U.S. Department of the Interior
U.S. Geological Survey

RESULTS OF THE U.S. GEOLOGICAL SURVEY'S ANALYTICAL EVALUATION PROGRAM FOR STANDARD REFERENCE SAMPLES DISTRIBUTED IN APRIL 2001

Open-File Report 01-287

Results of the U.S. Geological Survey's Analytical Evaluation Program for Standard Reference Samples Distributed in April 2001

By Mark T. Woodworth and Brooke F. Connor

U.S. GEOLOGICAL SURVEY

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DEPARTMENT OF THE INTERIOR

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Abbreviations and figure symbols

C =	Celsius
Fσ =	nonparametric statistic for deviation
HCl =	hydrochloric acid
Hg - =	mercury sample
HNO_3 =	nitric acid
Lh =	lower hinge value
L =	liter
Lab =	laboratory
mg/L =	milligrams per liter
mL =	millilter
M - =	major ion sample
MPV =	most probable value (center line on graphs)
n =	number of analyses
N =	Normality
N - =	nutrient sample
NR =	not rated, less than values reported or insufficient data
OLR =	overall laboratory rating for each sample type
OWR =	overall weighted rating for all sample types
P - =	precipitation sample (low-ionic strength)
ppm =	parts per million
SRS =	USGS standard reference sample
T - =	trace metal sample
Uh =	upper hinge value
USGS =	U.S. Geological Survey
V =	number of reported values
Z-value =	number of F-pseudosigmas from the MPV
µg/L =	micrograms per liter
µm =	micrometer
µS/cm =	microsiemens per centimeter at 25° Celsius
< =	less than
-- =	not reported

Analytical methods and 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
9	Atomic fluorescence
10	Atomic absorption: extraction
11	Atomic absorption: hydride
12	Flame emission
20	Titration: colorimetric
21	Titration: electrometric
22	Colorimetric
40	Ion selective electrode
41	Electrometric [pH and specific conductance]
50	Gravimetric
51	Turbidimetric

Formulas

MPV = median value

F-pseudosigma (Fσ) = (Uh - Lh)/1.349

Uh = median of the upper half of the reported values (excluding less than values)

Lh = median of the lower half of the reported values (excluding less than values)

Z-value = (reported value - MPV)/F-pseudosigma

OLR = mean of all rated analytes for sample type

$$OWR = \frac{(OLR*V_1)+(OLR*V_2)\ldots(OLR*Vn)}{(V_1 + V_2 + \ldots\ldots Vn)}$$ for each SRS type reported

Ratings

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 (Marginal)	1.51 to 2.00
0 (Unsatisfactory)	Greater than 2.00

RESULTS OF THE U.S. GEOLOGICAL SURVEY'S ANALYTICAL EVALUATION PROGRAM FOR STANDARD REFERENCE SAMPLES DISTRIBUTED IN APRIL 2001

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ABSTRACT

This report presents the results of the U.S. Geological Survey's analytical evaluation program for six standard reference samples -- T-165 (trace constituents), M-158 (major constituents), N-69 (nutrient constituents), N-70 (nutrient constituents), P-36 (low ionic-strength constituents), and Hg-32 (mercury) -- that were distributed in April 2001 to laboratories enrolled in the U.S. Geological Survey sponsored interlaboratory testing program. Analytical data received from 73 laboratories were evaluated with respect to overall laboratory performance and relative laboratory performance for each analyte in the six 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 six 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 analytical evaluation program semiannually. This program provides a variety of standard reference samples (SRSs) 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. 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 first analytical evaluation program. 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) evaluate the accuracy and precision of analytical methods.

A total of 263 USGS and non-USGS laboratories are enrolled in the program, which can currently provide 8 different types of SRSs:

1. Trace constituents.
2. Major constituents.
3. Nutrient constituents.
4. Low ionic-strength constituents.
5. Mercury.
6. Acid mine water constituents.
7. Ground-water trace constituents.
8. Ground-water major constituents.

Though this is not a laboratory certification program, participation in this continuing quality assurance program is mandatory for all laboratories providing water-quality data for USGS sponsored reports or storage in the USGS national databases. The results from this study can be used to alert participating laboratories of possible deficiencies in their analytical operations and provide reference materials for laboratory quality-control programs. Laboratories that provide data for the USGS are identified while all other laboratories are kept confidential with a laboratory identification number.

A supply of SRSs from previous evaluations, is available. USGS offices and participating laboratories can purchase these SRSs for further testing, continuing quality assurance, and quality-control programs by contacting:

U.S. Geological Survey
Branch of Quality Systems
SRS Purchasing
Denver Federal Center, Bldg. 53
P. O. Box 25046 MS 401
Denver, Colorado 80225-0046
(303) 236-1875

This report summarizes the analytical results submitted by 73 laboratories for the April 2001 evaluation (table 1 and table 2). Analytical results for the following are presented in this report:

T-165	Trace constituents	N-70	Nutrient constituents
M-158	Major constituents	P-36	Low ionic-strength constituents
N-69	Nutrient constituents	Hg-32	Mercury

Laboratories that are providing analytical services to USGS offices are requested to analyze the appropriate SRSs for the same analytes requested by the USGS offices. All laboratories are requested to include the analytical methods used to determine the concentration of each analyte. When analytical method information was provided, it has been included in tables 11-16.

Not all SRSs are requested or necessarily analyzed by all the laboratories; nor do all laboratories enrolled in the program participate in each evaluation.

Table 1. ***USGS used laboratories that participated in the analyses of standard reference samples distributed in April 2001***

Lab	Participating Laboratory	City	State
1	U.S. Geological Survey, National Water Quality Laboratory	Denver	CO
12	Metro Wastewater Reclamation Distict	Denver	CO
16	Oklahoma Department of Environmental Quality	Oklahoma City	OK
21	University of California, Department of Environmental Science & Policy	Davis	CA
23	City of Fort Collins, Water Quality Laboratory	Ft. Collins	CO
46	Wisconsin State Laboratory of Hygiene	Madison	WI
59	Division of Consolidated Laboratory Services	Richmond	VA
70	University of Iowa Hygienic Laboratory	Des Moines	IA
72	New Jersey Department of Health	Trenton	NJ
89	Monroe County Environmental Health Laboratory	Rochester	NY
93	University of Maine, Water Research Institute	Orono	ME
118	Occoquan Watershed	Manassas	VA
134	U.S. Geological Survey, Ocala Water Quality and Research Laboratory	Ocala	FL
138	Florida Department of Environmental Protection	Tallahassee	FL
142	North Dakota Department of Health	Bismarck	ND
147	U.S. Geological Survey, Surface Water Chemistry Research	Boulder	CO
193	Vermont Department of Environmental Conservation	Waterbury	VT
198	Maryland Department of Health and Mental Hygiene	Baltimore	MD
205	Olsen Agriculture Laboratory	McCook	NE
212	Severn Trent Laboratory	Arvada	CO
234	City of Wichita	Wichita	KS
254	U.S. Geological Survey - NRP	Menlo Park	CA
255	Colorado Springs Utilities, Water Resource Department	Colorado Springs	CO
307	City of Pueblo, Wastewater Treatment Plant	Pueblo	CO
324	Enviro-Chem Analytical, Inc.	Grand Junction	CO
331	Armstrong Forensic Laboratory	Arlington	TX
333	U.S. Geological Survey, WEBB Colorado District Office	Lakewood	CO
341	Michigan Department of Environmental Quality	Lansing	MI
353	City of Cincinnati, Bolton Water Works	Cincinnatti	OH

Table 2. ***Other laboratory participants in the analyses of standard reference samples distributed in April 2001***

Participating Laboratory	City	State
Albion Environmental	College Station	TX
Boise City Water Quality Laboratory	Boise	ID
Central Contra Costa Sanitary District	Martinez	CA
City of Northglenn Water Treatment Facility	Northglenn	CO
City of Tallahassee, Water Quality Laboratory	Tallahassee	FL
Clean Water Services, Water Quality Laboratory	Hillsboro	OR
Columbia Analytical	Rochester	NY
Denver Water Department	Denver	CO
High Sierra Water Laboratory	Truckee	CA
Institute of Ecosystem Studies	Millbrook	NY
Kansas Geological Survey	Lawrence	KS
Kentucky Geological Survey, University of Kentucky	Lexington	KY
Lower Colorado River Authority Environmental Laboratory	Austin	TX
Madison Department of Public Health	Madison	WI
Montana Bureau of Mines & Geology	Butte	MT
Old Dominion University, Applied Marine Research Laboratory	Norfolk	VA
Pennsylvania Department of Environmental Protection	Harrisburg	PA
South Florida Water Management District	West Palm Beach	FL
South West Florida Water Management District	Brooksville	FL
Suffolk County Water Authority Laboratory	Hauppauge	NY
Tennessee Valley Authority Environmental Chemistry	Chattanooga	TN
TriMatrix	Grand Rapids	MI
U.S. Bureau of Reclamation	Bismarck	ND
U.S. Bureau of Reclamation, Closed Basin Division	Alamosa	CO
U.S. Bureau of Reclamation, PN Regional Laboratory	Boise	ID
U.S. Bureau of Reclamation, TSC Chemistry Laboratory	Denver	CO
U.S. Department of Agriculture, Forest Service	Ft. Collins	CO
U.S. Department of Agriculture, Forest Service - CCAL	Corvallis	OR
U.S. Geological Survey, San Diego District Laboratory	San Diego	CA
U.S. Geological Survey, Utah District Laboratory	West Valley City	UT
University of Arkansas, Water Quality Laboratory	Fayetteville	AR
University of Maryland, Chesapeake Biology Laboratory	Solomons	MD
University of Montana, Department of Geology	Missoula	MT
Washington State Department of Ecology, Manchester Environmental Lab	Port Orchard	WA

Table 2. ***Other laboratory participants in the analyses of standard reference samples distributed in April 2001 -- continued***

Middle East Participating Laboratory	Location	
Al Quds University, Water Research Center	Jerusalem	Israel
Bethlehem University, Water & Soil Environmental Research	Bethlehem West Bank	via Israel
Environmental Research Centre, Jubeiha	Amman	Jordan
Environmental Water Resources Center	Kiryat Sde-Boker	Israel
Geological Survey of Israel Laboratory	Jerusalem	Israel
Palestinian Water Authority Laboratory	Ramallah	West Bank
Public Health Laboratory	Tel Aviv	Israel
Public Health Laboratory, Ministry of Health	Beer Sheva	Israel
Public Health Laboratory, Sabha Medical Clinic	Gaza	via West Bank
Water Authority of Jordan	Amman	Jordan

PREPARATION OF STANDARD REFERENCE SAMPLES

All of the SRSs used in this evaluation were prepared by USGS personnel located in Lakewood, Colorado, and were analyzed for analyte concentrations and physical property values before mailing. A supply of these SRSs is maintained and are available to purchase by participating laboratories and USGS offices for use in their quality-control programs.

Trace constituents sample T-165 was prepared using water collected from the South Platte River near Bailey, Colorado. The water was pumped through a 0.2- and 0.1-micrometer (μm) filter into a 1325-liter (L) polypropylene drum. The water was continuously circulated and passed through a 0.1-μm filter and ultraviolet sterilizer for 24 hours. The water was then acidified to a pH<2 with nitric acid (HNO_3) and chlorinated to 5 parts per million (ppm) free chlorine with sodium hypochlorite. The trace constituent concentrations were adjusted by adding reagent grade chemicals. The sample was circulated through a 0.1-μm filter and an ultraviolet sterilizer for an additional 24 hours prior and during bottling. The polypropylene bottles and caps were acid leached with 0.16N HNO_3, deionized-water rinsed, and autoclave sterilized.

Major constituents sample M-158 was prepared using water collected from Chicago Creek near Idaho Springs, Colorado. The water was pumped through a 0.1-μm filter into a 1325-L polypropylene drum. The water was continuously circulated and passed through a 0.1-μm filter and ultraviolet sterilizer for 24 hours. The water was then chlorinated to 5-ppm free chlorine with sodium hypochlorite. The major constituent concentrations were adjusted by adding reagent grade chemicals. The sample was circulated an additional 24 hours, then allowed to sit for 48 hours. During bottling, the sample was pumped through an ultraviolet sterilizer and a 0.1-μm filter. The polypropylene bottles and caps were acid leached with 0.16N HNO_3, deionized-water rinsed, and autoclave sterilized.

Nutrient constituents sample N-69 was prepared in a 50-L polypropylene drum using deionized water. This SRS was prepared the week prior to sample distribution. The water was circulated through a 0.1-μm filter and kept chilled with ice during the entire preparation procedure. Ultraviolet sterilization was performed up until the addition of reagent-grade chemicals. The 60-milliliter (mL) amber glass vials and teflon-faced rubber-lined caps were acid leached with 0.1N hydrochloric acid (HCl), deionized-water rinsed, and autoclave sterilized.

Nutrient constituents sample N-70 was prepared using water collected from Fall River near Idaho Springs, Colorado. This SRS was prepared the week prior to sample distribution. The water was circulated through a 0.1-μm filter and kept chilled with ice during the entire preparation procedure. Ultraviolet sterilization was performed up until the addition of reagent-grade chemicals. The 250-mL polyethylene bottles used were new, amber, acid leached with 0.1N HCl, deionized-water rinsed, and autoclave sterilized.

Low ionic-strength constituents sample P-36 was prepared in a 600-L polypropylene drum using snowmelt from the Denver Federal Center in Lakewood, Colorado. The water was pumped into the drum through a 0.1-μm filter. The desired phosphate and fluoride concentrations were obtained by adding reagent-grade chemicals. Prior and during bottling, the sample was circulated through a 0.1-μm filter and an ultraviolet sterilizer. The polypropylene bottles and caps were acid leached with 0.16N HNO_3, deionized-water rinsed, and autoclave sterilized.

Mercury sample Hg-32 was prepared using water collected from Chicago Creek near Idaho Springs, Colorado. The sample was prepared in a 200-L polypropylene drum. The water was continuously circulated and passed through a 0.1-µm filter and ultraviolet sterilizer. The sample was then preserved with 4 mL/L 12 N HCl. The desired mercury concentration was obtained by adding a mercury standard solution. The 250-mL glass bottles and Teflon-lined caps were new, acid leached, and deionized-water rinsed.

LABORATORY ANALYSES

The participating laboratories were asked to determine constituents that are summarized in table 3. The number of analytes ranged from 28 in T-165 (trace constituents) to 1 in Hg-32 (mercury).

Table 3. ***Analytes determined in standard reference samples distributed in April 2001***

[mg/L, milligrams per liter; µg/L, micrograms per liter; µS/cm, microsiemens per centimeter at 25 degrees Celsius]

Constituent or Property		Units	T-165	M-158	N-69	N-70	P-36	Hg-32
Acidity	Acidity as $CaCO_3$	mg/L					X	
Alk	Alkalinity as $CaCO_3$	mg/L		X				
Ag	Silver	µg/L	X					
Al	Aluminum	µg/L	X					
As	Arsenic	µg/L	X					
B	Boron	µg/L	X	X				
Ba	Barium	µg/L	X					
Be	Beryllium	µg/L	X					
Ca	Calcium	mg/L	X	X			X	
Cd	Cadmium	µg/L	X					
Cl	Chloride	mg/L		X			X	
Co	Cobalt	µg/L	X					
Cr	Chromium	µg/L	X					
Cu	Copper	µg/L	X					
ROE	Dissolved Solids	mg/L		X				
F	Fluoride	mg/L		X			X	
Fe	Iron	µg/L	X					
Hg	Mercury	µg/L						X
K	Potassium	mg/L	X	X			X	
Li	Lithium	µg/L	X					
Mg	Magnesium	mg/L	X	X			X	
Mn	Manganese	µg/L	X					
Mo	Molybdenum	µg/L	X					
Na	Sodium	mg/L	X	X			X	
NH_3 as N	Ammonia	mg/L			X	X		
NH_3 + Org N as N	Ammonia + Organic N	mg/L			X	X		
Ni	Nickel	µg/L	X					
NO_3 as N	Nitrate	mg/L			X	X		
Pb	Lead	µg/L	X					
pH	pH	unit		X			X	
PO_4 as P	Orthophosphate	mg/L			X	X	X	
total P as P	Phosphorus	mg/L		X	X	X		
Sb	Antimony	µg/L	X					
Se	Selenium	µg/L	X					
SiO_2	Silica	mg/L	X	X				
SO_4	Sulfate	mg/L		X			X	
Sp Cond	Specific Conductance	µS/cm		X			X	
Sr	Strontium	µg/L	X	X				
Tl	Thallium	µg/L	X					
U	Uranium	µg/L	X					
V	Vanadium	µg/L	X	X				
Zn	Zinc	µg/L	X					

Laboratories were requested to identify the method used for each constituent according to analytical method codes in the list of definitions, abbreviations and symbols (page iv).

Participating laboratories were also asked to identify the method used, such as those references listed next, to further define the methods.

1. American Public Health Association, American Water Works Association, and Water Environment Federation, 1995, Standard methods for the examination of water and wastewater (19th ed.): Washington, D.C., American Public Health Association, variable pagination.
2. American Society for Testing and Materials, 1995, Annual book of ASTM standards: Philadelphia, v. 11.0, and v. 11.02.3.
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 (3rd ed.): U.S. Geological Survey Techniques of Water-Resources Investigations, Book 5, Chapter A1, 545 p.
5. Miscellaneous manufacturer's instrument manuals or references.

STATISTICAL PRESENTATION OF DATA

Data in this report are evaluated using nonparametric statistics as described by Hoaglin and others (1983). This statistical approach is a resistant statistic because outliers have less influence on the median, than does the mean in traditional parametric statistics. Analytical data for each analyte are presented in tabular and graphical forms in tables 11 - 16. Tabulated data for each analyte include the laboratory identification number; reported values; analytical method; most probable value (MPV); number of reported analyses, excluding less than values, (n); data range; the F-pseudosigma; and the Z-value. The Z-value is equivalent to the Z-score of traditional statistics. The F-pseudosigma approximates the standard deviation (σ) of traditional statistics when the data has a Gaussian distribution. If an analyte has at least five analyses by a given method, the Median and F-pseudosigma are reported in the block of data listed for each method.

The median value calculated from the reported results is the MPV. The F-pseudosigma is calculated by dividing the fourth–spread (analogous to interquartile range) by 1.349; therefore the smaller the F-pseudosigma the more precise the determinations. Based on an assessment of analyte data (Keith Long, Branch of Quality Systems, verbal comm., 1998), when the F-pseudosigma is less than 5 percent of the MPV, the rating criterion is set to 5 percent of the MPV; as shown in table 11, T-165 Barium.

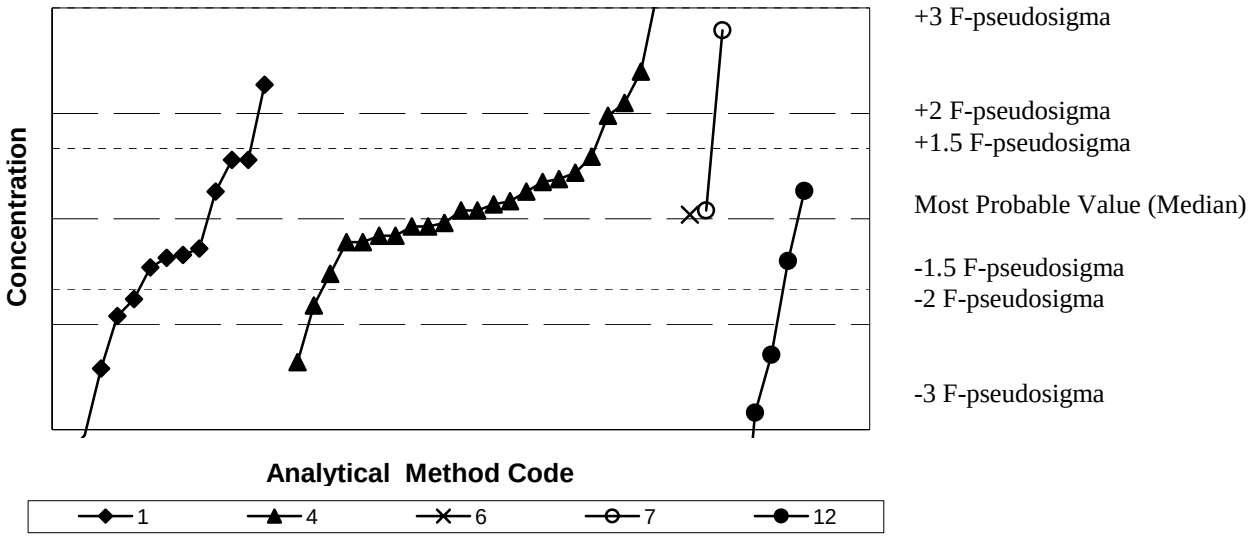
The graphical plot of the reported data is shown in figure 1. The upper and lower boundaries of the graphical plots are +3 and -3 F-pseudosigma deviations from the median. Reported values are grouped by analytical method in ascending order of value.

The term “insufficient data” is included in some of the tables and is used when the number of analyses is less than seven or the calculated F-pseudosigma is greater than the MPV.

LABORATORY PERFORMANCE RATINGS

To facilitate laboratory intercomparison, laboratory performance ratings that are based on the analyses reported for each SRS are included in tables 4 - 16 in this report. For each SRS, averages of all the analyte ratings and the number of analyte values reported are given for each participating laboratory. In some cases, laboratory significant figures reported in tables 4 - 16 might have been reformatted because of software formatting limitations. For example, a reported value of 15 may have been changed to 15.0 or a value of 102.86 may have been changed to 102.9 in these tables. However, the actual reported values by all the laboratories were used to calculate the statistical results and performance ratings presented in the report. Laboratory determination of each analyte is rated on a scale 4 to 0, based on the absolute Z-value. The listing of ratings and Z-values are presented in the list of analytical methods, abbreviations, and symbols given on page iv.

A laboratory rating that is greater than or equal to 2.0 is considered acceptable, whereas ratings less than 2.0 are considered unacceptable. Ratings are based on the relative performance of laboratories on specific samples and should be reviewed and evaluated on a case-by-case basis for each laboratory considering such factors as methods used and data needs of specific USGS projects using the laboratory data.



NOTE: vertical scale is the concentration value of the individual analyte in appropriate units (see table 3). Horizontal scale is the laboratory reported values separated by method (different symbols) and plotted by increasing values. Numbers next to each symbol at the bottom of the figure are analytical method codes as described on page iv. Laboratory-reported results greater than 3 F-pseudosigma from the median are not shown on the graphs.

Figure 1. Statistical parameters shown on data graphs in tables 11-16

REFERENCE

Hoaglin, D.C., Mosteller, F., and Tukey, J.W., Eds. 1983, Understanding robust and exploratory data analysis: New York, NY, John Wiley, Inc., p. 38-41.

Table 4. ***Overall laboratory performance ratings for standard reference samples distributed April 2001***

[SRS, standard reference sample; Lab, laboratory; OWR, overall weighted rating for all sample types; OLR, overall laboratory rating for reported values of sample; V/66, number of reported values of 66 possible values from all sample types; V/28, V/16, V/5, V/5, V/11, and V/1 are number of reported values possible for T-165, M-158, N-69, N-70, P-36, and Hg-32 respectively; --, not reported.]

		SRS=	T-165		M-158		N-69		N-70		P-36		HG-32	
Lab	OWR	V/66	OLR	V/28	OLR	V/16	OLR	V/5	OLR	V/5	OLR	V/11	OLR	V/1
1	3.4	62	3.7	28	3.5	15	3.4	5	2.6	5	2.6	8	4.0	1
2	3.6	9	--	--	--	--	--	--	--	--	3.6	9	--	--
4	1.6	13	1.3	9	2.3	4	--	--	--	--	--	--	--	--
5	2.5	61	2.5	26	2.3	15	2.2	5	2.0	5	3.0	9	4.0	1
10	3.0	31	2.2	9	3.5	12	3.2	5	3.2	5	--	--	--	--
12	2.5	31	2.8	12	2.3	9	2.0	5	2.8	5	--	--	--	--
16	3.0	50	3.1	25	3.0	15	2.2	5	3.4	5	--	--	--	--
21	4.0	5	--	--	--	--	4.0	5	--	--	--	--	--	--
23	2.9	48	3.2	20	3.1	10	3.0	5	2.6	5	2.4	7	1.0	1
24	3.6	26	3.5	13	3.7	13	--	--	--	--	--	--	--	--
25	1.7	62	1.3	26	2.2	16	2.3	5	2.3	4	1.6	11	--	--
26	2.4	27	2.7	13	2.4	11	--	--	1.3	3	--	--	--	--
31	3.8	6	3.0	1	--	--	4.0	5	--	--	--	--	--	--
38	3.6	27	--	--	3.6	10	3.6	5	3.0	5	4.0	7	--	--
42	2.9	49	3.3	28	2.7	15	0.0	3	3.3	3	--	--	--	--
46	2.9	29	2.8	11	3.3	12	--	--	2.4	5	--	--	1.0	1
55	2.7	32	2.2	16	3.3	8	3.0	4	3.3	4	--	--	--	--
59	3.1	61	3.1	25	3.2	15	3.8	5	3.4	5	2.2	10	4.0	1
64	3.4	32	3.8	5	3.3	10	3.0	4	2.8	4	3.9	9	--	--
70	3.0	42	3.1	19	3.2	13	3.8	5	1.6	5	--	--	--	--
72	1.4	11	--	--	--	--	0.0	5	2.6	5	--	--	2.0	1
76	3.7	19	3.6	14	3.8	5	--	--	--	--	--	--	--	--
89	2.8	59	1.7	23	3.3	14	4.0	5	3.6	5	3.4	11	4.0	1
93	3.2	40	2.5	12	3.4	11	4.0	4	3.3	4	3.6	9	--	--
97	3.2	5	--	--	--	--	--	--	3.2	5	--	--	--	--
105	2.9	64	3.2	26	2.1	16	3.0	5	3.0	5	3.0	11	4.0	1
113	3.6	50	3.5	20	3.9	14	3.3	5	3.6	5	3.7	6	--	--
118	2.9	16	--	--	2.7	6	2.8	5	3.4	5	--	--	--	--
134	3.5	64	3.5	27	3.8	16	3.2	5	2.6	5	3.9	10	4.0	1
138	3.4	62	3.6	25	3.6	16	3.4	5	3.2	5	3.0	10	2.0	1
142	3.0	55	3.2	28	2.9	16	2.8	5	2.6	5	--	--	4.0	1
144	3.1	8	3.0	7	--	--	--	--	--	--	--	--	4.0	1
147	3.8	8	3.7	7	--	--	--	--	--	--	--	--	4.0	1
149	2.9	25	2.3	15	3.8	10	--	--	--	--	--	--	--	--
180	2.5	56	2.2	23	2.8	13	2.2	5	3.6	5	2.4	10	--	--
183	3.6	7	--	--	--	--	4.0	2	3.5	2	3.3	3	--	--
190	3.2	43	3.1	14	3.5	13	3.5	4	3.3	4	2.6	8	--	--
193	3.7	6	--	--	--	--	3.7	3	3.7	3	--	--	--	--
198	2.5	26	2.1	17	--	--	3.0	4	3.5	4	--	--	4.0	1
205	0.0	1	--	--	--	--	--	--	0.0	1	--	--	--	--
208	2.7	6	--	--	3.5	2	--	--	1.5	2	3.0	2	--	--
212	2.5	54	2.7	28	3.1	16	0.8	4	0.8	5	--	--	4.0	1
220	2.5	36	2.6	21	3.1	9	--	--	--	--	0.8	5	4.0	1
224	1.5	10	--	--	--	--	1.0	5	2.0	5	--	--	--	--
227	2.8	14	3.7	6	2.0	3	--	--	2.2	5	--	--	--	--
234	3.4	52	3.4	27	3.7	16	1.8	4	3.5	4	--	--	4.0	1
246	2.7	49	2.7	26	3.0	15	1.8	4	2.8	4	--	--	--	--
247	2.4	64	1.8	26	3.1	16	2.4	5	2.8	5	3.0	11	1.0	1
254	2.7	3	1.0	1	3.5	2	--	--	--	--	--	--	--	--
255	3.4	23	3.4	14	3.3	5	--	--	--	--	4.0	4	--	--
256	3.1	42	2.9	19	3.0	13	--	--	--	--	3.5	10	--	--
257	2.8	12	--	--	2.8	12	--	--	--	--	--	--	--	--
265	3.3	46	3.3	28	3.7	11	--	--	--	--	3.3	6	0.0	1
268	2.3	20	1.8	4	2.5	8	--	--	--	--	2.4	8	--	--
270	1.7	31	2.0	16	2.1	7	--	--	--	--	0.9	8	--	--

Table 4. ***Overall laboratory performance ratings for standard reference samples distributed April 2001 -- continued***

[SRS, standard reference sample; Lab, laboratory; OWR, overall weighted rating for all sample types; OLR, overall laboratory rating for reported values of sample; V/66, number of reported values of 66 possible values from all sample types; V/28, V/16, V/5, V/5, V/11, and V/1 are number of reported values possible for T-165, M-158, N-69, N-70, P-36, and Hg-32 respectively; --, not reported.]

		SRS=	T-165		M-158		N-69		N-70		P-36		HG-32	
Lab	OWR	V/66	OLR	V/28	OLR	V/16	OLR	V/5	OLR	V/5	OLR	V/11	OLR	V/1
274	1.5	28	1.2	5	1.8	12	--	--	--	--	1.3	11	--	--
276	2.1	10	--	--	2.1	10	--	--	--	--	--	--	--	--
277	2.1	30	1.7	15	2.3	10	--	--	--	--	2.8	4	4.0	1
279	2.2	14	2.8	4	2.4	5	--	--	--	--	1.6	5	--	--
304	2.9	11	2.8	10	--	--	--	--	--	--	--	--	4.0	1
305	2.8	43	2.9	23	2.5	12	2.8	4	3.5	4	--	--	--	--
307	2.5	24	2.0	12	3.3	7	--	--	2.5	4	--	--	4.0	1
313	2.5	10	--	--	--	--	1.8	5	3.2	5	--	--	--	--
316	3.6	10	--	--	--	--	3.4	5	3.8	5	--	--	--	--
318	3.6	5	--	--	--	--	3.6	5	--	--	--	--	--	--
324	2.1	11	1.6	5	2.5	6	--	--	--	--	--	--	--	--
331	1.7	46	1.8	21	1.6	14	1.8	5	1.8	5	--	--	2.0	1
333	3.1	16	--	--	2.6	5	2.3	3	--	--	3.6	8	--	--
336	0.5	26	0.4	9	0.9	9	--	--	--	--	0.1	8	--	--
341	2.9	21	--	--	3.0	11	2.6	5	3.0	5	--	--	--	--
353	2.0	4	--	--	3.5	2	0.0	1	1.0	1	--	--	--	--
356	3.4	13	--	--	3.3	7	3.5	5	--	--	--	--	4.0	1
366	2.9	21	--	--	3.0	11	2.0	5	3.4	5	--	--	--	--

Table 5. ***Laboratory performance ratings for standard reference sample T-165 (trace constituents)***

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all reported values; mg/L, milligrams per liter; V/28, number of reported values of 28 possible values; RV, reported value; <, less than; NR, not rated; --, not reported.]

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

		Analyte=	Silver		Aluminum		Arsenic		Boron		Barium	
		MPV =	5.85 µg/L		52.0 µg/L		25.9 µg/L		75.9 µg/L		47.0 µg/L	
		F-pseudosigma =	0.508		6.53		2.07		5.86		1.78	
Lab	OLR	V/28	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	3.7	28	6.1	4	55.4	3	24.4	3	75.9	4	47.4	4
4	1.3	9	--	--	--	--	--	--	--	--	--	--
5	2.5	26	8.91	0	69.2	0	22.6	1	79.7	3	44.9	3
10	2.2	9	--	--	--	--	25	4	--	--	--	--
12	2.8	12	5.2	2	--	--	28	2	--	--	--	--
16	3.1	25	6.2	3	62.5	1	22.7	1	83.4	2	45.6	3
23	3.2	20	4.81	0	55.14	4	28.61	2	--	--	47.66	4
24	3.5	13	--	--	--	--	--	--	72.7	3	45.9	4
25	1.3	26	<7	NR	<22	NR	<51	NR	50	0	40	0
26	2.7	13	--	--	--	--	26.5	4	--	--	--	--
31	3.0	1	--	--	--	--	--	--	--	--	--	--
42	3.3	28	5.62	4	50	4	25.1	4	77.6	4	46.7	4
46	2.8	11	--	--	--	--	21.5	0	--	--	48.2	3
55	2.2	16	--	--	--	--	32	0	--	--	48.1	4
59	3.1	25	6.11	3	50.1	4	26.3	4	68.4	2	47.7	4
64	3.8	5	--	--	--	--	--	--	--	--	--	--
70	3.1	19	--	--	--	--	28.4	2	--	--	48.8	3
76	3.6	14	--	--	--	--	27.08	3	--	--	--	--
89	1.7	23	5.1	2	93.3	0	26.5	4	--	--	76.8	0
93	2.5	12	--	--	52.1	4	26.1	4	--	--	44.1	2
105	3.2	26	6.3	3	20	0	27.7	3	--	--	47	4
113	3.5	20	5.439	3	58.4	3	22.5	1	--	--	46.9	4
134	3.5	27	5.8	4	49	4	25.6	4	74.21	4	46.7	4
138	3.6	25	5.74	4	54.1	4	27.3	3	71.3	3	47	4
142	3.2	28	5.92	4	63	1	26.3	4	82.2	2	45.4	3
144	3.0	7	5.5	3	--	--	24.6	3	--	--	--	--
147	3.7	7	--	--	--	--	24.5	3	--	--	--	--
149	2.3	15	5.8	4	40	1	23	2	--	--	50	2
180	2.2	23	5.4	3	77.2	0	--	--	105	0	45.9	4
190	3.1	14	5.39	3	49.7	4	24.1	3	--	--	--	--
198	2.1	17	--	--	47.4	3	27.9	3	--	--	54	0
212	2.7	28	5.9	4	60.7	2	26.4	4	75.6	4	46.7	4
220	2.6	21	6.94	0	56.23	3	23.3	2	74.17	4	45.4	3
227	3.7	6	--	--	--	--	--	--	--	--	--	--
234	3.4	27	6.1	4	53.4	4	26.6	4	79.6	3	47.2	4
246	2.7	26	--	--	48	3	25	4	68	2	48.7	3
247	1.8	26	<10.2	NR	<81.6	NR	41.6	0	<51	NR	39.5	0
254	1.0	1	--	--	--	--	--	--	--	--	--	--
255	3.4	14	6	4	--	--	26.1	4	80.1	3	--	--
256	2.9	19	5.89	4	52	4	<30	NR	96	0	42.1	0
265	3.3	28	5.5	3	49	4	24.5	3	77	4	44.5	2
268	1.8	4	--	--	--	--	--	--	--	--	--	--
270	2.0	16	2.85	0	49.29	4	--	--	--	--	47.7	4
274	1.2	5	--	--	--	--	--	--	--	--	--	--
277	1.7	15	5.2	2	--	--	21.7	0	--	--	52	0

Table 5. ***Laboratory performance ratings for standard reference sample T-165 (trace constituents) -- continued***

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all reported values; mg/L, milligrams per liter; V/28, number of reported values of 28 possible values; RV, reported value; <, less than; NR, not rated; --, not reported.]

