

**REPORT ON THE U.S. GEOLOGICAL SURVEY'S EVALUATION PROGRAM
FOR STANDARD REFERENCE SAMPLES DISTRIBUTED IN MAY 1995:
T-135 (TRACE CONSTITUENTS), M-134 (MAJOR CONSTITUENTS),
N-45 (NUTRIENTS), N-46 (NUTRIENTS), P-24 (LOW IONIC STRENGTH),
Hg-20 (MERCURY), AND SED-5 (BED MATERIAL)**

by H. Keith Long and Jerry W. Farrar

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ABSTRACT

This report presents the results of the U.S. Geological Survey's analytical evaluation program for 7 standard reference samples--T-135 (trace constituents), M-134 (major constituents), N-45 (nutrients), N-46 (nutrients), P-24 (low ionic strength), Hg-20 (mercury), Sed-5 (bed material)--that were distributed in May 1995 to 153 laboratories registered in the U.S. Geological Survey sponsored interlaboratory testing program. Analytical data that were received from 136 of the laboratories were evaluated with respect to: overall laboratory performance and relative laboratory performance for each analyte in the seven reference samples. Results of these evaluations are presented in tabular form. Also presented are tables and graphs summarizing the analytical data provided by each laboratory for each analyte in the seven standard reference samples. The most probable value for each analyte was determined using nonparametric statistics.

INTRODUCTION

The U.S. Geological Survey (USGS) conducts an interlaboratory evaluation program semiannually. This program provides a variety of reference materials to accomplish quality assurance testing of laboratories and to provide an adequate supply of samples that contribute to quality control programs of participating laboratories. Natural-matrix reference materials are preferred for use in this interlaboratory evaluation program. A series of samples are prepared and distributed each spring and fall. Occasionally, sediment samples are provided.

The program began in 1962 with a single sample containing major constituents that was prepared from distilled water and reagent grade chemicals. Twenty-three USGS laboratories participated in the 1962 determinations of six analytes in the major standard reference sample (SRS). Since that time, objectives of the program have been to:

- (1) evaluate and improve the performance of USGS and other participating laboratories;
- (2) provide a library of carefully prepared, homogeneous, stable reference materials for use in the quality control programs of laboratories;
- (3) identify analytical problem areas;
- (4) identify quality assurance needs with respect to environmental analyses and develop new reference materials to meet these needs; and
- (5) ascertain the accuracy and precision of analytical methods.

One hundred eighty-five USGS and non-USGS laboratories are registered in the program, which can currently provide eight standard reference sample types:

1. Trace constituents.
2. Major constituents.
3. Nutrients.
4. Low ionic strength.
5. Mercury.
6. Whole water (water with suspended sediment).
7. Acid mine drainage.
8. Sediment (bed material) for major and trace constituents.

When sufficient data are available, a most probable value is statistically determined for each analyte in the SRS.

Though this is not a laboratory certification program, participation in this continuing quality assurance program is mandatory for all laboratories providing water-analyses data for USGS data storage or use (publications). Federal, State, municipal, and university laboratories can participate even though they do not provide data to the USGS. Analyses of these SRS provides the means to alert participating laboratories of possible deficiencies in their analytical operations, and also provides reference materials for in-house quality control programs. Participating laboratories are identified only by a confidential code number.

A library of SRS, from previous evaluations, are available on request. Participating laboratories can request previous SRS for further testing, continuing quality assurance, and quality control programs by contacting:

Chief Laboratory Section
U.S. Geological Survey
Branch of Technical Development and Quality Systems
Denver Federal Center
Box 25046 MS 401
Denver, CO 80225-0046

Purpose and Scope

This report summarizes the analytical results submitted by 136 (table 1) of the 153 laboratories that requested and were shipped SRS for the May 1995 evaluation. Not all SRS are requested, nor necessarily analyzed by all the laboratories; nor do all laboratories enrolled in the program participate in each evaluation. Analytical results for the following, which were mailed the week of June 16, 1995, are presented in this report:

T-135	Trace constituents
M-134	Major constituents
N-45	Nutrients
N-46	Nutrients
P-24	Low ionic strength (precipitation)
Hg-20	Mercury
Sed-5	Bed material (sediment)

The USGS requested that analytical results be returned by June 16, 1995 for evaluation and preparation of this report. This due date was extended until June 28, 1995. Each participating laboratory is requested to perform those determinations routinely made on the respective SRS for

USGS investigations and to indicate the analytical method used to determine the concentration of each analyte. When analytical-method information was provided, it has been included in the respective data table. The analytical data are presented in ways that allow participants to evaluate data distribution, scatter, outliers, central tendency, bias, skewness, and method relationships.

Table 1.—*Laboratory participants in the analyses of standard reference samples distributed in May 1995*

<u>State</u>	<u>City</u>	<u>Participating Laboratory</u>
Alaska	Fairbanks	Alaska Department of Natural Resources
Alabama	Tuscaloosa	Geological Survey of Alabama
Arizona	Phoenix	Arizona Department of Health Services
	Yuma	Burns and Roe Services Corporation
	Yuma	Nestech
Arkansas	Fayetteville	University of Arkansas
California	Davis	University of California - Davis
	La Verne	Metropolitan Water District of Southern California
	Lakeside	Helix Water District
	Oakland	East Bay Municipal Utility District
	Riverside	University of California - Riverside
	Sacramento	Anlab
	Sacramento	US Bureau of Reclamation
	Sacramento	USGS WRD
	San Diego	USGS WRD
	San Jacinto	Eastern Municipal Water District
	Santa Fe Springs	West Coast Analytical Service, Inc.
Colorado	West Sacramento	California Department of Water Resources
	Arvada	Quanterra
	Arvada	USGS National Water Quality Laboratory
	Aurora	Core Laboratories, Inc.
	Denver	Denver Water Department
	Denver	Metro Wastewater Reclamation
	Denver	USGS (Acid rain/Global climate change)
	Denver	USGS (Earth Science Investigation Program)
	Denver	USGS - Hydrologic Research Unit
	Fort Collins	City of Fort Collins - Water Quality
	Fort Collins	Colorado State University (Soil Testing Laboratory)
	Fort Collins	US Department of Agriculture - Forest Service
	Golden	EG & G Rocky Flats
	Loveland	Northern Colorado Water Conservation District
	Northglenn	Northglenn Water Treatment Plant
Westminster	City of Westminster	
Florida	Brooksville	SW Florida Water Management District
	Ocala	USGS WRD
	Orlando	Post, Buckley, Schuh, and Jernigan, Inc.
	Ormond Beach	Environmental Laboratory
	Palatka	St. John's River Management District
	Tallahassee	City of Tallahassee
	Tallahassee	Florida Department of Environmental Regulations
	Tallahassee	Savannah Laboratories
Georgia	Tampa	Hillsborough County Environmental Protection Commission
	Athens	University of Georgia
	Atlanta	Georgia Department of Natural Resources
	Atlanta	USGS WRD
	Decatur	Dekalb County Water Quality Laboratory
	Tifton	United States Department of Agriculture

Table 1.--Laboratory participants in the analyses of standard reference samples distributed in May 1995--Continued

State	City	Participating Laboratory
Hawaii	Honolulu	Hawaii Institute of Geophysics
Idaho	Boise	US Bureau of Reclamation
Illinois	Champaign	Hazardous Waste Research Center
	Champaign	Illinois Environmental Protection Agency
	Chicago	Illinois Environmental Protection Agency
Iowa	Des Moines	University Hygienic Laboratory, Des Moines Branch
Kansas	Lawrence	Kansas Geological Survey
	Topeka	City of Topeka
	Topeka	Kansas Department of Health and Environment
	Wichita	City of Wichita
Kentucky	Lexington	Kentucky Geological Survey
	Louisville	Metropolitan Sewer District
Maine	Orono	University of Maine
	Orono	Sawyer Environmental Center
Maryland	Baltimore	Maryland Department of Health and Mental Hygiene
Massachusetts	Wellesley Hills	Massachusetts Highway Department
Michigan	Ann Arbor	University of Michigan - Department of Geological Science
	Ann Arbor	University of Michigan
	Detroit	Detroit Water and Sewerage Department
Minnesota	Minneapolis	Braun Intertec Environmental, Inc.
	Minneapolis	University of Minnesota, Department of Geology and Geophysics
	St. Paul	Metro Waste Control Commission
	St. Paul	University of Minnesota
Missouri	Columbia	University of Missouri
	Jefferson City	Missouri Department of Health
Montana	Butte	Montana Bureau of Mines & Geology
	Helena	Department of Health and Environmental Sciences
Nevada	Boulder City	US Bureau of Reclamation
	Las Vegas	City of Las Vegas
	Las Vegas	University of Nevada - Las Vegas
	Reno	Desert Research Institute
	Reno	Nevada State Health Laboratory
	Reno	Reno-Sparks Wastewater Treatment
	Sutcliffe	Pyramid Lake Fisheries
New Mexico	Albuquerque	City of Albuquerque
New York	Albany	USGS WRD
	Brockport	State University of New York - Brockport
	Buffalo	Erie County Laboratory
	Grahamsville	New York City Department of Environmental Protection
	Hempstead	Nassau County Department of Health
	Ithaca	Cornell University, Agronomy Department
	Milbrook	Institute of Ecosystem Studies
	North Babylon	Ecotest Laboratories, Inc.
	Oakdale	Suffolk County Water Authority
	Rochester	Monroe County
	Shokan	New York City Department of Environmental Protection
	Syracuse	State University of New York - Syracuse
	Valhalla	Department of Environmental Protection
	Wantaugh	Cedar Creek Projects Laboratory
North Carolina	Charlotte	Mecklenburg County
	Durham	Duke University

Table 1.--Laboratory participants in the analyses of standard reference samples distributed in May 1995--Continued

State	City	Participating Laboratory
North Carolina	Durham	City of Durham
	Greensboro	City of Greensboro
North Dakota	Bismarck	North Dakota State Health Department
	Bismarck	North Dakota State Water Commission
Ohio	Cincinnati	US EPA
	Cuyahoga Heights	Northeastern Ohio Regional Sewer District
	Medina	Medina County Sanitary Engineering
	Tiffin	Heidelberg College
Oklahoma	Norman	Oklahoma Geological Survey
	Oklahoma City	Oklahoma State Department of Health
Oregon	Corvallis	US Department of Agriculture
	Tigard	Unified Sewerage Agency
Pennsylvania	Harrisburg	Pennsylvania Department of Environmental Resources
	Somerset	Geochemical Testing
Puerto Rico	San Juan	Department of Natural Resources
South Dakota	Brookings	Northern Great Plains Laboratory
	Brookings	SDSU - Water Quality Laboratory
	Vermillion	South Dakota Geological Survey
Tennessee	Chattanooga	TVA Environmental Chemistry
	Jackson	Jackson Branch Laboratory
	Knoxville	Cooperative Park Studies Unit
	College Station	Texas A & M
Texas	Tyler	Analytical Testing Laboratories
	Waterbury	Vermont Agency of Natural Resources
Virginia	Culpepper	ESS Laboratories
	Manassas	Occoquan Watershed Monitoring Laboratory
	Richmond	Consolidated Laboratory Services
Washington	Seattle	Brooks-Rand, Ltd.
West Virginia	Morgantown	University of West Virginia
Wisconsin	Madison	Madison Department of Public Health
	Madison	University of Wisconsin
	Milwaukee	Milwaukee Metro Sewerage District
Wyoming	Laramie	Wyoming Department of Agriculture

Preparation of Standard Reference Samples

All of the SRS used in this evaluation were prepared by personnel of the USGS in Golden, Colo. and were analyzed for analyte concentrations and physical property values prior to mailing. A library of reference samples is maintained and can be requested by participating laboratories for use in their quality control programs.

Trace constituent sample T-135 was prepared using water collected from the Big Thompson River near Drake, Colorado. The water was pumped through 2- and 0.1- μm filters, in series, into a 1300-L polypropylene drum. The water was continuously circulated and passed through a 0.1- μm filter and ultraviolet sterilizer for 24 hours. Following this circulation, the water was acidified to pH 2 with nitric acid and chlorinated to 5 ppm free chlorine. The trace constituent concentrations were adjusted by adding reagent grade chemicals. The sample was circulated an additional 24 hours prior to bottling. During bottling the sample was pumped through an ultraviolet sterilizer and a 0.1- μm filter. The 500-mL polypropylene bottles used were acid leached and deionized-water rinsed, and autoclave sterilized

Major constituent sample M-134 was prepared using tapwater from the Golden, Colorado potable water. The water was pumped through a 0.1- μm filters into a 1300-L polypropylene drum. The water was chlorinated to 5-ppm free chlorine with sodium hypochlorite, continuously circulated, and passed through a 0.1- μm filter and ultraviolet sterilizer for 24 hours prior to bottling. During bottling the sample was pumped through an ultraviolet sterilizer and a 0.1- μm filter. The 500-mL polypropylene bottles used were acid leached, deionized-water rinsed, and autoclave sterilized.

Nutrient sample N-45 was prepared using 20 liters of deionized water. This sample was prepared the week prior to the mailing for this SRS evaluation. Desired concentrations were obtained by adding reagent grade chemicals. The sample was stirred 24 hours prior to bottling. The 12-mL vials used were acid leached, deionized water rinsed, and autoclave sterilized. This sample is a concentrate which has to be diluted 10:100 prior to analysis.

Nutrient sample N-46 was prepared using water collected from the Fall River near Idaho Springs, Colorado. This sample was prepared the week prior to the mailing for this SRS evaluation. The water was pumped through 2- and 0.1- μm filters, in series, into a 600-L polypropylene drum and continuously circulated and passed through a 0.1- μm filter for 48 hours. The desired nutrient concentrations were obtained by adding reagent-grade chemicals. The sample was circulated an additional 24 hours. The sample was continuously circulated for 24 hours prior to being bottled. The 250-mL polyethylene bottles used were new, amber, acid leached, and deionized-water rinsed.

Sample P-24 was prepared in a 400-L polypropylene drum using snow collected at Genesee Park, Colorado. The collected snow was allowed to melt; then it was pumped into the drum through 2- and 0.1- μm filters in series. Desired phosphate and fluoride concentrations were obtained by adding reagent-grade chemicals. Prior to bottling, the sample was continuously mixed for 48 hours while being circulated through a 0.1- μm filter and an ultraviolet sterilizer. During bottling the sample was pumped through an ultraviolet sterilizer and a 0.1- μm filter. The 500-mL polypropylene bottles used were acid leached, deionized-water rinsed, and autoclave sterilized.

Sample Hg-20 was prepared using water collected from the Fall River near Idaho Springs, Colorado. The sample was prepared in a 190-L polypropylene drum. The river water was pumped into this drum through 2- and 0.1- μm filters in series. The water was continuously circulated and passed through a 0.1- μm filter and ultraviolet sterilizer for 72 hours. Nitric acid (5-percent, v/v) and dichromate ion (0.05-percent, w/w) were added to stabilize the sample. The desired mercury concentration was obtained by adding a mercury standard solution. Following an additional 24 hours of circulation, the sample was bottled. The 125-mL glass bottles and tetrafluoroethylene fluorocarbon resin caps used were new, acid leached, and deionized-water rinsed.

Sediment sample Sed-5 (bed material) was prepared from composited samples collected at Globeville, Colorado. Approximately 75 pounds of sediment was collected and composited. The washed sediment was dried. The material was then sieved through stainless steel sieves and the 125 to 300 μm fractions were retained. These fractions were composited, well mixed, quartered and packaged in 20-mL polyethylene vials as Sed-5.

LABORATORY ANALYSES

The participating laboratories were asked to determine analytes which are summarized in table 2. The number of analytes varied from 26 in T-135 (trace constituents) to 1 in Hg-20 (mercury).

Table 2.--Analytes determined in standard reference samples distributed in May 1995

		<small>[mg/L, milligrams per liter; µg/L, micrograms per liter; µS/cm, microsiemens per centimeter at 25 degrees Celsius]</small>					
Analyte or property	Units	T-135	M-134	N-45, 46	P-24	Hg-20	Sed-5
Acidity	Acidity as CaCO ₃	mg/L			X		
Alk	Alkalinity as CaCO ₃	mg/L		X			
Ag	Silver	µg/L	X				X
Al	Aluminum	µg/L	X				X
As	Arsenic	µg/L	X				X
B	Boron	µg/L	X	X			X
Ba	Barium	µg/L	X				X
Be	Beryllium	µg/L	X				X
Ca	Calcium	mg/L	X	X		X	X
Cd	Cadmium	µg/L	X				X
Co	Cobalt	µg/L	X				X
Cr	Chromium, total	µg/L	X				X
Cu	Copper	µg/L	X				X
DSRD	Dissolved solids	mg/L		X			
F	Fluoride	mg/L		X		X	
Fe	Iron	µg/L	X				X
Hg	Mercury	µg/L				X	
K	Potassium	mg/L	X	X		X	X
Li	Lithium	µg/L	X				X
Mg	Magnesium	mg/L	X	X		X	X
Mn	Manganese	µg/L	X				X
Mo	Molybdenum	µg/L	X				X
Na	Sodium	mg/L	X	X		X	X
NH ₃ as N	Ammonia	mg/L				X	
NH ₃ +Org N as N	Ammonia + Organic N	mg/L				X	
Ni	Nickel	µg/L	X				X
NO ₃ +NO ₂ as N	Nitrate + Nitrite	mg/L				X	
Pb	Lead	µg/L	X				X
pH		unit		X		X	
PO ₄ as P	Orthophosphate	mg/L				X	
total P as P	Phosphorus	mg/L		X		X	
Sb	Antimony	µg/L	X				X
Se	Selenium	µg/L	X				X
SiO ₂	Silica	mg/L	X	X			X
SO ₄	Sulfate	mg/L		X			X
Sp Cond	Specific conductance	µS/cm		X			X
Sr	Strontium	µg/L	X	X			X
V	Vanadium	µg/L	X	X			X
Zn	Zinc	µg/L	X				X

Laboratories were requested to identify the method used for each analyte according to table 3 analytical method codes.

Table 3.--Analytical-method codes

Code	Method
0	Other
1	Atomic absorption: direct, air
2	Atomic absorption: direct, nitrous oxide
3	Atomic absorption: graphite furnace
4	Inductively coupled plasma
5	Direct current plasma
6	Inductively coupled plasma/Mass spectrometry
7	Ion chromatography
8	Atomic absorption: cold vapor
10	Atomic absorption: extraction [<i>specify chelating agents</i>]
11	Atomic absorption: hydride [<i>specify reducing agent</i>]
12	Flame emission
20	Titration: colorimetric [<i>specify color reagent</i>]
21	Titration: electrometric [<i>specify reducing or oxidizing agent/color reagent</i>]
22	Colorimetric: [<i>specify reducing or oxidizing agent/color reagent</i>]
40	Ion selective electrode
41	Electrometric [<i>pH and Specific Conductance</i>]
50	Gravimetric: [<i>specify filtration, evaporation, and so forth</i>]
51	Turbidimetric

Participating laboratories were also asked to use the references listed below to further define the methods.

1. American Public Health Association and others, 1992, Standard methods for the examination of water and wastewater 18th ed: Washington, D.C., American Public Health Association, 981p.
2. American Society for Testing and Materials, Annual book of ASTM standards: Philadelphia, v. 11.01, and v. 11.02.
3. Kopp, J.F., and McKee, G.F., 1979, Methods for chemical analysis of water and wastes: Cincinnati, U.S. Environmental Protection Agency, EPA 600/4-79-020, rev. 1983, 460 p.
4. Fishman, M.J., and Friedman, L.C., eds., 1989. Methods for determination of inorganic substances in water and fluvial sediments (3d ed.): U.S. Geological Survey Techniques of Water-Resources Investigations, Book 5, Chapter A1, 545 p.
5. Miscellaneous manufacturer's instrument manuals or references.

LABORATORY PERFORMANCE RATINGS

To facilitate interlaboratory performance comparisons, laboratory performance ratings, based on the analyses reported for each SRS, are included in tables 4 through 11 in this report. Averages of the analyte ratings and the number of analyte values reported for each SRS are given for each participating laboratory. Laboratory performance for each analyte is rated on a scale 4 to 0, based on the absolute Z-value, as listed below:

Rating	Absolute Z-value
4 (Excellent)	0.00 to 0.50
3 (Good)	0.51 to 1.00
2 (Satisfactory)	1.01 to 1.50
1 (Questionable)	1.51 to 2.00
0 (Poor)	Greater than 2.00

Overall laboratory performance ratings greater than 2.4 are considered satisfactory. Overall laboratory performance ratings between 2.0 and 2.39 are considered marginal; those less than 2.0 are considered poor.

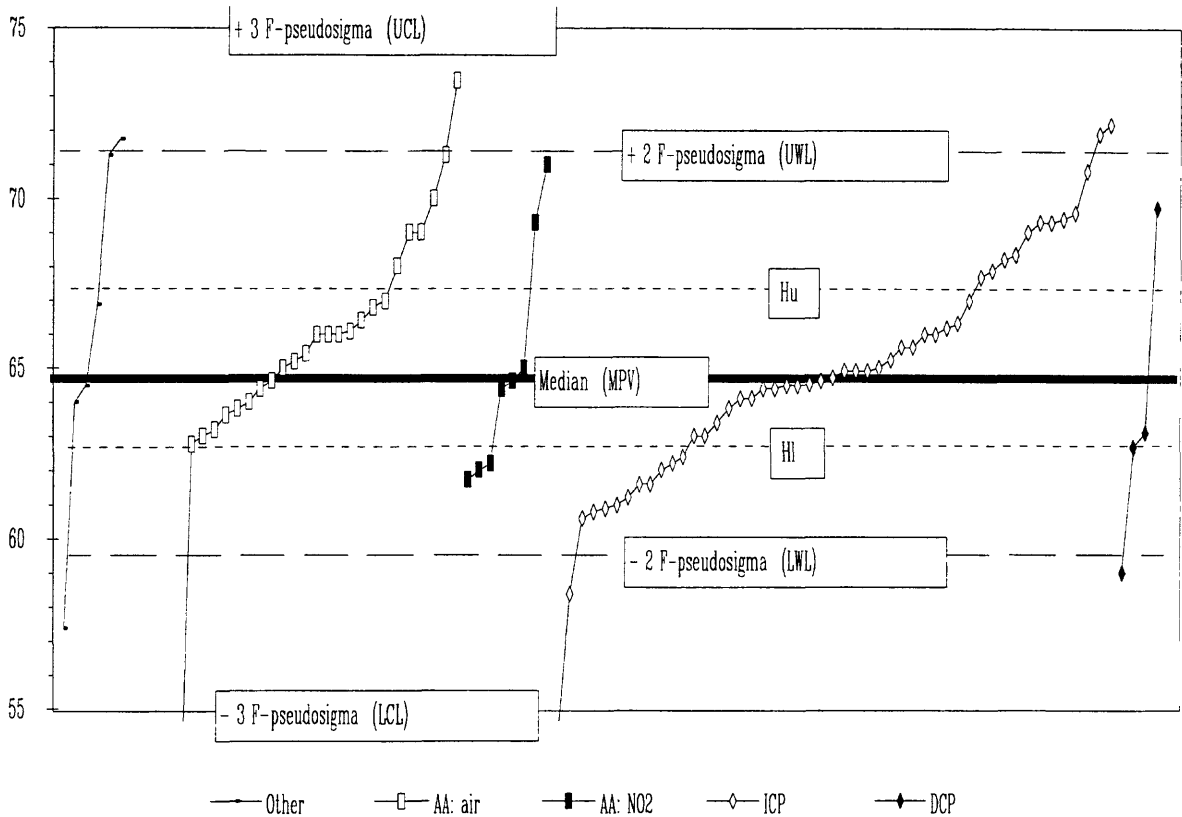
STATISTICAL PRESENTATION OF DATA

Data in this report have been evaluated using nonparametric statistics as described by Hoaglin and others (1983). This statistical approach is a resistant statistic because the median is not influenced by outliers as is the mean in traditional statistics.

Analytical data for each analyte are presented in tabular and graphical forms in tables 11 through 18. Tabulated data for each analyte include the laboratory code number, reported values, analytical method, most probable value (MPV), number of reported values - excluding less than values (N), data range, Z-value, and the F-pseudostandard deviation. (The Z-value is equivalent to the Z-score of traditional statistics, being the number of deviations the reported value is from the MPV. The F-pseudostandard deviation is equivalent to the standard deviation (σ) of traditional statistics when the data has a Gaussian distribution.) If an analyte has a sufficient number of determinations by a given method, usually 7, the σ for that analytical method is reported in the block of data listed for each analyte.

The median value is considered the MPV. Reported values of "less than" are used to establish the median, but are not considered in determining the data range. The median (midpoint) divides the ordered data into halves and is designated the MPV. The hinges include the middle 50-percent of the data and are the mid-values of the upper and lower halves of the data. (The hinges are similar to quartiles, but are not mathematically equivalent.) The range of data between the upper hinge (Hu) and the lower hinge (Hl), the hinge spread (H-spr), is used to calculate the F-pseudostandard deviation, the laboratory performance rating, the upper warning level (UWL) and lower warning level (LWL), the upper control level (UCL) and the lower control level (LCL). The F-pseudostandard deviation is calculated by comparison of the H-spr value to the Gaussian distribution relation; 67.45 percent of the data "hinges" between plus and minus 1σ , resulting in a H-spr of $2 \times 0.6745 = 1.349\sigma$. This relation allows the calculation of the F-pseudostandard deviation = (H-spr)/1.349. Laboratories reporting "less than" values are not performance rated unless their reported "less than" values are greater than two Z-values from the MPV.

The graphical plot of the reported data is shown in figure 1. The upper and lower boundaries of the graphical plots generally are +3 and -3 F-pseudostandard deviations from the median. (Computer-program scaling constraints do not permit these boundaries to always be graphed at exactly these values.) The graphical plot is a box plot/control chart with reported values grouped by analytical method in ascending order of value. Lines designate the MPV, Hu, Hl, and the (UWL) and (LWL) at +2 and -2 F-pseudostandard deviations, respectively. "Less than" values are not plotted.



NOTE: vertical scale is the concentration value of the individual analyte in appropriate units (see table 2.) Methods shown are defined in Tables 3 and 10 through 17.

Figure 1.-Statistical parameters shown on reported-data graphs

DISCUSSION

The sediment used to prepare Sed-5 is from an abandoned smelter site. We consider the analytes available for transport to be of interest in this sample.

REFERENCE

Hoaglin, D.C., Mosteller, F., and Tukey, J.W., eds., 1983, Understanding Robust and Exploratory Data Analysis: John Wiley and Sons, Inc., 447p.

Table 4. -Overall laboratory performance ratings for standard reference water samples distributed in May 1995

[Lab, laboratory number; OWR, overall weighted rating for all sample types; OLR, overall laboratory rating for reported values of a sample type; V/90, number of reported values of 90 total possible values from all sample types; V/26, V/16, V/5,V/5,V/11,V/1,V26 are number of reported values possible for T-135, M-134, N-45,N-46, P-24, Hg-20, and SED-5 respectively]

Standard reference sample =			T-135		M-134		N-45		N-46		P-24		Hg-20		SED-5	
Lab	OWR	V/90	OLR	V/26	OLR	V/16	OLR	V/5	OLR	V/5	OLR	V/11	OLR	V/1	OLR	V/26
1	3.0	84	3.5	26	3.1	15	2.8	4	3.6	5	2.8	11	3	1	2.1	22
2	2.0	2									2.0	2				
3	3.1	81	3.2	25	2.6	14	3.8	4	3.8	5	3.5	8	4	1	2.8	24
4	0.1	18	0.0	16	0.5	2										
7	2.8	47	3.0	25	2.5	12	4.0	2	1.8	4	3.3	4				
9	2.8	21			2.8	13	3.0	5	2.7	3						
10	3.2	23	3.7	3	2.9	10	3.8	5	3.0	5						
11	2.1	44	2.1	20	2.1	13					2.0	10	4	1		
12	2.7	7					3.3	3	2.3	4						
13	2.6	62	2.2	22	2.3	12	1.3	4	2.5	4			3	1	3.4	19
15	3.1	78	3.0	24	2.4	12	3.5	4	3.4	5	2.4	7	4	1	3.6	25
16	2.4	45	2.9	21	2.6	13	0.8	5	1.6	5			2	1		
18	3.2	73	3.3	23	3.1	15	3.2	5	4.0	5			4	1	3.0	24
19	2.3	26	1.8	11	2.7	10	2.0	3	3.5	2						
21	3.8	6	3.0	1			4.0	5								
22	3.5	2					4.0	1	3.0	1						
23	2.5	41	1.9	8	2.7	6	2.3	4	3.8	5	3.0	6			2.2	12
24	2.7	39	2.6	25	3.0	13							1	1		
25	1.5	49	1.4	21	1.4	14	2.0	2	1.3	3	2.1	9				
26	3.0	42	3.1	16	3.1	11	2.3	3	2.3	3	3.0	9				
27	1.6	9	1.0	3	1.6	5					3.0	1				
28	1.6	73	1.8	23	1.3	15	1.0	5	2.8	5	2.4	7			1.0	18
30	3.3	33	3.4	20	3.3	4			1.5	2					3.6	7
32	2.1	65	2.8	24	2.6	14	0.5	2					3	1	1.3	24
33	3.4	32	2.9	10	3.8	11	4.0	1	1.0	1	3.6	9				
34	3.7	3	3.5	2									4	1		
35	4.0	3	4.0	3												
36	1.4	50	1.3	22	1.4	14	2.3	4	0.0	5	3.3	4	1	1		
38	3.4	24			3.5	8	3.8	5	2.8	5	3.3	6				
39	2.5	50	2.5	22	2.6	14	3.0	4			2.2	9	3	1		
40	3.3	35	3.5	21	3.1	14										
42	3.3	47	3.6	25	3.3	15	2.0	3	3.3	3			2	1		
43	3.2	20	3.7	7	3.2	11	1.0	1	2.0	1						
45	1.8	6	2.0	5									1	1		
46	3.0	43	2.9	19	2.6	8	3.8	5	3.6	5	2.6	5	4	1		
48	2.2	77	2.3	22	2.3	12	1.2	5	1.4	5	1.3	9	0	1	3.0	23
50	2.8	30	2.4	16	3.5	13							2	1		
52	3.2	77	3.4	24	3.3	14	3.8	5	2.2	5	3.1	7	4	1	3.2	21
53	2.7	6					2.7	3	2.7	3						
54	3.3	17	3.5	6	3.2	11										
55	2.9	45	2.8	23	2.6	14	3.2	5	3.5	2			4	1		
56	2.1	17			2.0	9	2.3	4	2.0	4						
57	2.1	17			2.4	12			1.4	5						
58	1.7	69	1.6	18	1.5	12	1.8	5	0.0	5	1.7	11	0	1	2.3	17
59	3.0	50	3.2	22	2.5	13	2.4	5	3.2	5	3.4	5				
60	2.8	19	2.7	11			2.0	3	3.6	5						
64	3.3	33	3.0	6	3.1	10	4.0	4	3.5	4	3.3	9				
68	1.8	53	1.0	25	1.7	11			2.8	4					2.9	13
69	3.3	35	3.2	19	3.6	10	4.0	1	2.0	1			4	1	2.3	3
70	3.2	46	3.2	23	3.5	13	3.3	4	3.0	5			2	1		
73	3.0	9	3.0	9												
75	3.6	41	3.5	22	3.7	10	3.5	4	3.5	4			4	1		
76	3.3	23	3.1	11	3.6	7	3.0	2	3.5	2			4	1		
80	2.0	26	2.9	8	1.8	12	2.0	3	1.0	3						
81	2.5	68	2.2	23	3.1	13					1.3	10	2	1	3.0	21
83	3.0	30	3.4	16	2.5	8	2.7	3	3.0	3						
84	2.6	17	2.8	5	3.1	7	3.0	2	1.0	3						
85	3.3	47	3.1	23	3.4	14	3.6	5	3.2	5						
86	3.0	41	3.4	21	2.9	11	2.5	4	2.3	4			0	1		
87	2.5	40	2.4	18	3.0	11	2.0	5	2.8	5			0	1		
88	1.0	3					1.0	3								
89	2.9	57	2.5	22	3.4	13	3.4	5	3.2	5	2.7	11	4	1		
90	2.8	19	1.8	4	3.6	5	3.2	5	2.6	5						
91	2.8	12	3.5	2			3.2	5	2.0	5						
92	1.8	40	1.5	13	2.3	10	1.3	4	2.0	4	1.5	8	3	1		
93	2.7	10			1.3	3	4.0	1	4.0	1	3.0	5				
94	3.7	10			4.0	2	3.3	4	4.0	4						
96	3.1	29	3.1	11	2.4	7	3.6	5	3.2	5			4	1		
97	2.8	48	2.5	24	2.5	13	3.0	5	4.0	5			3	1		
100	2.4	68	2.3	25	2.3	7	2.3	3	2.7	3	3.0	3	4	1	2.5	26

Table 4. -Overall laboratory performance ratings for standard reference water samples distributed in May 1995

Continued

Standard reference sample =			T-135		M-134		N-45		N-46		P-24		Hg-20		SED-5	
Lab	OWR	V/90	OLR	V/26	OLR	V/16	OLR	V/5	OLR	V/5	OLR	V/11	OLR	V/1	OLR	V/26
101	3.0	19	2.8	4	3.6	8					2.4	7				
102	1.7	51	2.1	22	1.8	12	1.8	5	1.4	5	0.4	7				
103	2.2	30	2.2	23	2.1	7										
104	3.8	8					3.5	4	4.0	4						
105	3.2	79	3.5	25	3.1	14	2.4	5	3.6	5	3.6	8	4	1	2.9	21
107	2.8	34	3.4	11	2.5	11	3.8	4	1.8	4	1.8	4				
108	1.0	17	0.8	8			2.3	3	0.4	5			2	1		
109	2.3	24	2.2	12	2.4	11							2	1		
110	3.3	4									3.3	4				
111	3.1	34	3.0	6	2.7	11	3.3	3	3.8	4	3.4	9	3	1		
114	2.4	32	2.7	15	2.1	11	2.5	2	2.7	3			0	1		
116	2.3	17	2.4	9	2.1	8										
118	2.1	28	1.2	12	3.0	5	2.6	5	2.6	5			4	1		
119	3.0	46	2.9	22	2.9	14	3.4	5	3.4	5						
121	3.2	41	3.2	17	3.7	7									3.1	17
126	1.4	7	1.2	6			3.0	1								
127	3.4	76	3.4	25	3.6	15	3.4	5	3.2	5			2	1	3.4	25
128	2.7	46	2.7	23	2.5	12	3.0	5	3.0	5			4	1		
129	2.2	29	1.7	6	2.1	13	2.8	5	2.8	5						
132	2.4	49	2.5	16	2.0	7	3.3	4	1.3	4	1.0	4			2.8	14
133	2.7	27	2.6	14	3.5	2	3.2	5	2.2	5			3	1		
134	3.6	62	3.7	25	3.7	16	3.4	5	3.2	5	3.4	10	3	1		
136	2.2	18			2.3	9	4.0	1			1.9	8				
138	3.3	60	3.6	25	2.7	15	3.6	5	3.8	5	3.6	9	2	1		
140	2.8	56	3.1	13	3.0	11	2.4	5	3.0	5	1.8	10			3.4	12
141	2.9	72	3.0	23	3.2	13	2.5	4	3.0	5	2.1	7	4	1	2.9	19
142	2.8	52	3.3	26	2.7	15	1.4	5	1.8	5			4	1		
143	3.6	19			3.8	5	3.8	5	3.2	5	3.8	4				
145	3.1	59	3.2	22	2.9	15	3.2	5	2.6	5	3.0	11	4	1		
146	3.1	66	3.4	22	2.1	12	4.0	3	1.7	3	1.7	3	4	1	3.7	22
149	2.8	19	3.0	5	2.8	8	4.0	2	2.0	3			3	1		
151	3.3	35	3.3	15	3.7	12	2.8	4	2.5	4						
153	2.7	10			2.7	10										
154	2.6	53	2.8	24	2.2	15	3.3	4	3.0	5					1.8	5
180	2.1	49	1.4	19	2.1	11	3.6	5	3.2	5	2.6	8	0	1		
182	1.1	49	0.8	26	1.8	16	0.0	3	1.7	3			0	1		
183	1.1	9	2.0	1	1.0	2	1.0	3			1.0	3				
185	2.3	11			4.0	1	2.8	5	1.8	4	0.0	1				
190	2.7	50	2.5	17	2.7	13	3.4	5	3.2	5	2.5	10				
191	2.9	30	2.6	16	3.9	8	2.0	3	3.0	3						
193	2.6	21	2.9	14	2.7	3	1.5	2	1.0	2						
194	2.6	51	2.6	18	2.7	9	2.7	3	2.5	4	2.5	2	4	1	2.7	14
196	2.9	44	3.2	23	2.1	10	3.0	2			3.0	9				
197	3.2	6			1.5	2	4.0	2	4.0	2						
198	2.7	31	2.7	20			3.2	5	2.8	5			1	1		
203	2.2	38	2.0	18	2.7	6	3.0	5	1.4	5	1.7	3	4	1		
204	2.2	13	3.1	7	0.5	4			1.0	1	3.0	1				
208	3.0	5			2.3	3	4.0	2								
209	2.7	17	1.8	4			2.7	3	2.3	3	3.4	7				
210	2.3	70	2.4	24	2.4	14	0.0	3	2.8	5					2.3	24
212	2.2	74	1.4	25	1.9	16	3.0	4	2.8	5					2.9	24
213	2.9	15	2.9	11	2.7	3							4	1		
215	2.4	78	2.7	22	1.6	14	2.8	4	3.0	4	1.1	10	0	1	3.2	23
219	2.0	24	2.2	17	1.2	6							2	1		
221	3.0	44	3.4	19	2.9	8	2.6	5	3.0	5	2.7	6	3	1		
224	2.4	52	2.1	19	2.7	12	1.8	5	2.0	5	3.0	11				
226	3.0	17			3.4	9	3.3	4	1.8	4						
227	3.3	4					4.0	2	2.5	2						
228	0.0	2	0.0	2												
230	2.3	6			2.3	6										
231	2.8	36	2.3	17	3.1	8	3.0	5	3.4	5			4	1		
234	3.2	51	3.5	26	3.1	16	2.3	4	2.0	4			4	1		
235	3.3	47	3.3	23									0	1	3.5	23
236	2.6	40	2.8	24	2.4	16										
237	2.2	12			2.3	10			1.5	2						
240	1.1	18			2.4	8	0.0	5	0.2	5						
241	2.2	41	2.2	18	1.5	12	3.4	5	2.4	5			4	1		

Table 5. -Laboratory performance ratings for standard reference water sample T-135 (trace constituents)

(MPV, most probable value; ug/L, micrograms per liter; mg/L, milligrams per liter; Lab, laboratory number; OLR, overall laboratory rating for all reported values; V/26, number of reported values of 26 possible values; RV, reported value; <, less than)

Rating	Absolute Z-value	Rating	Absolute Z-value
4 (Excellent)	0.00 - 0.50	1 (Questionable)	1.51 - 2.00
3 (Good)	0.51 - 1.00	0 (Poor)	greater than 2.00
2 (Satisfactory)	1.01 - 1.50	NR (Not Rated)	

Analyte = Ag (Silver)		Al (Aluminium)		As (Arsenic)		B (Boron)		Ba (Barium)		Be (Beryllium)				
MPV =	9.81	µg/L	10.5	µg/L	10.0	µg/L	13.1	µg/L	67.8	µg/L	59.0	µg/L		
F-pseudosigma =	1.05		6.8		1.1		11.1		4.3		2.6			
Lab	OLR	V/26	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating		
1	3.5	26	10.33	4	11.4	4	10.0	4	13.3	4	70.6	3	57.2	3
3	3.2	25	8.40	2	43.0	0	10.0	4	< 10	NR	65.5	3	57.0	3
4	0.0	16							< 10	NR	140.0	0	119.0	0
7	3.0	25	11.20	2	23.2	1	10.0	4			70.2	3	57.5	3
10	3.7	3												
11	2.1	20							70.0	0	74.0	2	60.0	4
13	2.2	22	12.00	0	9.0	4	9.2	3			72.0	3	60.0	4
15	3.0	24	9.13	3	< 50	NR	8.5	2	< 50	NR	69.5	4	59.7	4
16	2.9	21	9.60	4	< 300	NR	< 60	NR	< 500	NR	70.0	3	58.0	4
18	3.3	23	11.00	2	< 50	NR	11.6	2	14.0	4	69.0	4	59.0	4
19	1.8	11												
21	3.0	1												
23	1.9	8			10.3	4								
24	2.6	25	11.50	1	25.0	0	13.5	0			69.7	4	66.0	0
25	1.4	21	< 6	0	< 19	NR	< 50	NR	< 23	NR	61.7	2	59.5	4
26	3.1	16	8.58	2			9.0	3						
27	1.0	3												
28	1.8	23			55.6	0	9.0	3	20.6	3	67.7	4	70.4	0
30	3.4	20	10.20	4	10.5	4	11.3	2			68.8	4	62.1	2
32	2.8	24	10.60	3	9.0	4	10.3	4	21.0	3	68.7	4	68.0	0
33	2.9	10			18.0	2					68.0	4		
34	3.5	2					10.8	3						
35	4.0	3					9.8	4						
36	1.3	22	6.38	0	< 100	NR	8.7	2	50.6	0	66.0	4	78.8	0
39	2.5	22					9.4	3			60.1	1	57.8	4
40	3.5	21	10.00	4					0.0	NR	68.0	4	60.0	4
42	3.6	25	9.60	4	10.7	4	10.3	4			65.5	3	59.7	4
43	3.7	7												
45	2.0	5					9.5	4						
46	2.9	19	8.45	2			9.7	4			68.4	4	61.4	3
48	2.3	22	12.00	0	12.1	4	10.7	3	20.0	3	85.2	0	60.0	4
50	2.4	16	9.00	3	7.0	3	6.0	0					55.0	1
52	3.4	24	8.40	2	7.6	4	9.0	3	< 40	NR	68.0	4	58.0	4
54	3.5	6												
55	2.8	23	9.76	4			11.9	1			56.0	0	60.4	3
58	1.6	18	9.00	3	184.0	0	24.0	0	68.0	0			56.0	2
59	3.2	22	9.90	4	< 100	NR	10.0	4			88.0	4	61.0	3
60	2.7	11	9.88	4			12.1	1					57.1	3
64	3.0	6												
68	1.0	25	11.40	1	415.0	0	8.0	1	4.9	3	61.5	2	53.0	0
69	3.2	19	11.30	2			10.2	4			98.5	0	60.3	4
70	3.2	23	9.93	4	< 100	NR	9.4	3	< 50	NR	65.3	3	58.0	4
73	3.0	9	11.10	2	13.4	4								
75	3.5	22	9.46	4	< 30	NR	8.9	2	< 20	NR	62.3	2	56.8	3
76	3.1	11	10.60	3			11.4	2					60.7	3
80	2.9	8					11.0	3						
81	2.2	23	8.00	1	7.0	3	12.0	1			55.0	0	54.0	1
83	3.4	16			15.0	3					63.9	3	56.1	2
84	2.8	5												
85	3.1	23	10.20	4	< 100	NR	9.5	4	< 20	NR	70.5	3	59.0	4
86	3.4	21	9.70	4			8.1	1			68.5	4	58.6	4
87	2.4	18	11.00	2			10.2	4			67.0	4		
89	2.5	22	9.80	4	12.2	4	10.8	3			65.5	3	69.8	0
90	1.8	4									230.0	0		
91	3.5	2												
92	1.5	13												
96	3.1	11	9.79	4			10.1	4			79.0	0		
97	2.5	24	6.36	0	5.6	3	10.1	4			56.6	0	52.6	0
100	2.3	25	11.50	1	< 40	NR	8.7	2	9.5	4	61.8	2	60.5	3
101	2.8	4												

Table 5. -Laboratory performance ratings for standard reference water sample T-135 (trace constituents)
 --Continued

Lab	OLR	V/26	Analyte = Ag (Silver)		Al (Aluminium)		As (Arsenic)		B (Boron)		Ba (Barium)		Be (Beryllium)	
			MPV =	µg/L	10.5	µg/L	10.0	µg/L	13.1	µg/L	67.8	µg/L	59.0	µg/L
			F-pseudosigma =	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV
102	2.1	22	9.81	3	7.9	4	22.0	0			59.0	1	59.0	4
103	2.2	23	< 5	0	< 30	NR	< 10	NR	8.0	4	61.0	1	57.0	3
105	3.5	25	8.90	3	10.3	4	10.4	4			67.2	4	57.0	3
107	3.4	11	9.27	3	9.0	4								
108	0.8	8	6.20	0			8.0	1						
109	2.2	12					10.4	4						
111	3.0	6			10.2	4							58.0	4
114	2.7	15	10.00	4					< 30	NR	72.0	3		
116	2.4	9												
118	1.2	12	8.90	3			14.7	0						
119	2.9	22	9.70	4	10.5	4	10.0	4	10.0	4	73.0	2	53.9	1
121	3.2	17			40.0	0			21.0	3	68.0	4		
126	1.2	6					10.9	3						
127	3.4	25	8.63	2	8.3	4	10.4	4	< 15	NR	66.4	4	57.5	3
128	2.7	23	9.87	4	7.6	4	9.6	4	< 10	NR	60.1	1	58.2	4
129	1.7	6							105.0	0				
132	2.5	16			41.0	0			9.0	4				
133	2.6	14	9.85	4			10.1	4			68.3	4	64.0	1
134	3.7	25	10.00	4	10.1	4	10.0	4	11.6	4	65.8	4	57.6	3
138	3.6	25	9.90	4	9.5	4	9.2	3	9.8	4	70.5	3	59.0	4
140	3.1	13												
141	3.0	23	10.00	4	14.0	3	< 50	NR	30.0	1	73.0	2	61.0	3
142	3.3	26	10.26	4	8.0	4	9.6	4	10.8	4	69.2	4	58.2	4
145	3.2	22			17.1	3	14.7	0	< 2.4	NR	66.7	4	59.1	4
146	3.4	22	10.90	2	35.6	0	8.5	2			66.6	4	58.5	4
149	3.0	5	9.70	4							70.0	3		
151	3.3	15	< 10	NR	9.0	4	8.7	2						
154	2.8	24	10.20	4	8.4	4	10.1	4	14.5	4	62.1	2	60.0	4
180	1.4	19	12.60	0	< 36.5	NR	< 33.4	NR	< 10	NR	72.2	2	60.9	3
182	0.8	26	1.15	0	25.5	0	8.5	2	28.9	2	54.2	0	31.0	0
183	2.0	1												
190	2.5	17	9.94	4	7.7	4	10.0	4						
191	2.6	16			17.0	3					64.0	3		
193	2.9	14	9.80	4			8.0	1			64.0	3		
194	2.6	18	10.00	4	< 500	NR	10.0	4	< 100	NR	< 100	NR	675.0	0
196	3.2	23	8.88	3	9.5	4	10.5	4			67.8	4	56.8	3
198	2.7	20	11.00	2	8.2	4	11.6	2			82.2	0	62.4	2
203	2.0	18	7.00	0	4.9	3	9.3	3			76.3	1		
204	3.1	7												
209	1.8	4			< 27	NR								
210	2.4	24	14.50	0	< 0.2	NR	20.5	0	12.0	4	63.5	3	59.5	4
212	1.4	25	12.00	0	< 200	NR	9.9	4	13.0	4	79.0	0	61.0	3
213	2.9	11	8.80	3			11.7	1					67.0	0
215	2.7	22	3.35	0	< 40	NR	14.0	0	57.0	0	66.0	4	56.0	2
219	2.2	17			8.0	4	9.6	4					57.0	3
221	3.4	19	9.51	4	14.1	3	9.9	4			67.5	4		
224	2.1	19			5.9	3	9.4	3			24.5	0	56.1	2
228	0.0	2			130.0	0								
231	2.3	17	5.38	0			10.6	3			79.7	0		
234	3.5	26	9.81	4	16.0	3	10.2	4	11.0	4	67.7	4	59.7	4
235	3.3	23	10.30	4	13.7	4	11.3	2	10.0	4	67.0	4	58.5	4
236	2.8	24	6.00	0	44.0	0	48.0	0	0.0	NR	65.0	3	58.0	4
241	2.2	18	9.04	3			9.2	3					22.0	0

Table 5. -Laboratory performance ratings for standard reference water sample T-135 (trace constituents)

--Continued

(MPV, most probable value; ug/L, micrograms per liter; mg/L, milligrams per liter; Lab, laboratory number; OLR, overall laboratory rating for all reported values; V/26, number of reported values of 26 possible values; RV, reported value; <, less than)

Rating	Absolute Z-value	Rating	Absolute Z-value
4 (Excellent)	0.00 - 0.50	1 (Questionable)	1.51 - 2.00
3 (Good)	0.51 - 1.00	0 (Poor)	greater than 2.00
2 (Satisfactory)	1.01 - 1.50	NR (Not Rated)	

Analyte = Ca (Calcium)		Cd (Cadmium)		Co (Cobalt)		Cr (Chromium)		Cu (Copper)		Fe (Iron)		K (Potassium)		
MPV =	10.4 mg/L	50.5	µg/L	40.0	µg/L	79.0	µg/L	62.0	µg/L	228	µg/L	0.96	mg/L	
F-pseudosigma =	0.6	3.2		2.6		5.5		4.2		11		0.09		
Lab	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	10.8	3	49.1	4	39.6	4	80.9	4	61.9	4	235	3	0.90	3
3	10.2	4	48.6	3	41.0	4	81.0	4	65.0	3	250	1	1.02	3
4	22.3	0			62.0	0	139.0	0	124.0	0	465	0		
7	10.4	4	57.0	1	39.8	4	83.6	3	60.8	4	220	3	1.27	0
10											230	4		
11	9.4	1	50.0	4	40.0	4	90.0	1	60.0	4	250	1	0.94	4
13	11.5	1	53.0	3	42.0	3	86.0	2	70.0	1	238	3	0.80	1
15	10.8	3	51.3	4	42.7	2	82.0	3	64.5	3	222	3	0.91	3
16	10.2	4	53.0	3	38.5	3	70.0	1	61.5	4	211	1	1.10	1
18	10.6	4	53.0	3	42.0	3	79.0	4	63.0	4	228	4	0.90	3
19	10.8	3	55.0	2			86.0	2	69.0	1	241	2	0.84	2
21											220	3		
23	8.6	0							56.4	2				
24	10.2	4	48.0	3	40.2	4	75.8	3	65.0	3	218	3	0.94	4
25	9.6	2	51.0	4	32.0	0	66.0	0	56.0	2	201	0	< 1.21	NR
26	10.6	4	51.0	4			81.2	4	63.5	4	228	4	1.16	0
27	13.9	0												
28	10.5	4	49.1	4			197.8	0	59.4	3	209	1	2.10	0
30	10.6	4	53.8	2	41.0	4	80.3	4	62.9	4				
32	10.8	3	53.9	2	39.0	4	75.0	3	63.0	4	270	0	1.22	0
33	10.4	4									220	3	0.92	4
34														
35														
36	8.6	0	47.1	2	44.6	1	66.0	0	60.0	4	216	2	0.72	0
39	9.6	2	47.1	2	39.5	4	73.0	2	60.6	4	213	2		
40	10.2	4	52.0	4	43.0	2	81.0	4	65.0	3	231	4	0.97	4
42	10.6	4	50.6	4	40.0	4	79.0	4	62.4	4	235	3	0.89	3
43	10.0	3									230	4	0.90	3
45			11.4	0			70.0	1	60.3	4				
46	10.7	3	45.9	2	43.0	2	83.1	3	65.4	3	229	4	0.96	4
48	11.0	2	54.0	2	< 50	NR	87.9	1	70.0	1	200	0	1.03	3
50			53.0	3	37.0	2	80.0	4	61.0	4	196	0		
52	11.0	2	50.0	4	41.0	4	79.0	4	61.0	4	220	3	0.93	4
54	11.0	2									230	4	0.90	3
55	10.7	3	46.4	2	38.5	3	81.0	4	61.3	4	223	4	0.94	4
58	9.6	2	53.0	3			72.0	2	65.0	3	160	0	0.97	4
59	10.4	4	52.0	4	40.0	4	81.0	4	64.0	4	226	4	1.00	4
60			54.8	2			85.4	2	63.0	4				
64	10.5	4											0.90	3
68	9.0	0	44.0	0	20.5	0	70.0	1	51.5	0	200	0	< 0.15	0
69	10.4	4	48.3	3			80.5	4	59.0	3	232	4	1.00	4
70	11.1	2	50.0	4	40.4	4	79.6	4	60.9	4	225	4	1.00	4
73			53.5	3			83.9	3	62.0	4	237	3		
75	10.1	3	50.6	4	40.6	4	77.3	4	61.0	4	219	3	0.93	4
76			52.8	3					62.0	4	233	4		
80			46.0	2					62.0	4	240	2		
81	9.5	2	50.0	4	37.0	2	60.0	0	60.0	4	182	0	0.88	3
83	10.2	4	49.1	4			77.9	4	62.1	4	222	3	0.89	3
84	10.0	3							71.6	0				
85	10.2	4	53.1	3	44.8	1	83.8	3	66.0	3	232	4	1.02	3
86	10.7	3	49.3	4	41.3	4	65.7	0	61.3	4	232	4	0.97	4
87	30.0	0	50.0	4			83.0	3	60.0	4	230	4	1.13	1
89	10.1	3	47.9	3	46.5	0	71.2	2	57.6	2	231	4	1.00	4
90											233	4		
91											227	4		
92	9.0	0	50.0	4	36.0	1	70.0	1	55.0	1	215	2	2.00	0
96			46.8	2			78.9	4	58.2	3	220	3		
97	10.2	4	53.1	3	38.4	3	70.2	1	57.2	2	217	3	0.90	3
100	11.0	2	51.7	4	50.0	0	77.0	4	63.3	4	235	3	0.75	0
101	10.7	3											1.10	1

Table 5. -Laboratory performance ratings for standard reference water sample T-135 (trace constituents)
--Continued

Lab	Analyte = Ca (Calcium)			Cd (Cadmium)		Co (Cobalt)		Cr (Chromium)		Cu (Copper)		Fe (Iron)		K (Potassium)		
	MPV =	10.4	mg/L	50.5	µg/L	40.0	µg/L	79.0	µg/L	62.0	µg/L	228	µg/L	0.96	mg/L	
	F-pseudosigma =	0.6		3.2		2.6		5.5		4.2		11		0.09		
	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
102	8.2	0	48.0	3	38.0	3	73.0	2	59.0	3	230	4	0.50	0		
103	9.3	1	49.0	4	37.0	2	75.0	3	55.0	1	215	2	1.00	4		
105	10.6	4	49.0	4	38.9	4	74.4	3	58.6	3	233	4	0.99	4		
107	9.7	2							59.0	3	230	4	0.96	4		
108							62.0	0	82.0	0						
109	10.0	3									227	4	0.99	4		
111	12.3	0											1.08	2		
114	9.0	0	50.0	4			85.0	2	56.0	2	225	4	1.00	4		
116	10.1	3									245	1	<3	NR		
118			54.0	2			96.5	0	51.2	0	274	0				
119	11.0	2	49.3	4			85.5	2	65.0	3	233	4	1.00	4		
121	10.2	4	48.0	3	35.0	1			56.0	2	225	4	1.00	4		
126			62.0	0			64.0	0								
127	10.4	4	53.1	3	41.9	3	81.9	3	63.4	4	235	3	0.97	4		
128	10.4	4	51.2	4	41.3	4	76.0	3	58.0	3	206	1	<0.5	0		
129	15.0	0											1.04	3		
132	11.2	2	47.0	2	40.0	4	81.0	4	64.0	4	255	0	1.18	0		
133	9.9	3	53.3	3			90.0	1	64.2	3	261	0				
134	10.8	3	50.7	4	40.2	4	77.8	4	61.8	4	223	4	0.89	3		
138	10.9	3	50.6	4	40.2	4	78.6	4	63.6	4	239	3	0.90	3		
140	10.4	4	50.0	4			85.0	2	62.0	4	210	1	0.88	3		
141	10.6	4	54.0	2	40.0	4	79.0	4	65.0	3	241	2	0.93	4		
142	10.8	3	52.6	3	37.9	3	73.9	3	58.6	3	238	3	1.38	0		
145	10.6	4	52.7	3	42.7	2	80.0	4	65.2	3	225	4	0.91	3		
146	9.8	2	48.7	3	38.6	3	77.9	4	61.7	4	224	4	0.96	4		
149			44.0	1			76.0	3								
151	10.4	4	50.0	4					63.0	4	230	4	0.87	2		
154	10.5	4	50.0	4	39.6	4	71.2	2	65.4	3	207	1	1.52	0		
180	11.2	2	57.2	0	44.6	1	87.4	1	69.2	1	244	2	1.39	0		
182	10.3	4	33.6	0	23.4	0	89.3	1	33.4	0	304	0	1.02	3		
183									67.0	2						
190	9.0	0	57.6	0			82.5	3	67.2	2	234	3	0.78	1		
191	9.4	1	58.9	0	40.0	4	78.1	4	62.6	4	265	0	0.89	3		
193	10.2	4	47.5	3	39.0	4	76.0	3	54.0	1	248	1	0.93	4		
194	9.5	2	47.5	3	41.0	4	170.0	0	70.0	1	240	2	1.01	3		
196	12.1	0	50.7	4	41.1	4	78.3	4	65.2	3			0.94	4		
198	11.2	2	48.7	3			79.6	4	63.2	4	233	4	1.02	3		
203	10.2	4	43.5	0			80.0	4	54.5	1	217	3	0.95	4		
204	9.9	3							56.6	2	228	4	0.87	2		
209	10.7	3											1.25	0		
210	9.8	2	52.5	3	39.5	4	70.0	1	60.0	4	216	2	2.34	0		
212	11.6	0	58.0	0	46.0	0	75.0	3	70.0	1	250	1	1.00	4		
213			49.5	4	38.6	3	76.9	4	64.7	3	224	4				
215	10.4	4	52.0	4	36.0	1	77.0	4	64.0	4	217	3	1.06	2		
219	11.0	2			56.0	0	64.0	0	61.0	4	300	0	700.00	0		
221	10.3	4	50.5	4	42.7	2	82.4	3	62.0	4	221	3	0.92	3		
224	10.9	3	46.3	2	35.9	1			57.0	2	217	3	0.96	4		
228																
231	10.6	4	54.8	2			81.3	4	52.8	0	197	0	0.92	4		
234	10.5	4	49.6	4	41.4	3	77.2	4	65.1	3	222	3	0.95	4		
235	10.4	4	47.0	2	38.0	3	75.0	3	59.0	3	233	4	0.74	0		
236	10.0	3	51.0	4	49.0	0	78.0	4	63.0	4	224	4	0.98	4		
241	10.2	4	53.0	3			78.7	4	63.8	4	221	3	1.00	4		

Table 5. --Laboratory performance ratings for standard reference water sample T-135 (trace constituents)

--Continued

(MPV, most probable value; ug/L, micrograms per liter; mg/L, milligrams per liter; Lab, laboratory number; OLR, overall laboratory rating for all reported values; V/26, number of reported values of 26 possible values; RV, reported value; <, less than)

Rating	Absolute Z-value	Rating	Absolute Z-value
4 (Excellent)	0.00 - 0.50	1 (Questionable)	1.51 - 2.00
3 (Good)	0.51 - 1.00	0 (Poor)	greater than 2.00
2 (Satisfactory)	1.01 - 1.50	NR (Not Rated)	

Analyte =	Li (Lithium)	Mg (Magnesium)	Mn (Manganese)	Mo (Molybdenum)	Na (Sodium)	Ni (Nickel)	Pb (Lead)							
MPV =	73.7 µg/L	2.00 mg/L	423 µg/L	63.0 µg/L	30.8 mg/L	65.6 µg/L	103 µg/L							
F-pseudosigma =	5.2	0.09	20	5.1	1.2	5.0	7							
Lab	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	73.6	4	2.02	4	432	4	66.7	3	30.4	4	65.1	4	100	3
3	77.0	3	2.00	4	405	3	54.0	1	31.3	4	67.0	4	105	4
4	142.0	0	4.23	0	825	0			63.9	0	119.0	0	136	0
7	72.3	4	2.00	4	418	4	61.5	4	30.9	4	62.3	3	94	2
10					425	4								
11			1.82	1	470	0	70.0	2	32.6	1	70.0	3	120	0
13			2.10	2	440	3			33.4	0	58.0	1	121	0
15	78.1	3	2.12	2	440	3	53.4	1	30.9	4	67.9	4	104	4
16	77.0	3	2.00	4	398	2	62.0	4	29.7	3	64.0	4	81	0
18			2.00	4	427	4	63.0	4	31.0	4	66.0	4	111	2
19			2.28	0	454	1			31.4	3			100	4
21														
23					390	1			32.4	2			105	4
24	74.0	4	2.00	4	435	3	65.0	4	30.1	3	66.2	4	99	3
25	67.0	2	1.92	3	384	1			29.7	3	< 49	0	187	0
26	74.0	4	2.07	3	440	3			31.1	4	66.7	4	108	3
27			2.24	0					31.7	3				
28	86.5	0	2.10	2	391	1	65.5	4	28.3	0	69.0	3	153	0
30	69.6	3	1.94	3	423	4	64.4	4			66.9	4	101	4
32	79.0	2	2.18	1	409	3	67.6	3	31.9	3	64.6	4	99	3
33			2.04	4	220	0			30.9	4				
34														
35														
36			2.06	3	350	0	27.3	0	30.2	3	47.1	0	85	0
39	70.7	3	1.97	4	386	1	63.1	4	29.9	3	71.7	2	132	0
40	75.0	4	2.00	4	435	3	64.0	4	30.6	4	67.0	4	117	0
42	73.2	4	2.10	2	424	4	64.0	4	31.4	3	62.8	3	106	4
43			2.00	4	430	4			31.0	4				
45														
46			2.09	2	420	4			31.6	3	73.6	1	100	3
48			2.05	3	440	3	61.5	4	29.8	3	65.2	4	140	0
50					428	4	51.0	0			71.0	2	106	4
52			2.00	4	420	4	62.0	4	31.0	4	65.0	4	100	4
54			2.00	4	430	4			31.0	4				
55	66.0	2	2.19	0	431	4	52.5	0	30.1	3	62.3	3	109	3
58			25.00	0	440	3			33.0	1	69.0	3	97	3
59			2.20	0	425	4	70.0	2	35.0	0	67.0	4	107	3
60							65.7	3			77.0	0	100	4
64	80.0	2	1.95	3					30.7	4				
68	65.0	1	1.05	0	36	0	69.5	2	28.0	0	55.0	0	104	4
69	80.5	2	2.10	2	426	4			30.0	3	64.5	4	109	3
70			2.13	2	415	4	56.8	2	31.7	3	69.1	3	100	4
73											67.2	4	115	1
75	70.3	3	2.00	4	414	4	61.3	4	31.0	4	65.1	4	103	4
76					435	3					63.1	4	103	4
80					452	2							103	4
81			1.95	3	399	2	59.0	3	29.7	3	40.0	0	104	4
83			1.99	4	412	3			30.7	4	69.5	3	102	4
84			2.00	4					30.6	4			106	3
85	75.7	4	1.98	4	422	4	70.0	2	30.2	3	66.0	4	117	0
86			2.07	3	426	4	61.2	4	31.4	3	65.2	4	99	3
87			1.90	2	408	3	58.6	3	10.0	0	73.0	2	126	0
89			2.00	4	424	4			28.9	1	61.9	3	105	4
90					352	0								
91					435	3								
92			2.00	4	42	0			20.0	0			100	4
96					440	3							99	3
97			2.00	4	408	3	58.2	3	31.2	4	61.3	3	99	3
100	80.3	2	2.10	2	437	3	54.3	1	34.0	0	66.7	4	113	1
101			2.00	4					31.5	3				

