-69 | 6 | | | NOT DETERMINED |
| 6-69 | 7 | | | NOT DETERMINED |
| 6-69 | 9 | 0.070 5 | 2.7 | ATOMIC ABSORPTION (EXTRACTION) |
| 6-69 | 11 | 0.060 5 | 12.0 | ATOMIC ABSORPTION (EXTRACTION) |
| 6-69 | 12 | | | NOT DETERMINED |
| 6-69 | 13 | | | NOT DETERMINED |
| 6-69 | 14 | 0.070 5 | 2.7 | ATOMIC ABSORPTION (EXTRACTION) |
| 6-69 | 15 | 0.070 20 | 2.7 | OTHER |
| 6-69 | 16 | 0.080 5 | 17.4 | ATOMIC ABSORPTION (EXTRACTION) |
| 6-69 | 17 | | | NOT DETERMINED |
| 6-69 | 18 | 0.150 5 | 120.1 | REJECT ATOMIC ABSORPTION (EXTRACTION) |
| 6-69 | 19 | | | NOT DETERMINED |
| 6-69 | 20 | | | NOT DETERMINED |
| 6-69 | 21 | | | NOT DETERMINED |
| 6-69 | 22 | | | NOT DETERMINED |
| 6-69 | 23 | 0.070 5 | 2.7 | ATOMIC ABSORPTION (EXTRACTION) |
| 6-69 | 24 | | | NOT DETERMINED |
| 6-69 | 25 | 0.066 4 | 3.2 | ATOMIC ABSORPTION (DIRECT) |
| 6-69 | 26 | 0.100 4 | 46.7 | ATOMIC ABSORPTION (DIRECT) |
| 6-69 | 27 | | | NOT DETERMINED |
| 6-69 | 28 | | | NOT DETERMINED |
| 6-69 | 29 | | | NOT DETERMINED |
| 6-69 | 30 | | | NOT DETERMINED |
| 6-69 | 31 | | | NOT DETERMINED |
| 6-69 | 33 | 0.030 5 | 56.0 | ATOMIC ABSORPTION (EXTRACTION) |
| 6-69 | 34 | | | NOT DETERMINED |
| 6-69 | 35 | 0.046 5 | 32.5 | ATOMIC ABSORPTION (EXTRACTION) |
| 6-69 | 36 | | | NOT DETERMINED |

TOTAL RANGE

0.030 - 0.150

MEAN

0.0682

AVERAGE DEVIATION

0.0121

SAMPLE 28

STANDARD DEVIATION

0.0176

95 PCT.CONF.INTVL OF MEAN

0.0682 +OR-

0.0106

PB

| DATE MO-YR | CODE | REPORTED VALUE | PCT.DEV. FROM MEAN | METHOD |
|---------------|------|-------------------|-----------------------|--------------------------|
| 6-69 | 1 | 0.50 7 | 5.5 | ATOMIC ABSORPTION |
| 6-69 | 2 | | | NOT DETERMINED |
| 6-69 | 4 | 0.53 7 | 0.2 | ATOMIC ABSORPTION |
| 6-69 | 5 | 0.05 7 | 90.6 | REJECT ATOMIC ABSORPTION |
| 6-69 | 6 | | | NOT DETERMINED |
| 6-69 | 7 | | | NOT DETERMINED |
| 6-69 | 9 | 0.55 7 | 3.9 | ATOMIC ABSORPTION |
| 6-69 | 11 | 0.52 7 | 1.7 | ATOMIC ABSORPTION |
| 6-69 | 12 | | | NOT DETERMINED |
| 6-69 | 13 | 0.52 7 | 1.7 | ATOMIC ABSORPTION |
| 6-69 | 14 | 0.52 | 1.7 | ATOMIC ABSORPTION |
| 6-69 | 15 | 0.50 | 5.5 | ATOMIC ABSORPTION |
| 6-69 | 16 | 0.52 | 1.7 | ATOMIC ABSORPTION |
| 6-69 | 17 | 0.58 | 9.6 | ATOMIC ABSORPTION |
| 6-69 | 18 | 0.52 | 7.7 | ATOMIC ABSORPTION |
| 6-69 | 19 | 0.57 | 7.7 | ATOMIC ABSORPTION |
| 6-69 | 20 | 0.52 | 1.7 | ATOMIC ABSORPTION |
| 6-69 | 21 | 0.50 | 5.5 | ATOMIC ABSORPTION |
| 6-69 | 22 | | | NOT DETERMINED |
| 6-69 | 23 | 0.52 7 | 1.7 | ATOMIC ABSORPTION |
| 6-69 | 24 | | | NOT DETERMINED |
| 6-69 | 25 | 0.52 7 | 1.7 | ATOMIC ABSORPTION |
| 6-69 | 26 | 0.55 7 | 3.9 | ATOMIC ABSORPTION |
| 6-69 | 27 | | | NOT DETERMINED |
| 6-69 | 28 | | | NOT DETERMINED |
| 6-69 | 29 | 0.51 7 | 3.6 | ATOMIC ABSORPTION |
| 6-69 | 30 | 0.46 | 13.1 | ATOMIC ABSORPTION |
| 6-69 | 31 | 0.50 | 5.5 | ATOMIC ABSORPTION |
| 6-69 | 33 | 0.54 | 2.1 | ATOMIC ABSORPTION |
| 6-69 | 34 | 0.52 | 1.7 | ATOMIC ABSORPTION |
| 6-69 | 35 | 0.53 | 0.2 | ATOMIC ABSORPTION |
| 6-69 | 36 | 0.62 | 17.2 | ATOMIC ABSORPTION |

| | | | | | | | |
|--------------------|--------|---|------|---------------------------|-------------|--------|-----------|
| TOTAL RANGE | 0.05 | - | 0.62 | | | | |
| MEAN | 0.5291 | | | AVERAGE DEVIATION | 0.0242 | | SAMPLE 28 |
| STANDARD DEVIATION | 0.0333 | | | 95 PCT.CONF.INTVL OF MEAN | 0.5291 +OR- | 0.0144 | ZN |

| DATE MO-YR | CODE | REPORTED VALUE | PCT.DEV. FROM MEAN | METHOD |
|---------------|------|-------------------|-----------------------|--------------------------|
| 6-69 | 1 | 0.14 2 | 87.3 | ATOMIC ABSORPTION |
| 6-69 | 2 | | | NOT DETERMINED |
| 6-69 | 4 | 0.06 2 | 19.7 | ATOMIC ABSORPTION |
| 6-69 | 5 | 0.05 2 | 33.1 | ATOMIC ABSORPTION |
| 6-69 | 6 | | | NOT DETERMINED |
| 6-69 | 7 | | | NOT DETERMINED |
| 6-69 | 9 | 0.04 2 | 46.5 | ATOMIC ABSORPTION |
| 6-69 | 11 | 0.10 2 | 33.8 | ATOMIC ABSORPTION |
| 6-69 | 12 | | | NOT DETERMINED |
| 6-69 | 13 | 0.04 2 | 46.5 | ATOMIC ABSORPTION |
| 6-69 | 14 | 0.09 2 | 20.4 | ATOMIC ABSORPTION |
| 6-69 | 15 | | | NOT DETERMINED |
| 6-69 | 16 | 0.07 2 | 6.3 | ATOMIC ABSORPTION |
| 6-69 | 17 | 0.12 ↓ | 60.6 | ATOMIC ABSORPTION |
| 6-69 | 18 | 0.07 ↓ | 6.3 | ATOMIC ABSORPTION |
| 6-69 | 19 | | | NOT DETERMINED |
| 6-69 | 20 | 0.02 2 | 73.2 | ATOMIC ABSORPTION |
| 6-69 | 21 | 0.10 2 | 33.8 | ATOMIC ABSORPTION |
| 6-69 | 22 | | | NOT DETERMINED |
| 6-69 | 23 | 0.08 2 | 7.0 | ATOMIC ABSORPTION |
| 6-69 | 24 | | | NOT DETERMINED |
| 6-69 | 25 | 0.06 2 | 19.7 | ATOMIC ABSORPTION |
| 6-69 | 26 | 0.08 2 | 7.0 | ATOMIC ABSORPTION |
| 6-69 | 27 | | | NOT DETERMINED |
| 6-69 | 28 | | | NOT DETERMINED |
| 6-69 | 29 | 0.06 2 | 19.7 | ATOMIC ABSORPTION |
| 6-69 | 30 | 0.10 2 | 33.8 | ATOMIC ABSORPTION |
| 6-69 | 31 | | | NOT DETERMINED |
| 6-69 | 33 | 0.07 ↓ | 6.3 | ATOMIC ABSORPTION |
| 6-69 | 34 | 0.07 ↓ | 6.3 | ATOMIC ABSORPTION |
| 6-69 | 35 | 0.38 ↓ | 408.5 | REJECT ATOMIC ABSORPTION |
| 6-69 | 36 | | | NOT DETERMINED |