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

		Analyte=	**Silver**		**Aluminum**		**Arsenic**		**Boron**		**Barium**	
		MPV =	5.85 µg/L		52.0 µg/L		25.9 µg/L		75.9 µg/L		47.0 µg/L	
		F-pseudosigma =	0.508		6.53		2.07		5.86		1.78	
Lab	OLR	V/28	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
279	2.8	4	--	--	--	--	--	--	--	--	--	--
304	2.8	10	5.95	4	--	--	--	--	--	--	--	--
305	2.9	23	6.6	2	34	0	30	0	--	--	47	4
307	2.0	12	7.6	0	--	--	24.4	3	--	--	--	--
324	1.6	5	--	--	31.6	0	--	--	--	--	--	--
331	1.8	21	--	--	47	3	25	4	62	0	47	4
336	0.4	9	--	--	--	--	--	--	--	--	--	--

Table 5. ***Laboratory performance ratings for standard reference sample T-165 (trace constituents) -- continued***

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all reported values; mg/L, milligrams per liter; V/28, number of reported values of 28 possible values; RV, reported value; <, less than; NR, not rated; --, not reported.]

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

Analyte=	**Beryllium**		**Calcium**		**Cadmium**		**Cobalt**		**Chromium**	
MPV =	15.3 µg/L		38.3 mg/L		12.5 µg/L		11.5 µg/L		19.6 µg/L	
F-pseudosigma =	0.738		1.11		0.667		0.815		1.11	
Lab	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	15.7	3	37.6	4	12.8	4	11.6	4	20.7	3
4	--	--	39.7	3	--	--	--	--	--	--
5	16.2	2	36.2	2	12	3	13.1	0	20.4	3
10	--	--	--	--	12.4	4	--	--	21.2	2
12	--	--	37.6	4	12.6	4	--	--	--	--
16	15.2	4	35	1	12.5	4	11.3	4	19.3	4
23	15.89	3	--	--	12.36	4	--	--	20.03	4
24	--	--	36.7	3	12.6	4	11.1	4	--	--
25	9	0	36.7	3	<7	NR	10	1	10	0
26	16.3	2	38.4	4	12.4	4	--	--	18.3	2
31	--	--	--	--	--	--	--	--	--	--
42	14.9	4	38.4	4	12	3	11.4	4	19	3
46	15.4	4	39.1	4	11.9	3	--	--	22	0
55	--	--	39.4	3	11.6	2	8.8	0	19	3
59	14.4	2	37.6	4	13.2	2	11.2	4	19.3	4
64	--	--	38.1	4	--	--	--	--	--	--
70	15.5	4	39.2	4	12.9	3	11.5	4	19.6	4
76	--	--	37.75	4	12.61	4	--	--	20.31	3
89	17.9	0	37.6	4	14.7	0	11	3	21.8	1
93	--	--	--	--	10.9	0	--	--	19.5	4
105	15	4	37.9	4	12.7	4	< 50.0	NR	19.8	4
113	15.7	3	37.8	4	12.5	4	--	--	20.2	3
134	14.8	3	38.5	4	12.35	4	11.2	4	19	3
138	14.3	2	38.8	4	12.7	4	12.6	2	18.9	3
142	15.1	4	40.4	2	13.1	3	11.4	4	19.4	4
144	--	--	--	--	11.8	2	--	--	20.7	3
147	--	--	--	--	12.8	4	--	--	--	--
149	15	4	--	--	16	0	--	--	22	0
180	15.9	3	39.1	4	11.5	2	10.9	3	20.4	3
190	--	--	38	4	13.9	0	--	--	19.6	4
198	16.3	2	--	--	14.9	0	11.5	4	19.1	4
212	14.7	3	38.4	4	12.3	4	12.2	3	18.7	3
220	15.67	3	38.42	4	14.3	0	--	--	20.5	3
227	--	--	38.9	4	12.6	4	--	--	--	--
234	15.8	3	38.3	4	12.4	4	11.8	4	20.4	3
246	15.3	4	38	4	10	0	12	3	19	3
247	12.3	0	37.2	3	<10.2	NR	13.5	0	<10.2	NR
254	--	--	--	--	--	--	--	--	--	--
255	--	--	40.2	3	12.9	3	--	--	20.4	3
256	15.2	4	--	--	11.5	2	11.2	4	18.6	3
265	15	4	38.5	4	12	3	11	3	19	3
268	--	--	40.08	3	--	--	--	--	--	--
270	--	--	41.63	1	--	--	12.67	2	19.57	4
274	--	--	36.51	3	--	--	--	--	--	--
277	--	--	37.5	4	10.2	0	11.7	4	18.9	3

Table 5. ***Laboratory performance ratings for standard reference sample T-165 (trace constituents) -- continued***

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all reported values; mg/L, milligrams per liter; V/28, number of reported values of 28 possible values; RV, reported value; <, less than; NR, not rated; --, not reported.]

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

Analyte=	**Beryllium**		**Calcium**		**Cadmium**		**Cobalt**		**Chromium**	
MPV =	15.3 µg/L		38.3 mg/L		12.5 µg/L		11.5 µg/L		19.6 µg/L	
F-pseudosigma =	0.738		1.11		0.667		0.815		1.11	
Lab	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
279	--	--	39.5	3	--	--	--	--	--	--
304	--	--	--	--	13.4	2	--	--	23	0
305	16.3	2	39.9	3	12.4	4	12.3	2	20.8	2
307	--	--	--	--	11.5	2	--	--	21.6	1
324	--	--	34.7	1	--	--	--	--	--	--
331	14	1	29	0	12	3	11	3	19	3
336	--	--	--	--	45	0	283	0	--	--

Table 5. ***Laboratory performance ratings for standard reference sample T-165 (trace constituents) -- continued***

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all reported values; mg/L, milligrams per liter; V/28, number of reported values of 28 possible values; RV, reported value; <, less than; NR, not rated; --, not reported.]

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

Analyte=	Copper		Iron		Potassium		Lithium		Magnesium	
MPV =	1.87 µg/L		25.1 µg/L		2.71 mg/L		32.0 µg/L		4.13 mg/L	
F-pseudosigma =	0.222		3.44		0.222		2.68		0.240	
Lab	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	1.9	4	24.1	4	2.73	4	32	4	4.15	4
4	<10	NR	140	0	3.99	0	40	0	7.02	0
5	<4.00	NR	25.4	4	2.4	2	32.1	4	3.77	2
10	0.8	0	30	2	--	--	--	--	--	--
12	2	3	--	--	3.1	1	--	--	4.5	1
16	1.95	4	27.1	3	2.82	4	--	--	3.91	3
23	<5.00	NR	24.45	4	2.5	3	--	--	4.12	4
24	--	--	--	--	2.61	4	--	--	3.92	3
25	<3	NR	<4	NR	2.76	4	30	3	2.86	0
26	--	--	--	--	2.36	1	<4	NR	3.99	3
31	--	--	28.38	3	--	--	--	--	--	--
42	<2	NR	28.9	2	2.53	3	29.8	3	3.81	2
46	--	--	--	--	2.52	3	--	--	4.16	4
55	--	--	--	--	2.6	4	--	--	4.52	1
59	<5	NR	<50	NR	2.7	4	30.1	3	3.93	3
64	--	--	--	--	2.63	4	--	--	3.9	3
70	--	--	18	0	2.69	4	--	--	4.24	4
76	--	--	--	--	2.765	4	--	--	4.257	3
89	< 10	NR	< 50	NR	2.59	3	--	--	3.56	0
93	<10	NR	23.8	4	--	--	--	--	--	--
105	< 10.0	NR	27	3	2.78	4	34	3	4.19	4
113	1.818	4	24.7	4	2.758	4	--	--	4.113	4
134	1.7	3	24.4	4	2.615	4	34.652	3	3.92	3
138	1.76	4	23.9	4	2.66	4	--	--	4.13	4
142	1.32	0	26	4	2.77	4	35	2	4.17	4
144	--	--	--	--	--	--	--	--	--	--
147	1.7	3	25.1	4	--	--	--	--	--	--
149	--	--	30	2	--	--	--	--	--	--
180	3.14	0	32.7	0	2.93	3	--	--	4.27	3
190	--	--	25.1	4	2.9	3	--	--	4.1	4
198	1.71	3	--	--	--	--	--	--	--	--
212	2.3	1	22.2	3	3.05	1	33.8	3	4.2	4
220	3.78	0	--	--	2.66	4	34.14	3	4.18	4
227	2.16	2	--	--	--	--	--	--	4.1	4
234	1.44	1	25.1	4	2.72	4	31.8	4	4.28	3
246	<3	NR	26	4	2.9	3	32	4	4.1	4
247	<10.2	NR	<51	NR	2.64	4	27.7	1	4.23	4
254	--	--	--	--	--	--	--	--	--	--
255	2	3	25	4	--	--	--	--	4.09	4
256	<5	NR	22.05	3	--	--	36.2	1	--	--
265	1.4	0	23	3	2.6	4	32	4	4.1	4
268	--	--	--	--	3.25	0	--	--	4.31	3
270	0.79	0	28.98	2	2.95	2	30.53	3	4.16	4
274	--	--	--	--	5.1	0	--	--	4.29	3
277	--	--	20.8	2	2.6	4	--	--	4.6	1

Table 5. ***Laboratory performance ratings for standard reference sample T-165 (trace constituents) -- continued***

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all reported values; mg/L, milligrams per liter; V/28, number of reported values of 28 possible values; RV, reported value; <, less than; NR, not rated; --, not reported.]

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

Analyte=	**Copper**		**Iron**		**Potassium**		**Lithium**		**Magnesium**	
MPV =	1.87 µg/L		25.1 µg/L		2.71 mg/L		32.0 µg/L		4.13 mg/L	
F-pseudosigma =	0.222		3.44		0.222		2.68		0.240	
Lab	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
279	--	--	--	--	2.92	3	--	--	3.77	2
304	1.87	4	--	--	--	--	--	--	--	--
305	2	3	25	4	3.37	0	--	--	4.31	3
307	<1.35	NR	8	0	--	--	--	--	--	--
324	--	--	62.9	0	--	--	--	--	--	--
331	--	--	37	0	2.42	2	--	--	3.38	0
336	89	0	--	--	2.65	4	--	--	--	--

Table 5. ***Laboratory performance ratings for standard reference sample T-165 (trace constituents) -- continued***

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all reported values; mg/L, milligrams per liter; V/28, number of reported values of 28 possible values; RV, reported value; <, less than; NR, not rated; --, not reported.]

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

Analyte=	**Manganese**		**Molybdenum**		**Sodium**		**Nickel**		**Lead**	
MPV =	21.0 µg/L		77.3 µg/L		10.7 mg/L		1.70 µg/L		18.8 µg/L	
F-pseudosigma =	0.964		2.74		0.371		0.958		0.927	
Lab	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	20.2	3	77.7	4	10	2	0.55	2	19.2	4
4	20	3	--	--	11.7	1	--	--	--	--
5	20.7	4	79.8	3	10.6	4	<10.0	NR	18.8	4
10	24	0	--	--	--	--	--	--	17	1
12	--	--	81	3	11	3	--	--	20	2
16	20.1	3	76.4	4	10.6	4	1.3	4	19.6	3
23	20.91	4	79.55	3	10.9	4	<5.00	NR	17.89	3
24	20.4	3	77.3	4	10.1	2	--	--	--	--
25	19	1	--	--	10.5	4	<21	NR	<52	NR
26	--	--	--	--	12.6	0	<6	NR	18.1	3
31	--	--	--	--	--	--	--	--	--	--
42	20.4	3	76.1	4	10.1	2	1.87	4	18.5	4
46	21.1	4	--	--	11.1	3	--	--	18	3
55	21.4	4	79.5	3	11	3	--	--	25.1	0
59	21	4	70.7	1	10.7	4	<5	NR	--	--
64	--	--	--	--	10.7	4	--	--	--	--
70	20.5	4	84.5	1	11.1	3	--	--	22	0
76	21.08	4	78.17	4	10.78	4	1.076	3	--	--
89	21.2	4	--	--	10.3	3	< 10	NR	17.2	1
93	18.9	1	--	--	--	--	<2.0	NR	17.2	1
105	22	3	81.6	2	10.7	4	< 50.0	NR	20.4	1
113	21.3	4	--	--	10.6	4	--	--	18.8	4
134	21.4	4	75	3	10.77	4	0.28	2	18	3
138	21	4	77.5	4	10.7	4	1.88	4	19.2	4
142	22	3	76.2	4	11	3	1.62	4	18.4	4
144	--	--	--	--	--	--	--	--	19	4
147	21.2	4	--	--	--	--	--	--	19.2	4
149	20	3	90	0	--	--	--	--	19	4
180	21.3	4	77.1	4	10.9	4	<18.0	NR	<29.9	NR
190	18.7	0	--	--	10.5	4	--	--	17.9	3
198	19.3	1	84.5	1	--	--	2.29	3	17.3	1
212	21.1	4	71.4	1	10.3	3	<40	NR	15.4	0
220	21.18	4	80.31	3	10.31	3	--	--	18.7	4
227	--	--	--	--	--	--	--	--	19.2	4
234	21.7	3	74.4	3	10.9	4	<1.00	NR	19.7	3
246	20.1	3	77	4	11	3	<2	NR	15	0
247	14.4	0	<1	NR	10.7	4	<51	NR	<40	NR
254	--	--	--	--	--	--	--	--	--	--
255	21.8	3	--	--	--	--	2.3	3	19.4	3
256	20.6	4	--	--	--	--	<1.0	NR	18.4	4
265	20	3	72	2	10.5	4	0.4	2	19	4
268	--	--	--	--	11.6	1	--	--	--	--
270	54.69	0	--	--	16.2	0	2.26	3	--	--
274	--	--	--	--	16.67	0	--	--	--	--
277	18.8	0	--	--	9.8	1	2.2	3	--	--

Table 5. ***Laboratory performance ratings for standard reference sample T-165 (trace constituents) -- continued***

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all reported values; mg/L, milligrams per liter; V/28, number of reported values of 28 possible values; RV, reported value; <, less than; NR, not rated; --, not reported.]

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

Analyte=	**Manganese**		**Molybdenum**		**Sodium**		**Nickel**		**Lead**	
MPV =	21.0 µg/L		77.3 µg/L		10.7 mg/L		1.70 µg/L		18.8 µg/L	
F-pseudosigma =	0.964		2.74		0.371		0.958		0.927	
Lab	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
279	--	--	--	--	10.27	3	--	--	--	--
304	--	--	--	--	--	--	0.8	3	19	4
305	22	3	76.6	4	10.5	4	1.7	4	18.7	4
307	22	3	--	--	10.6	4	<1.88	NR	12	0
324	21.9	3	--	--	--	--	--	--	--	--
331	20	3	73	2	9.45	0	--	--	19	4
336	101	0	--	--	12.3	0	192	0	74	0

Table 5. ***Laboratory performance ratings for standard reference sample T-165 (trace constituents) -- continued***

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all reported values; mg/L, milligrams per liter; V/28, number of reported values of 28 possible values; RV, reported value; <, less than; NR, not rated; --, not reported.]

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

Analyte=	Antimony		Selenium		Silica		Strontium		Thallium	
MPV =	29.4 µg/L		7.60 µg/L		5.71 mg/L		162 µg/L		33.6 µg/L	
F-pseudosigma =	1.05		0.938		0.287		5.19		3.15	
Lab	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	29.6	4	7.5	4	5.7	4	162	4	34.1	4
4	--	--	--	--	--	--	--	--	--	--
5	28.9	4	6.39	2	5.52	3	161	4	--	--
10	--	--	7	3	--	--	--	--	--	--
12	--	--	8	4	--	--	--	--	--	--
16	29.8	4	8.9	2	--	--	158	4	29.5	2
23	28.82	4	8.85	2	--	--	--	--	31.05	3
24	--	--	--	--	5.78	4	160	4	--	--
25	<49	NR	<34	NR	5.07	0	170	2	<35	NR
26	--	--	7.03	3	5.8	4	--	--	--	--
31	--	--	--	--	--	--	--	--	--	--
42	28.3	3	7.21	4	5.33	2	180	0	33.6	4
46	--	--	--	--	--	--	--	--	--	--
55	37.3	0	--	--	--	--	162	4	22	0
59	33.5	0	<10	NR	--	--	166	3	35.3	3
64	--	--	--	--	5.68	4	--	--	--	--
70	29.9	4	7.7	4	5.71	4	--	--	--	--
76	--	--	--	--	5.741	4	--	--	34.39	4
89	30.3	3	< 10	NR	6.18	1	--	--	38.7	1
93	--	--	--	--	--	--	--	--	--	--
105	30.6	3	7.6	4	5.8	4	164	4	35.3	3
113	29.2	4	5.748	1	--	--	161	4	31.3	3
134	28.87	4	7.6	4	5.497	3	156.9	3	31.84	3
138	29.8	4	8.46	3	--	--	160	4	36.6	3
142	30.3	3	8.43	3	6.18	1	164	4	34	4
144	--	--	6.6	2	--	--	--	--	--	--
147	--	--	--	--	--	--	--	--	--	--
149	28	3	7	3	--	--	--	--	31	3
180	38.5	0	<52.3	NR	--	--	--	--	<47.7	NR
190	--	--	6.72	3	5.8	4	--	--	--	--
198	30.7	3	10	0	--	--	--	--	34.4	4
212	26.2	0	8.5	3	2.72	0	158	4	35.5	3
220	--	--	7	3	--	--	--	--	50	0
227	--	--	--	--	--	--	--	--	--	--
234	29.4	4	6.27	2	5.8	4	162	4	31	3
246	<80	NR	<80	NR	3.1	0	166.2	3	<80	NR
247	<1	NR	<102	NR	--	--	150	2	<51	NR
254	--	--	--	--	--	--	--	--	--	--
255	--	--	7.7	4	--	--	--	--	--	--
256	--	--	--	--	5.72	4	168	3	--	--
265	28	3	7.5	4	5.5	3	158	4	32.5	4
268	--	--	--	--	--	--	--	--	--	--
270	--	--	--	--	--	--	126.6	0	--	--
274	--	--	--	--	2.67	0	--	--	--	--
277	--	--	3.4	0	--	--	--	--	--	--

Table 5. ***Laboratory performance ratings for standard reference sample T-165 (trace constituents) -- continued***

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all reported values; mg/L, milligrams per liter; V/28, number of reported values of 28 possible values; RV, reported value; <, less than; NR, not rated; --, not reported.]

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

Analyte=	**Antimony**		**Selenium**		**Silica**		**Strontium**		**Thallium**	
MPV =	29.4 µg/L		7.60 µg/L		5.71 mg/L		162 µg/L		33.6 µg/L	
F-pseudosigma =	1.05		0.938		0.287		5.19		3.15	
Lab	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
279	--	--	--	--	--	--	--	--	--	--
304	29	4	7.8	4	--	--	--	--	--	--
305	29	4	8.1	3	--	--	--	--	33.1	4
307	--	--	7.84	4	--	--	--	--	--	--
324	--	--	--	--	--	--	--	--	--	--
331	29	4	14	0	--	--	--	--	28	1
336	--	--	--	--	--	--	--	--	--	--

Table 5. ***Laboratory performance ratings for standard reference sample T-165 (trace constituents) -- continued***

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all reported values; mg/L, milligrams per liter; V/28, number of reported values of 28 possible values; RV, reported value; <, less than; NR, not rated; --, not reported.]

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

Analyte=	**Uranium**		**Vanadium**		**Zinc**	
MPV =	1.39 µg/L		15.2 µg/L		22.0 µg/L	
F-pseudosigma =	0.048		0.593		2.08	
Lab	RV	Rating	RV	Rating	RV	Rating
1	1.39	4	15.5	4	22.2	4
4	--	--	--	--	20	3
5	--	--	13.6	0	21.4	4
10	--	--	--	--	21.5	4
12	--	--	--	--	22.2	4
16	--	--	15.5	4	20.4	3
23	--	--	--	--	24.72	2
24	--	--	--	--	21.2	4
25	--	--	<5	NR	16	0
26	--	--	--	--	--	--
31	--	--	--	--	--	--
42	1.48	2	15.2	4	21.2	4
46	--	--	--	--	--	--
55	--	--	15.2	4	--	--
59	--	--	15	4	23.8	3
64	--	--	--	--	--	--
70	--	--	15.7	3	21.9	4
76	1.394	4	15.89	3	--	--
89	--	--	25.4	0	19	2
93	--	--	14.3	2	20	3
105	--	--	< 20.0	NR	19	2
113	--	--	--	--	22.5	4
134	--	--	14.8	3	21.49	4
138	--	--	15.2	4	23.2	3
142	1.36	4	15.2	4	24	3
144	--	--	--	--	22	4
147	--	--	--	--	22.2	4
149	--	--	--	--	24	3
180	--	--	17.5	0	24.6	2
190	--	--	--	--	--	--
198	--	--	15.5	4	27.9	0
212	0.98	0	15.1	4	20.9	3
220	--	--	17.72	0	21	4
227	--	--	--	--	22	4
234	--	--	15.8	3	24.9	2
246	--	--	16	2	16	0
247	--	--	14.5	3	<40.8	NR
254	1.52	1	--	--	--	--
255	--	--	--	--	23.7	3
256	--	--	15.05	4	<100	NR
265	1.4	4	15	4	21	4
268	--	--	--	--	--	--
270	--	--	--	--	20.23	3
274	--	--	--	--	--	--
277	--	--	--	--	18.6	1

Table 5. ***Laboratory performance ratings for standard reference sample T-165 (trace constituents) -- continued***

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all reported values; mg/L, milligrams per liter; V/28, number of reported values of 28 possible values; RV, reported value; <, less than; NR, not rated; --, not reported.]

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

Analyte=	**Uranium**		**Vanadium**		**Zinc**	
MPV =	1.39 µg/L		15.2 µg/L		22.0 µg/L	
F-pseudosigma =	0.048		0.593		2.08	
Lab	RV	Rating	RV	Rating	RV	Rating
279	--	--	--	--	--	--
304	--	--	16.8	0	23.2	3
305	--	--	15.1	4	22.1	4
307	--	--	--	--	24	3
324	--	--	--	--	23	4
331	--	--	13	0	27	0
336	--	--	--	--	36	0

Table 6. ***Laboratory performance ratings for standard reference sample M-158 (major constituents)***

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all reported values; mg/L, milligrams per liter; V/16, number of reported values of 16 possible values; RV, reported value; <, less than; NR, not rated; --, not reported.]

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

		Analyte=	Alkalinity		Boron		Calcium		Chloride		Fluoride	
		MPV =	63.6 mg/L		23.4 µg/L		38.1 mg/L		90.7 mg/L		0.350 mg/L	
		F-pseudosigma =	2.56		3.45		1.59		2.74		0.045	
Lab	OLR	V/16	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	3.5	15	64.9	4	21.6	3	38.6	4	88.7	4	0.35	4
4	2.3	4	60.9	3	--	--	--	--	91.5	4	--	--
5	2.3	15	61.3	3	26.2	3	36.3	3	91	4	0.27	1
10	3.5	12	62.1	4	--	--	39.1	3	89.4	4	0.38	3
12	2.3	9	86	0	--	--	37	3	92	4	--	--
16	3.0	15	62.9	4	31.2	0	36.5	3	96.7	2	0.36	4
23	3.1	10	60.8	3	--	--	40.4	2	88.4	4	0.67	0
24	3.7	13	62.4	4	20	3	37.9	4	90.5	4	0.37	4
25	2.2	16	71	0	<2	NR	37.5	4	93	3	0.3	2
26	2.4	11	66.2	3	--	--	51.4	0	84.2	2	0.3	2
38	3.6	10	62.76	4	--	--	38.8	4	--	--	--	--
42	2.7	15	16.6	0	<30	NR	39.2	3	96.9	2	0.319	3
46	3.3	12	60	2	--	--	38.3	4	91.2	4	0.318	3
55	3.3	8	62	4	--	--	40.3	2	91.5	4	0.37	4
59	3.2	15	60.8	3	18.8	2	36.8	3	92.3	4	0.37	4
64	3.3	10	--	--	--	--	39.4	3	90.6	4	--	--
70	3.2	13	60.6	3	--	--	39	4	91.7	4	0.42	1
76	3.8	5	--	--	--	--	38.14	4	--	--	--	--
89	3.3	14	65.2	4	--	--	38.2	4	90.2	4	0.36	4
93	3.4	11	62	4	--	--	37.7	4	88.9	4	--	--
105	2.1	16	62.4	4	< 200.0	NR	42.7	0	96.8	2	0.33	4
113	3.9	14	63.8	4	--	--	38.4	4	90.5	4	0.369	4
118	2.7	6	65	4	--	--	--	--	--	--	--	--
134	3.8	16	63.09	4	23.49	4	38.98	4	90.44	4	0.35	4
138	3.6	16	65.3	3	23.4	4	39	4	87.6	3	0.341	4
142	2.9	16	64	4	<30	NR	40.5	2	92.9	4	0.35	4
149	3.8	10	61	3	--	--	38.6	4	92.4	4	0.37	4
180	2.8	13	65.5	3	48.1	0	39.2	3	90.4	4	0.392	3
190	3.5	13	63.6	4	--	--	37.4	4	89.4	4	0.325	3
208	3.5	2	--	--	--	--	--	--	88	3	--	--
212	3.1	16	61.8	3	23.3	4	37.1	3	92.9	4	0.33	4
220	3.1	9	63.5	4	24.62	4	40.16	2	93.11	3	--	--
227	2.0	3	--	--	--	--	--	--	84.7	2	--	--
234	3.7	16	64	4	26.7	3	38.1	4	87.5	3	0.366	4
246	3.0	15	64	4	14	0	40	3	90.7	4	0.3	2
247	3.1	16	61.3	3	<51	NR	36.8	3	87.3	3	0.286	2
254	3.5	2	--	--	--	--	--	--	91	4	--	--
255	3.3	5	--	--	25.5	3	39.4	3	--	--	<0.458	NR
256	3.0	13	64	4	27	2	37.67	4	88.36	4	0.29	2
257	2.8	12	64	4	--	--	40	3	93	3	0.28	1
265	3.7	11	--	--	23	4	37.3	4	90	4	0.3	2
268	2.5	8	--	--	--	--	33.5	0	88.1	3	--	--
270	2.1	7	--	--	--	--	33.1	0	92.5	4	0.01	0
274	1.8	12	76.94	0	--	--	34.92	1	68.88	0	0.54	0
276	2.1	10	63.1	4	--	--	37.93	4	93.38	3	--	--

Table 6. ***Laboratory performance ratings for standard reference sample M-158 (major constituents) -- continued***

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all reported values; mg/L, milligrams per liter; V/16, number of reported values of 16 possible values; RV, reported value; <, less than; NR, not rated; --, not reported.]

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

	Analyte=	Alkalinity		Boron		Calcium		Chloride		Fluoride	
	MPV =	63.6 mg/L		23.4 µg/L		38.1 mg/L		90.7 mg/L		0.350 mg/L	
	F-pseudosigma =	2.56		3.45		1.59		2.74		0.045	
Lab	OLR V/16	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
277	2.3 10	161	0	--	--	37.5	4	88.9	4	0.4	2
279	2.4 5	--	--	--	--	37.5	4	--	--	--	--
305	2.5 12	65	4	--	--	36.3	3	89.78	4	0.34	4
307	3.3 7	64.8	4	--	--	--	--	91.2	4	--	--
324	2.5 6	61.2	3	--	--	30.8	0	--	--	--	--
331	1.6 14	74	0	22	4	27.1	0	88.8	4	0.4	2
333	2.6 5	60.1	2	--	--	--	--	--	--	--	--
336	0.9 9	73.6	0	--	--	40.8	2	95.3	2	0.89	0
341	3.0 11	49	0	--	--	38	4	92	4	--	--
353	3.5 2	64	4	--	--	--	--	95	3	--	--
356	3.3 7	63.8	4	--	--	--	--	81	0	0.324	3
366	3.0 11	66.4	3	--	--	37	3	93	3	--	--

Table 6. ***Laboratory performance ratings for standard reference sample M-158 (major constituents) -- continued***

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all reported values; mg/L, milligrams per liter; V/16, number of reported values of 16 possible values; RV, reported value; <, less than; NR, not rated; --, not reported.]

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

	Potassium		Magnesium		Sodium		pH		Residue on Evaporation	
Analyte=										
MPV =	1.71 mg/L		11.8 mg/L		71.7 mg/L		9.80		376 mg/L	
F-pseudosigma =	0.119		0.482		2.22		0.282		14.1	
Lab	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	1.45	0	12.1	4	72.9	4	9.46	3	388	3
4	2.87	0	--	--	--	--	--	--	--	--
5	1.07	0	10.8	1	71.5	4	8.6	0	344	1
10	1.8	3	12.2	3	70.6	4	9.8	4	386	3
12	--	--	12.2	3	70	4	9.08	2	--	--
16	1.8	3	11.5	4	76.4	2	9.75	4	368	4
23	--	--	--	--	--	--	9.86	4	388	3
24	1.63	3	11.9	4	72.6	4	9.85	4	--	--
25	1.99	0	10.7	1	71	4	9.94	4	370	4
26	1.69	4	12.97	1	77.7	1	--	--	392	3
38	1.83	2	12.25	3	70.2	4	9.8	4	361	3
42	1.66	4	11	2	71.2	4	9.7	4	--	--
46	1.62	3	11.6	4	73.2	4	9.88	4	378	4
55	--	--	--	--	--	--	9.78	4	--	--
59	1.7	4	11.7	4	72.6	4	8.49	0	381	4
64	1.71	4	11.8	4	64.9	1	9.86	4	--	--
70	1.76	4	12.1	4	75	3	9.89	4	375	4
76	1.745	4	11.96	4	71.87	4	--	--	--	--
89	1.68	4	11.97	4	67	2	9.88	4	372	4
93	1.7	4	11.4	3	73.7	3	9.738	4	--	--
105	1.64	3	14	0	82.7	0	9.9	4	418	0
113	1.727	4	12.02	4	71	4	9.82	4	382	4
118	--	--	--	--	70.8	4	9.5	3	352	2
134	1.65	4	11.7	4	75.98	2	9.83	4	383	4
138	1.65	4	11.8	4	71.2	4	9.75	4	367	4
142	1.76	4	12.6	2	75.4	2	9.88	4	400	2
149	1.7	4	12.1	4	72	4	--	--	376	4
180	1.87	2	12.2	3	72.2	4	9.96	4	--	--
190	1.85	2	11.7	4	73.6	3	9.46	3	388	3
208	--	--	--	--	--	--	--	--	--	--
212	1.71	4	11.5	4	72.3	4	9.7	4	408	1
220	3.13	0	12.26	3	71.61	4	--	--	--	--
227	--	--	--	--	--	--	--	--	381	4
234	1.74	4	11.8	4	73	4	9.98	4	364	3
246	1.6	3	11.7	4	72	4	9.38	3	--	--
247	1.66	4	11.6	4	71.5	4	9.99	4	348	2
254	--	--	--	--	--	--	--	--	--	--
255	--	--	12	4	--	--	--	--	--	--
256	1.8	3	--	--	67.44	2	9.84	4	--	--
257	1.8	3	12	4	70.4	4	9.92	4	370	4
265	1.65	4	11.7	4	72	4	--	--	--	--
268	2.02	0	11.7	4	73.6	3	9.47	3	--	--
270	1.69	4	11.15	2	65.6	1	--	--	--	--
274	1.76	4	12.87	1	72.62	4	10.15	3	--	--
276	2	0	5.6	0	81.2	0	9.71	4	373	4

Table 6. ***Laboratory performance ratings for standard reference sample M-158 (major constituents) -- continued***

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all reported values; mg/L, milligrams per liter; V/16, number of reported values of 16 possible values; RV, reported value; <, less than; NR, not rated; --, not reported.]

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

	Analyte=	**Potassium**		**Magnesium**		**Sodium**		**pH**		**Residue on Evaporation**	
	MPV =	1.71 mg/L		11.8 mg/L		71.7 mg/L		9.80		376 mg/L	
	F-pseudosigma =	0.119		0.482		2.22		0.282		14.1	
Lab		RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
277		2.1	0	12.7	1	67.2	2	9.73	4	--	--
279		1.99	0	10.97	2	68.66	3	9.35	3	--	--
305		2.68	0	10.9	1	78.9	1	10	4	400	2
307		--	--	--	--	70.5	4	9.95	4	--	--
324		--	--	--	--	--	--	9.42	3	348	2
331		1.52	1	9.78	0	64.3	0	10.12	3	374	4
333		--	--	--	--	--	--	9.78	4	--	--
336		1.7	4	8.26	0	60	0	8.56	0	--	--
341		1.7	4	11.8	4	69.2	3	9.85	4	--	--
353		--	--	--	--	--	--	--	--	--	--
356		--	--	--	--	--	--	9.89	4	380	4
366		1.6	3	11	2	69	3	9.51	3	368	4

Table 6. ***Laboratory performance ratings for standard reference sample M-158 (major constituents) -- continued***

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all reported values; mg/L, milligrams per liter; V/16, number of reported values of 16 possible values; RV, reported value; <, less than; NR, not rated; --, not reported.]