Table 5. -Laboratory performance ratings for standard reference water sample T-135 (trace constituents)
--Continued

Analyte = Li (Lithium)			Mg (Magnesium)		Mn (Manganese)		Mo (Molybdenum)		Na (Sodium)		Ni (Nickel)		Pb (Lead)	
MPV =	73.7	µg/L	2.00	mg/L	423	µg/L	63.0	µg/L	30.8	mg/L	65.6	µg/L	103	µg/L
F-pseudostigma =	5.2		0.09		20		5.1		1.2		5.0		7	
Lab	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
102			1.80	0	405	3			18.2	0	62.0	3	95	2
103	69.0	3	1.90	2	426	4	63.0	4	30.0	3	54.0	0	< 30	0
105	79.0	2	2.05	3	424	4	66.9	3	31.6	3	60.1	2	104	4
107			2.01	4	430	4			29.4	2			100	4
108							57.9	3			55.0	0		
109	57.3	0	2.00	4	417	4	74.4	0	28.5	1			74	0
111			2.04	4					30.6	4				
114			2.00	4	420	4			17.0	0	67.0	4	160	0
116	< 80	NR	1.96	4	425	4			31.4	3				
118					337	0					73.4	1	105	4
119			2.30	0	442	3	55.0	1	32.8	1	68.0	4	106	4
121			2.03	4	410	3			31.0	4	62.0	3		
126											75.0	1	98	3
127	66.9	2	2.07	3	417	4	61.6	4	29.6	2	63.3	4	97	3
128			1.85	1	407	3	56.9	2	26.2	0	55.3	0	100	4
129			0.31	0	420	4			30.0	3				
132			2.06	3	403	3	69.0	2	31.8	3	70.0	3	96	2
133			1.93	3							68.0	4	111	2
134	79.0	2	2.05	3	430	4	60.8	4	30.3	4	68.2	3	105	4
138			2.09	2	416	4	67.7	3	31.8	3	64.2	4	99	3
140			2.00	4	430	4			38.0	0	62.0	3	100	4
141			2.13	2	428	4	66.0	3	30.0	3	67.0	4	88	0
142	73.7	4	2.03	4	425	4	66.7	3	29.8	3	59.8	2	106	4
145	71.1	4	2.02	4	425	4	62.5	4	30.2	3	68.0	4	113	2
146			1.96	4	418	4	61.5	4	30.8	4	64.3	4	101	4
149													102	4
151	71.0	3	2.00	4	435	3			31.5	3				
154			1.80	0	396	2	61.5	4	30.5	4	61.0	3	104	4
180			2.20	0	462	1	67.6	3	33.2	1	73.7	1	112	2
182	65.0	1	1.98	4	475	0	74.8	0	23.9	0	78.8	0	89	0
183														
190			2.29	0	416	4			31.4	3	64.1	4	95	2
191			1.99	4	417	4			30.1	3	66.2	4		
193			1.98	4					30.8	4			113	1
194			1.88	2	450	2	80.0	0	31.3	4	< 100	NR	106	4
196	71.5	4	1.90	2	469	0	63.4	4	31.9	3	64.9	4	107	3
198			2.16	1	456	1	62.0	4	29.3	2	69.6	3	108	3
203			2.02	4	360	0			30.3	4	57.0	1	87	0
204			2.01	4	417	4			30.2	3				
209			2.11	2					29.1	2				
210			1.76	0	406	3	65.0	4	27.6	0	70.5	3	100	4
212	77.0	3	2.20	0	480	0	71.0	1	35.3	0	77.0	0	93	1
213											69.0	3	99	3
215			1.98	4	406	3	60.0	3	29.6	2	65.0	4	104	4
219	72.0	4	1.90	2	400	2			26.0	0	68.0	4		
221			1.95	3	440	3	70.0	2	31.2	4	70.3	3	108	3
224			2.09	2	396	2	22.0	0	30.9	4	59.1	2	94	2
228														
231			2.05	3	408	3			31.3	4	53.0	0	108	3
234	72.1	4	1.95	3	404	3	60.9	4	30.8	4	64.4	4	96	2
235			1.97	4	430	4	70.0	2			64.0	4	97	3
236	74.0	4	1.98	4	417	4	66.0	3	32.0	2	63.0	3	99	3
241			1.90	2	419	4			27.5	0	34.2	0	90	1

Table 5. --Laboratory performance ratings for standard reference water sample T-135 (trace constituents)

--Continued

(MPV, most probable value; ug/L, micrograms per liter; mg/L, milligrams per liter; Lab, laboratory number; OLR, overall laboratory rating for all reported values; V/26, number of reported values of 26 possible values; RV, reported value; <, less than)

Rating	Absolute Z-value	Rating	Absolute Z-value
4 (Excellent)	0.00 - 0.50	1 (Questionable)	1.51 - 2.00
3 (Good)	0.51 - 1.00	0 (Poor)	greater than 2.00
2 (Satisfactory)	1.01 - 1.50	NR (Not Rated)	

Analyte = Sb (Antimony)		Se (Selenium)		SiO ₂ (Silica)		Sr (Strontium)		V (Vanadium)		Zn (Zinc)		
MPV =	76.3 μg/L	10.0 μg/L	10.0 μg/L	4.28 mg/L	4.28 mg/L	46.0 μg/L	46.0 μg/L	52.8 μg/L	52.8 μg/L	48.2 μg/L	48.2 μg/L	
F-pseudosigma =	8.7	1.4	1.4	0.31	0.31	2.3	2.3	3.6	3.6	4.7	4.7	
Lab	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	82.3	3	10.1	4	4.29	4	47.1	4	52.9	4	65.3	0
3	78.0	4	9.4	4	4.46	3	44.3	3	54.0	4	48.2	4
4					9.50	0	98.7	0			85.0	0
7	69.7	3	25.0	0	4.66	2	46.5	4	54.4	4	48.2	4
10											51.0	3
11	70.0	3			4.62	2			50.0	3	40.0	1
13	74.5	4	7.6	1	4.40	4			57.0	2	52.0	3
15	67.2	2	8.9	3	4.15	4	44.2	3	56.6	2	52.7	3
16	63.0	1	< 70	NR			46.0	4	51.0	4	51.0	3
18	76.0	4	11.6	2			46.0	4	54.0	4	87.0	0
19											66.0	0
21												
23					3.01	0	43.6	2				
24	82.8	3	42.6	0	4.28	4	48.6	2	58.1	2	76.5	0
25	89.0	2	9.2	3	4.92	0	42.0	1	43.0	0	< 4	0
26			6.0	0							46.1	4
27												
28			11.0	3	3.50	0	45.5	4	55.4	3	35.2	0
30	82.8	3	12.2	1					55.6	3	49.4	4
32	79.6	4					46.6	4	56.9	2	46.5	4
33					4.07	3	50.0	1				
34			10.1	4								
35			9.3	4								
36	68.6	3	9.1	3					47.6	2	60.5	0
39	81.2	3	11.0	3	1.94	0	44.1	3	47.5	2	48.5	4
40	81.0	3					46.0	4	54.0	4	57.0	1
42	81.5	3	11.0	3	4.30	4	48.0	3	53.0	4	49.2	4
43					4.20	4						
45			12.4	1								
46			22.7	0					54.1	4	48.2	4
48	68.8	3	9.0	3					51.7	4	60.0	0
50			10.0	4					37.0	0	46.0	4
52	65.0	2	< 5	0	4.21	4	46.0	4	49.0	2	52.0	3
54												
55	74.7	4	9.9	4	3.84	2			53.0	4	48.0	4
58			3.0	0							71.0	0
59	84.0	3	10.0	4			48.0	3	47.0	1	45.0	3
60			11.2	3							50.0	4
64					3.90	2						
68	73.0	4	9.3	4			41.5	1	31.5	0	41.0	1
69	71.2	3	10.6	4							46.0	4
70	65.4	2	11.0	3	4.00	3	47.0	4	53.3	4	82.4	0
73											51.1	3
75	82.8	3	9.6	4					52.7	4	52.8	3
76	75.2	4									63.9	0
80			12.0	2							49.0	4
81	89.0	2	10.0	4			44.0	3	51.0	4	43.0	2
83					3.97	3					44.9	3
84												
85	96.0	0	9.5	4			46.6	4	49.1	2	47.9	4
86			9.0	3			46.4	4	53.5	4	47.6	4
87			< 2	0	4.36	4					49.0	4
89	69.6	3	< 2	0	4.00	3			45.8	1	36.9	0
90											45.0	3
91												
92					4.47	3					110.0	0
96			9.7	4							46.0	4
97	75.4	4	18.6	0	4.32	4	43.5	2	47.4	2	43.7	3
100	79.0	4	7.8	1	4.03	3	37.8	0	51.8	4	52.0	3
101												

Table 5. -Laboratory performance ratings for standard reference water sample T-135 (trace constituents)
 --Continued

Analyte = Sb (Antimony)		Se (Selenium)		SiO ₂ (Silica)		Sr (Strontium)		V (Vanadium)		Zn (Zinc)		
MPV =	76.3	μg/L	10.0	μg/L	4.28	mg/L	46.0	μg/L	52.8	μg/L	48.2	μg/L
F-pseudostigma =	8.7		1.4		0.31		2.3		3.6		4.7	
Lab	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
102	75.0	4	17.0	0			41.0	0	54.0	4	46.0	4
103	< 30	0	< 30	NR	3.50	0	44.0	3	50.0	3	47.0	4
105	75.9	4	10.6	4	4.19	4	48.0	3	50.6	3	49.2	4
107					4.51	3						
108			8.1	2							66.0	0
109			12.2	2			71.7	0				
111					4.35	4						
114	156.0	0									46.0	4
116					4.28	4	37.0	0			60.0	0
118			5.1	0	4.39	4					38.0	0
119	76.5	4	10.0	4	4.50	3					54.0	2
121					4.10	3	45.0	4	53.0	4	48.0	4
126			< 1	0								
127	78.6	4	9.3	4	4.03	3	44.3	3	51.8	4	46.2	4
128	72.7	4	10.2	4	3.92	2			48.6	2	47.2	4
129												
132											47.0	4
133			12.4	1							48.0	4
134			10.6	4	4.30	4	47.5	3	52.0	4	49.4	4
138	77.4	4	8.9	3	4.42	4	46.6	4	54.3	4	48.3	4
140					4.47	3					47.0	4
141	86.0	2	10.7	4	4.07	3			56.0	3	50.0	4
142	84.3	3	8.1	2	4.61	2	46.8	4	52.4	4	46.0	4
145					4.16	4	43.9	3	54.0	4	59.3	0
146	73.1	4	10.8	3					50.0	3	50.1	4
149												
151			9.8	4	4.30	4	47.0	4			58.0	0
154	66.5	2	9.0	3			41.1	0	58.5	1	48.5	4
180	86.7	2	< 45.1	NR					59.1	1	44.6	3
182	245.9	0	10.1	4	2.28	0	41.1	0	38.0	0	24.4	0
183												
190			10.8	3	4.48	3					42.4	2
191			15.3	0			45.0	4			67.8	0
193			9.4	4							< 50	NR
194	74.0	4	11.0	3			< 100	NR			50.0	4
196	76.6	4	11.1	3			46.6	4	56.7	2	47.4	4
198			8.6	3					54.4	4	45.5	3
203			7.2	1	3.69	1					42.0	2
204												
209												
210	66.5	2	11.0	3	4.42	4	42.0	1	52.0	4	45.0	3
212	71.0	3	11.0	3	4.70	2	55.0	0	60.0	1	53.0	2
213											48.0	4
215	80.0	4	18.0	0	4.28	4					49.0	4
219							46.0	4	49.0	2	45.0	3
221			9.8	4							46.0	4
224			7.6	1					47.3	1	42.5	2
228					1.99	0						
231			8.4	2	4.26	4					44.3	3
234	82.8	3	9.2	3	4.44	3	45.4	4	50.9	3	48.5	4
235	76.0	4	9.2	3			46.0	4	55.0	3	45.0	3
236	0.0	0	0.0	NR	3.97	3	45.0	4	58.0	2	47.0	4
241	93.8	1	13.5	0	4.05	3					56.0	1

Table 6. -Laboratory performance ratings for standard reference water sample M-134 (major constituents)

(MPV, most probable value; ug/L, micrograms per liter; mg/L, milligrams per liter; Lab, laboratory number; OLR, overall laboratory rating for all reported values; V/16, number of reported values of 16 possible values; RV, reported value; <, less than)

Rating	Absolute Z-value	Rating	Absolute Z-value
4 (Excellent)	0.00 - 0.50	1 (Questionable)	1.51 - 2.00
3 (Good)	0.51 - 1.00	0 (Poor)	greater than 2.00
2 (Satisfactory)	1.01 - 1.50	NR (Not Rated)	

Lab	Analyte = Alkalinity			Rating	B (Boron)		Ca (Calcium)		Cl (Chloride)		DSRD	
	OLR	V/16	MPV = 62.9 mg/L		RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	3.1	15	64.6	2			2.4	3	64.6	4	369	4
3	2.6	14	72.8	0			43.4	4	68.0	2	374	4
4	0.5	2					44.3	4			368	4
7	2.5	12					44.1	4	63.5	3		
9	2.8	13	64.6	2			40.6	2	71.7	0	354	3
10	2.9	10	64.6	2	< 50	NR	47.4	1	63.3	3	374	4
11	2.1	13	62.2	4	60.0	0	44.6	4	59.3	0		
13	2.3	12	60.2	1			40.7	2	66.9	3	369	4
15	2.4	12	59.0	0	< 50	NR	42.4	3	65.9	4	377	4
16	2.6	13	62.8	4	< 500	NR	44.4	4	65.0	4	372	4
18	3.1	15	60.8	2	35.0	4	44.4	4	66.5	3	377	4
19	2.7	10	65.7	1			45.0	3	64.5	4		
23	2.7	6	61.9	3	25.3	3	38.8	0	61.0	1	384	3
24	3.0	13	59.8	1	52.0	0	44.6	4	66.5	3	370	4
25	1.4	14	67.0	0			49.1	0				
26	3.1	11	64.5	3			42.6	3	71.9	0		
27	1.6	5			36.6	4	46.3	2	65.9	4		
28	1.3	15	66.7	0			43.4	4	63.4	3	299	0
30	3.3	4			33.0	4	44.0	4	64.8	4		
32	2.6	14	62.2	4			19.1	0	64.0	4	450	0
33	3.8	11	62.1	4	103.0	0	43.0	4			351	2
36	1.4	14	68.0	0			41.0	2	63.0	3	390	2
38	3.5	8			11.2	0	41.6	3	66.9	3	344	2
39	2.6	14	70.0	0	30.0	4	44.9	4	68.0	2		
40	3.1	14	63.8	3	29.7	4	44.0	4	66.0	4	386	3
42	3.3	15	61.8	3			45.5	3	103.3	0	376	4
43	3.2	11	64.0	3			43.0	4	64.0	4	382	3
46	2.6	8	62.8	4	20.0	1	43.0	4	64.0	4	369	4
48	2.3	12	58.0	0	31.0	4	43.0	4	65.0	4		
50	3.5	13	61.0	2			43.0	4	64.9	4	370	4
52	3.3	14	63.0	4	< 40	NR	44.0	4	67.4	2	390	2
54	3.2	11	60.0	1			45.7	3	56.1	0		
55	2.6	14	66.0	1			37.0	0	64.0	4	330	0
56	2.0	9	65.2	2			46.0	3	63.0	3		
57	2.4	12	62.0	3	< 100	NR	32.5	0			355	3
58	1.5	12	61.0	2	90.0	0	43.6	4	65.6	4		
59	2.5	13	62.0	3			45.2	3	66.8	3		
64	3.1	10			285.0	0	39.5	1	65.0	4	364	4
68	1.7	11	68.0	0			43.0	4	65.0	4	374	4
69	3.6	10	64.0	3			45.5	3	65.1	4		
70	3.5	13	62.0	3	< 50	NR	42.6	3	65.4	4	374	4
75	3.7	10	63.7	4	31.8	4			58.6	0	357	3
76	3.6	7	61.1	2			51.1	0	62.6	2	370	4
80	1.8	12	64.0	3			41.0	2				
81	3.1	13	62.2	4			42.1	3				
83	2.5	8	62.5	4			43.7	4	66.2	3		
84	3.1	7	54.6	0	38.1	3	42.0	3	65.3	4	360	3
85	3.4	14	61.5	3			44.9	4	75.7	0		
86	2.9	11					41.0	2	65.0	4	348	2
87	3.0	11					43.2	4	65.1	4	352	3
89	3.4	13	62.8	4			42.0	3			366	4
90	3.6	5	63.0	4			40.0	1	65.4	4	347	2
92	2.3	10	62.8	4								
93	1.3	3							65.9	4	363	4
94	4.0	2							63.7	3	676	0
96	2.4	7	65.0	2			43.8	4	59.5	0	384	3
97	2.5	13	63.8	3					66.6	3	367	4
100	2.3	7	64.6	2			43.8	4	64.3	4		
101	3.6	8					35.4	0				
102	1.8	12										

Table 6. -Laboratory performance ratings for standard reference water sample M-134 (major constituents)
 --Continued

Lab	Analyte = Alkalinity				B (Boron)		Ca (Calcium)		Cl (Chloride)		DSRD		
	MPV =		62.9 mg/L	Rating	33.7 µg/L		43.8 mg/L		65.0 mg/L		370 mg/L		
	F-pseudosigma =	V/16	1.6		8.5	2.4	2.1	19					
OLR	RV	RV	RV	RV	Rating	RV	Rating	RV	Rating	RV	Rating		
103	2.1	7				35.0	4	39.0	1				
105	3.1	14	63.0	4				44.5	4	67.0	3	370	4
107	2.5	11	60.2	1				32.8	0	66.7	3		
109	2.4	11	75.4	0				42.8	4	66.9	3	384	3
111	2.7	11	63.3	4				49.9	0	62.7	2		
114	2.1	11	64.0	3				38.5	0	64.0	4	400	1
116	2.1	8			< 30	NR		45.6	3	69.2	1		
118	3.0	5	64.0	3								394	2
119	2.9	14	62.0	3	40.0	3	43.2	4	66.0	4		347	2
121	3.7	7			30.0	4	44.5	4					
127	3.6	15	63.8	3	33.7	4	43.0	4	64.8	4		370	4
128	2.5	12	63.2	4	13.8	0	43.7	4	65.2	4			
129	2.1	13	69.0	0	120.0	0	46.0	3	66.0	4		348	2
132	2.0	7	0.1	0	8.0	0	44.3	4					
133	3.5	2					46.0	3					
134	3.7	16	64.3	3	34.8	4	43.9	4	65.6	4		392	2
136	2.3	9	65.3	2			35.1	0	67.7	2			
138	2.7	15	64.0	3	30.1	4	46.2	2	61.7	1		367	4
140	3.0	11					43.0	4	64.5	4		361	4
141	3.2	13	63.8	3	42.0	3	44.4	4	62.8	2		346	2
142	2.7	15	66.0	1	30.1	4	45.7	3	64.5	4		375	4
143	3.8	5							65.0	4		371	4
145	2.9	15	55.0	0	29.7	4	44.0	4	64.1	4			
146	2.1	12	62.6	4			42.8	4	70.0	0		361	4
149	2.8	8			170.0	0			64.0	4		368	4
151	3.7	12	64.0	3			43.0	4	67.0	3		369	4
153	2.7	10	62.0	3			44.2	4	61.8	1			
154	2.2	15	61.6	3	35.0	4	42.1	3	65.2	4		341	1
180	2.1	11	63.0	4	23.4	2	47.6	1	66.0	4			
182	1.8	16	62.0	3	87.9	0	45.8	3	65.0	4		387	3
183	1.0	2							68.0	2			
185	4.0	1											
190	2.7	13	61.0	2			38.8	0	64.9	4		410	0
191	3.9	8					42.0	3	65.2	4			
193	2.7	3							69.3	1			
194	2.7	9			< 100	NR	43.6	4	69.2	1		354	3
196	2.1	10	59.0	0			46.5	2	66.1	3			
197	1.5	2							51.0	0			
203	2.7	6	58.8	0					65.2	4			
204	0.5	4											
208	2.3	3							64.1	4			
210	2.4	14	64.0	3	32.0	4	43.8	4	59.0	0			
212	1.9	16	62.2	4	41.0	3	49.2	0	50.8	0		371	4
213	2.7	3	61.0	2					62.5	2			
215	1.6	14	63.6	4	175.0	0	38.7	0	65.0	4		378	4
219	1.2	6					51.0	0					
221	2.9	8					46.9	2	63.5	3		394	2
224	2.7	12	60.0	1			44.6	4	65.0	4		398	1
226	3.4	9	63.2	4			44.2	4	63.4	3			
230	2.3	6					45.3	3	65.7	4			
231	3.1	8	66.2	1			43.9	4	64.5	4			
234	3.1	16	61.9	3	31.6	4	46.3	2	66.8	3		388	3
236	2.4	16	62.2	4	30.0	4	41.7	3	62.5	2		125	0
237	2.3	10	62.4	4			44.5	4	63.2	3			
240	2.4	8	63.2	4			44.0	4	56.0	0		340	1
241	1.5	12	50.1	0			41.0	2	54.5	0			

Table 6. --Laboratory performance ratings for standard reference water sample M-134 (major constituents)

--Continued

(MPV, most probable value; ug/L, micrograms per liter; mg/L, milligrams per liter; Lab, laboratory number; OLR, overall laboratory rating for all reported values; V/16, number of reported values of 16 possible values; RV, reported value; <, less than)

Rating	Absolute Z-value	Rating	Absolute Z-value
4 (Excellent)	0.00 - 0.50	1 (Questionable)	1.51 - 2.00
3 (Good)	0.51 - 1.00	0 (Poor)	greater than 2.00
2 (Satisfactory)	1.01 - 1.50	NR (Not Rated)	

Lab	F (Fluoride)		K (Potassium)		Mg (Magnesium)		Na (Sodium)		(total Phosphorus) as P	
	MPV =	RV	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	0.620	1	2.39	4	9.66	4	60.4	4		
3	0.691	0	2.57	3	9.53	3	62.9	3	< 0.01	NR
4	0.700	0								
7	0.850	0	2.77	1	9.57	4	61.2	4	< 0.01	NR
9	0.558	4	2.69	2	9.90	4	62.2	3	0.001	3
10	0.590	3	2.35	4	10.40	1	61.4	4		
11	0.581	3	2.49	4	8.90	0	65.2	1		
13	0.630	0	2.10	2	9.50	3	63.0	3	< 0.05	NR
15	0.589	3	2.39	4	10.10	3	60.3	4	< 0.02	NR
16	0.550	4	2.00	1	9.50	3	59.0	3	0.027	2
18	0.557	4	2.30	4	9.30	2	60.0	4	0.002	4
19			2.50	4	10.60	0	60.3	4		
23									< 0.1	NR
24	0.590	3	2.30	4	9.98	3	62.5	3		
25	0.540	3	2.09	2	8.80	0	56.2	1	< 0.121	NR
26	0.670	0	2.47	4	10.00	3	62.1	3		
27			2.58	3	9.08	1	53.9	0		
28	0.500	0	4.60	0	10.10	3	57.6	2	0.500	0
30					9.39	3				
32	0.575	4	2.52	3	10.30	2	67.6	0		
33			2.37	4	9.80	4	61.2	4		
36	0.600	2	1.99	1	9.72	4	59.2	3	< 0.025	NR
38			2.39	4	9.90	4	58.9	3	0.008	4
39	0.570	4			9.69	4	60.5	4	0.005	4
40	0.550	4	2.41	4	9.14	2	61.2	4		
42	0.560	4	2.40	4	10.00	3	62.9	3	0.015	4
43			2.40	4	9.90	4	63.0	3		
46	0.571	4								
48			2.15	2	9.64	4	57.8	2	3.400	0
50	0.550	4	2.40	4	10.00	3	61.0	4		
52	0.518	2	2.40	4	9.80	4	60.0	4	0.032	2
54	0.568	4	2.40	4	10.00	3	61.0	4		
55	0.500	0	2.46	4	10.50	1	59.4	3	0.011	4
56			2.50	4	9.10	1	56.3	1		
57	0.540	3	3.00	0	10.00	3	61.0	4	< 0.02	NR
58	0.430	0	2.50	4	114.00	0	66.0	0	0.040	1
59	0.550	4	2.70	2	10.50	1	87.0	0	0.020	3
64			2.35	4	9.40	3	59.2	3	0.005	4
68			< 0.15	0	7.60	0	57.5	2	0.170	0
69	0.560	4	2.62	3	9.48	3	59.4	3		
70	0.560	4	2.28	3	9.87	4	62.0	3	< 0.1	NR
75			2.40	4	9.65	4	61.9	4		
76	0.561	4								
80	0.680	0	2.70	2	10.30	2	58.6	3		
81	0.560	4	2.30	4	9.41	3	59.9	4	< 0.005	NR
83	0.610	1	1.92	0	9.42	3	60.3	4		
84					10.10	3	59.9	4		
85	0.560	4	2.66	2	9.45	3	59.0	3	< 0.005	NR
86	0.450	0	2.43	4	10.10	3	63.3	2		
87			2.32	4	9.36	3	59.2	3	0.010	4
89	0.557	4	2.30	4	9.30	2	61.6	4	0.005	4
90										
92			3.50	0	9.00	1	23.0	0	< 0.01	NR
93	0.980	0								
94	0.550	4								
96	0.580	3								
97	0.583	3	2.36	4	10.10	3	63.1	3	< 0.001	NR
100	0.530	2								
101			2.40	4	9.40	3	63.0	3		
102	0.580	3	1.60	0	8.50	0	41.8	0	0.001	3

Table 6. -Laboratory performance ratings for standard reference water sample M-134 (major constituents)
 --Continued

Lab	Analyte = F (Fluoride) MPV = 0.561 mg/L F-pseudostigma = 0.030		K (Potassium) 2.40 mg/L		Mg (Magnesium) 9.75 mg/L		Na (Sodium) 60.7 mg/L		(total Phosphorus) as P 0.010 mg/L	
	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
103			2.70	2	8.60	0	60.0	4	< 0.05	NR
105	0.540	3	2.57	3	9.85	4	61.5	4	0.040	1
107	0.590	3	2.43	4	9.69	4	59.0	3	0.006	4
109	0.580	3	2.65	2	9.50	3	58.6	3		
111			2.94	0	9.57	4	60.3	4	0.009	4
114	0.590	3	2.50	4	10.00	3	53.5	0	< 0.01	NR
116			5.00	0	9.95	4	62.3	3		
118									< 0.01	NR
119	0.590	3	1.90	0	9.70	4	61.8	4	0.010	4
121			2.40	4	9.75	4	62.5	3		
127	0.555	4	2.55	3	9.52	3	59.0	3	0.013	4
128	0.560	4	1.73	0	8.94	1	52.9	0		
129	0.518	2	4.00	0	9.55	4	63.0	3	1.203	0
132			2.45	4	2.91	0	63.4	2		
133					9.91	4				
134	0.539	3	2.37	4	9.91	4	60.1	4	0.005	4
136			2.23	3	9.18	2	56.7	1		
138	0.610	1	2.37	4	10.10	3	64.1	2	0.003	4
140	0.600	2	2.12	2	9.60	4	62.0	3	< 0.01	NR
141	0.510	1	2.41	4	9.87	4	60.7	4	< 0.05	NR
142	0.590	3	2.82	1	10.13	3	61.8	4	< 0.018	NR
143									0.005	4
145	0.660	0	2.27	3	9.63	4	60.1	4	0.010	4
146	0.552	4	3.15	0	10.20	2	63.2	2		
149	0.600	2							0.001	3
151			2.28	3	9.70	4	62.0	3	0.007	4
153	0.480	0	2.20	3	9.86	4	63.0	3		
154	0.530	2	3.40	0	10.20	2	63.3	2	0.003	4
180	0.550	4	3.07	0	10.70	0	67.6	0	< 0.025	NR
182	0.488	0	2.53	3	9.75	4	47.7	0	0.030	2
183										
185									0.004	4
190	0.567	4	2.03	1	9.54	3	61.9	4	0.002	4
191			2.31	4	9.56	4	60.7	4	0.005	4
193										
194			2.53	3	9.84	4	64.2	2	< 0.10	NR
196	0.563	4	2.30	4	10.20	2	62.6	3		
197										
203										
204										
208	0.270	0								
210	0.480	0	4.20	0	9.85	4	60.5	4	< 0.10	NR
212	0.560	4	2.60	3	11.00	0	69.8	0	0.044	0
213									< 0.02	NR
215	0.620	1	1.88	0	8.35	0	53.4	0	0.040	1
219			2.20	3	11.00	0	55.0	0		
221			2.55	3	10.10	3	62.0	3	0.001	3
224	0.645	0	2.43	4	10.29	2	60.6	4	< 0.01	NR
226			2.40	4	9.78	4	60.3	4	0.012	4
230			2.70	2	10.40	1	65.5	1		
231			2.34	4	9.69	4	61.6	4		
234	0.530	2	2.61	3	9.45	3	59.3	3	0.014	4
236	0.690	0	2.24	3	9.39	3	63.4	2	0.020	3
237			3.00	0	9.80	4	58.0	2		
240									0.008	4
241	0.580	3	2.32	4	8.20	0	55.0	0	0.008	4

Table 6. -Laboratory performance ratings for standard reference water sample M-134 (major constituents)

--Continued

(MPV, most probable value; ug/L, micrograms per liter; mg/L, milligrams per liter; Lab, laboratory number; OLR, overall laboratory rating for all reported values; V/16, number of reported values of 16 possible values; RV, reported value; <, less than)

Rating	Absolute Z-value	Rating	Absolute Z-value
4 (Excellent)	0.00 - 0.50	1 (Questionable)	1.51 - 2.00
3 (Good)	0.51 - 1.00	0 (Poor)	greater than 2.00
2 (Satisfactory)	1.01 - 1.50	NR (Not Rated)	

Analyte =	pH	SiO2 (Silica)		SO4 (Sulfate)		Sp Cond		Sr (Strontium)		V (Vanadium)		
MPV =	7.72	5.34 mg/L		78.0 mg/L		615 µS/cm		291 µg/L		3.55 µg/L		
F-pseudostigma =	0.17	0.27		2.4		18		14		1.24		
Lab	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	7.52	2	5.43	4	74.9	2	606	3	299	3	2.73	3
3	7.79	4	5.77	1	76.8	4	620	4	281	3	< 10	NR
4					74.1	1						
7	7.48	2	5.73	2	75.0	2	605	3	291	4	3.70	4
9			5.33	4	75.3	2	569	0	301	3		
10	8.08	0	5.30	4			615	4				
11	7.51	2	5.82	1	79.0	4	606	3				
13	7.83	3	6.20	0	77.0	4	623	4			< 20	NR
15	7.30	0	5.39	4	75.0	2	645	1	285	4	< 10	NR
16	7.60	3			72.2	0	598	3	271	2	< 100	NR
18	7.78	4	4.49	0	73.8	1	602	3	282	3	< 5	NR
19	6.74	0			78.3	4	634	2				
23	7.78	4			93.4	0	592	2				
24	7.80	4	5.60	3	77.6	4	618	4	322	0		
25	7.75	4	7.28	0	82.0	1	630	3	263	1	< 4	NR
26	7.87	3			78.4	4	627	3				
27							613	4				
28	7.60	3	4.50	0	98.7	0	668	0	278	3	4.90	2
30					78.4	4						
32	7.82	3			75.9	3	611	4	302	3	10.60	0
33	7.78	4	5.10	3	77.4	4	616	4	302	3		
36	7.60	3	11.00	0	53.0	0	642	1			2.09	2
38			5.25	4			633	3				
39	7.90	2	5.39	4	80.0	3	481	0	289	4		
40	7.91	2	5.50	3	79.0	4	618	4	270	1		
42	7.50	2	5.60	3	78.0	4	629	3	308	2	3.00	4
43	7.49	2	5.50	3	74.0	1	616	4				
46	8.01	1	5.35	4	78.7	4	746	0				
48	6.50	0			79.0	4	618	4			< 200	NR
50	7.35	0	5.30	4	77.0	4	615	4				
52	7.60	3	5.30	4	78.8	4	590	2	300	3	2.10	2
54	7.85	3			88.0	0	621	4				
55	7.70	4	5.02	2	77.0	4	620	4	299	3		
56	7.75	4			80.6	2	616	4				
57	7.60	3	5.30	4	85.0	0	590	2			< 100	NR
58	7.48	2			79.4	3	603	3				
59	7.78	4	5.70	2	76.6	3	634	2	308	2		
64	8.16	0	5.01	2	78.6	4	618	4				
68	7.90	2	5.31	4			621	4	280	3	< 3	NR
69	7.72	4			78.0	4						
70	7.69	4	5.15	3	76.4	3	603	3	295	4	< 50	NR
75	7.97	2			77.7	4	613	4				
76	7.73	4			77.4	4	606	3				
80	7.50	2	7.00	0	81.1	2	618	4				
81	7.70	4	4.99	2	70.8	0	622	4	283	3	< 4	NR
83			4.96	2	76.2	3						
84	7.75	4					621	4				
85	7.76	4	5.30	4	77.6	4	619	4	294	4	< 20	NR
86	7.77	4			79.0	4	618	4	290	4	4.40	3
87	7.70	4	5.23	4	76.0	3	555	0				
89	3.50	0	5.20	4	77.0	4	598	3				
90	7.78	4					628	3				
92	7.61	3	5.32	4	77.9	4						
93	7.80	4										
94					79.0	4						
96	7.70	4					82	0	658	0		
97	8.00	1	5.37	4	40.3	0	622	4	269	1	< 3.15	NR
100	7.61	3			77.6	4	595	2				
101	7.68	4					613	4				
102			4.91	1	80.0	3	625	3	264	1	3.00	4

Table 6. -Laboratory performance ratings for standard reference water sample M-134 (major constituents)
 --Continued

Lab	Analyte = pH		SiO ₂ (Silica)		SO ₄ ⁻ (Sulfate)		Sp Cond		Sr (Strontium)		V (Vanadium)	
	MPV =	F-pseudostigma =	5.34 mg/L	0.27	78.0 mg/L	2.4	615 μS/cm	18	291 μg/L	14	1.24	3.55 μg/L
	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
103			4.70	0					285	4	< 10	NR
105	7.77	4	5.63	2	80.3	3	618	4	316	1	< 13	NR
107	4.76	0	5.48	3			625	3				
109	6.78	0			75.7	3	596	2				
111	7.84	3	5.19	3	75.3	2	610	4				
114	7.60	3			82.0	1	583	1				
116			5.37	4	83.4	0			309	2		
118	7.50	2	5.40	4			612	4				
119	7.96	2	6.00	0	78.0	4	603	3				
121			5.30	4					300	3		
127	7.70	4	5.36	4	79.2	4	604	3	284	3	< 4	NR
128	7.69	4	5.18	3	78.5	4	639	2			< 5	NR
129	7.81	3			78.0	4	591	2				
132	7.73	4										
133												
134	7.71	4	5.38	4	78.8	4	616	4	287	4	2.90	3
136	7.84	3			79.1	4	621	4				
138	7.98	1	5.56	3	75.5	2			298	3	2.90	3
140	7.52	2	5.54	3	81.5	2	626	3				
141	7.86	3	5.45	4	80.0	3	622	4			< 10	NR
142	7.72	4	6.43	0	74.0	1	627	3	309	2	3.72	4
143	7.82	3					607	4				
145	7.20	0	5.27	4	78.5	4	589	2	278	3	3.80	4
146	7.36	0			123.0	0	636	2			2.60	3
149	7.96	2	5.30	4	76.0	3						
151	7.67	4	5.30	4	79.0	4	615	4				
153	7.52	2			78.4	4	606	3				
154	8.19	0			74.8	2	606	3	284	3	11.80	0
180	7.70	4			79.0	4	480	0			< 4.1	NR
182	7.60	3	2.63	0	90.0	0	556	0	320	0	3.59	4
183							555	0				
185												
190	7.91	2	5.56	3	79.2	4	623	4	< 0.05	0		
191					76.9	4			286	4		
193					79.7	3	614	4				
194	7.55	3			76.9	4	570	0				
196	6.44	0			76.2	3	659	0				
197					79.9	3						
203	7.67	4	5.26	4	241.0	0	610	4				
204	7.29	0	5.96	0	81.2	2	58	0				
208					76.5	3						
210	8.11	0	5.89	0	78.0	4	590	2	291	4	3.50	4
212	7.60	3	6.10	0	79.7	3	613	4	330	0	4.70	3
213	7.78	4										
215	7.86	3	4.78	0	82.0	1	621	4				
219									340	0	3.90	4
221	7.70	4										
224	7.70	4			78.3	4	590	2			1.80	2
226			5.34	4	61.1	0						
230					76.2	3						
231			5.23	4	84.5	0						
234	7.89	2	5.30	4	80.4	3	620	4	294	4	2.02	2
236	7.70	4	5.02	2	77.1	4	550	0	287	4	7.00	0
237	8.20	0	55.00	0	77.0	4	639	2				
240	7.97	2			77.0	4	550	0				
241	7.79	4	4.88	1	8.0	0	730	0				

Table 7. -Laboratory performance ratings for standard reference water sample N-45 (nutrients)

(MPV, most probable value; ug/L, micrograms per liter; mg/L, milligrams per liter; Lab, laboratory number; OLR, overall laboratory rating for all reported values; V/5, number of reported values of 5 possible values; RV, reported value; <, less than)

		Analyte = NH3 as N (Ammonia)		NH3 + Org N as N (Ammonia+Organic N)		NO3 + NO2 as N (Nitrate + Nitrite)		total P as P (total Phosphorus)		PO4 as P (Orthophosphate as P)		
Rating		Absolute Z-value		RV		RV		RV		RV		
4 (Excellent)		0.00 - 0.50		< 0.2		0.214		0.130		0.123		
3 (Good)		0.51 - 1.00		< 1		0.303		0.144		0.119		
2 (Satisfactory)		1.01 - 1.50		NR (Not Rated)		0.286		0.139		0.120		
		MPV = 0.060 mg/L		0.300 mg/L		0.286 mg/L		0.139 mg/L		0.120 mg/L		
		F-pseudosigma = 0.021		0.249		0.028		0.012		0.012		
Lab	OLR	V/5	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	2.8	4	0.054	4	< 0.2	NR	0.214	0	0.130	3	0.123	4
3	3.8	4	0.062	4	< 1	NR	0.303	3	0.144	4	0.119	4
7	4.0	2	< 0.1	NR			0.280	4	0.140	4		
9	3.0	5	0.051	4	0.540	3	0.307	3	0.161	1	0.117	4
10	3.8	5	0.054	4	0.340	4	0.290	4	0.143	4	0.126	3
12	3.3	3					0.290	4	0.130	3	0.113	3
13	1.3	4	0.060	4			0.240	1	0.250	0	0.060	0
15	3.5	4	0.052	4	< 0.5	NR	0.312	3	0.139	4	0.126	3
16	0.8	5	0.174	0	0.406	4	0.401	0	0.097	0	0.072	0
18	3.2	5	0.054	4	0.224	4	0.028	0	0.137	4	0.125	4
19	2.0	3					0.300	4	0.120	1	0.140	1
21	4.0	5	0.050	4	0.241	4	0.280	4	0.142	4	0.119	4
22	4.0	1							0.144	4		
23	2.3	4	0.073	3			0.281	4	0.112	0	0.137	2
25	2.0	2	< 0.05	NR	< 0.05	NR	0.280	4	< 0.121	NR	0.038	0
26	2.3	3	0.083	2			0.247	2			0.131	3
28	1.0	5	0.100	1	2.200	0	0.040	0	0.200	0	0.120	4
32	0.5	2	0.096	1							0.095	0
33	4.0	1	0.060	4								
36	2.3	4	0.200	0	< 0.5	NR	0.243	1	0.140	4	0.120	4
38	3.8	5	0.054	4	0.240	4	0.291	4	0.146	3	0.116	4
39	3.0	4	0.044	3			0.288	4	0.145	3	0.105	2
42	2.0	3					0.250	2	0.153	2	0.135	2
43	1.0	1					0.340	1				
46	3.8	5	0.053	4	0.260	4	0.286	4	0.132	3	0.121	4
48	1.2	5	0.050	4	6.400	0	0.240	1	1.200	0	0.138	1
52	3.8	5	0.060	4	0.394	4	0.286	4	0.149	3	0.124	4
53	2.7	3	0.018	1			0.291	4			0.129	3
55	3.2	5	0.077	3	0.166	3	0.297	4	0.147	3	0.131	3
56	2.3	4			0.150	3	0.250	2	0.160	1	0.130	3
58	1.8	5	0.030	2	0.550	3	0.660	0	0.260	0	0.120	4
59	2.4	5	0.050	4	0.300	4	0.230	1	0.200	0	0.110	3
60	2.0	3	0.093	1	0.570	2	0.271	3				
64	4.0	4	0.060	4			0.280	4	0.141	4	0.125	4
69	4.0	1					0.280	4				
70	3.3	4	< 0.1	NR	0.418	4	0.247	2	0.134	4	0.114	3
75	3.5	4	0.055	4			0.269	3	0.132	3	0.123	4
76	3.0	2	0.050	4			0.244	2				
80	2.0	3	0.250	0			0.260	3			0.110	3
83	2.7	3					0.290	4	0.100	0	0.124	4
84	3.0	2	0.049	3			0.260	3				
85	3.6	5	0.054	4	0.320	4	0.280	4	0.130	3	0.114	3
86	2.5	4	0.081	3			0.282	4	0.133	3	0.157	0
87	2.0	5	0.030	2	0.150	3	0.290	4	0.165	0	0.144	1
88	1.0	3	0.048	3			0.496	0			0.194	0
89	3.4	5	0.070	4	0.587	2	0.290	4	0.136	4	0.126	3
90	3.2	5	0.048	3	0.154	3	0.318	2	0.136	4	0.124	4
91	3.2	5	0.060	4	0.230	4	0.280	4	0.160	1	0.110	3
92	1.3	4	0.630	0			0.284	4	0.194	0	0.143	1
93	4.0	1	0.050	4								
94	3.3	4	0.070	4	0.110	3	0.290	4	0.125	2		
96	3.6	5	0.045	3	0.165	3	0.280	4	0.140	4	0.118	4
97	3.0	5	0.052	4	0.190	4	0.300	4	0.060	0	0.110	3
100	2.3	3	0.040	3	1.310	0	0.300	4				
102	1.8	5	0.080	3	0.080	3	0.230	1	0.120	1	0.100	1
104	3.5	4			0.211	4	0.291	4	0.139	4	0.133	2
105	2.4	5	0.060	4	0.660	2	0.440	0	0.146	3	0.127	3
107	3.8	4	0.058	4			0.304	3	0.140	4	0.121	4
108	2.3	3					0.270	3	0.600	0	0.120	4
111	3.3	3					0.266	3	0.141	4	0.130	3

Table 7. -Laboratory performance ratings for standard reference water sample N-45 (nutrients)
 --Continued

Lab	Analyte = NH3 as N (Ammonia)				NH3 + Org N as N (Ammonia+Organic N)		NO3 + NO2 as N (Nitrate + Nitrite)		total P as P (total Phosphorus)		PO4 as P (Orthophosphate as P)	
	MPV = F-pseudostigma =		RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
	OLR	V/S	0.060 mg/L 0.021		0.300 mg/L 0.249		0.286 mg/L 0.028		0.139 mg/L 0.012		0.120 mg/L 0.012	
114	2.5	2	< 0.1	NR			0.290	4	0.120	1		
118	2.6	5	0.100	1	0.320	4	0.240	1	0.130	3	0.120	4
119	3.4	5	0.090	2	0.230	4	0.300	4	0.140	4	0.110	3
126	3.0	1					0.270	3				
127	3.4	5	0.057	4	0.177	4	0.266	3	0.133	3	0.126	3
128	3.0	5	0.090	2	0.420	4	0.310	3	0.150	3	0.130	3
129	2.8	5	0.147	0	0.162	3	0.304	3	0.136	4	0.117	4
132	3.3	4	0.050	4			0.250	2	0.140	4	0.110	3
133	3.2	5	0.076	3	0.220	4	0.230	1	0.140	4	0.120	4
134	3.4	5	0.070	4	0.200	4	0.300	4	0.120	1	0.120	4
136	4.0	1	0.069	4								
138	3.6	5	0.052	4	0.284	4	0.294	4	0.133	3	0.113	3
140	2.4	5	0.080	3	0.350	4	0.290	4	0.100	0	0.100	1
141	2.5	4	0.101	1	< 1	NR	0.284	4	0.140	4	0.140	1
142	1.4	5	0.018	1	0.536	3	0.306	3	0.173	0	0.151	0
143	3.8	5	0.040	3	0.300	4	0.281	4	0.137	4	0.118	4
145	3.2	5	0.050	4	0.350	4	0.240	1	0.150	3	0.120	4
146	4.0	3	0.055	4			0.279	4			0.121	4
149	4.0	2	0.050	4					0.136	4		
151	2.8	4	0.040	3			0.290	4	0.160	1	0.130	3
154	3.3	4	0.056	4			0.270	3	0.127	2	0.119	4
180	3.6	5	0.051	4	0.194	4	0.298	4	0.153	2	0.124	4
182	0.0	3	0.010	0					0.180	0	0.480	0
183	1.0	3	0.080	3			1.000	0			0.270	0
185	2.8	5	0.053	4	0.611	2	0.300	3	0.127	2	0.114	3
190	3.4	5	0.080	3	0.150	3	0.282	4	0.139	4	0.131	3
191	2.0	3					0.250	2	0.134	4	0.075	0
193	1.5	2					0.320	2			0.142	1
194	2.7	3	0.160	0	0.210	4	0.290	4				
196	3.0	2					0.251	2			0.115	4
197	4.0	2	0.052	4			0.296	4				
198	3.2	5	0.055	4	0.324	4	0.306	3	0.156	2	0.128	3
203	3.0	5	0.066	4	0.316	4	0.215	0	0.133	3	0.125	4
208	4.0	2					0.289	4			0.120	4
209	2.7	3	0.060	4	0.160	3	0.330	1				
210	0.0	3	0.300	0	1.300	0	< 0.5	NR	< 0.25	NR	0.146	0
212	3.0	4	0.110	0	< 0.5	NR	0.290	4	0.140	4	0.120	4
215	2.8	4	0.080	3			0.290	4	0.130	3	0.100	1
221	2.6	5	0.060	4	0.560	2	0.350	0	0.139	4	0.110	3
224	1.8	5	0.560	0	0.580	2	0.319	2	0.126	2	0.109	3
226	3.3	4	0.072	3	0.428	3	0.304	3	0.139	4		
227	4.0	2							0.139	4	0.120	4
231	3.0	5	0.050	4	0.230	4	0.260	3	0.110	0	0.120	4
234	2.3	4	0.076	3			0.262	3	0.148	3	0.084	0
240	0.0	5	1.960	0	3.040	0	0.530	0	0.016	0	< 0.01	0
241	3.4	5	0.053	4	0.271	4	0.256	2	0.136	4	0.127	3

Table 8. -Laboratory performance ratings for standard reference water sample N-46 (nutrients)

(MPV, most probable value; ug/L, micrograms per liter; mg/L, milligrams per liter; Lab, laboratory number; OLR, overall laboratory rating for all reported values; V/5, number of reported values of 5 possible values; RV, reported value; <, less than)

Rating	Absolute Z-value	Rating	Absolute Z-value
4 (Excellent)	0.00 - 0.50	1 (Questionable)	1.51 - 2.00
3 (Good)	0.51 - 1.00	0 (Poor)	greater than 2.00
2 (Satisfactory)	1.01 - 1.50	NR (Not Rated)	

Lab	Analyte = NH3 as N (Ammonia) MPV = 1.04 mg/L F-pseudosigma = 0.09				NH3 + Org N as N (Ammonia+Organic N) MPV = 1.81 mg/L F-pseudosigma = 0.30		NO3 + NO2 as N (Nitrate + Nitrite) MPV = 1.23 mg/L F-pseudosigma = 0.06		total P as P (total Phosphorus) MPV = 1.23 mg/L F-pseudosigma = 0.06		PO4 as P (Orthophosphate as P) MPV = 0.920 mg/L F-pseudosigma = 0.045	
	OLR	V/5	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	3.6	5	1.082	4	1.68	4	1.18	3	1.20	3	0.920	4
3	3.8	5	1.100	3	1.80	4	1.25	4	1.25	4	0.909	4
7	1.8	4	0.980	3			1.26	3	1.43	0	0.850	1
9	2.7	3	1.050	4	1.92	4			1.37	0		
10	3.0	5	1.040	4	1.86	4	1.24	4	1.27	3	1.020	0
12	2.3	4	1.000	4	2.40	1	1.28	3			0.840	1
13	2.5	4	1.060	4			1.19	3	1.27	3	0.750	0
15	3.4	5	1.100	3	1.67	4	1.30	2	1.24	4	0.910	4
16	1.6	5	0.928	2	2.67	0	1.28	3	1.08	0	0.896	3
18	4.0	5	1.060	4	1.70	4	1.24	4	1.25	4	0.941	4
19	3.5	2	0.970	3			1.21	4				
22	3.0	1							1.30	3		
23	3.8	5	1.040	4	2.08	3	1.23	4	1.26	4	0.930	4
25	1.3	3	< 0.05	0	< 0.05	0	1.15	2	1.15	2	0.286	0
26	2.3	3	1.020	4			1.17	2			0.990	1
28	2.8	5	1.040	4	5.50	0	1.24	4	1.23	4	0.970	2
30	1.5	2					1.26	3			2.730	0
33	1.0	1	1.190	1								
36	0.0	5	0.520	0	1.10	0	0.97	0	1.38	0	1.020	0
38	2.8	5	1.129	3	4.03	0	1.24	4	1.27	3	0.908	4
42	3.3	3					1.25	4	1.27	3	0.954	3
43	2.0	1					1.30	2				
46	3.6	5	1.013	4	1.93	4	1.31	2	1.21	4	0.930	4
48	1.4	5	1.060	4	9.40	0	1.10	0	2.60	0	0.944	3
52	2.2	5	0.595	0	1.96	3	1.19	3	1.35	1	0.916	4
53	2.7	3	1.019	4			1.28	3			1.003	1
55	3.5	2	1.090	3			1.24	4				
56	2.0	4			1.67	4	1.08	0	1.04	0	0.920	4
57	1.4	5	1.000	4	9.10	0	0.90	0	1.30	2	1.000	1
58	0.0	5	0.550	0	2.59	0	0.67	0	0.66	0	0.470	0
59	3.2	5	1.020	4	1.60	3	1.23	4	1.20	3	0.870	2
60	3.6	5	1.115	3	1.82	4	1.29	3	1.24	4	0.905	4
64	3.5	4	1.060	4			1.19	3	1.27	3	0.940	4
68	2.8	4	1.040	4	1.62	3	1.27	3	1.14	1		
69	2.0	1					1.30	2				
70	3.0	5	1.010	4	1.84	4	1.17	2	1.33	1	0.908	4
75	3.5	4	1.080	4			1.20	3	1.18	3	0.916	4
76	3.5	2	0.997	4			1.19	3				
80	1.0	3	0.400	0			1.05	0			0.960	3
83	3.0	3					1.34	1	1.21	4	0.930	4
84	1.0	3	0.830	0			1.17	2			0.840	1
85	3.2	5	1.070	4	2.00	3	1.22	4	1.17	2	0.876	3
86	2.3	4	1.130	3			1.27	3	1.27	3	1.050	0
87	2.8	5	0.990	3	1.73	4	1.22	4	1.51	0	0.944	3
89	3.2	5	1.100	3	1.91	4	1.27	3	1.20	3	0.890	3
90	2.6	5	1.070	4	1.67	4	1.30	2	1.30	2	0.990	1
91	2.0	5	0.940	2	1.85	4	1.16	2	1.30	2	1.020	0
92	2.0	4	1.320	0			1.30	2	1.31	2	0.919	4
93	4.0	1	1.040	4								
94	4.0	4	1.050	4	1.73	4	1.22	4	1.24	4		
96	3.2	5	0.972	3	1.77	4	1.29	2	1.26	4	0.892	3
97	4.0	5	1.020	4	1.73	4	1.25	4	1.21	4	0.920	4
100	2.7	3	1.000	4	2.73	0	1.24	4				
102	1.4	5	1.580	0	1.78	4	1.08	0	1.18	3	0.720	0
104	4.0	4			1.78	4	1.22	4	1.25	4	0.919	4
105	3.6	5	1.100	3	1.87	4	1.28	3	1.24	4	0.930	4
107	1.8	4	1.150	2			1.34	1	1.35	1	0.945	3
108	0.4	5	8.000	0	4.41	0	1.37	0	1.10	0	0.980	2
111	3.8	4	1.030	4			1.23	4	1.27	3	0.926	4
114	2.7	3	0.970	3			1.21	4	1.12	1		

Table 8. -Laboratory performance ratings for standard reference water sample N-46 (nutrients)
 --Continued

Lab	Analyte = NH ₃ as N (Ammonia)		NH ₃ + Org N as N (Ammonia+Organic N)		NO ₃ + NO ₂ as N (Nitrate + Nitrite)		total P as P (total Phosphorus)		PO ₄ as P (Orthophosphate as P)			
	MPV = 1.04 mg/L		1.81 mg/L		1.23 mg/L		1.23 mg/L		0.920 mg/L			
	F-pseudosigma = 0.09		RV	Rating	RV	Rating	RV	Rating	RV	Rating		
118	2.6	5	1.170	2	2.10	3	1.17	2	1.30	2	0.920	4
119	3.4	5	0.970	3	1.70	4	1.16	2	1.22	4	0.910	4
127	3.2	5	1.540	0	1.80	4	1.24	4	1.25	4	0.916	4
128	3.0	5	1.010	4	1.77	4	1.07	0	1.20	3	0.920	4
129	2.8	5	1.109	3	2.00	3	1.24	4	1.20	3	0.850	1
132	1.3	4	0.770	0			1.09	0	1.29	3	0.980	2
133	2.2	5	0.565	0	0.93	0	1.24	4	1.20	3	0.910	4
134	3.2	5	1.100	3	1.80	4	1.30	2	1.20	3	0.920	4
138	3.8	5	1.060	4	1.79	4	1.22	4	1.19	3	0.919	4
140	3.0	5	1.050	4	1.81	4	1.24	4	1.43	0	0.960	3
141	3.0	5	1.060	4	0.94	0	1.21	4	1.22	4	0.890	3
142	1.8	5	0.978	3	1.89	4	1.31	2	1.54	0	1.060	0
143	3.2	5	1.030	4	1.50	2	1.15	2	1.23	4	0.926	4
145	2.6	5	1.060	4	1.72	4	1.08	0	1.16	2	0.960	3
146	1.7	3	0.114	0			1.12	1			0.936	4
149	2.0	3	0.940	2			1.25	4	1.08	0		
151	2.5	4	1.040	4			1.27	3	1.32	2	1.000	1
154	3.0	5	1.070	4	1.68	4	1.24	4	1.14	1	0.863	2
180	3.2	5	1.070	4	1.58	3	1.26	3	1.32	2	0.899	4
182	1.7	3	0.880	1					1.26	4	3.350	0
185	1.8	4			3.23	0	1.24	4	1.09	0	0.957	3
190	3.2	5	1.000	4	2.27	1	1.22	4	1.27	3	0.932	4
191	3.0	3					1.21	4	1.17	2	0.879	3
193	1.0	2					1.31	2			1.300	0
194	2.5	4	1.260	0	1.65	3	1.19	3	1.21	4		
197	4.0	2	1.020	4			1.22	4				
198	2.8	5	0.900	1	1.75	4	1.20	3	1.16	2	0.930	4
203	1.4	5	0.506	0	1.91	4	1.17	3	1.07	0	0.578	0
204	1.0	1	1.182	1								
209	2.3	3	1.050	4	1.58	3	1.42	0				
210	2.8	5	1.100	3	2.10	3	1.20	3	1.20	3	0.968	2
212	2.8	5	1.100	3	1.50	2	1.30	2	1.20	3	0.930	4
215	3.0	4	1.120	3			1.22	4	1.24	4	1.010	1
221	3.0	5	1.040	4	1.79	4	1.46	0	1.20	3	0.900	4
224	2.0	5	0.950	3	2.85	0	2.17	0	1.23	4	0.960	3
226	1.8	4	1.034	4	2.56	0	1.26	3	1.72	0		
227	2.5	2							1.20	3	0.972	2
231	3.4	5	0.960	3	1.75	4	1.21	4	1.17	2	0.900	4
234	2.0	4	1.100	3			1.20	3	0.98	0	0.867	2
237	1.5	2	0.590	0			1.20	3				
240	0.2	5	2.700	0	5.10	0	1.07	0	0.12	0	0.840	1
241	2.4	5	0.970	3	3.80	0	1.19	3	1.26	4	0.864	2

Table 9. -Laboratory performance ratings for standard reference water sample P-24 (low ionic strength)

(MPV, most probable value; ug/L, micrograms per liter; mg/L, milligrams per liter; Lab, laboratory number; OLR, overall laboratory rating for all reported values; V/11, number of reported values of 11 possible values; RV, reported value; <, less than)

Rating	Absolute Z-value	Rating	Absolute Z-value
4 (Excellent)	0.00 - 0.50	1 (Questionable)	1.51 - 2.00
3 (Good)	0.51 - 1.00	0 (Poor)	greater than 2.00
2 (Satisfactory)	1.01 - 1.50	NR (Not Rated)	

Lab	Analyte = Acidity as CaCO3				Ca (Calcium)		Cl (Chloride)		F (Fluoride)		K (Potassium)		Mg (Magnesium)	
	MPV = 3.75 mg/L				0.325 mg/L		1.20 mg/L		0.110 mg/L		0.118 mg/L		0.055 mg/L	
	OLR	V/11	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	2.8	11	1.00	0	0.330	4	1.19	4	0.120	3	0.120	4	0.054	4
2	2.0	2												
3	3.5	8	< 10	NR	0.311	4	1.34	3	0.113	4	< 0.1	NR	0.050	3
7	3.3	4					1.03	3	< 0.5	NR				
11	2.0	10			0.310	3	0.46	0	0.111	4	0.110	3	0.046	2
15	2.4	7	4.08	4	0.302	3	1.39	3	0.110	4	< 0.5	NR	< 0.1	NR
23	3.0	6			< 2	0	1.14	4	0.104	3				
25	2.1	9	5.00	3	0.200	0	1.30	3	0.090	1	< 1.21	NR	0.050	3
26	3.0	9			0.340	3	1.14	4	0.140	0	0.100	1	0.056	4
27	3.0	1												
28	2.4	7	2.70	3	0.300	3	1.10	3					0.050	3
33	3.6	9			0.320	4	1.20	4			0.110	3	0.050	3
36	3.3	4	2.80	3	< 0.5	NR	< 5	NR	0.110	4	< 0.5	NR	< 0.5	NR
38	3.3	6			0.340	3					0.130	2	0.057	4
39	2.2	9	3.75	4	0.295	2	2.00	0	0.130	1			0.059	4
46	2.6	5							0.098	2	0.117	4		
48	1.3	9			0.270	1	2.00	0			0.070	0	0.010	0
52	3.1	7			0.334	4	1.00	2	0.104	3	< 0.2	NR	0.060	3
58	1.7	11	4.20	4	0.450	0	3.70	0	0.090	1	0.130	2	0.390	0
59	3.4	5					1.30	3	0.120	3				
64	3.3	9			3.330	0	1.20	4			0.110	3	0.060	3
81	1.3	10			0.277	1	0.40	0	0.090	1	< 0.092	0	0.043	1
89	2.7	11	3.75	4	0.304	3	1.40	2	0.092	1	0.107	3	0.049	3
92	1.5	8	2.55	3	2.900	0					0.500	0	0.600	0
93	3.0	5					1.19	4	0.140	0				
100	3.0	3					< 4	NR	0.126	2				
101	2.4	7			0.350	3	2.80	0			0.130	2	0.050	3
102	0.4	7			0.200	0	1.30	3			0.080	0	0.040	0
105	3.6	8	4.80	3	0.329	4	1.17	4	< 0.2	NR	< 0.5	NR	0.063	2
107	1.8	4					< 1.5	NR	0.100	3				
110	3.3	4					1.10	3						
111	3.4	9			0.310	3	1.05	3			0.110	3	0.060	3
132	1.0	4	0.01	0	0.445	0					0.413	0		
134	3.4	10			0.339	4	1.18	4	0.106	4	0.104	2	0.056	4
136	1.9	8	5.70	2	0.260	0					0.120	4	0.090	0
138	3.6	9			0.347	3	1.04	3	0.112	4	0.118	4	0.054	4
140	1.8	10			0.325	4	1.36	3	0.121	3	0.093	0	0.062	3
141	2.1	7	6.10	1	0.280	1	1.69	0	0.114	4	< 0.2	NR	< 0.1	NR
143	3.8	4					1.17	4						
145	3.0	11	3.40	4	0.300	3	1.24	4	0.110	4	0.140	1	0.050	3
146	1.7	3	< 10	NR	< 0.5	NR	1.46	2	< 0.2	NR	< 1	NR	< 0.5	NR
180	2.6	8			0.330	4	1.07	3	0.110	4	< 1.14	NR	0.070	1
183	1.0	3					14.20	0						
185	0.0	1												
190	2.5	10			0.230	0	1.13	4	0.113	4	0.120	4	0.055	4
194	2.5	2			< 5	NR					< 0.5	NR	< 1	NR
196	3.0	9			0.370	1	1.24	4	0.109	4	0.120	4	0.058	4
203	1.7	3					1.60	0						
204	3.0	1												
209	3.4	7			0.330	4	1.25	4			0.100	1	0.050	3
215	1.1	10	3.00	3	0.580	0	4.00	0	0.110	4	< 1	NR	0.080	0
221	2.7	6			0.312	4					0.118	4	0.052	4
224	3.0	11	3.75	4	0.339	4	1.18	4	0.051	0	0.122	4	0.058	4