TOTAL RANGE

0.02

0.38

MEAN

0.0747

AVERAGE DEVIATION

0.0223

SAMPLE 28

STANDARD DEVIATION

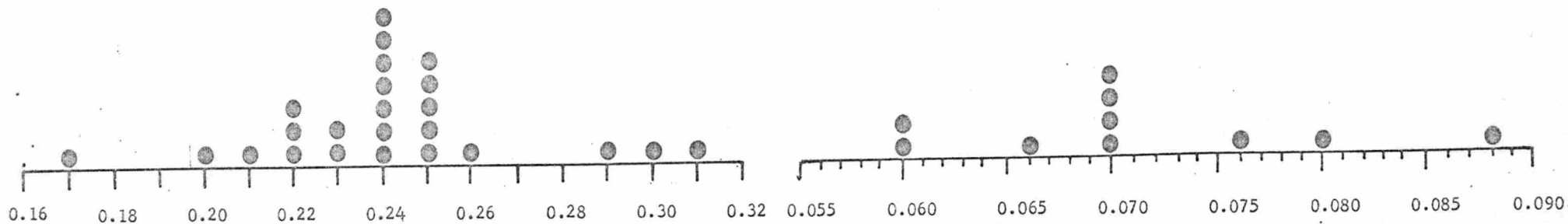
0.0291

95 PCT.CONF.INTVL OF MEAN

0.0747 +OR-

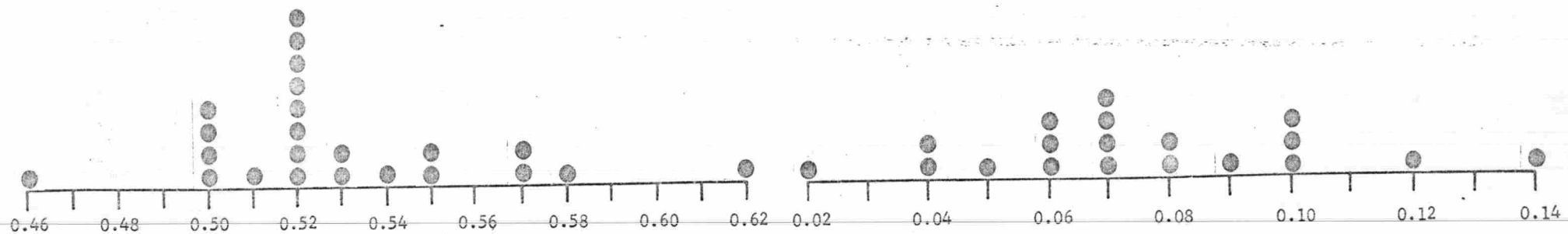
0.0140

SR



COPPER (Cu) -- mg/l

LEAD (Pb) -- mg/l



ZINC (Zn) -- mg/l

STRONTIUM (Sr) -- mg/l

SAMPLE NO. 28

| DATE MU-YR | CODE | REPORTED VALUE | PCT.DEV. FROM MEAN | METHOD |
|---------------|------|-------------------|-----------------------|--|
| 6-69 | 1 | 0.04 | 25.7 | SILVER DIETHYLDITHIOCARBAMATE (STRATTON ADAPTATION) |
| 6-69 | 2 | | | NOT DETERMINED |
| 6-69 | 4 | | | NOT DETERMINED |
| 6-69 | 5 | 0.05 | 7.1 | SILVER DIETHYLDITHIOCARBAMATE (STRATTON ADAPTATION) |
| 6-69 | 6 | | | NOT DETERMINED |
| 6-69 | 7 | | | NOT DETERMINED |
| 6-69 | 9 | 0.05 | 7.1 | SILVER DIETHYLDITHIOCARBAMATE (STRATTON ADAPTATION) |
| 6-69 | 11 | 0.08 | 48.6 | SILVER DIETHYLDITHIOCARBAMATE (STRATTON ADAPTATION) |
| 6-69 | 12 | | | NOT DETERMINED |
| 6-69 | 13 | 0.06 | 11.4 | SILVER DIETHYLDITHIOCARBAMATE (STRATTON ADAPTATION) |
| 6-69 | 14 | | | NOT DETERMINED |
| 6-69 | 15 | 0.06 | 11.4 | SILVER DIETHYLDITHIOCARBAMATE, APHA STD. METH., 1965 |
| 6-69 | 16 | 0.07 | 30.0 | SILVER DIETHYLDITHIOCARBAMATE (STRATTON ADAPTATION) |
| 6-69 | 17 | | | NOT DETERMINED |
| 6-69 | 18 | 0.05 | 7.1 | GUTZEIT-VOLUMETRIC, USGS WSP 1454, D#4A-1 |
| 6-69 | 19 | | | NOT DETERMINED |
| 6-69 | 20 | 0.05 | 7.1 | SILVER DIETHYLDITHIOCARBAMATE, APHA STD. METH., 1965 |
| 6-69 | 21 | 0.03 | 44.3 | SILVER DIETHYLDITHIOCARBAMATE (STRATTON ADAPTATION) |
| 6-69 | 22 | | | NOT DETERMINED |
| 6-69 | 23 | 0.04 | 25.7 | SILVER DIETHYLDITHIOCARBAMATE (STRATTON ADAPTATION) |
| 6-69 | 24 | | | NOT DETERMINED |
| 6-69 | 25 | 0.08 | 48.6 | SILVER DIETHYLDITHIOCARBAMATE, APHA STD. METH., 1965 |
| 6-69 | 26 | 0.04 | 25.7 | SILVER DIETHYLDITHIOCARBAMATE (STRATTON ADAPTATION) |
| 6-69 | 27 | | | NOT DETERMINED |
| 6-69 | 28 | | | NOT DETERMINED |
| 6-69 | 29 | | | NOT DETERMINED |
| 6-69 | 30 | | | NOT DETERMINED |
| 6-69 | 31 | | | NOT DETERMINED |
| 6-69 | 33 | | | NOT DETERMINED |
| 6-69 | 34 | | | NOT DETERMINED |
| 6-69 | 35 | | | NOT DETERMINED |
| 6-69 | 36 | | | NOT DETERMINED |

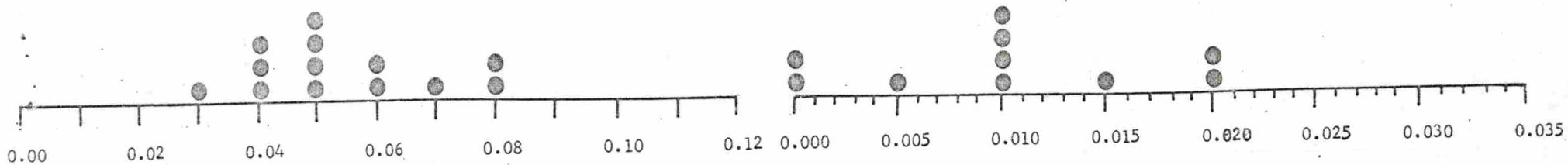
| | | | | | | | |
|--------------------|------|--------|---------------------------|-------------|--------|--|-----------|
| TOTAL RANGE | 0.03 | - | 0.08 | | | | SAMPLE 28 |
| MEAN | | 0.0538 | AVERAGE DEVIATION | 0.0124 | | | |
| STANDARD DEVIATION | | 0.0156 | 95 PCT.CONF.INTVL OF MEAN | 0.0538 +OR- | 0.0094 | | AS |

| DATE MO-YR | CODE | REPORTED VALUE | PCT.DEV. FROM MEAN | METHOD |
|---------------|------|-------------------|-----------------------|--------------------------------|
| 6-69 | 1 | 0.0 3 | 100.0 | ATOMIC ABSORPTION (DIRECT) |
| 6-69 | 2 | | | NOT DETERMINED |
| 6-69 | 4 | | | NOT DETERMINED |
| 6-69 | 5 | 0.010 4 | 0.0 | ATOMIC ABSORPTION (EXTRACTION) |
| 6-69 | 6 | | | NOT DETERMINED |
| 6-69 | 7 | | | NOT DETERMINED |
| 6-69 | 9 | 0.010 3 | 0.0 | ATOMIC ABSORPTION (DIRECT) |
| 6-69 | 11 | 0.0 4 | 100.0 | ATOMIC ABSORPTION (EXTRACTION) |
| 6-69 | 12 | | | NOT DETERMINED |
| 6-69 | 13 | 0.020 3 | 100.0 | ATOMIC ABSORPTION (DIRECT) |
| 6-69 | 14 | | | NOT DETERMINED |
| 6-69 | 15 | | | NOT DETERMINED |
| 6-69 | 16 | | | NOT DETERMINED |
| 6-69 | 17 | | | NOT DETERMINED |
| 6-69 | 18 | | | NOT DETERMINED |
| 6-69 | 19 | | | NOT DETERMINED |
| 6-69 | 20 | 0.010 3 | 0.0 | ATOMIC ABSORPTION (DIRECT) |
| 6-69 | 21 | 0.020 3 | 100.0 | ATOMIC ABSORPTION (DIRECT) |
| 6-69 | 22 | | | NOT DETERMINED |
| 6-69 | 23 | 0.010 3 | 0.0 | ATOMIC ABSORPTION (DIRECT) |
| 6-69 | 24 | | | NOT DETERMINED |
| 6-69 | 25 | 0.005 3 | 50.0 | ATOMIC ABSORPTION (DIRECT) |
| 6-69 | 26 | | | NOT DETERMINED |
| 6-69 | 27 | | | NOT DETERMINED |
| 6-69 | 28 | | | NOT DETERMINED |
| 6-69 | 29 | | | NOT DETERMINED |
| 6-69 | 30 | | | NOT DETERMINED |
| 6-69 | 31 | | | NOT DETERMINED |
| 6-69 | 33 | | | NOT DETERMINED |
| 6-69 | 34 | | | NOT DETERMINED |
| 6-69 | 35 | 0.015 | 50.0 | ATOMIC ABSORPTION (DIRECT) |
| 6-69 | 36 | | | NOT DETERMINED |

| | | | | | | | |
|--------------------|--------|---|---------------------------|-------------|--------|--|-----------|
| TOTAL RANGE | 0.0 | - | 0.020 | | | | |
| MEAN | 0.0100 | | AVERAGE DEVIATION | 0.0050 | | | SAMPLE 28 |
| STANDARD DEVIATION | 0.0071 | | 95 PCT.CONF.INTVL OF MEAN | 0.0100 +OR- | 0.0051 | | CD |

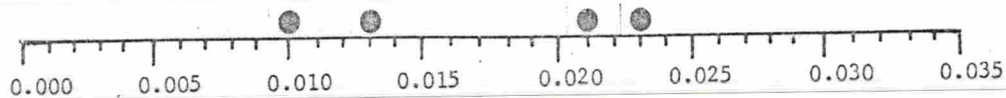
| DATE MO-YR | CODE | REPORTED VALUE | PCT.DEV. FROM MEAN | METHOD |
|---------------|------|-------------------|-----------------------|--------------------------------|
| 6-69 | 1 | | | NOT DETERMINED |
| 6-69 | 2 | | | NOT DETERMINED |
| 6-69 | 4 | | | NOT DETERMINED |
| 6-69 | 5 | 0.023 1 | 44.1 | ATOMIC ABSORPTION (DIRECT) |
| 6-69 | 6 | | | NOT DETERMINED |
| 6-69 | 7 | | | NOT DETERMINED |
| 6-69 | 9 | | | NOT DETERMINED |
| 6-69 | 11 | 0.010 2 | 75.7 | ATOMIC ABSORPTION (EXTRACTION) |
| 6-69 | 12 | | | NOT DETERMINED |
| 6-69 | 13 | 0.013 2 | 68.4 | ATOMIC ABSORPTION (EXTRACTION) |
| 6-69 | 14 | | | NOT DETERMINED |
| 6-69 | 15 | | | NOT DETERMINED |
| 6-69 | 16 | | | NOT DETERMINED |
| 6-69 | 17 | | | NOT DETERMINED |
| 6-69 | 18 | 0.080 2 | 94.3 | ATOMIC ABSORPTION (EXTRACTION) |
| 6-69 | 19 | | | NOT DETERMINED |
| 6-69 | 20 | | | NOT DETERMINED |
| 6-69 | 21 | 0.100 1 | 142.9 | ATOMIC ABSORPTION (DIRECT) |
| 6-69 | 22 | | | NOT DETERMINED |
| 6-69 | 23 | | | NOT DETERMINED |
| 6-69 | 24 | | | NOT DETERMINED |
| 6-69 | 25 | 0.021 1 | 49.0 | ATOMIC ABSORPTION (DIRECT) |
| 6-69 | 26 | | | NOT DETERMINED |
| 6-69 | 27 | | | NOT DETERMINED |
| 6-69 | 28 | | | NOT DETERMINED |
| 6-69 | 29 | | | NOT DETERMINED |
| 6-69 | 30 | | | NOT DETERMINED |
| 6-69 | 31 | | | NOT DETERMINED |
| 6-69 | 33 | | | NOT DETERMINED |
| 6-69 | 34 | | | NOT DETERMINED |
| 6-69 | 35 | | | NOT DETERMINED |
| 6-69 | 36 | | | NOT DETERMINED |

| | | | | | | |
|--------------------|--------|---|---------------------------|-------------|--------|-----------|
| TOTAL RANGE | 0.010 | - | 0.100 | | | SAMPLE 28 |
| MEAN | 0.0412 | | AVERAGE DEVIATION | 0.0326 | | |
| STANDARD DEVIATION | 0.0387 | | 95 PCT.CONF.INTVL OF MEAN | 0.0412 +DR- | 0.0406 | AG. |



ARSENIC (As) -- mg/l

CADMIUM (Cd) -- mg/l



SILVER (Ag) -- mg/l

SAMPLE NO. 28

DETERMINATION

NO. LABS
REPORTINGPCT. OF VALUES
REJECTEDPCT. OF UNREJECTED VALUES WITHIN
95 PCT. CI X +OR- STD X +OR- 2STD

| | | | | | |
|----|----|----|----|----|-----|
| AL | 18 | 17 | 53 | 53 | 100 |
| FE | 32 | 13 | 46 | 75 | 93 |
| MN | 27 | 7 | 12 | 80 | 92 |
| CR | 15 | 0 | 40 | 60 | 93 |
| CU | 25 | 4 | 58 | 75 | 92 |
| PR | 14 | 7 | 62 | 69 | 92 |
| ZN | 24 | 4 | 48 | 78 | 91 |
| SR | 20 | 5 | 32 | 74 | 95 |
| AS | 13 | 0 | 46 | 69 | 100 |
| CD | 10 | 0 | 60 | 60 | 100 |
| AG | 6 | 0 | 83 | 67 | 100 |