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

Analyte=	Silica		Sulfate		Specific Conductance		Strontium		Phosphorus as P	
MPV =	15.0 mg/L		105 mg/L		642 mg/L		63.6 µg/L		0.190 mg/L	
F-pseudosigma =	0.667		3.71		18.5		1.85		0.013	
Lab	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	15.3	4	104.5	4	653	4	64.5	4	--	--
4	--	--	111	2	--	--	--	--	--	--
5	14.4	3	106.5	4	570	0	63.4	4	--	--
10	15	4	108	3	648	4	--	--	--	--
12	--	--	120	0	645	4	--	--	0.17	1
16	--	--	103	4	660	3	62.1	4	0.196	4
23	15.1	4	103	4	659	3	--	--	0.19	4
24	15.9	2	107	4	655	4	64	4	--	--
25	13.8	1	105	4	629	4	90	0	0.122	0
26	15.6	3	102.3	3	637	4	--	--	--	--
38	14.76	4	--	--	636	4	--	--	0.193	4
42	14.2	2	98.3	2	630	4	75.3	0	0.196	4
46	--	--	115	1	628	4	--	--	0.183	3
55	--	--	26.4	0	--	--	--	--	0.192	4
59	--	--	104	4	626	4	64.2	4	0.151	0
64	15.9	2	107	4	640	4	--	--	0.18	3
70	15.3	4	103	4	618	3	--	--	0.05	0
76	--	--	--	--	--	--	--	--	--	--
89	18.76	0	107	4	642	4	--	--	0.196	4
93	18.23	0	103	4	612.3	3	--	--	0.19	4
105	14.8	4	98.9	2	652	4	61	3	0.16	0
113	14.5	3	104.8	4	650	4	63.6	4	0.185	4
118	7.06	0	--	--	620	3	--	--	--	--
134	14.79	4	106.9	4	643.5	4	62.84	4	0.18	3
138	15.5	3	103	4	633	4	64.6	4	0.197	3
142	16.9	0	115	1	651	4	63.9	4	0.195	4
149	15.1	4	109	3	--	--	--	--	--	--
180	--	--	108	3	643	4	--	--	0.182	3
190	15	4	103	4	645	4	--	--	0.187	4
208	--	--	107	4	--	--	--	--	--	--
212	6.92	0	101	3	626	4	62.4	4	0.11	0
220	--	--	107.23	4	--	--	--	--	--	--
227	--	--	--	--	--	--	--	--	180	0
234	14.9	4	104	4	655	4	61.9	3	0.2	3
246	5.4	0	108	3	620	3	63.5	4	0.19	4
247	15.1	4	103	4	654	4	58.4	1	0.173	2
254	--	--	108	3	--	--	--	--	--	--
255	--	--	102	3	--	--	--	--	--	--
256	14.5	3	105	4	653	4	68	2	--	--
257	--	--	112	2	688	2	--	--	0.23	0
265	15	4	104	4	--	--	62	4	--	--
268	--	--	107.9	3	628	4	--	--	--	--
270	--	--	107	4	--	--	--	--	--	--
274	7.13	0	106.78	4	626	4	--	--	0.225	0
276	--	--	--	--	690	2	--	--	0.43	0

Table 6. ***Laboratory performance ratings for standard reference sample M-158 (major constituents) -- continued***

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all reported values; mg/L, milligrams per liter; V/16, number of reported values of 16 possible values; RV, reported value; <, less than; NR, not rated; --, not reported.]

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

	Analyte=	**Silica**		**Sulfate**		**Specific Conductance**		**Strontium**		**Phosphorus as P**	
	MPV =	15.0 mg/L		105 mg/L		642 mg/L		63.6 µg/L		0.190 mg/L	
	F-pseudosigma =	0.667		3.71		18.5		1.85		0.013	
Lab		RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
277		--	--	108	3	662	3	--	--	--	--
279		--	--	--	--	--	--	--	--	--	--
305		--	--	109.39	3	--	--	--	--	0.187	4
307		--	--	101	3	691	1	--	--	0.2	3
324		--	--	101.8	3	633	4	--	--	--	--
331		--	--	100	3	465	0	--	--	0.25	0
333		7.21	0	--	--	641	4	61	3	--	--
336		--	--	147.6	0	--	--	--	--	--	--
341		--	--	100	3	--	--	69	1	0.207	2
353		--	--	--	--	--	--	--	--	--	--
356		--	--	102.42	4	647	4	--	--	--	--
366		--	--	109	3	634	4	--	--	0.172	2

Table 6. ***Laboratory performance ratings for standard reference sample M-158 (major constituents) -- continued***

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all reported values; mg/L, milligrams per liter; V/16, number of reported values of 16 possible values; RV, reported value; <, less than; NR, not rated; --, not reported.]

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

Analyte=	**Vanadium**	
MPV =	11.3 µg/L	
F-pseudosigma =	0.815	
Lab	RV	Rating
1	11.4	4
4	--	--
5	10.7	3
10	--	--
12	--	--
16	13.5	0
23	--	--
24	--	--
25	<13	NR
26	--	--
38	--	--
42	11.2	4
46	--	--
55	11.5	4
59	11.4	4
64	--	--
70	--	--
76	11.79	3
89	18.8	0
93	--	--
105	< 20.0	NR
113	--	--
118	--	--
134	10.66	3
138	9.97	1
142	12	3
149	--	--
180	14.5	0
190	--	--
208	--	--
212	10.6	3
220	11.3	4
227	--	--
234	11.4	4
246	11	4
247	10.3	2
254	--	--
255	--	--
256	10	1
257	--	--
265	11.7	3
268	--	--
270	--	--
274	--	--
276	--	--

Analyte=	**Vanadium**	
MPV =	11.3 µg/L	
F-pseudosigma =	0.815	
Lab	RV	Rating
277	--	--
279	--	--
305	0.124	0
307	--	--
324	--	--
331	10	1
333	--	--
336	--	--
341	11	4
353	--	--
356	--	--
366	--	--

Table 7. ***Laboratory performance ratings for standard reference sample N-69 (nutrient constituents)***

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all reported values; mg/L, milligrams per liter; V/5, number of reported values of 5 possible values; RV, reported value; <, less than; NR, not rated; --, not reported.]

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

					Ammonia + Organic N as N						**Orthophosphate as P**	
		Analyte=	**Ammonia as N**				**Nitrate as N**		**Phosphorus as P**			
		MPV =	0.086	mg/L	0.101	mg/L	0.084	mg/L	0.086	mg/L	0.086	mg/L
		F-pseudosigma =	0.007		0.031		0.010		0.004		0.003	
Lab	OLR	V/5	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	3.4	5	0.08	3	0.082	3	0.075	3	0.087	4	0.088	4
5	2.2	5	0.12	0	0.13	3	0.091	3	0.091	2	0.09	3
10	3.2	5	0.09	3	0.1	4	0.081	4	0.09	3	0.092	2
12	2.0	5	0.292	0	0.35	0	0.093	3	0.089	3	0.088	4
16	2.2	5	0.09	3	0.125	3	0.1	1	0.083	3	0.079	1
21	4.0	5	0.0854	4	0.1129	4	0.0841	4	0.0861	4	0.086	4
23	3.0	5	0.083	4	<0.2	NR	0.112	0	0.088	4	0.087	4
25	2.3	5	0.07	0	<0.07	NR	0.09	3	0.08	2	0.085	4
31	4.0	5	0.0854	4	0.1129	4	0.0841	4	0.0861	4	0.086	4
38	3.6	5	0.09	3	0.09	4	0.079	3	0.086	4	0.086	4
42	0.0	3	--	--	--	--	0.114	0	0.0973	0	0.104	0
55	3.0	4	0.0875	4	0.0786	3	0.0914	3	0.0811	2	--	--
59	3.8	5	0.083	4	0.085	3	0.084	4	0.084	4	0.086	4
64	3.0	4	0.08	3	--	--	0.09	3	0.092	2	0.087	4
70	3.8	5	<0.1	NR	0.087	4	0.084	4	0.082	3	0.084	4
72	0.0	5	0.05	0	0.222	0	0.17	0	0.077	0	0.07	0
89	4.0	5	0.086	4	0.101	4	0.082	4	0.086	4	0.086	4
93	4.0	4	0.089	4	--	--	0.082	4	0.088	4	0.087	4
105	3.0	5	0.0863	4	<1.00	NR	0.08	4	0.102	0	0.086	4
113	3.3	5	0.093	2	<0.5	NR	0.084	4	0.086	4	0.09	3
118	2.8	5	0.08	3	<0.10	NR	0.056	0	0.086	4	0.085	4
134	3.2	5	0.069	0	0.106	4	0.084	4	0.085	4	0.088	4
138	3.4	5	0.0862	4	0.101	4	0.0808	4	0.0816	2	0.0829	3
142	2.8	5	0.085	4	0.185	0	0.095	2	0.086	4	0.087	4
180	2.2	5	0.085	4	0.162	1	0.084	4	0.098	0	0.092	2
183	4.0	2	--	--	--	--	--	--	0.088	4	0.088	4
190	3.5	4	0.085	4	--	--	0.072	2	0.088	4	0.085	4
193	3.7	3	0.08	3	--	--	0.08	4	0.088	4	--	--
198	3.0	4	0.0873	4	--	--	0.0777	3	0.0854	4	0.0783	1
212	0.8	4	1.5	0	--	--	2.3	0	0.065	0	0.083	3
224	1.0	5	0.104	0	0.245	0	0.0942	2	0.095	0	0.089	3
234	1.8	4	0.104	0	--	--	0.096	2	0.083	3	0.092	2
246	1.8	4	0.06	0	--	--	0.08	4	0.074	0	0.09	3
247	2.4	5	0.0789	2	0.101	4	0.0807	4	0.0608	0	0.081	2
305	2.8	4	0.114	0	--	--	0.09	3	0.088	4	0.088	4
313	1.8	5	0.133	0	0.0402	1	0.0831	4	0.0925	1	0.083	3
316	3.4	5	0.0857	4	0.0879	4	0.0791	3	0.0828	3	0.0834	3
318	3.6	5	0.082	3	0.117	3	0.0831	4	0.086	4	0.088	4
331	1.8	5	0.09	3	0.0776	3	0.1	1	0.08	2	0.095	0
333	2.3	3	0.082	3	--	--	0.085	4	--	--	0.074	0
341	2.6	5	0.079	2	0.08	3	0.083	4	0.087	4	0.072	0
353	0.0	1	--	--	--	--	0.27	0	--	--	--	--
356	3.5	5	0.08618	4	<0.50	NR	0.07873	3	0.08262	3	0.08387	4
366	2.0	5	0.12	0	<0.50	NR	0.096	2	0.081	2	0.088	4

Table 8. ***Laboratory performance ratings for standard reference sample N-70 (nutrient constituents)***

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all reported values; mg/L, milligrams per liter; V/5, number of reported values of 5 possible values; RV, reported value; <, less than; NR, not rated; --, not reported.]

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

			Analyte=	**Ammonia as N**		**Ammonia + Organic N as N**		**Nitrate as N**		**Phosphorus as P**		**Orthophosphate as P**	
			MPV =	0.580 mg/L		0.660 mg/L		0.986 mg/L		0.714 mg/L		0.583 mg/L	
			F-pseudosigma =	0.039		0.064		0.059		0.034		0.026	
Lab	OLR	V/5		RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	2.6	5		0.537	2	0.75	2	1.037	3	0.761	2	0.575	4
5	2.0	5		0.61	3	0.59	2	1.15	0	0.737	3	0.619	2
10	3.2	5		0.55	3	0.68	4	0.98	4	0.744	3	0.615	2
12	2.8	5		0.591	4	0.67	4	1.06	2	0.723	4	0.68	0
16	3.4	5		0.62	2	0.64	4	0.94	3	0.696	4	0.57	4
23	2.6	5		0.58	4	0.58	2	0.93	3	0.67	2	0.55	2
25	2.3	4		0.68	0	--	--	0.994	4	0.66	1	0.581	4
26	1.3	3		0.59	4	--	--	0.175	0	--	--	1.928	0
38	3.0	5		0.665	0	0.66	4	0.991	4	0.721	4	0.567	3
42	3.3	3		--	--	--	--	0.979	4	0.676	2	0.581	4
46	2.4	5		0.557	3	0.979	0	0.988	4	0.771	1	0.583	4
55	3.3	4		0.596	4	0.615	3	1.058	2	0.72	4	--	--
59	3.4	5		0.586	4	0.701	3	1.02	3	0.678	3	0.585	4
64	2.8	4		0.59	4	--	--	1.02	3	0.7	4	0.69	0
70	1.6	5		0.5	0	0.739	2	0.99	4	0.545	0	0.545	2
72	2.6	5		0.55	3	0.677	4	1.18	0	0.67	2	0.58	4
89	3.6	5		0.548	3	0.651	4	1.02	3	0.72	4	0.578	4
93	3.3	4		0.615	3	--	--	0.941	3	0.738	3	0.587	4
97	3.2	5		0.609	3	0.66	4	1.01	4	0.763	2	0.566	3
105	3.0	5		0.0559	0	<1.00	NR	0.98	4	0.698	4	0.576	4
113	3.6	5		0.562	4	0.743	2	0.976	4	0.716	4	0.575	4
118	3.4	5		0.57	4	0.678	4	1.1	1	0.71	4	0.576	4
134	2.6	5		0.576	4	0.737	2	1.06	2	0.754	2	0.609	3
138	3.2	5		0.575	4	0.701	3	0.986	4	0.69	3	0.543	2
142	2.6	5		0.552	3	0.774	1	0.987	4	0.714	4	0.63	1
180	3.6	5		0.541	3	0.659	4	1.02	3	0.711	4	0.589	4
183	3.5	2		--	--	--	--	--	--	0.693	3	0.57	4
190	3.3	4		0.588	4	--	--	0.97	4	0.714	4	0.638	1
193	3.7	3		0.58	4	--	--	1.02	3	0.724	4	--	--
198	3.5	4		0.605	3	--	--	0.994	4	0.714	4	0.606	3
205	0.0	1		--	--	--	--	1.11	0	--	--	--	--
208	1.5	2		--	--	--	--	0.94	3	--	--	0.7	0
212	0.8	5		0.49	0	0.74	2	0.91	2	0.58	0	0.76	0
224	2.0	5		0.642	1	0.418	0	0.931	3	0.745	3	0.61	3
227	2.2	5		0.568	4	0.541	1	0.9	2	0.578	0	0.586	4
234	3.5	4		0.576	4	--	--	0.906	2	0.729	4	0.574	4
246	2.8	4		0.59	4	--	--	0.98	4	0.687	3	0.48	0
247	2.8	5		0.538	2	0.638	4	0.896	1	0.691	3	0.582	4
305	3.5	4		0.611	3	--	--	0.94	3	0.732	4	0.592	4
307	2.5	4		0.69	0	--	--	0.945	3	0.736	3	0.575	4
313	3.2	5		0.581	4	0.61	3	0.966	4	0.78	1	0.576	4
316	3.8	5		0.5636	4	0.6204	3	1.0126	4	0.6969	4	0.5751	4
331	1.8	5		0.69	0	0.045	0	0.93	3	0.73	4	0.622	2
341	3.0	5		0.54	2	0.69	4	0.94	3	0.737	3	0.6	3
353	1.0	1		--	--	--	--	1.1	1	--	--	--	--
366	3.4	5		0.59	4	0.58	2	0.96	4	0.68	3	0.59	4

Table 9. ***Laboratory performance ratings for standard reference sample P-36 (low-ionic strength constituents)***

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all reported values; mg/L, milligrams per liter; V/11, number of reported values of 11 possible values; RV, reported value; <, less than; NR, not rated; --, not reported.]

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

		Analyte=	**Acidity**		**Calcium**		**Chloride**		**Fluoride**		**Potassium**	
		MPV =	Insufficient data		0.590 mg/L		3.47 mg/L		0.109 mg/L		0.170 mg/L	
		F-pseudosigma =			0.078		0.271		0.018		0.019	
Lab	OLR	V/10	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	2.6	8	--	--	0.576	4	0.35	0	0.09	2	0.17	4
2	3.6	9	--	--	0.603	4	3.719	3	0.098	3	0.191	2
5	3.0	9	--	--	0.56	4	3.65	3	0.12	3	<1.00	NR
23	2.4	7	--	--	0.8	0	3.52	4	0.12	3	--	--
25	1.6	11	<8	NR	0.11	0	3.5	4	0.13	2	0.4	0
38	4.0	7	--	--	0.62	4	--	--	--	--	0.17	4
59	2.2	10	6.52	NR	0.16	0	3.5	4	--	--	0.13	0
64	3.9	9	--	--	0.61	4	3.72	3	--	--	0.17	4
89	3.4	11	4.8	NR	0.52	3	3.32	3	0.11	4	0.16	3
93	3.6	9	--	--	0.555	4	3.61	3	--	--	0.165	4
105	3.0	11	5.6	NR	0.574	4	3.4	4	< 0.20	NR	< 1.0	NR
113	3.7	6	--	--	--	--	3.45	4	0.104	4	--	--
134	3.9	10	--	--	0.567	4	3.7	3	0.11	4	0.168	4
138	3.0	10	--	--	0.624	4	3.21	3	0.094	3	0.181	3
180	2.4	10	--	--	0.625	4	3.27	3	0.154	0	<0.621	NR
183	3.3	3	--	--	--	--	3.26	3	0.099	3	--	--
190	2.6	8	--	--	--	--	3.34	4	0.091	2	0.17	4
208	3.0	2	--	--	--	--	3.7	3	--	--	--	--
220	0.8	5	--	--	1.32	0	4.24	0	--	--	2.29	0
247	3.0	11	8.5	NR	0.718	1	3.22	3	0.108	4	<0.204	NR
255	4.0	4	--	--	0.603	4	--	--	<0.458	NR	--	--
256	3.5	10	24.4	NR	<1.0	NR	3.41	4	<0.1	NR	<1.0	NR
265	3.3	6	--	--	0.55	4	3.4	4	--	--	0.12	0
268	2.4	8	--	--	0.533	3	3.47	4	--	--	0.24	0
270	0.9	8	--	--	0.69	2	3.23	3	0.01	0	0.01	0
274	1.3	11	4.03	NR	0.81	0	13.78	0	<1	NR	0.16	3
277	2.8	4	--	--	--	--	3.5	4	0.12	3	--	--
279	1.6	5	--	--	0.52	3	--	--	--	--	0.15	2
333	3.6	8	--	--	0.57	4	3.3	3	--	--	0.167	4
336	0.1	8	26.1	NR	1.27	0	12.17	0	0.78	0	0.2	1

Table 9. ***Laboratory performance ratings for standard reference sample P-36 (low-ionic strength constituents)*** **-- continued**

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all reported values; mg/L, milligrams per liter; V/11, number of reported values of 11 possible values; RV, reported value; <, less than; NR, not rated; --, not reported.]

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

							Orthophosphate			
Analyte=	**Magnesium**		**Sodium**		**pH**		**as P**		**Sulfate**	
MPV =	0.076 mg/L		0.380 mg/L		4.19		0.073 mg/L		0.655 mg/L	
F-pseudosigma =	0.037		0.043		0.170		0.004		0.108	
Lab	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	0.074	4	0.34	3	--	--	--	--	0.62	4
2	0.076	4	0.398	4	4.09	4	--	--	0.661	4
5	0.07	4	0.39	4	3.62	0	--	--	0.81	2
23	--	--	--	--	4.24	4	0.073	4	1.24	0
25	<0.005	NR	0.25	0	4.35	3	0.074	4	<5	NR
38	0.079	4	0.37	4	4.2	4	0.073	4	--	--
59	0.12	2	1.55	0	4.29	4	0.07	3	0.58	3
64	0.07	4	0.38	4	4.2	4	0.073	4	0.65	4
89	0.07	4	0.39	4	4.05	3	0.075	3	0.751	3
93	0.068	4	0.382	4	4.27	4	0.076	3	0.723	3
105	0.069	4	0.398	4	4.3	3	0.061	0	< 1.0	NR
113	--	--	--	--	4.11	4	0.078	2	0.66	4
134	0.0745	4	0.378	4	4.16	4	0.074	4	0.63	4
138	0.0767	4	0.417	3	4.33	3	0.0608	0	0.572	3
180	0.109	3	0.429	2	4.34	3	0.073	4	0.764	3
183	--	--	--	--	--	--	0.074	4	--	--
190	--	--	0.32	2	4.07	3	0.076	3	0.925	0
208	--	--	--	--	--	--	--	--	<2	NR
220	0.25	0	0.39	4	--	--	--	--	--	--
247	<0.204	NR	<0.612	NR	4.28	4	0.0732	4	<1	NR
255	0.074	4	--	--	--	--	--	--	<15	NR
256	--	--	<1.0	NR	4.21	4	0.069	2	<1.0	NR
265	0.071	4	0.38	4	--	--	--	--	0.64	4
268	0.081	4	0.49	0	3.98	3	--	--	0.603	4
270	0.12	2	0.01	0	--	--	0.01	0	0.38	0
274	0.48	0	0.34	3	3.91	2	0.32	0	0.32	0
277	--	--	--	--	--	--	--	--	0.68	4
279	0.59	0	0.34	3	3.43	0	--	--	--	--
333	0.068	4	0.36	4	4.17	4	--	--	0.64	4
336	4.89	0	--	--	3.01	0	--	--	41.62	0

Table 9. ***Laboratory performance ratings for standard reference sample P-36 (low-ionic strength constituents)*** **-- continued**

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all reported values; mg/L, milligrams per liter; V/11, number of reported values of 11 possible values; RV, reported value; <, less than; NR, not rated; --, not reported.]

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

Analyte=	**Specific Conductance**	
MPV =	35.1 µS/cm	
F-pseudosigma =	2.91	
Lab	RV	Rating
1	29	0
2	36.3	4
5	35.3	4
23	38.3	2
25	42	0
38	33.8	4
59	35.3	4
64	36.2	4
89	34.9	4
93	32.37	3
105	38.4	2
113	35.5	4
134	36.5	4
138	33.8	4
180	27.9	0
183	--	--
190	32.5	3
208	--	--
220	--	--
247	38.8	2
255	--	--
256	34.2	4
265	--	--
268	29.4	1
270	--	--
274	35.6	4
277	26.5	0
279	--	--
333	31.4	2
336	--	--

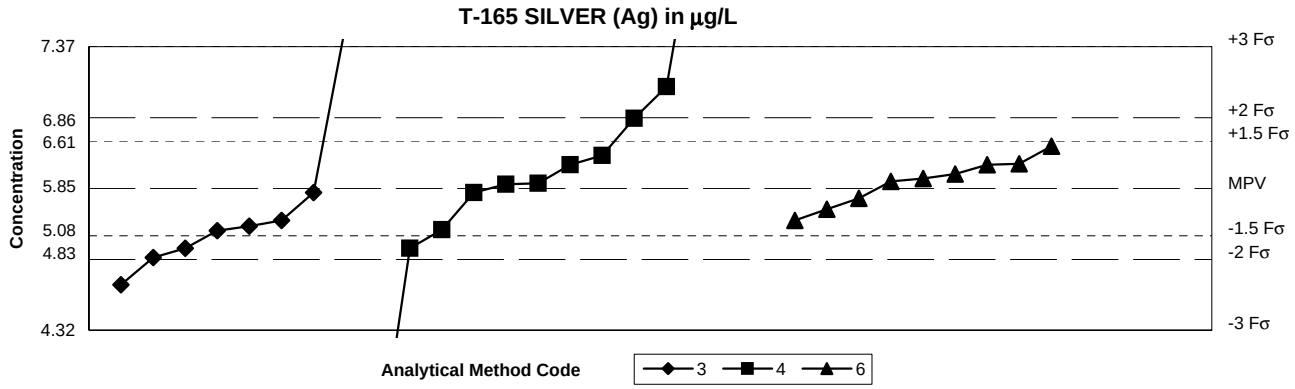
Table 10. ***Laboratory performance ratings for standard reference sample HG-32 (Mercury)***

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all reported values; mg/L, milligrams per liter; V/1, number of reported values of 1 possible values; RV, reported value; <, less than; NR, not rated; --, not reported.]

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

		Analyte=	**Mercury**	
		MPV =	1.69 µg/L	
		F-pseudosigma =	0.663	
Lab	OLR	V/1	RV	Rating
1	4.0	1	1.77	4
5	4.0	1	1.71	4
23	1.0	1	0.52	1
46	1.0	1	0.654	1
59	4.0	1	1.72	4
72	2.0	1	1	2
89	4.0	1	1.81	4
105	4.0	1	1.44	4
134	4.0	1	1.87	4
138	2.0	1	0.72	2
142	4.0	1	1.82	4
144	4.0	1	1.66	4
147	4.0	1	1.84	4
198	4.0	1	1.79	4
212	4.0	1	1.6	4
220	4.0	1	1.5	4
234	4.0	1	1.57	4
247	1.0	1	0.532	1
265	0.0	1	0.33	0
277	4.0	1	1.99	4
304	4.0	1	1.73	4
307	4.0	1	1.98	4
331	2.0	1	0.81	2
356	4.0	1	1.79	4

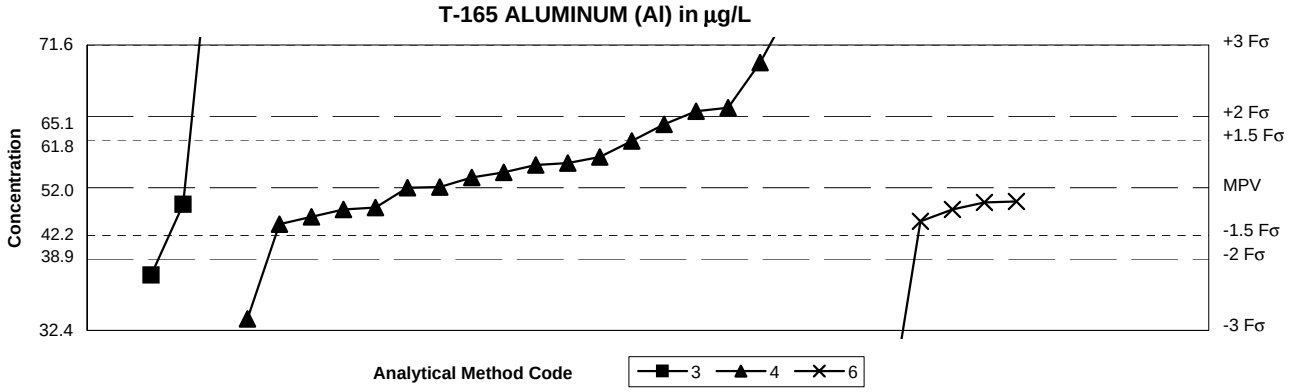
Table 11. ***Statistical summary of reported data for standard reference sample T-165 (trace constituents)***



SUMMARY	Methods			Statistics
	3	4	6	Method Codes
n =	8	11	9	03 Atomic absorption: graphite furnace
Minimum =	4.81	2.85	5.5	04 Inductively coupled plasma
Maximum =	7.6	8.91	6.3	06 Inductively coupled plasma/mass spectrometry
Median =	5.41	5.90	5.95	
F-pseudosigma =	0.371	0.593	0.267	

			Methods		
Lab	Rating	Z-value	3	4	6
1	4	0.50	--	--	6.1
5	0	6.03	--	8.91	--
12	2	-1.27	5.2	--	--
16	3	0.70	--	6.2	--
23	0	-2.04	4.81	--	--
25	NR	--	--	<7	--
42	4	-0.44	--	--	5.62
59	3	0.52	--	--	6.11
89	2	-1.47	5.1	--	--
105	3	0.90	--	--	6.3
113	3	-0.80	5.439	--	--
134	4	-0.09	--	5.8	--
138	4	-0.21	--	--	5.74
142	4	0.15	--	--	5.92
144	3	-0.68	5.5	--	--
149	4	-0.09	5.8	--	--
180	3	-0.88	--	5.4	--
190	3	-0.90	5.39	--	--
212	4	0.11	--	5.9	--
220	0	2.15	--	6.94	--
234	4	0.50	--	6.1	--
247	NR	--	--	<10.2	--
255	4	0.31	--	--	6
256	4	0.09	--	5.89	--
265	3	-0.68	--	--	5.5
270	0	-5.89	--	2.85	--
277	2	-1.27	--	5.2	--
304	4	0.21	--	--	5.95
305	2	1.49	--	6.6	--
307	0	3.45	7.6	--	--

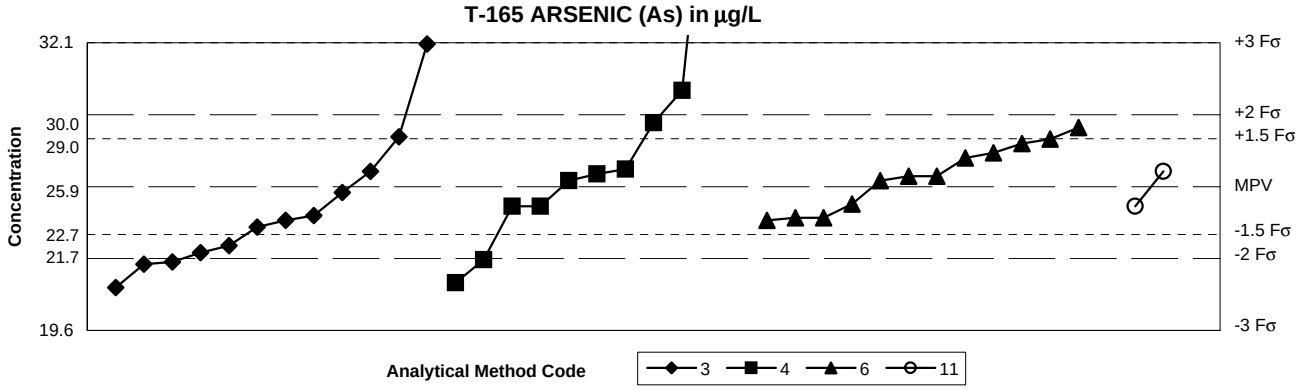
Table 11. ***Statistical summary of reported data for standard reference sample T-165 (trace constituents) -- continued***



SUMMARY	Methods					Statistics	
	2	3	4	6	Method Codes		
n =	1	3	18	5	02 Atomic absorption: direct, nitrous oxide	**MPV =**	**52.0 µg/L**
Minimum =	31.6	40	34	20	03 Atomic absorption: graphite furnace	F-pseudosigma =	6.53
Maximum =		93.3	77.2	50.1	04 Inductively coupled plasma	n =	27
Median =			54.6	49.0	06 Inductively coupled plasma/mass spectrometry	Uh =	57.3
F-pseudosigma =			8.46	1.93		Lh =	48.5

			Methods			
Lab	Rating	Z-value	2	3	4	6
1	3	0.52	--	--	55.4	--
5	0	2.63	--	--	69.2	--
16	1	1.61	--	--	62.5	--
23	4	0.48	--	--	55.14	--
25	NR	--	--	--	<22	--
42	4	-0.31	--	--	--	50
59	4	-0.29	--	--	--	50.1
89	0	6.32	--	93.3	--	--
93	4	0.02	--	--	52.1	--
105	0	-4.90	--	--	--	20
113	3	0.98	--	--	58.4	--
134	4	-0.46	--	--	49	--
138	4	0.32	--	--	54.1	--
142	1	1.68	--	--	63	--
149	1	-1.84	--	40	--	--
180	0	3.86	--	--	77.2	--
190	4	-0.35	--	49.7	--	--
198	3	-0.70	--	--	--	47.4
212	2	1.33	--	--	60.7	--
220	3	0.65	--	--	56.23	--
234	4	0.21	--	--	53.4	--
246	3	-0.61	--	--	48	--
247	NR	--	--	--	<81.6	--
256	4	0.00	--	--	52	--
265	4	-0.46	--	--	--	49
270	4	-0.41	--	--	49.29	--
305	0	-2.75	--	--	34	--
324	0	-3.12	31.6	--	--	--
331	3	-0.77	--	--	47	--

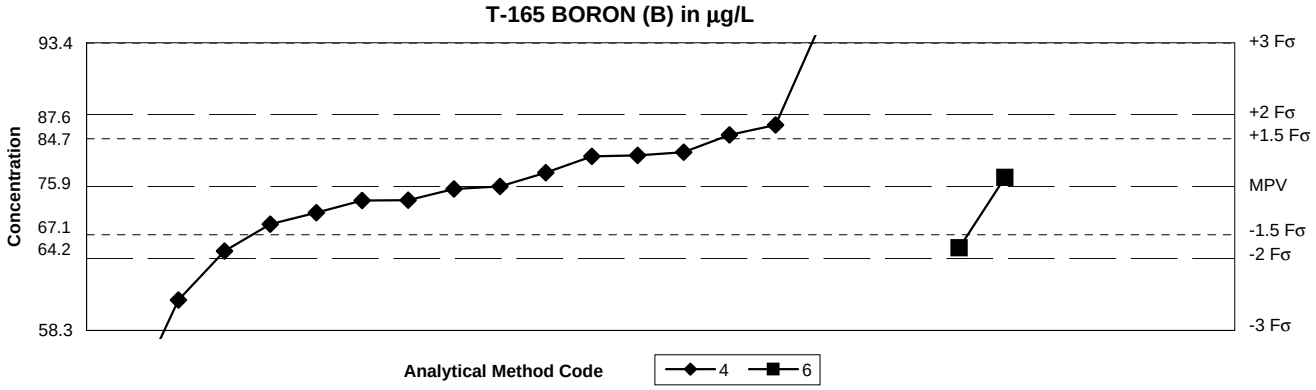
Table 11. ***Statistical summary of reported data for standard reference sample T-165 (trace constituents) -- continued***