Table 9. -Laboratory performance ratings for standard reference water sample P-24 (low ionic strength)

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(MPV, most probable value; ug/L, micrograms per liter; mg/L, milligrams per liter; Lab, laboratory number; OLR, overall laboratory rating for all reported values; V/11, number of reported values of 11 possible values; RV, reported value; <, less than)

Rating	Absolute Z-value	Rating	Absolute Z-value
4 (Excellent)	0.00 - 0.50	1 (Questionable)	1.51 - 2.00
3 (Good)	0.51 - 1.00	0 (Poor)	greater than 2.00
2 (Satisfactory)	1.01 - 1.50	NR (Not Rated)	

Analyte = Na (Sodium)		pH		PO4 as P		SO4 (Sulfate)		Specific Conductance		
MPV =	0.246 mg/L		4.73		0.028 mg/L		0.338 mg/L		13.3 μS/cm	
F-pseudostigma =	0.025		0.13		0.003		0.508		1.6	
Lab	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	0.267	3	4.92	2	0.190	0	0.320	4	12.1	3
2			4.52	1					12.4	3
3	0.250	4	4.72	4	0.030	3	< 1	NR	14.6	3
7			4.83	3	< 0.16	NR	0.650	3	13.8	4
11	0.260	3	4.46	1	0.040	0	1.650	0	12.8	4
15	< 0.5	NR	5.90	0	0.038	0	< 0.5	NR	14.8	3
23	< 0.5	NR	4.78	4	0.030	3	< 2.5	NR	12.6	4
25	0.245	4	4.78	4	0.009	0	< 5	NR	16.0	1
26	0.230	3	4.77	4	< 0.1	NR	0.330	4	13.8	4
27									14.3	3
28			4.90	2	0.030	3			660	0
33	0.240	4	4.72	4	0.030	3	0.300	4	14.4	3
36	< 0.5	NR	4.60	3	< 0.025	NR	< 5	NR	11.8	3
38	0.230	3			0.028	4			13.3	4
39	0.244	4	4.80	3	0.022	1			10.4	1
46			5.00	1	0.026	3			14.3	3
48	0.250	4	5.20	0	0.031	3	2.000	0	12.5	4
52	< 0.3	NR	4.70	4	0.026	3	< 10	NR	12.0	3
58	0.200	1	4.69	4	0.030	3	5.350	0	13.7	4
59			4.65	3	< 0.05	NR	0.310	4	12.6	4
64	0.240	4	4.73	4	0.028	4	0.320	4	13.1	4
81	0.151	0	4.70	4	0.030	3	5.100	0	12.0	3
89	0.243	4	4.50	1	0.030	3	0.320	4	11.2	2
92	1.000	0	4.88	2	0.026	3	0.160	4		
93			4.70	4			0.780	3	13.0	4
100			4.79	4			< 7	NR	12.0	3
101	0.270	3	4.54	2					13.0	4
102	0.100	0			0.015	0	2.000	0		
105	0.246	4	4.73	4	0.027	4	< 1	NR	12.8	4
107			7.81	0	0.033	2			14.9	2
110			4.72	4			0.335	4	15.0	2
111	0.250	4	4.85	3	0.027	4	0.300	4	13.6	4
132			4.74	4						
134	0.274	2	4.75	4	0.030	3	0.348	4	14.2	3
136	0.230	3	4.40	0	0.030	3			14.4	3
138	0.252	4	4.61	3	0.026	3	0.280	4		
140	0.340	0	4.38	0	0.015	0	1.000	2	14.6	3
141	0.260	3	4.90	2	< 0.05	NR	< 10	NR	13.2	4
143			4.72	4	0.028	4			12.0	3
145	0.220	2	4.70	4	0.040	0	0.240	4	14.0	4
146	< 0.5	NR	3.54	0	< 0.05	NR	< 5	NR	14.3	3
180	0.271	2	4.70	4	0.025	3	< 2.5	NR	10.0	0
183							1.600	0	12.0	3
185					0.019	0				
190	0.290	1	4.48	1	0.002	0	0.315	4	14.2	3
194	< 5	NR	4.87	2	< 0.1	NR	< 10	NR	12.3	3
196	0.270	3			0.030	3	0.332	4	40.9	0
203			4.76	4			< 2.5	NR	10.2	1
204					0.031	3				
209	0.240	4	4.74	4			0.340	4		
215	0.640	0	4.90	2	0.020	0	1.000	2	24.4	0
221	0.200	1	4.80	3	0.005	0				
224	0.241	4	4.07	0	0.026	3	0.401	4	15.0	2

Table 10. -Laboratory performance ratings for standard reference water sample Hg-20 (mercury)

(MPV, most probable value; ug/L, micrograms per liter; Lab, laboratory number;
V/1 number of reported values of 1 value; RV, reported value; <, less than)

Rating	Absolute Z-value	Rating	Absolute Z-value
4 (Excellent)	0.00 - 0.50	1 (Questionable)	1.51 - 2.00
3 (Good)	0.51 - 1.00	0 (Poor)	greater than 2.00
2 (Satisfactory)	1.01 - 1.50	NR (Not Rated)	

Analyte = Hg (Mercury)			
MPV = 4.42 μ g/L			
F-pseudosigma = 0.38			
Lab	V/1	RV	Rating
1		4.62	3
3		4.33	4
11		4.40	4
13		4.68	3
15		4.40	4
16		4.00	2
18		4.40	4
24		5.10	1
32		4.17	3
34		4.50	4
36		3.78	1
39		4.10	3
42		3.93	2
45		5.14	1
46		4.31	4
48		6.35	0
50		4.80	2
52		4.60	4
55		4.33	4
58		3.30	0
69		4.37	4
70		4.82	2
75		4.25	4
76		4.38	4
81		3.90	2
86		3.54	0
87		3.40	0
89		4.50	4
92		4.76	3
96		4.42	4
97		4.77	3
100		4.47	4
105		4.35	4
108		4.83	2
109		4.02	2
111		4.12	3
114		1.00	0
118		4.60	4
127		4.87	2
128		4.50	4
133		4.70	3
134		4.62	3
138		3.90	2
141		4.55	4
142		4.40	4
145		4.60	4
146		4.45	4
149		4.70	3
180		5.78	0
182		5.50	0
194		4.50	4
198		3.70	1
203		4.25	4
213		4.60	4
215		6.00	0
219		3.90	2
221		4.10	3
231		4.40	4
234		4.43	4
235		6.00	0
241		4.26	4

Table 11. -Laboratory performance ratings for standard reference sediment sample SED-5 (bed material)

--Continued

(MPV, most probable value; ug/g, micrograms per gram; mg/g, milligrams per gram; Lab, laboratory number; OLR, overall laboratory rating for all reported values; V/26, number of reported values of 26 possible values; RV, reported value; <, less than)

Rating	Absolute Z-value	Rating	Absolute Z-value
4 (Excellent)	0.00 - 0.50	1 (Questionable)	1.51 - 2.00
3 (Good)	0.51 - 1.00	0 (Poor)	greater than 2.00
2 (Satisfactory)	1.01 - 1.50	NR (Not Rated)	

Analyte = Ag (Silver)		Al (Aluminium)		As (Arsenic)		B (Boron)		Ba (Barium)		Be (Beryllium)				
MPV =	RV	MPV =	RV	MPV =	RV	MPV =	RV	MPV =	RV	MPV =	RV			
F-pseudosigma =	Rating	F-pseudosigma =	Rating	F-pseudosigma =	Rating	F-pseudosigma =	Rating	F-pseudosigma =	Rating	F-pseudosigma =	Rating			
0.72	3	4227	3	216	3	9.90	NR	110	2	0.305	< 1			
0.25	3	979	3	20	3	11.82	NR	14	3	0.096	NR			
1	2.1	22	0.89	3	4771	3	235	3	< 0.27	NR	126	2	< 1	NR
3	2.8	24	0.60	4	2760	2	205	3	< 0.6	NR	90	2	0.280	4
13	3.4	19	< 1.0	NR	5300	2	200	3			120	3		
15	3.6	25	0.80	4	4430	4	232	3	4.03	4	119	3	0.300	4
18	3.0	24	0.50	3	2920	2	207	4	4.60	4	98	3	0.200	2
23	2.2	12	0.90	3	5540	2								
28	1.0	18			1790	0			19.60	3	75	0		
30	3.6	7					217	4						
32	1.3	24	0.72	4	7590	0	294	0	4.70	4	153	0	< 0.2	NR
48	3.0	23	0.60	4	4552	4	223	4	11.40	4	122	3	0.400	3
52	3.2	21	< 1.0	NR	3200	2	220	4	5.00	4	100	3	0.269	4
58	2.3	17	0.50	3	4900	3	163	0					0.400	3
68	2.9	13			4250	4			28.00	1				
69	2.3	3												
81	3.0	21	0.47	3	3710	3	211	4			111	4	0.157	1
100	2.5	26	1.02	2	4118	4	235	3	34.70	0	100	3	30.100	0
105	2.9	21	0.78	4	3900	4	198	3			120	3	< 0.6	NR
121	3.1	17			5380	2			22.00	2	104	4		
127	3.4	25	0.37	2	3920	4	240	2	3.43	3	112	4	0.271	4
132	2.8	14			4204	4								
140	3.4	12												
141	2.9	19	< 2.5	NR	3450	3	204	3	6270	0	105	4	< 0.5	NR
146	3.7	22	0.71	4	4270	4	217	4			119	3	0.400	3
154	1.8	5			4700	4	240	2						
194	2.7	14	< 10.0	NR	2330	1	224	4	7.20	4	92	2	< 10	NR
210	2.3	24			5640	2	163	0	7.37	4	108	4	0.318	4
212	2.9	24	< 7.5	NR	2540	1	211	4	9.20	4	93	2	0.300	4
215	3.2	23	2.31	0	3660	3	207	4	10.60	4	115	4	0.310	4
235	3.5	23	1.00	2	4540	4	215	4	14.40	4	110	4	0.500	1

Table 11. -Laboratory performance ratings for standard reference sediment sample SED-5 (bed material)

--Continued

(MPV, most probable value; ug/g, micrograms per gram; mg/g, milligrams per gram; Lab, laboratory number, OLR, overall laboratory rating for all reported values; V/26, number of reported values of 26 possible values; RV, reported value; <, less than)

Rating	Absolute Z-value	Rating	Absolute Z-value
4 (Excellent)	0.00 - 0.50	1 (Questionable)	1.51 - 2.00
3 (Good)	0.51 - 1.00	0 (Poor)	greater than 2.00
2 (Satisfactory)	1.01 - 1.50	NR (Not Rated)	

Analyte = Ca (Calcium)		Cd (Cadmium)		Co (Cobalt)		Cr (Chromium)		Cu (Copper)		Fe (Iron)		K (Potassium)		
MPV =	mg/g	RV	µg/g	RV	µg/g	RV	µg/g	RV	µg/g	RV	µg/g	RV	mg/g	
F-pseudostigma =														
Lab	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	9.71	0	171	3	7.10	0	11.50	4	60.3	4	12200	4	1.65	4
3	7.75	3	159	4	3.40	4	8.40	2	38.8	3	7210	2	0.85	0
13	8.60	3	140	2	3.30	4	13.00	4	63.0	4	13000	3	1.60	4
15	8.43	4	167	3	3.84	3	12.60	4	48.1	4	10500	4	1.65	4
18	8.35	4	153	4	3.10	3	8.50	3	46.0	4	7080	2	1.23	2
23			155	4			15.80	2	96.0	1				
28	7.09	1	123	0			6.33	1	24.0	2	3530	0	0.94	0
30			158	4			11.40	4					1.24	2
32	9.50	0	171	3	3.99	2	21.80	0	109.0	1	19200	0	1.56	4
48	9.68	0	157	4	3.60	4	0.58	0	80.6	3	11004	4	1.78	3
52	8.20	4	200	0	3.70	3	9.40	3	40.0	3	8100	3	1.40	3
58	2.20	0	160	4			16.00	2	74.0	3	11000	4	1.80	3
68	8.60	3	150	4			12.00	4	100.0	1	8900	3	1.30	3
69			164	4										
81	7.29	2	150	4	2.99	3	11.70	4	95.1	2	10800	4	1.48	4
100	7.81	3	190	0	5.77	0	13.30	4	47.9	4	3856	0	1.62	4
105	7.81	3	143	3	3.97	2	17.50	1	85.6	2	12800	3	1.56	4
121			133	1	3.00	3	12.50	4	40.0	3	12000	4	1.21	2
127	8.65	3	170	3	3.34	4	10.70	4	51.7	4	9590	4	1.53	4
132	9.33	1	181	2	2.88	3	10.43	4	59.7	4	11974	4	1.61	4
140	8.61	3	160	4			14.72	3	48.2	4	11150	4	1.63	4
141	7.74	3	148	3	< 5	NR	9.36	3	42.3	3	7390	2	1.52	4
146	8.13	4	147	3	3.62	4	12.50	4	55.4	4	11200	4	1.77	3
154											14400	2		
194	7.34	2	172	3	< 10	NR	8.80	3	35.6	3	6490	2		
210	0.14	0	116	0	3.71	3	15.00	2	69.9	3	11200	4	1.72	3
212	8.07	4	147	3	2.90	3	9.30	3	83.8	2	8200	3	1.14	2
215	8.16	4	160	4	2.81	2	9.06	3	58.4	4	7860	3	1.23	2
235	8.40	4	155	4	3.20	4	14.00	3	54.0	4	10800	4	1.60	4

Table 11. -Laboratory performance ratings for standard reference sediment sample SED-5 (bed material)

--Continued

(MPV, most probable value; ug/g, micrograms per gram; mg/g, milligrams per gram; Lab, laboratory number; OLR, overall laboratory rating for all reported values; V/26, number of reported values of 26 possible values; RV, reported value; <, less than)

Rating	Absolute Z-value	Rating	Absolute Z-value
4 (Excellent)	0.00 - 0.50	1 (Questionable)	1.51 - 2.00
3 (Good)	0.51 - 1.00	0 (Poor)	greater than 2.00
2 (Satisfactory)	1.01 - 1.50	NR (Not Rated)	

F-pseudostigma =	Analyte = Li (Lithium)			Mg (Magnesium)			Mn (Manganese)			Mo (Molybdenum)			Na (Sodium)			Ni (Nickel)			Pb (Lead)		
	MPV =	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
	3.82	μg/g		1.91	mg/g	257	μg/g	1.01	μg/g	0.290	g/g	6.68	μg/g	309	μg/g						
	0.98			0.24		19		0.19		0.031		1.69		18							
1	5.30	1	1.96	4	285	1	< 1.4	NR	0.350	1	10.00	1	273	1							
3	3.80	4	1.52	1	224	1	< 0.6	NR	0.290	4	5.50	3	299	3							
13			1.90	4	270	3			0.300	4	6.20	4	320	3							
15	4.46	3	2.16	2	268	3	1.06	4	0.307	3	6.61	4	311	4							
18			1.62	2	246	3	1.20	3	0.261	3	4.80	2	327	3							
23			0.94	0	292	1	< 6	NR	0.133	0	6.74	4	319	3							
28			1.41	1	190	0	< 0.5	NR	0.290	4	8.83	2	216	0							
30											8.21	3	303	4							
32	5.70	1	3.20	0	322	0	634	0	0.380	0	9.40	1	325	3							
48			2.34	1	257	4	1.02	4	0.592	0	6.48	4	317	4							
52			1.80	4	250	4	< 2.2	NR	0.263	3	5.10	3	310	4							
58			52.00	0	309	0			0.280	4	8.00	3	300	4							
68			1.80	4	260	4	< 3.7	NR			8.70	2	340	1							
69													322	3							
81			1.85	4	245	3	< 0.692	NR	0.246	2	8.50	2	263	0							
100	3.31	3	1.92	4	266	4	0.74	2	0.350	1	6.62	4	314	4							
105			1.93	4	251	4	1.25	2	0.228	1	8.28	3	308	4							
121			1.96	4	245	3			0.290	4	6.00	4									
127	3.82	4	1.97	4	273	3	< 2	NR	0.283	4	6.09	4	284	2							
132			2.74	0	295	0			0.285	4	8.28	3									
140			2.10	3	257	4			0.294	4	5.01	3	327	2							
141			1.83	4	238	2	< 5	NR	0.250	2	7.26	4	294	3							
146			2.05	3	259	4	0.94	4	0.313	3	6.48	4	305	4							
154													345	1							
194	< 1000		1.50	1	253	4	< 50	NR	< 1	NR	< 10	NR	331	2							
210			1.77	3	237	2	1.00	4	0.276	4	5.53	3	239	0							
212	2.00	1	1.47	1	249	4	< 10	NR	0.290	4	7.20	4	307	4							
215			1.87	4	243	3	0.88	3	0.260	3	5.31	3	309	4							
235			2.10	3	270	3	1.00	4			6.80	4	290	2							

Table 11. -Laboratory performance ratings for standard reference sediment sample SED-5 (bed material)

--Continued

(MPV, most probable value; ug/g, micrograms per gram; mg/g, milligrams per gram; Lab, laboratory number; OLR, overall laboratory rating for all reported value V/26, number of reported values of 26 possible values; RV, reported value; <, less than)

Rating	Absolute Z-value	Rating	Absolute Z-value
4 (Excellent)	0.00 - 0.50	1 (Questionable)	1.51 - 2.00
3 (Good)	0.51 - 1.00	0 (Poor)	greater than 2.00
2 (Satisfactory)	1.01 - 1.50	NR (Not Rated)	

Analyte = Sb (Antimony)		Se (Selenium)		SiO ₂ (Silica)		Sr (Strontium)		V (Vanadium)		Zn (Zinc)		
MPV =	RV	RV	RV	RV	RV	RV	RV	RV	RV	RV	RV	
F-pseudosigma =	Rating	Rating	Rating	Rating	Rating	Rating	Rating	Rating	Rating	Rating	Rating	
9.28	1	6.69	2	5.71	2	41.0	0	14.4	3	598	0	
3.12	4	5.41	NR	4.16	3	5.2	4	5.0	4	47	4	
1		0.36	2	9.96	2	52.4	0	17.8	3	714	0	
3	3.10	1	13.80	2	4.04	4	36.6	3	11.2	3	584	4
13	10.00	4	< 1	NR	9.40	3			14.5	4	630	3
15	9.98	4	< 25	NR	6.75	4	42.0	4	16.5	4	634	3
18	6.20	3	3.70	3			39.0	4	8.9	2	576	4
23			14.80	2							618	4
28					3.61	3	27.3	0	5.6	1	424	0
30											611	4
32	12.40	3	11.00	3			50.9	1	33.0	0	755	0
48	2.80	0	9.10	4					14.2	4	598	4
52	< 10	NR	3.50	3			40.0	4	11.0	3	560	3
58			9.50	3							43	0
68											600	4
69											7	0
81	8.50	4					41.1	4	14.3	4	538	2
100	14.10	1	0.51	2	8.00	3	34.7	2	13.8	4	622	3
105	11.60	3	11.60	3					23.5	1	588	4
121					7.53	4	41.0	4	16.0	4	520	1
127	7.84	4	0.83	2	5.71	4	45.7	3	11.8	3	645	3
132									20.9	2	604	4
140											628	3
141	10.10	4	3.79	3	0.0126	NR			10.7	3	547	2
146	8.58	4	9.37	4					16.1	4	619	4
154											729	0
194	< 100	NR	< 200	NR			36.9	3	< 50	NR	593	4
210	7.28	3	11.20	3	0.23	2	409.0	0	21.4	2	480	0
212	15.60	1	6.60	4	0.69	2	36.8	3	11.1	3	558	3
215	6.89	3	6.69	4	0.53	2					564	3
235	11.00	3	5.70	4			42.0	4	18.0	3	620	4

Table 12. *Statistical summary of reported data for standard reference water sample T-135 (trace constituents)*

Definition of analytical methods, abbreviations, and symbols

Analytical methods

0. Other/Not reported	=	
1. AA: direct, air	=	atomic absorption: direct,air
2. AA: direct, N2O	=	atomic absorption: direct,nitrous oxide
3. AA: graphite furnace	=	atomic absorption: graphite furnace
4. ICP	=	inductively coupled plasma
5. DCP	=	direct current plasma
6. ICP/MS	=	inductively coupled plasma/mass spectrometry
10. AA: extraction	=	atomic absorption: extraction [chelating agent(s) specified]
11. AA: hydride	=	atomic absorption: hydride [reducing agent specified]
12. AA: flame emission	=	atomic absorption: flame emission
22. Color:	=	colorimetric [color reagent specified]

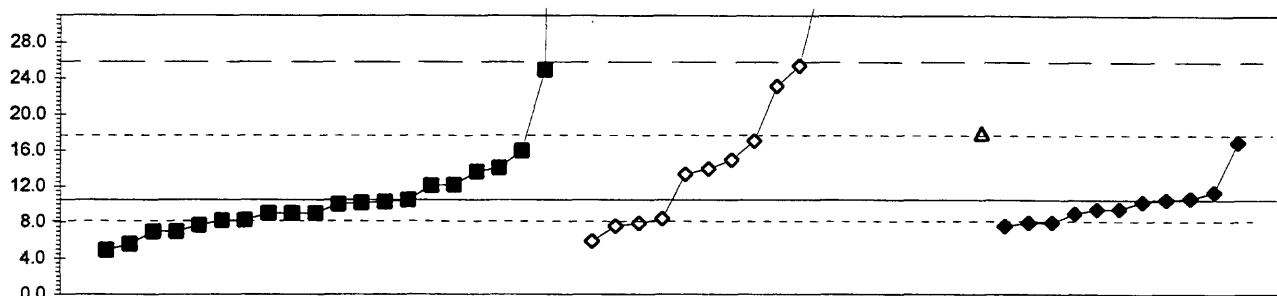
Abbreviations and symbols

N	=	number of samples
St dev	=	traditional standard deviation
MPV	=	most probable value
F-pseudosigma	=	nonparametric statistic deviation
Hu	=	upper hinge value
Hi	=	lower hinge value
µg/L	=	micrograms per liter
mg/L	=	milligrams per liter
Lab	=	laboratory code number
NR	=	not rated, less than value reported
<	=	less than

<u>Constituent</u>	<u>page</u>	<u>Constituent</u>	<u>page</u>
Ag Silver	39	Li Lithium	52
Al Aluminium	40	Mg Magnesium	53
As Arsenic	41	Mn Manganese	54
B Boron	42	Mo Molybdenum	55
Ba Barium	43	Na Sodium	56
Be Beryllium	44	Ni Nickel	57
Ca Calcium	45	Pb Lead	58
Cd Cadmium	46	Sb Antimony	59
Co Cobalt	47	Se Selenium	60
Cr Chromium	48	SiO2 Silica	61
Cu Copper	49	Sr Strontium	62
Fe Iron	50	V Vanadium	63
K Potassium	51	Zn Zinc	64

Table 12. Statistical summary of reported data for standard reference water sample T-135 (trace constituents)--Continued

Al (Aluminum) $\mu\text{g/l}$



○ 2 ■ 3 ◇ 4 ▲ 5 ◆ 6 × 22

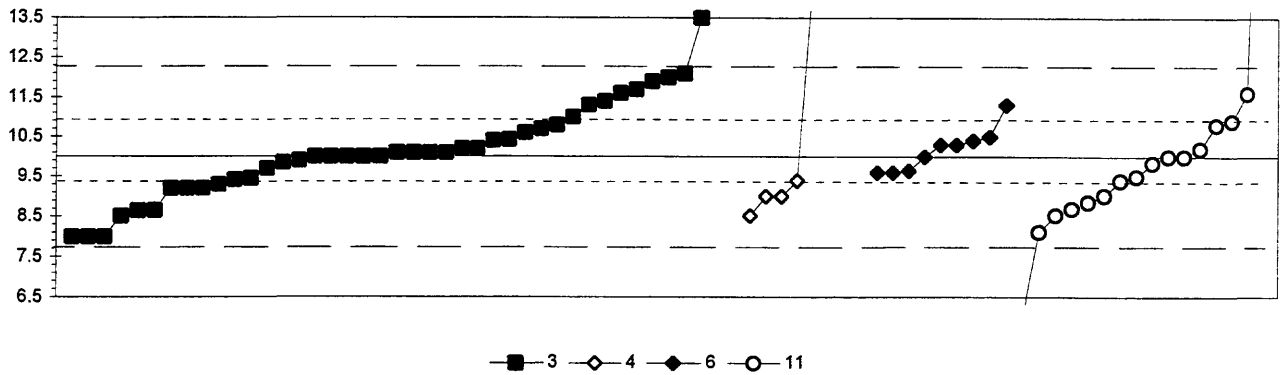
2. AA: direct nitrous oxide	5. DCP					
3. AA: graphite furnace	6. ICP/MS					
4. ICP	22. Colorimetric					
N =	0	21	17	1	11	1
Minimum =		4.9	5.9	18.0	7.6	130.0
Maximum =		184.0	415.0		17.0	
Median =		10.1	23.2		9.5	
F-pseudostigma =		3.0	20.5		1.6	

MPV = 10.5
 F-pseudostigma = 6.8
 N = 51
 Hu = 17.6
 Hi = 8.3

Lab	Rating	Z-value	2	3	4	5	6	22
1	4	0.13					11.4	
3	0	4.76			43.0			
7	1	1.86			23.2			
13	4	-0.22		9.0				
15	NR			< 50				
16	NR			< 300				
18	NR			< 50				
23	4	-0.03		10.3				
24	0	2.12		25.0				
25	NR			< 19				
28	0	6.60		55.6				
30	4	0.00					10.5	
32	4	-0.22					9.0	
33	2	1.10			18.0			
36	NR		< 100					
42	4	0.03					10.7	
48	4	0.23		12.1				
50	3	-0.51		7.0				
52	4	-0.42			7.6			
58	0	25.39		184.0				
59	NR			< 100				
68	0	59.18		415.0				
70	NR			< 100				
73	4	0.42			13.4			
75	NR			< 30				
81	3	-0.51		7.0				
83	3	0.66			15.0			
85	NR			< 100				
89	4	0.25		12.2				
97	3	-0.72		5.6				
100	NR			< 40				
102	4	-0.38			7.9			
103	NR			< 30				
105	4	-0.03					10.3	
107	4	-0.22		9.0				
111	4	-0.04		10.2				
119	4	0.00		10.5				
121	0	4.32			40.0			
127	4	-0.33		8.3				
128	4	-0.42					7.6	
132	0	4.46			41.0			
134	4	-0.07		10.1				
138	4	-0.15					9.5	
141	3	0.51			14.0			
142	4	-0.37					8.0	
145	3	0.97			17.1			
146	0	3.67			35.6			
151	4	-0.22		9.0				
154	4	-0.31			8.4			
180	NR			< 36.5				

Lab	Rating	Z-value	2	3	4	5	6	22
182	0	2.19			25.5			
190	4	-0.41		7.7				
191	3	0.95					17.0	
194	NR			< 500				
196	4	-0.15					9.5	
198	4	-0.33		8.2				
203	3	-0.82		4.9				
209	NR			< 27				
210	NR			< 0.2				
212	NR			< 200				
215	NR			< 40				
219	4	-0.37					8.0	
221	3	0.53		14.1				
224	3	-0.67			5.9			
228	0	17.48						130.0
234	3	0.80		16.0				
235	4	0.47		13.7				
236	0	4.90			44.0			

Table 12. Statistical summary of reported data for standard reference water sample T-135 (trace constituents)--Continued
As (Arsenic) µg/l



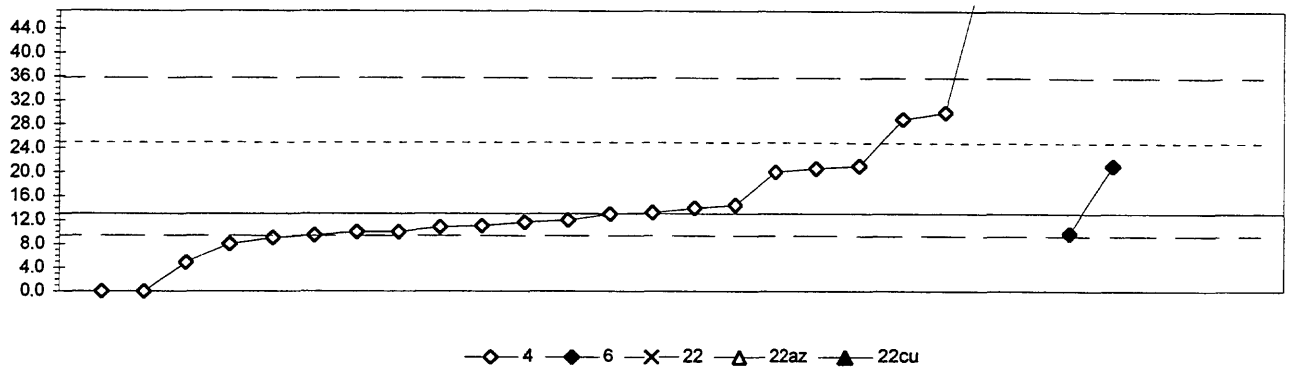
	3. AA: graphite furnace		11. AA: hydride	
4. ICP				
6. ICP/MS				
	N = 42	8	9	16
	Minimum = 8.0	8.5	9.6	6.0
	Maximum = 14.7	48.0	11.3	24.0
	Median = 10.1	12.1	10.3	9.7
	F-pseudosigma = 1.2	9.1	0.6	1.3

MPV = 10.0
 F-pseudosigma = 1.1
 N = 75
 Hu = 10.9
 HI = 9.4

Lab	Rating	Z-value	3	4	6	11
1	4	0.00	10.0			
3	4	0.00	10.0			
7	4	0.00	10.0			
13	3	-0.72	9.2			
15	2	-1.33	8.5			
16	NR		< 6.0			
18	2	1.44				11.6
24	0	3.15	13.5			
25	NR			< 5.0		
26	3	-0.87				9.0
28	3	-0.90		9.0		
30	2	1.17			11.3	
32	4	0.27			10.3	
34	3	0.72	10.8			
35	4	-0.14				9.8
36	2	-1.21	8.7			
39	3	-0.54				9.4
42	4	0.27			10.3	
45	4	-0.49	9.5			
46	4	-0.27	9.7			
48	3	0.63	10.7			
50	0	-3.60				6.0
52	3	-0.90		9.0		
55	1	1.71	11.9			
58	0	12.59				24.0
59	4	0.00			10.0	
60	1	1.89	12.1			
68	1	-1.80	8.0			
69	4	0.18	10.2			
70	3	-0.52	9.4			
75	2	-1.03				8.9
76	2	1.26	11.4			
80	3	0.90	11.0			
81	1	1.80	12.0			
85	4	-0.45				9.5
86	1	-1.69				8.1
87	4	0.18				10.2
89	3	0.72				10.8
96	4	0.09	10.1			
97	4	0.09	10.1			
100	2	-1.21	8.7			
102	0	10.79		22.0		
103	NR			< 10		
105	4	0.36			10.4	
108	1	-1.80	8.0			
109	4	0.39	10.4			
118	0	4.23	14.7			
119	4	0.00				10.0
126	3	0.81				10.9
127	4	0.36	10.4			

Lab	Rating	Z-value	3	4	6	11
128	4	-0.36			9.6	
133	4	0.09	10.1			
134	4	0.00				10.0
138	3	-0.72	9.2			
141	NR			< 5.0		
142	4	-0.32			9.6	
145	0	4.23		14.7		
146	2	-1.33		8.5		
151	2	-1.17				8.7
154	4	0.09	10.1			
180	NR			< 33.4		
182	2	-1.31				8.5
190	4	0.00	10.0			
193	1	-1.80	8.0			
194	4	0.00	10.0			
196	4	0.45			10.5	
198	2	1.44	11.6			
203	3	-0.63	9.3			
210	0	9.44		20.5		
212	4	-0.09	9.9			
213	1	1.53	11.7			
215	0	3.60	14.0			
219	4	-0.36			9.6	
221	4	-0.13	9.9			
224	3	-0.54		9.4		
231	3	0.54	10.6			
234	4	0.18	10.2			
235	2	1.17	11.3			
236	0	34.17		48.0		
241	3	-0.72	9.2			

Table 12. Statistical summary of reported data for standard reference water sample T-135 (trace constituents)--Continued
B (Boron) µg/l



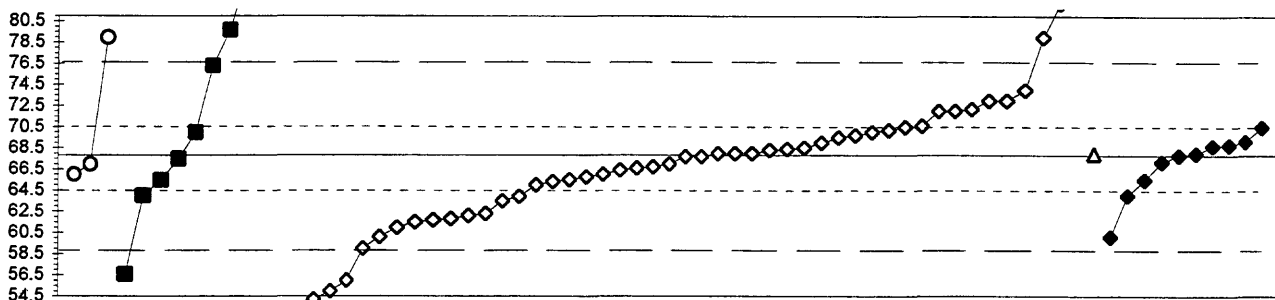
4. ICP	22az. Color: azomethine				
6. ICP/MS	22cu. Color: curcumin				
22. Colorimetric					
N =	23	2	1	1	1
Minimum =	0.0	9.8	68.0	105.0	50.6
Maximum =	70.0	21.0			
Median =	12.0	15.4			
F-pseudosigma =	7.8				

MPV = 13.1
 F-pseudosigma = 11.1
 N = 28
 Hu = 24.9
 HI = 9.9

Lab	Rating	Z-value	4	6	22	22az	22cu
1	4	0.01	13.3				
3	NR		< 10				
4	NR		< 10				
11	0	5.11	70.0				
15	NR		< 50				
16	NR		< 500				
18	4	0.08	14.0				
25	NR		< 23				
28	3	0.67	20.6				
32	3	0.71		21.0			
36	0	3.36					50.6
40	2	-1.18	0.0				
48	3	0.62	20.0				
52	NR		< 40				
58	0	4.93			68.0		
68	3	-0.74	4.9				
70	NR		< 50				
75	NR		< 20				
85	NR		< 20				
100	4	-0.33	9.5				
103	4	-0.46	8.0				
116	NR		< 30				
119	4	-0.28	10.0				
121	3	0.71	21.0				
127	NR		< 15				
128	NR		< 10				
129	0	8.25			105.0		
132	4	-0.37	9.0				
134	4	-0.14	11.6				
138	4	-0.30		9.8			
141	1	1.51	30.0				
142	4	-0.21	10.8				
145	NR		< 2.4				
154	4	0.12	14.5				
180	NR		< 10				
182	2	1.41	28.9				
194	NR		< 100				
210	4	-0.10	12.0				
212	4	-0.01	13.0				
215	0	3.94	57.0				
234	4	-0.19	11.0				
235	4	-0.28	10.0				
236	NR	-1.18	0.0				

Table 12. Statistical summary of reported data for standard reference water sample T-135 (trace constituents)--Continued

Ba (Barium) µg/l



○ 2 ■ 3 ◇ 4 △ 5 ◆ 6

2. AA: direct nitrous oxide	5. DCP
3. AA: graphite furnace	6. ICP/MS
4. ICP	
N =	3 10 47 1 10
Minimum =	66.0 56.6 24.5 68.0 60.1
Maximum =	79.0 230.0 140.0 70.5
Median =	67.0 73.2 67.7 67.9
F-pseudosigma =	14.6 5.3 2.4

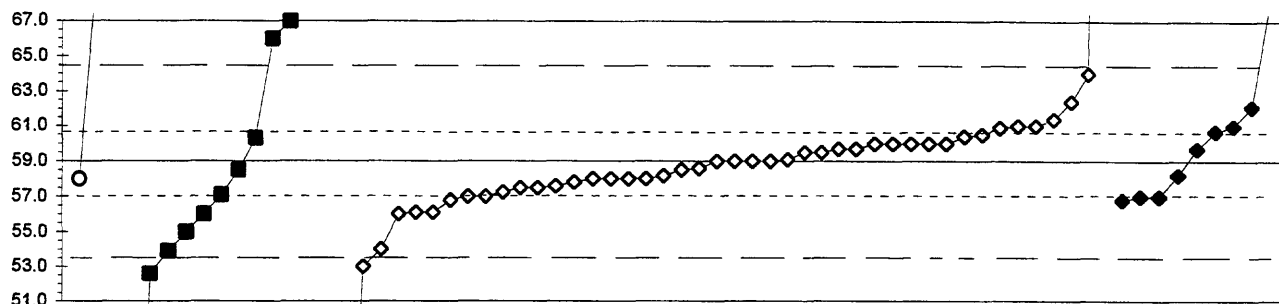
MPV = 67.8
 F-pseudosigma = 4.3
 N = 71
 Hu = 70.4
 HI = 64.5

Lab	Rating	Z-value	2	3	4	5	6
1	3	0.65			70.6		
3	3	-0.53			65.5		
4	0	16.65			140.0		
7	3	0.55			70.2		
11	2	1.43			74.0		
13	3	0.97			72.0		
15	4	0.39			69.5		
16	3	0.51			70.0		
18	4	0.28			69.0		
24	4	0.44			69.7		
25	2	-1.41			61.7		
28	4	-0.02			67.7		
30	4	0.23					68.8
32	4	0.21					68.7
33	4	0.05				68.0	
36	4	-0.42	66.0				
39	1	-1.78			60.1		
40	4	0.05			68.0		
42	3	-0.53					65.5
46	4	0.14			68.4		
48	0	4.01		85.2			
52	4	0.05			68.0		
55	0	-2.72			56.0		
59	4	0.05					68.0
68	2	-1.45			61.5		
69	0	7.08		98.5			
70	3	-0.58			65.3		
75	2	-1.27			62.3		
81	0	-2.95			55.0		
83	3	-0.90			63.9		
85	3	0.62			70.5		
86	4	0.16			68.5		
87	4	-0.18	67.0				
89	3	-0.53			65.5		
90	0	37.40			230.0		
96	0	2.58	79.0				
97	0	-2.58		56.6			
100	2	-1.38			61.8		
102	1	-2.03			59.0		
103	1	-1.57			61.0		
105	4	-0.14					67.2
116	3	0.97			72.0		
119	2	1.20			73.0		
121	4	0.05			68.0		
127	4	-0.32			66.4		
128	1	-1.78					60.1
133	4	0.12			68.3		
134	4	-0.47			65.8		
138	3	0.62					70.5
141	2	1.20			73.0		

Lab	Rating	Z-value	2	3	4	5	6
142	4	0.31					69.2
145	4	-0.25			66.7		
146	4	-0.28			66.6		
149	3	0.51		70.0			
154	2	-1.31			62.1		
180	2	1.01			72.2		
182	0	-3.14			54.2		
191	3	-0.88					64.0
193	3	-0.88		64.0			
194	NR				< 100		
196	4	0.00					67.8
198	0	3.32			82.2		
203	1	1.96		76.3			
210	3	-0.99			63.5		
212	0	2.58			79.0		
215	4	-0.42			66.0		
221	4	-0.07		67.5			
224	0	-9.98			24.5		
231	0	2.74		79.7			
234	4	-0.02			67.7		
235	4	-0.18			67.0		
236	3	-0.65			65.0		

Table 12. Statistical summary of reported data for standard reference water sample T-135 (trace constituents)--Continued

Be (Beryllium) µg/l



○ 2 ■ 3 ◇ 4 ◆ 6

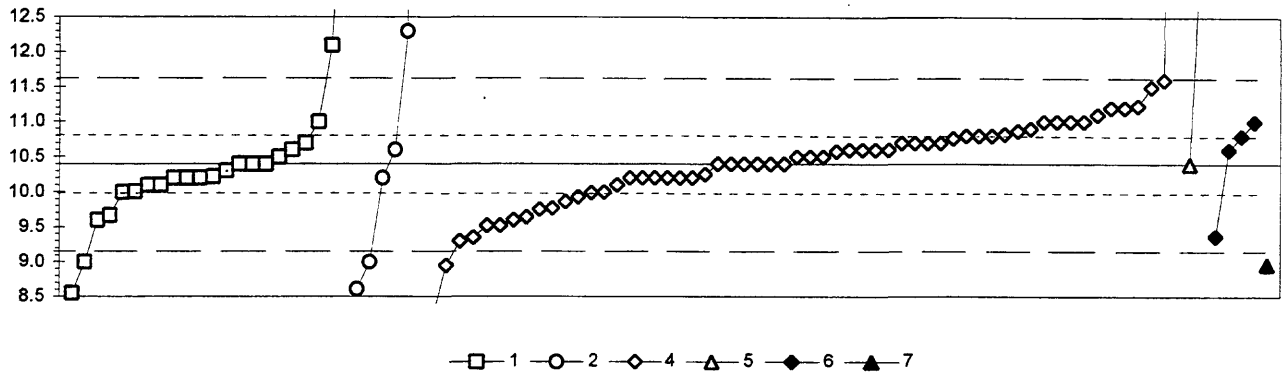
	2. AA: direct nitrous oxide	6. ICP/MS			
	3. AA: graphite furnace				
	4. ICP				
	N =	3	12	44	9
	Minimum =	58.0	22.0	31.0	56.8
	Maximum =	78.8	675.0	119.0	68.0
	Median =	70.4	57.8	59.0	59.7
	F-pseudostigma =		8.9	1.9	3.0

MPV = 59.0
 F-pseudostigma = 2.6
 N = 68
 Hu = 60.6
 HI = 57.1

Lab	Rating	Z-value	2	3	4	6
1	3	-0.67			57.2	
3	3	-0.76			57.0	
4	0	22.80			119.0	
7	3	-0.57			57.5	
11	4	0.38			60.0	
13	4	0.38			60.0	
15	4	0.27			59.7	
16	4	-0.38			58.0	
18	4	0.00			59.0	
24	0	2.66	66.0			
25	4	0.19			59.5	
28	0	4.33	70.4			
30	2	1.18				62.1
32	0	3.42				68.0
36	0	7.52	78.8			
39	4	-0.46			57.8	
40	4	0.38			60.0	
42	4	0.27				59.7
46	3	0.91			61.4	
48	4	0.38			60.0	
50	1	-1.52		55.0		
52	4	-0.38			58.0	
55	3	0.53			60.4	
58	2	-1.14		56.0		
59	3	0.76				61.0
60	3	-0.72		57.1		
68	0	-2.28			53.0	
69	4	0.49		60.3		
70	4	-0.38			58.0	
75	3	-0.84			56.8	
76	3	0.65				60.7
81	1	-1.90			54.0	
83	2	-1.10			56.1	
85	4	0.00			59.0	
86	4	-0.15			58.6	
89	0	4.10		69.8		
97	0	-2.43		52.6		
100	3	0.57			60.5	
102	4	0.00			59.0	
103	3	-0.76			57.0	
105	3	-0.76				57.0
114	4	-0.38	58.0			
119	1	-1.94		53.9		
127	3	-0.57			57.5	
128	4	-0.30				58.2
133	1	1.90			64.0	
134	3	-0.54			57.6	
138	4	0.00			59.0	
141	3	0.76			61.0	
142	4	-0.32			58.2	

Lab	Rating	Z-value	2	3	4	6
145	4	0.04			59.1	
146	4	-0.19			58.5	
154	4	0.38			60.0	
180	3	0.72			60.9	
182	0	-10.63			31.0	
194	0	234.08		675.0		
196	3	-0.84				56.8
198	2	1.29			62.4	
210	4	0.19			59.5	
212	3	0.76			61.0	
213	0	3.04		67.0		
215	2	-1.14			56.0	
219	3	-0.76				57.0
224	2	-1.10			56.1	
234	4	0.27			59.7	
235	4	-0.19		58.5		
236	4	-0.38			58.0	
241	0	-14.06		22.0		

Table 12. Statistical summary of reported data for standard reference water sample T-135 (trace constituents)--Continued
Ca (Calcium) mg/l



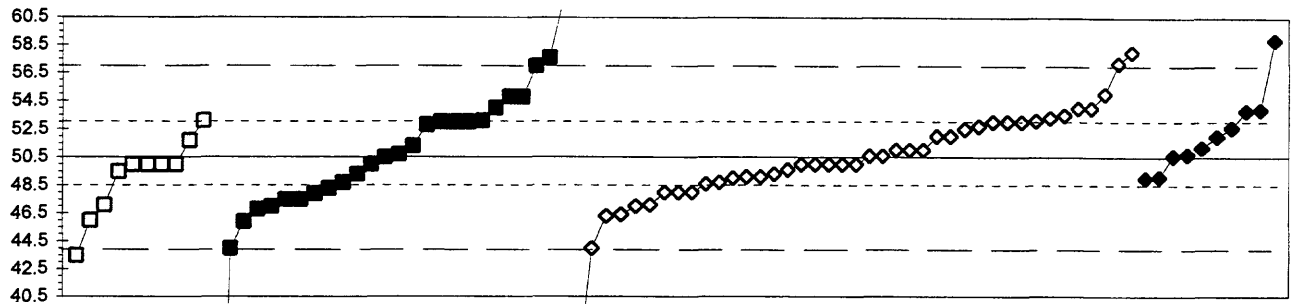
1. AA: direct air	5. DCP						
2. AA: direct nitrous oxide	6. ICP/MS						
4. ICP	7. Ion chromatography						
N = 22	6	58	2	4	1		
Minimum = 8.6	8.6	8.2	10.4	9.4	9.0		
Maximum = 15.0	30.0	22.3	13.9	11.0			
Median = 10.2	10.4	10.5	12.2	10.7			
F-pseudostigma = 0.4	0.5						

MPV = 10.4
 F-pseudostigma = 0.6
 N = 93
 Hu = 10.8
 Hi = 10.0

Lab	Rating	Z-value	1	2	4	5	6	7
1	3	0.72			10.8			
3	4	-0.34			10.2			
4	0	20.32			22.3			
7	4	0.00			10.4			
11	1	-1.79			9.4			
13	1	1.88			11.5			
15	3	0.68			10.8			
16	4	-0.34			10.2			
18	4	0.34			10.6			
19	3	0.68			10.8			
23	0	-3.16	8.6					
24	4	-0.34			10.2			
25	2	-1.30			9.6			
26	4	0.34			10.6			
27	0	5.98				13.9		
28	4	0.17			10.5			
30	4	0.34		10.6				
32	3	0.68					10.8	
33	4	0.00				10.4		
36	0	-3.06		8.6				
39	2	-1.37			9.6			
40	4	-0.34			10.2			
42	4	0.34			10.6			
43	3	-0.68			10.0			
46	3	0.51			10.7			
48	2	1.02			11.0			
52	2	1.02			11.0			
54	2	1.02	11.0					
55	3	0.51			10.7			
58	2	-1.37	9.6					
59	4	0.00			10.4			
64	4	0.17	10.5					
68	0	-2.48			9.0			
69	4	0.00	10.4					
70	2	1.20			11.1			
75	3	-0.51	10.1					
81	2	-1.50			9.5			
83	4	-0.34			10.2			
84	3	-0.68	10.0					
85	4	-0.34	10.2					
86	3	0.51			10.7			
87	0	33.47		30.0				
89	3	-0.51	10.1					
92	0	-2.39	9.0					
97	4	-0.34	10.2					
100	2	1.02			11.0			
101	3	0.51	10.7					
102	0	-3.76			8.2			
103	1	-1.88			9.3			
105	4	0.34				10.6		

Lab	Rating	Z-value	1	2	4	5	6	7
107	2	-1.25	9.7					
109	3	-0.67	10.0					
111	0	3.24		12.3				
114	0	-2.39		9.0				
116	3	-0.51			10.1			
119	2	1.02			11.0			
121	4	-0.34			10.2			
127	4	0.00			10.4			
128	4	0.00			10.4			
129	0	7.85	15.0					
132	2	1.41			11.2			
133	3	-0.80			9.9			
134	3	0.68			10.8			
138	3	0.85			10.9			
140	4	0.00	10.4					
141	4	0.34			10.6			
142	3	0.61			10.8			
145	4	0.31			10.6			
146	2	-1.11			9.8			
151	4	0.00	10.4					
154	4	0.17			10.5			
180	2	1.37			11.2			
182	4	-0.26			10.3			
190	0	-2.44						9.0
191	1	-1.76					9.4	
193	4	-0.34		10.2				
194	2	-1.50			9.5			
196	0	2.90	12.1					
198	2	1.37			11.2			
203	4	-0.31	10.2					
204	3	-0.92			9.9			
209	3	0.51			10.7			
210	2	-1.08			9.8			
212	0	2.05			11.6			
215	4	0.00			10.4			
219	2	1.02					11.0	
221	4	-0.17	10.3					
224	3	0.80			10.9			
231	4	0.34	10.6					
234	4	0.17			10.5			
235	4	0.00			10.4			
236	3	-0.70			10.0			
241	4	-0.34	10.2					

Table 12. Statistical summary of reported data for standard reference water sample T-135 (trace constituents)--Continued
Cd (Cadmium) µg/l



□ 1 ■ 3 ◇ 4 ◆ 6

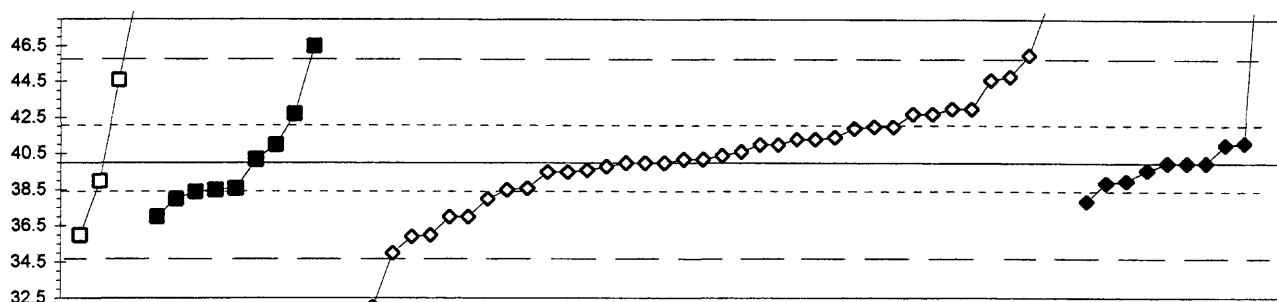
1. AA: direct air	6. ICP/MS			
3. AA: graphite furnace				
4. ICP				
N =	10	26	41	10
Minimum =	43.5	11.4	33.6	49.0
Maximum =	53.1	62.0	58.0	58.9
Median =	50.0	50.6	50.0	51.6
F-pseudostigma =	2.1	4.2	3.2	2.4

MPV = 50.5
 F-pseudostigma = 3.2
 N = 87
 Hu = 53.0
 Hi = 48.7

Lab	Rating	Z-value	1	3	4	6
1	4	-0.43				49.1
3	3	-0.59			48.6	
7	1	2.02	57.0			
11	4	-0.16			50.0	
13	3	0.78			53.0	
15	4	0.25	51.3			
16	3	0.78			53.0	
18	3	0.78			53.0	
19	2	1.40			55.0	
24	3	-0.78			48.0	
25	4	0.16			51.0	
26	4	0.16			51.0	
28	4	-0.43			49.1	
30	2	1.02				53.8
32	2	1.05				53.9
36	2	-1.05	47.1			
39	2	-1.05			47.1	
40	4	0.47			52.0	
42	4	0.03				50.6
45	0	-12.13		11.4		
46	2	-1.43		45.9		
48	2	1.09			54.0	
50	3	0.78		53.0		
52	4	-0.16			50.0	
55	2	-1.27			46.4	
58	3	0.78		53.0		
59	4	0.47				52.0
60	2	1.33		54.8		
68	0	-2.02			44.0	
69	3	-0.68		48.3		
70	4	-0.16			50.0	
73	3	0.93			53.5	
75	4	0.03			50.6	
76	3	0.71		52.8		
80	2	-1.40	46.0			
81	4	-0.16			50.0	
83	4	-0.43			49.1	
85	3	0.81	53.1			
86	4	-0.37			49.3	
87	4	-0.16	50.0			
89	3	-0.81		47.9		
92	4	-0.16	50.0			
96	2	-1.15		46.8		
97	3	0.81		53.1		
100	4	0.37	51.7			
102	3	-0.78			48.0	
103	4	-0.47			49.0	
105	4	-0.47				49.0
114	4	-0.16	50.0			
118	2	1.09		54.0		

Lab	Rating	Z-value	1	3	4	6
119	4	-0.37		49.3		
121	3	-0.78			48.0	
126	0	3.57		62.0		
127	3	0.81			53.1	
128	4	0.22				51.2
132	2	-1.09			47.0	
133	3	0.87			53.3	
134	4	0.06		50.7		
138	4	0.03			50.6	
140	4	-0.16	50.0			
141	2	1.09			54.0	
142	3	0.65				52.6
145	3	0.68			52.7	
146	3	-0.56			48.7	
149	1	-2.02		44.0		
151	4	-0.16		50.0		
154	4	-0.16			50.0	
180	0	2.08			57.2	
182	0	-5.23			33.6	
190	0	2.20		57.6		
191	0	2.60				58.9
193	3	-0.93		47.5		
194	3	-0.93		47.5		
196	4	0.06				50.7
198	3	-0.56			48.7	
203	0	-2.17	43.5			
210	3	0.62			52.5	
212	0	2.33			58.0	
213	4	-0.31	49.5			
215	4	0.47			52.0	
221	4	0.00		50.5		
224	2	-1.30			46.3	
231	2	1.33		54.8		
234	4	-0.28			49.6	
235	2	-1.09		47.0		
236	4	0.16			51.0	
241	3	0.78		53.0		

Table 12. Statistical summary of reported data for standard reference water sample T-135 (trace constituents)--Continued
Co (Cobalt) **µg/l**



□ 1 ■ 3 ◇ 4 ◆ 6

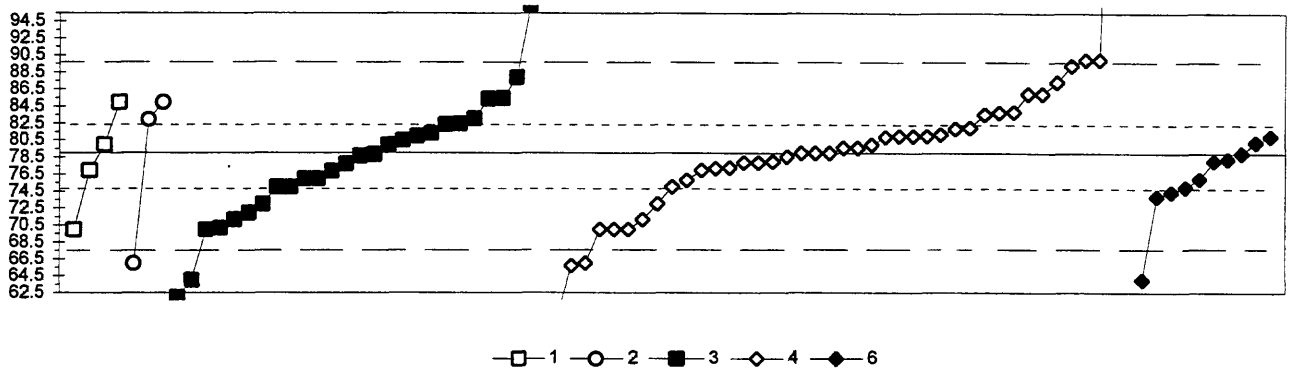
1. AA: direct air	6. ICP/MS			
3. AA: graphite furnace				
4. ICP	N = 4	9	39	10
Minimum =	36.0	37.0	20.5	37.9
Maximum =	50.0	46.5	62.0	56.0
Median =	41.8	38.6	40.2	40.0
F-pseudostigma =	1.9	2.6	2.6	1.5

MPV = 40.0
 F-pseudostigma = 2.6
 N = 62
 Hu = 42.0
 Hl = 38.5

Lab	Rating	Z-value	1	3	4	6
1	4	-0.15				39.6
3	4	0.39			41.0	
4	0	8.48			62.0	
7	4	-0.08			39.8	
11	4	0.00			40.0	
13	3	0.77			42.0	
15	2	1.04			42.7	
16	3	-0.58			38.5	
18	3	0.77			42.0	
24	4	0.08			40.2	
25	0	-3.08			32.0	
30	4	0.39				41.0
32	4	-0.39				39.0
36	1	1.77	44.6			
39	4	-0.19			39.5	
40	2	1.16			43.0	
42	4	0.00				40.0
46	2	1.16			43.0	
48	NR				< 50	
50	2	-1.16		37.0		
52	4	0.39			41.0	
55	3	-0.58		38.5		
59	4	0.00				40.0
68	0	-7.52			20.5	
70	4	0.15			40.4	
75	4	0.23			40.6	
81	2	-1.16			37.0	
85	1	1.85			44.8	
86	4	0.50			41.3	
89	0	2.51		46.5		
92	1	-1.54	36.0			
97	3	-0.62		38.4		
100	0	3.85	50.0			
102	3	-0.77			38.0	
103	2	-1.16			37.0	
105	4	-0.42				38.9
121	1	-1.93			35.0	
127	3	0.73			41.9	
128	4	0.50			41.3	
132	4	0.00			40.0	
134	4	0.08		40.2		
138	4	0.08			40.2	
141	4	0.00			40.0	
142	3	-0.82				37.9
145	2	1.04			42.7	
146	3	-0.54			38.6	
154	4	-0.15			39.6	
180	1	1.77			44.6	
182	0	-6.41			23.4	
191	4	0.00				40.0

Lab	Rating	Z-value	1	3	4	6
193	4	-0.39	39.0			
194	4	0.39		41.0		
196	4	0.42				41.1
210	4	-0.19			39.5	
212	0	2.31			46.0	
213	3	-0.54		38.6		
215	1	-1.54			36.0	
219	0	6.17				56.0
221	2	1.04		42.7		
224	1	-1.58			35.9	
234	3	0.54			41.4	
235	3	-0.77		38.0		
236	0	3.47			49.0	

Table 12. Statistical summary of reported data for standard reference water sample T-135 (trace constituents)--Continued
Cr (Chromium) µg/l



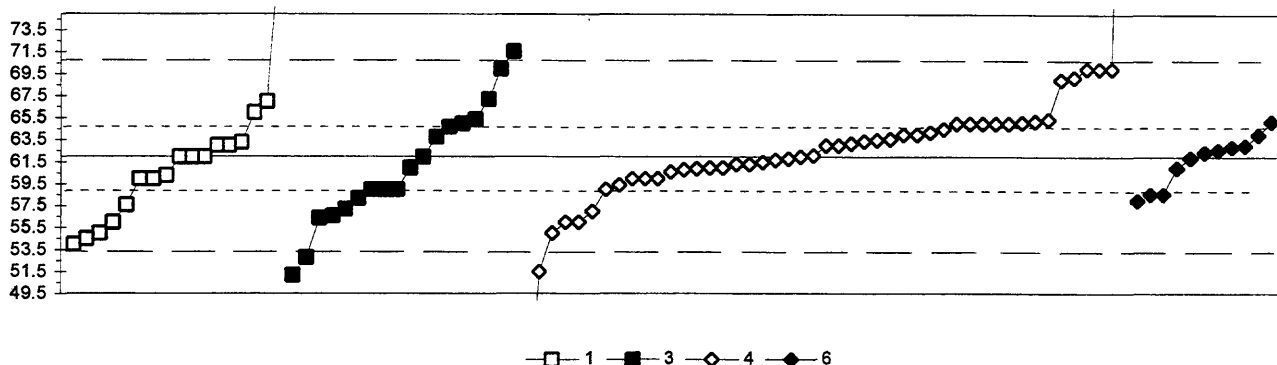
1. AA: direct air	4	3	27	41	10
2. AA: direct nitrous oxide					
3. AA: graphite furnace					
N =	4	3	27	41	10
Minimum =	70.0	66.0	62.0	60.0	64.0
Maximum =	85.0	85.0	170.0	197.8	81.0
Median =	78.5	83.0	78.7	79.6	77.1
F-pseudostigma =			6.3	4.9	3.4