| DATE MO-YR | CODE | REPORTED VALUE | PCT. DEV. FROM MEAN | METHOD |
|---------------|-------|-------------------|------------------------|---|
| 6-69 | 1 63 | 26 | 6.8 | MOLYBDATE BLUE, USGS WSP 1454, D'34A-1 |
| 6-69 | 2 47 | 27 | 10.9 | MOLYBDATE BLUE, USGS WSP 1454, D'34A-1 |
| 6-69 | 4 70 | 27 | 10.9 | MOLYBDATE BLUE, USGS WSP 1454, D'34A-1 |
| 6-69 | 5 53 | 24 | 1.4 | MOLYBDATE BLUE, USGS WSP 1454, D'34A-1 |
| 6-69 | 6 32 | | | MOLYBDATE BLUE, USGS WSP 1454, D'34A-1 |
| 6-69 | 7 79 | 25 | 2.7 | NOT DETERMINED |
| 6-69 | 8 61 | | | MOLYBDATE BLUE, USGS WSP 1454, D'34A-1 |
| 6-69 | 9 67 | 23 | 5.5 | NOT DETERMINED |
| 6-69 | 11 46 | 24 | 1.4 | MOLYBDATE BLUE, USGS WSP 1454, D'34A-1 |
| 6-69 | 12 49 | 26 | 6.8 | MOLYBDATE BLUE, USGS WSP 1454, D'34A-1 |
| 6-69 | 13 45 | 24 | 1.4 | MOLYBDATE BLUE, USGS WSP 1454, D'34A-1 |
| 6-69 | 14 73 | 26 | 6.8 | MOLYBDATE BLUE, USGS WSP 1454, D'34A-1 |
| 6-69 | 15 15 | 22 | 9.6 | MOLYBDATE BLUE, USGS WSP 1454, D'34A-1 |
| 6-69 | 16 69 | 26 | 6.8 | COLORIMETRIC MOLYBDOXISILICATE, APHA STD. METH., 1965 |
| 6-69 | 17 62 | 21 | 13.7 | MOLYBDATE BLUE, USGS WSP 1454, D'34A-1 |
| 6-69 | 18 42 | 23 | 5.5 | MOLYBDATE BLUE, USGS WSP 1454, D'34A-1 |
| 6-69 | 19 78 | 24 | 1.4 | MOLYBDATE BLUE, USGS WSP 1454, D'34A-1 |
| 6-69 | 20 27 | | | MOLYBDATE BLUE, USGS WSP 1454, D'34A-1 |
| 6-69 | 21 51 | 22 | 9.6 | NOT DETERMINED |
| 6-69 | 22 71 | 27 | 10.9 | MOLYBDATE BLUE, USGS WSP 1454, D'34A-1 |
| 6-69 | 23 57 | 24 | 1.4 | MOLYBDATE BLUE, USGS WSP 1454, D'34A-1 |
| 6-69 | 24 5 | 20 | 17.8 | MOLYBDATE BLUE, USGS WSP 1454, D'34A-1 |
| 6-69 | 25 65 | 25 | 2.7 | COLORIMETRIC MOLYBDOXISILICATE, APHA STD. METH., 1965 |
| 6-69 | 26 56 | 26 | 6.8 | MOLYBDATE BLUE, USGS WSP 1454, D'34A-1 |
| 6-69 | 27 25 | 24 | 1.4 | OTHER |
| 6-69 | 28 74 | 22 | 9.6 | MOLYBDATE BLUE, USGS WSP 1454, D'34A-1 |
| 6-69 | 29 66 | 25 | 2.7 | MOLYBDATE BLUE, USGS WSP 1454, D'34A-1 |
| 6-69 | 30 60 | | | MOLYBDATE BLUE, USGS WSP 1454, D'34A-1 |
| 6-69 | 31 10 | 27 | 10.9 | NOT DETERMINED |
| 6-69 | 32 64 | | | COLORIMETRIC HETEROPOLY BLUE, APHA STD. METH., 1965 |
| 6-69 | 33 68 | 21 | 13.7 | NOT DETERMINED |
| 6-69 | 34 41 | 24 | 1.4 | MOLYBDATE BLUE, USGS WSP 1454, D'34A-1 |
| 6-69 | 35 2 | 26 | 6.8 | MOLYBDATE BLUE, USGS WSP 1454, D'34A-1 |
| 6-69 | 36 16 | 25 | 2.7 | MOLYBDATE BLUE, USGS WSP 1454, D'34A-1 |
| | | | | ATOMIC ABSORPTION |

TOTAL RANGE 20

MEAN 24.3447

STANDARD DEVIATION 1.9690

AVERAGE DEVIATION 1.5981
95 PCT. CONF. INTVL OF MEAN 24.3447 +OR- 0.7488

SAMPLE 29

SI02

| DATE MO-YR | CODE | REPORTED VALUE | PCT.DEV. FROM MEAN | | METHOD |
|---------------|------|-------------------|-----------------------|----------------|--|
| 6-69 | 1 | 92 | 2.8 | | ATOMIC ABSORPTION |
| 6-69 | 2 | 90 | 0.6 | | COMPLEXOMETRIC, USGS WSP 1454, D'RA-1 |
| 6-69 | 4 | 91 | 1.7 | | ATOMIC ABSORPTION |
| 6-69 | 5 | 88 | 1.7 | | ATOMIC ABSORPTION |
| 6-69 | 6 | 70 | 21.8 | REJECT | ATOMIC ABSORPTION |
| 6-69 | 7 | 106 | 18.5 | REJECT | COMPLEXOMETRIC, USGS WSP 1454, D'RA-1 |
| 6-69 | 8 | 89 | 0.5 | | COMPLEXOMETRIC, USGS WSP 1454, D'RA-1 |
| 6-69 | 9 | 86 | 3.9 | | COMPLEXOMETRIC, USGS WSP 1454, D'RA-1 |
| 6-69 | 11 | 94 | 5.0 | | ATOMIC ABSORPTION |
| 6-69 | 12 | 90 | 0.6 | | COMPLEXOMETRIC, USGS WSP 1454, D'RA-1 |
| 6-69 | 13 | 88 | 1.7 | | COMPLEXOMETRIC, USGS WSP 1454, D'RA-1 |
| 6-69 | 14 | 89 | 0.5 | | COMPLEXOMETRIC, USGS WSP 1454, D'RA-1 |
| 6-69 | 15 | 92 | 2.8 | | EDTA TITRIMETRIC, APHA STD. METH. 1965 |
| 6-69 | 16 | 87 | 2.8 | | ATOMIC ABSORPTION |
| 6-69 | 17 | 90 | 0.6 | | COMPLEXOMETRIC, USGS WSP 1454, D'RA-1 |
| 6-69 | 18 | 89 | 0.5 | | OTHER |
| 6-69 | 19 | 88 | 1.7 | | ATOMIC ABSORPTION |
| 6-69 | 20 | 93 | 3.9 | | EDTA TITRIMETRIC, APHA STD. METH. 1965 |
| 6-69 | 21 | 88 | 1.7 | | ATOMIC ABSORPTION |
| 6-69 | 22 | 88 | 1.7 | | ATOMIC ABSORPTION |
| 6-69 | 23 | 89 | 0.5 | | ATOMIC ABSORPTION |
| 6-69 | 24 | 85 | 5.0 | | EDTA TITRIMETRIC, APHA STD. METH. 1965 |
| 6-69 | 25 | 91 | 1.7 | | COMPLEXOMETRIC, USGS WSP 1454, D'RA-1 |
| 6-69 | 26 | 89 | 0.5 | | COMPLEXOMETRIC, USGS WSP 1454, D'RA-1 |
| 6-69 | 27 | 95 | 6.2 | | EDTA TITRIMETRIC, APHA STD. METH. 1965 |
| 6-69 | 28 | 89 | 0.5 | | COMPLEXOMETRIC, USGS WSP 1454, D'RA-1 |
| 6-69 | 29 | 87 | 2.8 | | COMPLEXOMETRIC, USGS WSP 1454, D'RA-1 |
| 6-69 | 30 | 94 | 5.0 | | ATOMIC ABSORPTION |
| 6-69 | 31 | 86 | 3.9 | | ATOMIC ABSORPTION |
| 6-69 | 32 | 88 | 1.7 | | OTHER |
| 6-69 | 33 | | | NOT DETERMINED | |
| 6-69 | 34 | 86 | 3.9 | | ATOMIC ABSORPTION |
| 6-69 | 35 | 89 | 0.5 | | OTHER |
| 6-69 | 36 | 94 | 5.0 | | ATOMIC ABSORPTION |

TOTAL RANGE 70
MEAN
STANDARD DEVIATION

70 - 106
89.4836
2.6188

AVERAGE DEVIATION
95 PCT.CONF.INTVL OF MEAN

2.0770
89.4836 +OR-

0.9605

SAMPLE 29
CA

| DATE MO-YR | CODE | REPORTED VALUE | PCT.DEV. FROM MEAN | METHOD |
|---------------|------|-------------------|-----------------------|---|
| 6-69 | 1 | 15 | 1.7 | ATOMIC ABSORPTION |
| 6-69 | 2 | 14 | 5.1 | CALC. BY DIFFERENCE, USGS WSP 1454, D'17A-1, D'23A-1 |
| 6-69 | 4 | 15 | 1.7 | ATOMIC ABSORPTION |
| 6-69 | 5 | 15 | 1.7 | ATOMIC ABSORPTION |
| 6-69 | 6 | 15 | 1.7 | ATOMIC ABSORPTION |
| 6-69 | 7 | 5.7 | 61.4 | REJECT CALC. BY DIFFERENCE, USGS WSP 1454, D'17A-1, D'23A-1 |
| 6-69 | 8 | 15 | 1.7 | CALC. BY DIFFERENCE, USGS WSP 1454, D'17A-1, D'23A-1 |
| 6-69 | 9 | 16 | 8.5 | CALC. BY DIFFERENCE, USGS WSP 1454, D'17A-1, D'23A-1 |
| 6-69 | 11 | 14 | 5.1 | ATOMIC ABSORPTION |
| 6-69 | 12 | 14 | 5.1 | CALC. BY DIFFERENCE, USGS WSP 1454, D'17A-1, D'23A-1 |
| 6-69 | 13 | 14 | 5.1 | ATOMIC ABSORPTION |
| 6-69 | 14 | 15 | 1.7 | ATOMIC ABSORPTION |
| 6-69 | 15 | 15 | 1.7 | CALC. BY DIFFERENCE, USGS WSP 1454, D'17A-1, D'23A-1 |
| 6-69 | 16 | 15 | 1.7 | ATOMIC ABSORPTION |
| 6-69 | 17 | 15 | 1.7 | CALC. BY DIFFERENCE, USGS WSP 1454, D'17A-1, D'23A-1 |
| 6-69 | 18 | 14 | 5.1 | ATOMIC ABSORPTION |
| 6-69 | 19 | 15 | 1.7 | ATOMIC ABSORPTION |
| 6-69 | 20 | 13 | 11.9 | CALC. BY DIFFERENCE, USGS WSP 1454, D'17A-1, D'23A-1 |
| 6-69 | 21 | 15 | 1.7 | ATOMIC ABSORPTION |
| 6-69 | 22 | 15 | 1.7 | ATOMIC ABSORPTION |
| 6-69 | 23 | 15 | 1.7 | ATOMIC ABSORPTION |
| 6-69 | 24 | 17 | 15.3 | CALC. BY DIFFERENCE, USGS WSP 1454, D'17A-1, D'23A-1 |
| 6-69 | 25 | 12 | 18.6 | CALC. BY DIFFERENCE, USGS WSP 1454, D'17A-1, D'23A-1 |
| 6-69 | 26 | 15 | 1.7 | ATOMIC ABSORPTION |
| 6-69 | 27 | 13 | 11.9 | CALC. BY DIFFERENCE, USGS WSP 1454, D'17A-1, D'23A-1 |
| 6-69 | 28 | 15 | 1.7 | CALC. BY DIFFERENCE, USGS WSP 1454, D'17A-1, D'23A-1 |
| 6-69 | 29 | 15 | 1.7 | CALC. BY DIFFERENCE, USGS WSP 1454, D'17A-1, D'23A-1 |
| 6-69 | 30 | 16 | 8.5 | ATOMIC ABSORPTION |
| 6-69 | 31 | 14 | 5.1 | ATOMIC ABSORPTION |
| 6-69 | 32 | 15 | 1.7 | CALC. BY DIFFERENCE, USGS WSP 1454, D'17A-1, D'23A-1 |
| 6-69 | 33 | 16 | 8.5 | ATOMIC ABSORPTION |
| 6-69 | 34 | 15 | 1.7 | ATOMIC ABSORPTION |
| 6-69 | 35 | 15 | 1.7 | OTHER |
| 6-69 | 36 | | | NOT DETERMINED |