SUMMARY	Methods					Statistics
	3	4	6	8	11	Method Codes
n =	12	10	12	0	2	03 Atomic absorption: graphite furnace
Minimum =	21.5	21.7	24.4	0	25	04 Inductively coupled plasma
Maximum =	32	41.6	28.4		26.5	06 Inductively coupled plasma/mass spectrometry
Median =	24.3	26.3	26.3			08 Atomic absorption: cold vapor
F-pseudosigma =	2.41	2.68	2.00			11 Atomic absorption: hydride

					Methods		
Lab	Rating	Z-value	3	4	6	8	11
1	3	-0.70	--	--	24.4	--	--
5	1	-1.57	22.6	--	--	--	--
10	4	-0.41	--	--	--	--	25
12	2	1.04	28	--	--	--	--
16	1	-1.52	--	22.7	--	--	--
23	2	1.33	--	28.61	--	--	--
25	NR	--	--	<51	--	--	--
26	4	0.31	--	--	--	--	26.5
42	4	-0.36	--	--	25.1	--	--
46	0	-2.10	21.5	--	--	--	--
55	0	2.97	32	--	--	--	--
59	4	0.22	--	--	26.3	--	--
70	2	1.23	--	--	28.4	--	--
76	3	0.59	--	--	27.08	--	--
89	4	0.31	26.5	--	--	--	--
93	4	0.12	--	26.1	--	--	--
105	3	0.89	--	--	27.7	--	--
113	1	-1.62	22.5	--	--	--	--
134	4	-0.12	25.6	--	--	--	--
138	3	0.70	--	--	27.3	--	--
142	4	0.22	--	--	26.3	--	--
144	3	-0.60	24.6	--	--	--	--
147	3	-0.65	--	--	24.5	--	--
149	2	-1.38	23	--	--	--	--
190	3	-0.85	24.1	--	--	--	--
198	3	0.99	--	--	27.9	--	--
212	4	0.27	--	26.4	--	--	--
220	2	-1.23	23.3	--	--	--	--
234	4	0.36	--	26.6	--	--	--
246	4	-0.41	--	25	--	--	--
247	0	7.62	--	41.6	--	--	--
255	4	0.12	--	--	26.1	--	--
256	NR	--	--	--	--	<30	--
265	3	-0.65	--	--	24.5	--	--
277	0	-2.01	--	21.7	--	--	--
305	0	2.01	--	30	--	--	--
307	3	-0.70	24.4	--	--	--	--
331	4	-0.41	--	25	--	--	--

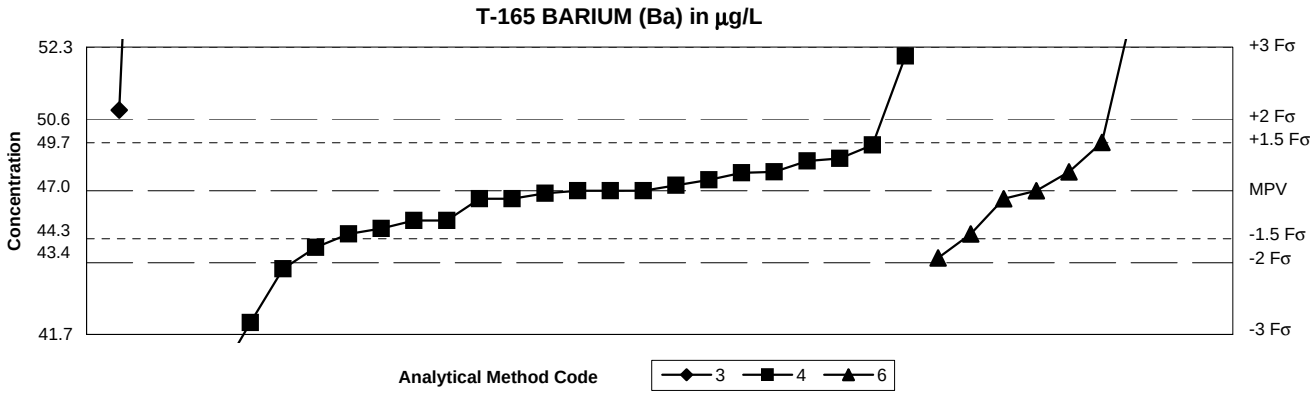
Table 11. ***Statistical summary of reported data for standard reference sample T-165 (trace constituents) -- continued***



SUMMARY	Methods			Statistics		
	4	6	Method Codes			
n =	17	2	04 Inductively coupled plasma	**MPV =**	**75.9**	**µg/L**
Minimum =	50	68.4	06 Inductively coupled plasma/mass spectrometry	F-pseudosigma =	5.86	
Maximum =	105	77		n =	19	
Median =	75.9			Uh =	79.9	
F-pseudosigma =	5.49			Lh =	72.0	

			Methods	
Lab	Rating	Z-value	4	6
1	4	0.00	75.9	--
5	3	0.65	79.7	--
16	2	1.28	83.4	--
24	3	-0.55	72.7	--
25	0	-4.42	50	--
42	4	0.29	77.6	--
59	2	-1.28	--	68.4
134	4	-0.29	74.21	--
138	3	-0.79	71.3	--
142	2	1.08	82.2	--
180	0	4.97	105	--
212	4	-0.05	75.6	--
220	4	-0.30	74.17	--
234	3	0.63	79.6	--
246	2	-1.35	68	--
247	NR	--	<51	--
255	3	0.72	80.1	--
256	0	3.43	96	--
265	4	0.19	--	77
331	0	-2.37	62	--

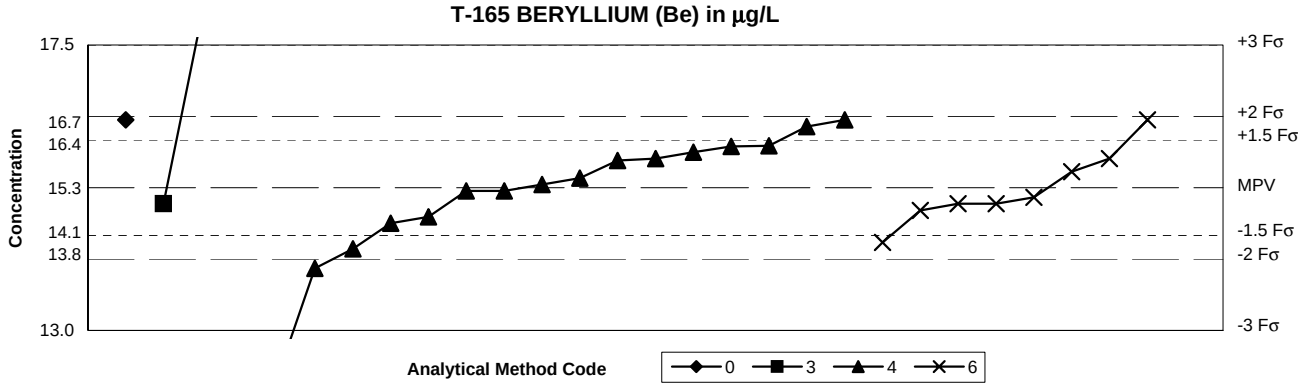
Table 11. ***Statistical summary of reported data for standard reference sample T-165 (trace constituents) -- continued***



SUMMARY	Methods			Statistics	
	3	4	6	Method Codes	
n =	2	23	7	03 Atomic absorption: graphite furnace	**MPV = 47.0 µg/L**
Minimum =	50	39.5	44.5	04 Inductively coupled plasma	F-pseudosigma = 1.78
Maximum =	76.8	52	54	06 Inductively coupled plasma/mass spectrometry	Rating criterion = 2.35
Median =		46.9	47.0		n = 32
F-pseudosigma =		1.50	1.63		Uh = 47.9
					Lh = 45.5

			Methods		
Lab	Rating	Z-value	3	4	6
1	4	0.17	--	47.4	--
5	3	-0.89	--	44.9	--
16	3	-0.60	--	45.6	--
23	4	0.28	--	47.66	--
24	4	-0.47	--	45.9	--
25	0	-2.98	--	40	--
42	4	-0.13	--	--	46.7
46	3	0.51	--	48.2	--
55	4	0.47	--	48.1	--
59	4	0.30	--	--	47.7
70	3	0.77	--	--	48.8
89	0	12.68	76.8	--	--
93	2	-1.23	--	44.1	--
105	4	0.00	--	--	47
113	4	-0.04	--	46.9	--
134	4	-0.13	--	46.7	--
138	4	0.00	--	47	--
142	3	-0.68	--	--	45.4
149	2	1.28	50	--	--
180	4	-0.47	--	45.9	--
198	0	2.98	--	--	54
212	4	-0.13	--	46.7	--
220	3	-0.68	--	45.4	--
234	4	0.09	--	47.2	--
246	3	0.72	--	48.7	--
247	0	-3.19	--	39.5	--
256	0	-2.09	--	42.1	--
265	2	-1.06	--	--	44.5
270	4	0.30	--	47.7	--
277	0	2.13	--	52	--
305	4	0.00	--	47	--
331	4	0.00	--	47	--

Table 11. ***Statistical summary of reported data for standard reference sample T-165 (trace constituents) -- continued***



SUMMARY	Methods				Statistics	
	0	3	4	6		
n =	1	2	17	8		
Minimum =	16.3	15	9	14.4		
Maximum =		17.9	16.3	16.3		
Median =			15.3	15.1		
F-pseudosigma =			0.815	0.482		

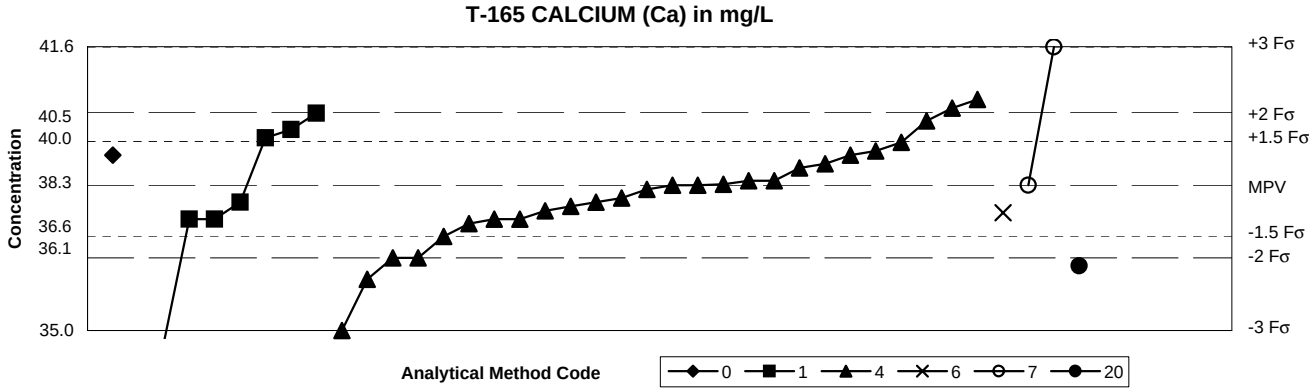
Method Codes

00	Other
03	Atomic absorption: graphite furnace
04	Inductively coupled plasma
06	Inductively coupled plasma/mass spectrometry

Statistics		
MPV =	**15.3**	**µg/L**
F-pseudosigma =	0.74	
Rating criterion =	0.76	
n =	28	
Uh =	15.8	
Lh =	14.9	

			Methods			
Lab	Rating	Z-value	0	3	4	6
1	3	0.59	--	--	--	15.7
5	2	1.25	--	--	16.2	--
16	4	-0.07	--	--	15.2	--
23	3	0.84	--	--	15.89	--
25	0	-8.20	--	--	9	--
26	2	1.38	16.3	--	--	--
42	4	-0.46	--	--	--	14.9
46	4	0.20	--	--	15.4	--
59	2	-1.11	--	--	--	14.4
70	4	0.33	--	--	--	15.5
89	0	3.48	--	17.9	--	--
105	4	-0.33	--	--	--	15
113	3	0.59	--	--	15.7	--
134	3	-0.59	--	--	14.8	--
138	2	-1.25	--	--	14.3	--
142	4	-0.20	--	--	--	15.1
149	4	-0.33	--	15	--	--
180	3	0.85	--	--	15.9	--
198	2	1.38	--	--	--	16.3
212	3	-0.72	--	--	14.7	--
220	3	0.55	--	--	15.67	--
234	3	0.72	--	--	15.8	--
246	4	0.07	--	--	15.3	--
247	0	-3.87	--	--	12.3	--
256	4	-0.07	--	--	15.2	--
265	4	-0.33	--	--	--	15
305	2	1.38	--	--	16.3	--
331	1	-1.64	--	--	14	--

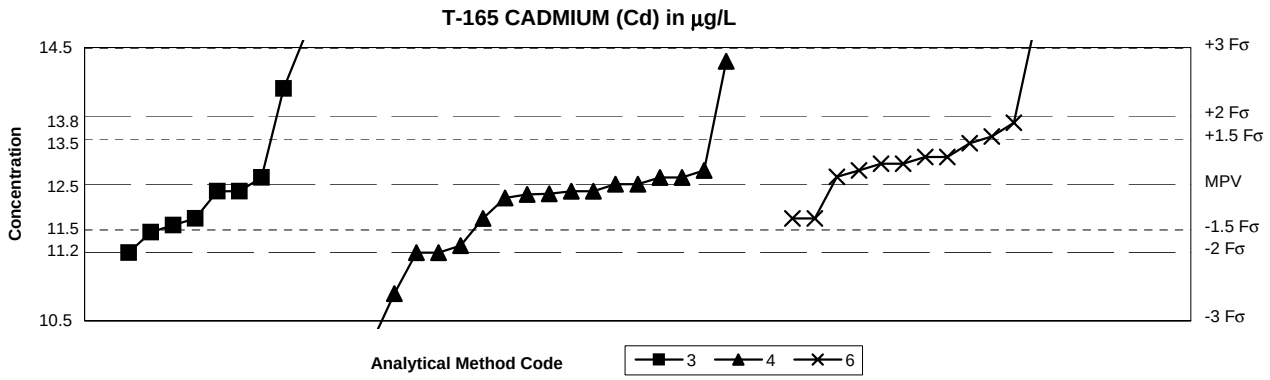
Table 11. ***Statistical summary of reported data for standard reference sample T-165 (trace constituents) -- continued***



SUMMARY	Methods							Statistics	
	0	1	4	6	7	20	Method Codes		
n =	1	8	26	1	2	1	00 Other	**MPV =**	**38.3 mg/L**
Minimum =	39.1	29	35	37.75	38.4	36.51	01 Atomic absorption: direct, air	F-pseudosigma =	1.11
Maximum =		40.08	40.4		41.63		04 Inductively coupled plasma	Rating criterion =	1.92
Median =		37.8	38.4				06 Inductively coupled plasma/mass spectrometry	n =	39
F-pseudosigma =		2.56	0.964				07 Ion chromatography	Uh =	39.1
							20 Titration: colorimetric	Lh =	37.6

			Methods					
Lab	Rating	Z-value	0	1	4	6	7	20
1	4	-0.37	--	--	37.6	--	--	--
4	3	0.73	--	39.7	--	--	--	--
5	2	-1.10	--	--	36.2	--	--	--
12	4	-0.37	--	--	37.6	--	--	--
16	1	-1.72	--	--	35	--	--	--
24	3	-0.84	--	--	36.7	--	--	--
25	3	-0.84	--	--	36.7	--	--	--
26	4	0.05	--	--	--	--	38.4	--
42	4	0.05	--	--	38.4	--	--	--
46	4	0.42	39.1	--	--	--	--	--
55	3	0.57	--	--	39.4	--	--	--
59	4	-0.37	--	37.6	--	--	--	--
64	4	-0.10	--	--	38.1	--	--	--
70	4	0.47	--	--	39.2	--	--	--
76	4	-0.29	--	--	--	37.75	--	--
89	4	-0.37	--	37.6	--	--	--	--
105	4	-0.21	--	--	37.9	--	--	--
113	4	-0.26	--	--	37.8	--	--	--
134	4	0.10	--	--	38.5	--	--	--
138	4	0.26	--	--	38.8	--	--	--
142	2	1.10	--	--	40.4	--	--	--
180	4	0.42	--	--	39.1	--	--	--
190	4	-0.16	--	38	--	--	--	--
212	4	0.05	--	--	38.4	--	--	--
220	4	0.06	--	--	38.42	--	--	--
227	4	0.31	--	--	38.9	--	--	--
234	4	0.00	--	--	38.3	--	--	--
246	4	-0.16	--	--	38	--	--	--
247	3	-0.57	--	--	37.2	--	--	--
255	3	0.99	--	--	40.2	--	--	--
265	4	0.10	--	--	38.5	--	--	--
268	3	0.93	--	40.08	--	--	--	--
270	1	1.74	--	--	--	--	41.63	--
274	3	-0.93	--	--	--	--	--	36.51
277	4	-0.42	--	--	37.5	--	--	--
279	3	0.63	--	39.5	--	--	--	--
305	3	0.84	--	--	39.9	--	--	--
324	1	-1.88	--	34.7	--	--	--	--
331	0	-4.86	--	29	--	--	--	--

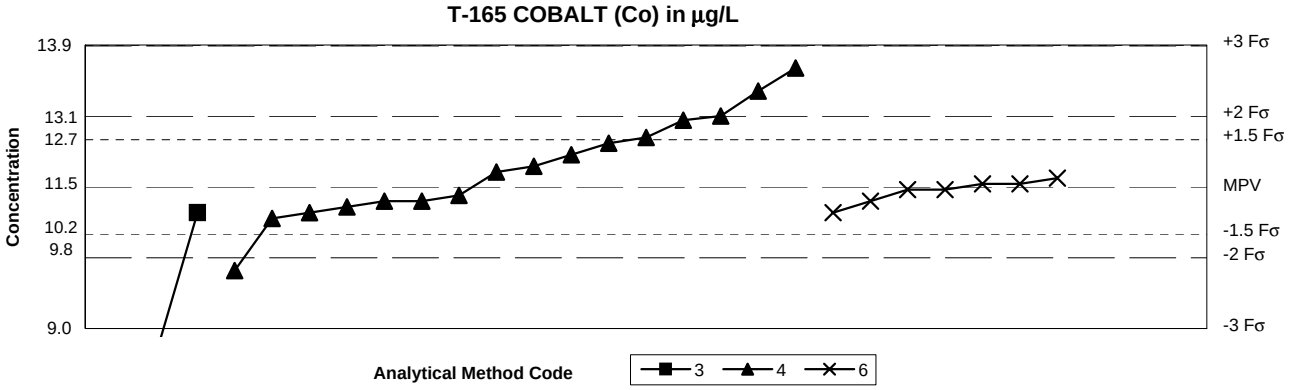
Table 11. ***Statistical summary of reported data for standard reference sample T-165 (trace constituents) -- continued***



SUMMARY	Methods					Statistics	
	1	3	4	6	Method Codes		
n =	1	10	18	12	01 Atomic absorption: direct, air	**MPV =**	**12.5 µg/L**
Minimum =	45	11.5	10	12	03 Atomic absorption: graphite furnace	F-pseudosigma =	0.67
Maximum =		16	14.3	14.9	04 Inductively coupled plasma	n =	41
Median =		12.4	12.4	12.9	06 Inductively coupled plasma/mass spectrometry	Uh =	12.9
F-pseudosigma =		1.48	0.741	0.367		Lh =	12.0

			Methods			
Lab	Rating	Z-value	1	3	4	6
1	4	0.45	--	--	--	12.8
5	3	-0.75	--	12	--	--
10	4	-0.15	--	12.4	--	--
12	4	0.15	--	12.6	--	--
16	4	0.00	--	--	12.5	--
23	4	-0.21	--	--	12.36	--
24	4	0.15	--	--	12.6	--
25	NR	--	--	--	<7	--
26	4	-0.15	--	12.4	--	--
42	3	-0.75	--	--	--	12
46	3	-0.90	--	11.9	--	--
55	2	-1.35	--	--	11.6	--
59	2	1.05	--	--	--	13.2
70	3	0.60	--	--	--	12.9
76	4	0.16	--	--	--	12.61
89	0	3.30	--	14.7	--	--
93	0	-2.40	--	--	10.9	--
105	4	0.30	--	--	--	12.7
113	4	0.00	--	--	12.5	--
134	4	-0.22	--	--	12.35	--
138	4	0.30	--	--	12.7	--
142	3	0.90	--	--	--	13.1
144	2	-1.05	--	11.8	--	--
147	4	0.45	--	--	--	12.8
149	0	5.25	--	16	--	--
180	2	-1.50	--	--	11.5	--
190	0	2.10	--	13.9	--	--
198	0	3.60	--	--	--	14.9
212	4	-0.30	--	--	12.3	--
220	0	2.70	--	--	14.3	--
227	4	0.15	--	--	12.6	--
234	4	-0.15	--	--	12.4	--
246	0	-3.75	--	--	10	--
247	NR	--	--	--	<10.2	--
255	3	0.60	--	--	--	12.9
256	2	-1.50	--	--	11.5	--
265	3	-0.75	--	--	--	12
277	0	-3.45	--	--	10.2	--
304	2	1.35	--	--	--	13.4
305	4	-0.15	--	--	12.4	--
307	2	-1.50	--	11.5	--	--
331	3	-0.75	--	--	12	--
336	0	48.71	45	--	--	--

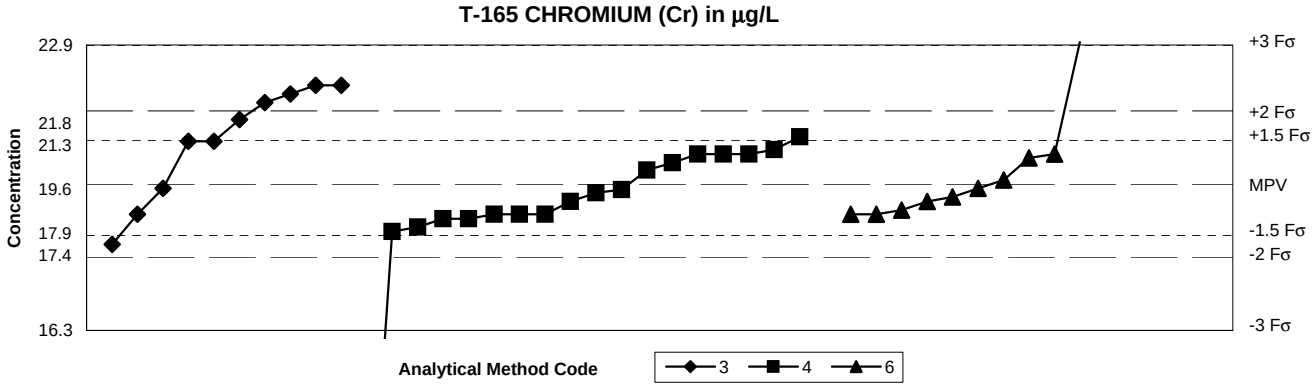
Table 11. ***Statistical summary of reported data for standard reference sample T-165 (trace constituents) -- continued***



SUMMARY	Methods					Statistics	
	1	3	4	6	Method Codes		
n =	1	2	16	7	01 Atomic absorption: direct, air	**MPV =**	**11.5 µg/L**
Minimum =	283	8.8	10	11	03 Atomic absorption: graphite furnace	F-pseudosigma =	0.82
Maximum =		11	13.5	11.6	04 Inductively coupled plasma	n =	26
Median =			11.8	11.4	06 Inductively coupled plasma/mass spectrometry	Uh =	12.2
F-pseudosigma =			0.964	0.148		Lh =	11.1

			Methods			
Lab	Rating	Z-value	1	3	4	6
1	4	0.18	--	--	--	11.6
5	0	2.02	--	--	13.1	--
16	4	-0.18	--	--	11.3	--
24	4	-0.43	--	--	11.1	--
25	1	-1.78	--	--	10	--
42	4	-0.06	--	--	--	11.4
55	0	-3.25	--	8.8	--	--
59	4	-0.31	--	--	--	11.2
70	4	0.06	--	--	--	11.5
89	3	-0.55	--	11	--	--
105	NR	--	--	--	--	< 50.0
134	4	-0.31	--	--	11.2	--
138	2	1.41	--	--	12.6	--
142	4	-0.06	--	--	--	11.4
180	3	-0.67	--	--	10.9	--
198	4	0.06	--	--	--	11.5
212	3	0.92	--	--	12.2	--
234	4	0.43	--	--	11.8	--
246	3	0.67	--	--	12	--
247	0	2.51	--	--	13.5	--
256	4	-0.31	--	--	11.2	--
265	3	-0.55	--	--	--	11
270	2	1.50	--	--	12.67	--
277	4	0.31	--	--	11.7	--
305	2	1.04	--	--	12.3	--
331	3	-0.55	--	--	11	--
336	0	333.02	283	--	--	--

Table 11. ***Statistical summary of reported data for standard reference sample T-165 (trace constituents) -- continued***



SUMMARY	3	4	6
n =	10	18	10
Minimum =	18.3	10	19
Maximum =	22	20.8	23
Median =	21.0	19.4	19.5
F-pseudosigma =	1.63	1.11	0.897

Methods

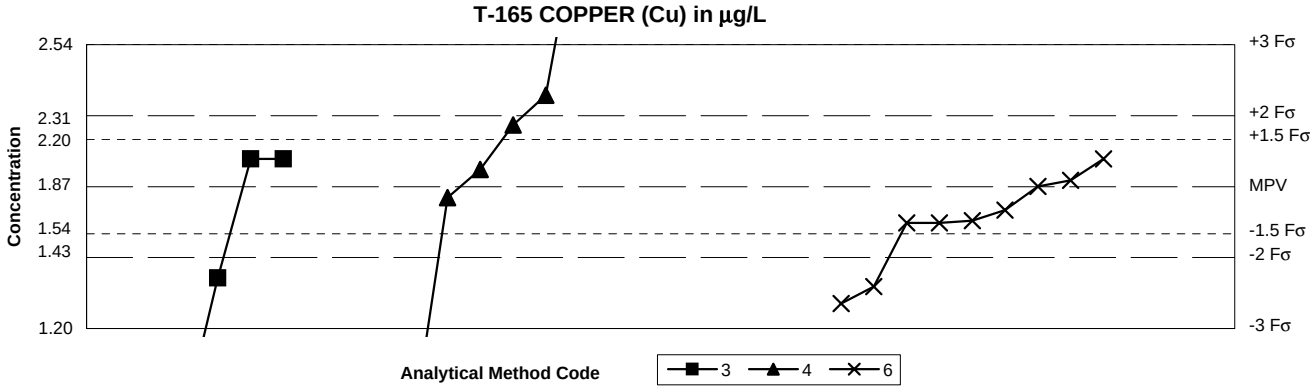
Method Codes	
03	Atomic absorption: graphite furnace
04	Inductively coupled plasma
06	Inductively coupled plasma/mass spectrometry

Statistics

MPV =	**19.6**	**µg/L**
F-pseudosigma =	1.11	
n =	38	
Uh =	20.5	
Lh =	19.0	

			Methods		
Lab	Rating	Z-value	3	4	6
1	3	0.99	20.7	--	--
5	3	0.72	--	20.4	--
10	2	1.44	21.2	--	--
16	4	-0.27	--	19.3	--
23	4	0.39	--	20.03	--
25	0	-8.63	--	10	--
26	2	-1.17	18.3	--	--
42	3	-0.54	--	--	19
46	0	2.16	22	--	--
55	3	-0.54	19	--	--
59	4	-0.27	--	--	19.3
70	4	0.00	--	--	19.6
76	3	0.64	--	--	20.31
89	1	1.98	21.8	--	--
93	4	-0.09	--	19.5	--
105	4	0.18	--	--	19.8
113	3	0.54	--	20.2	--
134	3	-0.54	--	19	--
138	3	-0.63	--	18.9	--
142	4	-0.18	--	--	19.4
144	3	0.99	20.7	--	--
149	0	2.16	22	--	--
180	3	0.72	--	20.4	--
190	4	0.00	19.6	--	--
198	4	-0.45	--	--	19.1
212	3	-0.81	--	18.7	--
220	3	0.81	--	20.5	--
234	3	0.72	--	20.4	--
246	3	-0.54	--	19	--
247	NR	--	--	<10.2	--
255	3	0.72	--	--	20.4
256	3	-0.90	--	18.6	--
265	3	-0.54	--	--	19
270	4	-0.03	--	19.57	--
277	3	-0.63	--	18.9	--
304	0	3.06	--	--	23
305	2	1.08	--	20.8	--
307	1	1.80	21.6	--	--
331	3	-0.54	--	19	--

Table 11. ***Statistical summary of reported data for standard reference sample T-165 (trace constituents) -- continued***



SUMMARY	Methods				Statistics
	1	3	4	6	
n =	1	4	7	9	
Minimum =	89	0.8	0.79	1.32	
Maximum =		2	3.78	2	
Median =			2.16	1.71	
F-pseudosigma =			0.620	0.126	

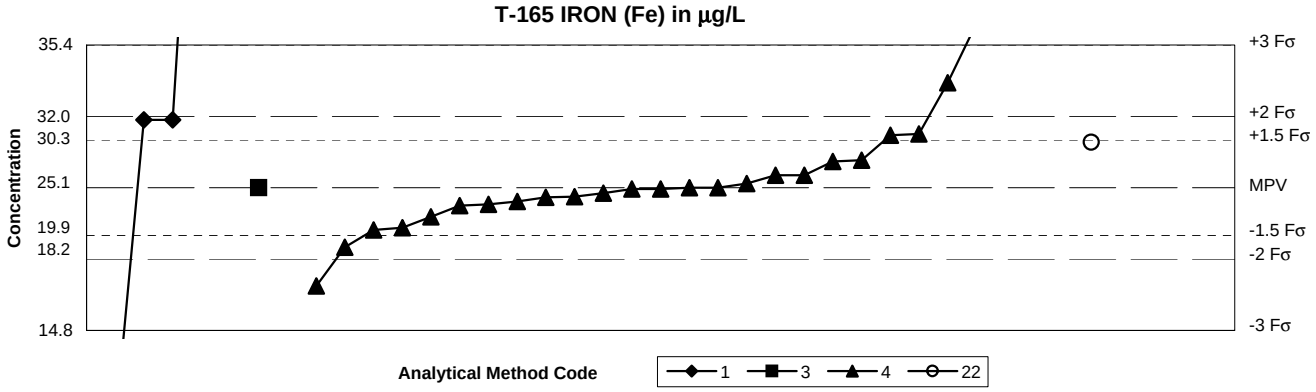
Method Codes

01 Atomic absorption: direct, air
03 Atomic absorption: graphite furnace
04 Inductively coupled plasma
06 Inductively coupled plasma/mass spectrometry

MPV = 1.87 µg/L
F-pseudosigma = 0.222
n = 21
Uh = 2.00
Lh = 1.70

			Methods			
Lab	Rating	Z-value	1	3	4	6
1	4	0.13	--	--	--	1.9
4	NR	--	<10	--	--	--
5	NR	--	--	--	<4.00	--
10	0	-4.81	--	0.8	--	--
12	3	0.58	--	2	--	--
16	4	0.36	--	--	1.95	--
23	NR	--	--	--	<5.00	--
25	NR	--	--	--	<3	--
42	NR	--	--	--	--	<2
59	NR	--	--	--	--	<5
89	NR	--	--	< 10	--	--
93	NR	--	--	--	<10	--
105	NR	--	--	--	--	< 10.0
113	4	-0.23	--	--	1.818	--
134	3	-0.76	--	--	--	1.7
138	4	-0.49	--	--	--	1.76
142	0	-2.47	--	--	--	1.32
147	3	-0.76	--	--	--	1.7
180	0	5.71	--	--	3.14	--
198	3	-0.72	--	--	--	1.71
212	1	1.93	--	--	2.3	--
220	0	8.59	--	--	3.78	--
227	2	1.30	--	--	2.16	--
234	1	-1.93	--	1.44	--	--
246	NR	--	--	--	<3	--
247	NR	--	--	--	<10.2	--
255	3	0.58	--	--	--	2
256	NR	--	--	<5	--	--
265	0	-2.11	--	--	--	1.4
270	0	-4.86	--	--	0.79	--
304	4	0.00	--	--	--	1.87
305	3	0.58	--	2	--	--
307	NR	--	--	<1.35	--	--
336	0	391.79	89	--	--	--

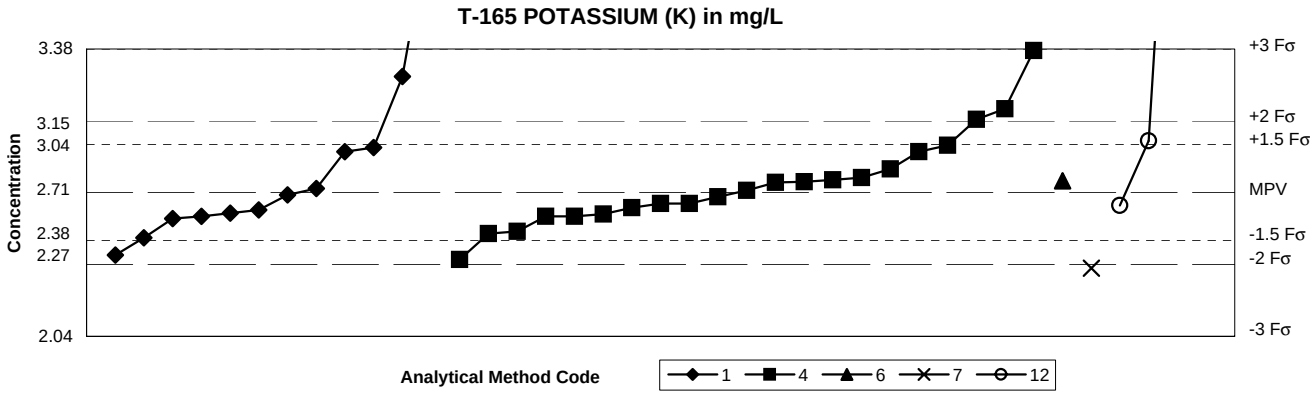
Table 11. ***Statistical summary of reported data for standard reference sample T-165 (trace constituents) -- continued***