MPV = 79.0
F-pseudostigma = 5.5
N = 85
Hu = 82.4
HI = 75.0

Lab	Rating	Z-value	1	2	3	4	6
1	4	0.35				80.9	
3	4	0.36				81.0	
4	0	10.94				139.0	
7	3	0.84				83.6	
11	1	2.01				90.0	
13	2	1.28				86.0	
15	3	0.55				82.0	
16	1	-1.64				70.0	
18	4	0.00				79.0	
19	2	1.28				86.0	
24	3	-0.58				75.8	
25	0	-2.37				66.0	
26	4	0.40				81.2	
28	0	21.66				197.8	
30	4	0.24					80.3
32	3	-0.73					75.0
36	0	-2.37	66.0				
39	2	-1.09		73.0			
40	4	0.36				81.0	
42	4	0.00					79.0
45	1	-1.64			70.0		
46	3	0.75			83.1		
48	1	1.62			87.9		
50	4	0.18			80.0		
52	4	0.00				79.0	
55	4	0.36			81.0		
58	2	-1.28			72.0		
59	4	0.36					81.0
60	2	1.17			85.4		
68	1	-1.64				70.0	
69	4	0.27			80.5		
70	4	0.11				79.6	
73	3	0.89				83.9	
75	4	-0.31				77.3	
81	0	-3.46				60.0	
83	4	-0.20				77.9	
85	3	0.88				83.8	
86	0	-2.42				65.7	
87	3	0.73		83.0			
89	2	-1.42			71.2		
92	1	-1.64	70.0				
96	4	-0.02			78.9		
97	1	-1.60			70.2		
100	4	-0.36	77.0				
102	2	-1.09				73.0	
103	3	-0.73				75.0	
105	3	-0.84					74.4
108	0	-3.10			62.0		
114	2	1.09		85.0			
118	0	3.19			96.5		

Lab	Rating	Z-value	1	2	3	4	6
119	2	1.18			85.5		
126	0	-2.73			64.0		
127	3	0.53				81.9	
128	3	-0.55					76.0
132	4	0.36					81.0
133	1	2.01					90.0
134	4	-0.23			77.8		
138	4	-0.07				78.6	
140	2	1.09	85.0				
141	4	0.00				79.0	
142	3	-0.93					73.9
145	4	0.18				80.0	
146	4	-0.20				77.9	
149	3	-0.55			76.0		
154	2	-1.42				71.2	
180	1	1.53				87.4	
182	1	1.88				89.3	
190	3	0.64			82.5		
191	4	-0.16					78.1
193	3	-0.55			76.0		
194	0	16.59			170.0		
196	4	-0.13					78.3
198	4	0.11				79.6	
203	4	0.18	80.0				
210	1	-1.64				70.0	
212	3	-0.73			75.0		
213	4	-0.38			76.9		
215	4	-0.36				77.0	
219	0	-2.73					64.0
221	3	0.62			82.4		
231	4	0.42			81.3		
234	4	-0.33				77.2	
235	3	-0.73			75.0		
236	4	-0.18				78.0	
241	4	-0.05			78.7		

Table 12. Statistical summary of reported data for standard reference water sample T-135 (trace constituents)--Continued
Cu (Copper) **µg/l**



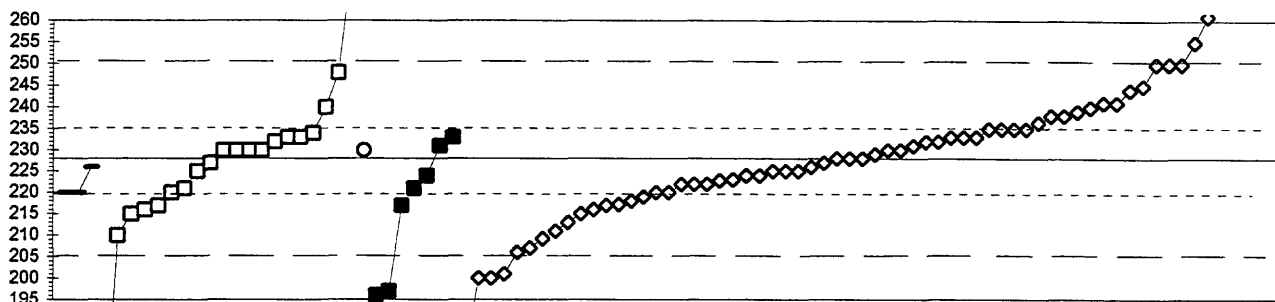
	1. AA: direct air	3. AA: graphite furnace	4. ICP	6. ICP/MS
N =	17	18	47	11
Minimum =	54.0	51.2	33.4	58.0
Maximum =	82.0	71.6	124.0	65.2
Median =	62.0	60.0	63.0	62.4
F-pseudostigma =	4.0	5.8	3.2	2.3

MPV = 62.0
 F-pseudostigma = 4.2
 N = 93
 Hu = 64.7
 Hl = 59.0

Lab	Rating	Z-value	1	3	4	6
1	4	-0.02				61.9
3	3	0.71			65.0	
4	0	14.67			124.0	
7	4	-0.28			60.8	
11	4	-0.47			60.0	
13	1	1.89			70.0	
15	3	0.59			64.5	
16	4	-0.12			61.5	
18	4	0.24			63.0	
19	1	1.66			69.0	
23	2	-1.33		56.4		
24	3	0.71			65.0	
25	2	-1.42			56.0	
26	4	0.36			63.5	
28	3	-0.62			59.4	
30	4	0.21				62.9
32	4	0.24				63.0
36	4	-0.47	60.0			
39	4	-0.33			60.6	
40	3	0.71			65.0	
42	4	0.09				62.4
45	4	-0.40	60.3			
46	3	0.80		65.4		
48	1	1.89			70.0	
50	4	-0.24		61.0		
52	4	-0.24			61.0	
55	4	-0.17			61.3	
58	3	0.71		65.0		
59	4	0.47				64.0
60	4	0.24	63.0			
68	0	-2.49			51.5	
69	3	-0.71		59.0		
70	4	-0.26			60.9	
73	4	0.00			62.0	
75	4	-0.24			61.0	
76	4	0.00	62.0			
80	4	0.00	62.0			
81	4	-0.47			60.0	
83	4	0.02			62.1	
84	0	2.27		71.6		
85	3	0.95	66.0			
86	4	-0.17			61.3	
87	4	-0.47	60.0			
89	2	-1.04			57.6	
92	1	-1.66			55.0	
96	3	-0.90		58.2		
97	2	-1.14		57.2		
100	4	0.31	63.3			
102	3	-0.71			59.0	
103	1	-1.66			55.0	

Lab	Rating	Z-value	1	3	4	6
105	3	-0.80				58.6
107	3	-0.71		59.0		
108	0	4.73	82.0			
114	2	-1.42	56.0			
118	0	-2.56		51.2		
119	3	0.71			65.0	
121	2	-1.42			56.0	
127	4	0.33			63.4	
128	3	-0.95				58.0
132	4	0.47			64.0	
133	3	0.52			64.2	
134	4	-0.05			61.8	
138	4	0.38			63.6	
140	4	0.00	62.0			
141	3	0.71			65.0	
142	3	-0.80				58.6
145	3	0.76			65.2	
146	4	-0.07			61.7	
151	4	0.24	63.0			
154	3	0.80			65.4	
180	1	1.70			69.2	
182	0	-6.76			33.4	
183	2	1.18	67.0			
190	2	1.23		67.2		
191	4	0.14				62.6
193	1	-1.89	54.0			
194	1	1.89		70.0		
196	3	0.76				65.2
198	4	0.28			63.2	
203	1	-1.78	54.5			
204	2	-1.28		56.6		
210	4	-0.47			60.0	
212	1	1.89			70.0	
213	3	0.64		64.7		
215	4	0.47			64.0	
219	4	-0.24				61.0
221	4	0.00		62.0		
224	2	-1.18			57.0	
231	0	-2.18		52.8		
234	3	0.73			65.1	
235	3	-0.71		59.0		
236	4	0.24			63.0	
241	4	0.43		63.8		

Table 12. Statistical summary of reported data for standard reference water sample T-135 (trace constituents)--Continued
Fe (Iron) **µg/l**



— 0 — □ — 1 — ○ — 2 — ■ — 3 — ◇ — 4 — ◆ — 6

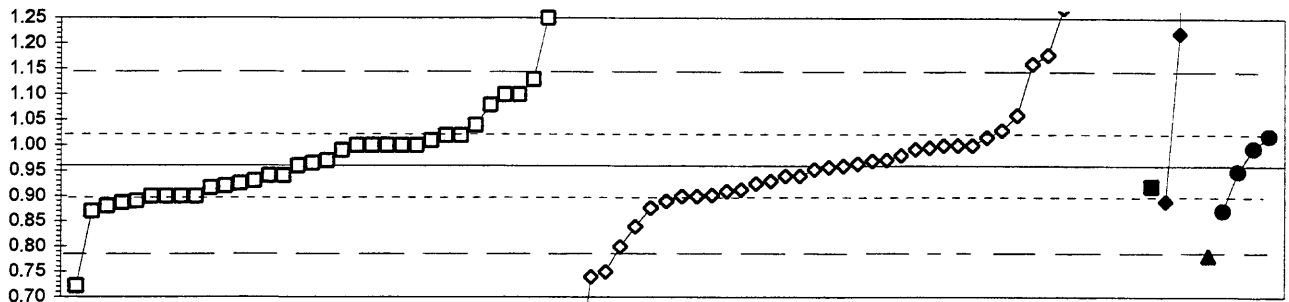
0. Other	3. AA: graphite furnace					
1. AA: direct air	4. ICP					
2. AA: direct nitrous oxide	6. ICP/MS					
N =	3	20	1	7	61	3
Minimum =	220	160	230	196	182	265
Maximum =	226	274		233	465	300
Median =	220	230		221	228	270
F-pseudostigma =		11		15	12	

MPV = 228
 F-pseudostigma = 11
 N = 95
 Hu = 235
 Hi = 220

Lab	Rating	Z-value	0	1	2	3	4	6	Lab	Rating	Z-value	0	1	2	3	4	6
1	3	0.63					235		100	3	0.63						235
3	1	1.98					250		102	4	0.18						230
4	0	21.31					465		103	2	-1.17						215
7	3	-0.72					220		105	4	0.45						233
10	4	0.18		230					107	4	0.18		230				
11	1	1.98					250		109	4	-0.09		227				
13	3	0.90					238		114	4	-0.27		225				
15	3	-0.54					222		116	1	1.53						245
16	1	-1.53					211		118	0	4.14		274				
18	4	0.00					228		119	4	0.45						233
19	2	1.17					241		121	4	-0.27						225
21	3	-0.72	220						127	3	0.63						235
24	3	-0.90					218		128	1	-1.98						206
25	0	-2.43					201		132	0	2.43						255
26	4	0.00					228		133	0	2.97						261
28	1	-1.69					209		134	4	-0.47						223
32	0	3.78						270	138	3	0.99						239
33	3	-0.72	220						140	1	-1.62		210				
35	4	-0.18	226						141	2	1.17						241
36	2	-1.08		216					142	3	0.90						238
39	2	-1.35					213		145	4	-0.27						225
40	4	0.27					231		146	4	-0.36						224
42	3	0.63					235		151	4	0.18		230				
43	4	0.18					230		154	1	-1.89						207
46	4	0.09					229		180	2	1.44						244
48	0	-2.52					200		182	0	6.86						304
50	0	-2.88				196			190	3	0.54		234				
52	3	-0.72					220		191	0	3.33						265
54	4	0.18		230					193	1	1.80		248				
55	4	-0.45					223		194	2	1.08						240
58	0	-6.12		160					198	4	0.45						233
59	4	-0.18					226		203	3	-0.99		217				
68	0	-2.52					200		204	4	0.00						228
69	4	0.36		232					210	2	-1.08						216
70	4	-0.27					225		212	1	1.98						250
73	3	0.76					237		213	4	-0.36				224		
75	3	-0.81					219		215	3	-0.99						217
76	4	0.45		233					219	0	6.48						300
80	2	1.08		240					221	3	-0.63				221		
81	0	-4.14					182		224	3	-0.97						217
83	3	-0.54					222		231	0	-2.79				197		
85	4	0.36					232		234	3	-0.54						222
86	4	0.36					232		235	4	0.45				233		
87	4	0.18				230			236	4	-0.36						224
89	4	0.27					231		241	3	-0.63		221				
90	4	0.45		233													
91	4	-0.09						227									
92	2	-1.17		215													
96	3	-0.72		220													
97	3	-0.99					217										

Table 12. Statistical summary of reported data for standard reference water sample T-135 (trace constituents)--Continued

K (Potassium) mg/l



□ 1 ◇ 4 ■ 5 ◆ 6 ▲ 7 ● 12

1. AA: direct air	6. ICP/MS					
4. ICP	7. Ion chromatography					
5. DCP	12. Flame emission					
N =	34	39	1	3	1	4
Minimum =	0.72	0.50	0.92	0.89	0.78	0.87
Maximum =	2.00	2.34		700		1.02
Median =	0.97	0.96		1.22		0.97
F-pseudosigma =	0.09	0.09				

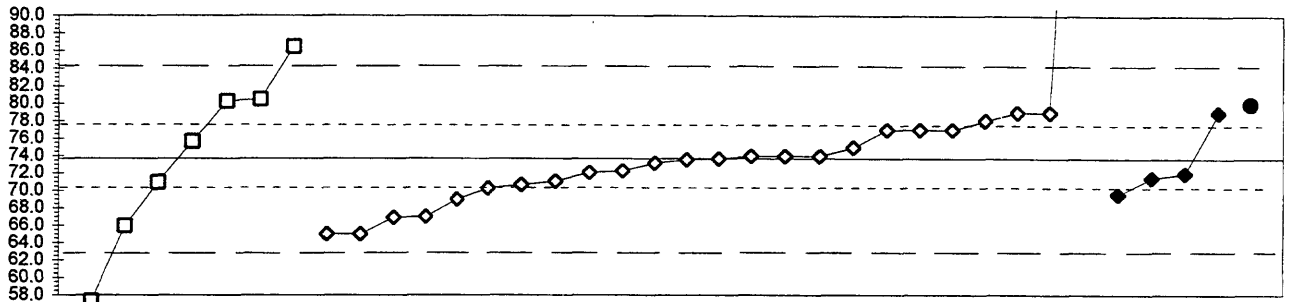
MPV = 0.96
 F-pseudosigma = 0.09
 N = 82
 Hu = 1.02
 HI = 0.90

Lab	Rating	Z-value	1	4	5	6	7	12
1	3	-0.73	0.90					
3	3	0.62	1.02					
7	0	3.43		1.27				
11	4	-0.28		0.94				
13	1	-1.85		0.80				
15	3	-0.58		0.91				
16	1	1.52	1.10					
18	3	-0.73		0.90				
19	2	-1.40		0.84				
24	4	-0.28		0.94				
25	NR		< 1.21					
26	0	2.20		1.16				
28	0	12.76		2.10				
32	0	2.87				1.22		
33	4	-0.50			0.92			
36	0	-2.73	0.72					
40	4	0.06		0.97				
42	3	-0.84		0.89				
43	3	-0.73		0.90				
46	4	-0.05		0.96				
48	3	0.74		1.03				
52	4	-0.44		0.93				
54	3	-0.73	0.90					
55	4	-0.28	0.94					
58	4	0.06	0.97					
59	4	0.40		1.00				
64	3	-0.73	0.90					
68	0		< 0.15					
69	4	0.34					1.00	
70	4	0.35		1.00				
75	4	-0.39	0.93					
81	3	-0.98		0.88				
83	3	-0.84	0.89					
85	3	0.62	1.02					
86	4	0.08		0.97				
87	1	1.86	1.13					
89	4	0.40	1.00					
92	0	11.64	2.00					
97	3	-0.73	0.90					
100	0	-2.41		0.75				
101	1	1.52	1.10					
102	0	-5.22		0.50				
103	4	0.40		1.00				
105	4	0.32		0.99				
107	4	-0.05	0.96					
109	4	0.29	0.99					
111	2	1.30	1.08					
114	4	0.40	1.00					
116	NR		< 3					
119	4	0.40	1.00					

Lab	Rating	Z-value	1	4	5	6	7	12
121	4	0.40	1.00					
127	4	0.01	0.97					
128	0			< 0.5				
129	3	0.85	1.04					
132	0	2.40		1.18				
134	3	-0.87	0.89					
138	3	-0.70		0.90				
140	3	-0.95	0.88					
141	4	-0.39		0.93				
142	0	4.67		1.38				
145	3	-0.61		0.91				
146	4	-0.01		0.96				
151	2	-1.06	0.87					
154	0	6.24		1.52				
180	0	4.78		1.39				
182	3	0.58		1.02				
190	1	-2.04					0.78	
191	3	-0.84				0.89		
193	4	-0.44	0.93					
194	3	0.51	1.01					
196	4	-0.28	0.94					
198	3	0.62						1.02
203	4	-0.16						0.95
204	2	-1.04						0.87
209	0	3.21	1.25					
210	0	15.46		2.34				
212	4	0.40		1.00				
215	2	1.07		1.06				
219	0	7858				700		
221	3	-0.55	0.92					
224	4	-0.08		0.96				
231	4	-0.50	0.92					
234	4	-0.13		0.95				
235	0	-2.52		0.74				
236	4	0.19		0.98				
241	4	0.40	1.00					

Table 12. Statistical summary of reported data for standard reference water sample T-135 (trace constituents)--Continued

Li (Lithium) $\mu\text{g/l}$



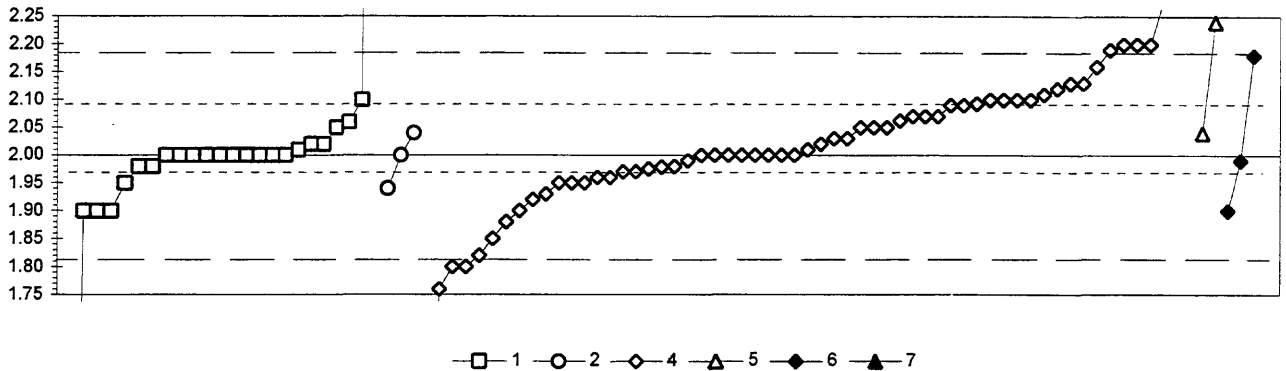
□ 1 ◇ 4 ● 6 ● 12

	1. AA: direct air	4. ICP	6. ICP/MS	12. Flame emission
N =	7	24	4	1
Minimum =	57.3	65.0	69.6	80.0
Maximum =	86.5	142.0	79.0	
Median =	75.7	73.7	71.8	
F-pseudostigma =	8.8	4.8		

MPV = 73.7
 F-pseudostigma = 5.2
 N = 36
 Hu = 77.6
 Hl = 70.5

Lab	Rating	Z-value	1	4	6	12
1	4	-0.01		73.6		
3	3	0.64		77.0		
4	0	13.08		142.0		
7	4	-0.26		72.3		
15	3	0.85		78.1		
16	3	0.64		77.0		
24	4	0.07		74.0		
25	2	-1.27		67.0		
26	4	0.07		74.0		
28	0	2.46	86.5			
30	3	-0.77			69.6	
32	2	1.02			79.0	
39	3	-0.56		70.7		
40	4	0.26		75.0		
42	4	-0.09		73.2		
55	2	-1.46	66.0			
64	2	1.22				80.0
68	1	-1.66		65.0		
69	2	1.31	80.5			
75	3	-0.64		70.3		
85	4	0.39	75.7			
100	2	1.27	80.3			
103	3	-0.89		69.0		
105	2	1.02		79.0		
109	0	-3.12	57.3			
116	NR			< 80		
127	2	-1.29		66.9		
134	2	1.02		79.0		
142	4	0.01		73.7		
145	4	-0.49		71.1		
151	3	-0.51	71.0			
182	1	-1.66		65.0		
196	4	-0.41			71.5	
212	3	0.64		77.0		
219	4	-0.32			72.0	
234	4	-0.30		72.1		
236	4	0.07		74.0		

Table 12. Statistical summary of reported data for standard reference water sample T-135 (trace constituents)--Continued
Mg (Magnesium) mg/l



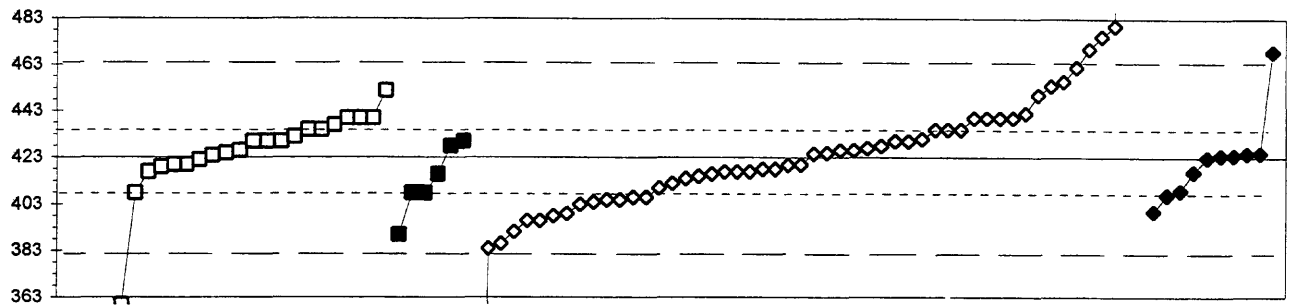
1. AA: direct air	5. DCP
2. AA: direct nitrous oxide	6. ICP/MS
4. ICP	7. Ion chromatography
N = 24	3 59 2 3 1
Minimum = 0.31	1.94 1.05 2.04 1.90 2.29
Maximum = 25.00	2.04 4.23 2.24 2.18
Median = 2.00	2.01 2.14 1.99
F-pseudostigma = 0.03	0.10

MPV = 2.00
 F-pseudostigma = 0.09
 N = 92
 Hu = 2.09
 HI = 1.97

Lab	Rating	Z-value	1	2	4	5	6	7
1	4	0.22	2.02					
3	4	0.00		2.00				
4	0	25.07		4.23				
7	4	0.00		2.00				
11	1	-2.02		1.82				
13	2	1.12		2.10				
15	2	1.35		2.12				
16	4	0.00		2.00				
18	4	0.00		2.00				
19	0	3.15		2.28				
24	4	0.00		2.00				
25	3	-0.90		1.92				
26	3	0.79		2.07				
27	0	2.70			2.24			
28	2	1.12		2.10				
30	3	-0.67		1.94				
32	1	2.02				2.18		
33	4	0.45				2.04		
36	3	0.67	2.06					
39	4	-0.34		1.97				
40	4	0.00		2.00				
42	2	1.12		2.10				
43	4	0.00		2.00				
46	2	1.01		2.09				
48	3	0.56		2.05				
52	4	0.00		2.00				
54	4	0.00	2.00					
55	0	2.14		2.19				
58	0	258.56	25.00					
59	0	2.25		2.20				
64	3	-0.56		1.95				
68	0	-10.68		1.05				
69	2	1.12	2.10					
70	2	1.46		2.13				
75	4	0.00	2.00					
81	3	-0.56		1.95				
83	4	-0.11		1.99				
84	4	0.00	2.00					
85	4	-0.22	1.98					
86	3	0.79		2.07				
87	2	-1.12	1.90					
89	4	0.00	2.00					
92	4	0.00	2.00					
97	4	0.00	2.00					
100	2	1.12		2.10				
101	4	0.00	2.00					
102	0	-2.25		1.80				
103	2	-1.12		1.90				
105	3	0.56		2.05				
107	4	0.11	2.01					

Lab	Rating	Z-value	1	2	4	5	6	7
109	4	0.00	2.00					
111	4	0.45		2.04				
114	4	0.00		2.00				
116	4	-0.45			1.96			
119	0	3.37			2.30			
121	4	0.34			2.03			
127	3	0.79			2.07			
128	1	-1.69			1.85			
129	0	-19.05	0.31					
132	3	0.70			2.06			
133	3	-0.79			1.93			
134	3	0.56			2.05			
138	2	1.01			2.09			
140	4	0.00	2.00					
141	2	1.46			2.13			
142	4	0.34			2.03			
145	4	0.22			2.02			
146	4	-0.45			1.96			
151	4	0.00	2.00					
154	0	-2.25			1.80			
180	0	2.25			2.20			
182	4	-0.28			1.98			
190	0	3.26						
191	4	-0.11				1.99		2.29
193	4	-0.22	1.98					
194	2	-1.35			1.88			
196	2	-1.12	1.90					
198	1	1.80			2.16			
203	4	0.22	2.02					
204	4	0.11			2.01			
209	2	1.24			2.11			
210	0	-2.70			1.76			
212	0	2.25			2.20			
215	4	-0.22			1.98			
219	2	-1.12				1.90		
221	3	-0.56	1.95					
224	2	1.05			2.09			
231	3	0.56	2.05					
234	3	-0.56			1.95			
235	4	-0.34			1.97			
236	4	-0.24			1.98			
241	2	-1.12	1.90					

Table 12. Statistical summary of reported data for standard reference water sample T-135 (trace constituents)--Continued
Mn (Manganese) µg/l



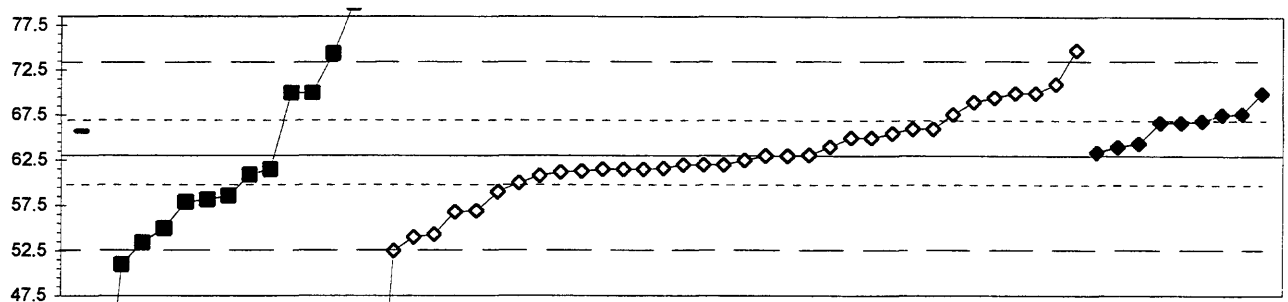
1. AA: direct air	5. DCP
3. AA: graphite furnace	6. ICP/MS
4. ICP	
N = 25	6 51 1 10
Minimum = 42	390 36 220 400
Maximum = 452	430 825 469
Median = 425	412 420 424
F-pseudostigma = 13	23 12

MPV = 423
 F-pseudostigma = 20
 N = 93
 Hu = 435
 HI = 408

Lab	Rating	Z-value	1	3	4	5	6
1	4	0.45	432				
3	3	-0.90			405		
4	0	20.09			825		
7	4	-0.25			418		
10	4	0.10	425				
11	0	2.35			470		
13	3	0.85			440		
15	3	0.85			440		
16	2	-1.25			398		
18	4	0.20			427		
19	1	1.55			454		
23	1	-1.65	390				
24	3	0.60			435		
25	1	-1.95			384		
26	3	0.85			440		
28	1	-1.59			391		
30	4	0.00					423
32	3	-0.70					409
33	0	-10.14				220	
36	0	-3.65	350				
39	1	-1.85			386		
40	3	0.60			435		
42	4	0.05					424
43	4	0.35			430		
46	4	-0.16			420		
48	3	0.85			440		
50	4	0.25		428			
52	4	-0.15			420		
54	4	0.35	430				
55	4	0.40			431		
58	3	0.85	440				
59	4	0.10					425
68	0	-19.36			36		
69	4	0.15	426				
70	4	-0.40			415		
75	4	-0.45			414		
76	3	0.60	435				
80	2	1.45	452				
81	2	-1.20			399		
83	3	-0.55			412		
85	4	-0.05	422				
86	4	0.15			426		
87	3	-0.75	408				
89	4	0.05	424				
90	0	-3.55	352				
91	3	0.60			435		
92	0	-19.04	42				
96	3	0.85	440				
97	3	-0.75		408			
100	3	0.70	437				

Lab	Rating	Z-value	1	3	4	5	6
102	3	-0.90			405		
103	4	0.15			426		
105	4	0.05					424
107	4	0.35	430				
109	4	-0.30	417				
114	4	-0.15	420				
116	4	0.10			425		
118	0	-4.30	337				
119	3	0.95			442		
121	3	-0.65			410		
127	4	-0.30			417		
128	3	-0.80					407
129	4	-0.15	420				
132	3	-1.00			403		
134	4	0.35			430		
138	4	-0.35			416		
140	4	0.35	430				
141	4	0.25			428		
142	4	0.09					425
145	4	0.08			425		
146	4	-0.25			418		
151	3	0.60	435				
154	2	-1.35			396		
180	1	1.95			462		
182	0	2.62			475		
190	4	-0.35		416			
191	4	-0.30					417
194	2	1.35			450		
196	0	2.30					469
198	1	1.65			456		
203	0	-3.15	360				
204	4	-0.30			417		
210	3	-0.85			406		
212	0	2.85			480		
215	3	-0.85			406		
219	2	-1.15					400
221	3	0.85	440				
224	2	-1.35			396		
231	3	-0.75		408			
234	3	-0.95			404		
235	4	0.35		430			
236	4	-0.30			417		
241	4	-0.20	419				

Table 12. Statistical summary of reported data for standard reference water sample T-135 (trace constituents)--Continued
Mo (Molybdenum) μg/l



— 0 — 3 — 4 — 6

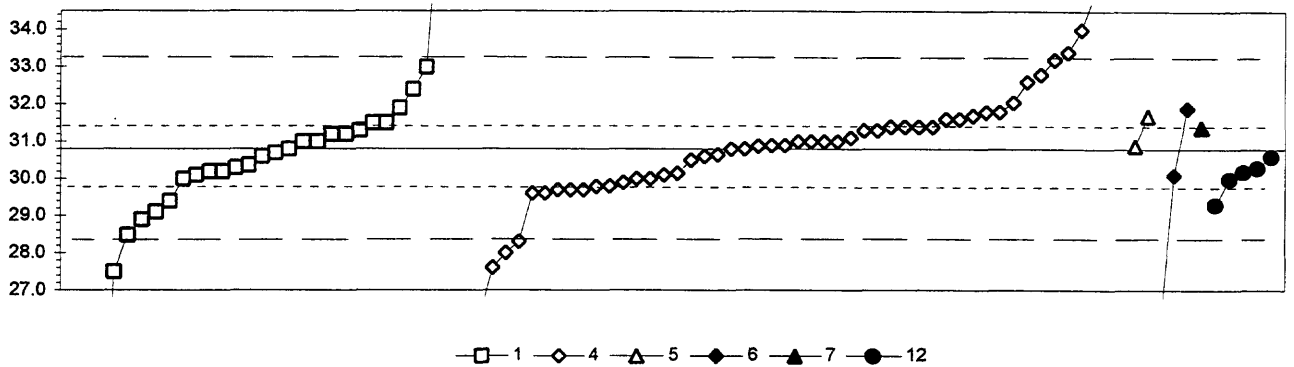
	1	13	35	9
0. Other				
3. AA: graphite furnace				
4. ICP				
N =	1	13	35	9
Minimum =	65.7	27.3	22.0	63.4
Maximum =		80.0	74.8	70.0
Median =		58.6	62.0	66.7
F-pseudosigma =		11.1	3.5	2.4

MPV = 63.0
 F-pseudosigma = 5.1
 N = 58
 Hu = 66.9
 HI = 60.0

Lab	Rating	Z-value	0	3	4	6
1	3	0.72				66.7
3	1	-1.76			54.0	
7	4	-0.29			61.5	
11	2	1.37			70.0	
15	1	-1.88		53.4		
16	4	-0.20			62.0	
18	4	0.00			63.0	
24	4	0.39			65.0	
28	4	0.49			65.5	
30	4	0.27				64.4
32	3	0.90				67.6
36	0	-6.98		27.3		
39	4	0.02			63.1	
40	4	0.20			64.0	
42	4	0.20				64.0
48	4	-0.29		61.5		
50	0	-2.35		51.0		
52	4	-0.20			62.0	
55	0	-2.05			52.5	
59	2	1.37				70.0
60	3	0.53	65.7			
68	2	1.27			69.5	
70	2	-1.21			56.8	
75	4	-0.33			61.3	
81	3	-0.78			59.0	
85	2	1.37			70.0	
86	4	-0.35			61.2	
87	3	-0.86		58.6		
97	3	-0.94		58.2		
100	1	-1.70			54.3	
103	4	0.00			63.0	
105	3	0.76				66.9
108	3	-1.00		57.9		
109	0	2.23		74.4		
119	1	-1.56		55.0		
127	4	-0.27			61.6	
128	2	-1.19			56.9	
132	2	1.17			69.0	
134	4	-0.43			60.8	
138	3	0.92				67.7
141	3	0.59			66.0	
142	3	0.72				66.7
145	4	-0.10			62.5	
146	4	-0.29			61.5	
154	4	-0.29			61.5	
180	3	0.90			67.6	
182	0	2.31			74.8	
194	0	3.32		80.0		
196	4	0.08				63.4
198	4	-0.20			62.0	

Lab	Rating	Z-value	0	3	4	6
210	4	0.39			65.0	
212	1	1.56			71.0	
215	3	-0.59			60.0	
221	2	1.37		70.0		
224	0	-8.02			22.0	
234	4	-0.41		60.9		
235	2	1.37		70.0		
236	3	0.59			66.0	

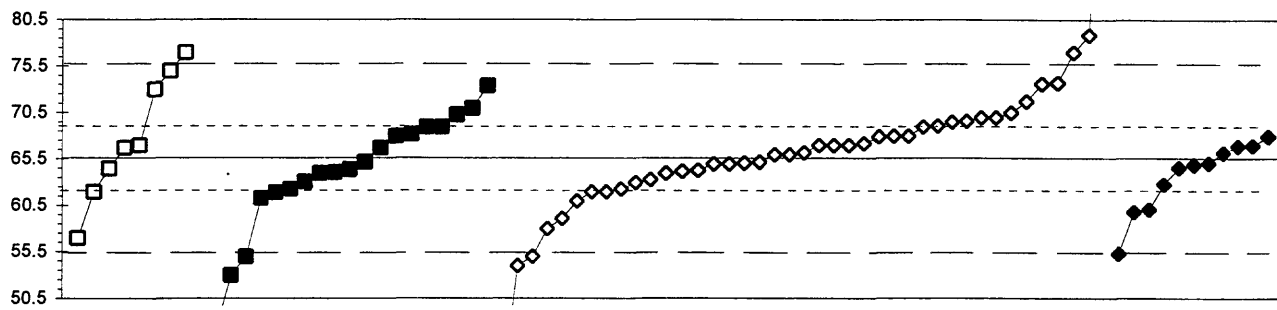
Table 12. Statistical summary of reported data for standard reference water sample T-135 (trace constituents)--Continued
Na (Sodium) mg/l



Lab	Rating	Z-value	1	4	5	6	7	12
1	4	-0.36	30.4					
3	4	0.42		31.3				
4	0	27.91		63.9				
7	4	0.08		30.9				
11	1	1.52		32.6				
13	0	2.19		33.4				
15	4	0.08		30.9				
16	3	-0.93		29.7				
18	4	0.17		31.0				
19	3	0.51		31.4				
23	2	1.35	32.4					
24	3	-0.59		30.1				
25	3	-0.93		29.7				
26	4	0.25		31.1				
27	3	0.76			31.7			
28	0	-2.11		28.3				
32	3	0.93				31.9		
33	4	0.08			30.9			
36	3	-0.51	30.2					
39	3	-0.76		29.9				
40	4	-0.17		30.6				
42	3	0.51		31.4				
43	4	0.17		31.0				
46	3	0.67		31.6				
48	3	-0.84		29.8				
52	4	0.17		31.0				
54	4	0.17	31.0					
55	3	-0.59	30.1					
58	1	1.85	33.0					
59	0	3.54		35.0				
64	4	-0.08	30.7					
68	0	-2.36		28.0				
69	3	-0.67					30.0	
70	3	0.76		31.7				
75	4	0.17	31.0					
81	3	-0.93		29.7				
83	4	-0.13		30.7				
84	4	-0.17					30.6	
85	3	-0.51	30.2					
86	3	0.51		31.4				
87	0	-17.54	10.0					
89	1	-1.60	28.9					
92	0	-9.11	20.0					
97	4	0.34	31.2					
100	0	2.70		34.0				
101	3	0.59	31.5					
102	0	-10.62		18.2				
103	3	-0.67		30.0				
105	3	0.67		31.6				
107	2	-1.18	29.4					
109	1	-1.96	28.5					
111	4	-0.17	30.6					
114	0	-11.64	17.0					
116	3	0.51		31.4				
119	1	1.69		32.8				
121	4	0.17		31.0				
127	2	-1.01		29.6				
128	0	-3.88		26.2				
129	3	-0.67	30.0					
132	3	0.84		31.8				
134	4	-0.42	30.3					
138	3	0.84		31.8				
140	0	6.07	38.0					
141	3	-0.67		30.0				
142	3	-0.85		29.8				
145	3	-0.55		30.2				
146	4	0.00		30.8				
151	3	0.59	31.5					
154	4	-0.25		30.5				
180	1	2.02		33.2				
182	0	-5.85		23.9				
190	3	0.51					31.4	
191	3	-0.59					30.1	
193	4	0.00	30.8					
194	4	0.42		31.3				
196	3	0.93	31.9					
198	2	-1.26						29.3
203	4	-0.42						30.3
204	3	-0.51						30.2
209	2	-1.43	29.1					
210	0	-2.70		27.6				
212	0	3.79		35.3				
215	2	-1.01		29.6				
219	0	-4.05					26.0	
221	4	0.34	31.2					
224	4	0.07		30.9				
231	4	0.42	31.3					
234	4	0.00		30.8				
236	2	1.05		32.0				
241	0	-2.78	27.5					

Table 12. Statistical summary of reported data for standard reference water sample T-135 (trace constituents)--Continued

Ni (Nickel) $\mu\text{g/l}$



□ 1 ■ 3 ◇ 4 ● 6

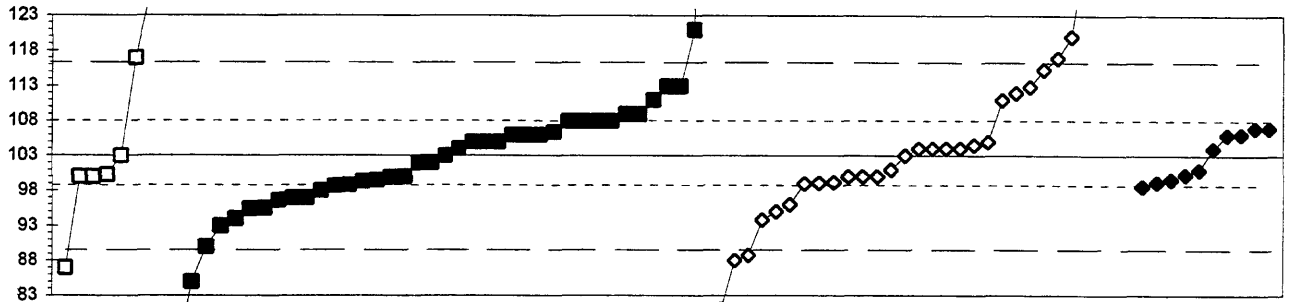
	1. AA: direct air	6. ICP/MS			
	3. AA: graphite furnace				
	4. ICP				
	N =	8	20	41	11
	Minimum =	57.0	34.2	40.0	55.3
	Maximum =	77.0	73.4	119.0	68.0
	Median =	66.9	64.3	66.2	64.9
	F-pseudosigma =	8.0	5.2	4.6	3.8

MPV = 65.6
 F-pseudosigma = 5.0
 N = 80
 Hu = 69.0
 HI = 62.3

Lab	Rating	Z-value	1	3	4	6
1	4	-0.10				65.1
3	4	0.28			67.0	
4	0	10.75			119.0	
7	3	-0.66			62.3	
11	3	0.89			70.0	
13	1	-1.53			58.0	
15	4	0.46			67.9	
16	4	-0.32			64.0	
18	4	0.08			66.0	
24	4	0.12			66.2	
25	0				< 49	
26	4	0.22		66.7		
28	3	0.68			69.0	
30	4	0.26				66.9
32	4	-0.20				64.6
36	0	-3.72		47.1		
39	2	1.23			71.7	
40	4	0.28			67.0	
42	3	-0.56				62.8
46	1	1.61			73.6	
48	4	-0.08		65.2		
50	2	1.09		71.0		
52	4	-0.12			65.0	
55	3	-0.66		62.3		
58	3	0.68		69.0		
59	4	0.28				67.0
60	0	2.30	77.0			
68	0	-2.13			55.0	
69	4	-0.22	64.5			
70	3	0.70			69.1	
73	4	0.32			67.2	
75	4	-0.10			65.1	
76	4	-0.50		63.1		
81	0	-5.15			40.0	
83	3	0.79			69.5	
85	4	0.08			66.0	
86	4	-0.08			65.2	
87	2	1.49	73.0			
89	3	-0.74		61.9		
97	3	-0.87		61.3		
100	4	0.22	66.7			
102	3	-0.72			62.0	
103	0	-2.34			54.0	
105	2	-1.11				60.1
108	0	-2.13		55.0		
114	4	0.28	67.0			
118	1	1.57		73.4		
119	4	0.48		68.0		
121	3	-0.72			62.0	
126	1	1.89	75.0			

Lab	Rating	Z-value	1	3	4	6
127	4	-0.46			63.3	
128	0	-2.07				55.3
132	3	0.89			70.0	
133	4	0.48			68.0	
134	3	0.52		68.2		
138	4	-0.28			64.2	
140	3	-0.72	62.0			
141	4	0.28			67.0	
142	2	-1.17				59.8
145	4	0.48			68.0	
146	4	-0.26			64.3	
154	3	-0.93			61.0	
180	1	1.63			73.7	
182	0	2.66			78.8	
190	4	-0.30		64.1		
191	4	0.12				66.2
194	NR				< 100	
196	4	-0.14				64.9
198	3	0.81			69.6	
203	1	-1.73	57.0			
210	3	0.99			70.5	
212	0	2.30			77.0	
213	3	0.68		69.0		
215	4	-0.12			65.0	
219	4	0.48				68.0
221	3	0.95		70.3		
224	2	-1.31			59.1	
231	0	-2.54			53.0	
234	4	-0.24			64.4	
235	4	-0.32			64.0	
236	3	-0.52				63.0
241	0	-6.32		34.2		

Table 12. Statistical summary of reported data for standard reference water sample T-135 (trace constituents)--Continued
Pb (Lead) **µg/l**



□ 1 ■ 3 ◇ 4 ● 6

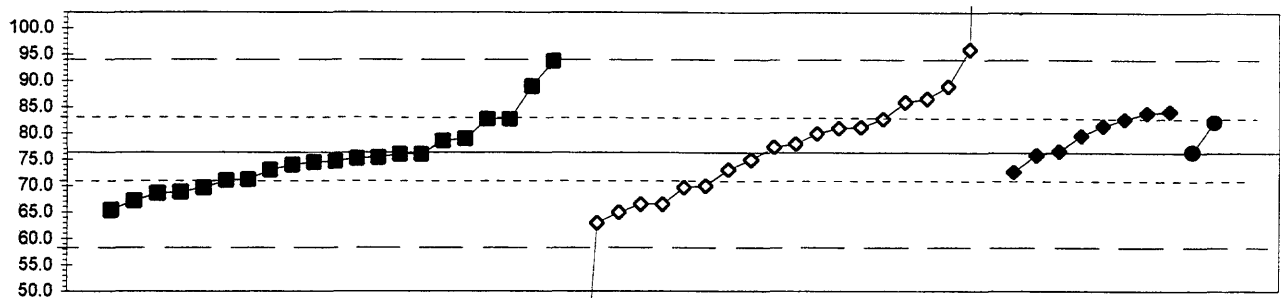
1. AA: direct air		6. ICP/MS			
3. AA: graphite furnace	N =	8	39	30	10
4. ICP	Minimum =	87	74	81	99
	Maximum =	160	187	153	107
	Median =	102	103	104	103
	F-pseudostigma =	16	8	10	5

MPV =	103
F-pseudostigma =	7
N =	87
Hu =	108
Hi =	99

Lab	Rating	Z-value	1	3	4	6
1	3	-0.51				100
3	4	0.30			105	
4	0	4.97			136	
7	2	-1.36	94			
11	0	2.56			120	
13	0	2.71	121			
15	4	0.15			104	
16	0	-3.32			81	
18	2	1.21	111			
19	4	-0.45			100	
23	4	0.30	105			
24	3	-0.57			99	
25	0	12.66		187		
26	3	0.75		108		
28	0	7.55			153	
30	4	-0.30				101
32	3	-0.57				99
36	0	-2.71		85		
39	0	4.37			132	
40	0	2.11			117	
42	4	0.45				106
46	3	-0.53	100			
48	0	5.58			140	
50	4	0.45		106		
52	4	-0.45			100	
55	3	0.90		109		
58	3	-0.90		97		
59	3	0.60				107
60	4	-0.41	100			
68	4	0.15		104		
69	3	0.90		109		
70	4	-0.47		100		
73	1	1.85			115	
75	4	0.00			103	
76	4	0.00		103		
80	4	0.00	103			
81	4	0.15			104	
83	4	-0.15		102		
84	3	0.51		106		
85	0	2.11	117			
86	3	-0.59				99
87	0	3.47	126			
89	4	0.30		105		
92	4	-0.45	100			
96	3	-0.63		99		
97	3	-0.65		99		
100	1	1.51		113		
102	2	-1.21			95	
103	0				< 30	
105	4	0.15				104

Lab	Rating	Z-value	1	3	4	6
107	4	-0.45		100		
109	0	-4.41		74		
114	0	8.59	160			
118	4	0.30		105		
119	4	0.45		106		
126	3	-0.75		98		
127	3	-0.96		97		
128	4	-0.41				100
132	2	-1.06			96	
133	2	1.21			111	
134	4	0.23			105	
138	3	-0.66				99
140	4	-0.45	100			
141	0	-2.26			88	
142	4	0.47				106
145	2	1.49			113	
146	4	-0.30			101	
149	4	-0.15		102		
154	4	0.15			104	
180	2	1.36			112	
182	0	-2.15			89	
190	2	-1.15		95		
193	1	1.51		113		
194	4	0.45		106		
196	3	0.60				107
198	3	0.75		108		
203	0	-2.41	87			
210	4	-0.45			100	
212	1	-1.51		93		
213	3	-0.56		99		
215	4	0.15			104	
221	3	0.75		108		
224	2	-1.39			94	
231	3	0.75		108		
234	2	-1.13		96		
235	3	-0.90		97		
236	3	-0.60			99	
241	1	-1.96		90		

Table 12. Statistical summary of reported data for standard reference water sample T-135 (trace constituents)--Continued
Sb (Antimony) µg/l



□ 1 ◆ 3 ○ 4 ▲ 6 ● 11na

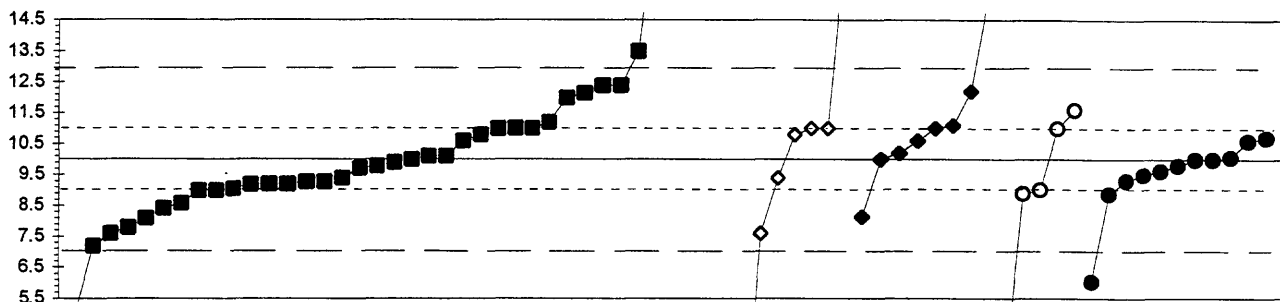
1. AA: direct air	6. ICP/MS					
3. AA: graphite furnace	11na. AA:hydride NaBH4					
4. ICP	N =	1	21	20	8	2
	Minimum =	156.0	65.4	0.0	72.7	76.5
	Maximum =		93.8	245.9	84.3	82.3
	Median =		74.7	77.7	80.6	79.4
	F-pseudosigma =		5.6	12.1	5.3	

MPV = 76.3
 F-pseudosigma = 8.7
 N = 52
 Hu = 82.8
 HI = 71.1

Lab	Rating	Z-value	1	3	4	6	11na
1	3	0.70					82.3
3	4	0.20			78.0		
7	3	-0.76			69.7		
11	3	-0.72			70.0		
13	4	-0.20		74.5			
15	2	-1.04		67.2			
16	1	-1.53			63.0		
18	4	-0.03		76.0			
24	3	0.76		82.8			
25	2	1.47		89.0			
30	3	0.76				82.8	
32	4	0.39				79.6	
36	3	-0.88		68.6			
39	3	0.57			81.2		
40	3	0.55			81.0		
42	3	0.61				81.5	
48	3	-0.86		68.8			
52	2	-1.30			65.0		
55	4	-0.18		74.7			
59	3	0.89				84.0	
68	4	-0.37		73.0			
69	3	-0.58		71.2			
70	2	-1.25		65.4			
75	3	0.76			82.8		
76	4	-0.12		75.2			
81	2	1.47				89.0	
85	0	2.28				96.0	
89	3	-0.77		69.6			
97	4	-0.10		75.4			
100	4	0.32		79.0			
102	4	-0.14			75.0		
103	0				< 30		
105	4	-0.04				75.9	
114	0	9.20	156.0				
119	4	0.03					76.5
127	4	0.27		78.6			
128	4	-0.41				72.7	
138	4	0.13			77.4		
141	2	1.12			86.0		
142	3	0.93				84.3	
146	4	-0.36			73.1		
154	2	-1.12			66.5		
180	2	1.20			86.7		
182	0	19.56			245.9		
194	4	-0.26		74.0			
196	4	0.04				76.6	
210	2	-1.12			66.5		
212	3	-0.61		71.0			
215	4	0.43			80.0		
234	3	0.76		82.8			

Lab	Rating	Z-value	1	3	4	6	11na
235	4	-0.03		76.0			
236	0	-8.79			0.0		
241	1	2.02		93.8			

Table 12. Statistical summary of reported data for standard reference water sample T-135 (trace constituents)--Continued
Se (Selenium) µg/l



■ 3 ◇ 4 ● 6 ○ 11 ● 11na

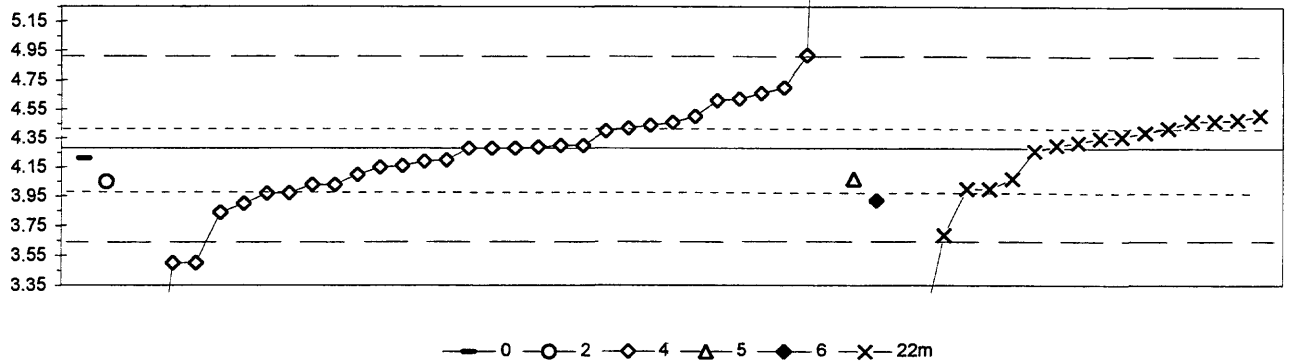
3. AA: graphite furnace	11. AA: hydride				
4. ICP	11na. AA:hydride NaBH4				
6. ICP/MS					
N =	38	7	8	5	11
Minimum =	5.1	0.0	8.1	3.0	6.0
Maximum =	42.6	17.0	15.3	11.6	10.7
Median =	10.0	10.8	10.8	9.0	9.8
F-pseudsigma =	2.2	1.9	1.1		0.5

MPV = 10.0
 F-pseudsigma = 1.4
 N = 69
 Hu = 11.0
 HI = 9.1

Lab	Rating	Z-value	3	4	6	11	11na
1	4	0.07	10.1				
3	4	-0.42		9.4			
7	0	10.43	25.0				
13	1	-1.67	7.6				
15	3	-0.78					8.9
16	NR		< 70				
18	2	1.11				11.6	
24	0	22.67	42.6				
25	3	-0.56	9.2				
26	0	-2.75					6.0
28	3	0.70		11.0			
30	1	1.53			12.2		
34	4	0.07	10.1				
35	4	-0.47					9.3
36	3	-0.65	9.1				
39	3	0.70				11.0	
42	3	0.70			11.0		
45	1	1.67	12.4				
46	0	8.82	22.7				
48	3	-0.70	9.0				
50	4	0.00					10.0
52	0			< 5			
55	4	-0.07	9.9				
58	0	-4.87				3.0	
59	4	0.00			10.0		
60	3	0.83	11.2				
68	4	-0.49	9.3				
69	4	0.42	10.6				
70	3	0.70	11.0				
75	4	-0.26					9.6
80	2	1.39	12.0				
81	4	0.00	10.0				
85	4	-0.35					9.5
86	3	-0.67				9.0	
87	0					< 2	
89	0						< 2
96	4	-0.20	9.7				
97	0	5.98	18.6				
100	1	-1.53	7.8				
102	0	4.87		17.0			
103	NR		< 30				
105	4	0.42			10.6		
108	2	-1.32	8.1				
109	2	1.50	12.2				
118	0	-3.41	5.1				
119	4	0.00					10.0
126	0						< 1
127	4	-0.50	9.3				
128	4	0.14			10.2		
133	1	1.67	12.4				

Lab	Rating	Z-value	3	4	6	11	11na
134	4	0.42					10.6
138	3	-0.76				8.9	
141	4	0.49					10.7
142	2	-1.29			8.1		
146	3	0.56		10.8			
151	4	-0.14					9.8
154	3	-0.70	9.0				
180	NR			< 45.1			
182	4	0.05					10.1
190	3	0.56	10.8				
191	0	3.69			15.3		
193	4	-0.42	9.4				
194	3	0.70	11.0				
196	3	0.76			11.1		
198	3	-0.99	8.6				
203	1	-1.95	7.2				
210	3	0.70		11.0			
212	3	0.70	11.0				
215	0	5.56	18.0				
221	4	-0.15	9.8				
224	1	-1.67		7.6			
231	2	-1.10	8.4				
234	3	-0.56	9.2				
235	3	-0.56	9.2				
236	NR	-6.95		0.0			
241	0	2.43	13.5				

Table 12. Statistical summary of reported data for standard reference water sample T-135 (trace constituents)--Continued
SiO2 (Silica) mg/l



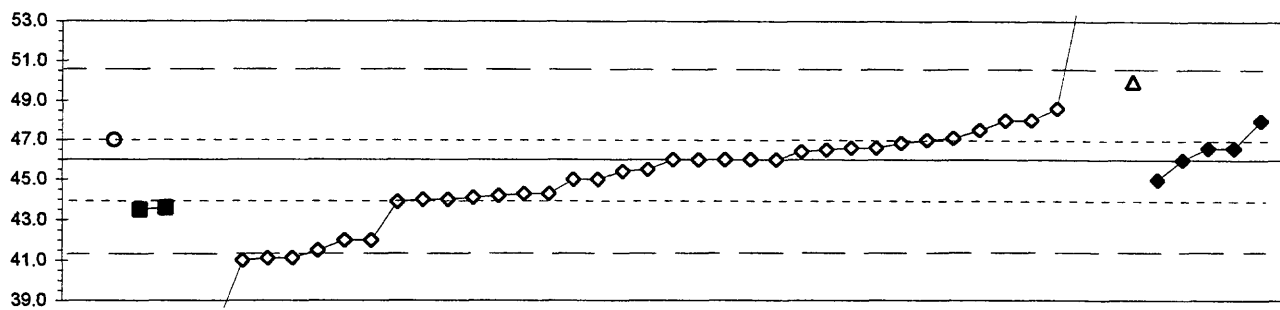
0. Other	5. DCP
2. AA: direct nitrous oxide	6. ICP/MS
4. ICP	22m. Color: phosphomolybdate
N = 1	1 32 1 1 17
Minimum = 4.21	4.05 1.94 4.07 3.92 1.99
Maximum =	9.50 4.51
Median =	4.28 4.32
F-pseudostigma =	0.33 0.31

MPV = 4.28
 F-pseudostigma = 0.31
 N = 53
 Hu = 4.42
 HI = 4.00

Lab	Rating	Z-value	0	2	4	5	6	22m
1	4	0.03			4.29			
3	3	0.58			4.46			
4	0	16.77			9.50			
7	2	1.22			4.66			
11	2	1.09			4.62			
13	4	0.39			4.40			
15	4	-0.42			4.15			
23	0	-4.08						3.01
24	4	0.00			4.28			
25	0	2.06			4.92			
28	0	-2.51			3.50			
33	3	-0.67				4.07		
39	0	-7.52			1.94			
42	4	0.06			4.30			
43	4	-0.26			4.20			
52	4	-0.22	4.21					
55	2	-1.41			3.84			
64	2	-1.22			3.90			
70	3	-0.90						4.00
83	3	-1.00			3.97			
87	4	0.26						4.36
89	3	-0.90						4.00
92	3	0.61						4.47
97	4	0.13						4.32
100	3	-0.80			4.03			
103	0	-2.51			3.50			
105	4	-0.29			4.19			
107	3	0.74						4.51
111	4	0.22						4.35
116	4	0.00			4.28			
118	4	0.35						4.39
119	3	0.71			4.50			
121	3	-0.58			4.10			
127	3	-0.80			4.03			
128	2	-1.16				3.92		
134	4	0.06			4.30			
138	4	0.45						4.42
140	3	0.61						4.47
141	3	-0.67						4.07
142	2	1.06			4.61			
145	4	-0.39			4.16			
151	4	0.06						4.30
182	0	-6.43			2.28			
190	3	0.64						4.48
203	1	-1.91						3.69
210	4	0.45			4.42			
212	2	1.35			4.70			
215	4	0.00			4.28			
228	0	-7.36						1.99
231	4	-0.06						4.26

Lab	Rating	Z-value	0	2	4	5	6	22m
234	3	0.51			4.44			
236	3	-0.99			3.97			
241	3	-0.74		4.05				

Table 12. Statistical summary of reported data for standard reference water sample T-135 (trace constituents)--Continued
Sr (Strontium) µg/l

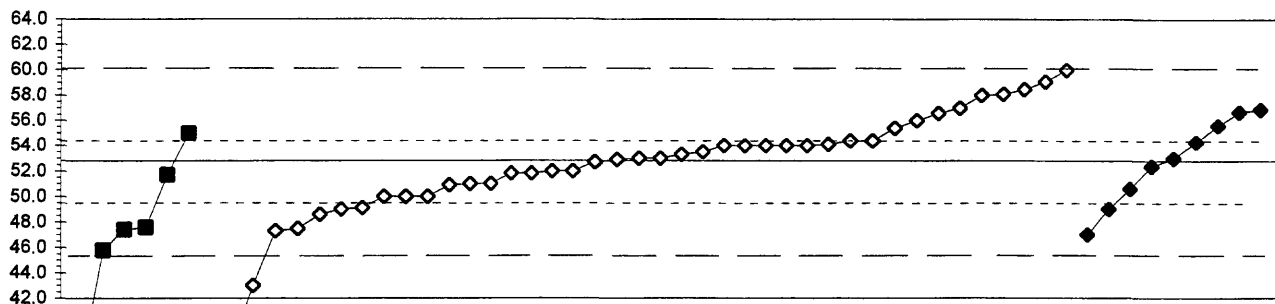


1. AA: direct air	4. ICP					
2. AA: direct nitrous oxide	5. DCP					
3. AA: graphite furnace	6. ICP/MS					
N =	1	1	2	37	1	5
Minimum =	71.7	47.0	43.5	37.0	50.0	45.0
Maximum =			43.6	98.7		48.0
Median =			43.6	45.5		46.6
F-pseudosigma =				1.9		