3.5-13-117

| | | | | | | |
|--------------------|---------|---|----|---------------------------|---------------------|-----------|
| TOTAL RANGE | 5.7 | - | 17 | | | SAMPLE 29 |
| MEAN | 14.7499 | | | AVERAGE DEVIATION | 0.6719 | |
| STANDARD DEVIATION | 0.9504 | | | 95 PCT.CONF.INTVL OF MEAN | 14.7499 +OR- 0.3410 | MG |

| DATE MO-YR | CODE | REPORTED VALUE | PCT.DEV. FROM MEAN | METHOD |
|---------------|------|-------------------|-----------------------|-------------------------|
| 6-69 | 1 | 77 | 1.0 | FLAME PHOTOMETRY |
| 6-69 | 2 | | | NOT DETERMINED |
| 6-69 | 4 | 74 | 4.9 | ATOMIC ABSORPTION |
| 6-69 | 5 | 78 | 0.2 | ATOMIC ABSORPTION |
| 6-69 | 6 | 84 | 7.9 | REJECT FLAME PHOTOMETRY |
| 6-69 | 7 | 81 | 4.1 | FLAME PHOTOMETRY |
| 6-69 | 8 | | | NOT DETERMINED |
| 6-69 | 9 | 77 | 1.0 | ATOMIC ABSORPTION |
| 6-69 | 11 | 79 | 1.5 | ATOMIC ABSORPTION |
| 6-69 | 12 | | | NOT DETERMINED |
| 6-69 | 13 | 79 | 1.5 | ATOMIC ABSORPTION |
| 6-69 | 14 | 79 | 1.5 | ATOMIC ABSORPTION |
| 6-69 | 15 | 78 | 0.2 | FLAME PHOTOMETRY |
| 6-69 | 16 | 79 | 1.5 | ATOMIC ABSORPTION |
| 6-69 | 17 | 78 | 0.2 | ATOMIC ABSORPTION |
| 6-69 | 18 | 79 | 1.5 | FLAME PHOTOMETRY |
| 6-69 | 19 | 78 | 0.2 | FLAME PHOTOMETRY |
| 6-69 | 20 | 73 | 6.2 | ATOMIC ABSORPTION |
| 6-69 | 21 | 78 | 0.2 | ATOMIC ABSORPTION |
| 6-69 | 22 | 78 | 0.2 | ATOMIC ABSORPTION |
| 6-69 | 23 | 79 | 1.5 | ATOMIC ABSORPTION |
| 6-69 | 24 | | | NOT DETERMINED |
| 6-69 | 25 | 79 | 1.5 | ATOMIC ABSORPTION |
| 6-69 | 26 | 77 | 1.0 | FLAME PHOTOMETRY |
| 6-69 | 27 | 76 | 2.3 | FLAME PHOTOMETRY |
| 6-69 | 28 | 77 | 1.0 | FLAME PHOTOMETRY |
| 6-69 | 29 | 79 | 1.5 | ATOMIC ABSORPTION |
| 6-69 | 30 | 78 | 0.2 | ATOMIC ABSORPTION |
| 6-69 | 31 | 76 | 2.3 | ATOMIC ABSORPTION |
| 6-69 | 32 | | | NOT DETERMINED |
| 6-69 | 33 | 77 | 1.0 | ATOMIC ABSORPTION |
| 6-69 | 34 | 78 | 0.2 | ATOMIC ABSORPTION |
| 6-69 | 35 | 3.4 | 95.6 | REJECT FLAME PHOTOMETRY |
| 6-69 | 36 | 80 | 2.8 | FLAME PHOTOMETRY |

TOTAL RANGE 3.4 - 84

MEAN 77.8146

STANDARD DEVIATION 1.6879

AVERAGE DEVIATION

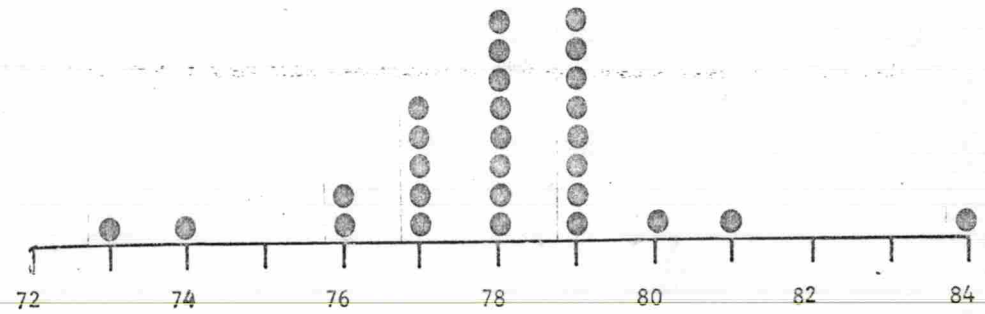
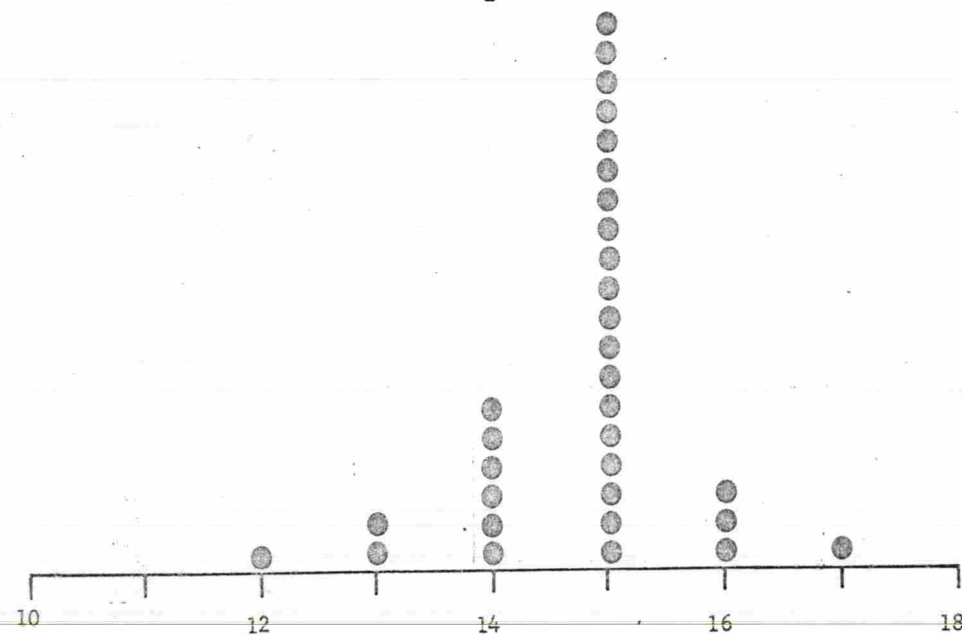
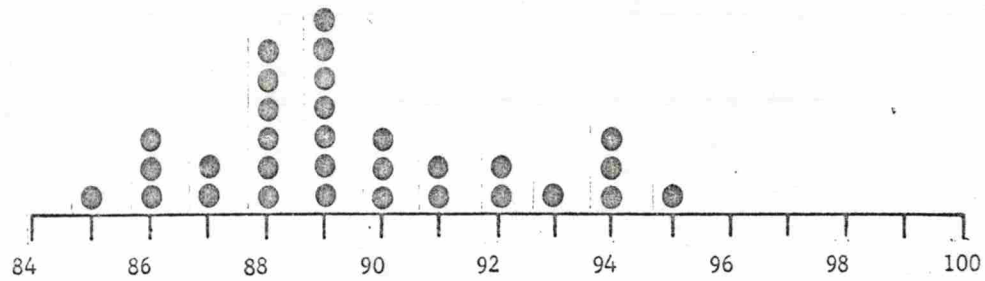
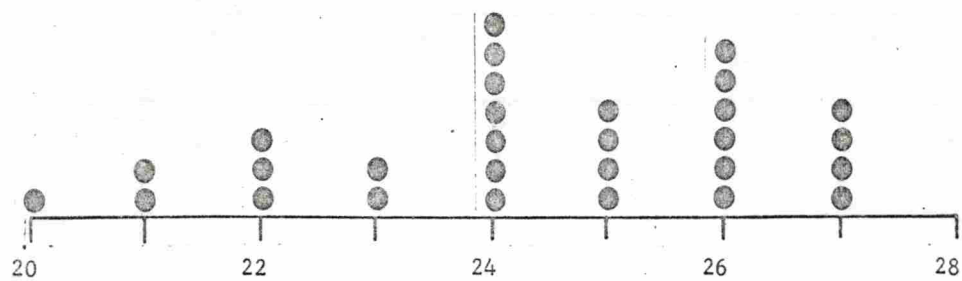
95 PCT.CONF.INTVL OF MEAN

1.2099

77.8146 +OR- 0.6679

SAMPLE 29

NA



SAMPLE NO. 29

| DATE MU-YR | CODE | REPORTED VALUE | PCT.DEV. FROM MEAN | METHOD. |
|---------------|------|-------------------|-----------------------|-------------------------|
| 6-69 | 1 | 11.4 | 6.2 | FLAME PHOTOMETRY |
| 6-69 | 2 | | | NOT DETERMINED |
| 6-69 | 4 | 13 | 10.8 | ATOMIC ABSORPTION |
| 6-69 | 5 | 12 | 2.3 | ATOMIC ABSORPTION |
| 6-69 | 6 | 12 | 2.3 | ATOMIC ABSORPTION |
| 6-69 | 7 | 7.9 | 32.7 | REJECT FLAME PHOTOMETRY |
| 6-69 | 8 | | | NOT DETERMINED |
| 6-69 | 9 | 12 | 2.3 | ATOMIC ABSORPTION |
| 6-69 | 11 | 11 | 6.2 | ATOMIC ABSORPTION |
| 6-69 | 12 | | | NOT DETERMINED |
| 6-69 | 13 | 12 | 2.3 | ATOMIC ABSORPTION |
| 6-69 | 14 | 11 | 6.2 | ATOMIC ABSORPTION |
| 6-69 | 15 | 12 | 2.3 | FLAME PHOTOMETRY |
| 6-69 | 16 | 11 | 6.2 | ATOMIC ABSORPTION |
| 6-69 | 17 | 11 | 6.2 | ATOMIC ABSORPTION |
| 6-69 | 18 | 12 | 2.3 | FLAME PHOTOMETRY |
| 6-69 | 19 | 11 | 6.2 | FLAME PHOTOMETRY |
| 6-69 | 20 | 11 | 6.2 | ATOMIC ABSORPTION |
| 6-69 | 21 | 12 | 2.3 | ATOMIC ABSORPTION |
| 6-69 | 22 | 11 | 6.2 | ATOMIC ABSORPTION |
| 6-69 | 23 | 12 | 2.3 | ATOMIC ABSORPTION |
| 6-69 | 24 | | | NOT DETERMINED |
| 6-69 | 25 | 12 | 2.3 | ATOMIC ABSORPTION |
| 6-69 | 26 | 12 | 2.3 | FLAME PHOTOMETRY |
| 6-69 | 27 | 12 | 2.3 | FLAME PHOTOMETRY |
| 6-69 | 28 | 13 | 10.8 | FLAME PHOTOMETRY |
| 6-69 | 29 | 12 | 2.3 | ATOMIC ABSORPTION |
| 6-69 | 30 | 11 | 6.2 | ATOMIC ABSORPTION |
| 6-69 | 31 | 12 | 2.3 | ATOMIC ABSORPTION |
| 6-69 | 32 | | | NOT DETERMINED |
| 6-69 | 33 | 12 | 2.3 | ATOMIC ABSORPTION |
| 6-69 | 34 | 12 | 2.3 | ATOMIC ABSORPTION |
| 6-69 | 35 | 17 | 44.9 | REJECT FLAME PHOTOMETRY |
| 6-69 | 36 | 4.4 | 62.5 | REJECT FLAME PHOTOMETRY |