SUMMARY	Methods					Statistics
	1	3	4	6	22	Method Codes
n =	5	1	24	0	1	01 Atomic absorption: direct, air
Minimum =	8	25.1	18	0	28.38	03 Atomic absorption: graphite furnace
Maximum =	140		37			04 Inductively coupled plasma
Median =	30.0		25.0			06 Inductively coupled plasma/mass spectrometry
F-pseudosigma =	24.4		1.96			22 Colorimetric

			Methods				
Lab	Rating	Z-value	1	3	4	6	22
1	4	-0.29	--	--	24.1	--	--
4	0	33.41	140	--	--	--	--
5	4	0.09	--	--	25.4	--	--
10	2	1.42	30	--	--	--	--
16	3	0.58	--	--	27.1	--	--
23	4	-0.19	--	--	24.45	--	--
25	NR	--	--	--	<4	--	--
31	3	0.95	--	--	--	--	28.38
42	2	1.10	--	--	28.9	--	--
59	NR	--	--	--	--	<50	--
70	0	-2.06	--	--	18	--	--
89	NR	--	--	< 50	--	--	--
93	4	-0.38	--	--	23.8	--	--
105	3	0.55	--	--	27	--	--
113	4	-0.12	--	--	24.7	--	--
134	4	-0.20	--	--	24.4	--	--
138	4	-0.35	--	--	23.9	--	--
142	4	0.26	--	--	26	--	--
147	4	0.00	--	--	25.1	--	--
149	2	1.42	30	--	--	--	--
180	0	2.21	--	--	32.7	--	--
190	4	0.00	--	25.1	--	--	--
212	3	-0.84	--	--	22.2	--	--
234	4	0.00	--	--	25.1	--	--
246	4	0.26	--	--	26	--	--
247	NR	--	--	--	<51	--	--
255	4	-0.03	--	--	25	--	--
256	3	-0.89	--	--	22.05	--	--
265	3	-0.61	--	--	23	--	--
270	2	1.13	--	--	28.98	--	--
277	2	-1.25	--	--	20.8	--	--
305	4	-0.03	--	--	25	--	--
307	0	-4.97	8	--	--	--	--
324	0	10.99	62.9	--	--	--	--
331	0	3.46	--	--	37	--	--

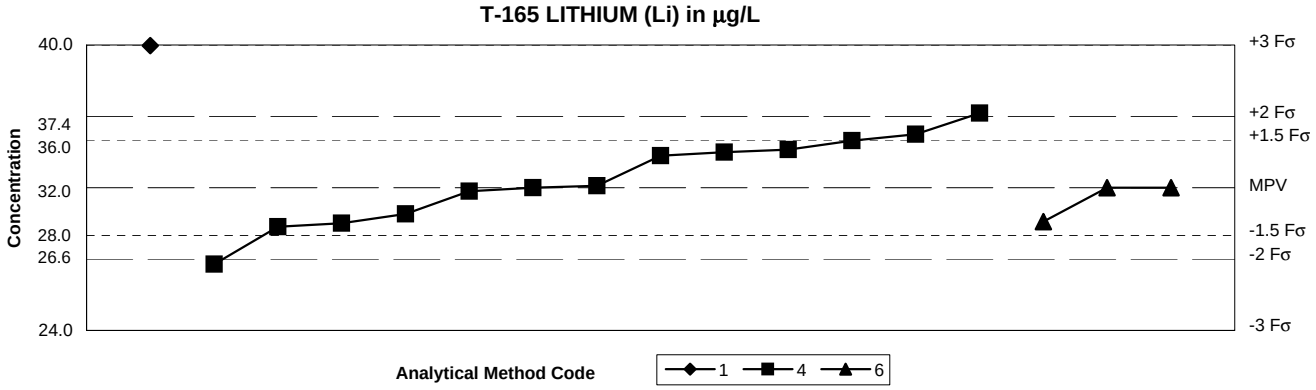
Table 11. ***Statistical summary of reported data for standard reference sample T-165 (trace constituents) -- continued***



SUMMARY	Methods					Statistics
	1	4	6	7	12	Method Codes
n =	12	21	1	1	3	01 Atomic absorption: direct, air
Minimum =	2.42	2.4	2.765	2.36	2.65	04 Inductively coupled plasma
Maximum =	3.99	3.37			5.1	06 Inductively coupled plasma/mass spectrometry
Median =	2.67	2.72				07 Ion chromatography
F-pseudosigma =	0.234	0.156				12 Flame emission

					Methods			
Lab	Rating	Z-value	1	4	6	7	12	
1	4	0.09	2.73	--	--	--	--	
4	0	5.76	3.99	--	--	--	--	
5	2	-1.39	--	2.4	--	--	--	
12	1	1.75	--	3.1	--	--	--	
16	4	0.49	--	2.82	--	--	--	
23	3	-0.94	2.5	--	--	--	--	
24	4	-0.45	--	2.61	--	--	--	
25	4	0.22	--	2.76	--	--	--	
26	1	-1.57	--	--	--	2.36	--	
42	3	-0.81	--	2.53	--	--	--	
46	3	-0.85	--	2.52	--	--	--	
55	4	-0.49	2.6	--	--	--	--	
59	4	-0.04	2.7	--	--	--	--	
64	4	-0.36	2.63	--	--	--	--	
70	4	-0.09	--	2.69	--	--	--	
76	4	0.25	--	--	2.765	--	--	
89	3	-0.54	2.59	--	--	--	--	
105	4	0.31	--	2.78	--	--	--	
113	4	0.22	--	2.758	--	--	--	
134	4	-0.43	2.615	--	--	--	--	
138	4	-0.22	--	2.66	--	--	--	
142	4	0.27	--	2.77	--	--	--	
180	3	0.99	--	2.93	--	--	--	
190	3	0.85	2.9	--	--	--	--	
212	1	1.53	--	3.05	--	--	--	
220	4	-0.22	--	2.66	--	--	--	
234	4	0.04	--	2.72	--	--	--	
246	3	0.85	--	2.9	--	--	--	
247	4	-0.31	--	2.64	--	--	--	
265	4	-0.49	--	2.6	--	--	--	
268	0	2.43	3.25	--	--	--	--	
270	2	1.08	--	--	--	--	2.95	
274	0	10.75	--	--	--	--	5.1	
277	4	-0.49	--	2.6	--	--	--	
279	3	0.94	2.92	--	--	--	--	
305	0	2.97	--	3.37	--	--	--	
331	2	-1.30	2.42	--	--	--	--	
336	4	-0.27	--	--	--	--	2.65	

Table 11. ***Statistical summary of reported data for standard reference sample T-165 (trace constituents) -- continued***



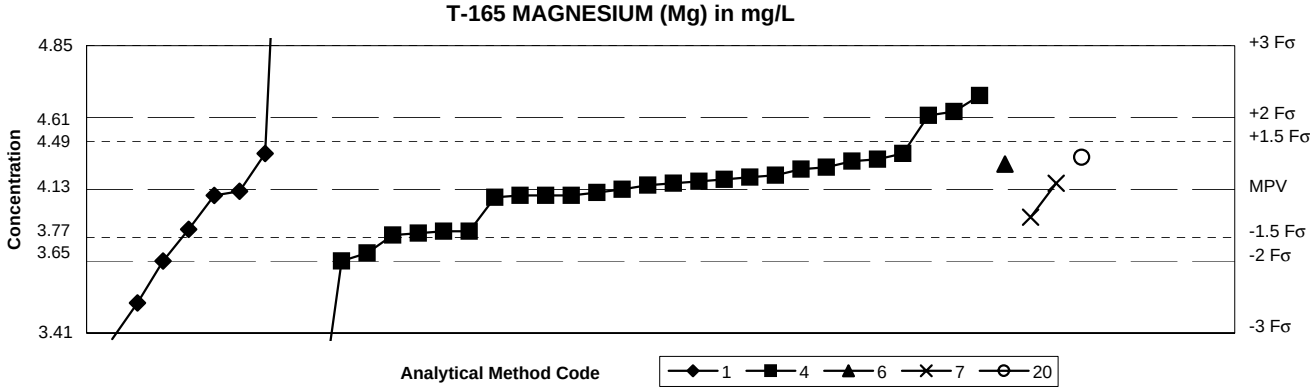
SUMMARY	Methods				Statistics
	1	4	6	7	
n =	1	13	3	0	
Minimum =	40	27.7	30.1	0	
Maximum =		36.2	32		
Median =		32.1			
F-pseudosigma =		2.68			

Method Codes	
01	Atomic absorption: direct, air
04	Inductively coupled plasma
06	Inductively coupled plasma/mass spectrometry
07	Ion chromatography

Statistics		
MPV =	**32.0**	**µg/L**
F-pseudosigma =	2.68	
n =	17	
Uh =	34.1	
Lh =	30.5	

			Methods			
Lab	Rating	Z-value	1	4	6	7
1	4	0.00	--	--	32	--
4	0	2.99	40	--	--	--
5	4	0.04	--	32.1	--	--
25	3	-0.75	--	30	--	--
26	NR	--	--	--	--	<4
42	3	-0.82	--	29.8	--	--
59	3	-0.71	--	--	30.1	--
105	3	0.75	--	34	--	--
134	3	0.99	--	34.65	--	--
142	2	1.12	--	35	--	--
212	3	0.67	--	33.8	--	--
220	3	0.80	--	34.14	--	--
234	4	-0.07	--	31.8	--	--
246	4	0.00	--	32	--	--
247	1	-1.61	--	27.7	--	--
256	1	1.57	--	36.2	--	--
265	4	0.00	--	--	32	--
270	3	-0.55	--	30.53	--	--

Table 11. ***Statistical summary of reported data for standard reference sample T-165 (trace constituents) -- continued***

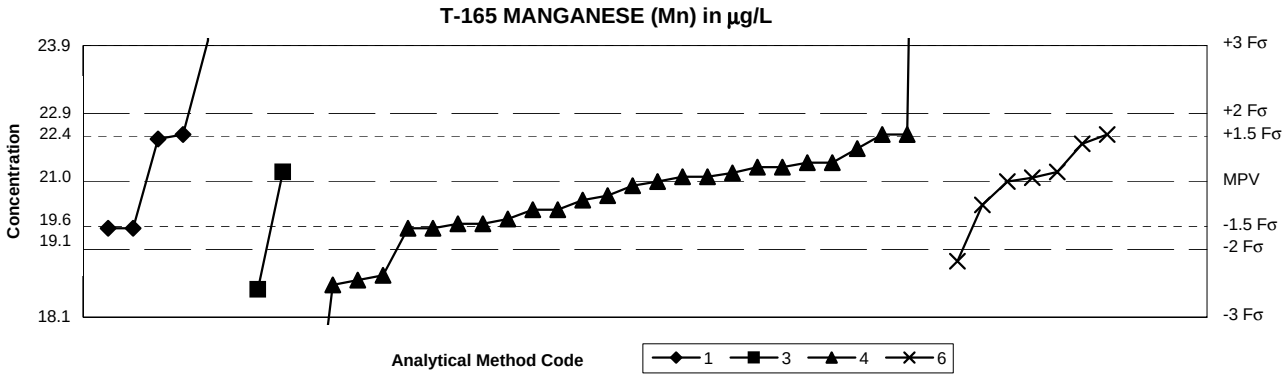


SUMMARY	Methods					Statistics
	1	4	6	7	20	Method Codes
n =	8	27	1	2	1	01 Atomic absorption: direct, air
Minimum =	3.38	2.86	4.257	3.99	4.29	04 Inductively coupled plasma
Maximum =	7.02	4.6		4.16		06 Inductively coupled plasma/mass spectrometry
Median =	4.02	4.15				07 Ion chromatography
F-pseudosigma =	0.408	0.170				20 Titration: colorimetric

					Methods			
Lab	Rating	Z-value	1	4	6	7	20	
1	4	0.08	--	4.15	--	--	--	
4	0	12.05	7.02	--	--	--	--	
5	2	-1.50	--	3.77	--	--	--	
12	1	1.54	--	4.5	--	--	--	
16	3	-0.92	--	3.91	--	--	--	
23	4	-0.04	4.12	--	--	--	--	
24	3	-0.88	--	3.92	--	--	--	
25	0	-5.30	--	2.86	--	--	--	
26	3	-0.58	--	--	--	3.99	--	
42	2	-1.33	--	3.81	--	--	--	
46	4	0.13	--	4.16	--	--	--	
55	1	1.63	--	4.52	--	--	--	
59	3	-0.83	3.93	--	--	--	--	
64	3	-0.96	--	3.9	--	--	--	
70	4	0.46	--	4.24	--	--	--	
76	3	0.53	--	--	4.257	--	--	
89	0	-2.38	3.56	--	--	--	--	
105	4	0.25	--	4.19	--	--	--	
113	4	-0.07	--	4.113	--	--	--	
134	3	-0.88	--	3.92	--	--	--	
138	4	0.00	--	4.13	--	--	--	
142	4	0.17	--	4.17	--	--	--	
180	3	0.58	--	4.27	--	--	--	
190	4	-0.13	4.1	--	--	--	--	
212	4	0.29	--	4.2	--	--	--	
220	4	0.21	--	4.18	--	--	--	
227	4	-0.13	--	4.1	--	--	--	
234	3	0.63	--	4.28	--	--	--	
246	4	-0.13	--	4.1	--	--	--	
247	4	0.42	--	4.23	--	--	--	
255	4	-0.17	--	4.09	--	--	--	
265	4	-0.13	--	4.1	--	--	--	
268	3	0.75	4.31	--	--	--	--	
270	4	0.13	--	--	--	4.16	--	
274	3	0.67	--	--	--	--	4.29	
277	1	1.96	--	4.6	--	--	--	
279	2	-1.50	3.77	--	--	--	--	
305	3	0.75	--	4.31	--	--	--	
331	0	-3.13	3.38	--	--	--	--	

Statistics		
MPV =	**4.13**	**mg/L**
F-pseudosigma =	0.240	
n =	39	
Uh =	4.25	
Lh =	3.93	

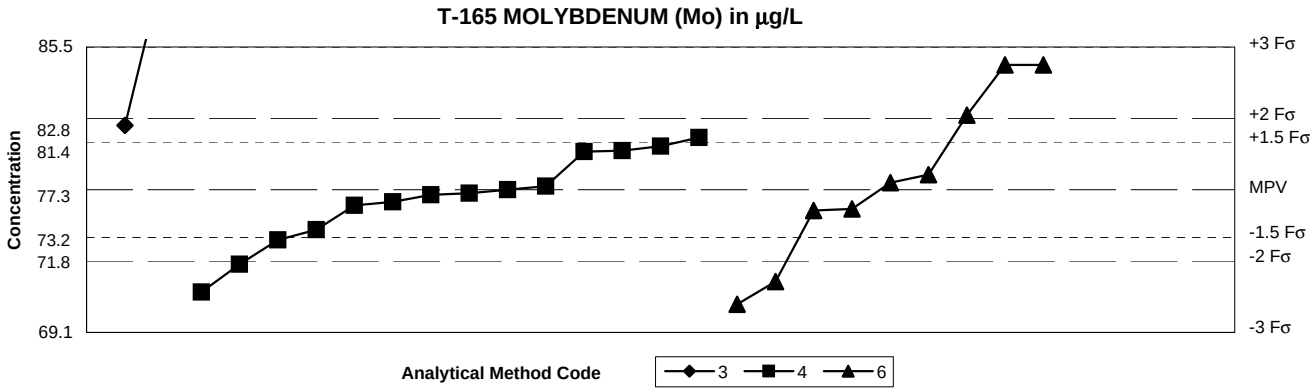
Table 11. ***Statistical summary of reported data for standard reference sample T-165 (trace constituents) -- continued***



SUMMARY	Methods					Statistics	
	1	3	4	6	Method Codes		
n =	6	2	26	7	01 Atomic absorption: direct, air	**MPV =**	**21.0 µg/L**
Minimum =	20	18.7	14.4	19.3	03 Atomic absorption: graphite furnace	F-pseudosigma =	0.96
Maximum =	101	21.2	54.69	22	04 Inductively coupled plasma	Rating criterion =	1.05
Median =	22.0		20.8	21.1	06 Inductively coupled plasma/mass spectrometry	n =	41
F-pseudosigma =	2.97		0.890	0.556		Uh =	21.4
						Lh =	20.1

			Methods			
Lab	Rating	Z-value	1	3	4	6
1	3	-0.76	--	--	20.2	--
4	3	-0.95	20	--	--	--
5	4	-0.29	--	--	20.7	--
10	0	2.86	24	--	--	--
16	3	-0.86	--	--	20.1	--
23	4	-0.09	--	--	20.91	--
24	3	-0.57	--	--	20.4	--
25	1	-1.90	--	--	19	--
42	3	-0.57	--	--	20.4	--
46	4	0.10	--	--	21.1	--
55	4	0.38	--	--	21.4	--
59	4	0.00	--	--	--	21
70	4	-0.48	--	--	--	20.5
76	4	0.08	--	--	--	21.08
89	4	0.19	--	21.2	--	--
93	1	-2.00	--	--	18.9	--
105	3	0.95	--	--	--	22
113	4	0.29	--	--	21.3	--
134	4	0.38	--	--	21.4	--
138	4	0.00	--	--	21	--
142	3	0.95	--	--	22	--
147	4	0.19	--	--	--	21.2
149	3	-0.95	20	--	--	--
180	4	0.29	--	--	21.3	--
190	0	-2.19	--	18.7	--	--
198	1	-1.62	--	--	--	19.3
212	4	0.10	--	--	21.1	--
220	4	0.17	--	--	21.18	--
234	3	0.67	--	--	21.7	--
246	3	-0.86	--	--	20.1	--
247	0	-6.29	--	--	14.4	--
255	3	0.76	--	--	--	21.8
256	4	-0.38	--	--	20.6	--
265	3	-0.95	--	--	20	--
270	0	32.09	--	--	54.69	--
277	0	-2.10	--	--	18.8	--
305	3	0.95	--	--	22	--
307	3	0.95	22	--	--	--
324	3	0.86	21.9	--	--	--
331	3	-0.95	--	--	20	--
336	0	76.19	101	--	--	--

Table 11. ***Statistical summary of reported data for standard reference sample T-165 (trace constituents) -- continued***



SUMMARY	Methods			Statistics
	3	4	6	
n =	2	14	9	
Minimum =	81	71.4	70.7	
Maximum =	90	80.31	84.5	
Median =		77.1	77.7	
F-pseudosigma =		3.34	4.08	

Method Codes

03 Atomic absorption: graphite furnace

04 Inductively coupled plasma

06 Inductively coupled plasma/mass spectrometry

MPV = 77.3 µg/L

F-pseudosigma = 2.74

Rating criterion = 3.87

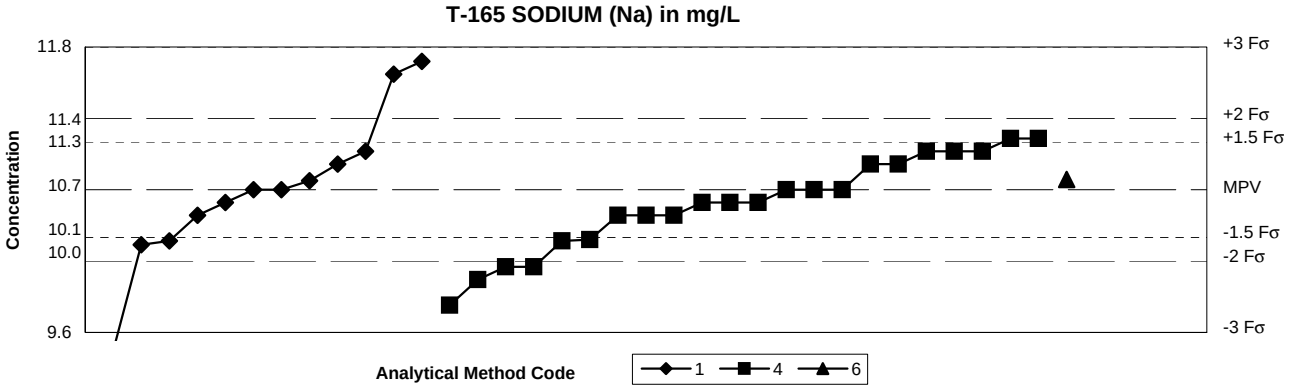
n = 25

Uh = 79.8

Lh = 76.1

			Methods		
Lab	Rating	Z-value	3	4	6
1	4	0.10	--	--	77.7
5	3	0.65	--	79.8	--
12	3	0.96	81	--	--
16	4	-0.23	--	76.4	--
23	3	0.58	--	79.55	--
24	4	0.00	--	77.3	--
42	4	-0.31	--	--	76.1
55	3	0.57	--	79.5	--
59	1	-1.71	--	--	70.7
70	1	1.86	--	--	84.5
76	4	0.23	--	--	78.17
105	2	1.11	--	--	81.6
134	3	-0.60	--	75	--
138	4	0.05	--	77.5	--
142	4	-0.28	--	--	76.2
149	0	3.29	90	--	--
180	4	-0.05	--	77.1	--
198	1	1.86	--	--	84.5
212	1	-1.53	--	71.4	--
220	3	0.78	--	80.31	--
234	3	-0.75	--	74.4	--
246	4	-0.08	--	77	--
247	NR	--	--	--	<1
265	2	-1.37	--	--	72
305	4	-0.18	--	76.6	--
331	2	-1.11	--	73	--

Table 11. ***Statistical summary of reported data for standard reference sample T-165 (trace constituents) -- continued***

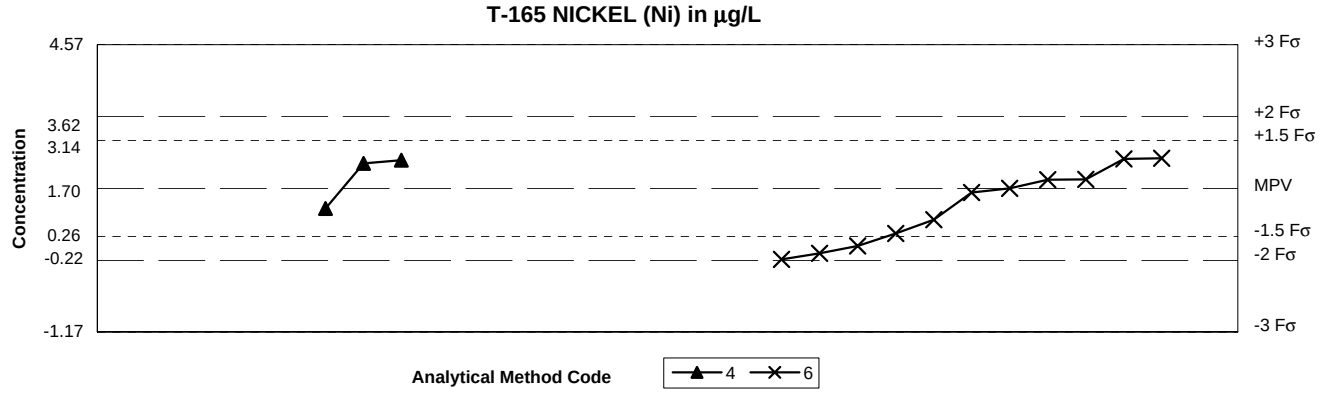


SUMMARY	Methods					Statistics
	1	4	6	7	12	Method Codes
n =	12	22	1	1	3	01 Atomic absorption: direct, air
Minimum =	9.45	9.8	10.78	12.6	12.3	04 Inductively coupled plasma
Maximum =	11.7	11.1			16.67	06 Inductively coupled plasma/mass spectrometry
Median =	10.7	10.6				07 Ion chromatography
F-pseudosigma =	0.408	0.437				12 Flame emission

Statistics	
MPV =	**10.7 mg/L**
F-pseudosigma =	0.37
Rating criterion =	0.54
n =	39
Uh =	11.0
Lh =	10.5

			Methods				
Lab	Rating	Z-value	1	4	6	7	12
1	2	-1.31	--	10	--	--	--
4	1	1.87	11.7	--	--	--	--
5	4	-0.19	--	10.6	--	--	--
12	3	0.56	--	11	--	--	--
16	4	-0.19	--	10.6	--	--	--
23	4	0.37	10.9	--	--	--	--
24	2	-1.12	--	10.1	--	--	--
25	4	-0.37	--	10.5	--	--	--
26	0	3.55	--	--	--	12.6	--
42	2	-1.12	--	10.1	--	--	--
46	3	0.75	--	11.1	--	--	--
55	3	0.56	11	--	--	--	--
59	4	0.00	10.7	--	--	--	--
64	4	0.00	10.7	--	--	--	--
70	3	0.75	--	11.1	--	--	--
76	4	0.15	--	--	10.78	--	--
89	3	-0.75	10.3	--	--	--	--
105	4	0.00	--	10.7	--	--	--
113	4	-0.19	--	10.6	--	--	--
134	4	0.13	10.77	--	--	--	--
138	4	0.00	--	10.7	--	--	--
142	3	0.56	--	11	--	--	--
180	4	0.37	--	10.9	--	--	--
190	4	-0.37	10.5	--	--	--	--
212	3	-0.75	--	10.3	--	--	--
220	3	-0.73	--	10.31	--	--	--
234	4	0.37	--	10.9	--	--	--
246	3	0.56	--	11	--	--	--
247	4	0.00	--	10.7	--	--	--
265	4	-0.37	--	10.5	--	--	--
268	1	1.68	11.6	--	--	--	--
270	0	10.28	--	--	--	--	16.2
274	0	11.16	--	--	--	--	16.67
277	1	-1.68	--	9.8	--	--	--
279	3	-0.80	10.27	--	--	--	--
305	4	-0.37	--	10.5	--	--	--
307	4	-0.19	10.6	--	--	--	--
331	0	-2.34	9.45	--	--	--	--
336	0	2.99	--	--	--	--	12.3

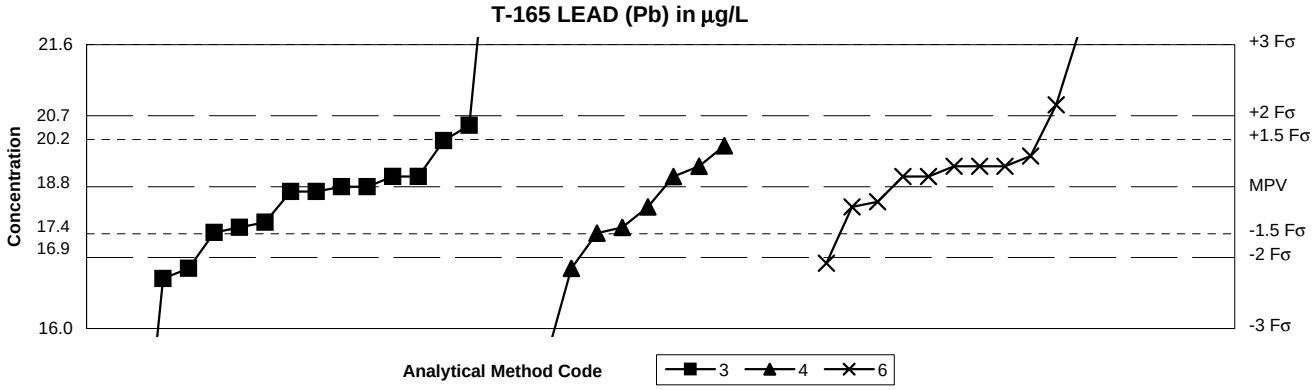
Table 11. ***Statistical summary of reported data for standard reference sample T-165 (trace constituents) -- continued***



SUMMARY	Methods					Statistics	
	1	3	4	6	Method Codes		
n =	1	0	3	11	01 Atomic absorption: direct, air	**MPV =**	**1.70 µg/L**
Minimum =	192	0	1.3	0.28	03 Atomic absorption: graphite furnace	F-pseudosigma =	0.958
Maximum =			2.26	2.3	04 Inductively coupled plasma	n =	15
Median =				1.62	06 Inductively coupled plasma/mass spectrometry	Uh =	2.23
F-pseudosigma =				0.890		Lh =	0.938

			Methods			
Lab	Rating	Z-value	1	3	4	6
1	2	-1.20	--	--	--	0.55
5	NR	--	--	--	<10.0	--
16	4	-0.42	--	--	1.3	--
23	NR	--	--	--	<5.00	--
25	NR	--	--	--	<21	--
26	NR	--	--	<6	--	--
42	4	0.18	--	--	--	1.87
59	NR	--	--	--	--	<5
76	3	-0.65	--	--	--	1.076
89	NR	--	--	< 10	--	--
93	NR	--	--	--	<2.0	--
105	NR	--	--	--	--	< 50.0
134	2	-1.48	--	--	--	0.28
138	4	0.19	--	--	--	1.88
142	4	-0.08	--	--	--	1.62
180	NR	--	--	--	<18.0	--
198	3	0.62	--	--	--	2.29
212	NR	--	--	--	<40	--
234	NR	--	--	<1.00	--	--
246	NR	--	--	--	<2	--
247	NR	--	--	--	<51	--
255	3	0.63	--	--	--	2.3
256	NR	--	--	--	<1.0	--
265	2	-1.36	--	--	--	0.4
270	3	0.58	--	--	2.26	--
277	3	0.52	--	--	2.2	--
304	3	-0.94	--	--	--	0.8
305	4	0.00	--	--	--	1.7
307	NR	--	--	<1.88	--	--
336	0	198.70	192	--	--	--

Table 11. ***Statistical summary of reported data for standard reference sample T-165 (trace constituents) -- continued***



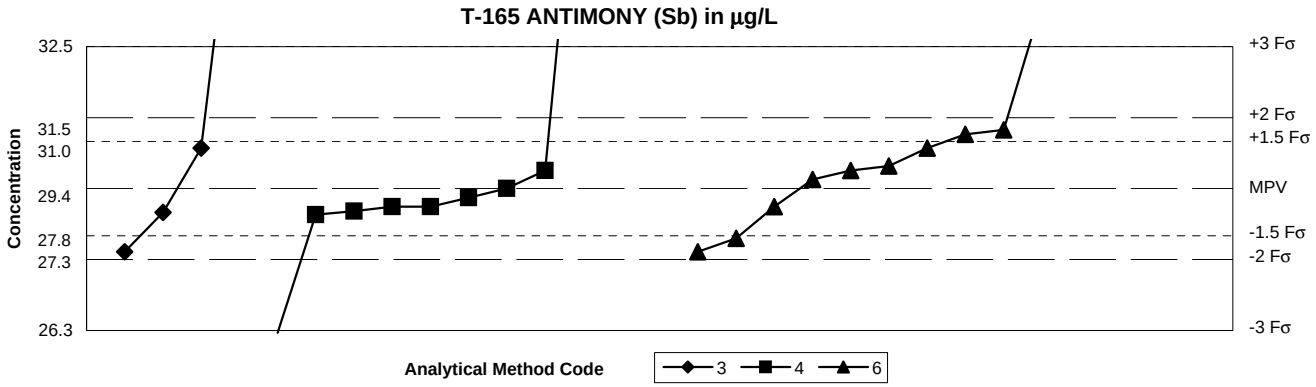
SUMMARY	Methods				Statistics	
	1	3	4	6		
n =	1	15	9	11	**MPV =**	**18.8 µg/L**
Minimum =	74	12	15	17.3	F-pseudosigma =	0.93
Maximum =		25.1	19.6	22	Rating criterion =	0.94
Median =		18.7	18.0	19.2	n =	36
F-pseudosigma =		0.778	1.33	0.408	Uh =	19.2
					Lh =	18.0

Method Codes

01 Atomic absorption: direct, air
03 Atomic absorption: graphite furnace
04 Inductively coupled plasma
06 Inductively coupled plasma/mass spectrometry

			Methods			
Lab	Rating	Z-value	1	3	4	6
1	4	0.43	--	--	--	19.2
5	4	0.00	--	18.8	--	--
10	1	-1.91	--	17	--	--
12	2	1.28	--	20	--	--
16	3	0.85	--	--	19.6	--
23	3	-0.97	--	--	17.89	--
25	NR	--	--	--	<52	--
26	3	-0.74	--	18.1	--	--
42	4	-0.32	--	--	--	18.5
46	3	-0.85	--	18	--	--
55	0	6.70	--	25.1	--	--
70	0	3.40	--	--	--	22
89	1	-1.70	--	17.2	--	--
93	1	-1.70	--	--	17.2	--
105	1	1.70	--	--	--	20.4
113	4	0.00	--	18.8	--	--
134	3	-0.85	--	--	18	--
138	4	0.43	--	--	--	19.2
142	4	-0.43	--	--	--	18.4
144	4	0.21	--	19	--	--
147	4	0.43	--	--	--	19.2
149	4	0.21	--	19	--	--
180	NR	--	--	--	<29.9	--
190	3	-0.96	--	17.9	--	--
198	1	-1.60	--	--	--	17.3
212	0	-3.62	--	--	15.4	--
220	4	-0.11	--	18.7	--	--
227	4	0.43	--	--	19.2	--
234	3	0.96	--	19.7	--	--
246	0	-4.04	--	--	15	--
247	NR	--	--	--	<40	--
255	3	0.64	--	--	--	19.4
256	4	-0.43	--	--	18.4	--
265	4	0.21	--	--	--	19
304	4	0.21	--	--	--	19
305	4	-0.11	--	18.7	--	--
307	0	-7.23	--	12	--	--
331	4	0.21	--	--	19	--
336	0	58.72	74	--	--	--

Table 11. ***Statistical summary of reported data for standard reference sample T-165 (trace constituents) -- continued***



SUMMARY	Methods			Statistics
	3	4	6	
n =	4	9	10	
Minimum =	28	26.2	28	
Maximum =	37.3	38.5	33.5	
Median =		29.0	29.9	
F-pseudosigma =		0.371	1.19	