MPV = 46.0
 F-pseudosigma = 2.3
 N = 47
 Hu = 47.0
 Hl = 44.0

Lab	Rating	Z-value	1	2	3	4	5	6
1	4	0.49				47.1		
3	3	-0.75				44.3		
4	0	23.31				98.7		
7	4	0.22				46.5		
15	3	-0.80				44.2		
16	4	0.00				46.0		
18	4	0.00				46.0		
23	2	-1.06			43.6			
24	2	1.15				48.6		
25	1	-1.77				42.0		
28	4	-0.22				45.5		
32	4	0.27						46.6
33	1	1.77					50.0	
39	3	-0.84				44.1		
40	4	0.00				46.0		
42	3	0.88				48.0		
52	4	0.00				46.0		
59	3	0.88						48.0
68	1	-1.99				41.5		
70	4	0.44				47.0		
81	3	-0.88				44.0		
85	4	0.27				46.6		
86	4	0.18				46.4		
97	2	-1.11			43.5			
100	0	-3.63				37.8		
102	0	-2.21				41.0		
103	3	-0.88				44.0		
105	3	0.88				48.0		
109	0	11.34	71.7					
116	0	-3.98				37.0		
121	4	-0.44				45.0		
127	3	-0.75				44.3		
134	3	0.66				47.5		
138	4	0.27				46.6		
142	4	0.37				46.8		
145	3	-0.93				43.9		
151	4	0.44		47.0				
154	0	-2.17				41.1		
182	0	-2.16				41.1		
191	4	-0.44						45.0
194	NR					< 100		
196	4	0.27						46.6
210	1	-1.77				42.0		
212	0	3.98				55.0		
219	4	0.00						46.0
234	4	-0.27				45.4		
235	4	0.00				46.0		
236	4	-0.44				45.0		

Table 12. Statistical summary of reported data for standard reference water sample T-135 (trace constituents)--Continued
V (Vanadium) µg/l



■ 3 ◇ 4 ◆ 6

3. AA: graphite furnace			
4. ICP			
6. ICP/MS			
N =	6	41	9
Minimum =	37.0	31.5	47.0
Maximum =	55.0	60.0	56.9
Median =	47.5	53.0	53.0
F-pseudostigma =		3.3	3.7

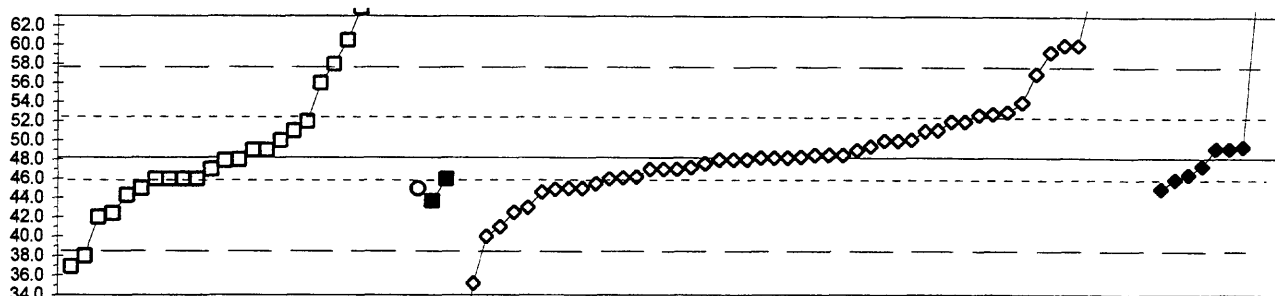
MPV = 52.8
 F-pseudostigma = 3.6
 N = 56
 Hu = 54.4
 HI = 49.6

Lab	Rating	Z-value	3	4	6
1	4	0.03		52.9	
3	4	0.33		54.0	
7	4	0.45		54.4	
11	3	-0.78		50.0	
13	2	1.17		57.0	
15	2	1.06		56.6	
16	4	-0.50		51.0	
18	4	0.33		54.0	
24	2	1.47		58.1	
25	0	-2.73		43.0	
28	3	0.72		55.4	
30	3	0.78			55.6
32	2	1.14			56.9
36	2	-1.45	47.6		
39	2	-1.47		47.5	
40	4	0.33		54.0	
42	4	0.06			53.0
46	4	0.36		54.1	
48	4	-0.31	51.7		
50	0	-4.39	37.0		
52	2	-1.06		49.0	
55	4	0.06		53.0	
59	1	-1.61			47.0
68	0	-5.92		31.5	
70	4	0.14		53.3	
75	4	-0.03		52.7	
81	4	-0.50		51.0	
85	2	-1.03		49.1	
86	4	0.19		53.5	
89	1	-1.95	45.8		
97	2	-1.50	47.4		
100	4	-0.28		51.8	
102	4	0.33		54.0	
103	3	-0.78		50.0	
105	3	-0.61			50.6
121	4	0.06		53.0	
127	4	-0.28		51.8	
128	2	-1.17		48.6	
134	4	-0.22		52.0	
138	4	0.42			54.3
141	3	0.89		56.0	
142	4	-0.12			52.4
145	4	0.33		54.0	
146	3	-0.78		50.0	
154	1	1.59		58.5	
180	1	1.75		59.1	
182	0	-4.10		38.0	
196	2	1.08			56.7
198	4	0.45		54.4	
210	4	-0.22		52.0	

Lab	Rating	Z-value	3	4	6
212	1	2.00		60.0	
219	2	-1.06			49.0
224	1	-1.53		47.3	
234	3	-0.53		50.9	
235	3	0.61	55.0		
236	2	1.45		58.0	

Table 12. Statistical summary of reported data for standard reference water sample T-135 (trace constituents)--Continued

Zn (Zinc) µg/l



□ 1 ○ 2 ■ 3 ◇ 4 ● 6

1. AA: direct air	4. ICP				
2. AA: direct nitrous oxide	6. ICP/MS				
3. AA: graphite furnace					
N = 25	1	2	51	9	
Minimum = 36.9	45.0	43.7	24.4	45.0	
Maximum = 110.0		46.0	87.0	67.8	
Median = 48.0		44.9	48.3	49.2	
F-pseudostigma = 7.4			4.6	2.1	

MPV = 48.2
 F-pseudostigma = 4.7
 N = 88
 Hu = 52.4
 Hi = 46.0

Lab	Rating	Z-value	1	2	3	4	6
1	0	3.63					65.3
3	4	0.00				48.2	
4	0	7.82				85.0	
7	4	0.00				48.2	
10	3	0.59	51.0				
11	1	-1.74				40.0	
13	3	0.81				52.0	
15	3	0.96				52.7	
16	3	0.59				51.0	
18	0	8.24				87.0	
19	0	3.78				66.0	
24	0	6.01				76.5	
25	0					< 4	
26	4	-0.45				46.1	
28	0	-2.76				35.2	
30	4	0.25					49.4
32	4	-0.36					46.5
36	0	2.61	60.5				
39	4	0.06				48.5	
40	1	1.87				57.0	
42	4	0.21					49.2
46	4	0.00				48.2	
48	0	2.51				60.0	
50	4	-0.47			46.0		
52	3	0.81				52.0	
55	4	-0.04				48.0	
58	0	4.84	71.0				
59	3	-0.68				45.0	
60	4	0.38	50.0				
68	1	-1.53				41.0	
69	4	-0.47	46.0				
70	0	7.27				82.4	
73	3	0.62				51.1	
75	3	0.98				52.8	
76	0	3.34	63.9				
80	4	0.17	49.0				
81	2	-1.10				43.0	
83	3	-0.70				44.9	
85	4	-0.06	47.9				
86	4	-0.13				47.6	
87	4	0.17	49.0				
89	0	-2.40	36.9				
90	3	-0.68	45.0				
92	0	13.13	110.0				
96	4	-0.47	46.0				
97	3	-0.96			43.7		
100	3	0.81	52.0				
102	4	-0.47				46.0	
103	4	-0.25				47.0	
105	4	0.21					49.2

Lab	Rating	Z-value	1	2	3	4	6
108	0	3.78	66.0				
114	4	-0.47	46.0				
116	0	2.51				60.0	
118	0	-2.17	38.0				
119	2	1.23					54.0
121	4	-0.04					48.0
127	4	-0.42					46.2
128	4	-0.21					47.2
132	4	-0.25					47.0
133	4	-0.04					48.0
134	4	0.25					49.4
138	4	0.02					48.3
140	4	-0.25	47.0				
141	4	0.38					50.0
142	4	-0.48					46.0
145	0	2.36					59.3
146	4	0.40					50.1
151	0	2.08	58.0				
154	4	0.06					48.5
180	3	-0.76					44.6
182	0	-5.06					24.4
190	2	-1.23	42.4				
191	0	4.16					67.8
193	NR		< 50				
194	4	0.38					50.0
196	4	-0.17					47.4
198	3	-0.57					45.5
203	2	-1.32	42.0				
210	3	-0.68					45.0
212	2	1.02					53.0
213	4	-0.04	48.0				
215	4	0.17					49.0
219	3	-0.68					45.0
221	4	-0.47	46.0				
224	2	-1.21					42.5
231	3	-0.83	44.3				
234	4	0.06					48.5
235	3	-0.68		45.0			
236	4	-0.25					47.0
241	1	1.66	56.0				

Table 13. *Statistical summary of reported data for standard reference water sample M-134 (major constituents)*

Definition of analytical methods, abbreviations, and symbols

Analytical methods

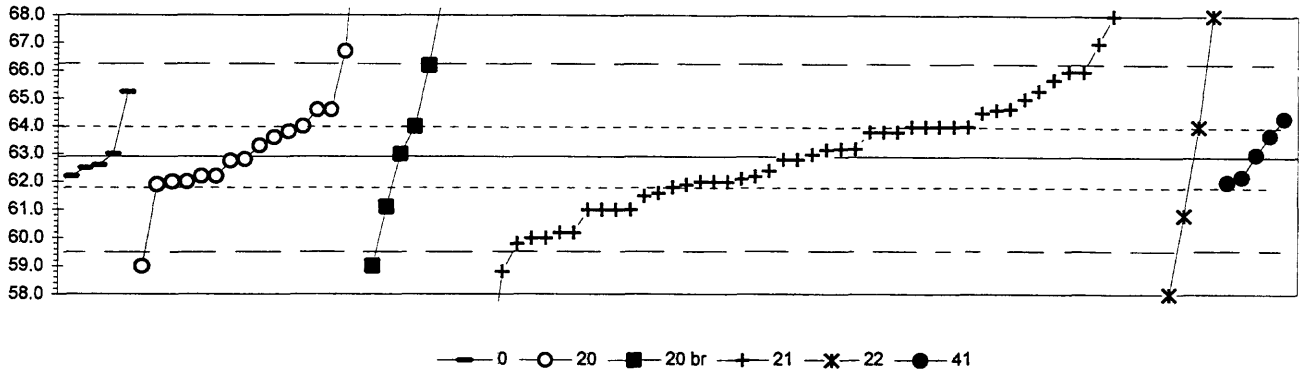
0 Other/Not reported	=	
1 AA: direct, air	=	atomic absorption: direct,air
2 AA: direct, N2O	=	atomic absorption: direct,nitrous oxide
3 AA: graphite furnace	=	atomic absorption: graphite furnace
4 ICP	=	inductively coupled plasma
5 DCP	=	direct current plasma
6 ICP/MS	=	mass spectrometry/inductively coupled plasma
7 IC	=	ion chromatography
12 Flame emission	=	flame emission
20 Titrate: color	=	titration: colorimetric [color reagent specified]
21 Titrate: electro	=	titration: electrometric
22 Color:	=	colorimetric [color reagent specified]
40 Ion electrode	=	ion selective electrode
41 Electro	=	electrometric: [type meter specified]
50 Gravimetric	=	gravimetric: [precipitate specified]
51 Turbidimetric	=	turbidimetric: [precipitate specified]

Abbreviations and symbols

N	=	number of samples
St dev	=	traditional standard deviation
MPV	=	most probable value
F-pseudosigma	=	nonparametric statistic deviation
Hu	=	upper hinge value
Hi	=	lower hinge value
µg/L	=	micrograms per liter
mg/L	=	milligrams per liter
µS/cm	=	microsiemens per centimeter at 25 C
Lab	=	laboratory code number
NR	=	not rated, less than value reported
<	=	less than

<u>Constituent</u>	<u>page</u>
Alk Alkalinity as CaCO3	66
B Boron	67
Ca Calcium	68
Cl Chloride	69
DSRD Dissolved solids	70
F Fluoride	71
K Potassium	72
Mg Magnesium	73
Na Sodium	74
total P Phosphorus	75
pH	76
SiO2 Silica	77
SO4 Sulfate	78
Sp Co Specific Conductance	79
Sr Strontium	80
V Vanadium	81

Table 13. Statistical summary of reported data for standard reference water sample M-134 (major constituents)--Continued
Alk (Alkalinity as calcium carbonate) mg/l



0. Other	21. Titrate: electrometric				
20. Titrate: colorimetric	22. Colorimetric				
20 br. Titrate: color brom cresol gre	41. Direct reading				
N =	5	16	6	49	5
Minimum =	62.2	59.0	59.0	0.1	55.0
Maximum =	65.2	72.8	69.0	75.4	68.0
Median =	62.6	63.1	63.5	62.8	60.8
F-pseudsigma =	1.6		2.2		

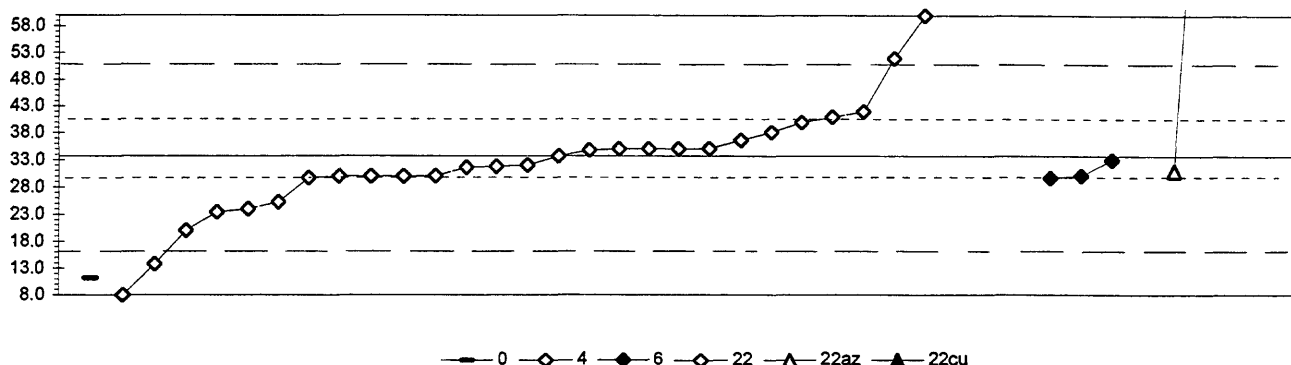
MPV = 62.9
 F-pseudsigma = 1.6
 N = 86
 Hu = 64.0
 HI = 61.8

Lab	Rating	Z-value	0	20	20 br	21	22	41
1	2	1.07				64.6		
3	0	6.07		72.8				
9	2	1.04				64.6		
10	2	1.04		64.6				
11	4	-0.43						62.2
13	1	-1.66				60.2		
15	0	-2.39		59.0				
16	4	-0.09		62.8				
18	2	-1.29					60.8	
19	1	1.72				65.7		
23	3	-0.61				61.9		
24	1	-1.90				59.8		
25	0	2.51				67.0		
26	3	0.98				64.5		
28	0	2.33		66.7				
32	4	-0.43	62.2					
33	4	-0.49				62.1		
36	0	3.13				68.0		
39	0	4.35				70.0		
40	3	0.55		63.8				
42	3	-0.67				61.8		
43	3	0.67				64.0		
46	4	-0.06				62.8		
48	0	-3.00					58.0	
50	2	-1.17				61.0		
52	4	0.06	63.0					
54	1	-1.78				60.0		
55	1	1.90				66.0		
56	2	1.43	65.2					
57	3	-0.55		62.0				
58	2	-1.17				61.0		
59	3	-0.55				62.0		
68	0	3.13					68.0	
69	3	0.67					64.0	
70	3	-0.55						62.0
75	4	0.49						63.7
76	2	-1.10			61.1			
80	3	0.67		64.0				
81	4	-0.43		62.2				
83	4	-0.25	62.5					
84	0	-5.09				54.6		
85	3	-0.86				61.5		
89	4	-0.06		62.8				
90	4	0.06			63.0			
92	4	-0.06				62.8		
96	2	1.29				65.0		
97	3	0.55				63.8		
100	2	1.04		64.6				
105	4	0.06				63.0		
107	1	-1.66				60.2		
109	0	7.69				75.4		
111	4	0.25		63.3				
114	3	0.67				64.0		
118	3	0.67			64.0			
119	3	-0.55		62.0				

Lab	Rating	Z-value	0	20	20 br	21	22	41
127	3	0.55						63.8
128	4	0.18						63.2
129	0	3.74			69.0			
132	0	-38.53						0.1
134	3	0.87						64.3
136	2	1.47						65.3
138	3	0.67						64.0
141	3	0.55						63.8
142	1	1.90						66.0
145	0	-4.84						55.0
146	4	-0.18	62.6					
151	3	0.67						64.0
153	3	-0.55						62.0
154	3	-0.80						61.6
180	4	0.06						63.0
182	3	-0.55						62.0
190	2	-1.17						61.0
196	0	-2.39			59.0			
203	0	-2.51						58.8
210	3	0.67						64.0
212	4	-0.43		62.2				
213	2	-1.17						61.0
215	4	0.43		63.6				
224	1	-1.78						60.0
226	4	0.16						63.2
231	1	2.02			66.2			
234	3	-0.61		61.9				
236	4	-0.43						62.2
237	4	-0.31						62.4
240	4	0.18						63.2
241	0	-7.87						50.1

Table 13. Statistical summary of reported data for standard reference water sample M-134 (major constituents)--Continued

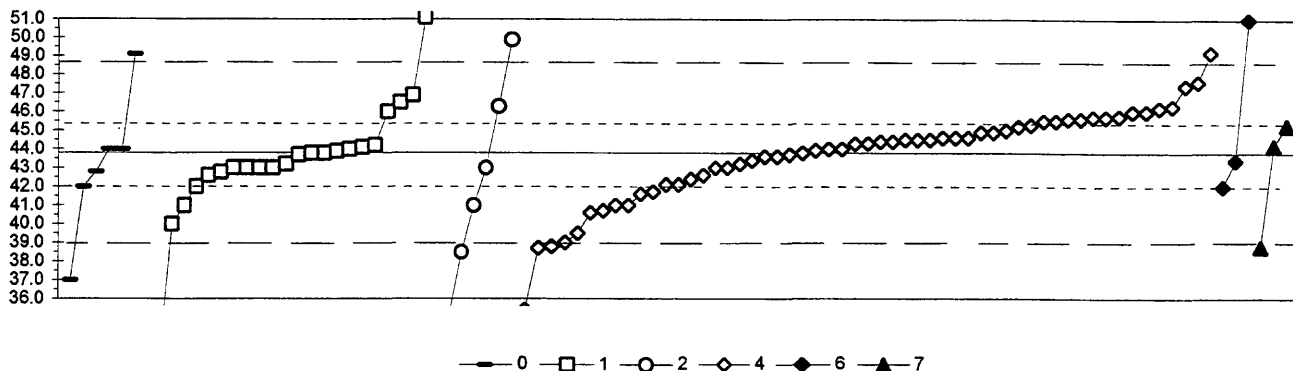
B (Boron) µg/l



Lab	Rating	Z-value	0	4	6	22	22az	22cu
1	4	0.16		35.1				
3	2	-1.14		24.0				
10	NR		< 50					
11	0	3.09		60.0				
15	NR		< 50					
16	NR		< 500					
18	4	0.15		35.0				
24	3	-0.99		25.3				
25	0	2.15		52.0				
28	4	0.34		36.6				
32	4	-0.08			33.0			
36	0	8.13						103.0
39	0	-2.64	11.2					
40	4	-0.43		30.0				
42	4	-0.47			29.7			
48	1	-1.61		20.0				
50	4	-0.32					31.0	
52	NR		< 40					
57	NR		< 100					
58	0	6.60			90.0			
68	0	29.48		285.0				
70	NR		< 50					
75	4	-0.22		31.8				
85	3	0.52		38.1				
103	4	0.15		35.0				
116	NR		< 30					
119	3	0.74		40.0				
121	4	-0.43		30.0				
127	4	0.00		33.7				
128	0	-2.33		13.8				
129	0	10.12				120.0		
132	0	-3.01		8.0				
134	4	0.13		34.8				
138	4	-0.42			30.1			
141	3	0.97		42.0				
142	4	-0.43		30.1				
145	4	-0.47		29.7				
149	0	15.99						170.0
154	4	0.15		35.0				
180	2	-1.21		23.4				
182	0	6.36		87.9				
194	NR		< 100					
210	4	-0.20		32.0				
212	3	0.86		41.0				
215	0	16.58		175.0				
234	4	-0.25		31.6				
236	4	-0.43		30.0				

MPV = 33.7
 F-pseudosigma = 8.5
 N = 39
 Hu = 41.5
 HI = 30.0

Table 13. Statistical summary of reported data for standard reference water sample M-134 (major constituents)--Continued
Ca (Calcium) mg/l



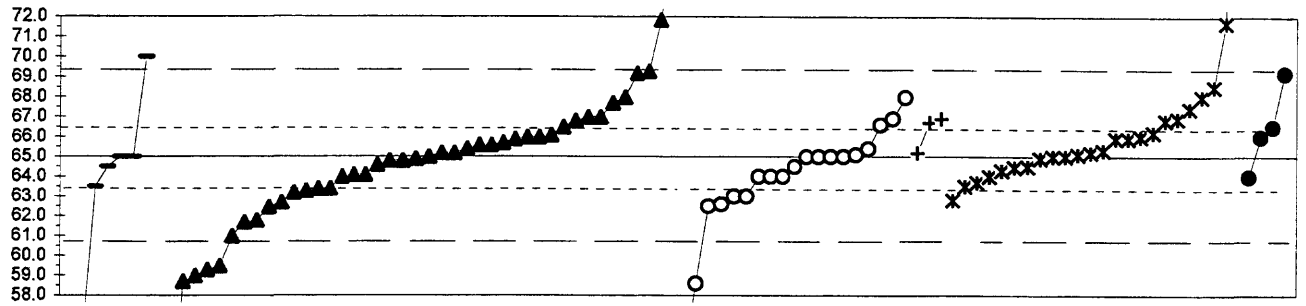
0. Other	4. ICP					
1. AA: direct air	6. ICP/MS					
2. AA: direct nitrous oxide	7. Ion chromatography					
N = 6	23	7	55	3	3	
Minimum = 37.0	32.5	19.1	35.4	42.0	38.8	
Maximum = 49.1	51.1	49.9	49.2	51.0	45.3	
Median = 43.4	43.2	41.0	44.3	43.4	44.2	
F-pseudosigma = 1.0	5.8	2.1				

MPV = 43.8
 F-pseudosigma = 2.4
 N = 97
 Hu = 45.3
 HI = 42.1

Lab	Rating	Z-value	0	1	2	4	6	7
1	3	0.76				45.6		
3	3	0.63				45.3		
7	4	-0.17				43.4		
9	4	0.21				44.3		
10	4	0.13		44.1				
11	2	-1.35				40.6		
13	1	1.52				47.4		
15	4	0.34				44.6		
16	2	-1.31				40.7		
18	3	-0.59				42.4		
19	4	0.25				44.4		
24	3	0.51				45.0		
25	0	-2.11				38.8		
26	4	0.34				44.6		
27	0	2.23	49.1					
28	3	-0.51				42.6		
30	2	1.05			46.3			
32	4	-0.17					43.4	
33	4	0.08	44.0					
36	0	-10.41			19.1			
38	4	-0.34			43.0			
39	2	-1.18				41.0		
40	3	-0.93				41.6		
42	4	0.46				44.9		
43	4	0.08				44.0		
48	3	0.72				45.5		
50	4	-0.34		43.0				
52	4	-0.34				43.0		
54	4	0.08		44.0				
55	3	0.80				45.7		
56	0	-2.87	37.0					
57	3	0.93				46.0		
58	0	-4.76		32.5				
59	4	-0.08				43.6		
64	3	0.59				45.2		
68	1	-1.81				39.5		
69	4	-0.34		43.0				
70	3	0.72				45.5		
75	3	-0.51		42.6				
80	0	3.08		51.1				
81	2	-1.18				41.0		
83	3	-0.72				42.1		
84	4	-0.04		43.7				
85	3	-0.76		42.0				
86	4	0.46				44.9		
87	2	-1.18			41.0			
89	4	-0.25		43.2				
90	3	-0.76	42.0					
92	1	-1.60		40.0				
97	4	0.00		43.8				
101	4	0.00		43.8				
102	0	-3.54				35.4		
103	1	-2.02				39.0		
105	4	0.30				44.5		
107	0	-4.64		32.8				

Lab	Rating	Z-value	0	1	2	4	6	7
109	4	-0.43		42.8				
111	0	2.57			49.9			
114	0	-2.23			38.5			
116	3	0.76				45.6		
119	4	-0.25				43.2		
121	4	0.30				44.5		
127	4	-0.34				43.0		
128	4	-0.04				43.7		
129	3	0.93		46.0				
132	4	0.20				44.3		
133	3	0.93				46.0		
134	4	0.05				43.9		
136	0	-3.67			35.1			
138	2	1.01				46.2		
140	4	-0.34		43.0				
141	4	0.25				44.4		
142	3	0.81				45.7		
145	4	0.08				44.0		
146	4	-0.42	42.8					
151	4	-0.34		43.0				
153	4	0.17						44.2
154	3	-0.72				42.1		
180	1	1.60				47.6		
182	3	0.82				45.8		
190	0	-2.11						38.8
191	3	-0.76					42.0	
194	4	-0.08				43.6		
196	2	1.14		46.5				
210	4	0.00				43.8		
212	0	2.28				49.2		
215	0	-2.15				38.7		
219	0	3.04					51.0	
221	2	1.31		46.9				
224	4	0.34				44.6		
226	4	0.17		44.2				
230	3	0.63						45.3
231	4	0.04		43.9				
234	2	1.05				46.3		
236	3	-0.88				41.7		
237	4	0.30				44.5		
240	4	0.08	44.0					
241	2	-1.18		41.0				

Table 13. Statistical summary of reported data for standard reference water sample M-134 (major constituents)--Continued
Cl (Chloride) mg/l



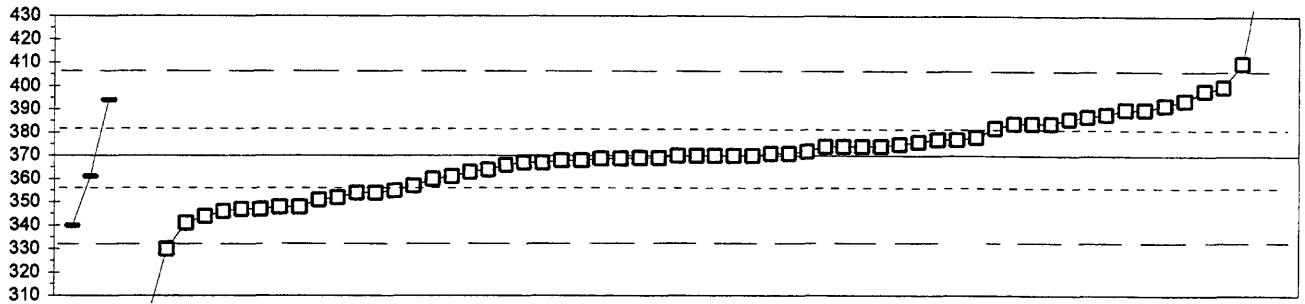
0. Other	21. Titrate: electrometric					
7. Ion chromatography	22. Colorimetric					
20. Titrate: colorimetric	40. Ion selective electrode					
N =	7	43	19	3	24	4
Minimum =	56.0	50.8	54.5	66.9	63.7	58.6
Maximum =	70.0	75.7	68.0		68.0	103.3
Median =	64.5	64.9	64.5		65.6	65.0
F-pseudosigma =	3.9	2.3	1.5		1.8	

MPV = 65.0
 F-pseudosigma = 2.1
 N = 100
 Hu = 66.4
 HI = 63.5

Lab	Rating	Z-value	0	7	20	21	22	40
1	4	-0.19		64.6				
3	2	1.42				68.0		
7	0	-2.98		58.7				
9	1	1.66				68.5		
10	3	-0.71				63.5		
11	0	3.17					71.7	
13	3	-0.80		63.3				
15	0	-2.70		59.3				
16	3	0.90			66.9			
18	4	0.43				65.9		
19	4	0.00			65.0			
23	3	0.71						66.5
24	4	-0.24	64.5					
25	1	-1.89		61.0				
26	3	0.71		66.5				
28	0	3.24		71.9				
30	4	0.43		65.9				
32	3	-0.76		63.4				
33	4	-0.09		64.8				
36	4	-0.47			64.0			
39	3	-0.95			63.0			
40	3	0.90				66.9		
42	2	1.42		68.0				
43	4	0.47						66.0
46	0	18.13				103.3		
48	4	-0.47			64.0			
50	4	-0.47				64.0		
52	4	0.00	65.0					
54	4	-0.05				64.9		
55	2	1.14				67.4		
56	0	-4.21	56.1					
57	4	-0.47			64.0			
58	3	-0.95			63.0			
64	4	0.28		65.6				
68	3	0.85				66.8		
69	4	0.00				65.0		
70	4	0.00			65.0			
75	4	0.05				65.1		
76	4	0.19		65.4				
80	0	-3.03			58.6			
81	2	-1.14			62.6			
84	3	0.57				66.2		
85	4	0.14				65.3		
86	0	5.06		75.7				
87	4	0.00				65.0		
89	4	0.05			65.1			
92	4	0.19			65.4			
96	4	0.43				65.9		
97	3	-0.62				63.7		
100	0	-2.60		59.5				
101	3	0.76			66.6			
102	4	-0.33				64.3		
105	3	0.95		67.0				
107	3	0.80				66.7		
109	3	0.90				66.9		

Lab	Rating	Z-value	0	7	20	21	22	40
111	2	-1.09		62.7				
114	4	-0.47						64.0
116	1	1.99		69.2				
119	4	0.47		66.0				
127	4	-0.09		64.8				
128	4	0.09		65.2				
129	4	0.47		66.0				
134	4	0.28		65.6				
136	2	1.28		67.7				
138	1	-1.56		61.7				
140	4	-0.26						64.5
141	2	-1.04						62.8
142	4	-0.24						64.5
143	4	0.00	65.0					
145	4	-0.43		64.1				
146	0	2.37	70.0					
149	4	-0.47		64.0				
151	3	0.95		67.0				
153	1	-1.51		61.8				
154	4	0.09						65.2
180	4	0.47						66.0
182	4	0.00			65.0			
183	2	1.41			68.0			
190	4	-0.05		64.9				
191	4	0.09		65.2				
193	1	2.04		69.3				
194	1	1.99						69.2
196	3	0.52		66.1				
197	0	-6.62		51.0				
203	4	0.09					65.2	
208	4	-0.43		64.1				
210	0	-2.84		59.0				
212	0	-6.72		50.8				
213	2	-1.18			62.5			
215	4	0.00			65.0			
221	3	-0.71	63.5					
224	4	0.00		65.0				
226	3	-0.76		63.4				
230	4	0.33		65.7				
231	4	-0.24			64.5			
234	3	0.85		66.8				
236	2	-1.19		62.5				
237	3	-0.85		63.2				
240	0	-4.26	56.0					
241	0	-4.97			54.5			

Table 13. Statistical summary of reported data for standard reference water sample M-134 (major constituents)--Continued
DSRD (Dissolved solids) mg/l



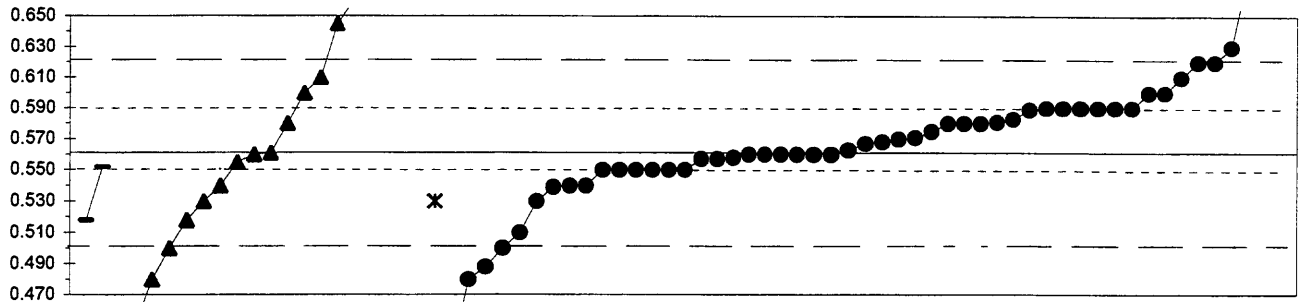
0. Other			
50. Gravimetric			
N =	3	62	
Minimum =	340	125	
Maximum =	394	676	
Median =	361	370	
F-pseudostigma =		19	

MPV =	370
F-pseudostigma =	19
N =	65
Hu =	382
HI =	357

Lab	Rating	Z-value	0	50
1	4	-0.07		369
3	4	0.22		374
9	4	-0.11		368
11	3	-0.86		354
13	4	0.22		374
16	4	-0.07		369
18	4	0.38		377
19	4	0.11		372
23	4	0.38		377
25	3	0.76		384
26	4	0.00		370
32	0	-3.83		299
36	0	4.32		450
38	2	-1.03		351
39	2	1.08		390
40	2	-1.40		344
43	3	0.86		386
46	4	0.32		376
48	3	0.65		382
50	4	-0.05		369
54	4	0.00		370
55	2	1.08		390
57	0	-2.16		330
59	3	-0.81		355
69	4	-0.32		364
70	4	0.22		374
76	4	0.22		374
80	3	-0.70		357
81	4	0.00		370
85	3	-0.54		360
87	2	-1.19		348
89	3	-0.97		352
90	4	-0.22		366
92	2	-1.24		347
96	4	-0.38		363
97	0	16.51		676
100	3	0.76		384
101	4	-0.16		367
105	4	0.00		370
109	3	0.76		384
114	1	1.62		400
118	2	1.30		394
119	2	-1.24		347
127	4	0.00		370
129	2	-1.19		348
134	2	1.19		392
138	4	-0.16		367
140	4	-0.49		361
141	2	-1.30		346
142	4	0.27		375
143	4	0.05		371
146	4	-0.49	361	
149	4	-0.11		368
151	4	-0.05		369
154	1	-1.56		341

Lab	Rating	Z-value	0	50
182	3	0.92		387
190	0	2.16		410
194	3	-0.86		354
212	4	0.05		371
215	4	0.43		378
221	2	1.30	394	
224	1	1.52		398
234	3	0.97		388
236	0	-13.22		125
240	1	-1.62	340	

Table 13. Statistical summary of reported data for standard reference water sample M-134 (major constituents)--Continued
F (Fluoride) mg/l



— 0 —▲— 7 —X— 22 —●— 40

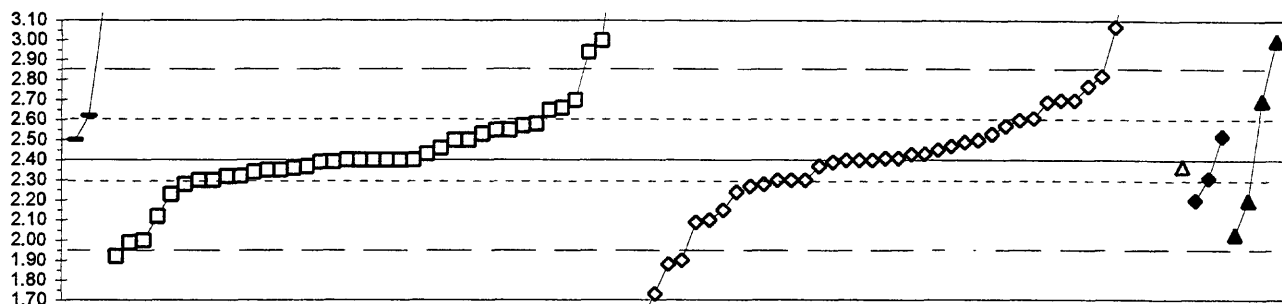
	0. Other	7. Ion chromatography	22. Colorimetric	40. Ion selective electrode
N =	2	19	1	51
Minimum =	0.518	0.270	0.530	0.430
Maximum =	0.552	0.850		0.980
Median =	0.535	0.561		0.567
F-pseudosigma =		0.095		0.030

MPV = 0.561
 F-pseudosigma = 0.030
 N = 73
 Hu = 0.590
 HI = 0.550

Lab	Rating	Z-value	0	7	22	40
1	1	1.99				0.620
3	0	4.38				0.691
4	0	4.69		0.700		
7	0	9.75		0.850		
9	4	-0.10				0.558
10	3	0.98				0.590
11	3	0.67				0.581
13	0	2.33				0.630
15	3	0.94				0.589
16	4	-0.37				0.550
18	4	-0.13				0.557
24	3	0.98				0.590
25	3	-0.71				0.540
26	0	3.68		0.670		
28	0	-2.06		0.500		
32	4	0.47				0.575
36	2	1.32				0.600
39	4	0.30				0.570
40	4	-0.37				0.550
42	4	-0.03				0.560
46	4	0.34				0.571
50	4	-0.37				0.550
52	2	-1.45	0.518			
54	4	0.24				0.568
55	0	-2.06				0.500
57	3	-0.71				0.540
58	0	-4.42				0.430
59	4	-0.37				0.550
69	4	-0.03				0.560
70	4	-0.03				0.560
76	4	0.00		0.561		
80	0	4.01				0.680
81	4	-0.03				0.560
83	1	1.65				0.610
85	4	-0.03				0.560
86	0	-3.74		0.450		
89	4	-0.13				0.557
93	0	14.13				0.980
94	4	-0.37				0.550
96	3	0.64				0.580
97	3	0.74				0.583
100	2	-1.05				0.530
102	3	0.64		0.580		
105	3	-0.71		0.540		
107	3	0.98				0.590
109	3	0.64				0.580
114	3	0.98				0.590
119	3	0.98				0.590
127	4	-0.20		0.555		
128	4	-0.03		0.560		
129	2	-1.45		0.518		
134	3	-0.74				0.539
138	1	1.65		0.610		
140	2	1.32				0.600
141	1	-1.72				0.510

Lab	Rating	Z-value	0	7	22	40
142	3	0.98				0.590
145	0	3.34		0.660		
146	4	-0.30	0.552			
149	2	1.32		0.600		
153	0	-2.73		0.480		
154	2	-1.05			0.530	
180	4	-0.37				0.550
182	0	-2.46				0.488
190	4	0.20				0.567
196	4	0.07				0.563
208	0	-9.81		0.270		
210	0	-2.73				0.480
212	4	-0.03				0.560
215	1	1.99				0.620
224	0	2.83		0.645		
234	2	-1.05		0.530		
236	0	4.35		0.690		
241	3	0.64				0.580

13. Statistical summary of reported data for standard reference water sample M-134 (major constituents)--Continued
K (Potassium) mg/l



— 0 — 1 — 4 — 5 — 6 — 7

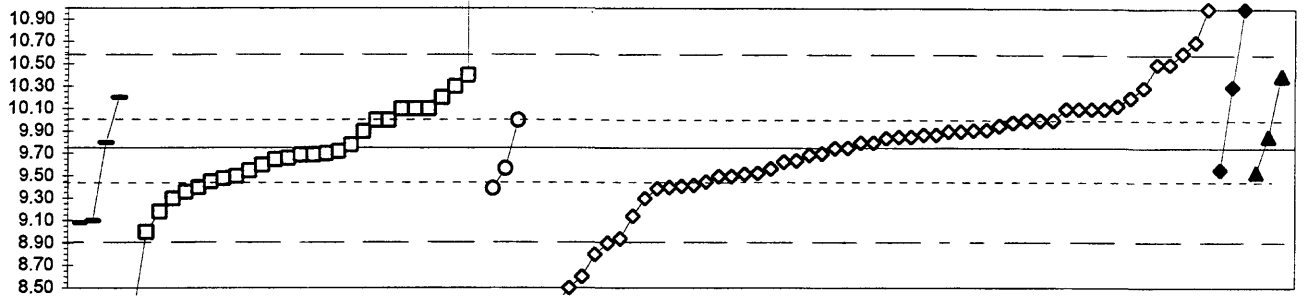
0. Other		5. DCP					
1. AA: direct air		6. ICP/MS					
4. ICP		7. Ion chromatography					
	N =		3	39	40	1	3
	Minimum =		2.50	1.92	1.60	2.37	2.20
	Maximum =		3.15	4.00	5.00		2.52
	Median =		2.62	2.40	2.42		2.31
	F-pseudosigma =			0.16	0.27		

MPV = 2.40
 F-pseudosigma = 0.22
 N = 90
 Hu = 2.60
 Hl = 2.30

Lab	Rating	Z-value	0	1	4	5	6	7
1	4	-0.04		2.39				
3	3	0.76		2.57				
7	1	1.66			2.77			
9	2	1.30			2.69			
10	4	-0.22		2.35				
11	4	0.40			2.49			
13	2	-1.35			2.10			
15	4	-0.04			2.39			
16	1	-1.80		2.00				
18	4	-0.45			2.30			
19	4	0.45			2.50			
24	4	-0.45			2.30			
25	2	-1.39			2.09			
26	4	0.31			2.47			
27	3	0.81		2.58				
28	0	9.89			4.60			
32	3	0.54					2.52	
33	4	-0.13				2.37		
36	1	-1.84		1.99				
38	4	-0.04		2.39				
40	4	0.04			2.41			
42	4	0.00			2.40			
43	4	0.00			2.40			
48	2	-1.12			2.15			
50	4	0.00		2.40				
52	4	0.00			2.40			
54	4	0.00		2.40				
55	4	0.27		2.46				
56	4	0.45	2.50					
57	0	2.70		3.00				
58	4	0.45		2.50				
59	2	1.35			2.70			
64	4	-0.22		2.35				
68	0				< 0.15			
69	3	0.99	2.62					
70	3	-0.54			2.28			
75	4	0.00		2.40				
80	2	1.35		2.70				
81	4	-0.45			2.30			
83	0	-2.16		1.92				
85	2	1.17		2.66				
86	4	0.13			2.43			
87	4	-0.36		2.32				
89	4	-0.45		2.30				
92	0	4.95		3.50				
97	4	-0.18		2.36				
101	4	0.00		2.40				
102	0	-3.60			1.60			
103	2	1.35			2.70			
105	3	0.76			2.57			
107	4	0.13		2.43				
109	2	1.12		2.65				
111	0	2.43		2.94				
114	4	0.45		2.50				
116	0	11.69			5.00			

Lab	Rating	Z-value	0	1	4	5	6	7
107	4	0.13		2.43				
109	2	1.12		2.65				
111	0	2.43		2.94				
114	4	0.45		2.50				
116	0	11.69			5.00			
119	0	-2.25			1.90			
121	4	0.00		2.40				
127	3	0.67		2.55				
128	0	-3.01			1.73			
129	0	7.19		4.00				
132	4	0.23			2.45			
134	4	-0.14		2.37				
136	3	-0.76		2.23				
138	4	-0.13			2.37			
140	2	-1.26		2.12				
141	4	0.04			2.41			
142	1	1.89			2.82			
145	3	-0.58			2.27			
146	0	3.37	3.15					
151	3	-0.54		2.28				
153	3	-0.90						2.20
154	0	4.50			3.40			
180	0	3.01			3.07			
182	3	0.59			2.53			
190	1	-1.66						2.03
191	4	-0.40				2.31		
194	3	0.58		2.53				
196	4	-0.45		2.30				
210	0	8.09			4.20			
212	3	0.90			2.60			
215	0	-2.34			1.88			
219	3	-0.90				2.20		
221	3	0.67		2.55				
224	4	0.13			2.43			
226	4	0.00		2.40				
230	2	1.35						2.70
231	4	-0.27		2.34				
234	3	0.94			2.61			
236	3	-0.72			2.24			
237	0	2.70						3.00
241	4	-0.36		2.32				

Table 13. Statistical summary of reported data for standard reference water sample M-134 (major constituents)--Continued
Mg (Magnesium) mg/l



← 0 □ 1 ○ 2 ◇ 4 ● 6 ▲ 7

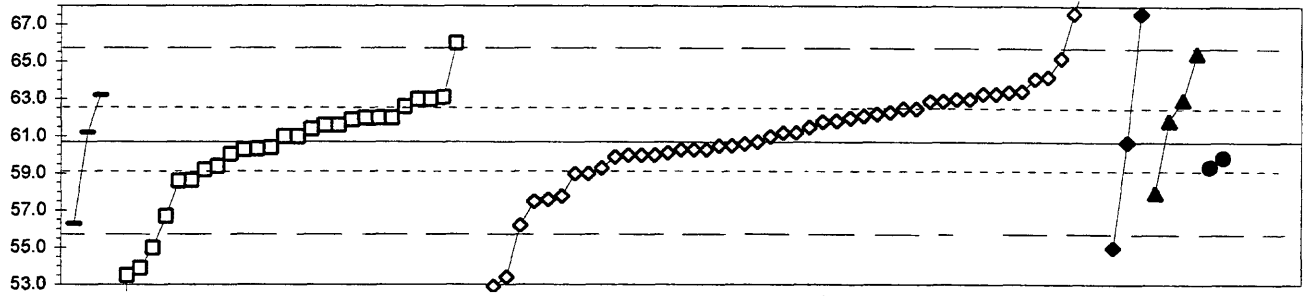
0. Other	4. ICP				
1. AA: direct air	6. ICP/MS				
2. AA: direct nitrous oxide	7. Ion chromatography				
N = 4	28	3	54	3	3
Minimum = 9.08	8.20	9.39	2.91	9.56	9.54
Maximum = 10.20	114.00	10.00	11.00	11.00	10.40
Median = 9.45	9.69	9.57	9.80	10.30	9.86
F-pseudosigma = 0.43	0.43		0.43		

MPV = 9.75
 F-pseudosigma = 0.41
 N = 95
 Hu = 10.00
 HI = 9.45

Lab	Rating	Z-value	0	1	2	4	6	7
1	4	-0.22		9.66				
3	3	-0.54				9.53		
7	4	-0.44				9.57		
9	4	0.37				9.90		
10	1	1.59		10.40				
11	0	-2.08				8.90		
13	3	-0.61				9.50		
15	3	0.86				10.10		
16	3	-0.61				9.50		
18	2	-1.10				9.30		
19	0	2.08				10.60		
24	3	0.56				9.98		
25	0	-2.33				8.80		
26	3	0.61				10.00		
27	1	-1.64	9.08					
28	3	0.86				10.10		
30	3	-0.88			9.39			
32	2	1.35					10.30	
33	4	0.12	9.80					
36	4	-0.07		9.72				
38	4	0.37		9.90				
39	4	-0.15				9.69		
40	2	-1.50				9.14		
42	3	0.61				10.00		
43	4	0.37				9.90		
48	4	-0.27				9.64		
50	3	0.61		10.00				
52	4	0.12				9.80		
54	3	0.61		10.00				
55	1	1.84				10.50		
56	1	-1.59	9.10					
57	3	0.61				10.00		
58	0	255.70		114.00				
59	1	1.84				10.50		
64	3	-0.86				9.40		
68	0	-5.27				7.60		
69	3	-0.66		9.48				
70	4	0.29				9.87		
75	4	-0.25		9.65				
80	2	1.35	10.30					
81	3	-0.83				9.41		
83	3	-0.81				9.42		
84	3	0.86		10.10				
85	3	-0.74		9.45				
86	3	0.86				10.10		
87	3	-0.96		9.36				
89	2	-1.10		9.30				
92	1	-1.84		9.00				
97	3	0.86		10.10				
101	3	-0.86		9.40				
102	0	-3.07				8.50		
103	0	-2.82				8.60		
105	4	0.25				9.85		
107	4	-0.15		9.69				
109	3	-0.61		9.50				

Lab	Rating	Z-value	0	1	2	4	6	7
111	4	-0.44			9.57			
114	3	0.61			10.00			
116	4	0.49				9.95		
119	4	-0.12				9.70		
121	4	0.00				9.75		
127	3	-0.56				9.52		
128	1	-1.99				8.94		
129	4	-0.49		9.55				
132	0	-16.78				2.91		
133	4	0.39				9.91		
134	4	0.40				9.91		
136	2	-1.40		9.18				
138	3	0.86				10.10		
140	4	-0.37		9.60				
141	4	0.29				9.87		
142	3	0.93				10.13		
145	4	-0.29				9.63		
146	2	1.10	10.20					
151	4	-0.12		9.70				
153	4	0.27						9.86
154	2	1.10				10.20		
180	0	2.33				10.70		
182	4	0.01				9.75		
190	3	-0.52						9.54
191	4	-0.47					9.56	
194	4	0.22				9.84		
196	2	1.10		10.20				
210	4	0.25				9.85		
212	0	3.07				11.00		
215	0	-3.43				8.35		
219	0	3.07					11.00	
221	3	0.86		10.10				
224	2	1.32				10.29		
226	4	0.07		9.78				
230	1	1.59						10.40
231	4	-0.15		9.69				
234	3	-0.74				9.45		
236	3	-0.89				9.39		
237	4	0.12				9.80		
241	0	-3.80		8.20				

Table 13. Statistical summary of reported data for standard reference water sample M-134 (major constituents)--Continued
Na (Sodium) mg/l



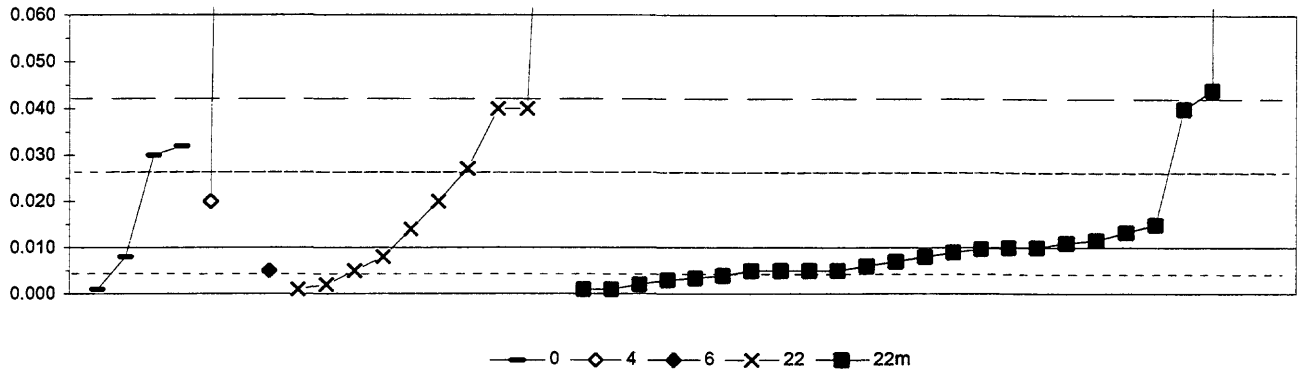
0. Other	6. ICP/MS					
1. AA: direct air	7. Ion chromatography					
4. ICP	12. Flame emission					
N =	3	32	49	3	4	2
Minimum =	56.3	23.0	41.8	55.0	58.0	59.4
Maximum =	63.2	66.0	87.0	67.6	65.5	59.9
Median =	61.2	60.3	61.2	60.7	62.5	59.7
F-pseudosigma =		2.0	2.1			

MPV = 60.7
 F-pseudosigma = 2.4
 N = 93
 Hu = 62.5
 Hi = 59.2

Lab	Rating	Z-value	0	1	4	6	7	12
1	4	-0.12		60.4				
3	3	0.90			62.9			
7	4	0.20			61.2			
9	3	0.61			62.2			
10	4	0.29		61.4				
11	1	1.84			65.2			
13	3	0.94			63.0			
15	4	-0.16			60.3			
16	3	-0.69			59.0			
18	4	-0.29			60.0			
19	4	-0.16			60.3			
24	3	0.74			62.5			
25	1	-1.84			56.2			
26	3	0.57			62.1			
27	0	-2.78		53.9				
28	2	-1.27				57.6		
32	0	2.82					67.6	
33	4	0.20	61.2					
36	3	-0.61		59.2				
38	3	-0.74		58.9				
39	4	-0.08			60.5			
40	4	0.20			61.2			
42	3	0.90			62.9			
43	3	0.94			63.0			
48	2	-1.19			57.8			
50	4	0.12		61.0				
52	4	-0.29			60.0			
54	4	0.12		61.0				
55	3	-0.53		59.4				
56	1	-1.80	56.3					
57	4	0.12			61.0			
58	0	2.17		66.0				
59	0	10.75			87.0			
64	3	-0.61		59.2				
68	2	-1.31			57.5			
69	3	-0.53						59.4
70	3	0.53			62.0			
75	4	0.49		61.9				
80	3	-0.86		58.6				
81	4	-0.33			59.9			
83	4	-0.16			60.3			
84	4	-0.33						59.9
85	3	-0.69		59.0				
86	2	1.06			63.3			
87	3	-0.61		59.2				
89	4	0.37		61.6				
92	0	-15.41		23.0				
97	3	0.98		63.1				
101	3	0.94		63.0				
102	0	-7.73			41.8			

Lab	Rating	Z-value	0	1	4	6	7	12
103	4	-0.29			60.0			
105	4	0.33			61.5			
107	3	-0.69		59.0				
109	3	-0.84		58.6				
111	4	-0.16		60.3				
114	0	-2.94		53.5				
116	3	0.65			62.3			
119	4	0.45			61.8			
121	3	0.74			62.5			
127	3	-0.69			59.0			
128	0	-3.19			52.9			
129	3	0.94		63.0				
132	2	1.09			63.4			
134	4	-0.26		60.1				
136	1	-1.64		56.7				
138	2	1.39			64.1			
140	3	0.53		62.0				
141	4	0.00			60.7			
142	4	0.47			61.8			
145	4	-0.24			60.1			
146	2	1.02	63.2					
151	3	0.53		62.0				
153	3	0.94					63.0	
154	2	1.06			63.3			
180	0	2.82			67.6			
182	0	-5.33			47.7			
190	4	0.49						61.9
191	4	0.00				60.7		
194	2	1.43			64.2			
196	3	0.78		62.6				
210	4	-0.08			60.5			
212	0	3.72			69.8			
215	0	-2.98			53.4			
219	0	-2.33				55.0		
221	3	0.53		62.0				
224	4	-0.04			60.6			
226	4	-0.15		60.3				
230	1	1.96					65.5	
231	4	0.37		61.6				
234	3	-0.57			59.3			
236	2	1.11			63.4			
237	2	-1.10					58.0	
241	0	-2.33		55.0				

Table 13. Statistical summary of reported data for standard reference water sample M-134 (major constituents)--Continued
total P (total Phosphorus) mg/l



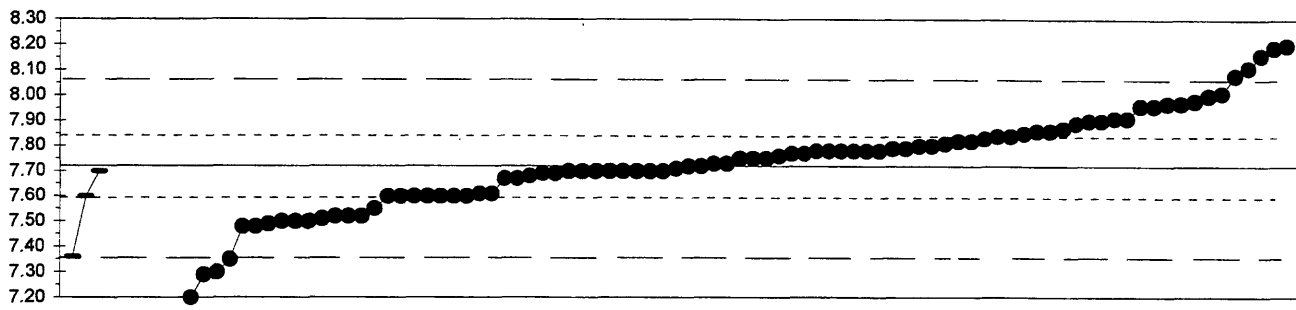
	0	4	6	22	22m
N =	4	2	1	10	25
Minimum =	0.001	0.020	0.005	0.001	0.001
Maximum =	0.032	0.500		0.170	3.400
Median =	0.019	0.260		0.017	0.008
F-pseudosigma =				0.026	0.005

MPV = 0.010
 F-pseudosigma = 0.016
 N = 42
 Hu = 0.027
 HI = 0.005

Lab	Rating	Z-value	0	4	6	22	22m
3	NR					< 0.01	
7	NR					< 0.01	
9	3	-0.52					0.001
13	NR						< 0.05
15	NR					< 0.02	
16	2	1.07				0.027	
18	4	-0.46				0.002	
23	NR						< 0.1
25	NR		< 0.121				
28	0	29.94	0.500				
36	NR					< 0.025	
38	4	-0.09					0.008
39	4	-0.27				0.005	
42	4	0.34					0.015
48	0	206.96					3.400
52	2	1.37	0.032				
55	4	0.09					0.011
57	NR						< 0.02
58	1	1.86				0.040	
59	3	0.64				0.020	
64	4	-0.27					0.005
68	0	9.80				0.170	
70	NR						< 0.1
81	NR					< 0.005	
85	NR						< 0.005
87	4	0.03					0.010
89	4	-0.27					0.005
92	NR						< 0.01
97	NR					< 0.001	
102	3	-0.52					0.001
103	NR		< 0.05				
105	1	1.86				0.040	
107	4	-0.21					0.006
111	4	-0.03					0.009
114	NR						< 0.01
118	NR						< 0.01
119	4	0.03					0.010
127	4	0.23					0.013
129	0	72.85					1.203
134	4	-0.27					0.005
138	4	-0.37					0.003
140	NR					< 0.01	
141	NR						< 0.05
142	NR						< 0.018
143	4	-0.27					0.005
145	4	0.03					0.010
149	3	-0.52				0.001	
151	4	-0.15					0.007
154	4	-0.40					0.003
180	NR						< 0.025

Lab	Rating	Z-value	0	4	6	22	22m
182	2	1.25	0.030				
185	4	-0.34					0.004
190	4	-0.46					0.002
191	4	-0.27					
194	NR				0.005	< 0.10	
210	NR						< 0.10
212	0	2.11					0.044
213	NR						< 0.02
215	1	1.86					0.040
221	3	-0.52	0.001				
224	NR						< 0.01
226	4	0.13					0.012
234	4	0.27					0.014
236	3	0.64		0.020			
240	4	-0.09	0.008				
241	4	-0.09					0.008

Table 13. Statistical summary of reported data for standard reference water sample M-134 (major constituents)--Continued
pH



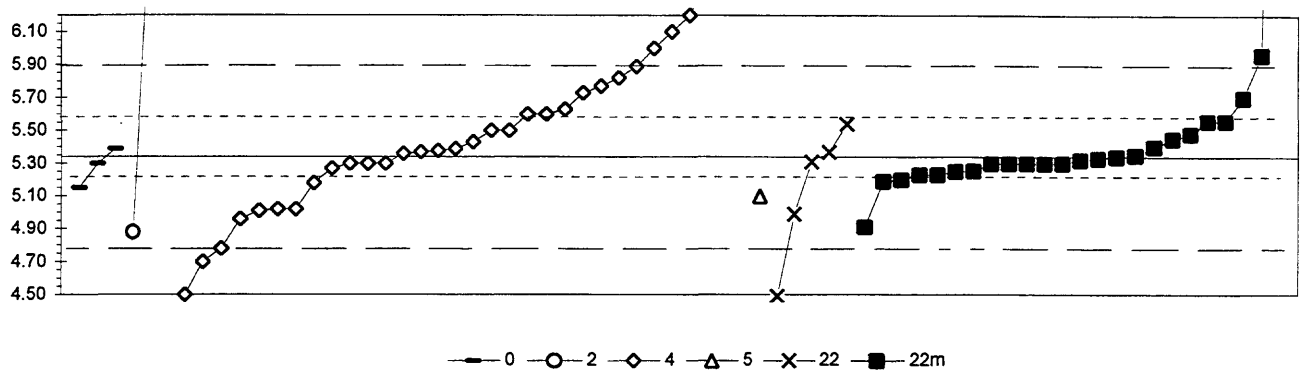
0. Other	
41. Direct reading	
N =	3 91
Minimum =	7.36 3.50
Maximum =	7.70 8.20
Median =	7.60 7.72
F-pseudosigma =	0.17