TOTAL RANGE
MEAN
STANDARD DEVIATION

4.4

- 17
11.7307
0.6038

AVERAGE DEVIATION
95 PCT.CONF.INTVL OF MEAN

0.5059
11.7307 +OR- 0.2439

SAMPLE 29

K

| DATE MO-YR | CODE | REPORTED VALUE | PCT.DEV. FROM MEAN | | METHOD |
|---------------|------|-------------------|-----------------------|--------|---|
| 6-69 | 1 | 218 | 4.6 | | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 2 | 212 | 1.7 | | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 4 | 204 | 2.1 | | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 5 | 204 | 2.1 | | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 6 | 184 | 11.7 | REJECT | INDICATOR METHOD, APHA STD. METH., 1965 |
| 6-69 | 7 | 205 | 1.6 | | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 8 | 210 | 0.8 | | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 9 | 208 | 0.2 | | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 11 | 211 | 1.3 | | OTHER |
| 6-69 | 12 | 208 | 0.2 | | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 13 | 200 | 4.0 | | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 14 | 210 | 0.8 | | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 15 | 211 | 1.3 | | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 16 | 210 | 0.8 | | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 17 | 212 | 1.7 | | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 18 | 207 | 0.7 | | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 19 | 210 | 0.8 | | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 20 | 211 | 1.3 | | POTENTIOMETRIC, APHA STD. METH., 1965 |
| 6-69 | 21 | 207 | 0.7 | | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 22 | 203 | 2.6 | | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 23 | 210 | 0.8 | | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 24 | 138 | 33.8 | REJECT | INDICATOR METHOD, APHA STD. METH., 1965 |
| 6-69 | 25 | 208 | 0.2 | | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 26 | 209 | 0.3 | | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 27 | 207 | 0.7 | | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 28 | 209 | 0.3 | | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 29 | 218 | 4.6 | | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 30 | 211 | 1.3 | | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 31 | 208 | 0.2 | | POTENTIOMETRIC, APHA STD. METH., 1965 |
| 6-69 | 32 | 206 | 1.1 | | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 33 | 206 | 1.1 | | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 34 | 204 | 2.1 | | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 35 | 203 | 2.6 | | INDICATOR METHOD, APHA STD. METH., 1965 |
| 6-69 | 36 | 173 | 17.0 | REJECT | POTENTIOMETRIC, APHA STD. METH., 1965 |

206

36
69

| | | | | | | |
|--------------------|----------|---|-----|---------------------------|----------------------|-----------|
| TOTAL RANGE | 138 | - | 218 | | | |
| MEAN | 208.3855 | | | AVERAGE DEVIATION | 2.9802 | SAMPLE 29 |
| STANDARD DEVIATION | 3.9470 | | | 95 PCT.CONF.INTVL OF MEAN | 208.3855 +OR- 1.4476 | HCO3 |

| DATE MO-YR | CODE | REPORTED VALUE | PCT.DEV. FROM MEAN | METHOD |
|---------------|------|-------------------|-----------------------|--|
| 6-69 | 1 | 0 | 100.0 | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 2 | 0 | 100.0 | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 4 | 4 | 131.0 | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 5 | 0 | 100.0 | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 6 | 11 | 535.4 | REJECT INDICATOR METHOD, APHA STD. METH., 1965 |
| 6-69 | 7 | 0 | 76.9 | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 8 | 0 | 100.0 | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 9 | 2 | 15.5 | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 11 | 0 | 100.0 | OTHER |
| 6-69 | 12 | 3 | 73.3 | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 13 | 0 | 100.0 | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 14 | 0 | 100.0 | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 15 | 4 | 131.0 | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 16 | 0 | 100.0 | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 17 | 0 | 100.0 | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 18 | 5 | 188.8 | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 19 | 0 | 100.0 | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 20 | 0 | 100.0 | POTENTIOMETRIC, APHA STD. METH., 1965 |
| 6-69 | 21 | 4 | 131.0 | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 22 | 4 | 131.0 | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 23 | 0 | 100.0 | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 24 | 2 | 15.5 | INDICATOR METHOD, APHA STD. METH., 1965 |
| 6-69 | 25 | 7 | 304.3 | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 26 | 0 | 100.0 | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 27 | 4 | 131.0 | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 28 | 0 | 100.0 | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 29 | 0 | 100.0 | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 30 | 2 | 15.5 | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 31 | 0 | 100.0 | POTENTIOMETRIC, APHA STD. METH., 1965 |
| 6-69 | 32 | 3 | 73.3 | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 33 | 4 | 131.0 | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 34 | 3 | 73.3 | POTENTIOMETRIC, USGS WSP 1454, D'2A-1 |
| 6-69 | 35 | 4 | 131.0 | INDICATOR METHOD, APHA STD. METH., 1965 |
| 6-69 | 36 | 18 | 939.7 | REJECT POTENTIOMETRIC, APHA STD. METH., 1965 |

TOTAL RANGE 0
MEAN
STANDARD DEVIATION

1-7

- 18
1.7312
2.0419

AVERAGE DEVIATION
95 PCT.CONF.INTVL OF MEAN

1.8144
1.7312 +OR-

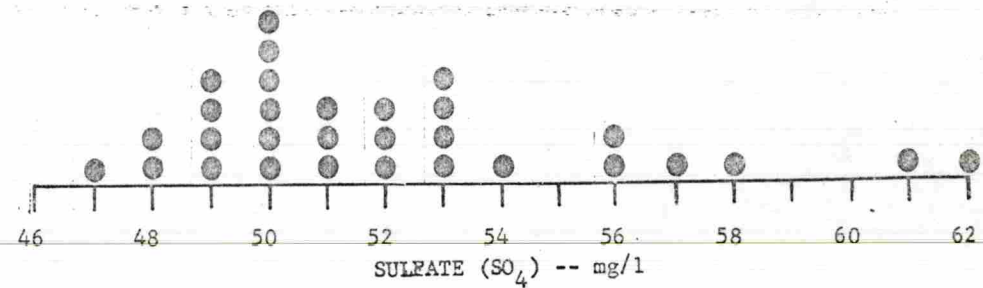
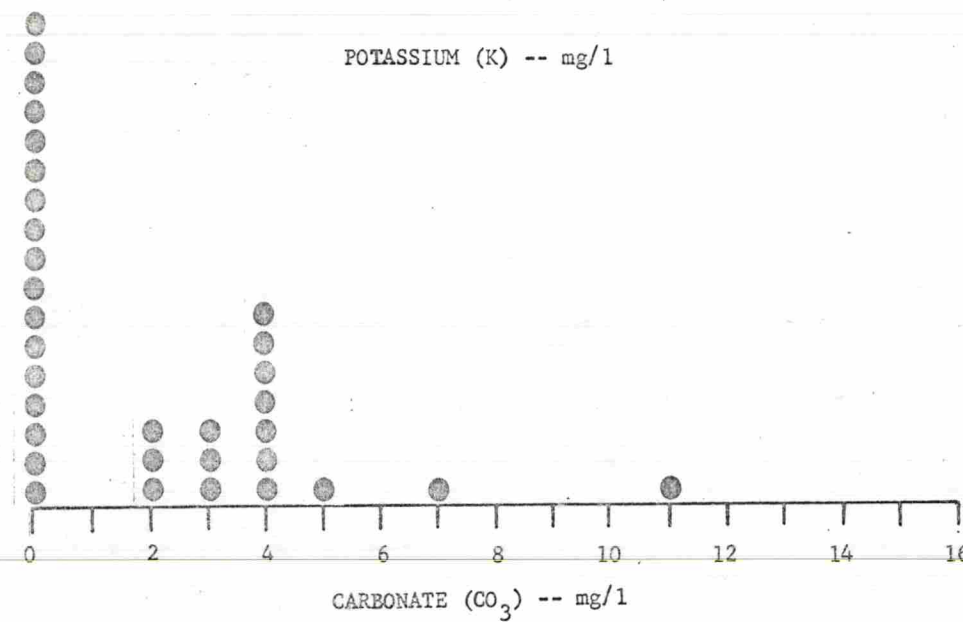
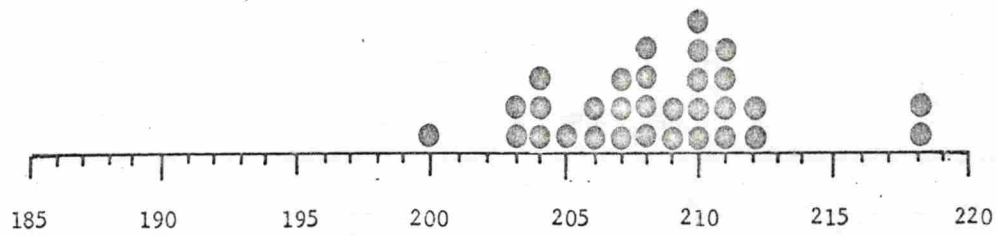
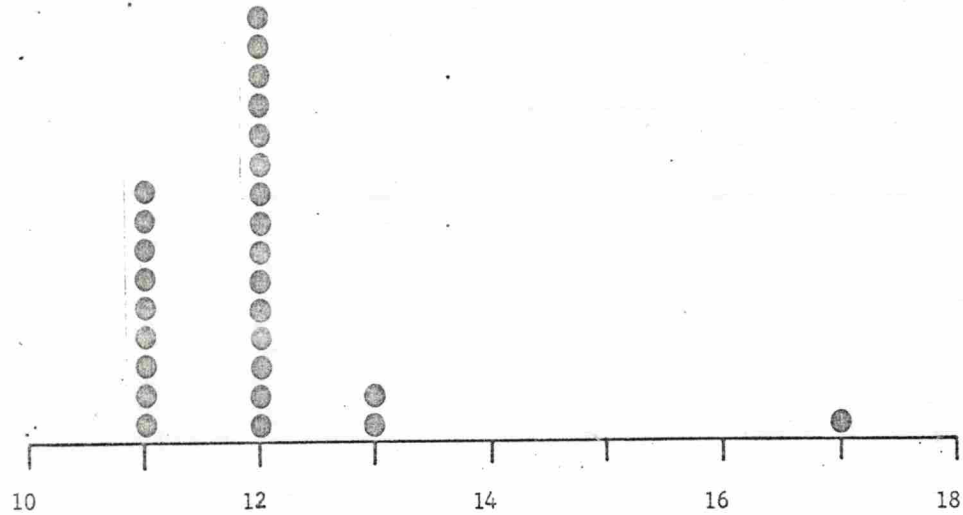
0.7327

SAMPLE 29
C03

| DATE MO-YR | CODE | REPORTED VALUE | PCT.DEV. FROM MEAN | METHOD |
|---------------|------|-------------------|-----------------------|---|
| 6-69 | 1 | 50 | 4.1 | SPECTROPHOTOMETRIC THORIN, USGS WSP 1454, D'38A-2 |
| 6-69 | 2 | 50 | 4.1 | SPECTROPHOTOMETRIC THORIN, USGS WSP 1454, D'38A-2 |
| 6-69 | 4 | 53 | 1.7 | SPECTROPHOTOMETRIC THORIN, USGS WSP 1454, D'38A-2 |
| 6-69 | 5 | 61 | 17.0 | SPECTROPHOTOMETRIC THORIN, USGS WSP 1454, D'38A-2 |
| 6-69 | 6 | 54 | 3.6 | TURBIDIMETRIC, APHA STD. METH., 1965 |
| 6-69 | 7 | 51 | 2.2 | SPECTROPHOTOMETRIC THORIN, USGS WSP 1454, D'38A-2 |
| 6-69 | 8 | | | NOT DETERMINED |
| 6-69 | 9 | 52 | 0.3 | OTHER |
| 6-69 | 11 | 49 | 6.0 | SPECTROPHOTOMETRIC THORIN, USGS WSP 1454, D'38A-2 |
| 6-69 | 12 | 47 | 9.8 | SPECTROPHOTOMETRIC THORIN, USGS WSP 1454, D'38A-2 |
| 6-69 | 13 | 50 | 4.1 | SPECTROPHOTOMETRIC THORIN, USGS WSP 1454, D'38A-2 |
| 6-69 | 14 | 53 | 1.7 | SPECTROPHOTOMETRIC THORIN, USGS WSP 1454, D'38A-2 |
| 6-69 | 15 | 57 | 9.3 | GRAVIMETRIC WITH IGNITION, APHA STD. METH., 1965 |
| 6-69 | 16 | 53 | 1.7 | SPECTROPHOTOMETRIC THORIN, USGS WSP 1454, D'38A-2 |
| 6-69 | 17 | 51 | 2.2 | SPECTROPHOTOMETRIC THORIN, USGS WSP 1454, D'38A-2 |
| 6-69 | 18 | 48 | 7.9 | SPECTROPHOTOMETRIC THORIN, USGS WSP 1454, D'38A-2 |
| 6-69 | 19 | 49 | 6.0 | SPECTROPHOTOMETRIC THORIN, USGS WSP 1454, D'38A-2 |
| 6-69 | 20 | 58 | 11.3 | OTHER |
| 6-69 | 21 | 50 | 4.1 | SPECTROPHOTOMETRIC THORIN, USGS WSP 1454, D'38A-2 |
| 6-69 | 22 | 52 | 0.3 | SPECTROPHOTOMETRIC THORIN, USGS WSP 1454, D'38A-2 |
| 6-69 | 23 | 51 | 2.2 | OTHER |
| 6-69 | 24 | 48 | 7.9 | TURBIDIMETRIC, APHA STD. METH., 1965 |
| 6-69 | 25 | 52 | 0.3 | SPECTROPHOTOMETRIC THORIN, USGS WSP 1454, D'38A-2 |
| 6-69 | 26 | 50 | 4.1 | SPECTROPHOTOMETRIC THORIN, USGS WSP 1454, D'38A-2 |
| 6-69 | 27 | 66 | 26.6 | REJECT OTHER |
| 6-69 | 28 | 49 | 6.0 | VISUAL THORIN, USGS WSP 1454, D#38A-1 |
| 6-69 | 29 | 56 | 7.4 | SPECTROPHOTOMETRIC THORIN, USGS WSP 1454, D'38A-2 |
| 6-69 | 30 | | | NOT DETERMINED |
| 6-69 | 31 | 56 | 7.4 | TURBIDIMETRIC, APHA STD. METH., 1965 |
| 6-69 | 32 | 49 | 6.0 | OTHER |
| 6-69 | 33 | 53 | 1.7 | OTHER |
| 6-69 | 34 | 50 | 4.1 | SPECTROPHOTOMETRIC THORIN, USGS WSP 1454, D'38A-2 |
| 6-69 | 35 | 62 | 18.9 | VISUAL THORIN, USGS WSP 1454, D#38A-1 |
| 6-69 | 36 | | | NOT DETERMINED |