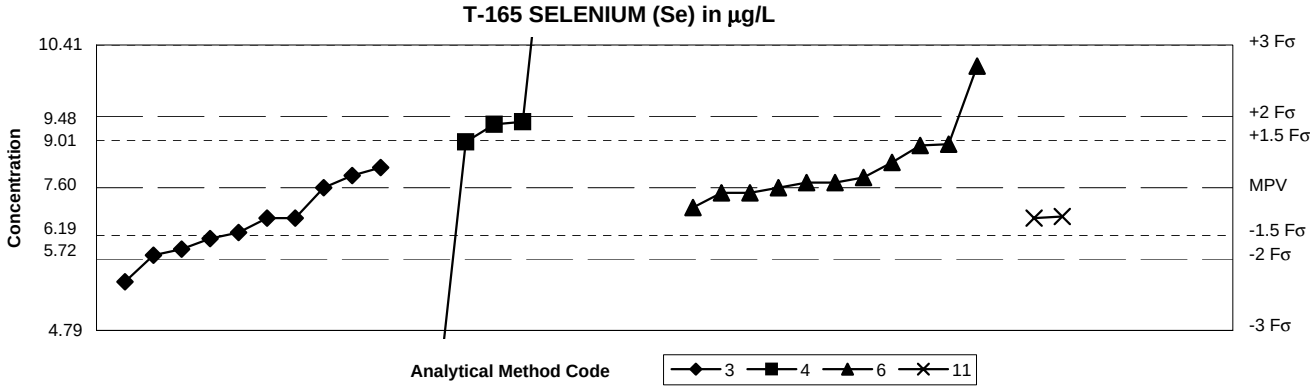
Method Codes

03 Atomic absorption: graphite furnace
04 Inductively coupled plasma
06 Inductively coupled plasma/mass spectrometry

MPV = 29.4 µg/L
F-pseudosigma = 1.05
Rating criterion = 1.47
n = 23
Uh = 30.3
Lh = 28.9

			Methods		
Lab	Rating	Z-value	3	4	6
1	4	0.14	--	--	29.6
5	4	-0.34	--	28.9	--
16	4	0.27	--	29.8	--
23	4	-0.39	--	28.82	--
25	NR	--	--	<49	--
42	3	-0.75	--	--	28.3
55	0	5.37	37.3	--	--
59	0	2.79	--	--	33.5
70	4	0.34	--	--	29.9
89	3	0.61	30.3	--	--
105	3	0.82	--	--	30.6
113	4	-0.14	--	29.2	--
134	4	-0.36	28.87	--	--
138	4	0.27	--	--	29.8
142	3	0.61	--	--	30.3
149	3	-0.95	28	--	--
180	0	6.19	--	38.5	--
198	3	0.88	--	--	30.7
212	0	-2.18	--	26.2	--
234	4	0.00	--	29.4	--
246	NR	--	--	<80	--
247	NR	--	--	--	<1
265	3	-0.95	--	--	28
304	4	-0.27	--	--	29
305	4	-0.27	--	29	--
331	4	-0.27	--	29	--

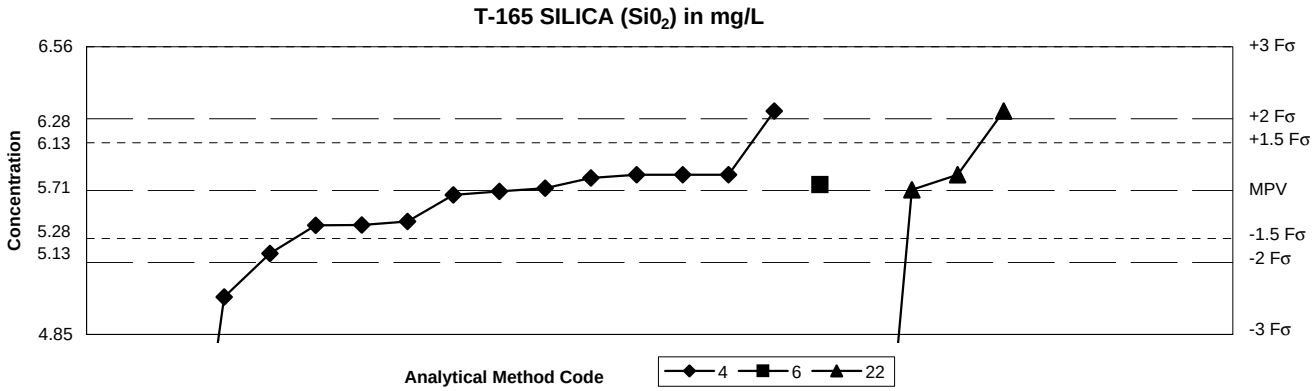
Table 11. ***Statistical summary of reported data for standard reference sample T-165 (trace constituents) -- continued***



SUMMARY	Methods					Statistics	
	3	4	6	11	Method Codes		
n =	10	5	11	2	03 Atomic absorption: graphite furnace	**MPV =**	**7.60 µg/L**
Minimum =	5.748	3.4	7.21	7	04 Inductively coupled plasma	F-pseudosigma =	0.938
Maximum =	8	14	10	7.03	06 Inductively coupled plasma/mass spectrometry	n =	28
Median =	6.86	8.85	7.70		11 Atomic absorption: hydride	Uh =	8.27
F-pseudosigma =	0.897	0.297	0.530			Lh =	7.00

			Methods			
Lab	Rating	Z-value	3	4	6	11
1	4	-0.11	--	--	7.5	--
5	2	-1.29	6.39	--	--	--
10	3	-0.64	--	--	--	7
12	4	0.43	8	--	--	--
16	2	1.39	--	8.9	--	--
23	2	1.33	--	8.85	--	--
25	NR	--	--	<34	--	--
26	3	-0.61	--	--	--	7.03
42	4	-0.42	--	--	7.21	--
59	NR	--	--	--	<10	--
70	4	0.11	--	--	7.7	--
89	NR	--	< 10	--	--	--
105	4	0.00	--	--	7.6	--
113	1	-1.97	5.748	--	--	--
134	4	0.00	7.6	--	--	--
138	3	0.92	--	--	8.46	--
142	3	0.89	--	--	8.43	--
144	2	-1.07	6.6	--	--	--
149	3	-0.64	7	--	--	--
180	NR	--	--	<52.3	--	--
190	3	-0.94	6.72	--	--	--
198	0	2.56	--	--	10	--
212	3	0.96	--	8.5	--	--
220	3	-0.64	7	--	--	--
234	2	-1.42	6.27	--	--	--
246	NR	--	--	<80	--	--
247	NR	--	--	<102	--	--
255	4	0.11	--	--	7.7	--
265	4	-0.11	--	--	7.5	--
277	0	-4.48	--	3.4	--	--
304	4	0.21	--	--	7.8	--
305	3	0.53	--	--	8.1	--
307	4	0.26	7.84	--	--	--
331	0	6.82	--	14	--	--

Table 11. ***Statistical summary of reported data for standard reference sample T-165 (trace constituents) -- continued***



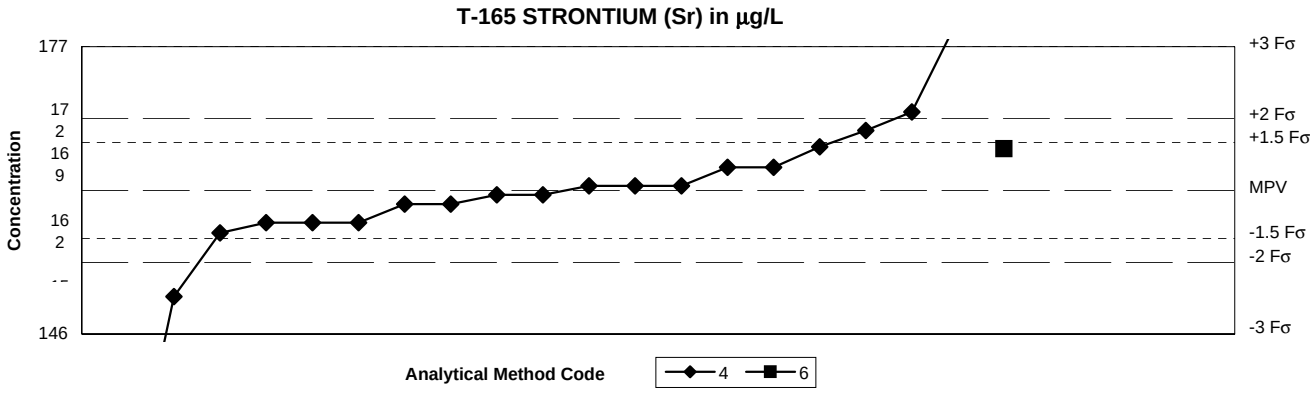
SUMMARY	Methods			Statistics
	4	6	22	
n =	15	1	4	
Minimum =	2.72	5.741	2.67	
Maximum =	6.18		6.18	
Median =	5.68			
F-pseudosigma =	0.279			

Method Codes	
04	Inductively coupled plasma
06	Inductively coupled plasma/mass spectrometry
22	Colorimetric

Statistics		
MPV =	**5.71**	**mg/L**
F-pseudosigma =	0.287	
n =	20	
Uh =	5.80	
Lh =	5.41	

			Methods		
Lab	Rating	Z-value	4	6	22
1	4	-0.02	5.7	--	--
5	3	-0.65	5.52	--	--
24	4	0.26	5.78	--	--
25	0	-2.22	5.07	--	--
26	4	0.33	5.8	--	--
42	2	-1.31	5.33	--	--
64	4	-0.09	5.68	--	--
70	4	0.02	--	--	5.71
76	4	0.13	--	5.741	--
89	1	1.66	--	--	6.18
105	4	0.33	5.8	--	--
134	3	-0.73	5.497	--	--
142	1	1.66	6.18	--	--
190	4	0.33	--	--	5.8
212	0	-10.42	2.72	--	--
234	4	0.33	5.8	--	--
246	0	-9.09	3.1	--	--
256	4	0.05	5.72	--	--
265	3	-0.72	5.5	--	--
274	0	-10.59	--	--	2.67

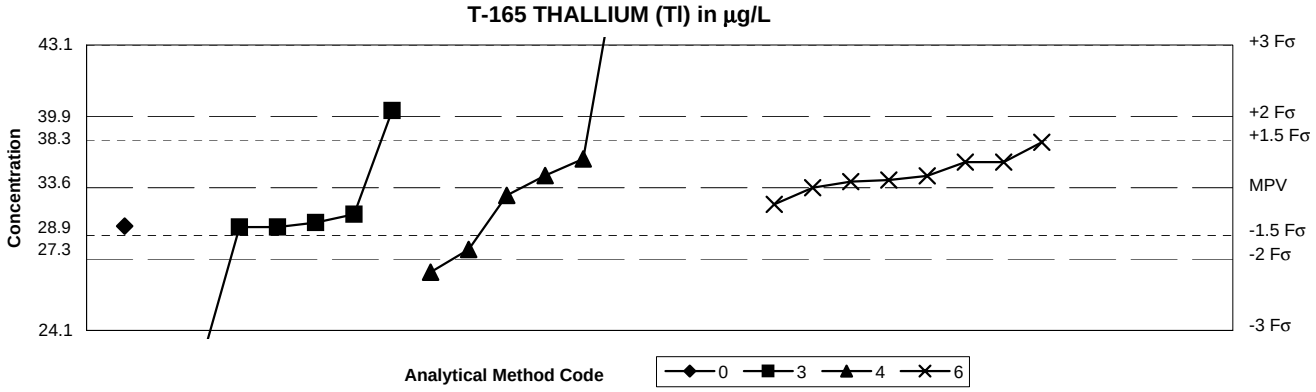
Table 11. ***Statistical summary of reported data for standard reference sample T-165 (trace constituents) -- continued***



SUMMARY	Methods			Statistics	
	4	6	Method Codes		
n =	19	1	04 Inductively coupled plasma	**MPV =**	**162 µg/L**
Minimum =	126.6	166	06 Inductively coupled plasma/mass spectrometry	F-pseudosigma =	5.2
Maximum =	180			Rating criterion =	8.1
Median =	161			n =	20
F-pseudosigma =	4.45			Uh =	165
				Lh =	158

			Methods	
Lab	Rating	Z-value	4	6
1	4	0.06	162	--
5	4	-0.06	161	--
16	4	-0.43	158	--
24	4	-0.19	160	--
25	2	1.05	170	--
42	0	2.29	180	--
55	4	0.06	162	--
59	3	0.56	--	166
105	4	0.31	164	--
113	4	-0.06	161	--
134	3	-0.57	156.9	--
138	4	-0.19	160	--
142	4	0.31	164	--
212	4	-0.43	158	--
234	4	0.06	162	--
246	3	0.58	166.2	--
247	2	-1.42	150	--
256	3	0.80	168	--
265	4	-0.43	158	--
270	0	-4.32	126.6	--

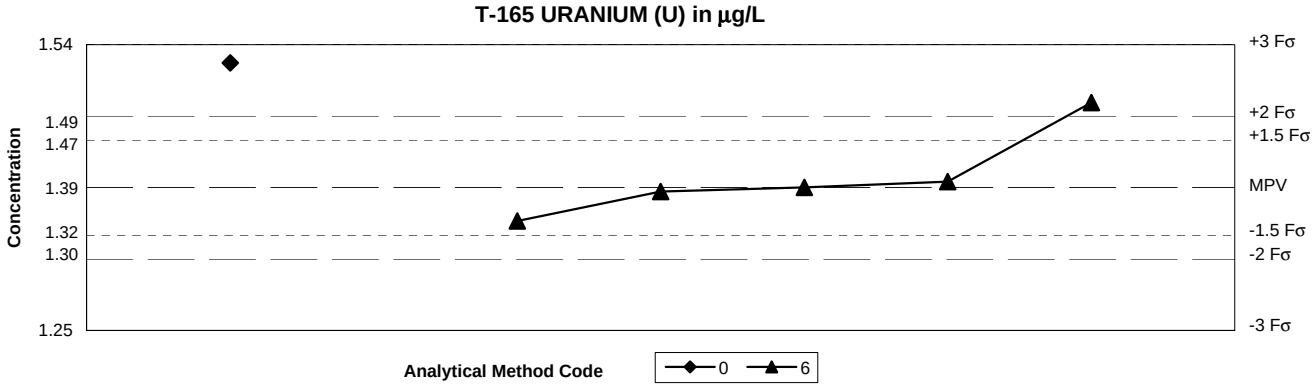
Table 11. ***Statistical summary of reported data for standard reference sample T-165 (trace constituents) -- continued***



SUMMARY	Methods					Statistics	
	0	3	4	6	Method Codes		
n =	1	6	6	8	00 Other	**MPV =**	**33.6 µg/L**
Minimum =	31.05	22	28	32.5	03 Atomic absorption: graphite furnace	F-pseudosigma =	3.15
Maximum =		38.7	50	36.6	04 Inductively coupled plasma	n =	21
Median =		31.2	33.8	34.2	06 Inductively coupled plasma/mass spectrometry	Uh =	35.3
F-pseudosigma =		0.623	4.45	1.11		Lh =	31.1

			Methods			
Lab	Rating	Z-value	0	3	4	6
1	4	0.16	--	--	--	34.1
16	2	-1.30	--	--	29.5	--
23	3	-0.81	31.05	--	--	--
25	NR	--	--	--	<35	--
42	4	0.00	--	--	--	33.6
55	0	-3.68	--	22	--	--
59	3	0.54	--	--	--	35.3
76	4	0.25	--	--	--	34.39
89	1	1.62	--	38.7	--	--
105	3	0.54	--	--	--	35.3
113	3	-0.73	--	31.3	--	--
134	3	-0.56	--	31.84	--	--
138	3	0.95	--	--	--	36.6
142	4	0.13	--	--	--	34
149	3	-0.83	--	31	--	--
180	NR	--	<47.7	--	--	--
198	4	0.25	--	--	34.4	--
212	3	0.60	--	--	35.5	--
220	0	5.21	--	--	50	--
234	3	-0.83	--	31	--	--
246	NR	--	--	--	<80	--
247	NR	--	--	--	<51	--
265	4	-0.35	--	--	--	32.5
305	4	-0.16	--	--	33.1	--
331	1	-1.78	--	--	28	--

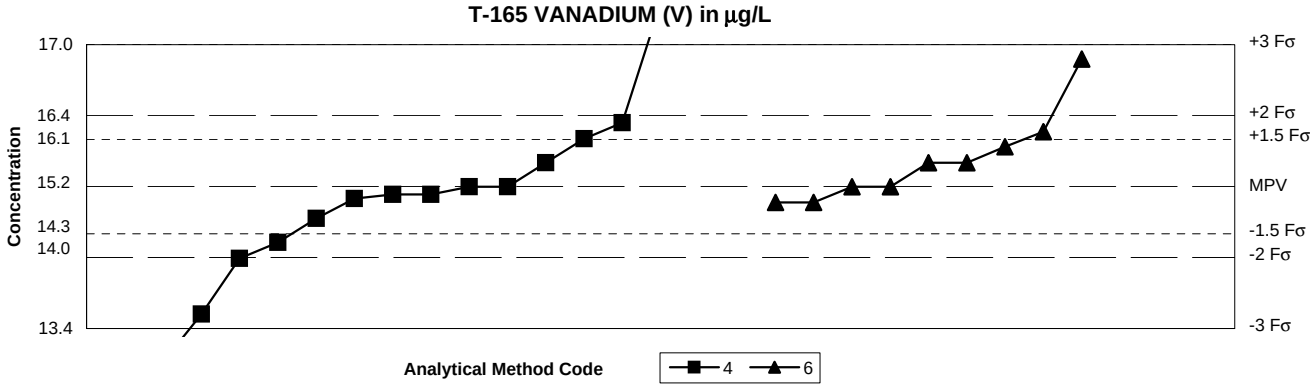
Table 11. ***Statistical summary of reported data for standard reference sample T-165 (trace constituents) -- continued***



SUMMARY	Methods				Statistics	
	0	4	6	Method Codes		
n =	1	1	5	00 Other	**MPV =**	**1.39 µg/L**
Minimum =	1.52	0.98	1.36	04 Inductively coupled plasma	F-pseudosigma =	0.048
Maximum =			1.48	06 Inductively coupled plasma/mass spectrometry	Rating criterion =	0.070
Median =			1.39		n =	7
F-pseudosigma =			0.007		Uh =	1.44
					Lh =	1.38

			Methods		
Lab	Rating	Z-value	0	4	6
1	4	-0.06	--	--	1.39
42	2	1.23	--	--	1.48
76	4	0.00	--	--	1.394
142	4	-0.49	--	--	1.36
212	0	-5.94	--	0.98	--
254	1	1.81	1.52	--	--
265	4	0.09	--	--	1.4

Table 11. ***Statistical summary of reported data for standard reference sample T-165 (trace constituents) -- continued***

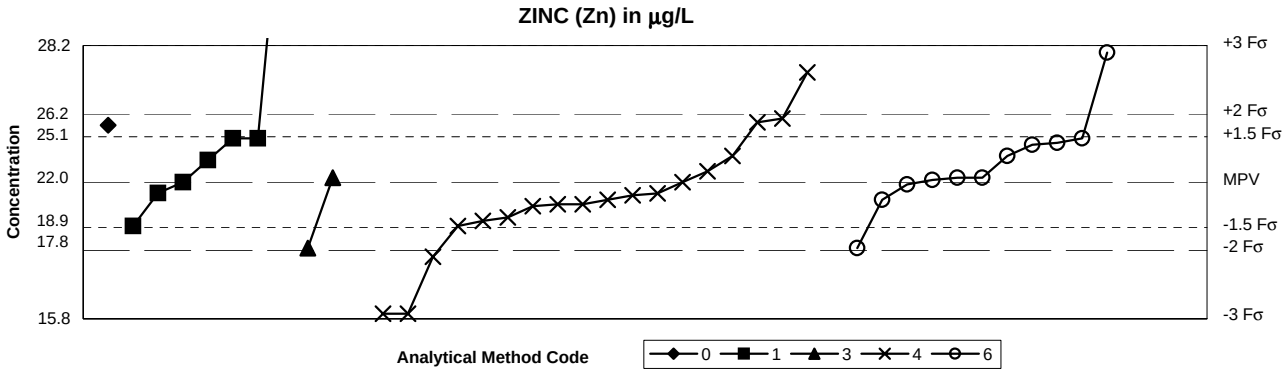


SUMMARY	Methods			Statistics
	3	4	6	Method Codes
n =	1	15	9	03 Atomic absorption: graphite furnace
Minimum =	25.4	13	15	04 Inductively coupled plasma
Maximum =		17.72	16.8	06 Inductively coupled plasma/mass spectrometry
Median =		15.1	15.5	
F-pseudosigma =		0.741	0.371	

Statistics		
MPV =	**15.2**	**µg/L**
F-pseudosigma =	0.59	
Rating criterion =	0.76	
n =	25	
Uh =	15.8	
Lh =	15.0	

			Methods		
Lab	Rating	Z-value	3	4	6
1	4	0.39	--	--	15.5
5	0	-2.11	--	13.6	--
16	4	0.39	--	15.5	--
25	NR	--	--	<5	--
42	4	0.00	--	--	15.2
55	4	0.00	--	15.2	--
59	4	-0.26	--	--	15
70	3	0.66	--	--	15.7
76	3	0.91	--	--	15.89
89	0	13.42	25.4	--	--
93	2	-1.18	--	14.3	--
105	NR	--	--	--	< 20.0
134	3	-0.53	--	14.8	--
138	4	0.00	--	15.2	--
142	4	0.00	--	--	15.2
180	0	3.03	--	17.5	--
198	4	0.39	--	--	15.5
212	4	-0.13	--	15.1	--
220	0	3.32	--	17.72	--
234	3	0.79	--	15.8	--
246	2	1.05	--	16	--
247	3	-0.92	--	14.5	--
256	4	-0.20	--	15.05	--
265	4	-0.26	--	--	15
304	0	2.11	--	--	16.8
305	4	-0.13	--	15.1	--
331	0	-2.89	--	13	--

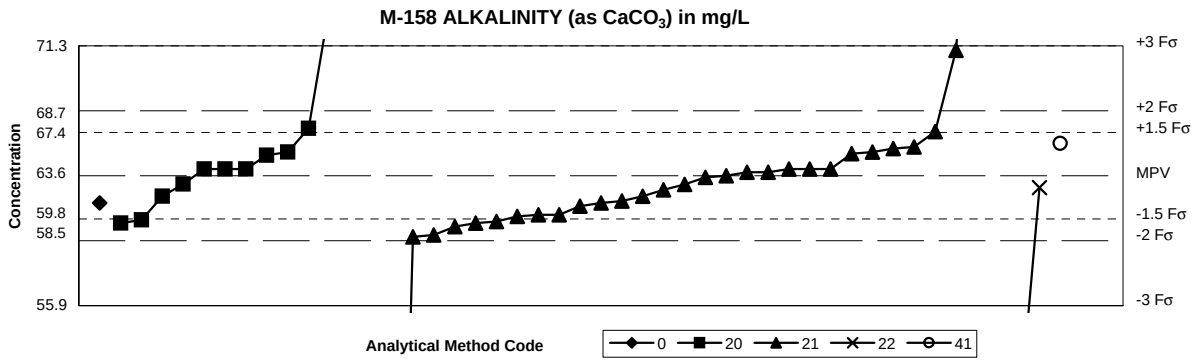
Table 11. ***Statistical summary of reported data for standard reference sample T-165 (trace constituents) -- continued***



SUMMARY	Methods						Statistics	
	0	1	3	4	6	Method Codes		
n =	1	7	2	18	11	00 Other	**MPV =**	**22.0 µg/L**
Minimum =	24.6	20	19	16	19	01 Atomic absorption: direct, air	F-pseudosigma =	2.08
Maximum =		36	22.2	27	27.9	03 Atomic absorption: graphite furnace	n =	39
Median =		23.0		21.1	22.2	04 Inductively coupled plasma	Uh =	23.8
F-pseudosigma =		1.67		1.68	1.30	06 Inductively coupled plasma/mass spectrometry	Lh =	21.0

			Methods				
Lab	Rating	Z-value	0	1	3	4	6
1	4	0.10	--	--	--	--	22.2
4	3	-0.96	--	20	--	--	--
5	4	-0.29	--	--	--	21.4	--
10	4	-0.24	--	21.5	--	--	--
12	4	0.10	--	--	22.2	--	--
16	3	-0.77	--	--	--	20.4	--
23	2	1.31	--	--	--	24.72	--
24	4	-0.39	--	--	--	21.2	--
25	0	-2.89	--	--	--	16	--
42	4	-0.39	--	--	--	--	21.2
59	3	0.87	--	--	--	--	23.8
70	4	-0.05	--	--	--	--	21.9
89	2	-1.45	--	--	19	--	--
93	3	-0.96	--	--	--	20	--
105	2	-1.45	--	--	--	--	19
113	4	0.24	--	--	--	22.5	--
134	4	-0.25	--	--	--	21.49	--
138	3	0.58	--	--	--	23.2	--
142	3	0.96	--	--	--	--	24
144	4	0.00	--	22	--	--	--
147	4	0.10	--	--	--	--	22.2
149	3	0.96	--	24	--	--	--
180	2	1.25	24.6	--	--	--	--
198	0	2.84	--	--	--	--	27.9
212	3	-0.53	--	--	--	20.9	--
220	4	-0.48	--	--	--	21	--
227	4	0.00	--	--	--	22	--
234	2	1.40	--	--	--	24.9	--
246	0	-2.89	--	--	--	16	--
247	NR	--	--	--	--	<40.8	--
255	3	0.82	--	--	--	--	23.7
256	NR	--	--	--	<100	--	--
265	4	-0.48	--	--	--	21	--
270	3	-0.85	--	--	--	20.23	--
277	1	-1.64	--	--	--	18.6	--
304	3	0.58	--	--	--	--	23.2
305	4	0.05	--	--	--	--	22.1
307	3	0.96	--	24	--	--	--
324	4	0.48	--	23	--	--	--
331	0	2.41	--	--	--	27	--
336	0	6.75	--	36	--	--	--

Table 12. ***Statistical summary of reported data for standard reference sample M-158 (major constituents)***

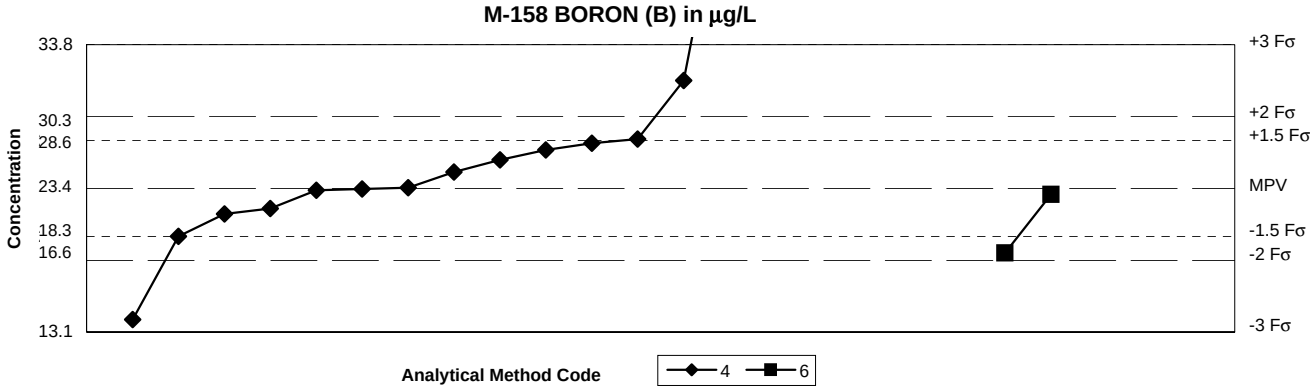


SUMMARY	Methods					Statistics
	0	20	21	22	41	Method Codes
n =	1	13	30	2	1	00 Other
Minimum =	62	60.8	16.6	49	65.5	20 Titration: colorimetric
Maximum =		76.94	161	62.9		21 Titration: electrometric
Median =		64.0	63.3			22 Colorimetric
F-pseudosigma =		2.45	2.67			41 Electrometric

Statistics	
MPV =	**63.6 mg/L**
F-pseudosigma =	2.56
Rating criterion =	3.18
n =	47
Uh =	65.0
Lh =	61.6

			Methods				
Lab	Rating	Z-value	0	20	21	22	41
1	4	0.41	--	--	64.9	--	--
4	3	-0.85	--	--	60.9	--	--
5	3	-0.72	--	--	61.3	--	--
10	4	-0.47	--	--	62.1	--	--
12	0	7.04	--	--	86	--	--
16	4	-0.22	--	--	--	62.9	--
23	3	-0.88	--	60.8	--	--	--
24	4	-0.38	--	62.4	--	--	--
25	0	2.33	--	--	71	--	--
26	3	0.82	--	--	66.2	--	--
38	4	-0.26	--	--	62.76	--	--
42	0	-14.78	--	--	16.6	--	--
46	2	-1.13	--	--	60	--	--
55	4	-0.50	--	--	62	--	--
59	3	-0.88	--	--	60.8	--	--
70	3	-0.94	--	--	60.6	--	--
89	4	0.50	--	--	65.2	--	--
93	4	-0.50	62	--	--	--	--
105	4	-0.38	--	--	62.4	--	--
113	4	0.06	--	--	63.8	--	--
118	4	0.44	--	65	--	--	--
134	4	-0.16	--	--	63.09	--	--
138	3	0.53	--	--	65.3	--	--
142	4	0.13	--	--	64	--	--
149	3	-0.82	--	61	--	--	--
180	3	0.60	--	--	--	--	65.5
190	4	0.00	--	--	63.6	--	--
212	3	-0.57	--	--	61.8	--	--
220	4	-0.03	--	--	63.5	--	--
234	4	0.13	--	64	--	--	--
246	4	0.13	--	64	--	--	--
247	3	-0.72	--	--	61.3	--	--
256	4	0.13	--	--	64	--	--
257	4	0.13	--	--	64	--	--
274	0	4.19	--	76.94	--	--	--
276	4	-0.16	--	63.1	--	--	--
277	0	30.63	--	--	161	--	--
305	4	0.44	--	--	65	--	--
307	4	0.38	--	64.8	--	--	--
324	3	-0.75	--	--	61.2	--	--
331	0	3.27	--	74	--	--	--
333	2	-1.10	--	--	60.1	--	--
336	0	3.14	--	73.6	--	--	--
341	0	-4.59	--	--	--	49	--
353	4	0.13	--	64	--	--	--
356	4	0.06	--	--	63.8	--	--
366	3	0.88	--	66.4	--	--	--

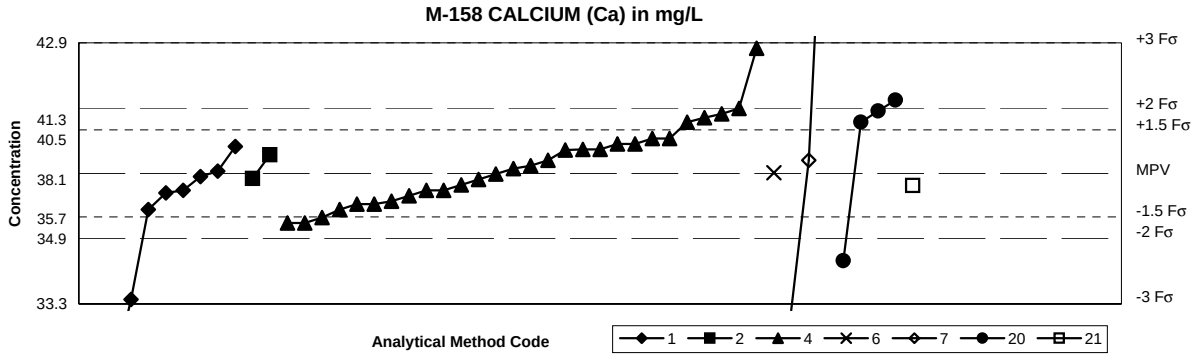
Table 12. ***Statistical summary of reported data for standard reference sample M-158 (major constituents) -- continued***



SUMMARY	Methods			Statistics	
	4	6	Method Codes		
n =	14	2	04 Inductively coupled plasma	**MPV =**	**23.4 µg/L**
Minimum =	14	18.8	06 Inductively coupled plasma/mass spectrometry	F-pseudosigma =	3.45
Maximum =	48.1	23		n =	16
Median =	24.1			Uh =	26.5
F-pseudosigma =	3.48			Lh =	21.8

			Methods	
Lab	Rating	Z-value	4	6
1	3	-0.54	21.6	--
5	3	0.80	26.2	--
16	0	2.25	31.2	--
24	3	-1.00	20	--
25	NR	--	<2	--
42	NR	--	<30	--
59	2	-1.35	--	18.8
105	NR	--	200.0	--
134	4	0.01	23.49	--
138	4	-0.01	23.4	--
142	NR	--	<30	--
180	0	7.15	48.1	--
212	4	-0.04	23.3	--
220	4	0.34	24.62	--
234	3	0.94	26.7	--
246	0	-2.74	14	--
247	NR	--	<51	--
255	3	0.60	25.5	--
256	2	1.03	27	--
265	4	-0.13	--	23
331	4	-0.42	22	--

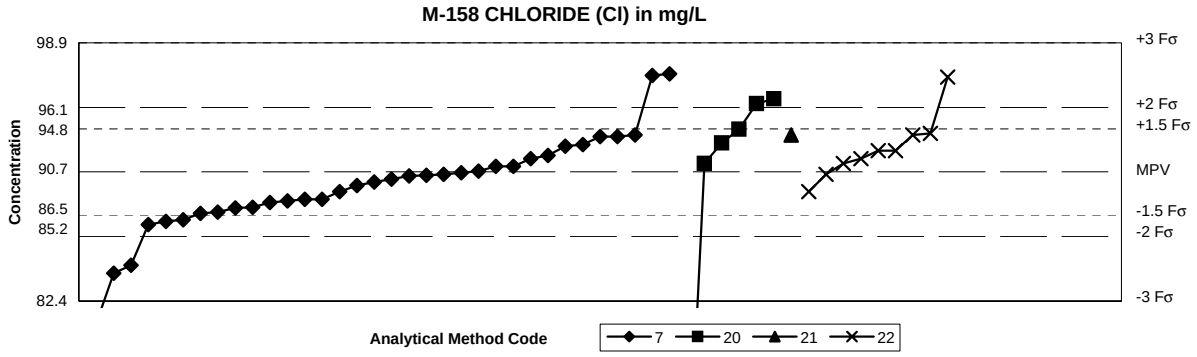
Table 12. ***Statistical summary of reported data for standard reference sample M-158 (major constituents) -- continued***