MPV = 7.72
 F-pseudosigma = 0.17
 N = 94
 Hu = 7.83
 HI = 7.60

Lab	Rating	Z-value	0	41
1	2	-1.14		7.52
3	4	0.44		7.79
7	2	-1.38		7.48
10	0	2.14		8.08
11	2	-1.20		7.51
13	3	0.67		7.83
15	0	-2.43		7.30
16	3	-0.67		7.60
18	4	0.38		7.78
19	0	-5.72		6.74
23	4	0.38		7.78
24	4	0.50		7.80
25	4	0.21		7.75
26	3	0.91		7.87
28	3	-0.67		7.60
32	3	0.62		7.82
33	4	0.38		7.78
36	3	-0.67		7.60
39	2	1.09		7.90
40	2	1.14		7.91
42	2	-1.26		7.50
43	2	-1.32		7.49
46	1	1.73		8.01
48	0	-7.13		6.50
50	0	-2.14		7.35
52	3	-0.67	7.60	
54	3	0.79		7.85
55	4	-0.09		7.70
56	4	0.21		7.75
57	3	-0.67		7.60
58	2	-1.38		7.48
59	4	0.38		7.78
64	0	2.61		8.16
68	2	1.09		7.90
69	4	0.03		7.72
70	4	-0.15		7.69
75	2	1.50		7.97
76	4	0.09		7.73
80	2	-1.26		7.50
81	4	-0.09		7.70
84	4	0.21		7.75
85	4	0.26		7.76
86	4	0.32		7.77
87	4	-0.09		7.70
89	0	-24.72		3.50
90	4	0.38		7.78
92	3	-0.62		7.61
93	4	0.50		7.80
96	4	-0.09		7.70
97	1	1.67		8.00

Lab	Rating	Z-value	0	41
100	3	-0.62		7.61
101	4	-0.21		7.68
105	4	0.32		7.77
107	0	-17.33		4.76
109	0	-5.48		6.78
111	3	0.73		7.84
114	3	-0.67		7.60
118	2	-1.26		7.50
119	2	1.44		7.96
127	4	-0.09		7.70
128	4	-0.15		7.69
129	3	0.56		7.81
132	4	0.09		7.73
134	4	-0.03		7.71
136	3	0.73		7.84
138	1	1.55		7.98
140	2	-1.14		7.52
141	3	0.85		7.86
142	4	0.03		7.72
143	3	0.62		7.82
145	0	-3.02		7.20
146	0	-2.08	7.36	
149	2	1.44		7.96
151	4	-0.26		7.67
153	2	-1.14		7.52
154	0	2.79		8.19
180	4	-0.09		7.70
182	3	-0.67		7.60
190	2	1.14		7.91
194	3	-0.97		7.55
196	0	-7.48		6.44
203	4	-0.26		7.67
204	0	-2.49		7.29
210	0	2.32		8.11
212	3	-0.67		7.60
213	4	0.38		7.78
215	3	0.85		7.86
221	4	-0.09	7.70	
224	4	-0.09		7.70
234	2	1.03		7.89
236	4	-0.09		7.70
237	0	2.84		8.20
240	2	1.50		7.97
241	4	0.44		7.79

Table 13. Statistical summary of reported data for standard reference water sample M-134 (major constituents)--Continued
SiO2 (Silica) mg/l



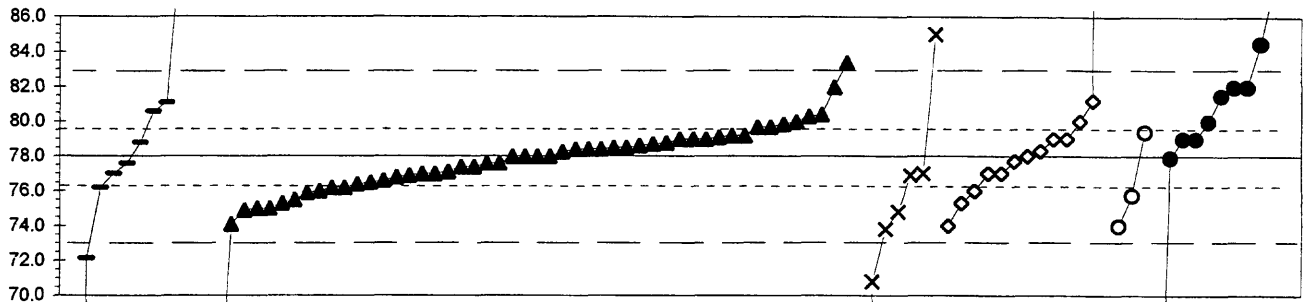
0. Other							5. DCP
2. AA: direct nitrous oxide							22. Colorimetric
4. ICP	N =	3	2	33	1	5	24
	Minimum =	5.15	4.88	2.63	5.10	4.49	4.91
	Maximum =	5.39	7.00	55.00	5.54	11.00	
	Median =	5.30	5.94	5.39	5.31	5.31	5.31
	F-pseudostigma =			0.44			0.16

MPV = 5.34
 F-pseudostigma = 0.27
 N = 68
 Hu = 5.58
 Hi = 5.22

Lab	Rating	Z-value	0	2	4	5	22	22m
1	4	0.35			5.43			
3	1	1.61			5.77			
7	2	1.46			5.73			
9	4	-0.02						5.33
10	4	-0.13						5.30
11	1	1.79			5.82			
13	0	3.20			6.20			
15	4	0.20			5.39			
18	0	-3.12				4.49		
24	3	0.98			5.60			
25	0	7.19			7.28			
28	0	-3.09			4.50			
33	3	-0.87				5.10		
36	0	20.94						11.00
38	4	-0.31						5.25
39	4	0.20	5.39					
40	3	0.61			5.50			
42	3	0.98			5.60			
43	3	0.61			5.50			
46	4	0.06						5.35
50	4	-0.13						5.30
52	4	-0.13	5.30					
55	2	-1.16			5.02			
57	4	-0.13			5.30			
59	2	1.35						5.70
64	2	-1.20			5.01			
68	4	-0.09				5.31		
70	3	-0.68	5.15					
80	0	6.15		7.00				
81	2	-1.28				4.99		
83	2	-1.39			4.96			
85	4	-0.13						5.30
87	4	-0.39						5.23
89	4	-0.50						5.20
92	4	-0.06						5.32
97	4	0.13					5.37	
102	1	-1.57						4.91
103	0	-2.35			4.70			
105	2	1.09			5.63			
107	3	0.54						5.48
111	3	-0.54						5.19
116	4	0.13			5.37			
118	4	0.24						5.40
119	0	2.46			6.00			
121	4	-0.13			5.30			
127	4	0.09			5.36			
128	3	-0.57			5.18			
134	4	0.16			5.38			
138	3	0.83						5.56
140	3	0.76					5.54	

Lab	Rating	Z-value	0	2	4	5	22	22m
141	4	0.43						5.45
142	0	4.05			6.43			
145	4	-0.24			5.27			
149	4	-0.13						5.30
151	4	-0.13						5.30
182	0	-10.00			2.63			
190	3	0.83						5.56
203	4	-0.30						5.26
204	0	2.31						5.96
210	0	2.05			5.89			
212	0	2.83			6.10			
215	0	-2.05			4.78			
226	4	0.02						5.34
231	4	-0.39						5.23
234	4	-0.13			5.30			
236	2	-1.16			5.02			
237	0	183.56			55.00			
241	1	-1.68		4.88				

Table 13. Statistical summary of reported data for standard reference water sample M-134 (major constituents)--Continued
SO4 (Sulfate) mg/l



— 0 —▲— 7 —X— 22 —◇— 22mtb —○— 50 —●— 51

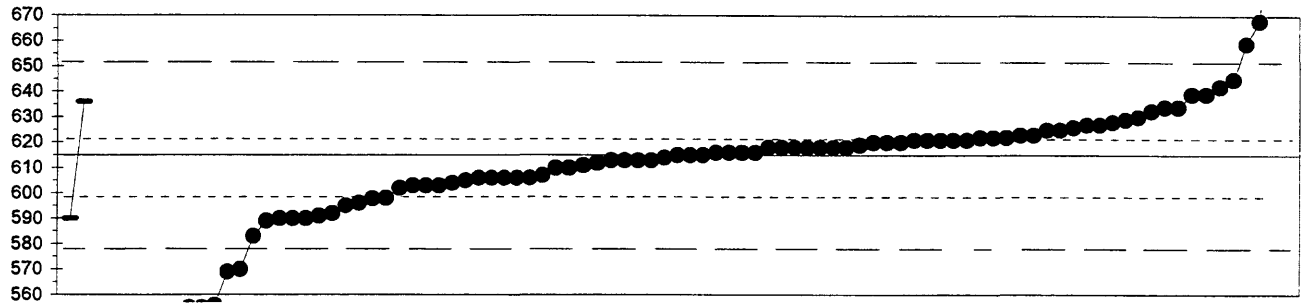
0. Other	22mtb. Color: methl thymol blue					
7. Ion chromatography	50. Gravimetric					
22. Colorimetric	51. Turbidimetric					
N =	11	50	7	13	3	11
Minimum =	8	61	40	74	74	53
Maximum =	123	83	85	241	79	93
Median =	79	78	75	78	76	82
F-pseudosigma =	7	2	3	1		3

MPV = 78.0
 F-pseudosigma = 2.4
 N = 95
 Hu = 79.6
 Hi = 76.3

Lab	Rating	Z-value	0	7	22	22mtb	50	51
1	2	-1.29		74.9				
3	4	-0.50		76.8				
4	1	-1.62		74.1				
7	2	-1.25		75.0				
9	2	-1.12				75.3		
11	4	0.42						79.0
13	4	-0.42		77.0				
15	2	-1.25		75.0				
16	0	-2.43	72.2					
18	1	-1.74			73.8			
19	4	0.12				78.3		
23	0	6.39						93.4
24	4	-0.17	77.6					
25	1	1.66		82.0				
26	4	0.17		78.4				
28	0	8.59	98.7					
30	4	0.17		78.4				
32	3	-0.87		75.9				
33	4	-0.25		77.4				
36	0	-10.38						53.0
39	3	0.83		80.0				
40	4	0.42		79.0				
42	4	0.00		78.0				
43	1	-1.66				74.0		
46	4	0.29		78.7				
48	4	0.42						79.0
50	4	-0.42				77.0		
52	4	0.33	78.8					
54	0	4.15						88.0
55	4	-0.42				77.0		
56	2	1.08	80.6					
57	0	2.91			85.0			
58	3	0.58				79.4		
59	3	-0.58		76.6				
64	4	0.25		78.6				
69	4	0.00				78.0		
70	3	-0.66		76.4				
75	4	-0.12				77.7		
76	4	-0.25		77.4				
80	2	1.29	81.1					
81	0	-2.99			70.8			
83	3	-0.75	76.2					
85	4	-0.17		77.6				
86	4	0.42		79.0				
87	3	-0.83				76.0		
89	4	-0.42			77.0			
92	4	-0.04						77.9
94	4	0.42				79.0		
97	0	-15.65			40.3			
100	4	-0.17		77.6				

Lab	Rating	Z-value	0	7	22	22mtb	50	51
102	3	0.83				80.0		
105	3	0.95		80.3				
109	3	-0.94					75.7	
111	2	-1.12		75.3				
114	1	1.66						82.0
116	0	2.24		83.4				
119	4	0.00		78.0				
127	4	0.50		79.2				
128	4	0.21		78.5				
129	4	0.00		78.0				
134	4	0.32		78.8				
136	4	0.46		79.1				
138	2	-1.04		75.5				
140	2	1.45						81.5
141	3	0.83						80.0
142	1	-1.66					74.0	
145	4	0.21		78.5				
146	0	18.68	123.0					
149	3	-0.83		76.0				
151	4	0.42		79.0				
153	4	0.17		78.4				
154	2	-1.33			74.8			
180	4	0.42				79.0		
182	0	4.98	90.0					
190	4	0.50		79.2				
191	4	-0.46		76.9				
193	3	0.71		79.7				
194	4	-0.46			76.9			
196	3	-0.75		76.2				
197	3	0.77		79.9				
203	0	67.66				241.0		
204	2	1.33				81.2		
208	3	-0.62		76.5				
210	4	0.00		78.0				
212	3	0.71		79.7				
215	1	1.66						82.0
224	4	0.10		78.3				
226	0	-7.03		61.1				
230	3	-0.75		76.2				
231	0	2.70						84.5
234	3	1.00		80.4				
236	4	-0.37		77.1				
237	4	-0.42		77.0				
240	4	-0.42	77.0					
241	0	-29.06	8.0					

Table 13. Statistical summary of reported data for standard reference water sample M-134 (major constituents)--Continued
Sp Cond (Specific Conductance) $\mu\text{S/cm}$



— 0 ● 41

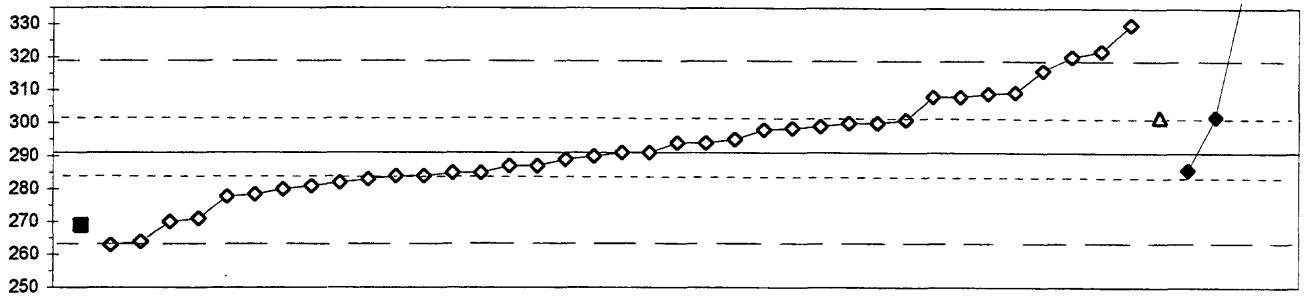
0. Other			
41. Direct reading			
N =	2	91	
Minimum =	590	58	
Maximum =	636	746	
Median =	613	615	
F-pseudostigma =		16	

MPV = 615
 F-pseudostigma = 18
 N = 93
 Hu = 622
 HI = 598

Lab	Rating	Z-value	0	41
1	3	-0.51		606
3	4	0.28		620
7	3	-0.56		605
9	0	-2.59		569
10	4	0.00		615
11	3	-0.51		606
13	4	0.45		623
15	1	1.69		645
16	3	-0.97		598
18	3	-0.73		602
19	2	1.07		634
23	2	-1.29		592
24	4	0.17		618
25	3	0.84		630
26	3	0.67		627
27	4	-0.11		613
28	0	2.98		668
32	4	-0.22		611
33	4	0.06		616
36	1	1.52		642
38	3	0.98		633
39	0	-7.53		481
40	4	0.17		618
42	3	0.79		629
43	4	0.06		616
46	0	7.36		746
48	4	0.17		618
50	4	0.00		615
52	2	-1.41	590	
54	4	0.34		621
55	4	0.28		620
56	4	0.06		616
57	2	-1.41		590
58	3	-0.67		603
59	2	1.07		634
64	4	0.17		618
68	4	0.34		621
70	3	-0.67		603
75	4	-0.11		613
76	3	-0.51		606
80	4	0.17		618
81	4	0.39		622
84	4	0.34		621
85	4	0.22		619
86	4	0.17		618
87	0	-3.37		555
89	3	-0.96		598
90	3	0.73		628
93	0	-4.75		531
96	0	-29.94		82

Lab	Rating	Z-value	0	41
97	4	0.39		622
100	2	-1.12		595
101	4	-0.11		613
102	3	0.56		625
105	4	0.17		618
107	3	0.56		625
109	2	-1.07		596
111	4	-0.28		610
114	1	-1.80		583
118	4	-0.17		612
119	3	-0.67		603
127	3	-0.62		604
128	2	1.35		639
129	2	-1.35		591
134	4	0.06		616
136	4	0.34		621
140	3	0.62		626
141	4	0.39		622
142	3	0.67		627
143	4	-0.45		607
145	2	-1.46		589
146	2	1.18	636	
151	4	0.00		615
153	3	-0.51		606
154	3	-0.51		606
180	0	-7.59		480
182	0	-3.32		556
183	0	-3.37		555
190	4	0.45		623
193	4	-0.06		614
194	0	-2.53		570
196	0	2.47		659
203	4	-0.28		610
204	0	-31.31		58
210	2	-1.41		590
212	4	-0.11		613
215	4	0.34		621
224	2	-1.41		590
234	4	0.28		620
236	0	-3.65		550
237	2	1.35		639
240	0	-3.65		550
241	0	6.46		730

Table 13. Statistical summary of reported data for standard reference water sample M-134 (major constituents)--Continued
Sr (Strontium) µg/l

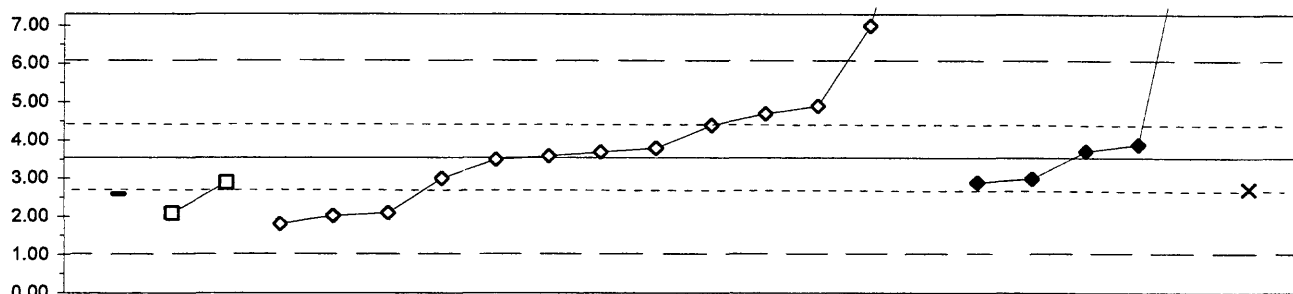


3. AA: graphite furnace	6. ICP/MS
4. ICP	7. Ion chromatography
5. DCP	41. Direct reading
N = 1	37
Minimum = 269	263
Maximum = 330	302
Median = 291	286
F-pseudosigma = 13	340
	302

MPV = 291
 F-pseudosigma = 14
 N = 43
 Hu = 302
 HI = 284

Lab	Rating	Z-value	3	4	5	6	7	41
1	3	0.55		299				
3	3	-0.73		281				
7	4	0.00		291				
9	3	0.73		301				
15	4	-0.44		285				
16	2	-1.46		271				
18	3	-0.66		282				
24	0	2.26		322				
25	1	-2.04		263				
28	3	-0.97		278				
32	3	0.80				302		
33	3	0.80			302			
39	4	-0.15		289				
40	1	-1.53		270				
42	2	1.24		308				
52	3	0.66		300				
55	3	0.58		299				
59	2	1.24		308				
68	3	-0.80		280				
70	4	0.29		295				
81	3	-0.58		283				
85	4	0.22		294				
86	4	-0.07		290				
96	0	26.76						658
97	1	-1.60	269					
102	1	-1.97		264				
103	4	-0.44		285				
105	1	1.82		316				
116	2	1.31		309				
121	3	0.66		300				
127	3	-0.51		284				
134	4	-0.29		287				
138	3	0.51		298				
142	2	1.34		309				
145	3	-0.92		278				
154	3	-0.51		284				
182	0	2.13		320				
190	0							< 0.05
191	4	-0.36				286		
210	4	0.00		291				
212	0	2.84		330				
219	0	3.57				340		
234	4	0.22		294				
236	4	-0.29		287				

Table 13. Statistical summary of reported data for standard reference water sample M-134 (major constituents)--Continued
V (Vanadium) µg/l



—■— 0 —□— 3 —◇— 4 —◆— 6 —X— 22

0. Other	6. ICP/MS				
3. AA: graphite furnace	22. Colorimetric				
4. ICP	N = 1	2	13	5	1
Minimum =	2.60	2.09	1.80	2.90	2.73
Maximum =		2.90	11.80	10.60	
Median =		2.50	3.70	3.72	
F-pseudostigma =			1.21		

MPV = 3.55
 F-pseudostigma = 1.24
 N = 22
 Hu = 4.40
 Hl = 2.73

Lab	Rating	Z-value	0	3	4	6	22
1	3	-0.66					2.73
3	NR				< 10		
7	4	0.12			3.70		
13	NR				< 20		
15	NR				< 10		
16	NR				< 100		
18	NR				< 5		
25	NR				< 4		
28	2	1.09			4.90		
32	0	5.70				10.60	
36	2	-1.18		2.09			
42	4	-0.44				3.00	
48	NR				< 200		
52	2	-1.17			2.10		
57	NR				< 100		
68	NR				< 3		
70	NR				< 50		
81	NR				< 4		
85	NR				< 20		
86	3	0.69			4.40		
97	NR			< 3.15			
102	4	-0.44			3.00		
103	NR				< 10		
105	NR				< 13		
127	NR				< 4		
128	NR				< 5		
134	3	-0.52		2.90			
138	3	-0.52				2.90	
141	NR				< 10		
142	4	0.14				3.72	
145	4	0.20			3.80		
146	3	-0.76	2.60				
154	0	6.67			11.80		
180	NR				< 4.1		
182	4	0.04			3.59		
210	4	-0.04			3.50		
212	3	0.93			4.70		
219	4	0.29				3.90	
224	2	-1.41			1.80		
234	2	-1.23			2.02		
236	0	2.79			7.00		

Table 14. Statistical summary of reported data for standard reference water sample N-45 (nutrients)

Definition of analytical methods, abbreviations, and symbols

Analytical methods

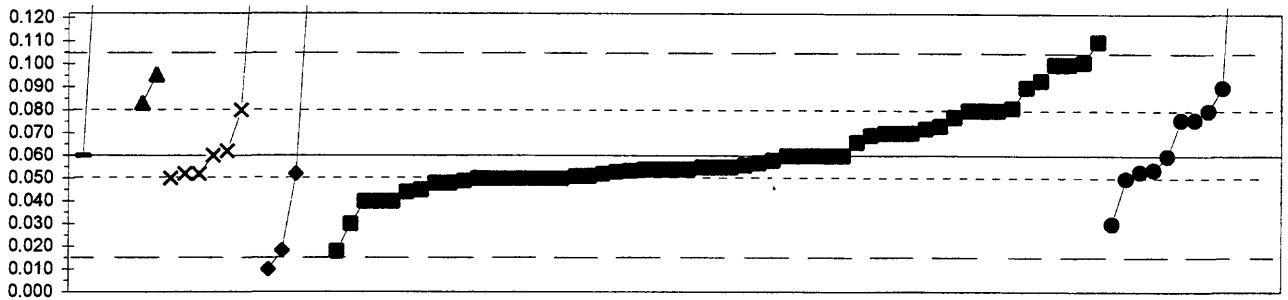
0. Other/Not reported		
4. ICP	=	inductively coupled plasma
5. DCP	=	direct coupled plasma
7. IC	=	ion chromatography
20. Titrate: color	=	titration: colorimetric (color reagent specified)
22. Color:	=	colorimetric [color reagent specified]
40. Ion electrode	=	ion selective electrode

Abbreviations and symbols

N	=	number of samples
St dev	=	traditional standard deviation
MPV	=	most probable value
F-pseudostigma	=	nonparametric statistic deviation
Hu	=	upper hinge value
Hi	=	lower hinge value
mg/L	=	milligrams per liter
Lab	=	laboratory code number
NR	=	not rated, less than value reported
<	=	less than

<u>Constituent</u>		<u>page</u>
NH3 as N	Ammonia as nitrogen	83
NH3+Org N as N	Ammonia plus organic nitrogen	84
NO3+NO2 as N	Nitrate plus nitrite as nitrogen	85
Total P as P	Total Phosphorus as phosphorus	86
PO4 as P	Orthophosphate as phosphorus	87

Table 14. Statistical summary of reported data for standard reference water sample N-45 (nutrients)--Continued
NH3 as N (Ammonia) mg/l



— 0 —▲— 7 —X— 22 —◆— 22n —■— 22p —●— 40

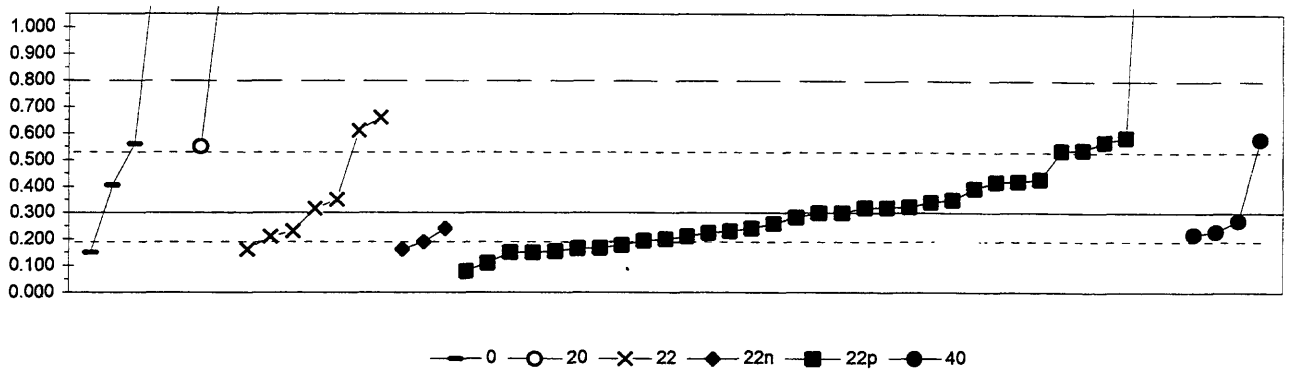
0. Other	22n. Color: Nesslerization					
7. Ion chromatography	22p. Color: phenate					
22. Colorimetric	40. Ion selective electrode					
N =	4	2	7	5	55	12
Minimum =	0.060	0.083	0.050	0.010	0.018	0.030
Maximum =	1.960	0.096	0.160	0.250	0.110	0.630
Median =	0.237	0.089	0.060	0.052	0.055	0.076
F-pseudosigma =			0.014		0.015	0.068

MPV = 0.060
 F-pseudosigma = 0.021
 N = 85
 Hu = 0.080
 HI = 0.051

Lab	Rating	Z-value	0	7	22	22n	22p	40
1	4	-0.28					0.054	
3	4	0.09			0.062			
7	NR				< 0.1			
9	4	-0.42					0.051	
10	4	-0.28						0.054
13	4	0.00					0.060	
15	4	-0.37			0.052			
16	0	5.30	0.174					
18	4	-0.28					0.054	
21	4	-0.47					0.050	
23	3	0.60					0.073	
25	NR				< 0.05			
26	2	1.07		0.083				
28	1	1.86					0.100	
32	1	1.65		0.096				
33	4	0.00					0.060	
36	0	6.51						0.200
38	4	-0.28					0.054	
39	3	-0.74					0.044	
46	4	-0.33					0.053	
48	4	-0.47					0.050	
52	4	0.00					0.060	
53	1	-1.94				0.018		
55	3	0.79					0.077	
58	2	-1.40						0.030
59	4	-0.47					0.050	
60	1	1.54					0.093	
64	4	0.00					0.060	
70	NR						< 0.1	
75	4	-0.23					0.055	
76	4	-0.47					0.050	
80	0	8.84				0.250		
84	3	-0.51					0.049	
85	4	-0.28					0.054	
86	3	0.98					0.081	
87	2	-1.40					0.030	
88	3	-0.56					0.048	
89	4	0.47					0.070	
90	3	-0.56					0.048	
91	4	0.00					0.060	
92	0	26.51						0.630
93	4	-0.47					0.050	
94	4	0.47					0.070	
96	3	-0.70					0.045	
97	4	-0.37				0.052		
100	3	-0.93					0.040	
102	3	0.93					0.080	
105	4	0.00			0.060			
107	4	-0.09					0.058	
114	NR							< 0.1
118	1	1.86					0.100	
119	2	1.40						0.090
127	4	-0.14					0.057	
128	2	1.40					0.090	
129	0	4.05				0.147		

Lab	Rating	Z-value	0	7	22	22n	22p	40
132	4	-0.47					0.050	
133	3	0.74						0.076
134	4	0.47					0.070	
136	4	0.42					0.069	
138	4	-0.37					0.052	
140	3	0.93			0.080			
141	1	1.91					0.101	
142	1	-1.95					0.018	
143	3	-0.93					0.040	
145	4	-0.47					0.050	
146	4	-0.23					0.055	
149	4	-0.47						0.050
151	3	-0.93					0.040	
154	4	-0.19					0.056	
180	4	-0.42					0.051	
182	0	-2.33				0.010		
183	3	0.93						0.080
185	4	-0.31					0.053	
190	3	0.93					0.080	
194	0	4.65			0.160			
197	4	-0.37			0.052			
198	4	-0.23					0.055	
203	4	0.28					0.066	
209	4	0.00						0.060
210	0	11.16	0.300					
212	0	2.33					0.110	
215	3	0.93					0.080	
221	4	0.00	0.060					
224	0	23.26						0.560
226	3	0.56					0.072	
231	4	-0.47			0.050			
234	3	0.74						0.076
240	0	88.38	1.960					
241	4	-0.33						0.053

Table 14. Statistical summary of reported data for standard reference water sample N-45 (nutrients)--Continued
NH3 + Org N as N (Ammonia + Organic N) mg/l



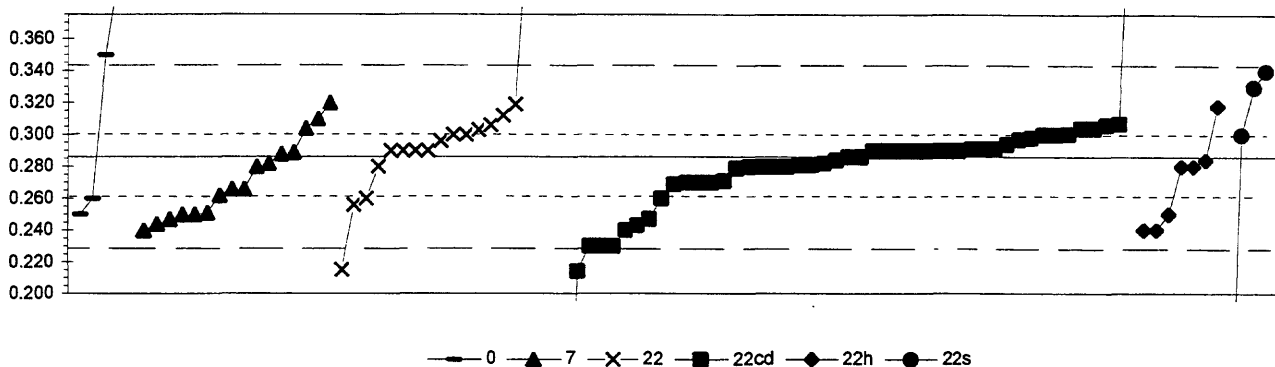
0. Other	22n. Color: Nesslerization					
20. Titrate: colorimetric	22p. Color: phenate					
22. Colorimetric	40. Ion selective electrode					
N =	5	3	7	3	33	4
Minimum =	0.150	0.000	0.160	0.162	0.080	0.220
Maximum =	3.040	1.300	0.660	0.240	6.400	0.580
Median =	0.560	0.550	0.316	0.190	0.300	0.251
F-pseudsigma =			0.193	0.166		

MPV = 0.300
 F-pseudsigma = 0.249
 N = 54
 Hu = 0.536
 HI = 0.200

Lab	Rating	Z-value	0	20	22	22n	22p	40
1	NR						< 0.2	
3	NR			< 1				
9	3	0.96					0.540	
10	4	0.16					0.340	
15	NR				< 0.5			
16	4	0.43	0.406					
18	4	-0.31					0.224	
21	4	-0.24					0.241	
25	NR				< 0.05			
28	0	7.63					2.200	
36	NR				< 0.5			
38	4	-0.24				0.240		
46	4	-0.16					0.260	
48	0	24.49					6.400	
52	4	0.38					0.394	
55	3	-0.54					0.166	
56	3	-0.60	0.150					
58	3	1.00		0.550				
59	4	0.00					0.300	
60	2	1.08					0.570	
70	4	0.47					0.418	
85	4	0.08					0.320	
87	3	-0.60					0.150	
89	2	1.15					0.587	
90	3	-0.59					0.154	
91	4	-0.28					0.230	
94	3	-0.76					0.110	
96	3	-0.54					0.165	
97	4	-0.44				0.190		
100	0	4.06	1.310					
102	3	-0.88					0.080	
104	4	-0.36					0.211	
105	2	1.45			0.660			
118	4	0.08					0.320	
119	4	-0.28						0.230
127	4	-0.49					0.177	
128	4	0.48					0.420	
129	3	-0.55				0.162		
133	4	-0.32						0.220
134	4	-0.40					0.200	
138	4	-0.06					0.284	
140	4	0.20			0.350			
141	NR						< 1	
142	3	0.95					0.536	
143	4	0.00					0.300	
145	4	0.20					0.350	
180	4	-0.43					0.194	
185	2	1.25			0.611			
190	3	-0.60					0.150	
194	4	-0.36			0.210			
198	4	0.10					0.324	
203	4	0.06			0.316			
209	3	-0.56			0.160			
210	0	4.01		1.300				
212	NR						< 0.5	

Table 14. Statistical summary of reported data for standard reference water sample N-45 (nutrients)--Continued

NO3 + NO2 as N (Nitrate + Nitrite) mg/l



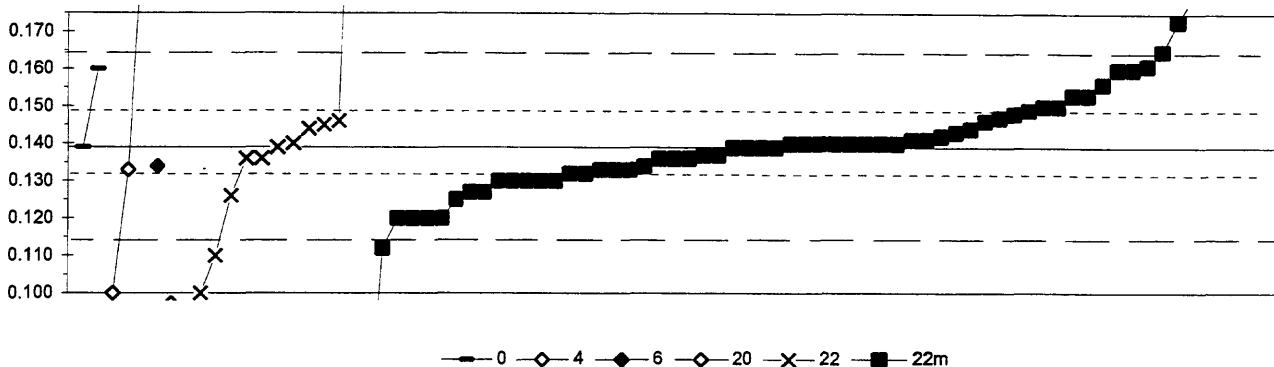
0. Other	22cd. Color: cd diazo					
7. Ion chromatography	22h. Color: hydrazine diazo					
22. Colorimetric	22s. Color: sulfanilamide					
N =	5	16	18	47	7	4
Minimum =	0.250	0.240	0.215	0.028	0.240	0.040
Maximum =	1.000	0.320	0.660	0.496	0.318	0.340
Median =	0.350	0.266	0.298	0.286	0.280	0.315
F-pseudosigma =	0.029	0.016	0.034	0.027		

MPV = 0.286
 F-pseudosigma = 0.028
 N = 97
 Hu = 0.300
 HI = 0.262

Lab	Rating	Z-value	0	7	22	22cd	22h	22s
1	0	-2.56				0.214		
3	3	0.60			0.303			
7	4	-0.21			0.280			
9	3	0.75				0.307		
10	4	0.14				0.290		
12	4	0.14				0.290		
13	1	-1.63		0.240				
15	3	0.92			0.312			
16	0	4.08	0.401					
18	0	-9.16				0.028		
19	4	0.50			0.300			
21	4	-0.21				0.280		
23	4	-0.18				0.281		
25	4	-0.21		0.280				
26	2	-1.38		0.247				
28	0	-8.73						0.040
36	1	-1.53				0.243		
38	4	0.18				0.291		
39	4	0.07		0.288				
42	2	-1.28		0.250				
43	1	1.92						0.340
46	4	0.00				0.286		
48	1	-1.63					0.240	
52	4	0.00				0.286		
53	4	0.18				0.291		
55	4	0.39				0.297		
56	2	-1.28	0.250					
58	0	13.28			0.660			
59	1	-1.99				0.230		
60	3	-0.53				0.271		
64	4	-0.21				0.280		
69	4	-0.21				0.280		
70	2	-1.38				0.247		
75	3	-0.60				0.269		
76	2	-1.49		0.244				
80	3	-0.92	0.260					
83	4	0.14			0.290			
84	3	-0.92				0.260		
85	4	-0.21				0.280		
86	4	-0.14				0.282		
87	4	0.14				0.290		
88	0	7.46				0.496		
89	4	0.14				0.290		
90	2	1.14					0.318	
91	4	-0.21					0.280	
92	4	-0.07				0.284		
94	4	0.14				0.290		
96	4	-0.21					0.280	
97	4	0.50				0.300		
100	4	0.50						0.300
102	1	-1.99				0.230		
104	4	0.18				0.291		
105	0	5.47			0.440			
107	3	0.64				0.304		
108	3	-0.57				0.270		

Lab	Rating	Z-value	0	7	22	22cd	22h	22s
111	3	-0.71	0.266					
114	4	0.14				0.290		
118	1	-1.63					0.240	
119	4	0.50			0.300			
126	3	-0.57				0.270		
127	3	-0.71	0.266					
128	3	0.85	0.310					
129	3	0.64	0.304					
132	2	-1.28					0.250	
133	1	-1.99				0.230		
134	4	0.50				0.300		
138	4	0.28				0.294		
140	4	0.14			0.290			
141	4	-0.07					0.284	
142	3	0.71			0.306			
143	4	-0.18				0.281		
145	1	-1.63				0.240		
146	4	-0.25				0.279		
151	4	0.14			0.290			
154	3	-0.57				0.270		
180	4	0.43				0.298		
183	0	25.35	1.000					
185	3	0.51				0.300		
190	4	-0.14			0.282			
191	2	-1.28			0.250			
193	2	1.21			0.320			
194	4	0.14			0.290			
196	2	-1.24			0.251			
197	4	0.36				0.296		
198	3	0.71				0.306		
203	0	-2.52			0.215			
208	4	0.11			0.289			
209	1	1.56						0.330
210	NR				< 0.5			
212	4	0.14				0.290		
215	4	0.14				0.290		
221	0	2.27	0.350					
224	2	1.17			0.319			
226	3	0.64				0.304		
231	3	-0.92				0.260		
234	3	-0.85			0.262			
240	0	8.66			0.530			
241	2	-1.07			0.256			

Table 14. Statistical summary of reported data for standard reference water sample N-45 (nutrients)--Continued
Total P as P (total Phosphorus) mg/l



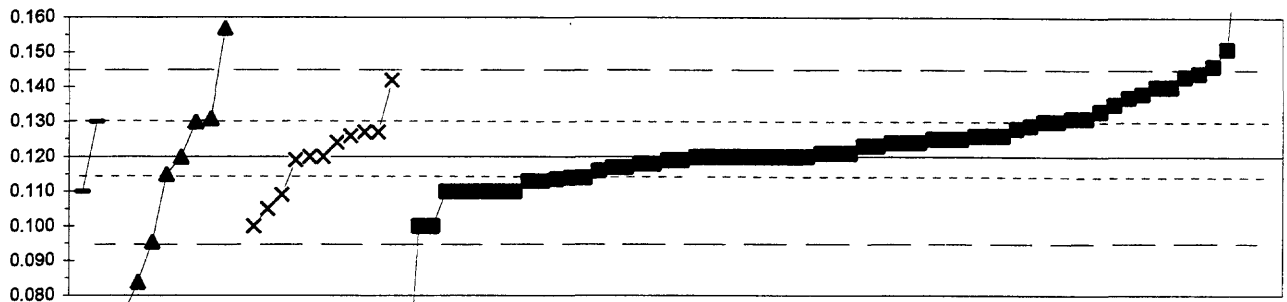
0. Other	20. Titrate: colorimetric						
4. ICP	22. Colorimetric						
6. ICP/MS	22m. Color: phosphomolybdate						
	N =	2	3	1	12	62	
	Minimum =	0.139	0.100	0.134	0.097	0.016	0.060
	Maximum =	0.160	0.200			0.260	1.200
	Median =	0.150	0.133			0.138	0.140
	F-pseudosigma =					0.020	0.013

MPV = 0.139
 F-pseudosigma = 0.012
 N = 81
 Hu = 0.148
 HI = 0.132

Lab	Rating	Z-value	0	4	6	20	22	22m
1	3	-0.76						0.130
3	4	0.42				0.144		
7	4	0.08				0.140		
9	1	1.85						0.161
10	4	0.34						0.143
12	3	-0.76						0.130
13	0	9.36						0.250
15	4	0.00				0.139		
16	0	-3.52			0.097			
18	4	-0.17						0.137
19	1	-1.60						0.120
21	4	0.25						0.142
22	4	0.42						0.144
23	0	-2.28						0.112
25	NR		< 0.121					
28	0	5.14	0.200					
36	4	0.08						0.140
38	3	0.59						0.146
39	3	0.51				0.145		
42	2	1.18						0.153
46	3	-0.59						0.132
48	0	89.46						1.200
52	3	0.84						0.149
55	3	0.67						0.147
56	1	1.77	0.160					
58	0	10.20				0.260		
59	0	5.14						0.200
64	4	0.17						0.141
70	4	-0.42						0.134
75	3	-0.59						0.132
83	0	-3.29	0.100					
85	3	-0.76						0.130
86	3	-0.51	0.133					
87	0	2.19						0.165
89	4	-0.25						0.136
90	4	-0.25						0.136
91	1	1.77						0.160
92	0	4.64						0.194
94	2	-1.18						0.125
96	4	0.08						0.140
97	0	-6.66						0.060
102	1	-1.60						0.120
104	4	0.00						0.139
105	3	0.59				0.146		
107	4	0.08						0.140
108	0	38.87						0.600
111	4	0.17						0.141
114	1	-1.60						0.120
118	3	-0.76						0.130
119	4	0.08						0.140
127	3	-0.51						0.133
128	3	0.93						0.150
129	4	-0.25						0.136
132	4	0.08						0.140
133	4	0.08						0.140

Lab	Rating	Z-value	0	4	6	20	22	22m
134	1	-1.60						0.120
138	3	-0.51						0.133
140	0	-3.29					0.100	
141	4	0.08						0.140
142	0	2.87						0.173
143	4	-0.17						0.137
145	3	0.93						0.150
149	4	-0.25					0.136	
151	1	1.77						0.160
154	2	-1.01						0.127
180	2	1.18						0.153
182	0	3.46						0.180
185	2	-1.01						0.127
190	4	0.00						0.139
191	4	-0.42				0.134		
198	2	1.43						0.156
203	3	-0.51						0.133
210	NR							< 0.25
212	4	0.08						0.140
215	3	-0.76						0.130
221	4	0.00	0.139					
224	2	-1.10					0.126	
226	4	0.00						0.139
227	4	0.00						0.139
231	0	-2.45					0.110	
234	3	0.76						0.148
240	0	-10.37					0.016	
241	4	-0.25					0.136	

Table 14. Statistical summary of reported data for standard reference water sample N-45 (nutrients)--Continued
PO4 as P (Orthophosphate) mg/l



0. Other		22. Colorimetric				
7. Ion chromatography		22m. Color: phosphomolybdate				
20. Titrate: colorimetric						
N =	2	9	1	11	63	
Minimum =	0.110	0.060	0.072	0.100	0.038	
Maximum =	0.130	0.157		0.142	0.480	
Median =	0.120	0.115		0.120	0.121	
F-pseudsigma =		0.034		0.009	0.010	

MPV = 0.120
 F-pseudsigma = 0.012
 N = 86
 Hu = 0.130
 HI = 0.114

Lab	Rating	Z-value	0	7	20	22	22m
1	4	0.25					0.123
3	4	-0.08				0.119	
9	4	-0.25					0.117
10	3	0.51					0.126
12	3	-0.59					0.113
13	0	-5.06	0.060				
15	3	0.51				0.126	
16	0	-4.01		0.072			
18	4	0.42					0.125
19	1	1.69					0.140
21	4	-0.08					0.119
23	2	1.43					0.137
25	0	-6.91					0.038
26	3	0.93	0.131				
28	4	0.00					0.120
32	0	-2.07	0.095				
36	4	0.00					0.120
38	4	-0.34					0.116
39	2	-1.26				0.105	
42	2	1.26					0.135
46	4	0.08					0.121
48	1	1.52					0.138
52	4	0.34					0.124
53	3	0.74					0.129
55	3	0.93					0.131
56	3	0.84	0.130				
58	4	0.00				0.120	
59	3	-0.84					0.110
64	4	0.42					0.125
70	3	-0.51					0.114
75	4	0.25					0.123
80	3	-0.84					0.110
83	4	0.34				0.124	
85	3	-0.51					0.114
86	0	3.12	0.157				
87	1	2.02					0.144
88	0	6.24					0.194
89	3	0.51					0.126
90	4	0.34					0.124
91	3	-0.84					0.110
92	1	1.94					0.143
96	4	-0.17					0.118
97	3	-0.84					0.110
102	1	-1.69					0.100
104	2	1.10					0.133
105	3	0.59				0.127	
107	4	0.08					0.121
108	4	0.00					0.120
111	3	0.84					0.130
118	4	0.00					0.120
119	3	-0.84					0.110
127	3	0.51					0.126
128	3	0.84	0.130				
129	4	-0.25					0.117
132	3	-0.84					0.110

Lab	Rating	Z-value	0	7	20	22	22m
133	4	0.00					0.120
134	4	0.00					0.120
138	3	-0.59					0.113
140	1	-1.69				0.100	
141	1	1.69					0.140
142	0	2.61					0.151
143	4	-0.17					0.118
145	4	0.00					0.120
146	4	0.08					0.121
151	3	0.84					0.130
154	4	-0.08					0.119
180	4	0.34					0.124
182	0	30.35					0.480
183	0	12.65					0.270
185	3	-0.54					0.114
190	3	0.93					0.131
191	0	-3.79	0.075				
193	1	1.85				0.142	
196	4	-0.42	0.115				
198	3	0.67					0.128
203	4	0.42					0.125
208	4	0.00	0.120				
210	0	2.19					0.146
212	4	0.00					0.120
215	1	-1.69					0.100
221	3	-0.84	0.110				
224	3	-0.93				0.109	
227	4	0.00					0.120
231	4	0.00				0.120	
234	0	-3.04	0.084				
240	0	< 0.01					
241	3	0.59				0.127	

Table 15. *Statistical summary of reported data for standard reference water sample N-46 (nutrients)*

Definition of analytical methods, abbreviations, and symbols

Analytical methods

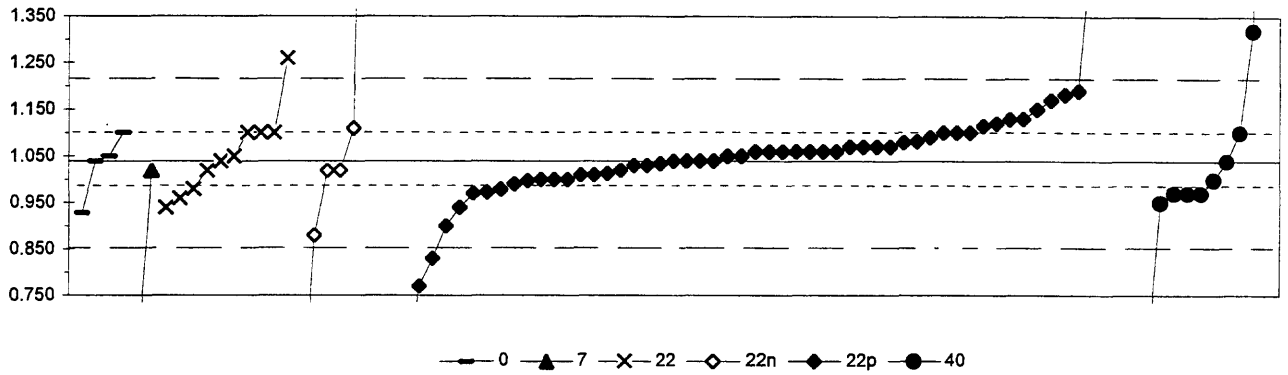
0. Other/Not reported	=	
4. ICP	=	inductively coupled plasma
5. DCP	=	direct coupled plasma
7. IC	=	ion chromatography
20. Titrate: color	=	titration: colorimetric (color reagent specified)
22. Color:	=	colorimetric [color reagent specified]
40. Ion electrode	=	ion selective electrode

Abbreviations and symbols

N	=	number of samples
St dev	=	traditional standard deviation
MPV	=	most probable value
F-pseudosigma	=	nonparametric statistic deviation
Hu	=	upper hinge value
Hi	=	lower hinge value
mg/L	=	milligrams per liter
Lab	=	laboratory code number
NR	=	not rated, less than value reported
<	=	less than

<u>Constituent</u>		<u>page</u>
NH3 as N	Ammonia as nitrogen	89
NH3+Org N as N	Ammonia plus organic nitrogen	90
NO3+NO2 as N	Nitrate plus nitrite as nitrogen	91
Total P as P	Total Phosphorus as phosphorus	92
PO4 as P	Orthophosphate as phosphorus	93

Table 15. Statistical summary of reported data for standard reference watert sample N-46 (nutrients)--Continued
NH3 as N (Ammonia) mg/l



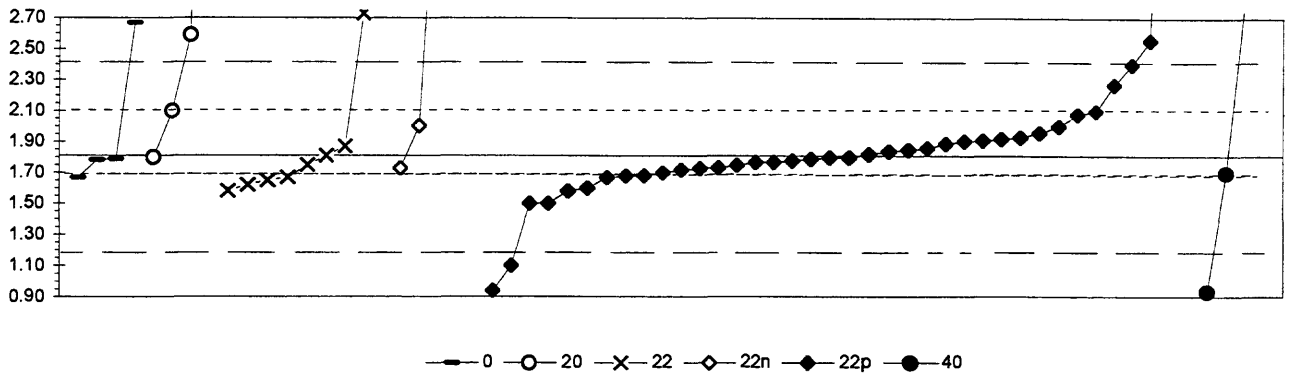
0. Other	22n. Color: Nesslerization					
7. Ion chromatography	22p. Color: phenate					
22. Colorimetric	40. Ion selective electrode					
N =	4	2	10	6	55	12
Minimum =	0.93	0.59	0.94	0.40	0.11	0.52
Maximum =	1.10	1.02	1.26	2.70	1.58	8.00
Median =	1.05	0.81	1.05	1.02	1.05	0.97
F-pseudosigma =			0.09		0.06	0.23

MPV = 1.04
 F-pseudosigma = 0.09
 N = 89
 Hu = 1.10
 HI = 0.98

Lab	Rating	Z-value	0	7	22	22n	22p	40
1	4	0.46					1.08	
3	3	0.66			1.10			
7	3	-0.66			0.98			
9	4	0.11					1.05	
10	4	0.00						1.04
12	4	-0.44					1.00	
13	4	0.22					1.06	
15	3	0.66			1.10			
16	2	-1.24	0.93					
18	4	0.22					1.06	
19	3	-0.77					0.97	
23	4	0.00					1.04	
25	0				< 0.05			
26	4	-0.22		1.02				
28	4	0.00					1.04	
33	1	1.66					1.19	
36	0	-5.75						0.52
38	3	0.98					1.13	
46	4	-0.30					1.01	
48	4	0.22					1.06	
52	0	-4.92					0.60	
53	4	-0.23				1.02		
55	3	0.55					1.09	
57	4	-0.44						1.00
58	0	-5.42						0.55
59	4	-0.22					1.02	
60	3	0.83					1.12	
64	4	0.22					1.06	
68	4	0.00			1.04			
70	4	-0.33					1.01	
75	4	0.44					1.08	
76	4	-0.48					1.00	
80	0	-7.08				0.40		
84	0	-2.32					0.83	
85	4	0.33					1.07	
86	3	1.00					1.13	
87	3	-0.55					0.99	
89	3	0.66					1.10	
90	4	0.33					1.07	
91	2	-1.11					0.94	
92	0	3.10						1.32
93	4	0.00					1.04	
94	4	0.11					1.05	
96	3	-0.75					0.97	
97	4	-0.22				1.02		
100	4	-0.44					1.00	
102	0	5.97					1.58	
105	3	0.66			1.10			
107	2	1.22					1.15	
108	0	76.96						8.00
111	4	-0.11					1.03	
114	3	-0.77						0.97
118	2	1.44					1.17	
119	3	-0.77						0.97
127	0	5.53					1.54	

Lab	Rating	Z-value	0	7	22	22n	22p	40
128	4	-0.33					1.01	
129	3	0.76				1.11		
132	0	-2.99					0.77	
133	0	-5.25						0.57
134	3	0.66					1.10	
138	4	0.22					1.06	
140	4	0.11			1.05			
141	4	0.22					1.06	
142	3	-0.69					0.98	
143	4	-0.11					1.03	
145	4	0.22					1.06	
146	0	-10.24					0.11	
149	2	-1.11			0.94			
151	4	0.00					1.04	
154	4	0.33					1.07	
180	4	0.33					1.07	
182	1	-1.77				0.88		
190	4	-0.44					1.00	
194	0	2.43			1.26			
197	4	-0.22			1.02			
198	1	-1.55					0.90	
203	0	-5.90					0.51	
204	1	1.57					1.18	
209	4	0.11	1.05					
210	3	0.66	1.10					
212	3	0.66					1.10	
215	3	0.88					1.12	
221	4	0.00	1.04					
224	3	-1.00						0.95
226	4	-0.07					1.03	
231	3	-0.88			0.96			
234	3	0.66						1.10
237	0	-4.98		0.59				
240	0	18.36				2.70		
241	3	-0.77						0.97

Table 15. Statistical summary of reported data for standard reference water sample N-46 (nutrients)--Continued
NH3 + Org N as N (Ammonia + Organic N) mg/l



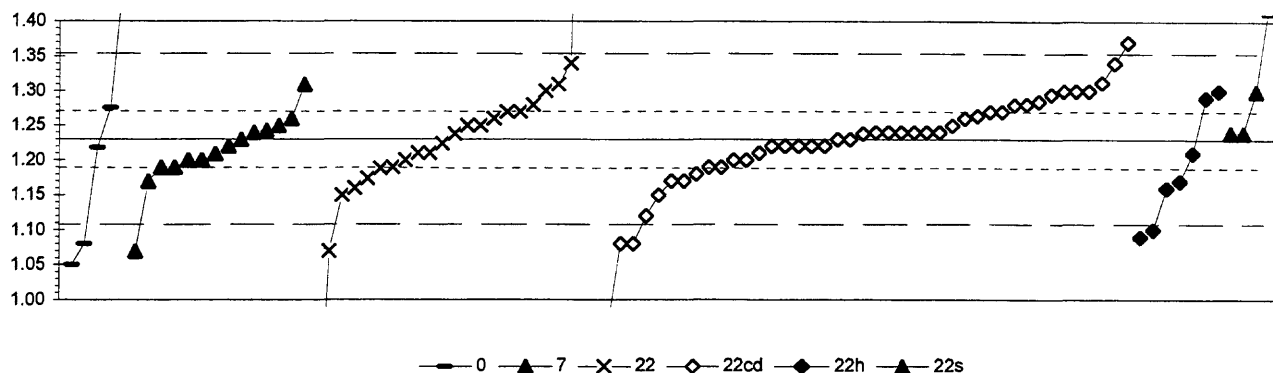
0. Other	22n. Color: Nesslerization					
20. Titrate: colorimetric	22p. Color: phenate					
22. Colorimetric	40. Ion selective electrode					
N =	4	4	9	5	38	4
Minimum =	1.67	1.80	1.58	1.73	0.94	0.93
Maximum =	2.67	9.10	3.23	5.10	9.40	3.80
Median =	1.79	2.35	1.75	4.03	1.80	2.28
F-pseudostigma =			0.16		0.17	

MPV = 1.81
 F-pseudostigma = 0.30
 N = 64
 Hu = 2.10
 HI = 1.70

Lab	Rating	Z-value	0	20	22	22n	22p	40
1	4	-0.41					1.68	
3	4	-0.02		1.80				
9	4	0.39					1.92	
10	4	0.19					1.86	
12	1	2.01					2.40	
15	4	-0.46			1.67			
16	0	2.91	2.67					
18	4	-0.35					1.70	
23	3	0.93					2.08	
25	0	< 0.05						
28	0	12.46					5.50	
36	0	-2.38					1.10	
38	0	7.50				4.03		
46	4	0.42					1.93	
48	0	25.61					9.40	
52	3	0.52					1.96	
56	4	-0.46	1.67					
57	0	24.60		9.10				
58	0	2.65		2.59				
59	3	-0.69					1.60	
60	4	0.05					1.82	
68	3	-0.62			1.62			
70	4	0.12					1.84	
85	3	0.66					2.00	
87	4	-0.25					1.73	
89	4	0.35					1.91	
90	4	-0.46					1.67	
91	4	0.15					1.85	
94	4	-0.24					1.73	
96	4	-0.12					1.77	
97	4	-0.25				1.73		
100	0	3.12			2.73			
102	4	-0.08					1.78	
104	4	-0.07	1.78					
105	4	0.22			1.87			
108	0	8.79				4.41		
118	3	0.99					2.10	
119	4	-0.35						1.70
127	4	-0.02					1.80	
128	4	-0.12					1.77	
129	3	0.66				2.00		
133	0	-2.94						0.93
134	4	-0.02					1.80	
138	4	-0.05					1.79	
140	4	0.02			1.81			
141	0	-2.92					0.94	
142	4	0.29					1.89	
143	2	-1.03					1.50	
145	4	-0.29					1.72	
154	4	-0.42					1.68	
180	3	-0.76					1.58	
185	0	4.79			3.23			
190	1	1.57					2.27	
194	3	-0.52			1.65			
198	4	-0.19					1.75	

Lab	Rating	Z-value	0	20	22	22n	22p	40
203	4	0.34					1.91	
209	3	-0.76			1.58			
210	3	0.99		2.10				
212	2	-1.03					1.50	
221	4	-0.05	1.79					
224	0	3.52						2.85
226	0	2.54					2.56	
231	4	-0.19			1.75			
240	0	11.11				5.10		
241	0	6.73						3.80

Table 15. Statistical summary of reported data for standard reference water sample N-46 (nutrients)--Continued
NO3 + NO2 as N (Nitrate + Nitrite) mg/l



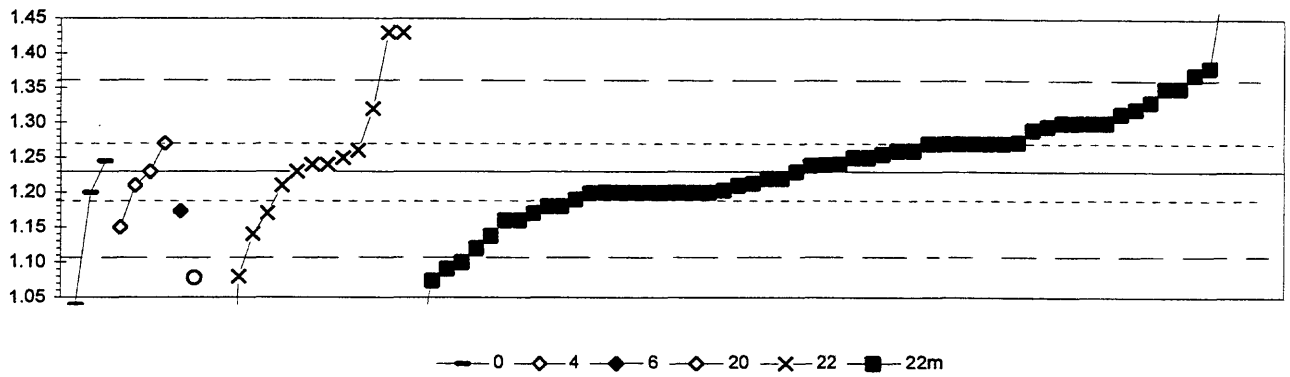
0. Other	22cd. Color: cd diazo					
7. Ion chromatography	22h. Color: hydrazine diazo					
22. Colorimetric	22s. Color: sulfanilamide					
N =	5	14	22	43	7	4
Minimum =	1.05	1.07	0.67	0.90	1.09	1.24
Maximum =	1.46	1.31	2.17	1.37	1.30	1.42
Median =	1.22	1.21	1.23	1.24	1.17	1.27
F-pseudosigma =		0.04	0.06	0.06	0.09	