21-27-13.5

| | | | | | | |
|--------------------|----|---------|----|---------------------------|--------------|-----------|
| TOTAL RANGE | 47 | - | 66 | AVERAGE DEVIATION | 2.8355 | SAMPLE 29 |
| MEAN | | 52.1331 | | 95 PCT.CONF.INTVL OF MEAN | 52.1331 +OR- | S04 |
| STANDARD DEVIATION | | 3.7207 | | | 1.3892 | |



SAMPLE NO. 29

| DATE MO-YR | CODE | REPORTED VALUE | PCT.DEV. FROM MEAN | METHOD |
|---------------|------|-------------------|-----------------------|---|
| 6-69 | 1 | 97 | 1.1 | PROPOSED VISUAL MERCURIMETRIC (JUNE 1963) |
| 6-69 | 2 | 97 | 1.1 | PROPOSED VISUAL MERCURIMETRIC (JUNE 1963) |
| 6-69 | 4 | 94 | 2.1 | MOHR VOLUMETRIC, USGS WSP 1454, D'10A-1 |
| 6-69 | 5 | 95 | 1.0 | PROPOSED SPECTROPHOTOMETRIC MERCURIMETRIC (JUNE 1963) |
| 6-69 | 6 | 89 | 7.3 | OTHER |
| 6-69 | 7 | 96 | 0.0 | PROPOSED VISUAL MERCURIMETRIC (JUNE 1963) |
| 6-69 | 8 | 96 | 0.0 | MOHR VOLUMETRIC, USGS WSP 1454, D'10A-1 |
| 6-69 | 9 | 95 | 1.0 | PROPOSED VISUAL MERCURIMETRIC (JUNE 1963) |
| 6-69 | 11 | 96 | 0.0 | PROPOSED VISUAL MERCURIMETRIC (JUNE 1963) |
| 6-69 | 12 | 97 | 1.1 | MOHR VOLUMETRIC, USGS WSP 1454, D'10A-1 |
| 6-69 | 13 | 96 | 0.0 | MOHR VOLUMETRIC, USGS WSP 1454, D'10A-1 |
| 6-69 | 14 | 96 | 0.0 | MOHR VOLUMETRIC, USGS WSP 1454, D'10A-1 |
| 6-69 | 15 | 100 | 4.2 | ARGENTOMETRIC, APHA STD. METH., 1965 |
| 6-69 | 16 | 95 | 1.0 | MOHR VOLUMETRIC, USGS WSP 1454, D'10A-1 |
| 6-69 | 17 | 95 | 1.0 | MOHR VOLUMETRIC, USGS WSP 1454, D'10A-1 |
| 6-69 | 18 | 96 | 0.0 | MOHR VOLUMETRIC, USGS WSP 1454, D'10A-1 |
| 6-69 | 19 | 98 | 2.1 | PROPOSED SPECTROPHOTOMETRIC MERCURIMETRIC (JUNE 1963) |
| 6-69 | 20 | 94 | 2.1 | TECHNICON AUTO ANALYZER |
| 6-69 | 21 | 98 | 2.1 | PROPOSED SPECTROPHOTOMETRIC MERCURIMETRIC (JUNE 1963) |
| 6-69 | 22 | 94 | 2.1 | MOHR VOLUMETRIC, USGS WSP 1454, D'10A-1 |
| 6-69 | 23 | 98 | 2.1 | PROPOSED VISUAL MERCURIMETRIC (JUNE 1963) |
| 6-69 | 24 | 97 | 1.1 | OTHER |
| 6-69 | 25 | 96 | 0.0 | MOHR VOLUMETRIC, USGS WSP 1454, D'10A-1 |
| 6-69 | 26 | 94 | 2.1 | MOHR VOLUMETRIC, USGS WSP 1454, D'10A-1 |
| 6-69 | 27 | 95 | 1.0 | POTENTIOMETRIC (SILVER-SILVER CHLORIDE ELECTRODES) |
| 6-69 | 28 | 95 | 1.0 | MOHR VOLUMETRIC, USGS WSP 1454, D'10A-1 |
| 6-69 | 29 | 97 | 1.1 | MOHR VOLUMETRIC, USGS WSP 1454, D'10A-1 |
| 6-69 | 30 | 98 | 2.1 | MOHR VOLUMETRIC, USGS WSP 1454, D'10A-1 |
| 6-69 | 31 | 104 | 8.4 | OTHER |
| 6-69 | 32 | 93 | 3.1 | PROPOSED VISUAL MERCURIMETRIC (JUNE 1963) |
| 6-69 | 33 | 94 | 2.1 | MOHR VOLUMETRIC, USGS WSP 1454, D'10A-1 |
| 6-69 | 34 | 95 | 1.0 | MOHR VOLUMETRIC, USGS WSP 1454, D'10A-1 |
| 6-69 | 35 | 98 | 2.1 | MOHR VOLUMETRIC, USGS WSP 1454, D'10A-1 |
| 6-69 | 36 | 96 | 0.0 | OTHER |

REJECT

REJECT

| | | | | | |
|--------------------|----|---------|---------------------------|---------------------|-----------|
| TOTAL RANGE | 89 | - | 104 | | |
| MEAN | | 95.9685 | AVERAGE DEVIATION | 1.2246 | SAMPLE 29 |
| STANDARD DEVIATION | | 1.5757 | 95 PCT.CONF.INTVL OF MEAN | 95.9685 +OR- 0.5655 | CL |

| DATE MO-YR | CODE | REPORTED VALUE | PCT.DEV. FROM MEAN | METHOD |
|---------------|------|-------------------|-----------------------|--|
| 6-69 | 1 | 0.5 | 4.5 | ZIRCONIUM-ERIOCHROME CYANINE R, USGS WSP 1454, D'16A-1 |
| 6-69 | 2 | 0.6 | 25.4 | ZIRCONIUM-ERIOCHROME CYANINE R, USGS WSP 1454, D'16A-1 |
| 6-69 | 4 | 0.6 | 25.4 | ZIRCONIUM-ALIZARIN, USGS WSP 1454, D'16A-2 |
| 6-69 | 5 | 0.4 | 16.4 | SPECIFIC-ION ELECTRODE |
| 6-69 | 6 | 0.4 | 16.4 | ZIRCONIUM-ALIZARIN, USGS WSP 1454, D'16A-2 |
| 6-69 | 7 | 0.5 | 4.5 | ZIRCONIUM-ERIOCHROME CYANINE R, USGS WSP 1454, D'16A-1 |
| 6-69 | 8 | | | NOT DETERMINED |
| 6-69 | 9 | 0.4 | 16.4 | ZIRCONIUM-ERIOCHROME CYANINE R, USGS WSP 1454, D'16A-1 |
| 6-69 | 11 | 0.6 | 25.4 | ZIRCONIUM-ERIOCHROME CYANINE R, USGS WSP 1454, D'16A-1 |
| 6-69 | 12 | 0.4 | 16.4 | ZIRCONIUM-ERIOCHROME CYANINE R, USGS WSP 1454, D'16A-1 |
| 6-69 | 13 | 0.5 | 4.5 | ZIRCONIUM-ERIOCHROME CYANINE R, USGS WSP 1454, D'16A-1 |
| 6-69 | 14 | 0.4 | 16.4 | SPECIFIC-ION ELECTRODE |
| 6-69 | 15 | 0.4 | 16.4 | VISUAL ALIZARIN, ALPHA STD. METH., 1965 |
| 6-69 | 16 | 0.7 | 46.3 | ZIRCONIUM-ERIOCHROME CYANINE R, USGS WSP 1454, D'16A-1 |
| 6-69 | 17 | 0.4 | 16.4 | ZIRCONIUM-ERIOCHROME CYANINE R, USGS WSP 1454, D'16A-1 |
| 6-69 | 18 | 0.4 | 16.4 | ZIRCONIUM-ERIOCHROME CYANINE R, USGS WSP 1454, D'16A-1 |
| 6-69 | 19 | 0.4 | 16.4 | ZIRCONIUM-ERIOCHROME CYANINE R, USGS WSP 1454, D'16A-1 |
| 6-69 | 20 | 0.4 | 16.4 | OTHER |
| 6-69 | 21 | 0.4 | 16.4 | ZIRCONIUM-ERIOCHROME CYANINE R, USGS WSP 1454, D'16A-1 |
| 6-69 | 22 | 0.6 | 25.4 | ZIRCONIUM-ERIOCHROME CYANINE R, USGS WSP 1454, D'16A-1 |
| 6-69 | 23 | 0.5 | 4.5 | ZIRCONIUM-ERIOCHROME CYANINE R, USGS WSP 1454, D'16A-1 |
| 6-69 | 24 | | | NOT DETERMINED |
| 6-69 | 25 | 0.5 | 4.5 | ZIRCONIUM-ERIOCHROME CYANINE R, USGS WSP 1454, D'16A-1 |
| 6-69 | 26 | 0.5 | 4.5 | SPADNS METHOD, ALPHA STD. METH., 1965 |
| 6-69 | 27 | 0.5 | 4.5 | SPECIFIC-ION ELECTRODE |
| 6-69 | 28 | 0.5 | 4.5 | SPADNS METHOD, ALPHA STD. METH., 1965 |
| 6-69 | 29 | 0.5 | 4.5 | ZIRCONIUM-ERIOCHROME CYANINE R, USGS WSP 1454, D'16A-1 |
| 6-69 | 30 | | | NOT DETERMINED |
| 6-69 | 31 | 0.5 | 4.5 | SPADNS METHOD, ALPHA STD. METH., 1965 |
| 6-69 | 32 | | | NOT DETERMINED |
| 6-69 | 33 | 0.5 | 4.5 | ZIRCONIUM-ERIOCHROME CYANINE R, USGS WSP 1454, D'16A-1 |
| 6-69 | 34 | 0.4 | 16.4 | ZIRCONIUM-ERIOCHROME CYANINE R, USGS WSP 1454, D'16A-1 |
| 6-69 | 35 | 1.0 | 109.0 | REJECT VISUAL ALIZARIN, ALPHA STD. METH., 1965 |
| 6-69 | 36 | | | NOT DETERMINED |