SUMMARY	Methods							Statistics
	1	2	4	6	7	20	21	Method Codes
n =	9	2	28	1	3	4	1	01 Atomic absorption: direct, air
Minimum =	27.1	37.93	36.3	38.14	33.1	34.92	37.67	02 Atomic absorption: direct, nitrous oxide
Maximum =	39.1	38.8	42.7		51.4	40.8		04 Inductively coupled plasma
Median =	37.4		38.4					06 Inductively coupled plasma/mass spectrometry
F-pseudosigma =	3.34		1.56					07 Ion chromatography
								20 Titration: colorimetric
								21 Titration: electrometric

						Methods			
Lab	Rating	Z-value	1	2	4	6	7	20	21
1	4	0.25	--	--	38.6	--	--	--	--
5	3	-0.95	--	--	36.3	--	--	--	--
10	3	0.51	39.1	--	--	--	--	--	--
12	3	-0.59	--	--	37	--	--	--	--
16	3	-0.85	--	--	36.5	--	--	--	--
23	2	1.20	--	--	--	--	--	40.4	--
24	4	-0.12	--	--	37.9	--	--	--	--
25	4	-0.33	--	--	37.5	--	--	--	--
26	0	6.97	--	--	--	--	51.4	--	--
38	4	0.36	--	38.8	--	--	--	--	--
42	3	0.57	--	--	39.2	--	--	--	--
46	4	0.09	--	--	38.3	--	--	--	--
55	2	1.14	--	--	40.3	--	--	--	--
59	3	-0.69	36.8	--	--	--	--	--	--
64	3	0.67	--	--	39.4	--	--	--	--
70	4	0.46	--	--	39	--	--	--	--
76	4	0.01	--	--	--	38.14	--	--	--
89	4	0.04	38.2	--	--	--	--	--	--
93	4	-0.22	--	--	37.7	--	--	--	--
105	0	2.40	--	--	42.7	--	--	--	--
113	4	0.15	--	--	38.4	--	--	--	--
134	4	0.45	--	--	38.98	--	--	--	--
138	4	0.46	--	--	39	--	--	--	--
142	2	1.25	--	--	40.5	--	--	--	--
149	4	0.25	--	--	--	--	38.6	--	--
180	3	0.57	--	--	39.2	--	--	--	--
190	4	-0.38	37.4	--	--	--	--	--	--
212	3	-0.54	--	--	37.1	--	--	--	--
220	2	1.07	--	--	40.16	--	--	--	--
234	4	-0.01	--	--	38.1	--	--	--	--
246	3	0.99	--	--	40	--	--	--	--
247	3	-0.69	--	--	36.8	--	--	--	--
255	3	0.67	--	--	39.4	--	--	--	--
256	4	-0.24	--	--	--	--	--	--	37.67
257	3	0.99	--	--	--	--	--	40	--
265	4	-0.43	--	--	37.3	--	--	--	--
268	0	-2.42	33.5	--	--	--	--	--	--
270	0	-2.63	--	--	--	--	33.1	--	--
274	1	-1.68	--	--	--	--	--	34.92	--
276	4	-0.10	--	37.93	--	--	--	--	--
277	4	-0.33	--	--	37.5	--	--	--	--
279	4	-0.33	37.5	--	--	--	--	--	--
305	3	-0.95	--	--	36.3	--	--	--	--
324	0	-3.84	30.8	--	--	--	--	--	--
331	0	-5.78	27.1	--	--	--	--	--	--
336	2	1.41	--	--	--	--	--	40.8	--
341	4	-0.06	38	--	--	--	--	--	--
366	3	-0.59	--	--	37	--	--	--	--

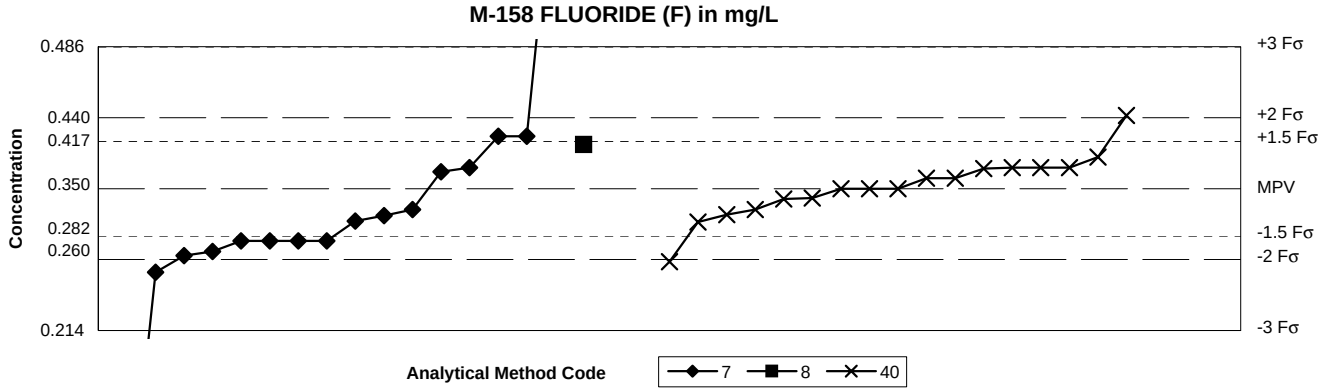
Table 12. ***Statistical summary of reported data for standard reference sample M-158 (major constituents) -- continued***



SUMMARY	Methods				Statistics	
	7	20	21	22	Method Codes	
n =	34	6	1	9	07 Ion chromatography	**MPV = 90.7 mg/L**
Minimum =	81	68.88	93	89.4	20 Titration: colorimetric	F-pseudosigma = 2.74
Maximum =	96.9	95.3		96.7	21 Titration: electrometric	Rating criterion = 4.53
Median =	90.1	92.9		92.0	22 Colorimetric	n = 50
F-pseudosigma =	2.33	2.82		1.33		Uh = 92.5
						Lh = 88.8

			Methods			
Lab	Rating	Z-value	7	20	21	22
1	4	-0.43	88.7	--	--	--
4	4	0.19	91.5	--	--	--
5	4	0.08	91	--	--	--
10	4	-0.28	--	--	--	89.4
12	4	0.30	--	--	--	92
16	2	1.33	--	--	--	96.7
23	4	-0.50	88.4	--	--	--
24	4	-0.03	--	--	--	90.5
25	3	0.52	93	--	--	--
26	2	-1.42	84.2	--	--	--
42	2	1.38	96.9	--	--	--
46	4	0.12	--	--	--	91.2
55	4	0.19	--	--	--	91.5
59	4	0.36	92.3	--	--	--
64	4	-0.01	90.6	--	--	--
70	4	0.23	91.7	--	--	--
89	4	-0.10	90.2	--	--	--
93	4	-0.39	88.9	--	--	--
105	2	1.36	96.8	--	--	--
113	4	-0.03	90.5	--	--	--
134	4	-0.05	90.44	--	--	--
138	3	-0.67	87.6	--	--	--
142	4	0.50	92.9	--	--	--
149	4	0.39	92.4	--	--	--
180	4	-0.06	90.4	--	--	--
190	4	-0.28	89.4	--	--	--
208	3	-0.58	88	--	--	--
212	4	0.50	92.9	--	--	--
220	3	0.54	--	--	--	93.11
227	2	-1.31	84.7	--	--	--
234	3	-0.69	87.5	--	--	--
246	4	0.01	90.7	--	--	--
247	3	-0.74	87.3	--	--	--
254	4	0.08	91	--	--	--
256	4	-0.51	88.36	--	--	--
257	3	0.52	--	--	93	--
265	4	-0.14	90	--	--	--
268	3	-0.56	88.1	--	--	--
270	4	0.41	--	92.5	--	--
274	0	-4.80	--	68.88	--	--
276	3	0.60	--	93.38	--	--
277	4	-0.39	88.9	--	--	--
305	4	-0.19	89.78	--	--	--
307	4	0.12	--	91.2	--	--
331	4	-0.41	88.8	--	--	--
336	2	1.03	--	95.3	--	--
341	4	0.30	--	--	--	92
353	3	0.96	--	95	--	--
356	0	-2.13	81	--	--	--
366	3	0.52	--	--	--	93

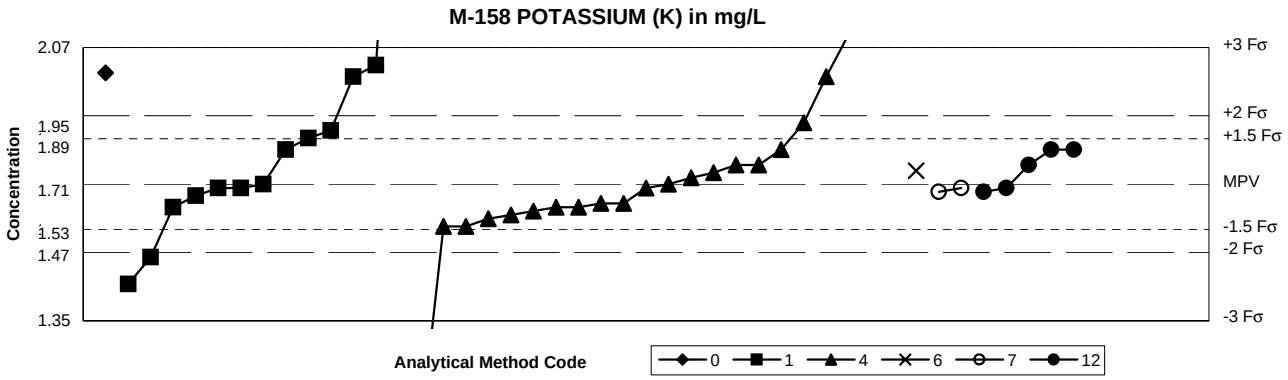
Table 12. ***Statistical summary of reported data for standard reference sample M-158 (major constituents)***



SUMMARY	Methods					Statistics	
	7	8	22	40	Method Codes		
n =	16	1	2	17	07 Ion chromatography	**MPV =**	**0.350 mg/L**
Minimum =	0.01	0.392	0.54	0.28	08 Atomic absorption: cold vapor	F-pseudosigma =	0.0452
Maximum =	0.67		0.89	0.42	22 Colorimetric	n =	36
Median =	0.310			0.350	40 Ion selective electrode	Uh =	0.370
F-pseudosigma =	0.054			0.022		Lh =	0.309

			Methods			
Lab	Rating	Z-value	7	8	22	40
1	4	0.00	--	--	--	0.35
5	1	-1.77	0.27	--	--	--
10	3	0.66	--	--	--	0.38
16	4	0.22	--	--	--	0.36
23	0	7.08	0.67	--	--	--
24	4	0.44	--	--	--	0.37
25	2	-1.11	0.3	--	--	--
26	2	-1.11	0.3	--	--	--
42	3	-0.69	0.319	--	--	--
46	3	-0.71	--	--	--	0.318
55	4	0.44	--	--	--	0.37
59	4	0.44	--	--	--	0.37
70	1	1.55	--	--	--	0.42
89	4	0.22	--	--	--	0.36
105	4	-0.44	0.33	--	--	--
113	4	0.42	--	--	--	0.369
134	4	0.00	--	--	--	0.35
138	4	-0.20	--	--	--	0.341
142	4	0.00	--	--	--	0.35
149	4	0.44	0.37	--	--	--
180	3	0.93	--	0.392	--	--
190	3	-0.55	--	--	--	0.325
212	4	-0.44	--	--	--	0.33
234	4	0.35	0.366	--	--	--
246	2	-1.11	0.3	--	--	--
247	2	-1.42	0.286	--	--	--
255	NR	--	--	--	--	<0.458
256	2	-1.33	0.29	--	--	--
257	1	-1.55	--	--	--	0.28
265	2	-1.11	0.3	--	--	--
270	0	-7.52	0.01	--	--	--
274	0	4.20	--	--	0.54	--
277	2	1.11	0.4	--	--	--
305	4	-0.22	--	--	--	0.34
331	2	1.11	0.4	--	--	--
336	0	11.94	--	--	0.89	--
356	3	-0.57	0.324	--	--	--

Table 12. ***Statistical summary of reported data for standard reference sample M-158 (major constituents) -- continued***

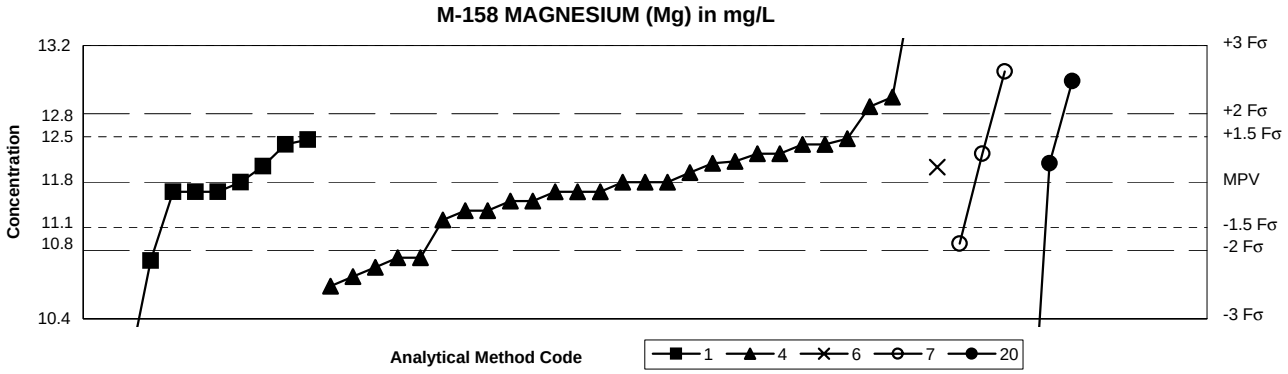


SUMMARY	Methods						Statistics
	0	1	4	6	7	12	Method Codes
n =	1	13	22	1	2	5	00 Other
Minimum =	2	1.45	1.07	1.745	1.69	1.69	01 Atomic absorption: direct, air
Maximum =		2.87	3.13		1.7	1.8	04 Inductively coupled plasma
Median =		1.71	1.71			1.76	06 Inductively coupled plasma/mass spectrometry
F-pseudosigma =		0.126	0.119			0.074	07 Ion chromatography
							12 Flame emission

									MPV = **1.71 mg/L**
									F-pseudosigma = 0.119
									n = 44
									Uh = 1.82
									Lh = 1.66

			Methods					
Lab	Rating	Z-value	0	1	4	6	7	12
1	0	-2.19	--	1.45	--	--	--	--
4	0	9.78	--	2.87	--	--	--	--
5	0	-5.40	--	--	1.07	--	--	--
10	3	0.76	--	1.8	--	--	--	--
16	3	0.76	--	--	1.8	--	--	--
24	3	-0.67	--	--	1.63	--	--	--
25	0	2.36	--	--	1.99	--	--	--
26	4	-0.17	--	--	--	--	1.69	--
38	2	1.01	--	1.83	--	--	--	--
42	4	-0.42	--	--	1.66	--	--	--
46	3	-0.76	--	--	1.62	--	--	--
59	4	-0.08	--	1.7	--	--	--	--
64	4	0.00	--	1.71	--	--	--	--
70	4	0.42	--	--	1.76	--	--	--
76	4	0.30	--	--	--	1.745	--	--
89	4	-0.25	--	1.68	--	--	--	--
93	4	-0.08	--	--	1.7	--	--	--
105	3	-0.59	--	--	1.64	--	--	--
113	4	0.14	--	--	1.727	--	--	--
134	4	-0.51	--	1.65	--	--	--	--
138	4	-0.51	--	--	1.65	--	--	--
142	4	0.42	--	--	1.76	--	--	--
149	4	-0.08	--	--	--	--	1.7	--
180	2	1.35	--	--	1.87	--	--	--
190	2	1.18	--	1.85	--	--	--	--
212	4	0.00	--	--	1.71	--	--	--
220	0	11.97	--	--	3.13	--	--	--
234	4	0.25	--	--	1.74	--	--	--
246	3	-0.93	--	--	1.6	--	--	--
247	4	-0.42	--	--	1.66	--	--	--
256	3	0.76	--	--	--	--	--	1.8
257	3	0.76	--	--	--	--	--	1.8
265	4	-0.51	--	--	1.65	--	--	--
268	0	2.61	--	2.02	--	--	--	--
270	4	-0.17	--	--	--	--	--	1.69
274	4	0.42	--	--	--	--	--	1.76
276	0	2.45	2	--	--	--	--	--
277	0	3.29	--	--	2.1	--	--	--
279	0	2.36	--	1.99	--	--	--	--
305	0	8.18	--	--	2.68	--	--	--
331	1	-1.60	--	1.52	--	--	--	--
336	4	-0.08	--	--	--	--	--	1.7
341	4	-0.08	--	1.7	--	--	--	--
366	3	-0.93	--	--	1.6	--	--	--

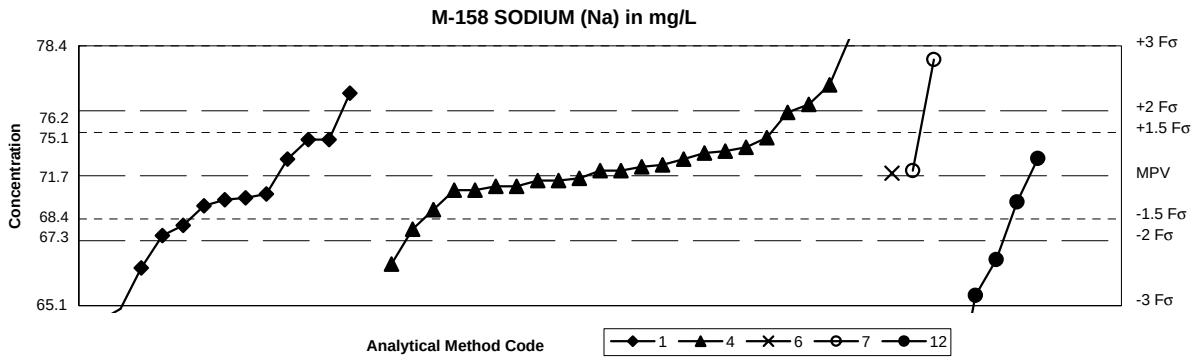
Table 12. ***Statistical summary of reported data for standard reference sample M-158 (major constituents) -- continued***



SUMMARY	Methods							Statistics	
	0	1	4	6	7	20	Method Codes		
n =	1	9	27	1	3	3	00 Other	**MPV =**	**11.8 mg/L**
Minimum =	5.6	9.78	10.7	11.96	11.15	8.26	01 Atomic absorption: direct, air	F-pseudosigma =	0.48
Maximum =		12.25	14		12.97	12.87	04 Inductively coupled plasma	Rating criterion =	0.59
Median =		11.7	11.8				06 Inductively coupled plasma/mass spectrometry	n =	44
F-pseudosigma =		0.200	0.445				07 Ion chromatography	Uh =	12.1
							20 Titration: colorimetric	Lh =	11.5

			Methods					
Lab	Rating	Z-value	0	1	4	6	7	20
1	4	0.51	--	--	12.1	--	--	--
5	1	-1.69	--	--	10.8	--	--	--
10	3	0.68	--	12.2	--	--	--	--
12	3	0.68	--	--	12.2	--	--	--
16	4	-0.51	--	--	11.5	--	--	--
24	4	0.17	--	--	11.9	--	--	--
25	1	-1.86	--	--	10.7	--	--	--
26	1	1.98	--	--	--	--	12.97	--
38	3	0.76	--	12.25	--	--	--	--
42	2	-1.36	--	--	11	--	--	--
46	4	-0.34	--	--	11.6	--	--	--
59	4	-0.17	--	11.7	--	--	--	--
64	4	0.00	--	--	11.8	--	--	--
70	4	0.51	--	--	12.1	--	--	--
76	4	0.27	--	--	--	11.96	--	--
89	4	0.29	--	11.97	--	--	--	--
93	3	-0.68	--	--	11.4	--	--	--
105	0	3.73	--	--	14	--	--	--
113	4	0.37	--	--	12.02	--	--	--
134	4	-0.17	--	--	11.7	--	--	--
138	4	0.00	--	--	11.8	--	--	--
142	2	1.36	--	--	12.6	--	--	--
149	4	0.51	--	--	--	--	12.1	--
180	3	0.68	--	--	12.2	--	--	--
190	4	-0.17	--	11.7	--	--	--	--
212	4	-0.51	--	--	11.5	--	--	--
220	3	0.78	--	--	12.26	--	--	--
234	4	0.00	--	--	11.8	--	--	--
246	4	-0.17	--	--	11.7	--	--	--
247	4	-0.34	--	--	11.6	--	--	--
255	4	0.34	--	--	12	--	--	--
257	4	0.34	--	--	--	--	--	12
265	4	-0.17	--	--	11.7	--	--	--
268	4	-0.17	--	11.7	--	--	--	--
270	2	-1.10	--	--	--	--	11.15	--
274	1	1.81	--	--	--	--	--	12.87
276	0	-10.51	5.6	--	--	--	--	--
277	1	1.53	--	--	12.7	--	--	--
279	2	-1.41	--	10.97	--	--	--	--
305	1	-1.53	--	--	10.9	--	--	--
331	0	-3.42	--	9.78	--	--	--	--
336	0	-6.00	--	--	--	--	--	8.26
341	4	0.00	--	11.8	--	--	--	--
366	2	-1.36	--	--	11	--	--	--

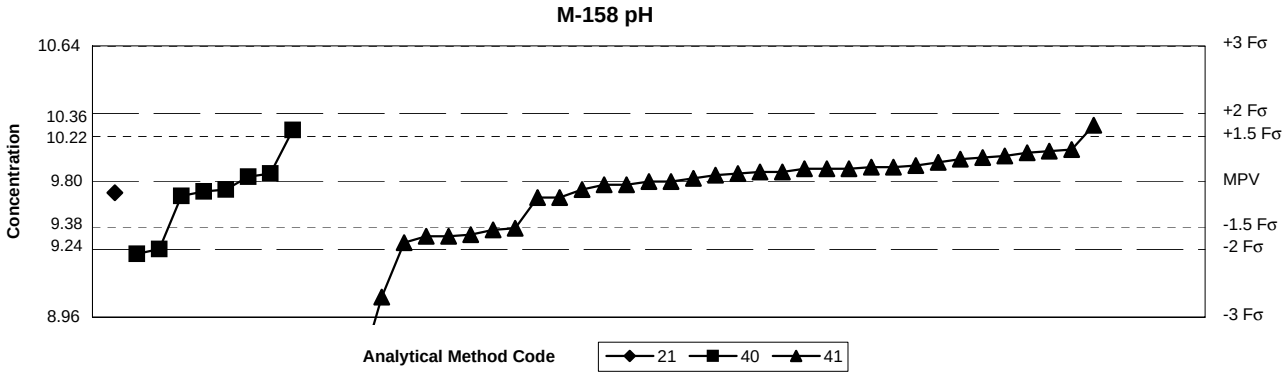
Table 12. ***Statistical summary of reported data for standard reference sample M-158 (major constituents) -- continued***



SUMMARY	Methods							Statistics	
	1	2	4	6	7	12	Method Codes		
n =	13	1	24	1	2	5	01 Atomic absorption: direct, air	**MPV =**	**71.7 mg/L**
Minimum =	64.3	81.2	67.2	71.87	72	60	02 Atomic absorption: direct, nitrous oxide	F-pseudosigma =	2.22
Maximum =	75.98		82.7		77.7	72.62	04 Inductively coupled plasma	Rating criterion =	3.59
Median =	70.5		72.1			67.4	06 Inductively coupled plasma/mass spectrometry	n =	46
F-pseudosigma =	2.92		1.67			3.56	07 Ion chromatography	Uh =	73.2
							12 Flame emission	Lh =	70.2

			Methods					
Lab	Rating	Z-value	1	2	4	6	7	12
1	4	0.32	--	--	72.9	--	--	--
5	4	-0.07	--	--	71.5	--	--	--
10	4	-0.32	70.6	--	--	--	--	--
12	4	-0.49	--	--	70	--	--	--
16	2	1.30	--	--	76.4	--	--	--
24	4	0.24	--	--	72.6	--	--	--
25	4	-0.21	--	--	71	--	--	--
26	1	1.66	--	--	--	--	77.7	--
38	4	-0.43	70.2	--	--	--	--	--
42	4	-0.15	--	--	71.2	--	--	--
46	4	0.41	--	--	73.2	--	--	--
59	4	0.24	72.6	--	--	--	--	--
64	1	-1.91	64.9	--	--	--	--	--
70	3	0.91	--	--	75	--	--	--
76	4	0.04	--	--	--	71.87	--	--
89	2	-1.32	67	--	--	--	--	--
93	3	0.55	--	--	73.7	--	--	--
105	0	3.06	--	--	82.7	--	--	--
113	4	-0.21	--	--	71	--	--	--
118	4	-0.26	70.8	--	--	--	--	--
134	2	1.18	75.98	--	--	--	--	--
138	4	-0.15	--	--	71.2	--	--	--
142	2	1.02	--	--	75.4	--	--	--
149	4	0.07	--	--	--	--	72	--
180	4	0.13	--	--	72.2	--	--	--
190	3	0.52	73.6	--	--	--	--	--
212	4	0.16	--	--	72.3	--	--	--
220	4	-0.04	--	--	71.61	--	--	--
234	4	0.35	--	--	73	--	--	--
246	4	0.07	--	--	72	--	--	--
247	4	-0.07	--	--	71.5	--	--	--
256	2	-1.20	--	--	--	--	--	67.44
257	4	-0.37	--	--	--	--	--	70.4
265	4	0.07	--	--	72	--	--	--
268	3	0.52	73.6	--	--	--	--	--
270	1	-1.71	--	--	--	--	--	65.6
274	4	0.25	--	--	--	--	--	72.62
276	0	2.64	--	81.2	--	--	--	--
277	2	-1.27	--	--	67.2	--	--	--
279	3	-0.86	68.66	--	--	--	--	--
305	1	2.00	--	--	78.9	--	--	--
307	4	-0.35	70.5	--	--	--	--	--
331	0	-2.07	64.3	--	--	--	--	--
336	0	-3.27	--	--	--	--	--	60
341	3	-0.71	69.2	--	--	--	--	--
366	3	-0.76	--	--	69	--	--	--

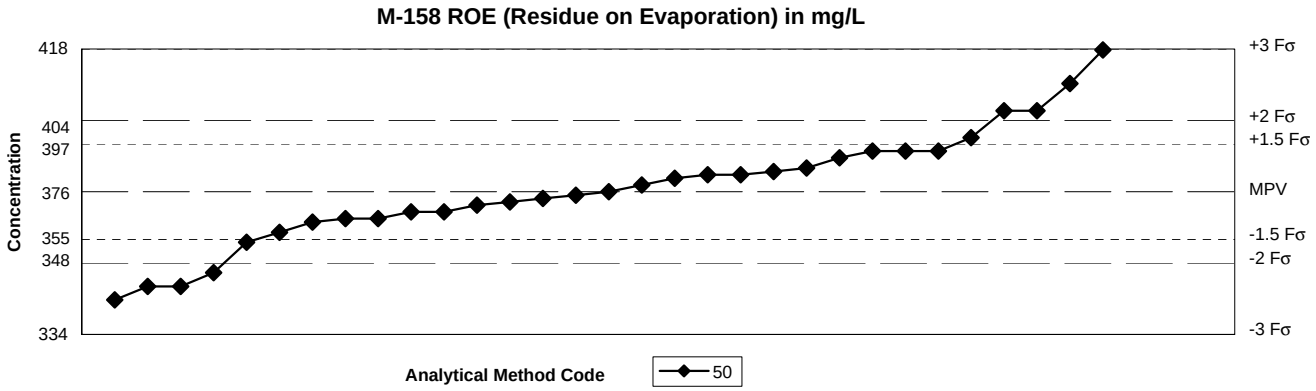
Table 12. ***Statistical summary of reported data for standard reference sample M-158 (major constituents) -- continued***



SUMMARY	Methods				Statistics	
	21	40	41	Method Codes		
n =	1	8	36	21 Titration: electrometric	**MPV =**	**9.80**
Minimum =	9.73	9.35	8.49	40 Ion selective electrode	F-pseudosigma =	0.282
Maximum =		10.12	10.15	41 Electrometric	Rating criterion=	0.490
Median =		9.74	9.83		n =	45
F-pseudosigma =		0.219	0.289		Uh =	9.89
					Lh =	9.51

			Methods		
Lab	Rating	Z-value	21	40	41
1	3	-0.69	--	--	9.46
5	0	-2.45	--	--	8.6
10	4	0.00	--	--	9.8
12	2	-1.47	--	--	9.08
16	4	-0.10	--	--	9.75
23	4	0.12	--	--	9.86
24	4	0.10	--	--	9.85
25	4	0.29	--	--	9.94
38	4	0.00	--	--	9.8
42	4	-0.20	--	--	9.7
46	4	0.16	--	--	9.88
55	4	-0.04	--	--	9.78
59	0	-2.67	--	--	8.49
64	4	0.12	--	--	9.86
70	4	0.18	--	--	9.89
89	4	0.16	--	--	9.88
93	4	-0.13	--	9.738	--
105	4	0.20	--	--	9.9
113	4	0.04	--	--	9.82
118	3	-0.61	--	--	9.5
134	4	0.06	--	9.83	--
138	4	-0.10	--	9.75	--
142	4	0.16	--	--	9.88
180	4	0.33	--	--	9.96
190	3	-0.69	--	--	9.46
212	4	-0.20	--	--	9.7
234	4	0.37	--	--	9.98
246	3	-0.86	--	9.38	--
247	4	0.39	--	--	9.99
256	4	0.08	--	--	9.84
257	4	0.24	--	--	9.92
268	3	-0.67	--	--	9.47
274	3	0.71	--	--	10.15
276	4	-0.18	--	9.71	--
277	4	-0.14	9.73	--	--
279	3	-0.92	--	9.35	--
305	4	0.41	--	--	10
307	4	0.31	--	--	9.95
324	3	-0.78	--	--	9.42
331	3	0.65	--	10.12	--
333	4	-0.04	--	--	9.78
336	0	-2.53	--	--	8.56
341	4	0.10	--	9.85	--
356	4	0.18	--	--	9.89
366	3	-0.59	--	--	9.51

Table 12. ***Statistical summary of reported data for standard reference sample M-158 (major constituents) -- continued***

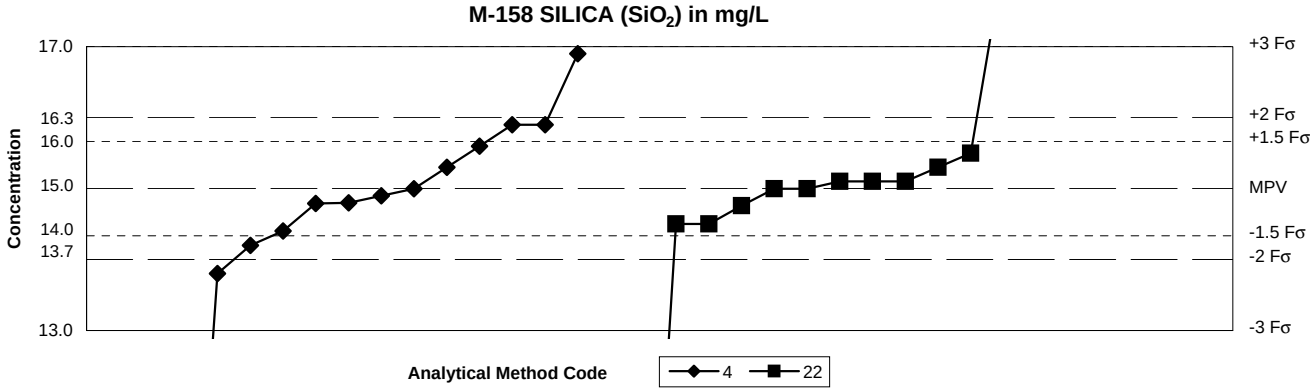


SUMMARY		Methods		Statistics		
	50		Method Codes			
n =	31	50	Gravimetric	**MPV =**	**376**	**mg/L**
Minimum =	344			F-pseudosigma =	14.1	
Maximum =	418			Rating criterion =	18.8	
Median =	376			n =	31	
F-pseudosigma =	14.1			Uh =	387	
				Lh =	368	

Methods

Lab	Rating	Z-value	50
1	3	0.6383	388
5	1	-1.7021	344
10	3	0.5319	386
16	4	-0.4255	368
23	3	0.6383	388
25	4	-0.3191	370
26	3	0.8511	392
38	3	-0.7979	361
46	4	0.1064	378
59	4	0.266	381
70	4	-0.0532	375
89	4	-0.2128	372
105	0	2.234	418
113	4	0.3191	382
118	2	-1.2766	352
134	4	0.3723	383
138	4	-0.4787	367
142	2	1.2766	400
149	4	0	376
190	3	0.6383	388
212	1	1.7021	408
227	4	0.266	381
234	3	-0.6383	364
247	2	-1.4894	348
257	4	-0.3191	370
276	4	-0.1596	373
305	2	1.2766	400
324	2	-1.4894	348
331	4	-0.1064	374
356	4	0.2128	380
366	4	-0.4255	368

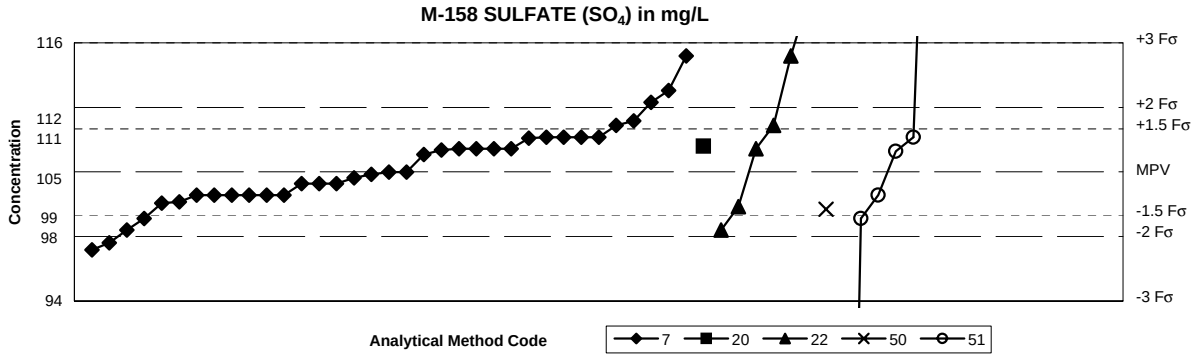
Table 12. ***Statistical summary of reported data for standard reference sample M-158 (major constituents) -- continued***