MPV =	1.23
F-pseudosigma =	0.06
N =	95
Hu =	1.27
Hi =	1.19

Lab	Rating	Z-value	0	7	22	22cd	22h	22s
1	3	-0.84				1.18		
3	4	0.34			1.25			
7	3	0.51			1.26			
10	4	0.17				1.24		
12	3	0.84				1.28		
13	3	-0.67		1.19				
15	2	1.18			1.30			
16	3	0.78	1.28					
18	4	0.17				1.24		
19	4	-0.34			1.21			
23	4	0.00				1.23		
25	2	-1.35			1.15			
26	2	-1.01		1.17				
28	4	0.17					1.24	
30	3	0.51		1.26				
36	0	-4.47				0.97		
38	4	0.17				1.24		
42	4	0.34		1.25				
43	2	1.18					1.30	
46	2	1.38				1.31		
48	0	-2.19					1.10	
52	3	-0.67				1.19		
53	3	0.86				1.28		
55	4	0.17				1.24		
56	0	-2.53	1.08					
57	0	-5.56				0.90		
58	0	-9.44			0.67			
59	4	0.00				1.23		
60	3	0.93				1.29		
64	3	-0.67				1.19		
68	3	0.67			1.27			
69	2	1.18				1.30		
70	2	-1.01				1.17		
75	3	-0.51				1.20		
76	3	-0.67		1.19				
80	0	-3.04	1.05					
83	1	1.85			1.34			
84	2	-1.01				1.17		
85	4	-0.17				1.22		
86	3	0.67				1.27		
87	4	-0.17				1.22		
89	3	0.67				1.27		
90	2	1.18					1.30	
91	2	-1.18					1.16	
92	2	1.10				1.30		
94	4	-0.17				1.22		
96	2	1.01					1.29	
97	4	0.34				1.25		
100	4	0.17						1.24
102	0	-2.53				1.08		
104	4	-0.20	1.22					
105	3	0.84			1.28			
107	1	1.85				1.34		
108	0	2.36				1.37		
111	4	0.00		1.23				

Lab	Rating	Z-value	0	7	22	22cd	22h	22s
114	4	-0.34				1.21		
118	2	-1.01					1.17	
119	2	-1.18			1.16			
127	4	0.17		1.24				
128	0	-2.70		1.07				
129	4	0.22		1.24				
132	0	-2.36					1.09	
133	4	0.17				1.24		
134	2	1.18				1.30		
138	4	-0.17				1.22		
140	4	0.13			1.24			
141	4	-0.34					1.21	
142	2	1.35			1.31			
143	2	-1.35				1.15		
145	0	-2.53				1.08		
146	1	-1.85				1.12		
149	4	0.34			1.25			
151	3	0.67			1.27			
154	4	0.13				1.24		
180	3	0.51				1.26		
185	4	0.17				1.24		
190	4	-0.17		1.22				
191	4	-0.35		1.21				
193	2	1.35		1.31				
194	3	-0.67			1.19			
197	4	-0.10			1.22			
198	3	-0.51				1.20		
203	3	-0.94			1.17			
209	0	3.20						1.42
210	3	-0.51			1.20			
212	2	1.18				1.30		
215	4	-0.17				1.22		
221	0	3.88	1.46					
224	0	15.85			2.17			
226	3	0.57				1.26		
231	4	-0.34			1.21			
234	3	-0.51		1.20				
237	3	-0.51		1.20				
240	0	-2.70			1.07			
241	3	-0.71			1.19			

Table 15. Statistical summary of reported data for standard reference water sample N-46 (nutrients)--Continued
Total P as P (total Phosphorus) mg/l



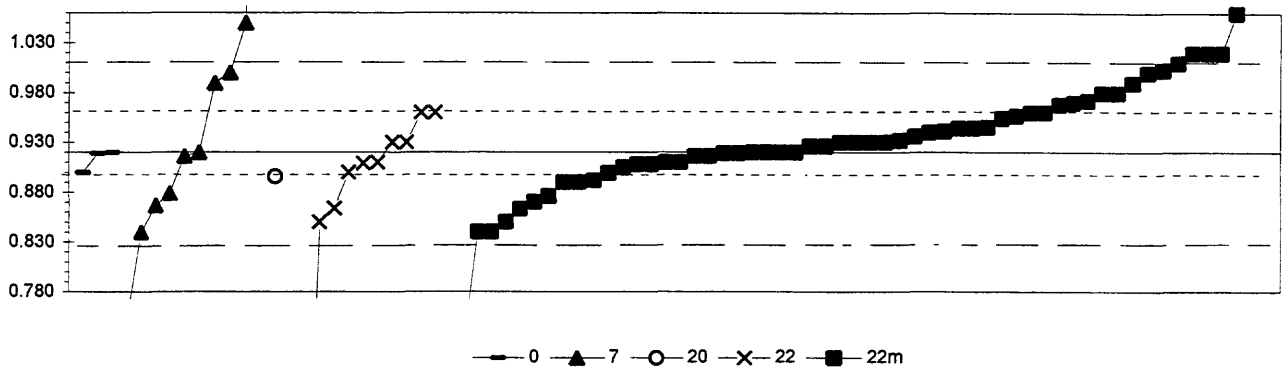
	20. Titrate: colorimetric	22. Colorimetric	22m. Color: phosphomolybdate
4. ICP			
6. ICP/MS			
N =	3	4	1 1 14 59
Minimum =	1.04	1.15	1.17 1.08 0.12 0.98
Maximum =	1.25	1.27	1.43 2.60
Median =	1.20	1.22	1.24 1.24
F-pseudosigma =			0.09 0.07

MPV = 1.23
 F-pseudosigma = 0.06
 N = 82
 Hu = 1.27
 HI = 1.19

Lab	Rating	Z-value	0	4	6	20	22	22m
1	3	-0.52						1.20
3	4	0.25					1.25	
7	0	3.22					1.43	
9	0	2.23					1.37	
10	3	0.58					1.27	
13	3	0.58					1.27	
15	4	0.09					1.24	
16	0	-2.57			1.08			
18	4	0.25					1.25	
22	3	1.00					1.30	
23	4	0.42					1.26	
25	2	-1.39		1.15				
28	4	-0.07		1.23				
36	0	2.39					1.38	
38	3	0.62					1.27	
42	3	0.58					1.27	
46	4	-0.35					1.21	
48	0	22.46					2.60	
52	1	1.90					1.35	
56	0	-3.20	1.04					
57	2	1.08					1.30	
58	0	-9.45				0.66		
59	3	-0.57					1.20	
60	4	0.10					1.24	
64	3	0.58					1.27	
68	1	-1.55				1.14		
70	1	1.57					1.33	
75	3	-0.90					1.18	
83	4	-0.40		1.21				
85	2	-1.06					1.17	
86	3	0.58		1.27				
87	0	4.53					1.51	
89	3	-0.57					1.20	
90	2	1.08					1.30	
91	2	1.08					1.30	
92	2	1.29					1.31	
94	4	0.07					1.24	
96	4	0.34					1.26	
97	4	-0.40					1.21	
102	3	-0.90					1.18	
104	4	0.17	1.25					
105	4	0.09				1.24		
107	1	1.90					1.35	
108	0	-2.21					1.10	
111	3	0.58					1.27	
114	1	-1.88					1.12	
118	2	1.08					1.30	
119	4	-0.24					1.22	
127	4	0.25					1.25	
128	3	-0.57					1.20	
129	3	-0.58					1.20	
132	3	0.91					1.29	
133	3	-0.57					1.20	
134	3	-0.57					1.20	
138	3	-0.73					1.19	

Lab	Rating	Z-value	0	4	6	20	22	22m
140	0	3.22						1.43
141	4	-0.24						1.22
142	0	5.03						1.54
143	4	-0.07						1.23
145	2	-1.23						1.16
149	0	-2.54					1.08	
151	2	1.41					1.32	
154	1	-1.59						1.14
180	2	1.41						1.32
182	4	0.42						1.26
185	0	-2.36						1.09
190	3	0.58						1.27
191	2	-1.01			1.17			
194	4	-0.40					1.21	
198	2	-1.23						1.16
203	0	-2.64						1.07
210	3	-0.57						1.20
212	3	-0.57						1.20
215	4	0.09						1.24
221	3	-0.57	1.20					
224	4	-0.07					1.23	
226	0	7.92						1.72
227	3	-0.57						1.20
231	2	-1.06					1.17	
234	0	-4.24						0.98
240	0	-18.29						0.12
241	4	0.42						1.26

Table 15. Statistical summary of reported data for standard reference water sample N-46 (nutrients)--Continued
PO4 as P (Orthophosphate) mg/l



N =	3	10	1	11	57
Minimum =	0.900	0.750	0.896	0.286	0.578
Maximum =	0.920	2.730		0.960	3.350
Median =	0.913	0.918		0.909	0.930
F-pseudosigma =		0.099		0.054	0.044

PO4 as MPV = 0.920
 F-pseudosigma = 0.045
 N = 82
 Hu = 0.960
 HI = 0.899

Lab	Rating	Z-value	0	7	20	22	22m
1	4	0.00					0.920
3	4	-0.24				0.909	
7	1	-1.55				0.850	
10	0	2.21					1.020
12	1	-1.77					0.840
13	0	-3.76	0.750				
15	4	-0.22				0.910	
16	3	-0.53		0.896			
18	4	0.46					0.941
23	4	0.22					0.930
25	0	-14.02				0.286	
26	1	1.55	0.990				
28	2	1.11					0.970
30	0	40.03	2.730				
36	0	2.21					1.020
38	4	-0.27					0.908
42	3	0.75					0.954
46	4	0.22					0.930
48	3	0.53					0.944
52	4	-0.09					0.916
53	1	1.84					1.003
56	4	0.00	0.920				
57	1	1.77					1.000
58	0	-9.95				0.470	
59	2	-1.11					0.870
60	4	-0.34					0.905
64	4	0.44					0.940
70	4	-0.27					0.908
75	4	-0.09					0.916
80	3	0.88					0.960
83	4	0.22				0.930	
84	1	-1.77					0.840
85	3	-0.97					0.876
86	0	2.87	1.050				
87	3	0.53					0.944
89	3	-0.66					0.890
90	1	1.55					0.990
91	0	2.21					1.020
92	4	-0.02					0.919
96	3	-0.62					0.892
97	4	0.00					0.920
102	0	-4.42					0.720
104	4	-0.02	0.919				
105	4	0.22			0.930		
107	3	0.55					0.945
108	2	1.33					0.980
111	4	0.13					0.926
118	4	0.00					0.920
119	4	-0.22					0.910
127	4	-0.09	0.916				
128	4	0.00	0.920				
129	1	-1.55					0.850
132	2	1.33					0.980
133	4	-0.22					0.910
134	4	0.00					0.920

Lab	Rating	Z-value	0	7	20	22	22m
138	4	-0.02					0.919
140	3	0.88				0.960	
141	3	-0.66					0.890
142	0	3.10					1.060
143	4	0.13					0.926
145	3	0.88					0.960
146	4	0.35					0.936
151	1	1.77	1.000				
154	2	-1.26					0.863
180	4	-0.46					0.899
182	0	53.74					3.350
185	3	0.81					0.957
190	4	0.27					0.932
191	3	-0.91	0.879				
193	0	8.40					1.300
198	4	0.22					0.930
203	0	-7.56					0.578
210	2	1.06					0.968
212	4	0.22					0.930
215	1	1.99					1.010
221	4	-0.44	0.900				
224	3	0.88				0.960	
227	2	1.15					0.972
231	4	-0.44				0.900	
234	2	-1.17	0.867				
240	1	-1.77	0.840				
241	2	-1.24				0.864	

Table 16. *Statistical summary of reported data for standard reference water sample P-24 (low ionic strength)*

Definition of analytical methods, abbreviations, and symbols

Analytical methods

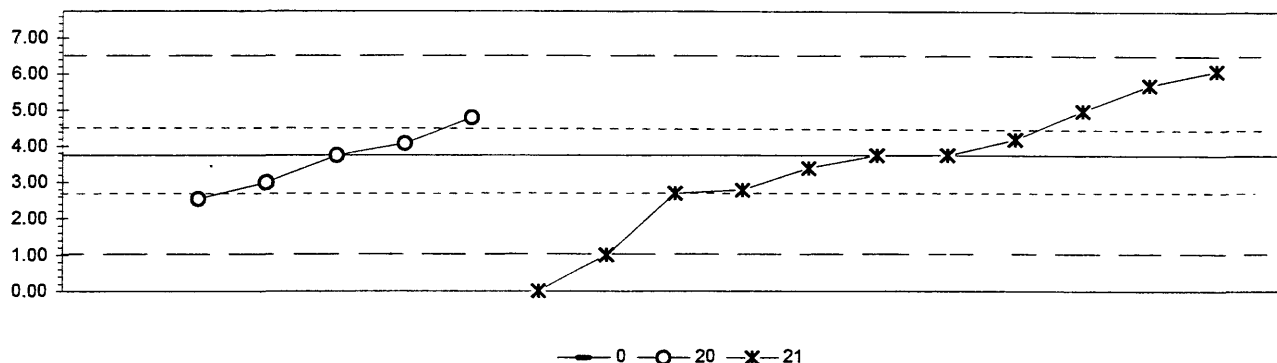
0 Other/Not reported	=	
1 AA: direct, air	=	atomic absorption: direct,air
2 AA: direct, N2O	=	atomic absorption: direct,nitrous oxide
3 AA: graphite furnace	=	atomic absorption: graphite furnace
4 ICP	=	inductively coupled plasma
5 DCP	=	direct current plasma
6 ICP/MS	=	mass spectrometry/inductively coupled plasma
7 IC	=	ion chromatography
12 Flame emission	=	flame emission
20 Titrate: color	=	titration: colorimetric [color reagent specified]
21 Titrate: electro	=	titration: electrometric
22 Color:	=	colorimetric [color reagent specified]
40 Ion electrode	=	ion selective electrode
41 Electro	=	electrometric: [type meter specified]
50 Gravimetric	=	gravimetric: [precipitate specified]
51 Turbidimetric	=	turbidimetric: [precipitate specified]

Abbreviations and symbols

N	=	number of samples
St dev	=	traditional standard deviation
MPV	=	most probable value
F-pseudosigma	=	nonparametric statistic deviation
Hu	=	upper hinge value
Hi	=	lower hinge value
mg/L	=	milligrams per liter
μS/cm	=	microsiemens per centimeter at 25 C
Lab	=	laboratory code number
NR	=	not rated, less than value reported
<	=	less than

<u>Constituent</u>	<u>page</u>
Acid Acidity as CaCO3	95
Ca Calcium	96
Cl Chloride	97
F Fluoride	98
K Potassium	99
Mg Magnesium	100
Na Sodium	101
pH	102
PO4 as P Orthophosphate as Phosphorus	103
SO4 Sulfate	104
Sp Cond Specific Conductance	105

Table 16. Statistical summary of reported data for standard reference sediment sample P-24 (low ionic strength)--Continued
Acidity as CaCO3 mg/l



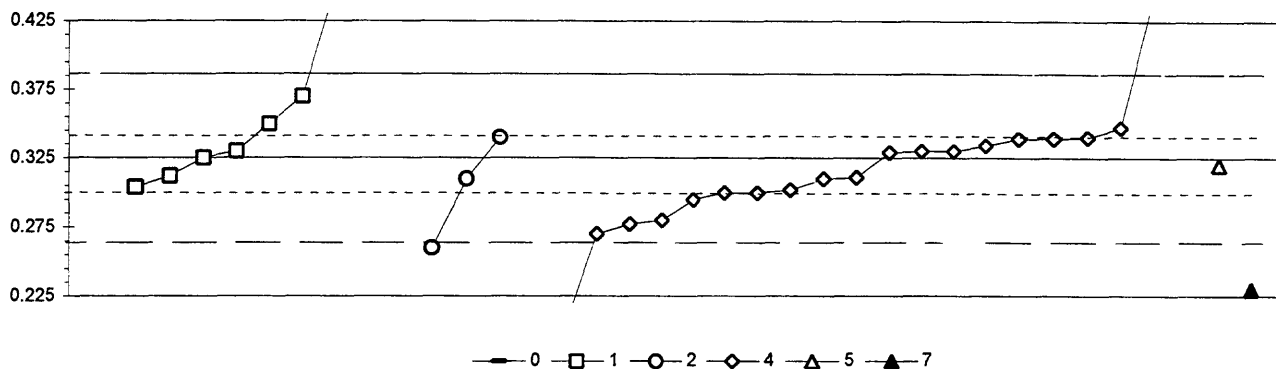
0. Other		
20. Titrate: colorimetric		
21. Titrate: electrometric		
N =	0	5 11
Minimum =		2.55 0.01
Maximum =		4.80 6.10
Median =		3.75 3.75
F-pseudosigma =		1.37

MPV = 3.75
 F-pseudosigma = 1.30
 N = 16
 Hu = 4.50
 Hl = 2.75

Lab	Rating	Z-value	0	20	21
1	0	-2.12			1.00
3	NR			< 10	
15	4	0.25		4.08	
25	3	0.96			5.00
28	3	-0.81			2.70
36	3	-0.73			2.80
39	4	0.00			3.75
58	4	0.35			4.20
89	4	0.00		3.75	
92	3	-0.93		2.55	
105	3	0.81		4.80	
132	0	-2.89			0.01
136	2	1.50			5.70
141	1	1.81			6.10
145	4	-0.27			3.40
146	NR		< 10		
215	3	-0.58		3.00	
224	4	0.00			3.75

Table 16. Statistical summary of reported data for standard reference water sample P-24 (low ionic strength)--Continued

Ca (Calcium) mg/l

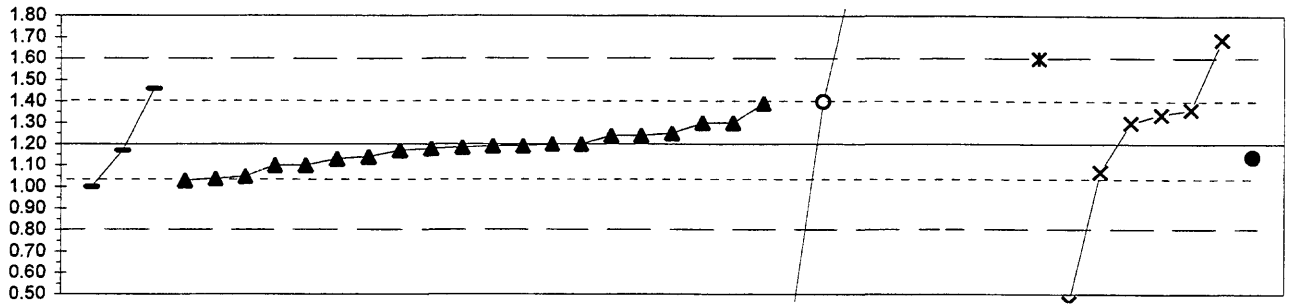


0. Other	4. ICP
1. AA: direct air	5. DCP
2. AA: direct nitrous oxide	7. Ion chromatography
N = 0	9 3 21 1 1
Minimum =	0.304 0.260 0.200 0.320 0.230
Maximum =	3.330 0.340 0.580
Median =	0.350 0.310 0.311
F-pseudostigma =	0.093 0.033

MPV = 0.325
 F-pseudostigma = 0.030
 N = 35
 Hu = 0.340
 HI = 0.300

Lab	Rating	Z-value	0	1	2	4	5	7
1	4	0.17	0.330					
3	4	-0.47				0.311		
11	3	-0.51				0.310		
15	3	-0.78				0.302		
23	0		< 2					
25	0	-4.22				0.200		
26	3	0.51				0.340		
28	3	-0.84				0.300		
33	4	-0.17					0.320	
36	NR		< 0.5					
38	3	0.51		0.340				
39	2	-1.01				0.295		
48	1	-1.85				0.270		
52	4	0.30				0.334		
58	0	4.22	0.450					
64	0	101.34	3.330					
81	1	-1.62				0.277		
89	3	-0.71	0.304					
92	0	86.84	2.900					
101	3	0.84	0.350					
102	0	-4.22				0.200		
105	4	0.13				0.329		
111	3	-0.51		0.310				
132	0	4.05				0.445		
134	4	0.47				0.339		
136	0	-2.19		0.260				
138	3	0.74				0.347		
140	4	0.00	0.325					
141	1	-1.52				0.280		
145	3	-0.84				0.300		
146	NR		< 0.5					
180	4	0.17				0.330		
190	0	-3.20					0.230	
194	NR					< 5		
196	1	1.52	0.370					
209	4	0.17				0.330		
215	0	8.60				0.580		
221	4	-0.44	0.312					
224	4	0.48				0.339		

Table 16. Statistical summary of reported data for standard reference water sample P-24 (low ionic strength)--Continued
 Cl (Chloride) mg/l



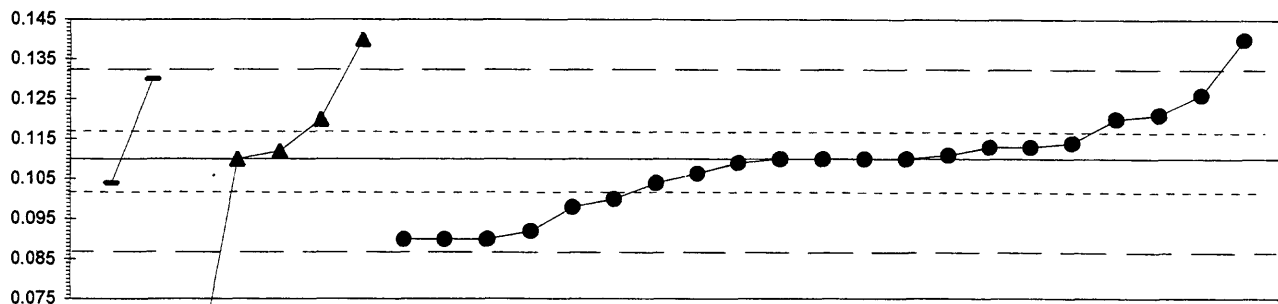
— 0 —▲ 7 —○ 20 —× 21 —× 22 —● 40

0. Other	21. Titrate: electrometric					
7. Ion chromatography	22. Colorimetric					
20. Titrate: colorimetric	40. Ion selective electrode					
N = 3	20	8	1	6	1	
Minimum = 1.00	1.03	0.40	1.60	0.46	1.14	
Maximum = 1.46	1.39	14.20		1.69		
Median = 1.17	1.19	2.40		1.32		
F-pseudostigma =	0.09	1.59				

MPV = 1.20
 F-pseudostigma = 0.19
 N = 39
 Hu = 1.40
 HI = 1.14

Lab	Rating	Z-value	0	7	20	21	22	40
1	4	-0.05		1.19				
3	3	0.73					1.34	
7	3	-0.88		1.03				
11	0	-3.84					0.46	
15	3	0.99		1.39				
23	4	-0.31						1.14
25	3	0.52		1.30				
26	4	-0.31		1.14				
28	3	-0.52		1.10				
33	4	0.00		1.20				
36	NR				< 5			
39	0	4.15			2.00			
48	0	4.15			2.00			
52	2	-1.04	1.00					
58	0	12.97			3.70			
59	3	0.52		1.30				
64	4	0.00		1.20				
81	0	-4.15			0.40			
89	2	1.04			1.40			
93	4	-0.05		1.19				
100	NR			< 4				
101	0	8.30			2.80			
102	3	0.52					1.30	
105	4	-0.16		1.17				
107	NR				< 1.5			
110	3	-0.52		1.10				
111	3	-0.78		1.05				
134	4	-0.08		1.18				
138	3	-0.83		1.04				
140	3	0.83					1.36	
141	0	2.54					1.69	
143	4	-0.16	1.17					
145	4	0.21		1.24				
146	2	1.35	1.46					
180	3	-0.67					1.07	
183	0	67.45			14.20			
190	4	-0.36		1.13				
196	4	0.21		1.24				
203	0	2.08				1.60		
209	4	0.26		1.25				
215	0	14.53			4.00			
224	4	-0.11		1.18				

Table 16. Statistical summary of reported data for standard reference water sample P-24 (low ionic strength)--Continued
F (Fluoride) mg/l



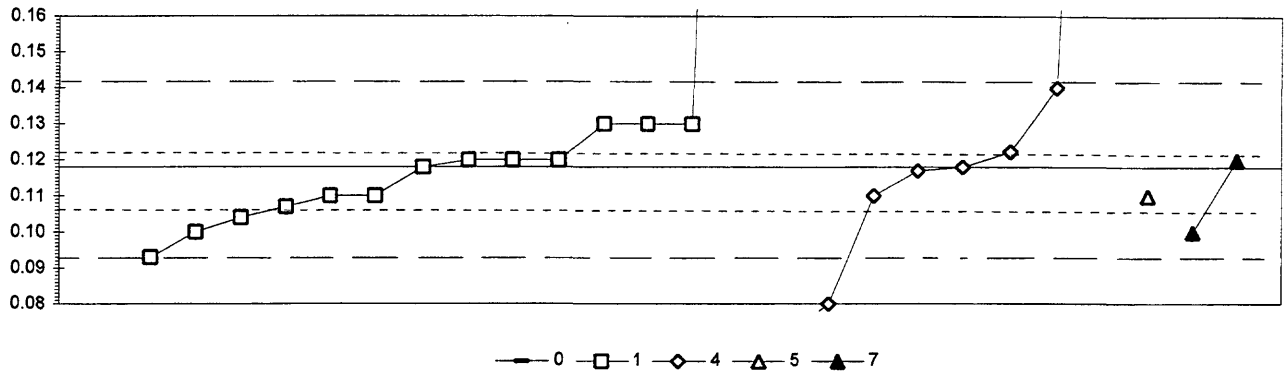
—○— 0 —△— 7 —●— 40

0. Other			
7. Ion chromatography			
40. Ion selective electrode			
N =	2	5	21
Minimum =	0.10	0.05	0.09
Maximum =	0.13	0.14	0.14
Median =	0.12	0.11	0.11
F-pseudostigma =			0.01

MPV = 0.110
 F-pseudostigma = 0.011
 N = 28
 Hu = 0.117
 Hl = 0.102

Lab	Rating	Z-value	0	7	40
1	3	0.90		0.120	
3	4	0.27			0.113
7	NR			< 0.5	
11	4	0.09			0.111
15	4	0.00			0.110
23	3	-0.54			0.104
25	1	-1.80			0.090
26	0	2.70		0.140	
36	4	0.00			0.110
39	1	1.80	0.130		
46	2	-1.08			0.098
52	3	-0.54	0.104		
58	1	-1.80			0.090
59	3	0.90			0.120
81	1	-1.80			0.090
89	1	-1.62			0.092
93	0	2.70			0.140
100	2	1.44			0.126
105	NR			< 0.2	
107	3	-0.90			0.100
134	4	-0.32			0.106
138	4	0.18		0.112	
140	3	0.99			0.121
141	4	0.36			0.114
145	4	0.00		0.110	
146	NR		< 0.2		
180	4	0.00			0.110
190	4	0.27			0.113
196	4	-0.09			0.109
215	4	0.00			0.110
224	0	-5.31		0.051	

Table 16. Statistical summary of reported data for standard reference water sample P-24 (low ionic strength)--Continued
K (Potassium) mg/l

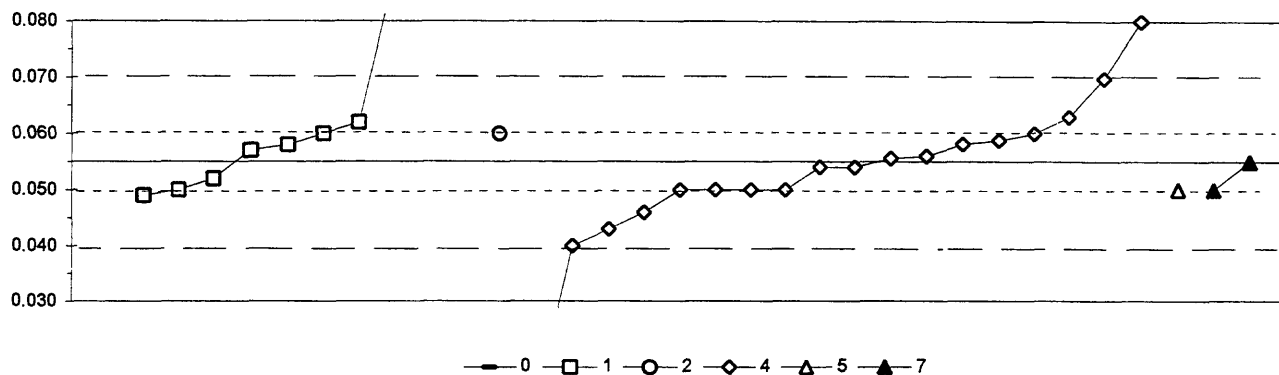


	0	1	4	5	7
N =	0	14	8	1	2
Minimum =		0.093	0.070	0.110	0.100
Maximum =		0.500	0.413		0.120
Median =		0.119	0.118		0.110
F-pseudostigma =		0.017	0.027		

MPV = 0.118
 F-pseudostigma = 0.011
 N = 25
 Hu = 0.122
 HI = 0.107

Lab	Rating	Z-value	0	1	4	5	7
1	4	0.18		0.12			
3	NR			< 0.1			
11	3	-0.71			0.11		
15	NR				< 0.5		
25	NR				< 1.21		
26	1	-1.60					0.10
33	3	-0.71				0.11	
36	NR			< 0.5			
38	2	1.07		0.13			
46	4	-0.09			0.12		
48	0	-4.26				0.07	
52	NR				< 0.2		
58	2	1.07		0.13			
64	3	-0.71		0.11			
81	0				< 0.092		
89	3	-0.98		0.11			
92	0	33.90		0.50			
101	2	1.07		0.13			
102	0	-3.37			0.08		
105	NR				< 0.5		
111	3	-0.71		0.11			
132	0	26.18			0.41		
134	2	-1.24		0.10			
136	4	0.18		0.12			
138	4	0.00			0.12		
140	0	-2.22		0.09			
141	NR				< 0.2		
145	1	1.95			0.14		
146	NR		< 1				
180	NR				< 1.14		
190	4	0.18					0.12
194	NR			< 0.5			
196	4	0.18		0.12			
209	1	-1.60		0.10			
215	NR				< 1		
221	4	0.00		0.12			
224	4	0.37			0.12		

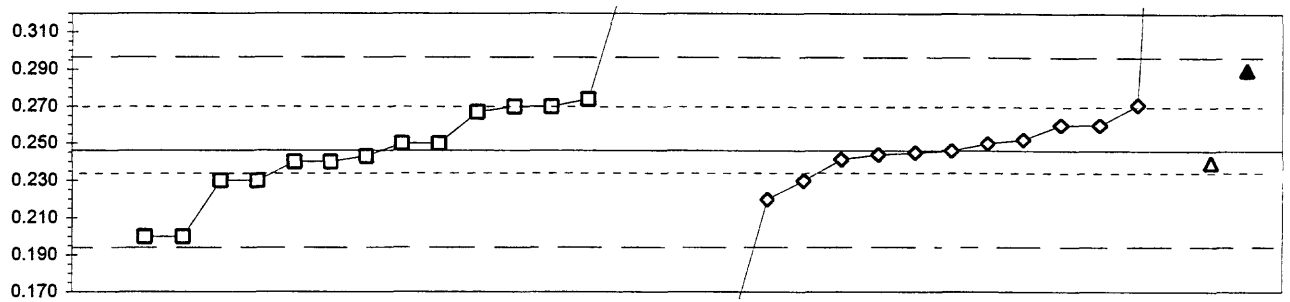
Table 16. Statistical summary of reported data for standard reference water sample P-24 (low ionic strength)--Continued
Mg (Magnesium) mg/l



Lab	Rating	Z-value	0	1	2	4	5	7
1	4	-0.18				0.054		
3	3	-0.71				0.050		
11	2	-1.25				0.046		
15	NR					< 0.1		
25	3	-0.71				0.050		
26	4	0.09				0.056		
28	3	-0.71						0.050
33	3	-0.71					0.050	
36	NR			< 0.5				
38	4	0.23		0.057				
39	4	0.47				0.059		
48	0	-6.11				0.010		
52	3	0.63				0.060		
58	0	45.15		0.390				
64	3	0.63		0.060				
81	1	-1.66				0.043		
89	3	-0.85		0.049				
92	0	73.48		0.600				
101	3	-0.71		0.050				
102	0	-2.06				0.040		
105	2	1.04				0.063		
111	3	0.63			0.060			
134	4	0.04				0.056		
136	0	4.68		0.090				
138	4	-0.18				0.054		
140	3	0.90		0.062				
141	NR					< 0.1		
145	3	-0.71				0.050		
146	NR		< 0.5					
180	1	1.96				0.070		
190	4	-0.04						0.055
194	NR					< 1		
196	4	0.36		0.058				
209	3	-0.71				0.050		
215	0	3.33				0.080		
221	4	-0.45		0.052				
224	4	0.38				0.058		

MPV = 0.055
 F-pseudosigma = 0.007
 N = 32
 Hu = 0.060
 Hi = 0.050

Table 16. Statistical summary of reported data for standard reference water sample P-24 (low ionic strength)--Continued
Na (Sodium) **mg/l**



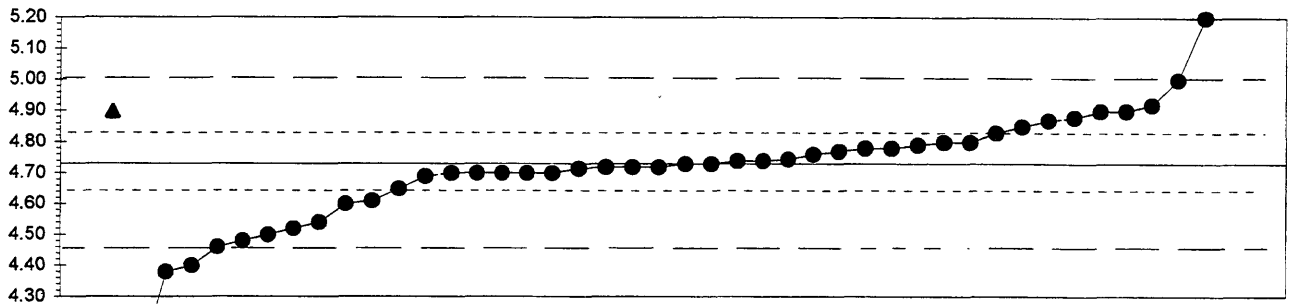
—○— 0 —□— 1 —◇— 4 —△— 5 —▲— 7

0. Other	5. DCP
1. AA: direct air	7. Ion chromatography
4. ICP	
N =	0 15 14 1 1
Minimum =	0.200 0.100 0.240 0.290
Maximum =	1.000 0.640
Median =	0.250 0.246
F-pseudostigma =	0.026 0.022

MPV = 0.246
 F-pseudostigma = 0.025
 N = 31
 Hu = 0.269
 HI = 0.235

Lab	Rating	Z-value	0	1	4	5	7
1	3	0.85	0.267				
3	4	0.16	0.250				
11	3	0.56			0.260		
15	NR				< 0.5		
23	NR		< 0.5				
25	4	-0.04			0.245		
26	3	-0.64			0.230		
33	4	-0.24				0.240	
36	NR		< 0.5				
38	3	-0.64	0.230				
39	4	-0.08			0.244		
48	4	0.16			0.250		
52	NR				< 0.3		
58	1	-1.85	0.200				
64	4	-0.24	0.240				
81	0	-3.83			0.151		
89	4	-0.12		0.243			
92	0	30.36		1.000			
101	3	0.97		0.270			
102	0	-5.88			0.100		
105	4	0.00			0.246		
111	4	0.16		0.250			
134	2	1.13		0.274			
136	3	-0.64		0.230			
138	4	0.24			0.252		
140	0	3.79		0.340			
141	3	0.56			0.260		
145	2	-1.05			0.220		
146	NR		< 0.5				
180	2	1.01			0.271		
190	1	1.77					0.290
194	NR				< 5		
196	3	0.97		0.270			
209	4	-0.24		0.240			
215	0	15.87			0.640		
221	1	-1.85	0.200				
224	4	-0.19			0.241		

Table 16. Statistical summary of reported data for standard reference water sample P-24 (low ionic strength)--Continued
pH



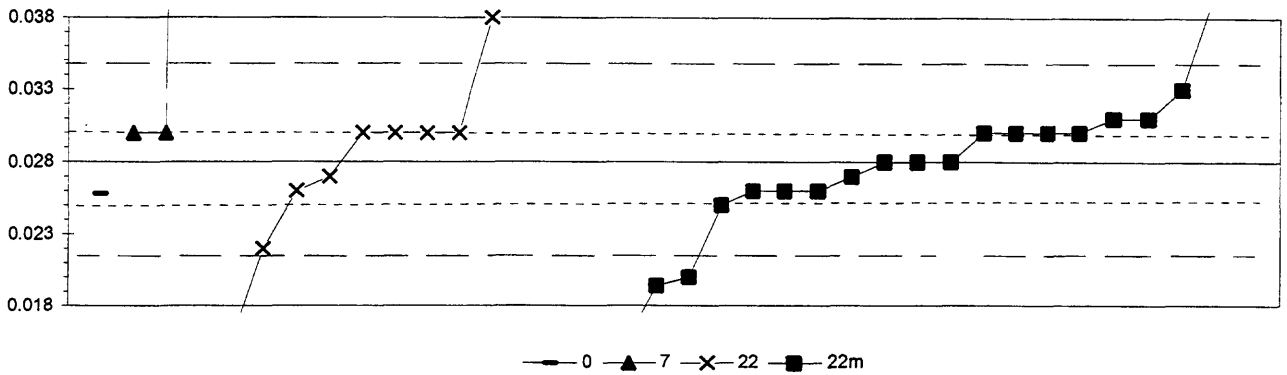
— 0 ▲ 7 ● 41

0. Other			
7. Ion chromatography			
41. Direct reading			
N =	1	1	44
Minimum =	3.54	4.90	4.07
Maximum =			7.81
Median =			4.73
F-pseudosigma =			0.11

MPV = 4.73
F-pseudosigma = 0.13
N = 46
Hu = 4.83
HI = 4.65

Lab	Rating	Z-value	0	7	41
1	2	1.42			4.92
2	1	-1.57			4.52
3	4	-0.07			4.72
7	3	0.75			4.83
11	1	-2.02			4.46
15	0	8.77			5.90
23	4	0.37			4.78
25	4	0.37			4.78
26	4	0.30			4.77
28	2	1.27	4.90		
33	4	-0.07			4.72
36	3	-0.97			4.60
39	3	0.52			4.80
46	1	2.02			5.00
48	0	3.52			5.20
52	4	-0.22			4.70
58	4	-0.30			4.69
59	3	-0.60			4.65
64	4	0.00			4.73
81	4	-0.22			4.70
89	1	-1.72			4.50
92	2	1.12			4.88
93	4	-0.22			4.70
100	4	0.45			4.79
101	2	-1.42			4.54
105	4	0.00			4.73
107	0	23.08			7.81
110	4	-0.11			4.72
111	3	0.90			4.85
132	4	0.07			4.74
134	4	0.11			4.75
136	0	-2.47			4.40
138	3	-0.90			4.61
140	0	-2.62			4.38
141	2	1.27			4.90
143	4	-0.07			4.72
145	4	-0.22			4.70
146	0	-8.92	3.54		
180	4	-0.22			4.70
190	1	-1.87			4.48
194	2	1.05			4.87
203	4	0.22			4.76
209	4	0.07			4.74
215	2	1.27			4.90
221	3	0.52			4.80
224	0	-4.95			4.07

Table 16. Statistical summary of reported data for standard reference water sample P-24 (low ionic strength)--Continued
PO4 as P (Orthophosphate) mg/l

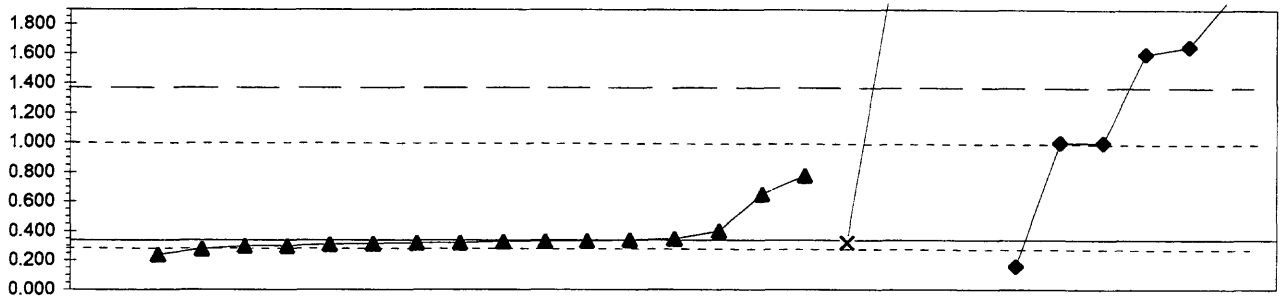


0. Other	22m. Color: phosphomolybdate			
7. Ion chromatography				
22. Colorimetric				
N =	1	3	9	23
Minimum =	0.026	0.030	0.015	0.002
Maximum =		0.190	0.038	0.040
Median =		0.030	0.030	0.028
F-pseudosigma =			0.003	0.006

MPV = 0.028
 F-pseudosigma = 0.003
 N = 36
 Hu = 0.030
 HI = 0.025

Lab	Rating	Z-value	0	7	22	22m
1	0	47.51		0.190		
3	3	0.59			0.030	
7	NR			< 0.16		
11	0	3.52				0.040
15	0	2.93			0.038	
23	3	0.59				0.030
25	0	-5.57				0.009
26	NR			< 0.1		
28	3	0.59			0.030	
33	3	0.59		0.030		
36	NR					< 0.025
38	4	0.00				0.028
39	1	-1.76			0.022	
46	3	-0.59				0.026
48	3	0.88				0.031
52	3	-0.65	0.026			
58	3	0.59			0.030	
59	NR			< 0.05		
64	4	0.00				0.028
81	3	0.59			0.030	
89	3	0.59				0.030
92	3	-0.59				0.026
102	0	-3.81				0.015
105	4	-0.29			0.027	
107	2	1.47				0.033
111	4	-0.29				0.027
134	3	0.59				0.030
136	3	0.59				0.030
138	3	-0.59				0.026
140	0	-3.81			0.015	
141	NR					< 0.05
143	4	0.00				0.028
145	0	3.52				0.040
146	NR			< 0.05		
180	3	-0.88				0.025
185	0	-2.52				0.019
190	0	-7.62				0.002
194	NR				< 0.1	
196	3	0.59		0.030		
204	3	0.88				0.031
215	0	-2.35				0.020
221	0	-6.75				0.005
224	3	-0.59			0.026	

Table 16. Statistical summary of reported data for standard reference water sample P-24 (low ionic strength)--Continued
SO4 (Sulfate) mg/l



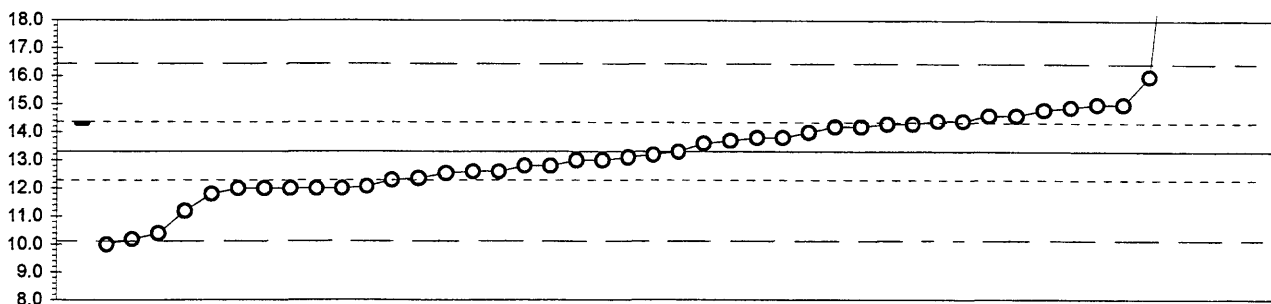
— 0 —▲— 7 —×— 22 —◇— 50 —●— 51

0. Other	50. Gravimetric
7. Ion chromatography	51. Turbidimetric
22. Colorimetric	
N = 0	16
Minimum = 0.000	0.240
Maximum = 0.780	5.100
Median = 0.325	2.000
F-pseudostigma = 0.029	1.300

MPV = 0.338
 F-pseudostigma = 0.508
 N = 26
 Hu = 1.000
 Hi = 0.315

Lab	Rating	Z-value	0	7	22	50	51
1	4	-0.03	0.320				
3	NR		< 1				
7	3	0.62	0.650				
11	0	2.58					1.650
15	NR		< 0.5				
23	NR			< 2.5			
25	NR		< 5				
26	4	-0.01	0.330				
33	4	-0.07	0.300				
36	NR						< 5
48	0	3.27					2.000
52	NR		< 10				
58	0	9.87				5.350	
59	4	-0.05	0.310				
64	4	-0.03	0.320				
81	0	9.38			5.100		
89	4	-0.03			0.320		
92	4	-0.35					0.160
93	3	0.87	0.780				
100	NR		< 7				
102	0	3.27			2.000		
105	NR		< 1				
110	4	0.00	0.335				
111	4	-0.07	0.300				
134	4	0.02	0.348				
138	4	-0.11	0.280				
140	2	1.30					1.000
141	NR						< 10
145	4	-0.19	0.240				
146	NR		< 5				
180	NR			< 2.5			
183	0	2.49					1.600
190	4	-0.04	0.315				
194	NR			< 10			
196	4	-0.01	0.332				
203	NR			< 2.5			
209	4	0.00	0.340				
215	2	1.30					1.000
224	4	0.13	0.401				

Table 16. Statistical summary of reported data for standard reference water sample P-24 (low ionic strength)--Continued
Specific Conductance $\mu\text{S}/\text{cm}$



● 0 ○ 41

0. Other		
41. Direct reading		
N =	1	44
Minimum =	14.3	10.0
Maximum =		660.0
Median =		13.3
F-pseudostigma =		1.6

MPV = 13.3
 F-pseudostigma = 1.6
 N = 45
 Hu = 14.4
 HI = 12.3

Lab	Rating	Z-value	0	41
1	3	-0.79		12.1
2	3	-0.60		12.4
3	3	0.84		14.6
7	4	0.32		13.8
11	4	-0.32		12.8
15	3	0.96		14.8
23	4	-0.45		12.6
25	1	1.73		16.0
26	4	0.32		13.8
27	3	0.64		14.3
28	0	415.43		660.0
33	3	0.71		14.4
36	3	-0.96		11.8
38	4	0.00		13.3
39	1	-1.86		10.4
46	3	0.64		14.3
48	4	-0.49		12.5
52	3	-0.84		12.0
58	4	0.26		13.7
59	4	-0.45		12.6
64	4	-0.13		13.1
81	3	-0.84		12.0
89	2	-1.35		11.2
93	4	-0.19		13.0
100	3	-0.84		12.0
101	4	-0.19		13.0
105	4	-0.32		12.8
107	2	1.03		14.9
110	2	1.09		15.0
111	4	0.19		13.6
134	3	0.58		14.2
136	3	0.71		14.4
140	3	0.84		14.6
141	4	-0.06		13.2
143	3	-0.84		12.0
145	4	0.45		14.0
146	3	0.64	14.3	
180	0	-2.12		10.0
183	3	-0.84		12.0
190	3	0.58		14.2
194	3	-0.64		12.3
196	0	17.73		40.9
203	1	-1.99		10.2
215	0	7.13		24.4
224	2	1.09		15.0

Table 17. *Statistical summary of reported data for standard reference water sample Hg-20 (mercury)*

Definition of analytical methods, abbreviations, and symbols

Analytical methods

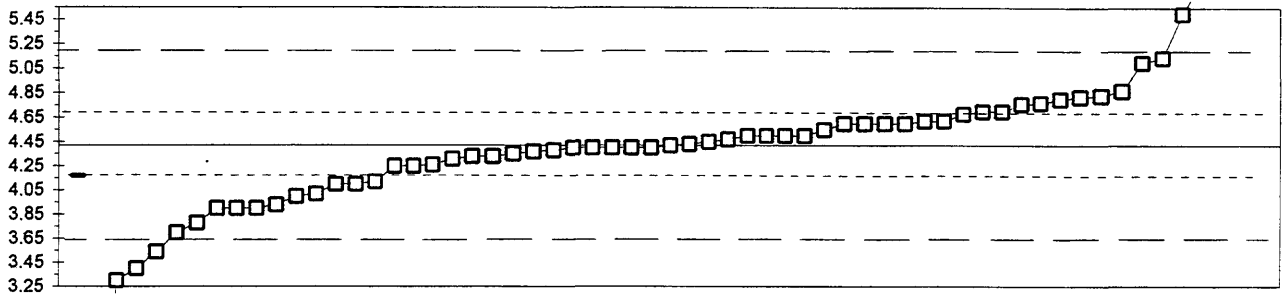
- 0. Other/Not reported
 - 8. AA: cold vapor = atomic absorption: cold vapor
-

Abbreviations and symbols

N =	number of samples
St dev =	traditional standard deviation
MPV =	most probable value
F-pseudostigma =	nonparametric statistic deviation
Hu =	upper hinge value
HI =	lower hinge value
µg/L =	micrograms per liter
Lab =	laboratory code number
NR =	not rated, less than value reported
< =	less than

<u>Constituent</u>	<u>page</u>
Hg Mercury	107

Table 17. Statistical summary of reported data for standard reference water sample Hg-20 (mercury)--Continued
Hg (Mercury) **µg/l**



0 — 8

0. Other			
8. AA: cold vapor			
0. Other			
N =	1	60	
Minimum =	4.17	1.00	
Maximum =		6.35	
Median =		4.43	
F-pseudosigma =		0.37	

MPV = 4.42
 F-pseudosigma = 0.38
 N = 61
 Hu = 4.68
 Hl = 4.17

Lab	Rating	Z-value	0	8
1	3	0.53		4.62
3	4	-0.24		4.33
11	4	-0.05		4.40
13	3	0.69		4.68
15	4	-0.05		4.40
16	2	-1.11		4.00
18	4	-0.05		4.40
24	1	1.80		5.10
32	3	-0.66	4.17	
34	4	0.21		4.50
36	1	-1.69		3.78
39	3	-0.85		4.10
42	2	-1.30		3.93
45	1	1.90		5.14
46	4	-0.29		4.31
48	0	5.11		6.35
50	2	1.01		4.80
52	4	0.48		4.60
55	4	-0.24		4.33
58	0	-2.96		3.30
69	4	-0.13		4.37
70	2	1.06		4.82
75	4	-0.45		4.25
76	4	-0.11		4.38
81	2	-1.38		3.90
86	0	-2.33		3.54
87	0	-2.70		3.40
89	4	0.21		4.50
92	3	0.90		4.76
96	4	0.00		4.42
97	3	0.93		4.77
100	4	0.13		4.47
105	4	-0.19		4.35
108	2	1.08		4.83
109	2	-1.06		4.02
111	3	-0.79		4.12
114	0	-9.05		1.00
118	4	0.48		4.60
127	2	1.19		4.87
128	4	0.21		4.50
133	3	0.74		4.70
134	3	0.53		4.62
138	2	-1.38		3.90
141	4	0.34		4.55
142	4	-0.05		4.40
145	4	0.48		4.60
146	4	0.08		4.45
149	3	0.74		4.70
180	0	3.60		5.78
182	0	2.86		5.50

Lab	Rating	Z-value	0	8
194	4	0.21		4.50
198	1	-1.90		3.70
203	4	-0.45		4.25
213	4	0.48		4.60
215	0	4.18		6.00
219	2	-1.38		3.90
221	3	-0.85		4.10
231	4	-0.05		4.40
234	4	0.03		4.43
235	0	4.18		6.00
241	4	-0.42		4.26

Table 18. Statistical summary of reported data for standard reference sediment sample SED-5 (bed material)

Definition of analytical methods, abbreviations, and symbols

Analytical methods

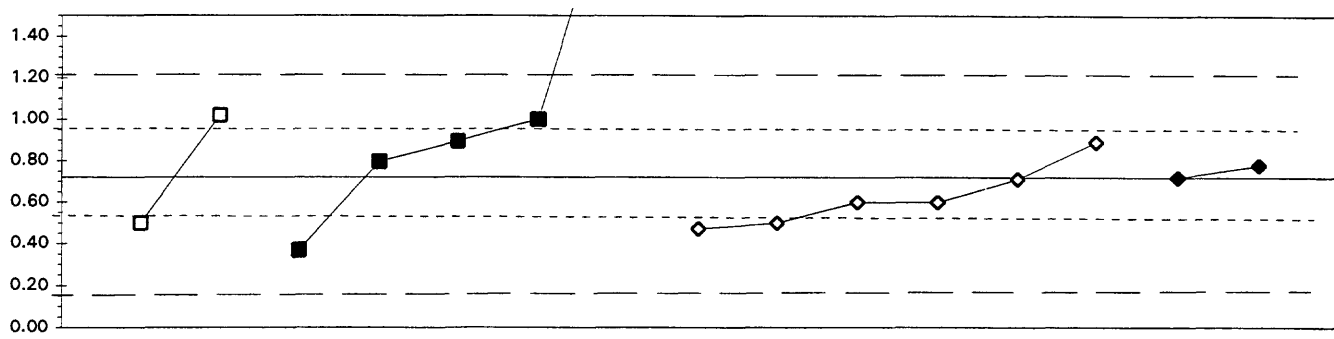
0. Other/Not reported	=	atomic absorption: direct, air
1. AA: direct, air	=	atomic absorption: direct, nitrous oxide
2. AA: direct, N ₂ O	=	atomic absorption: graphite furnace
3. AA: graphite furnace	=	inductively coupled plasma
4. ICP	=	direct current plasma
5. DCP	=	inductively coupled plasma/mass spectrometry
6. ICP/MS	=	atomic absorption: extraction [chelating agent(s) specified]
10. AA: extraction	=	atomic absorption: hydride [reducing agent specified]
11. AA: hydride	=	flame emission
12. Flame emission	=	colorimetric [color reagent specified]
22. Color:	=	

Abbreviations and symbols

N	=	number of samples
St dev	=	traditional standard deviation
MPV	=	most probable value
F-pseudostandard deviation	=	nonparametric statistic deviation
H _u	=	upper hinge value
H _l	=	lower hinge value
µg/g	=	micrograms per liter
mg/g	=	milligrams per liter
Lab	=	laboratory code number
NR	=	not rated, less than value reported
<	=	less than

<u>Constituent</u>	<u>page</u>	<u>Constituent</u>	<u>page</u>
Ag Silver	109	Li Lithium	122
Al Aluminium	110	Mg Magnesium	123
As Arsenic	111	Mn Manganese	124
B Boron	112	Mo Molybdenum	125
Ba Barium	113	Na Sodium	126
Be Beryllium	114	Ni Nickel	127
Ca Calcium	115	Pb Lead	128
Cd Cadmium	116	Sb Antimony	129
Co Cobalt	117	Se Selenium	130
Cr Chromium	118	SiO ₂ Silica	131
Cu Copper	119	Sr Strontium	132
Fe Iron	120	V Vanadium	133
K Potassium	121	Zn Zinc	134

Table 18. Statistical summary of reported data for standard reference sediment sample SED-5 (bed material)--Continued
Ag (Silver) **µg/g**



— 0 — 1 — 3 — 4 — 6

0. Other	4. ICP
1. AA: direct air	6. ICP/MS
3. AA: graphite furnace	
N =	0 2 5 6 2
Minimum =	0.50 0.37 0.47 0.72
Maximum =	1.02 2.31 0.89 0.78
Median =	0.76 0.90 0.60 0.75
F-pseudostigma =	

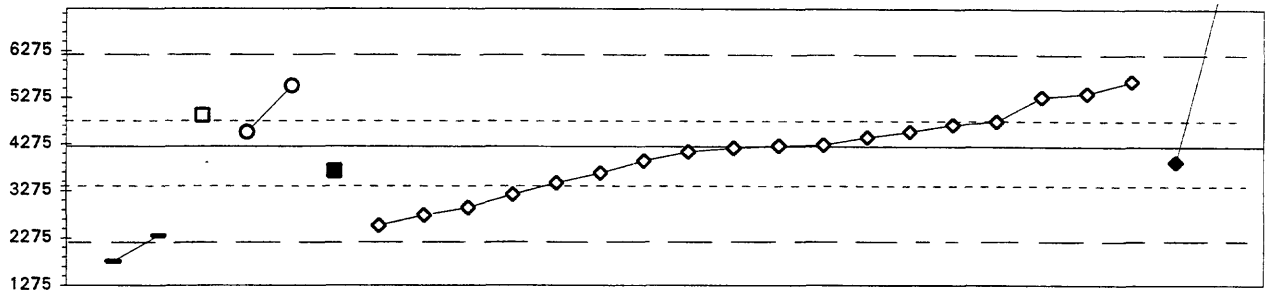
MPV = 0.72
 F-pseudostigma = 0.25
 N = 15
 Hu = 0.89
 HI = 0.55

Lab	Rating	Z-value	0	1	3	4	6
1	3	0.67				0.89	
3	4	-0.47				0.60	
13	NR					< 1.0	
15	4	0.30			0.80		
18	3	-0.87				0.50	
23	3	0.69			0.90		
32	4	0.00					0.72
48	4	-0.47				0.60	
52	NR					< 1.0	
58	3	-0.87		0.50			
81	3	-0.98				0.47	
100	2			1.02			
105	4	0.24					0.78
127	2	-1.38			0.37		
141	NR					< 2.5	
146	4	-0.03				0.71	
194	NR		< 10.0				
212	NR					< 7.5	
215	0	6.26			2.31		
235	2	1.10			1.00		

Table 18. Statistical summary of reported data for standard reference sediment sample SED-5 (bed material)--Continued

Al (Aluminum)

µg/g



— 0 — 1 — 2 — 3 — 4 — 6

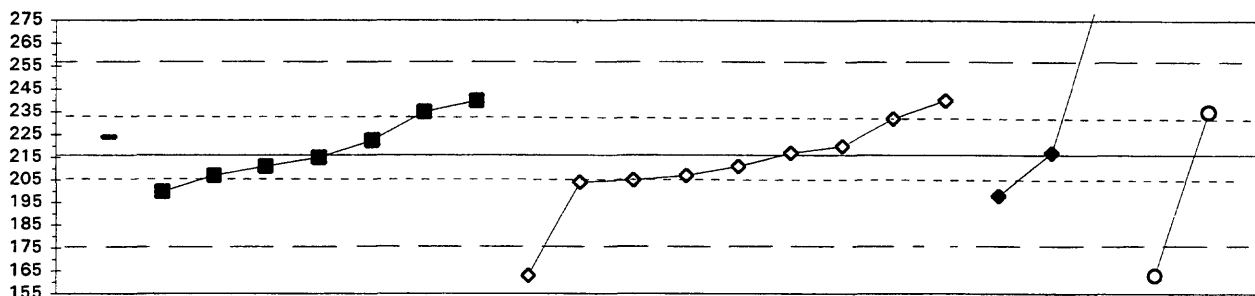
0. Other	3. AA: graphite furnace					
1. AA: direct air	4. ICP					
2. AA: direct nitrous oxide	6. ICP/MS					
N =	2	1	2	1	18	2
Minimum =	1790	4900	4540	3710	2540	3900
Maximum =	2330	4900	5540	3710	5640	7590
Median =	2060	4900	5040	3710	4227	5745
F-pseudosigma =	927					

MPV = 4227
 F-pseudosigma = 979
 N = 26
 Hu = 4771
 Hi = 3450

Lab	Rating	Z-value	0	1	2	3	4	6
1	3	0.56					4771	
3	2	-1.50					2760	
13	2	1.10					5300	
15	4	0.21					4430	
18	2	-1.33					2920	
23	2	1.34			5540			
28	0	-2.49	1790					
32	0	3.43						7590
48	4	0.33					4552	
52	2	-1.05					3200	
58	3	0.69		4900				
68	4	0.02					4250	
81	3	-0.53				3710		
100	4	-0.11					4118	
105	4	-0.33						3900
121	2	1.18					5380	
127	4	-0.31					3920	
132	4	-0.02					4204	
141	3	-0.79					3450	
146	4	0.04					4270	
154	4	0.48					4700	
194	1	-1.94	2330					
210	2	1.44					5640	
212	1	-1.72					2540	
215	3	-0.58					3660	
235	4	0.32			4540			

Table 18. Statistical summary of reported data for standard reference sediment sample SED-5 (bed material)--Continued

As (Arsenic) µg/g



— 0 — 3 — 4 — 6 — 11

	0. Other	3. AA: graphite furnace	4. ICP	6. ICP/MS	11. AA: hydride
N =	1	7	9	3	2
Minimum =	224	200	163	198	163
Maximum =		240	240	294	235
Median =		215	211	217	199
F-pseudostigma =		15	11		

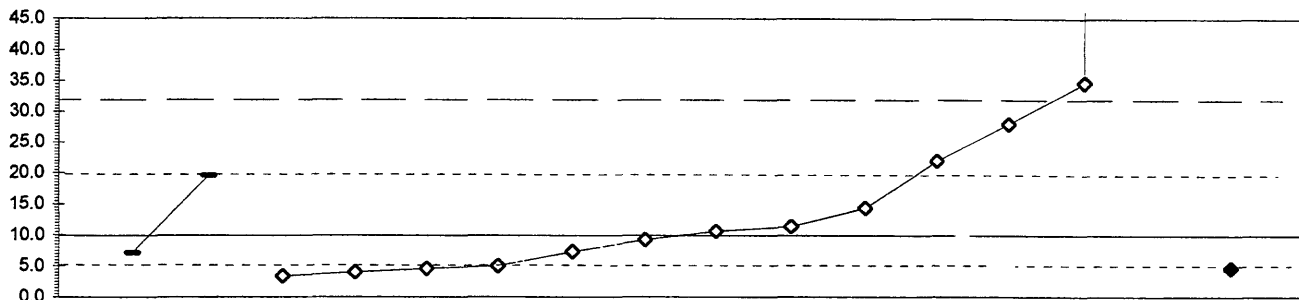
MPV = 216
 F-pseudostigma = 20
 N = 22
 Hu = 232
 HI = 205

Lab	Rating	Z-value	0	3	4	6	11
1	3	0.95					235
3	3	-0.55			205		
13	3	-0.80		200			
15	3	0.80			232		
18	4	-0.45		207			
30	4	0.05				217	
32	0	3.90				294	
48	4	0.32		223			
52	4	0.20			220		
58	0	-2.65					163
81	4	-0.25		211			
100	3	0.95		235			
105	3	-0.90				198	
127	2	1.20		240			
141	3	-0.60			204		
146	4	0.05			217		
154	2	1.20			240		
194	4	0.40	224				
210	0	-2.65			163		
212	4	-0.25			211		
215	4	-0.45			207		
235	4	-0.05		215			