| | | | | | | | | | |
|--------------------|-----|--------|-----|---------------------------|--|-------------|--------|--|-----------|
| TOTAL RANGE | 0.4 | - | 1.0 | | | | | | |
| MEAN | | 0.4786 | | AVERAGE DEVIATION | | 0.0673 | | | SAMPLE 29 |
| STANDARD DEVIATION | | 0.0833 | | 95 PCT.CONF.INTVL OF MEAN | | 0.4786 +OR- | 0.0323 | | F |

| DATE MO-YR | CODE | REPORTED VALUE | PCT.DEV. FROM MEAN | METHOD |
|---------------|------|-------------------|-----------------------|---|
| 6-69 | 1 | 149 | 15.5 | |
| 6-69 | 2 | 133 | 3.1 | BRUCINE, ANAL. CHEM., 36, 610 (1964) |
| 6-69 | 4 | 138 | 7.0 | REDUCTION METHOD, USGS WSP 1454, D'25B-2 |
| 6-69 | 5 | 124 | 3.2 | BRUCINE, ANAL. CHEM., 36, 610 (1964) |
| 6-69 | 6 | 62 | 51.8 | PHENOLDISULFONIC ACID, USGS WSP 1454, D'25B-1 |
| 6-69 | 7 | 150 | 16.3 | REJECT BRUCINE, ANAL. CHEM., 36, 610 (1964) |
| 6-69 | 8 | | | PHENOLDISULFONIC ACID, USGS WSP 1454, D'25B-1 |
| 6-69 | 9 | 123 | 4.6 | NOT DETERMINED |
| 6-69 | 11 | 154 | 19.4 | PHENOLDISULFONIC ACID, USGS WSP 1454, D'25B-1 |
| 6-69 | 12 | | | PHENOLDISULFONIC ACID, USGS WSP 1454, D'25B-1 |
| 6-69 | 13 | 120 | 6.9 | NOT DETERMINED |
| 6-69 | 14 | 126 | 0.7 | PHENOLDISULFONIC ACID, USGS WSP 1454, D'25B-1 |
| 6-69 | 15 | 117 | 9.3 | REDUCTION METHOD, USGS WSP 1454, D'25B-2 |
| 6-69 | 16 | 112 | 13.2 | PHENOLDISULFONIC ACID, APHA STD. METH., 1965 |
| 6-69 | 17 | 126 | 2.3 | PHENOLDISULFONIC ACID, USGS WSP 1454, D'25B-1 |
| 6-69 | 18 | 128 | 0.7 | PHENOLDISULFONIC ACID, USGS WSP 1454, D'25B-1 |
| 6-69 | 19 | 128 | 6.7 | OTHER |
| 6-69 | 20 | | | REDUCTION METHOD, USGS WSP 1454, D'25B-2 |
| 6-69 | 21 | 150 | | NOT DETERMINED |
| 6-69 | 22 | 130 | 0.8 | PHENOLDISULFONIC ACID, USGS WSP 1454, D'25B-1 |
| 6-69 | 23 | 126 | 0.8 | PHENOLDISULFONIC ACID, USGS WSP 1454, D'25B-1 |
| 6-69 | 24 | 300 | 5.5 | OTHER |
| 6-69 | 25 | 132.6 | | REJECT BRUCINE, ANAL. CHEM., 36, 610 (1964) |
| 6-69 | 26 | 138 | 7.0 | BRUCINE, ANAL. CHEM., 36, 610 (1964) |
| 6-69 | 27 | 135 | 4.7 | REDUCTION METHOD, USGS WSP 1454, D'25B-2 |
| 6-69 | 28 | 114 | 11.6 | PHENOLDISULFONIC ACID, APHA STD. METH., 1965 |
| 6-69 | 29 | 123 | 4.6 | PHENOLDISULFONIC ACID, USGS WSP 1454, D'25B-1 |
| 6-69 | 30 | 112 | 13.2 | PHENOLDISULFONIC ACID, USGS WSP 1454, D'25B-1 |
| 6-69 | 31 | 133 | | NOT DETERMINED |
| 6-69 | 32 | | 3.1 | BRUCINE, ANAL. CHEM., 36, 610 (1964) |
| 6-69 | 33 | 112 | | NOT DETERMINED |
| 6-69 | 34 | 115 | 13.2 | PHENOLDISULFONIC ACID, APHA STD. METH., 1965 |
| 6-69 | 35 | 140 | 10.8 | BRUCINE, ANAL. CHEM., 36, 610 (1964) |
| 6-69 | 36 | 134 | 8.6 | PHENOLDISULFONIC ACID, APHA STD. METH., 1965 |
| | | | 3.9 | OTHER |

TOTAL RANGE 62 - 300
MEAN 128.9627
STANDARD DEVIATION 11.6272

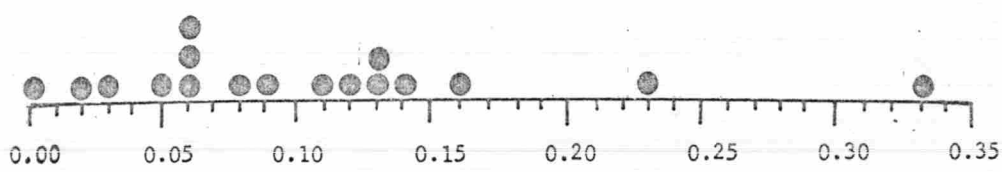
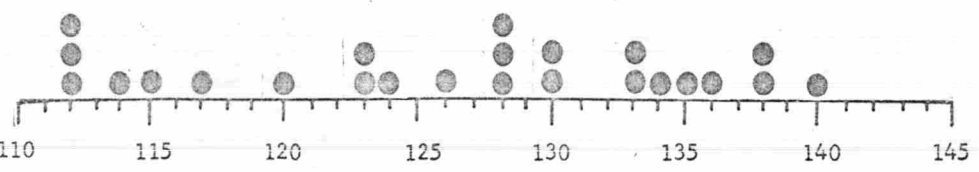
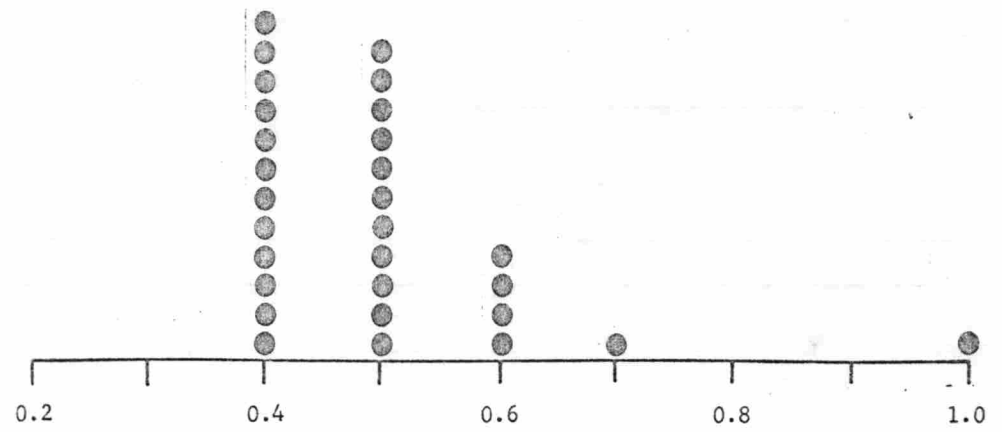
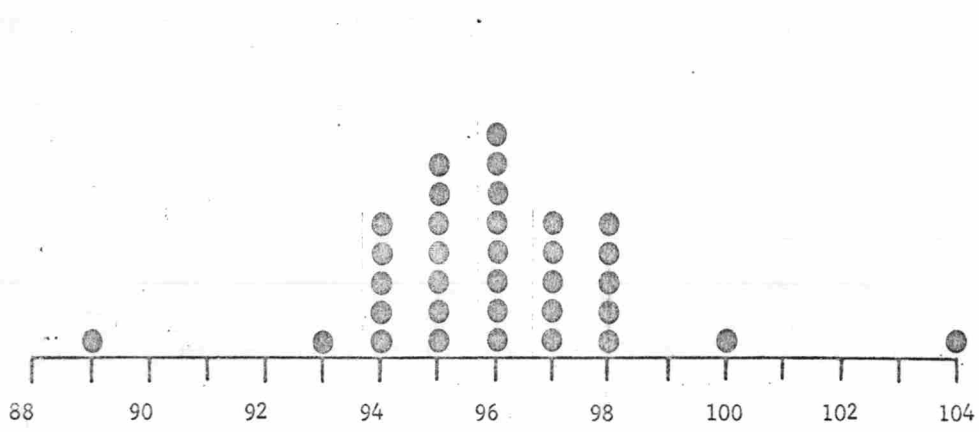
AVERAGE DEVIATION
95 PCT.CONF.INTVL OF MEAN

9.1468
128.9627 +OR- 4.6006

SAMPLE 29
NO3

| DATE MO-YR | CODE | REPORTED VALUE | PCT.DEV. FROM MEAN | METHOD |
|---------------|------|-------------------|-----------------------|---|
| 6-69 | 1 | 0.08 | 12.9 | DIANTHRIMIDE, USGS WSP 1454, D#6A-1 |
| 6-69 | 2 | | | NOT DETERMINED |
| 6-69 | 4 | | | NOT DETERMINED |
| 6-69 | 5 | 0.03 | 67.3 | CARMINE, USGS WSP 1454, D#6A-3 |
| 6-69 | 6 | 0.33 | 259.2 | REJECT CURCUMIN COLORIMETRIC, APHA STD. METH., 1965 |
| 6-69 | 7 | | | NOT DETERMINED |
| 6-69 | 8 | | | NOT DETERMINED |
| 6-69 | 9 | | | NOT DETERMINED |
| 6-69 | 11 | 0.02 | 78.2 | CARMINE, USGS WSP 1454, D#6A-3 |
| 6-69 | 12 | | | NOT DETERMINED |
| 6-69 | 13 | 0.14 | 52.4 | CURCUMIN COLORIMETRIC, APHA STD. METH., 1965 |
| 6-69 | 14 | 0.13 | 41.5 | DIANTHRIMIDE, USGS WSP 1454, D#6A-1 |
| 6-69 | 15 | 0.12 | 30.6 | CURCUMIN COLORIMETRIC, APHA STD. METH., 1965 |
| 6-69 | 16 | 0.05 | 45.6 | POTENTIOMETRIC, USGS WSP 1454, D#6A-2 |
| 6-69 | 17 | 1.0 | 988.4 | REJECT DIANTHRIMIDE, USGS WSP 1454, D#6A-1 |
| 6-69 | 18 | | | NOT DETERMINED |
| 6-69 | 19 | 0.09 | 2.0 | CARMINE, USGS WSP 1454, D#6A-3 |
| 6-69 | 20 | 0.13 | 41.5 | OTHER |
| 6-69 | 21 | 0.23 | 150.3 | CURCUMIN COLORIMETRIC, APHA STD. METH., 1965 |
| 6-69 | 22 | | | NOT DETERMINED |
| 6-69 | 23 | 0.06 | 34.7 | CARMINE, USGS WSP 1454, D#6A-3 |
| 6-69 | 24 | | | NOT DETERMINED |
| 6-69 | 25 | 0.11 | 19.7 | CURCUMIN COLORIMETRIC, APHA STD. METH., 1965 |
| 6-69 | 26 | 0.59 | 542.2 | REJECT DIANTHRIMIDE, USGS WSP 1454, D#6A-1 |
| 6-69 | 27 | 0.0 | 100.0 | CARMINE, USGS WSP 1454, D#6A-3 |
| 6-69 | 28 | | | NOT DETERMINED |
| 6-69 | 29 | | | NOT DETERMINED |
| 6-69 | 30 | | | NOT DETERMINED |
| 6-69 | 31 | | | NOT DETERMINED |
| 6-69 | 32 | | | NOT DETERMINED |
| 6-69 | 33 | 0.06 | 34.7 | CARMINE, USGS WSP 1454, D#6A-3 |
| 6-69 | 34 | 0.06 | 34.7 | CARMINE, APHA STD. METH., 1965 |
| 6-69 | 35 | 0.16 | 74.1 | CURCUMIN COLORIMETRIC, APHA STD. METH., 1965 |
| 6-69 | 36 | | | NOT DETERMINED |

| | | | | | | | |
|--------------------|--------|---|-----|---------------------------|-------------|--------|-----------|
| TOTAL RANGE | 0.0 | - | 1.0 | | | | SAMPLE 29 |
| MEAN | 0.0919 | | | AVERAGE DEVIATION | 0.0471 | | |
| STANDARD DEVIATION | 0.0391 | | | 95 PCT.CONF.INTVL OF MEAN | 0.0919 +OR- | 0.0315 | B |