Table 18. Statistical summary of reported data for standard reference sediment sample SED-5 (bed material)--Continued

B (Boron)

µg/g



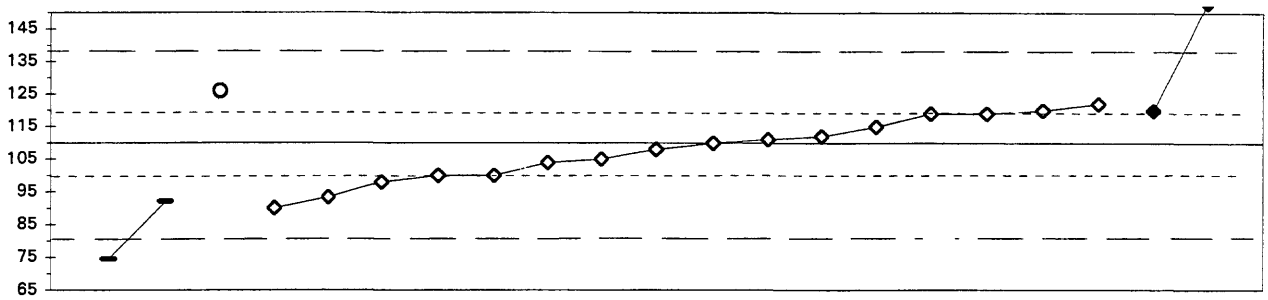
— 0 — 4 — 6

0. Other				
4. ICP				
6. ICP/MS	N =	2	13	1
	Minimum =	7.2	3.4	4.7
	Maximum =	19.6	6270.0	
	Median =	13.4	9.9	
	F-pseudosigma =		12.6	

MPV = 9.9
 F-pseudosigma = 11.8
 N = 16
 Hu = 20.8
 HI = 4.9

Lab	Rating	Z-value	0	4	6
1	NR			< 0.27	
3	NR			< 0.6	
15	4	-0.50		4.0	
18	4	-0.45		4.6	
28	3	0.82	19.6		
32	4	-0.44			4.7
48	4	0.13		11.4	
52	4	-0.41		5.0	
68	1	1.53		28.0	
100	0	2.10		34.7	
121	2	1.02		22.0	
127	3	-0.55		3.4	
141	0	529.46		6270.0	
194	4	-0.23	7.2		
210	4	-0.21		7.4	
212	4	-0.06		9.2	
215	4	0.06		10.6	
235	4	0.38		14.4	

Table 18. Statistical summary of reported data for standard reference sediment sample SED-5 (bed material)--Continued
Ba (Barium) $\mu\text{g/g}$



— 0 — 2 — 4 — 6

0. Other	6. ICP/MS				
2. AA: direct nitrous oxide					
4. ICP	N =	2	1	16	2
	Minimum =	75	126	90	120
	Maximum =	92	126	122	153
	Median =	83		109	137
	F-pseudostigma =			13	

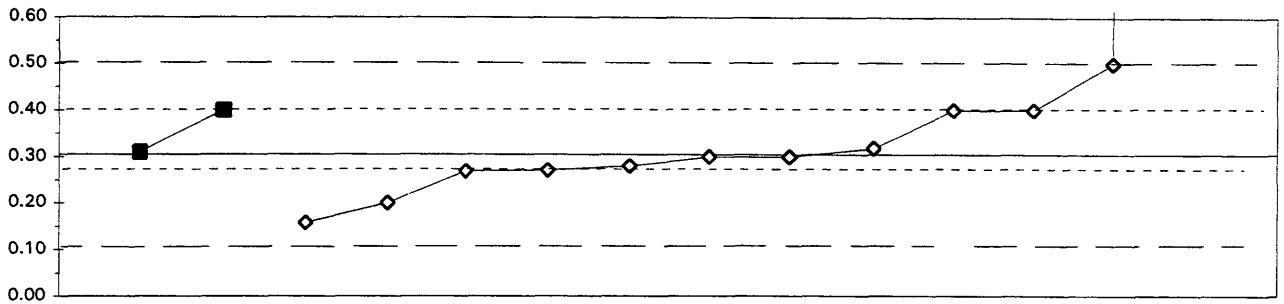
MPV = 110
 F-pseudostigma = 14
 N = 21
 Hu = 119
 Hl = 100

Lab	Rating	Z-value	0	2	4	6
1	2	1.14		126		
3	2	-1.41			90	
13	3	0.71			120	
15	3	0.64			119	
18	3	-0.85			98	
28	0	-2.51	75			
32	0	3.05				153
48	3	0.85			122	
52	3	-0.71			100	
81	4	0.07			111	
100	3	-0.71			100	
105	3	0.71				120
121	4	-0.43			104	
127	4	0.14			112	
141	4	-0.36			105	
146	3	0.64			119	
194	2	-1.26	92			
210	4	-0.14			108	
212	2	-1.18			93	
215	4	0.36			115	
235	4	0.00			110	

Table 18. Statistical summary of reported data for standard reference sediment sample SED-5 (bed material)--Continued

Be (Beryllium)

µg/g



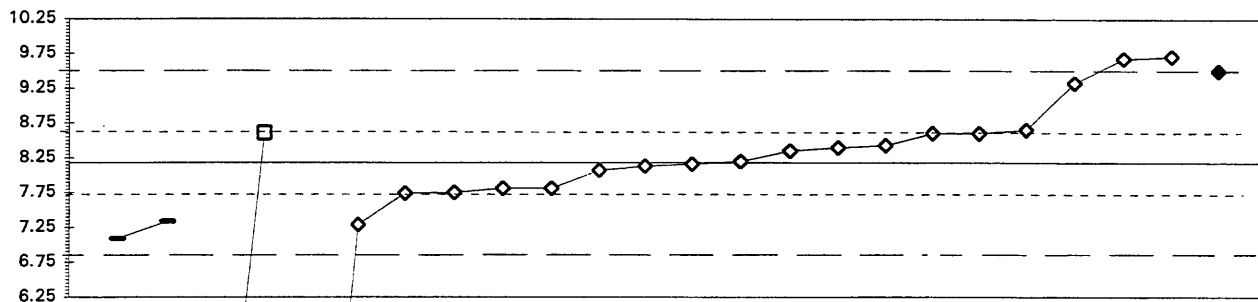
—●— 0 —□— 2 —■— 3 —◇— 4

0. Other	4. ICP				
2. AA: direct nitrous oxide	6. ICP/MS				
3. AA: graphite furnace					
N =		0	0	2	12
Minimum =				0.31	0.16
Maximum =				0.40	30.10
Median =				0.36	0.30
F-pseudostigma =					0.10

MPV = 0.31
 F-pseudostigma = 0.10
 N = 14
 Hu = 0.40
 Hl = 0.27

Lab	Rating	Z-value	0	2	3	4	6
1	NR			< 1			
3	4	-0.26				0.28	
15	4	-0.05				0.30	
18	2	-1.10				0.20	
32	NR						< 0.2
48	3	0.99				0.40	
52	4	-0.38				0.27	
58	3	0.99			0.40		
81	1	-1.55				0.16	
100	0	311.58				30.10	
105	NR						< 0.6
127	4	-0.36				0.27	
141	NR					< 0.5	
146	3	0.99				0.40	
194	NR		< 10				
210	4	0.14				0.32	
212	4	-0.05				0.30	
215	4	0.05			0.31		
235	1	2.04				0.50	

Table 18. Statistical summary of reported data for standard reference sediment sample SED-5 (bed material)--Continued
Ca (Calcium) mg/g



—○— 0 —□— 1 —◇— 4 —◆— 6

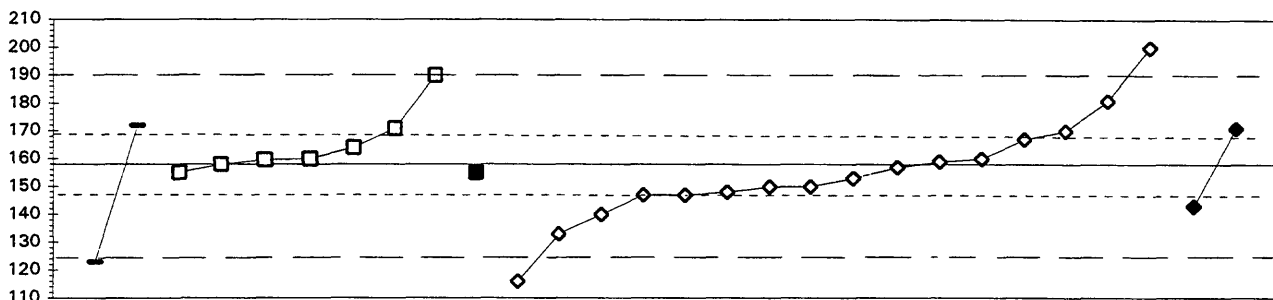
0. Other		6. ICP/MS			
1. AA: direct air					
4. ICP					
	N =	2	2	19	1
	Minimum =	7.09	2.20	0.14	9.50
	Maximum =	7.34	8.61	9.71	
	Median =	7.22	5.41	8.20	
	F-pseudostigma =			0.59	

MPV = 8.18
 F-pseudostigma = 0.64
 N = 24
 Hu = 8.61
 HI = 7.75

Lab	Rating	Z-value	0	1	4	6
1	0	2.40			9.71	
3	3	-0.67			7.75	
13	3	0.66			8.60	
15	4	0.39			8.43	
18	4	0.27			8.35	
28	1	-1.71	7.09			
32	0	2.07				9.50
48	0	2.35			9.68	
52	4	0.03			8.20	
58	0	-9.38		2.20		
68	3	0.66			8.60	
81	2	-1.40			7.29	
100	3	-0.58			7.81	
105	3	-0.58			7.81	
127	3	0.74			8.65	
132	1	1.80			9.33	
140	3	0.67		8.61		
141	3	-0.69			7.74	
146	4	-0.08			8.13	
194	2	-1.32	7.34			
210	0	-12.61			0.14	
212	4	-0.17			8.07	
215	4	-0.03			8.16	
235	4	0.35			8.40	

Table 18. Statistical summary of reported data for standard reference sediment sample SED-5 (bed material)--Continued

Cd (Cadmium) μg/g



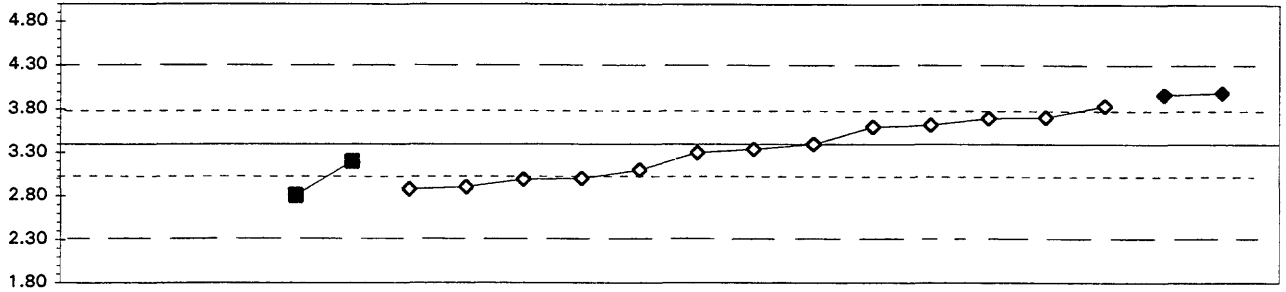
● 0 □ 1 ■ 3 ◇ 4 ◆ 6

0. Other	4. ICP
1. AA: direct air	6. ICP/MS
3. AA: graphite furnace	
N = 2	7
1	16
2	2
Minimum = 123	155
Maximum = 172	190
Median = 148	160
F-pseudostigma = 6	12
	152
	157

MPV = 158
 F-pseudostigma = 16
 N = 28
 Hu = 169
 HI = 148

Lab	Rating	Z-value	0	1	3	4	6
1	3	0.87		171			
3	4	0.10				159	
13	2	-1.12				140	
15	3	0.61				167	
18	4	-0.29				153	
23	4	-0.16		155			
28	0	-2.22	123				
30	4	0.03		158			
32	3	0.87					171
48	4	-0.03				157	
52	0	2.73				200	
58	4	0.16		160			
68	4	-0.48				150	
69	4	0.42		164			
81	4	-0.48				150	
100	0	2.09		190			
105	3	-0.93					143
121	1	-1.57				133	
127	3	0.80				170	
132	2	1.50				181	
140	4	0.14		160			
141	3	-0.61				148	
146	3	-0.67				147	
194	3	0.93	172				
210	0	-2.67				116	
212	3	-0.67				147	
215	4	0.16				160	
235	4	-0.16			155		

Table 18. Statistical summary of reported data for standard reference sediment sample SED-5 (bed material)--Continued
Co (Cobalt) **µg/g**



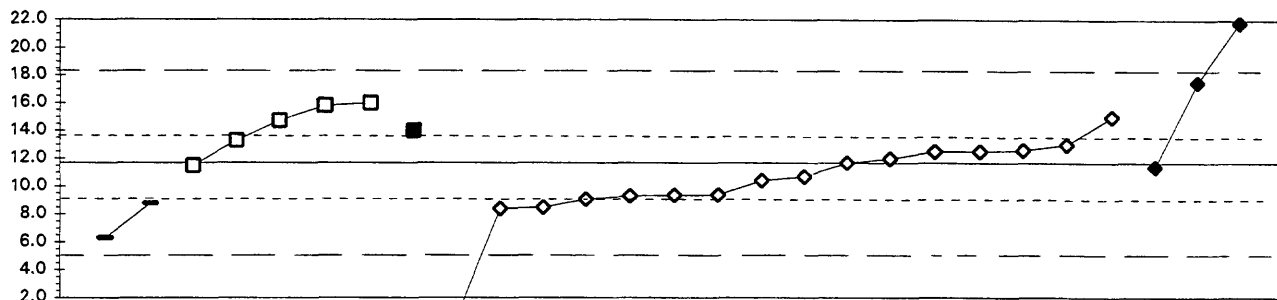
—○— 0 —□— 1 —■— 3 —◇— 4 —◆— 6

0. Other	4. ICP
1. AA: direct air	6. ICP/MS
3. AA: graphite furnace	
N = 0	2 2 13 2
Minimum =	5.77 2.81 2.88 3.97
Maximum =	7.10 3.20 3.84 3.99
Median =	6.44 3.01 3.34 3.98
F-pseudostigma =	0.46

MPV = 3.40
 F-pseudostigma = 0.54
 N = 19
 Hu = 3.78
 Hl = 3.05

Lab	Rating	Z-value	0	1	3	4	6
1	0	6.88		7.10			
3	4	0.00				3.40	
13	4	-0.19				3.30	
15	3	0.82				3.84	
18	3	-0.56				3.10	
32	2	1.10					3.99
48	4	0.37				3.60	
52	3	0.56				3.70	
81	3	-0.76				2.99	
100	0	4.41		5.77			
105	2	1.06					3.97
121	3	-0.74				3.00	
127	4	-0.11				3.34	
132	3	-0.97				2.88	
141	NR					< 5.0	
146	4	0.41				3.62	
194	NR		< 10.0				
210	3	0.58				3.71	
212	3	-0.93				2.90	
215	2	-1.10			2.81		
235	4	-0.37			3.20		

Table 18. Statistical summary of reported data for standard reference sediment sample SED-5 (bed material)--Continued
Cr (Chromium) **µg/g**



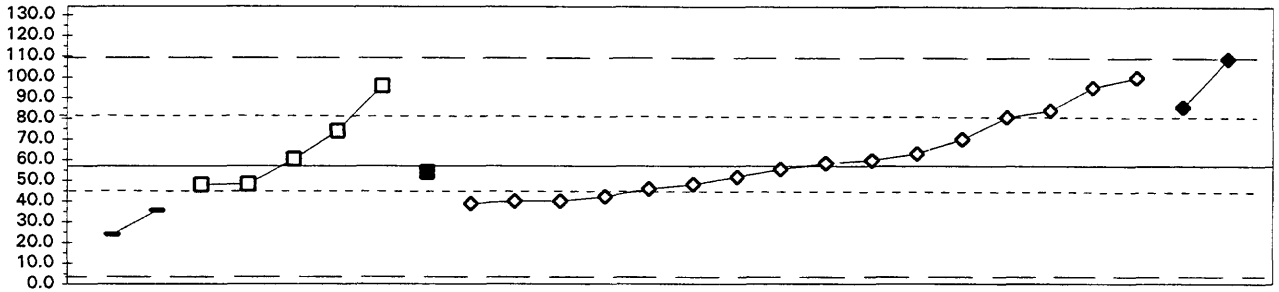
● 0 □ 1 ■ 3 ◇ 4 ◆ 6

0. Other						4. ICP
1. AA: direct air						6. ICP/MS
3. AA: graphite furnace						
	N =	2	5	1	16	3
	Minimum =	6.3	11.5	14.0	0.6	11.4
	Maximum =	8.8	16.0		15.0	21.8
	Median =	7.6	14.7		10.6	17.5
	F-pseudostigma =	2.5				

MPV = 11.7
 F-pseudostigma = 3.2
 N = 27
 Hu = 13.7
 HI = 9.3

Lab	Rating	Z-value	0	1	3	4	6
1	4	-0.06		11.5			
3	2	-1.03				8.4	
13	4	0.41				13.0	
15	4	0.28				12.6	
18	3	-1.00				8.5	
23	2	1.28		15.8			
28	1	-1.68	6.3				
30	4	-0.09					11.4
32	0	3.15					21.8
48	0	-3.47				0.6	
52	3	-0.72				9.4	
58	2	1.34		16.0			
68	4	0.09				12.0	
81	4	0.00				11.7	
100	4	0.50		13.3			
105	1	1.81					17.5
121	4	0.25				12.5	
127	4	-0.31				10.7	
132	4	-0.40				10.4	
140	3	0.94		14.7			
141	3	-0.73				9.4	
146	4	0.25				12.5	
194	3	-0.91	8.8				
210	2	1.03				15.0	
212	3	-0.75				9.3	
215	3	-0.82				9.1	
235	3	0.72		14.0			

Table 18. Statistical summary of reported data for standard reference sediment sample SED-5 (bed material)--Continued
Cu (Copper) **µg/g**



0 — □ — 1 — ■ — 3 — ◇ — 4 — ● — 6

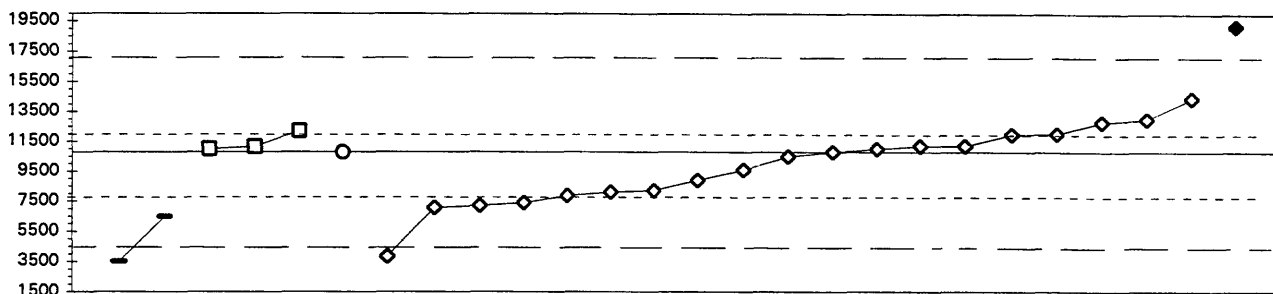
0. Other		4. ICP				
1. AA: direct air		6. ICP/MS				
3. AA: graphite furnace						
	N =	2	5	1	16	2
	Minimum =	24	48	54	39	86
	Maximum =	36	96		100	109
	Median =	30	60		57	97
	F-pseudostigma =				23	

MPV = 57
 F-pseudostigma = 26
 N = 26
 Hu = 81
 HI = 46

Lab	Rating	Z-value	0	1	3	4	6
1	4	0.13		60			
3	3	-0.71				39	
13	4	0.24				63	
15	4	-0.34				48	
18	4	-0.42				46	
23	1	1.52		96			
28	2	-1.28	24				
32	1	2.03					109
48	3	0.92				81	
52	3	-0.66				40	
58	3	0.67		74			
68	1	1.68				100	
81	2	1.49				95	
100	4	-0.35		48			
105	2	1.12					86
121	3	-0.66				40	
127	4	-0.20				52	
132	4	0.11				60	
140	4	-0.34		48			
141	3	-0.57				42	
146	4	-0.06				55	
194	3	-0.83	36				
210	3	0.51				70	
212	2	1.05				84	
215	4	0.06				58	
235	4	-0.11			54		

Table 18. Statistical summary of reported data for standard reference sediment sample SED-5 (bed material)--Continued

Fe (Iron) µg/g



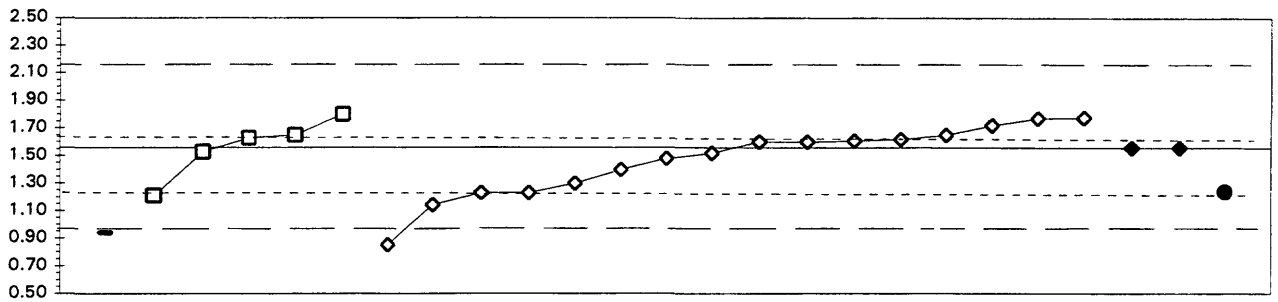
—■— 0 —□— 1 —○— 2 —◇— 4 —◆— 6

0. Other	4. ICP
1. AA: direct air	6. ICP/MS
2. AA: direct nitrous oxide	
N =	2 3 1 19 1
Minimum =	3530 11000 10800 3856 19200
Maximum =	6490 12200 14400
Median =	5010 11150 10500
F-pseudostigma =	2674

MPV = 10800
 F-pseudostigma = 3050
 N = 26
 Hu = 11974
 Hi = 7860

Lab	Rating	Z-value	0	1	2	4	6
1	4	0.46		12200			
3	2	-1.18				7210	
13	3	0.72				13000	
15	4	-0.10				10500	
18	2	-1.22				7080	
28	0	-2.38	3530				
32	0	2.75					19200
48	4	0.07				11004	
52	3	-0.89				8100	
58	4	0.07		11000			
68	3	-0.62				8900	
81	4	0.00				10800	
100	0	-2.28				3856	
105	3	0.66				12800	
121	4	0.39				12000	
127	4	-0.40				9590	
132	4	0.38				11974	
140	4	0.11		11150			
141	2	-1.12				7390	
146	4	0.13				11200	
154	2	1.18				14400	
194	2	-1.41	6490				
210	4	0.13				11200	
212	3	-0.85				8200	
215	3	-0.96				7860	
235	4	0.00			10800		

Table 18. Statistical summary of reported data for standard reference sediment sample SED-5 (bed material)--Continued
K (Potassium) **mg/g**



— 0 — 1 — 4 — 6 — 12

0. Other	6. ICP/MS				
1. AA: direct air	12. Flame emission				
4. ICP	N = 1	5	16	2	1
Minimum =	0.94	1.21	0.85	1.56	1.24
Maximum =		1.80	1.78	1.56	
Median =		1.63	1.56	1.56	
F-pseudosigma =			0.27		

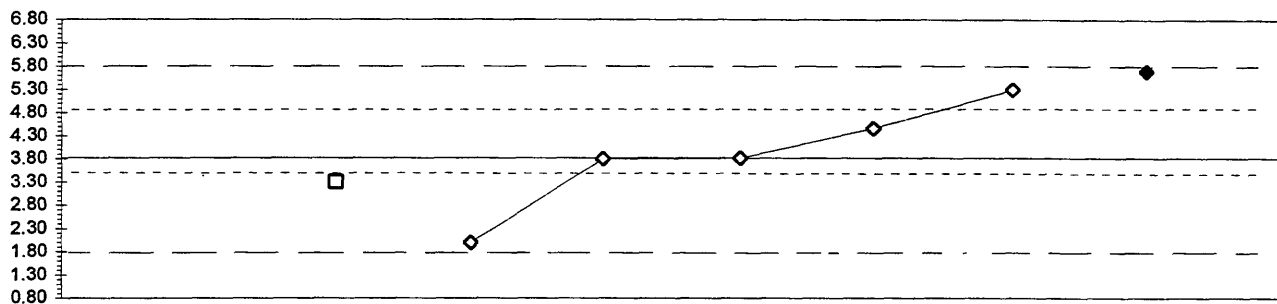
MPV = 1.56
 F-pseudosigma = 0.29
 N = 25
 Hu = 1.63
 Hl = 1.24

Lab	Rating	Z-value	0	1	4	6	12
1	4	0.31		1.65			
3	0	-2.46			0.85		
13	4	0.14			1.60		
15	4	0.31			1.65		
18	2	-1.14			1.23		
28	0	-2.14	0.94				
30	2	-1.11					1.24
32	4	0.00				1.56	
48	3	0.75			1.78		
52	3	-0.55			1.40		
58	3	0.83		1.80			
68	3	-0.90			1.30		
81	4	-0.28			1.48		
100	4	0.21			1.62		
105	4	0.00				1.56	
121	2	-1.21		1.21			
127	4	-0.10		1.53			
132	4	0.16			1.61		
140	4	0.24		1.63			
141	4	-0.14			1.52		
146	3	0.73			1.77		
210	3	0.55			1.72		
212	2	-1.45			1.14		
215	2	-1.14			1.23		
235	4	0.14			1.60		

Table 18. Statistical summary of reported data for standard reference sediment sample SED-5 (bed material)--Continued

Li (Lithium)

µg/g



— 0 — 1 — 4 — 6 —

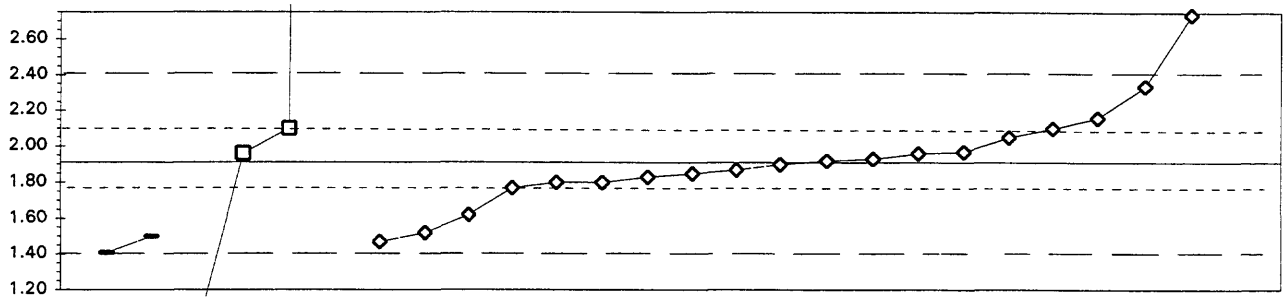
0. Other		6. ICP/MS			
1. AA: direct air					
4. ICP					
	N =	0	1	5	1
	Minimum =		3.31	2.00	5.70
	Maximum =			5.30	
	Median =			3.82	
	F-pseudostigma =				

MPV = 3.82
 F-pseudostigma = 0.98
 N = 7
 Hu = 4.88
 Hl = 3.56

Lab	Rating	Z-value	0	1	4	6
1	1	1.51			5.30	
3	4	-0.02			3.80	
15	3	0.65			4.46	
32	1	1.91				5.70
100	3	-0.52		3.31		
127	4	0.00			3.82	
194	NR	< 1000				
212	1	-1.85			2.00	

Table 18. Statistical summary of reported data for standard reference sediment sample SED-5 (bed material)--Continued

Mg (Magnesium) mg/g



— 0 — 1 — 4 — 6

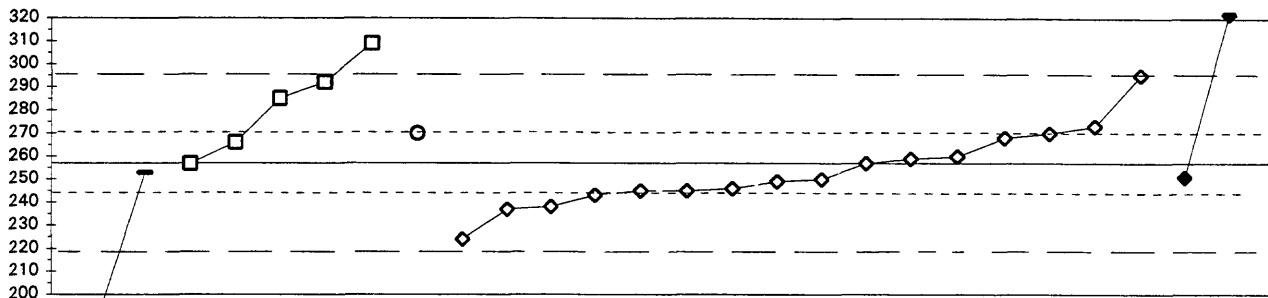
0. Other		6. ICP/MS			
1. AA: direct air					
4. ICP					
N =		2	4	19	1
Minimum =		1.41	0.94	1.47	3.20
Maximum =		1.50	52.00	2.74	
Median =		1.46	2.03	1.90	
F-pseudostigma =				0.16	

MPV = 1.91
 F-pseudostigma = 0.24
 N = 26
 Hu = 2.10
 HI = 1.77

Lab	Rating	Z-value	0	1	4	6
1	4	0.20		1.96		
3	1	-1.59			1.52	
13	4	-0.04			1.90	
15	2	1.02			2.16	
18	2	-1.19			1.62	
23	0	-3.97		0.94		
28	1	-2.04	1.41			
32	0	5.27				3.20
48	1	1.75			2.34	
52	4	-0.45			1.80	
58	0	204.76		52.00		
68	4	-0.45			1.80	
81	4	-0.25			1.85	
100	4	0.04			1.92	
105	4	0.08			1.93	
121	4	0.20			1.96	
127	4	0.25			1.97	
132	0	3.38			2.74	
140	3	0.78		2.10		
141	4	-0.33			1.83	
146	3	0.57			2.05	
194	1	-1.68	1.50			
210	3	-0.57			1.77	
212	1	-1.80			1.47	
215	4	-0.16			1.87	
235	3	0.78			2.10	

Table 18. Statistical summary of reported data for standard reference sediment sample SED-5 (bed material)--Continued

Mn (Manganese) µg/g



—■— 0 —□— 1 —○— 2 —◇— 4 —◆— 6

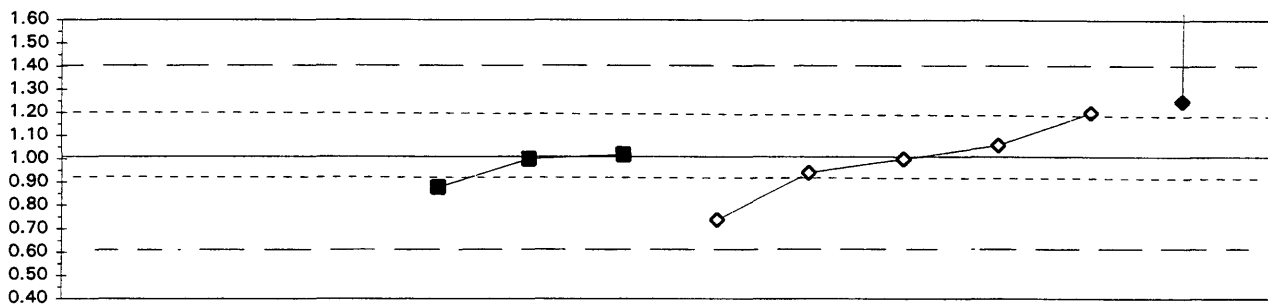
0. Other	4. ICP
1. AA: direct air	6. ICP/MS
2. AA: direct nitrous oxide	
N = 2	5
Minimum = 190	257
Maximum = 253	309
Median = 222	285
F-pseudosigma = 15	

MPV = 257
 F-pseudosigma = 19
 N = 26
 Hu = 270
 HI = 245

Lab	Rating	Z-value	0	1	2	4	6
1	1	1.52		285			
3	1	-1.78				224	
13	3	0.71				270	
15	3	0.60				268	
18	3	-0.59				246	
23	1	1.89		292			
28	0	-3.61	190				
32	0	3.51					322
48	4	0.01				257	
52	4	-0.37				250	
58	0	2.81		309			
68	4	0.17				260	
81	3	-0.64				245	
100	4	0.49		266			
105	4	-0.32					251
121	3	-0.64				245	
127	3	0.87				273	
132	0	2.06				295	
140	4	-0.01		257			
141	2	-1.02				238	
146	4	0.11				259	
194	4	-0.21	253				
210	2	-1.07				237	
212	4	-0.43				249	
215	3	-0.75				243	
235	3	0.71			270		

Table 18. Statistical summary of reported data for standard reference sediment sample SED-5 (bed material)--Continued

Mo (Molybdenum) µg/g



—●— 0 —○— 2 —■— 3 —◇— 4 —◆— 6

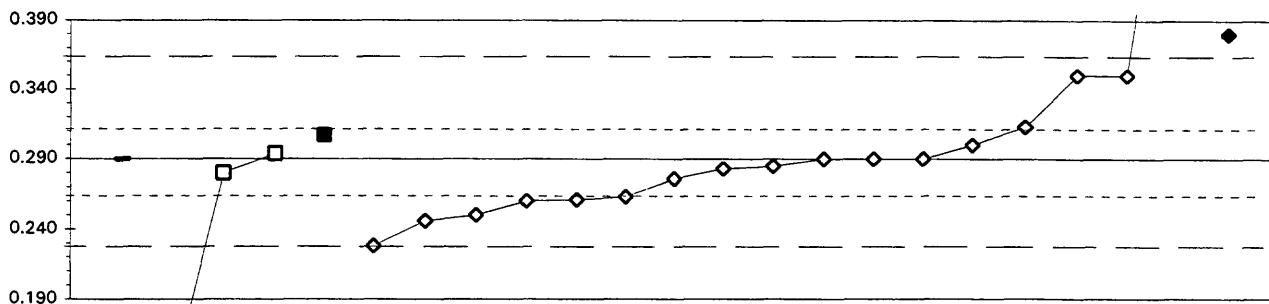
0. Other	4. ICP
2. AA: direct nitrous oxide	6. ICP/MS
3. AA: graphite furnace	
N =	0 0 3 5 2
Minimum =	0.88 0.74 1.25
Maximum =	1.02 1.20 634.00
Median =	1.00 1.00 317.63
F-pseudosigma =	

MPV = 1.01
 F-pseudosigma = 0.19
 N = 10
 Hu = 1.20
 Hi = 0.94

Lab	Rating	Z-value	0	2	3	4	6
1	NR					< 1.4	
3	NR					< 0.6	
15	4	0.26				1.06	
18	3	0.99				1.20	
23	NR			< 6			
28	NR	< 0.5					
32	0	#####					634.00
48	4	0.05			1.02		
52	NR					< 2.2	
68	NR					< 3.7	
81	NR					< 0.692	
100	2	-1.41				0.74	
105	2	1.25					1.25
127	NR					< 2	
141	NR					< 5	
146	4	-0.36				0.94	
194	NR	< 50					
210	4	-0.05				1.00	
212	NR					< 10	
215	3	-0.68			0.88		
235	4	-0.05			1.00		

Table 18. Statistical summary of reported data for standard reference sediment sample SED-5 (bed material)--Continued

Na (Sodium) mg/g



0 1 3 4 6

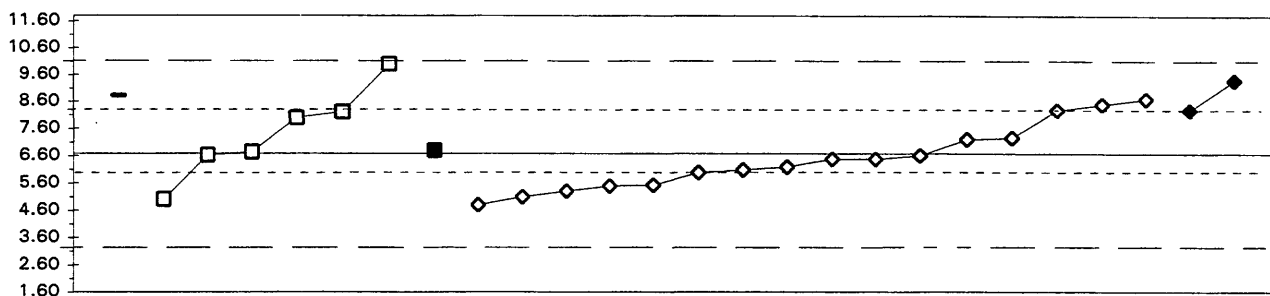
0. Other	4. ICP				
1. AA: direct air	6. ICP/MS				
3. AA: graphite furnace					
N =	1	3	1	17	1
Minimum =	0.290	0.133	0.307	0.228	0.380
Maximum =		0.294		0.592	
Median =		0.280		0.285	
F-pseudostigma =				0.029	

MPV = 0.290
 F-pseudostigma = 0.031
 N = 23
 Hu = 0.304
 Hi = 0.262

Lab	Rating	Z-value	0	1	3	4	6
1	1	1.95				0.350	
3	4	0.00				0.290	
13	4	0.33				0.300	
15	3	0.55			0.307		
18	3	-0.94				0.261	
23	0	-5.10		0.133			
28	4	0.00	0.290				
32	0	2.93					0.380
48	0	9.82				0.592	
52	3	-0.88				0.263	
58	4	-0.33		0.280			
81	2	-1.43				0.246	
100	1	1.95				0.350	
105	1	-2.02				0.228	
121	4	0.00				0.290	
127	4	-0.23				0.283	
132	4	-0.16				0.285	
140	4	0.13		0.294			
141	2	-1.30				0.250	
146	3	0.75				0.313	
194	NR	< 1					
210	4	-0.46				0.276	
212	4	0.00				0.290	
215	3	-0.98				0.260	

Table 18. Statistical summary of reported data for standard reference sediment sample SED-5 (bed material)--Continued

Ni (Nickel) µg/g



0. Other						4. ICP
1. AA: direct air						6. ICP/MS
3. AA: graphite furnace						
	N =	1	6	1	16	2
	Minimum =	8.83	5.01	6.80	4.80	8.28
	Maximum =		10.00		8.70	9.40
	Median =		7.37		6.34	8.84
	F-pseudosigma =				1.27	

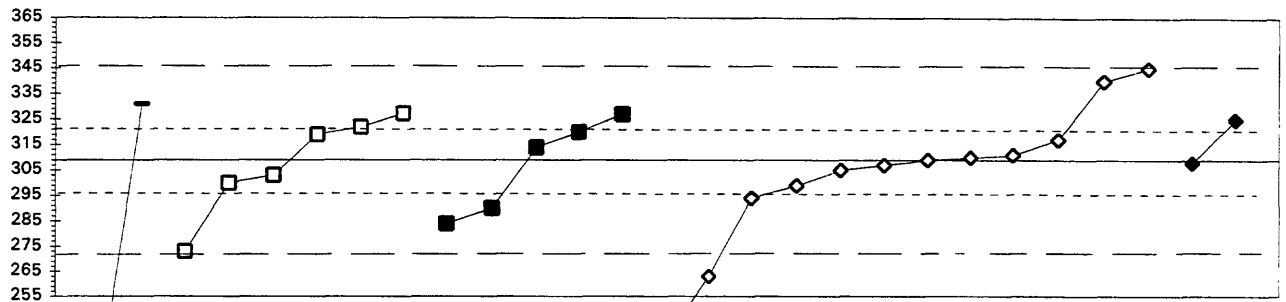
MPV = 6.68
 F-pseudosigma = 1.69
 N = 26
 Hu = 8.28
 HI = 6.00

Lab	Rating	Z-value	0	1	3	4	6
1	1	1.96		10.00			
3	3	-0.70				5.50	
13	4	-0.28				6.20	
15	4	-0.04				6.61	
18	2	-1.11				4.80	
23	4	0.04			6.74		
28	2	1.27	8.83				
30	3	0.91		8.21			
32	1	1.61					9.40
48	4	-0.12				6.48	
52	3	-0.93				5.10	
58	3	0.78		8.00			
68	2	1.20				8.70	
81	2	1.08				8.50	
100	4	-0.04		6.62			
105	3	0.95					8.28
121	4	-0.40				6.00	
127	4	-0.35				6.09	
132	3	0.95				8.28	
140	3	-0.99		5.01			
141	4	0.34				7.26	
146	4	-0.12				6.48	
194	NR		< 10				
210	3	-0.68				5.53	
212	4	0.31				7.20	
215	3	-0.81				5.31	
235	4	0.07			6.80		

Table 18. Statistical summary of reported data for standard reference sediment sample SED-5 (bed material)--Continued

Pb (Lead)

µg/g



0 1 3 4 6

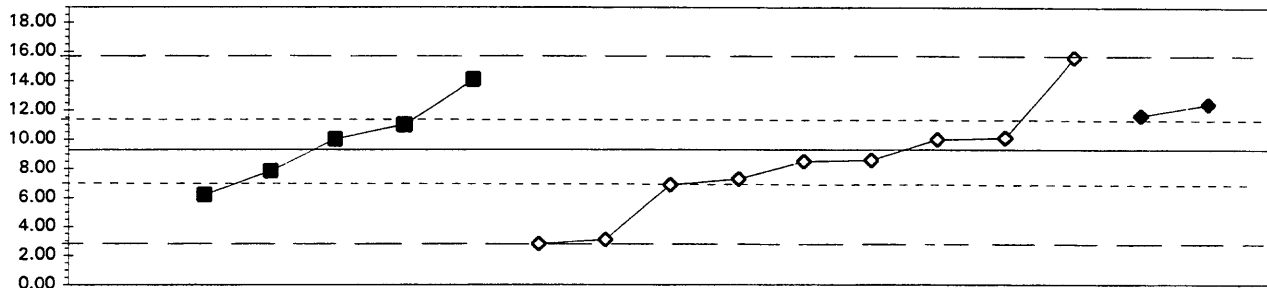
0. Other	4. ICP
1. AA: direct air	6. ICP/MS
3. AA: graphite furnace	
N =	2 6 5 12 2
Minimum =	216 273 284 239 308
Maximum =	331 327 327 345 325
Median =	274 311 314 308 317
F-pseudosigma =	13

MPV = 309
 F-pseudosigma = 18
 N = 27
 Hu = 321
 HI = 297

Lab	Rating	Z-value	0	1	3	4	6
1	1	-1.98		273			
3	3	-0.55				299	
13	3	0.61			320		
15	4	0.11				311	
18	3	0.99			327		
23	3	0.55		319			
28	0	-5.12	216				
30	4	-0.33		303			
32	3	0.88					325
48	4	0.44				317	
52	4	0.06				310	
58	4	-0.50		300			
68	1	1.71				340	
69	3	0.72		322			
81	0	-2.53				263	
100	4	0.28			314		
105	4	-0.06					308
127	2	-1.38			284		
140	2	1.01		327			
141	3	-0.83				294	
146	4	-0.22				305	
154	1	1.98				345	
194	2	1.21	331				
210	0	-3.85				239	
212	4	-0.11				307	
215	4	0.00				309	
235	2	-1.05			290		

Table 18. Statistical summary of reported data for standard reference sediment sample SED-5 (bed material)--Continued

Sb (Antimony) µg/g



— 0 — 3 — 4 — 6

0. Other		6. ICP/MS			
3. AA: graphite furnace					
4. ICP					
N =	0	5	9	2	
Minimum =		6.20	2.80	11.60	
Maximum =		14.10	15.60	12.40	
Median =		10.00	8.50	12.00	
F-pseudostigma =			2.29		

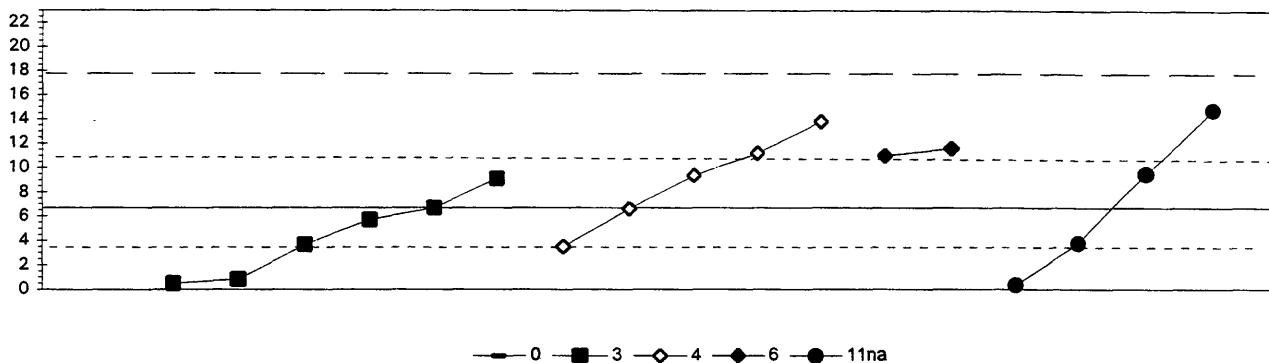
MPV = 9.28
 F-pseudostigma = 3.12
 N = 16
 Hu = 11.30
 HI = 7.09

Lab	Rating	Z-value	0	3	4	6
3	1	-1.98			3.10	
13	4	0.23	10.00			
15	4	0.22			9.98	
18	3	-0.99	6.20			
32	3	1.00				12.40
48	0	-2.07			2.80	
52	NR				< 10	
81	4	-0.25			8.50	
100	1	1.54	14.10			
105	3	0.74				11.60
127	4	-0.46	7.84			
141	4	0.26			10.10	
146	4	-0.22			8.58	
194	NR		< 100			
210	3	-0.64			7.28	
212	1	2.02			15.60	
215	3	-0.76			6.89	
235	3	0.55	11.00			

Table 18. Statistical summary of reported data for standard reference sediment sample SED-5 (bed material)--Continued

Se (Selenium)

µg/g

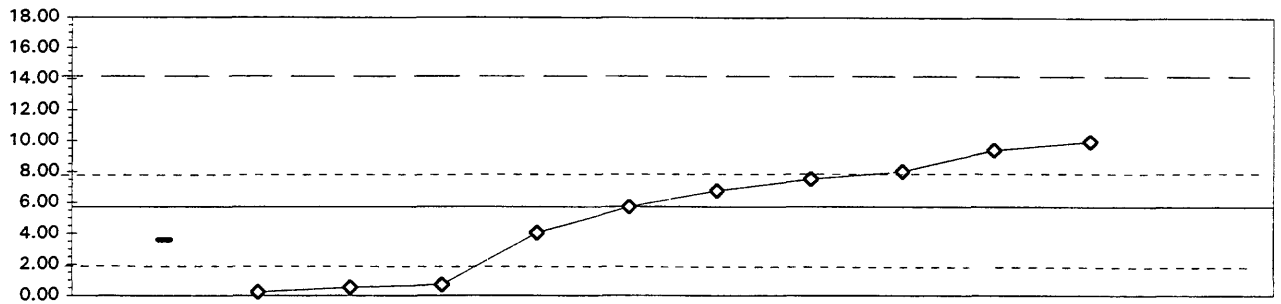


0. Other	6. ICP/MS				
3. AA: graphite furnace	11. AA: hydride				
4. ICP					
N =	0	6	5	2	4
Minimum =	0.51	3.50	11.00	0.36	
Maximum =	9.10	13.80	11.60	14.80	
Median =	4.70	9.37	11.30	6.65	
F-pseudosigma =					

MPV = 6.69
 F-pseudosigma = 5.41
 N = 17
 Hu = 11.00
 Hi = 3.70

Lab	Rating	Z-value	0	3	4	6	11
1	2	-1.17					0.36
3	2	1.31			13.80		
13	NR			< 1			
15	NR				< 25		
18	3	-0.55		3.70			
23	2	1.50					14.80
32	3	0.80				11.00	
48	4	0.45		9.10			
52	3	-0.59			3.50		
58	3	0.52					9.50
100	2	-1.14		0.51			
105	3	0.91				11.60	
127	2	-1.08		0.83			
141	3	-0.54					3.79
146	4	0.50			9.37		
194	NR		< 200				
210	3	0.83			11.20		
212	4	-0.02			6.60		
215	4	0.00		6.69			
235	4	-0.18		5.70			

Table 18. Statistical summary of reported data for standard reference sediment sample SED-5 (bed material)--Continued
SiO₂ (Silica) **mg/g**



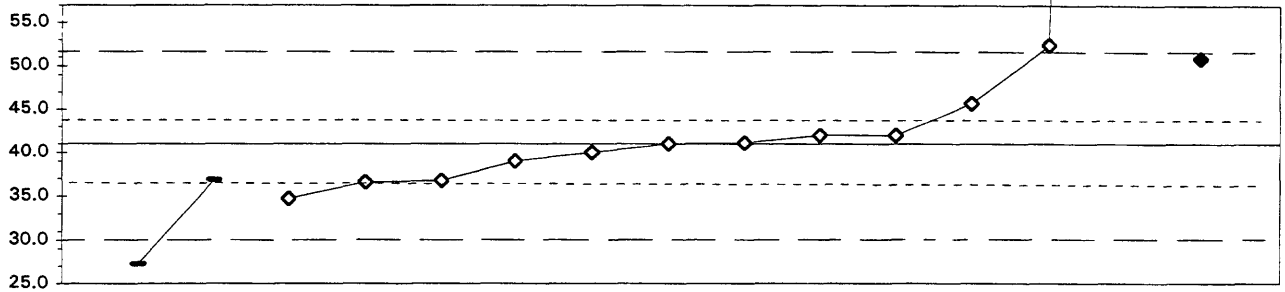
— 0 — 4 — 22m

0. Other			
4. ICP			
22m. Color: phosphomolybdate			
N =	1	10	0
Minimum =	3.6	0.2	
Maximum =		10.0	
Median =		6.2	
F-pseudosigma =		5.4	

MPV = 5.7
 F-pseudosigma = 4.2
 N = 11
 Hu = 7.8
 HI = 2.1

Lab	Rating	Z-value	0	4	22m
1	2	1.02		10.0	
3	4	-0.40		4.0	
13	3	0.89		9.4	
15	4	0.25		6.8	
28	3	-0.51	3.6		
100	3	0.55		8.0	
121	4	0.44		7.5	
127	4	0.00		5.7	
141	NR				< 0.01
210	2	-1.32		0.2	
212	2	-1.21		0.7	
215	2	-1.24		0.5	

Table 18. Statistical summary of reported data for standard reference sediment sample SED-5 (bed material)--Continued
Sr (Strontium) µg/g



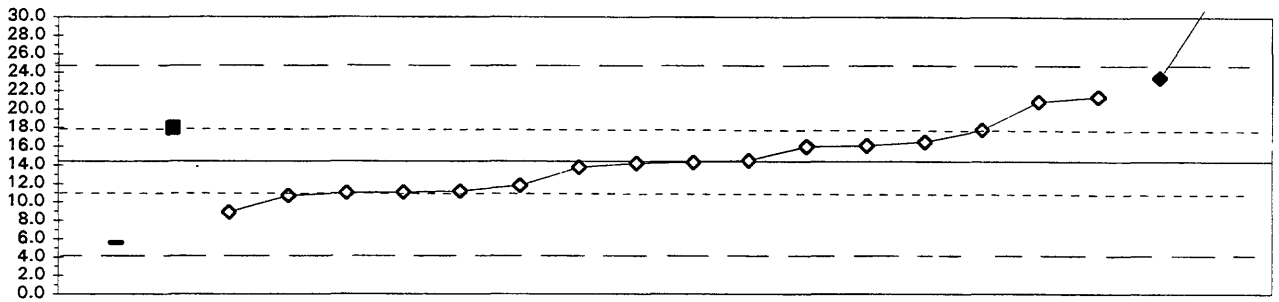
— 0 —◇— 4 —●— 6

0. Other			
4. ICP			
6. ICP/MS			
N =	2	12	1
Minimum =	27.3	34.7	50.9
Maximum =	36.9	409.0	
Median =	32.1	41.0	
F-pseudostigma =		4.4	

MPV = 41.0
 F-pseudostigma = 5.2
 N = 15
 Hu = 43.9
 Hi = 36.9

Lab	Rating	Z-value	0	4	6
1	0	2.20		52.4	
3	3	-0.85		36.6	
15	4	0.19		42.0	
18	4	-0.39		39.0	
28	0	-2.64	27.3		
32	1	1.91			50.9
52	4	-0.19		40.0	
81	4	0.02		41.1	
100	2	-1.21		34.7	
121	4	0.00		41.0	
127	3	0.91		45.7	
194	3	-0.79	36.9		
210	0	70.92		409.0	
212	3	-0.81		36.8	
235	4	0.19		42.0	

Table 18. Statistical summary of reported data for standard reference sediment sample SED-5 (bed material)--Continued
V (Vanadium) μg/g



— 0 —■— 3 —◇— 4 —◆— 6

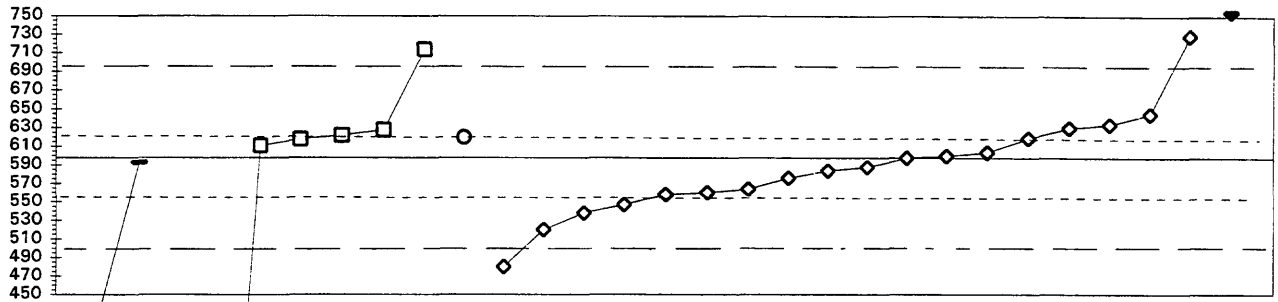
0. Other		6. ICP/MS			
3. AA: graphite furnace					
4. ICP					
N =		1	1	16	2
Minimum =		5.6	18.0	8.9	23.5
Maximum =				21.4	33.0
Median =				14.3	28.3
F-pseudostigma =				3.8	

MPV = 14.4
 F-pseudostigma = 5.0
 N = 20
 Hu = 17.9
 HI = 11.2

Lab	Rating	Z-value	0	3	4	6
1	3	0.68			17.8	
3	3	-0.64			11.2	
13	4	0.02			14.5	
15	4	0.42			16.5	
18	2	-1.10			8.9	
28	1	-1.76	5.6			
32	0	3.72				33.0
48	4	-0.04			14.2	
52	3	-0.68			11.0	
81	4	-0.02			14.3	
100	4	-0.12			13.8	
105	1	1.82				23.5
121	4	0.32			16.0	
127	3	-0.52			11.8	
132	2	1.29			20.9	
141	3	-0.74			10.7	
146	4	0.34			16.1	
194	NR		< 50			
210	2	1.40			21.4	
212	3	-0.66			11.1	
235	3	0.72	18.0			

Table 18. Statistical summary of reported data for standard reference sediment sample SED-5 (bed material)--Continued

Zn (Zinc) µg/g



— 0 — 1 — 2 — 4 — 6

0. Other	4. ICP				
1. AA: direct air	6. ICP/MS				
2. AA: direct nitrous oxide					
N =	2	7	1	18	1
Minimum =	424	7	620	480	755
Maximum =	593	714		729	
Median =	509	618		586	
F-pseudosigma =		220		45	

MPV = 598
 F-pseudosigma = 47
 N = 29
 Hu = 622
 HI = 558

Lab	Rating	Z-value	0	1	2	4	6
1	0	2.45		714			
3	4	-0.30				584	
13	3	0.67				630	
15	3	0.76				634	
18	4	-0.46				576	
23	4	0.42		618			
28	0	-3.67	424				
30	4	0.27		611			
32	0	3.31					755
48	4	0.00				598	
52	3	-0.80				560	
58	0	-11.70		43			
68	4	0.04				600	
69	0	-12.46		7			
81	2	-1.26				538	
100	3	0.51		622			
105	4	-0.21				588	
121	1	-1.64				520	
127	3	0.99				645	
132	4	0.12				604	
140	3	0.63		628			
141	2	-1.07				547	
146	4	0.44				619	
154	0	2.76				729	
194	4	-0.11	593				
210	0	-2.49				480	
212	3	-0.84				558	
215	3	-0.72				564	
235	4	0.46			620		

Table 19. --Most probable values for constituents and properties in standard reference samples distributed in May 1995

[MPV, most probable value; ug/L, microgram per liter; mg/L, milligram per liter; uS/cm, microsiemen per centimeter at 25 degrees Celsius]

T-135 (trace constituents)

Analyte	MPV	F-pseudosiigma	Analyte	MPV	F-pseudosiigma
Ag	9.81 µg/L	1.05	Li	73.7 µg/L	5.2
Al	10.5 µg/L	6.8	Mg	2.00 mg/L	0.09
As	10.0 µg/L	1.1	Mn	423 µg/L	20
B	13.1 µg/L	11.1	Mo	63.0 µg/L	5.1
Ba	67.8 µg/L	4.3	Na	30.8 mg/L	1.2
Be	59.0 µg/L	2.6	Ni	65.6 µg/L	5.0
Ca	10.4 mg/L	0.6	Pb	103.0 µg/L	7.0
Cd	50.5 µg/L	3.2	Sb	76.3 µg/L	8.7
Co	40.0 µg/L	2.6	Se	10.0 µg/L	1.4
Cr	79.0 µg/L	5.5	SiO2	4.28 mg/L	0.31
Cu	62.0 µg/L	4.2	Sr	46.0 µg/L	2.3
Fe	228 µg/L	11	V	52.8 µg/L	3.6
K	0.96 mg/L	0.09	Zn	48.2 µg/L	4.7

M-134 (major constituents)

Analyte	MPV	F-pseudosiigma	Analyte	MPV	F-pseudosiigma
Alkalinity	62.9 mg/L	1.6	Na	60.7 mg/L	2.4
B	33.7 mg/L	8.5	total P	0.010 mg/L	0.016
Ca	43.8 mg/L	2.4	pH	7.72	0.17
Cl	65.0 mg/L	2.1	SiO2	5.34 mg/L	0.27
DSRD	370 mg/L	19	SO4	78.0 mg/L	2.4
F	0.561 mg/L	0.030	Sp Cond	615 µS/cm	18
K	2.40 mg/L	0.22	Sr	291 µg/L	14
Mg	9.75 mg/L	0.41	V	3.55 µg/L	1.24

N-45 (nutrients)

Analyte	MPV	F-pseudosiigma
NH3 as N	0.060 mg/L	0.021
NH3+OrgN as N	0.300 mg/L	0.249
NO3+NO2 as N	0.286 mg/L	0.028
total P as P	0.139 mg/L	0.012
PO4 as P	0.120 mg/L	0.012

N-46 (nutrients)

Analyte	MPV	F-pseudosiigma
NH3 as N	1.04 mg/L	0.09
NH3+OrgN as N	1.81 mg/L	0.30
NO3+NO2 as N	1.23 mg/L	0.06
Total P as P	1.23 mg/L	0.06
PO4 as P	0.920 mg/L	0.045

P-24 (low ionic strength constituents)

Analyte	MPV	F-pseudosiigma	Analyte	MPV	F-pseudosiigma
Acidity	3.75 mg/L	1.30	Na	0.246 mg/L	0.025
Ca	0.325 mg/L	0.030	pH	4.73	0.13
Cl	1.20 mg/L	0.19	PO4 as P	0.028 mg/L	0.003
F	0.110 mg/L	0.011	SO4	0.338 mg/L	0.508
K	0.118 mg/L	0.011	Sp Cond	13.3 µS/cm	1.6
Mg	0.055 mg/L	0.007			

Hg-20 (mercury)

Analyte	MPV	F-pseudosiigma
Hg	4.42 µg/L	0.38

SED-5 (bed material)

Analyte	MPV	F-pseudosiigma	Analyte	MPV	F-pseudosiigma
Ag	0.72 µg/g	0.25	Li	3.82 µg/g	0.98
Al	4227 µg/g	979	Mg	1.91 mg/g	0.24
As	216 µg/g	20.0	Mn	257 µg/g	19
B	9.90 µg/g	11.82	Mo	1.01 µg/g	0.19
Ba	110 µg/g	14	Na	0.290 mg/g	0.031
Be	0.305 µg/g	0.096	Ni	6.68 µg/g	1.69
Ca	8.18 mg/g	0.64	Pb	309 µg/g	18
Cd	158 µg/g	16	Sb	9.28 µg/g	3.12
Co	3.40 µg/g	0.54	Se	6.69 µg/g	5.41
Cr	11.70 µg/g	3.20	SiO2	5.71 mg/g	4.16
Cu	56.9 µg/g	25.6	Sr	41.0 µg/g	5.2
Fe	10800 µg/g	3050	V	14.4 µg/g	5.0
K	1.56 mg/g	0.29	Zn	598 µg/g	47