SAMPLE NO. 29

| DATE MO-YR | CODE | REPORTED VALUE | PCT.DEV. FROM MEAN | METHOD |
|---------------|------|-------------------|-----------------------|----------------------------|
| 6-69 | 1 | 940 | 0.7 | WHEATSTONE BRIDGE |
| 6-69 | 2 | 947 | 0.0 | WHEATSTONE BRIDGE |
| 6-69 | 4 | 949 | 2.3 | WHEATSTONE BRIDGE |
| 6-69 | 5 | 949 | 0.2 | DIRECT READING INSTRUMENTS |
| 6-69 | 6 | 926 | 2.2 | DIRECT READING INSTRUMENTS |
| 6-69 | 7 | 950 | 0.3 | WHEATSTONE BRIDGE |
| 6-69 | 8 | 959 | 1.3 | DIRECT READING INSTRUMENTS |
| 6-69 | 9 | 958 | 1.2 | WHEATSTONE BRIDGE |
| 6-69 | 11 | 933 | 1.5 | WHEATSTONE BRIDGE |
| 6-69 | 12 | 961 | 1.5 | WHEATSTONE BRIDGE |
| 6-69 | 13 | 957 | 1.0 | WHEATSTONE BRIDGE |
| 6-69 | 14 | 957 | 1.1 | WHEATSTONE BRIDGE |
| 6-69 | 15 | 940 | 0.7 | WHEATSTONE BRIDGE |
| 6-69 | 16 | 901 | 4.8 | REJECT |
| 6-69 | 17 | 943 | 0.4 | WHEATSTONE BRIDGE |
| 6-69 | 18 | 940 | 0.7 | WHEATSTONE BRIDGE |
| 6-69 | 19 | 913 | 3.6 | WHEATSTONE BRIDGE |
| 6-69 | 20 | 950 | 0.3 | WHEATSTONE BRIDGE |
| 6-69 | 21 | 941 | 0.6 | WHEATSTONE BRIDGE |
| 6-69 | 22 | 961 | 1.5 | WHEATSTONE BRIDGE |
| 6-69 | 23 | 949 | 0.2 | DIRECT READING INSTRUMENTS |
| 6-69 | 24 | 930 | 1.8 | WHEATSTONE BRIDGE |
| 6-69 | 25 | 948 | 0.1 | WHEATSTONE BRIDGE |
| 6-69 | 26 | 951 | 0.4 | DIRECT READING INSTRUMENTS |
| 6-69 | 27 | 959 | 1.3 | WHEATSTONE BRIDGE |
| 6-69 | 28 | 950 | 0.3 | DIRECT READING INSTRUMENTS |
| 6-69 | 29 | 955 | 0.9 | DIRECT READING INSTRUMENTS |
| 6-69 | 30 | 954 | 0.8 | WHEATSTONE BRIDGE |
| 6-69 | 31 | 960 | 1.4 | WHEATSTONE BRIDGE |
| 6-69 | 32 | 940 | 0.7 | WHEATSTONE BRIDGE |
| 6-69 | 33 | 953 | 0.6 | WHEATSTONE BRIDGE |
| 6-69 | 34 | 947 | 0.0 | WHEATSTONE BRIDGE |
| 6-69 | 35 | 930 | 1.8 | WHEATSTONE BRIDGE |
| 6-69 | 36 | | | NOT DETERMINED |

| | | | | | | |
|--------------------|-----|----------|---------------------------|---------------|--------|-----------|
| TOTAL RANGE | 901 | - | 969 | | | |
| MEAN | | 946.8716 | AVERAGE DEVIATION | 9.3445 | | SAMPLE 29 |
| STANDARD DEVIATION | | 12.0127 | 95 PCT.CONF.INTVL OF MEAN | 946.8716 +OR- | 4.3109 | SP.COND |

| DATE MO-YR | CODE | REPORTED VALUE | PCT.DEV. FROM MEAN | | METHOD |
|---------------|------|-------------------|-----------------------|--------|-------------------------------------|
| 6-69 | 1 | 8.2 | 0.7 | | INSTRUMENT METHOD, (POTENTIOMETRIC) |
| 6-69 | 2 | 8.1 | 1.9 | | INSTRUMENT METHOD, (POTENTIOMETRIC) |
| 6-69 | 4 | 8.3 | 0.5 | | INSTRUMENT METHOD, (POTENTIOMETRIC) |
| 6-69 | 5 | 7.7 | 6.7 | REJECT | INSTRUMENT METHOD, (POTENTIOMETRIC) |
| 6-69 | 6 | 8.5 | 3.0 | | INSTRUMENT METHOD, (POTENTIOMETRIC) |
| 6-69 | 7 | 8.4 | 1.7 | | INSTRUMENT METHOD, (POTENTIOMETRIC) |
| 6-69 | 8 | 8.2 | 0.7 | | INSTRUMENT METHOD, (POTENTIOMETRIC) |
| 6-69 | 9 | 8.3 | 0.5 | | INSTRUMENT METHOD, (POTENTIOMETRIC) |
| 6-69 | 11 | 8.0 | 3.1 | | INSTRUMENT METHOD, (POTENTIOMETRIC) |
| 6-69 | 12 | 8.3 | 0.5 | | INSTRUMENT METHOD, (POTENTIOMETRIC) |
| 6-69 | 13 | 8.0 | 3.1 | | INSTRUMENT METHOD, (POTENTIOMETRIC) |
| 6-69 | 14 | 7.8 | 5.5 | REJECT | INSTRUMENT METHOD, (POTENTIOMETRIC) |
| 6-69 | 15 | 8.4 | 1.7 | | INSTRUMENT METHOD, (POTENTIOMETRIC) |
| 6-69 | 16 | 8.2 | 0.7 | | INSTRUMENT METHOD, (POTENTIOMETRIC) |
| 6-69 | 17 | 8.1 | 1.9 | | INSTRUMENT METHOD, (POTENTIOMETRIC) |
| 6-69 | 18 | 8.4 | 1.7 | | INSTRUMENT METHOD, (POTENTIOMETRIC) |
| 6-69 | 19 | 8.2 | 0.7 | | INSTRUMENT METHOD, (POTENTIOMETRIC) |
| 6-69 | 20 | 8.1 | 1.9 | | INSTRUMENT METHOD, (POTENTIOMETRIC) |
| 6-69 | 21 | 8.3 | 0.5 | | INSTRUMENT METHOD, (POTENTIOMETRIC) |
| 6-69 | 22 | 8.3 | 0.5 | | INSTRUMENT METHOD, (POTENTIOMETRIC) |
| 6-69 | 23 | 8.2 | 0.7 | | INSTRUMENT METHOD, (POTENTIOMETRIC) |
| 6-69 | 24 | 8.4 | 1.7 | | INSTRUMENT METHOD, (POTENTIOMETRIC) |
| 6-69 | 25 | 8.4 | 1.7 | | INSTRUMENT METHOD, (POTENTIOMETRIC) |
| 6-69 | 26 | 8.2 | 0.7 | | INSTRUMENT METHOD, (POTENTIOMETRIC) |
| 6-69 | 27 | 8.3 | 0.5 | | INSTRUMENT METHOD, (POTENTIOMETRIC) |
| 6-69 | 28 | 8.1 | 1.9 | | INSTRUMENT METHOD, (POTENTIOMETRIC) |
| 6-69 | 29 | 8.2 | 0.7 | | INSTRUMENT METHOD, (POTENTIOMETRIC) |
| 6-69 | 30 | 8.3 | 0.5 | | INSTRUMENT METHOD, (POTENTIOMETRIC) |
| 6-69 | 31 | 8.2 | 0.7 | | INSTRUMENT METHOD, (POTENTIOMETRIC) |
| 6-69 | 32 | 8.3 | 0.5 | | INSTRUMENT METHOD, (POTENTIOMETRIC) |
| 6-69 | 33 | 8.4 | 1.7 | | INSTRUMENT METHOD, (POTENTIOMETRIC) |
| 6-69 | 34 | 8.4 | 1.7 | | INSTRUMENT METHOD, (POTENTIOMETRIC) |
| 6-69 | 35 | 8.2 | 0.7 | | INSTRUMENT METHOD, (POTENTIOMETRIC) |
| 6-69 | 36 | 8.3 | 0.5 | | INSTRUMENT METHOD, (POTENTIOMETRIC) |

TOTAL RANGE 7.7 - 8.5
MEAN 8.2562 AVERAGE DEVIATION
STANDARD DEVIATION 0.1243 95 PCT.CONF.INTVL OF MEAN

0.1027
8.2562 +OR- 0.0446 PH

SAMPLE 29

| DATE MO-YR | CODE | REPORTED VALUE | PCT.DEV. FROM MEAN | METHOD |
|---------------|------|-------------------|-----------------------|-------------------|
| 6-69 | 1 | 0.76 | 10.4 | ATOMIC ABSORPTION |
| 6-69 | 2 | | | NOT DETERMINED |
| 6-69 | 4 | 0.60 | 12.8 | ATOMIC ABSORPTION |
| 6-69 | 5 | 0.55 | 20.1 | ATOMIC ABSORPTION |
| 6-69 | 6 | | | NOT DETERMINED |
| 6-69 | 7 | | | NOT DETERMINED |
| 6-69 | 8 | | | NOT DETERMINED |
| 6-69 | 9 | 0.69 | 0.2 | ATOMIC ABSORPTION |
| 6-69 | 11 | 0.70 | 1.7 | ATOMIC ABSORPTION |
| 6-69 | 12 | | | NOT DETERMINED |
| 6-69 | 13 | 0.69 | 0.2 | ATOMIC ABSORPTION |
| 6-69 | 14 | 0.68 | 1.2 | ATOMIC ABSORPTION |
| 6-69 | 15 | | | NOT DETERMINED |
| 6-69 | 16 | 0.66 | 4.1 | ATOMIC ABSORPTION |
| 6-69 | 17 | 0.64 | 7.0 | ATOMIC ABSORPTION |
| 6-69 | 18 | 0.89 | 29.3 | ATOMIC ABSORPTION |
| 6-69 | 19 | | | NOT DETERMINED |
| 6-69 | 20 | 0.55 | 20.1 | ATOMIC ABSORPTION |
| 6-69 | 21 | 0.70 | 1.7 | ATOMIC ABSORPTION |
| 6-69 | 22 | | | NOT DETERMINED |
| 6-69 | 23 | 0.70 | 1.7 | ATOMIC ABSORPTION |
| 6-69 | 24 | | | NOT DETERMINED |
| 6-69 | 25 | 0.71 | 3.1 | ATOMIC ABSORPTION |
| 6-69 | 26 | 0.67 | 2.7 | ATOMIC ABSORPTION |
| 6-69 | 27 | | | NOT DETERMINED |
| 6-69 | 28 | | | NOT DETERMINED |
| 6-69 | 29 | 0.70 | 1.7 | ATOMIC ABSORPTION |
| 6-69 | 30 | 0.69 | 0.2 | ATOMIC ABSORPTION |
| 6-69 | 31 | | | NOT DETERMINED |
| 6-69 | 32 | | | NOT DETERMINED |
| 6-69 | 33 | | | NOT DETERMINED |
| 6-69 | 34 | 0.65 | 5.6 | ATOMIC ABSORPTION |
| 6-69 | 35 | 0.85 | 23.5 | ATOMIC ABSORPTION |
| 6-69 | 36 | | | NOT DETERMINED |

| | | | | | | |
|--------------------|--------|---|---------------------------|-------------|--------|--|
| TOTAL RANGE | 0.55 | - | 0.89 | | | |
| MEAN | 0.6884 | | AVERAGE DEVIATION | 0.0534 | | |
| STANDARD DEVIATION | 0.0830 | | 95 PCT.CONF.INTVL OF MEAN | 0.6884 +OR- | 0.0400 | |

SAMPLE 29

SR