SUMMARY	Methods		Statistics	
	4	22	Method Codes	
n =	15	14	04 Inductively coupled plasma	**MPV = 15.0 mg/L**
Minimum =	5.4	7.06	22 Colorimetric	F-pseudosigma = 0.67
Maximum =	16.9	18.76		Rating criterion = 0.75
Median =	14.8	15.1		n = 29
F-pseudosigma =	1.07	0.593		Uh = 15.3
				Lh = 14.4

			Methods	
Lab	Rating	Z-value	4	22
1	4	0.40	15.3	--
5	3	-0.80	14.4	--
10	4	0.00	--	15
23	4	0.13	--	15.1
24	2	1.20	15.9	--
25	1	-1.60	13.8	--
26	3	0.80	15.6	--
38	4	-0.32	--	14.76
42	2	-1.07	14.2	--
64	2	1.20	15.9	--
70	4	0.40	--	15.3
89	0	5.01	--	18.76
93	0	4.31	--	18.23
105	4	-0.27	14.8	--
113	3	-0.67	--	14.5
118	0	-10.59	--	7.06
134	4	-0.28	14.79	--
138	3	0.67	--	15.5
142	0	2.53	16.9	--
149	4	0.13	--	15.1
190	4	0.00	--	15
212	0	-10.77	6.92	--
234	4	-0.13	14.9	--
246	0	-12.80	5.4	--
247	4	0.13	--	15.1
256	3	-0.67	--	14.5
265	4	0.00	15	--
274	0	-10.49	--	7.13
333	0	-10.39	7.21	--

Table 12. ***Statistical summary of reported data for standard reference sample M-158 (major constituents) -- continued***

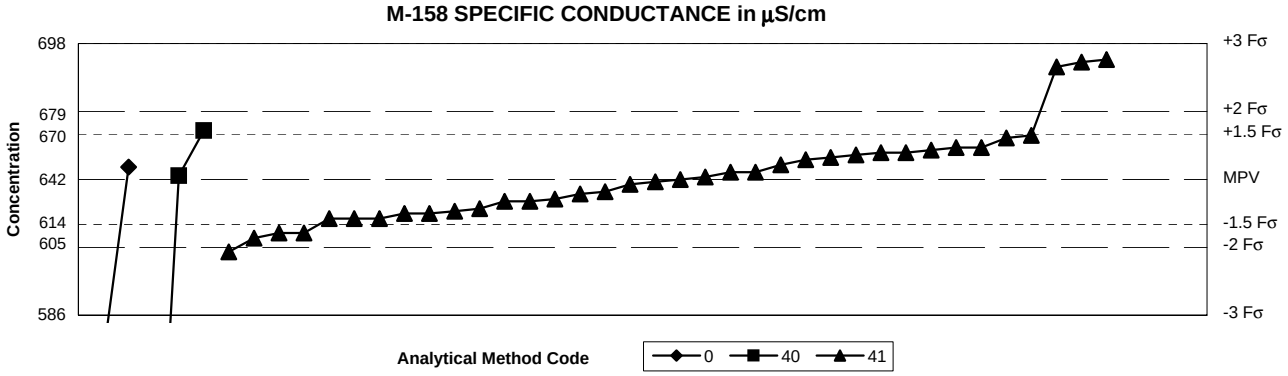


SUMMARY	Methods					Statistics
	7	20	22	50	51	Method Codes
n =	35	1	6	1	6	07 Ion chromatography
Minimum =	98.3	107.2	100	101.8	26.4	20 Titration: colorimetric
Maximum =	115		120		147.6	22 Colorimetric
Median =	105		108		105	50 Gravimetric
F-pseudosigma =	3.67		9.64		5.19	51 Turbidimetric

Statistics	
MPV =	**105 mg/L**
F-pseudosigma =	3.7
Rating criterion =	5.3
n =	49
Uh =	108
Lh =	103

			Methods				
Lab	Rating	Z-value	7	20	22	50	51
1	4	-0.10	104.5	--	--	--	--
4	2	1.14	111	--	--	--	--
5	4	0.29	106.5	--	--	--	--
10	3	0.57	--	--	--	--	108
12	0	2.86	--	--	120	--	--
16	4	-0.38	--	--	--	--	103
23	4	-0.38	103	--	--	--	--
24	4	0.38	--	--	107	--	--
25	4	0.00	105	--	--	--	--
26	3	-0.51	102.3	--	--	--	--
42	2	-1.28	98.3	--	--	--	--
46	1	1.90	--	--	115	--	--
55	0	-14.97	--	--	--	--	26.4
59	4	-0.19	104	--	--	--	--
64	4	0.38	107	--	--	--	--
70	4	-0.38	103	--	--	--	--
89	4	0.38	107	--	--	--	--
93	4	-0.38	103	--	--	--	--
105	2	-1.16	98.9	--	--	--	--
113	4	-0.04	104.8	--	--	--	--
134	4	0.36	106.9	--	--	--	--
138	4	-0.38	103	--	--	--	--
142	1	1.90	115	--	--	--	--
149	3	0.76	109	--	--	--	--
180	3	0.57	108	--	--	--	--
190	4	-0.38	103	--	--	--	--
208	4	0.38	107	--	--	--	--
212	3	-0.76	101	--	--	--	--
220	4	0.42	--	107.2	--	--	--
234	4	-0.19	104	--	--	--	--
246	3	0.57	108	--	--	--	--
247	4	-0.38	103	--	--	--	--
254	3	0.57	108	--	--	--	--
255	3	-0.57	--	--	102	--	--
256	4	0.00	105	--	--	--	--
257	2	1.33	112	--	--	--	--
265	4	-0.19	104	--	--	--	--
268	3	0.55	107.9	--	--	--	--
270	4	0.38	107	--	--	--	--
274	4	0.34	--	--	--	--	106.8
277	3	0.57	108	--	--	--	--
305	3	0.84	109.4	--	--	--	--
307	3	-0.76	--	--	--	--	101
324	3	-0.61	--	--	--	101.8	--
331	3	-0.95	100	--	--	--	--
336	0	8.11	--	--	--	--	147.6
341	3	-0.95	--	--	100	--	--
356	4	-0.49	102.4	--	--	--	--
366	3	0.76	--	--	109	--	--

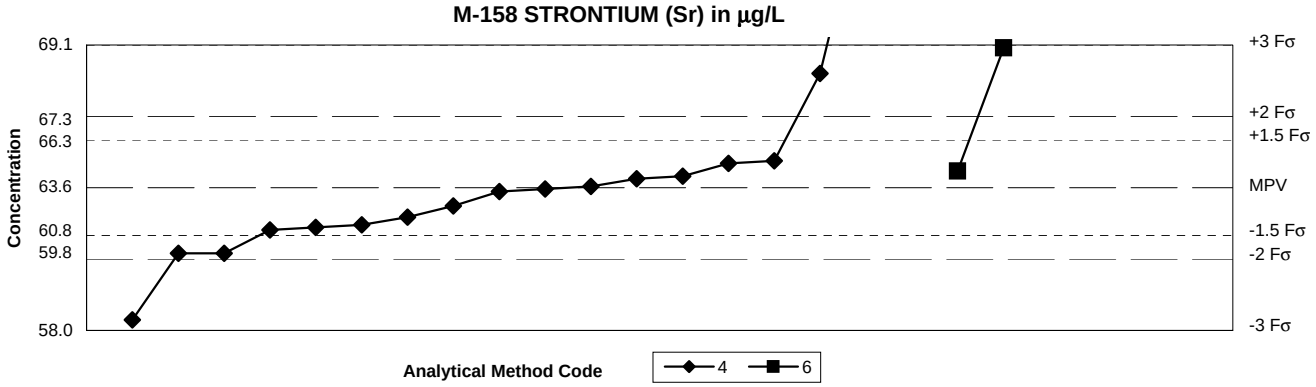
Table 12. ***Statistical summary of reported data for standard reference sample M-158 (major constituents) -- continued***



SUMMARY	Methods			Statistics	
	0	40	41	Method Codes	
n =	2	3	36	00 Other	**MPV = 642 µS/cm**
Minimum =	570	465	612.3	40 Ion selective electrode	F-pseudosigma = 18.5
Maximum =	647	662	691	41 Electrometric	Rating criterion = 32.1
Median =			642		n = 41
F-pseudosigma =			18.2		Uh = 653
					Lh = 628

			Methods		
Lab	Rating	Z-value	0	40	41
1	4	0.34	--	--	653
5	0	-2.24	570	--	--
10	4	0.19	--	--	648
12	4	0.09	--	--	645
16	3	0.56	--	--	660
23	3	0.53	--	--	659
24	4	0.40	--	--	655
25	4	-0.40	--	--	629
26	4	-0.16	--	--	637
38	4	-0.19	--	--	636
42	4	-0.37	--	--	630
46	4	-0.44	--	--	628
59	4	-0.50	--	--	626
64	4	-0.06	--	--	640
70	3	-0.75	--	--	618
89	4	0.00	--	--	642
93	3	-0.93	--	--	612.3
105	4	0.31	--	--	652
113	4	0.25	--	--	650
118	3	-0.69	--	--	620
134	4	0.05	--	643.5	--
138	4	-0.28	--	--	633
142	4	0.28	--	--	651
180	4	0.03	--	--	643
190	4	0.09	--	--	645
212	4	-0.50	--	--	626
234	4	0.40	--	--	655
246	3	-0.69	--	--	620
247	4	0.37	--	--	654
256	4	0.34	--	--	653
257	2	1.43	--	--	688
268	4	-0.44	--	--	628
274	4	-0.50	--	--	626
276	2	1.50	--	--	690
277	3	0.62	--	662	--
307	1	1.53	--	--	691
324	4	-0.28	--	--	633
331	0	-5.51	--	465	--
333	4	-0.03	--	--	641
356	4	0.16	647	--	--
366	4	-0.25	--	--	634

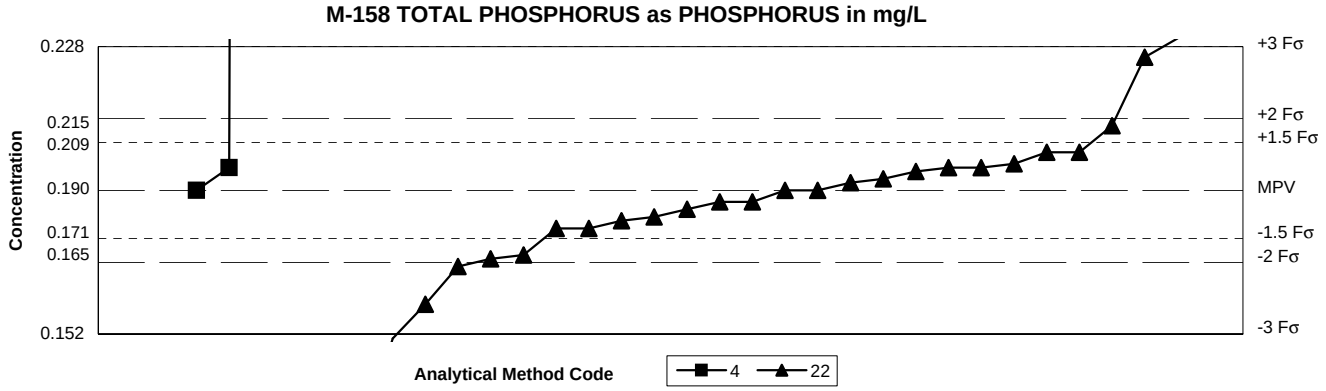
Table 12. ***Statistical summary of reported data for standard reference sample M-158 (major constituents) -- continued***



SUMMARY	Methods			Statistics		
	4	6	Method Codes			
n =	18	2	04 Inductively coupled plasma	**MPV =**	**63.6**	**µg/L**
Minimum =	58.4	64.2	06 Inductively coupled plasma/mass spectrometry	F-pseudosigma =	1.85	
Maximum =	90	69		Rating criterion =	3.18	
Median =	63.5			n =	20	
F-pseudosigma =	1.85			Uh =	64.6	
				Lh =	62.1	

			Methods	
Lab	Rating	Z-value	4	6
1	4	0.30	64.5	--
5	4	-0.05	63.4	--
16	4	-0.46	62.1	--
24	4	0.14	64	--
25	0	8.32	90	--
42	0	3.70	75.3	--
59	4	0.20	--	64.2
105	3	-0.80	61	--
113	4	0.02	63.6	--
134	4	-0.22	62.84	--
138	4	0.33	64.6	--
142	4	0.11	63.9	--
212	4	-0.36	62.4	--
234	3	-0.52	61.9	--
246	4	-0.02	63.5	--
247	1	-1.62	58.4	--
256	2	1.40	68	--
265	4	-0.49	62	--
333	3	-0.80	61	--
341	1	1.72	--	69

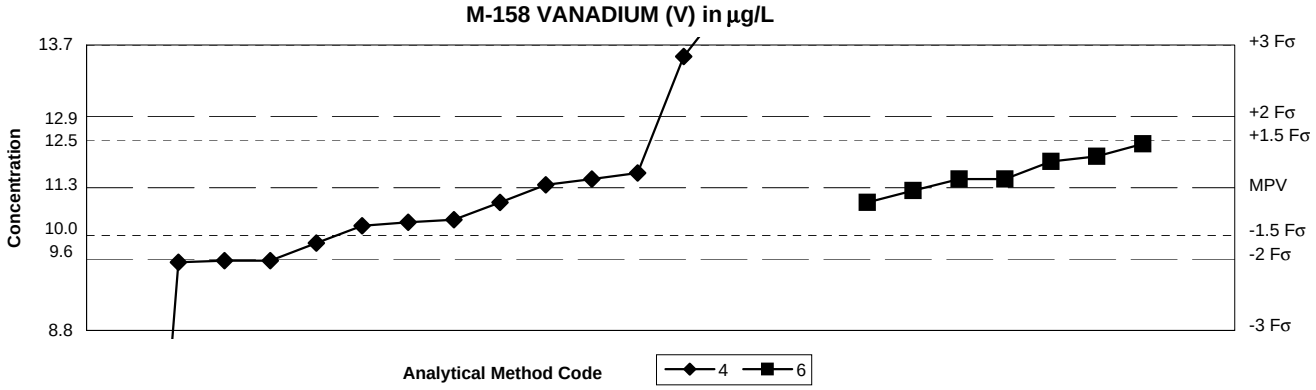
Table 12. ***Statistical summary of reported data for standard reference sample M-158 (major constituents) -- continued***



SUMMARY	Methods				Statistics
	0	4	22	Method Codes	
n =	2	3	28	00 Other	**MPV = 0.190 mg/L**
Minimum =	0.25	0.19	0.05	04 Inductively coupled plasma	F-pseudosigma = 0.0126
Maximum =	0.43	180	0.23	22 Colorimetric	n = 33
Median =			0.187		Uh = 0.197
F-pseudosigma =			0.017		Lh = 0.180

			Methods		
Lab	Rating	Z-value	0	4	22
12	1	-1.59	--	--	0.17
16	4	0.48	--	--	0.196
23	4	0.00	--	--	0.19
25	0	-5.40	--	--	0.122
38	4	0.24	--	--	0.193
42	4	0.48	--	0.196	--
46	3	-0.56	--	--	0.183
55	4	0.16	--	--	0.192
59	0	-3.09	--	--	0.151
64	3	-0.79	--	--	0.18
70	0	-11.11	--	--	0.05
89	4	0.48	--	--	0.196
93	4	0.00	--	--	0.19
105	0	-2.38	--	--	0.16
113	4	-0.40	--	--	0.185
134	3	-0.79	--	--	0.18
138	3	0.56	--	--	0.197
142	4	0.40	--	--	0.195
180	3	-0.63	--	--	0.182
190	4	-0.24	--	--	0.187
212	0	-6.35	--	--	0.11
227	0	#######	--	180	--
234	3	0.79	--	--	0.2
246	4	0.00	--	0.19	--
247	2	-1.35	--	--	0.173
257	0	3.17	--	--	0.23
274	0	2.78	--	--	0.225
276	0	19.04	0.43	--	--
305	4	-0.24	--	--	0.187
307	3	0.79	--	--	0.2
331	0	4.76	0.25	--	--
341	2	1.35	--	--	0.207
366	2	-1.43	--	--	0.172

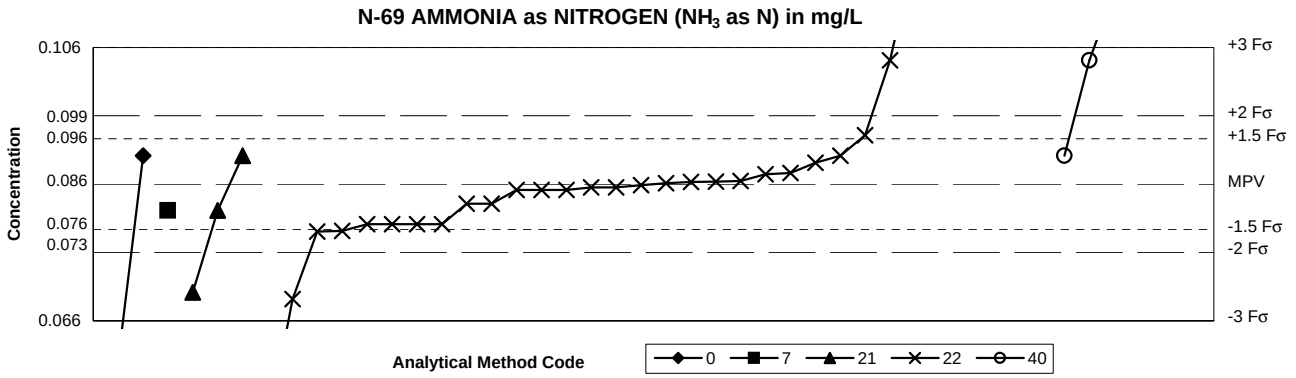
Table 12. ***Statistical summary of reported data for standard reference sample M-158 (major constituents) -- continued***



SUMMARY	Methods				Statistics	
	4	6	10	Method Codes		
n =	14	7	1	04 Inductively coupled plasma	**MPV =**	**11.3 µg/L**
Minimum =	0.124	11	18.8	06 Inductively coupled plasma/mass spectrometry	F-pseudosigma =	0.82
Maximum =	14.5	12		10 Atomic absorption: extraction	n =	22
Median =	10.7	11.4			Uh =	11.7
F-pseudosigma =	1.04	0.330			Lh =	10.6

			Methods		
Lab	Rating	Z-value	4	6	10
1	4	0.18	--	11.4	--
5	3	-0.67	10.7	--	--
16	0	2.76	13.5	--	--
25	NR	--	<13	--	--
42	4	-0.06	--	11.2	--
55	4	0.31	11.5	--	--
59	4	0.18	--	11.4	--
76	3	0.66	--	11.79	--
89	0	9.26	--	--	18.8
105	NR	--	< 20.0	--	--
134	3	-0.72	10.66	--	--
138	1	-1.57	9.97	--	--
142	3	0.92	--	12	--
180	0	3.99	14.5	--	--
212	3	-0.80	10.6	--	--
220	4	0.06	11.3	--	--
234	4	0.18	11.4	--	--
246	4	-0.31	11	--	--
247	2	-1.17	10.3	--	--
256	1	-1.53	10	--	--
265	3	0.55	--	11.7	--
305	0	-13.64	0.124	--	--
331	1	-1.53	10	--	--
341	4	-0.31	--	11	--

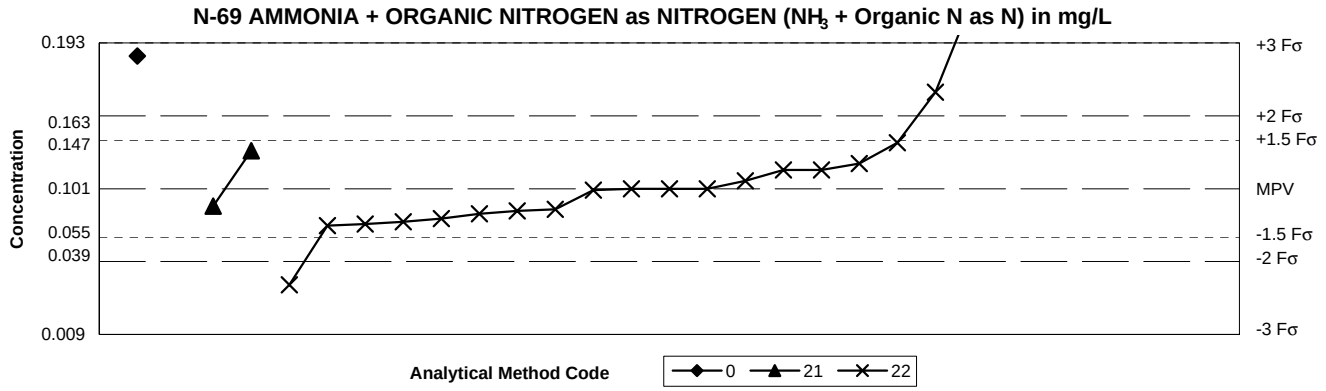
Table 13. ***Statistical summary of reported data for standard reference sample N-69 (nutrient constituents)***



SUMMARY	Methods					Statistics
	0	7	21	22	40	Method Codes
n =	2	1	3	31	3	00 Other
Minimum =	0.06	0.082	0.07	0.05	0.09	07 Ion chromatography
Maximum =	0.09		0.09	1.5	0.114	21 Titration: electrometric
Median =				0.086		22 Colorimetric
F-pseudosigma =				0.006		40 Ion selective electrode

			Methods				
Lab	Rating	Z-value	0	7	21	22	40
1	3	-0.88	--	--	--	0.08	--
5	0	5.12	--	--	--	0.12	--
10	3	0.62	--	--	--	--	0.09
12	0	30.90	--	--	--	0.292	--
16	3	0.62	--	--	--	0.09	--
21	4	-0.07	--	--	--	0.085	--
23	4	-0.43	--	--	--	0.083	--
25	0	-2.38	--	--	0.07	--	--
31	4	-0.07	--	--	--	0.085	--
38	3	0.62	--	--	0.09	--	--
55	4	0.25	--	--	--	0.088	--
59	4	-0.43	--	--	--	0.083	--
64	3	-0.88	--	--	--	0.08	--
70	NR	--	--	--	--	<0.1	--
72	0	-5.37	--	--	--	0.05	--
89	4	0.02	--	--	--	0.086	--
93	4	0.47	--	--	--	0.089	--
105	4	0.07	--	--	--	0.086	--
113	2	1.07	--	--	--	0.093	--
118	3	-0.88	--	--	--	0.08	--
134	0	-2.53	--	--	--	0.069	--
138	4	0.05	--	--	--	0.086	--
142	4	-0.13	--	--	--	0.085	--
180	4	-0.13	--	--	--	0.085	--
190	4	-0.13	--	--	--	0.085	--
193	3	-0.88	--	--	--	0.08	--
198	4	0.22	--	--	--	0.087	--
212	0	211.97	--	--	--	1.5	--
224	0	2.72	--	--	--	0.104	--
234	0	2.72	--	--	--	--	0.104
246	0	-3.87	0.06	--	--	--	--
247	2	-1.04	--	--	--	0.079	--
305	0	4.22	--	--	--	--	0.114
313	0	7.07	--	--	--	0.133	--
316	4	-0.02	--	--	--	0.086	--
318	3	-0.58	--	--	0.082	--	--
331	3	0.62	0.09	--	--	--	--
333	3	-0.58	--	0.082	--	--	--
341	2	-1.03	--	--	--	0.079	--
356	4	0.05	--	--	--	0.086	--
366	0	5.12	--	--	--	0.12	--

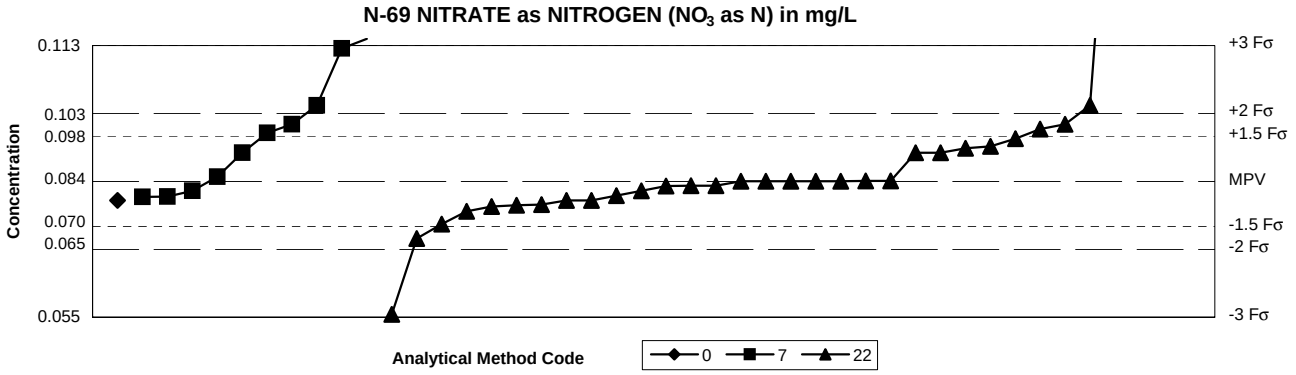
Table 13. ***Statistical summary of reported data for standard reference sample N-69 (nutrient constituents) -- continued***



SUMMARY	Methods					Statistics
	0	7	21	22	Method Codes	
n =	1	0	2	21	00 Other	**MPV = 0.101 mg/L**
Minimum =	0.185	0	0.09	0.04	07 Ion chromatography	F-pseudosigma = 0.0308
Maximum =			0.125	0.35	21 Titration: electrometric	n = 24
Median =				0.101	22 Colorimetric	Uh = 0.128
F-pseudosigma =				0.024		Lh = 0.086

			Methods			
Lab	Rating	Z-value	0	7	21	22
1	3	-0.62	--	--	--	0.082
5	3	0.94	--	--	--	0.13
10	4	-0.03	--	--	--	0.1
12	0	8.09	--	--	--	0.35
16	3	0.78	--	--	0.125	--
21	4	0.39	--	--	--	0.113
23	NR	--	--	--	--	<0.2
25	NR	--	--	<0.07	--	--
31	4	0.39	--	--	--	0.113
38	4	-0.36	--	--	0.09	--
55	3	-0.73	--	--	--	0.079
59	3	-0.52	--	--	--	0.085
70	4	-0.46	--	--	--	0.087
72	0	3.93	--	--	--	0.222
89	4	0.00	--	--	--	0.101
105	NR	--	--	--	--	<1.00
113	NR	--	--	--	--	<0.5
118	NR	--	--	--	--	<0.10
134	4	0.16	--	--	--	0.106
138	4	0.00	--	--	--	0.101
142	0	2.73	0.185	--	--	--
180	1	1.98	--	--	--	0.162
224	0	4.68	--	--	--	0.245
247	4	0.00	--	--	--	0.101
313	1	-1.98	--	--	--	0.04
316	4	-0.43	--	--	--	0.088
318	3	0.52	--	--	--	0.117
331	3	-0.76	--	--	--	0.078
341	3	-0.68	--	--	--	0.08
356	NR	--	--	--	--	<0.50
366	NR	--	--	--	--	<0.50

Table 13. ***Statistical summary of reported data for standard reference sample N-69 (nutrient constituents) -- continued***

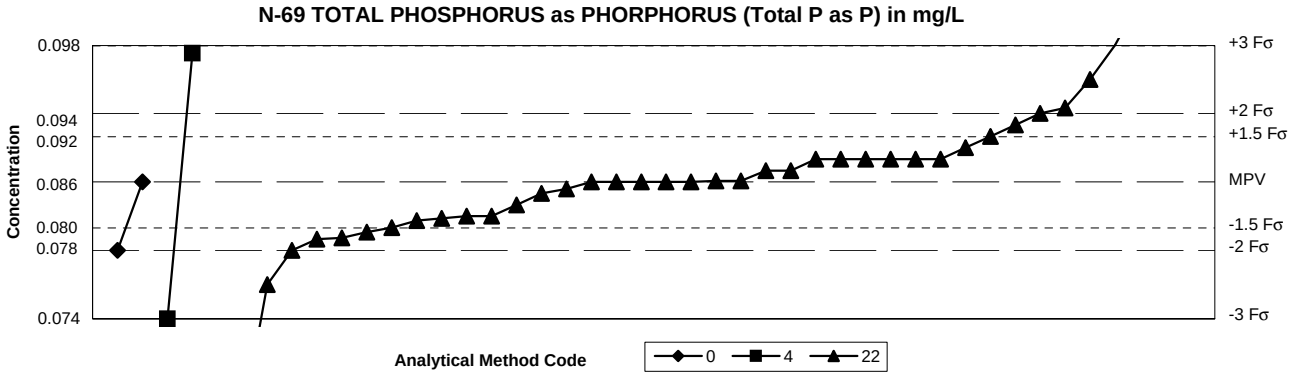


SUMMARY	Methods				Statistics
	0	7	22	40	Method Codes
n =	1	10	31	1	00 Other
Minimum =	0.08	0.081	0.056	0.27	07 Ion chromatography
Maximum =		0.114	2.3		22 Colorimetric
Median =		0.092	0.084		40 Ion selective electrode
F-pseudosigma =		0.013	0.008		

						MPV = **0.084 mg/L**
						F-pseudosigma = 0.0095
						n = 43
						Uh = 0.094
						Lh = 0.081

			Methods			
Lab	Rating	Z-value	0	7	22	40
1	3	-0.94	--	--	0.075	--
5	3	0.73	--	--	0.091	--
10	4	-0.31	--	--	0.081	--
12	3	0.94	--	--	0.093	--
16	1	1.68	--	--	0.1	--
21	4	0.01	--	--	0.084	--
23	0	2.94	--	0.112	--	--
25	3	0.63	--	0.09	--	--
31	4	0.01	--	--	0.084	--
38	3	-0.52	--	--	0.079	--
42	0	3.15	--	0.114	--	--
55	3	0.78	--	--	0.091	--
59	4	0.00	--	--	0.084	--
64	3	0.63	--	--	0.09	--
70	4	0.00	--	--	0.084	--
72	0	9.03	--	--	0.17	--
89	4	-0.21	--	--	0.082	--
93	4	-0.21	--	0.082	--	--
105	4	-0.42	--	--	0.08	--
113	4	0.00	--	--	0.084	--
118	0	-2.94	--	--	0.056	--
134	4	0.00	--	--	0.084	--
138	4	-0.34	--	0.081	--	--
142	2	1.15	--	--	0.095	--
180	4	0.00	--	--	0.084	--
190	2	-1.26	--	--	0.072	--
193	4	-0.42	--	--	0.08	--
198	3	-0.66	--	--	0.078	--
212	0	232.64	--	--	2.3	--
224	2	1.07	--	0.094	--	--
234	2	1.26	--	0.096	--	--
246	4	-0.42	0.08	--	--	--
247	4	-0.35	--	0.081	--	--
305	3	0.63	--	--	0.09	--
313	4	-0.09	--	--	0.083	--
316	3	-0.51	--	--	0.079	--
318	4	-0.09	--	--	0.083	--
331	1	1.68	--	0.1	--	--
333	4	0.10	--	0.085	--	--
341	4	-0.10	--	--	0.083	--
353	0	19.53	--	--	--	0.27
356	3	-0.55	--	--	0.079	--
366	2	1.26	--	--	0.096	--

Table 13. ***Statistical summary of reported data for standard reference sample N-69 (nutrient constituents) -- continued***



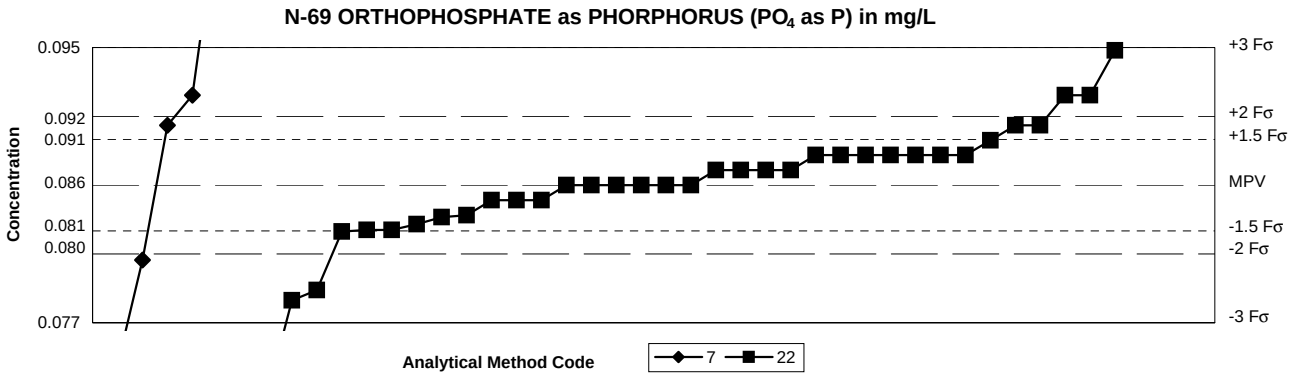
SUMMARY	Methods			Statistics
	0	4	22	
n =	2	2	38	
Minimum =	0.08	0.074	0.061	
Maximum =	0.086	0.097	0.102	
Median =			0.086	
F-pseudosigma =			0.004	

Method Codes	
00	Other
04	Inductively coupled plasma
22	Colorimetric

Statistics	
MPV =	**0.086 mg/L**
F-pseudosigma =	0.0040
Rating criterion =	0.0043
n =	42
Uh =	0.088
Lh =	0.083

			Methods		
Lab	Rating	Z-value	0	4	22
1	4	0.23	--	--	0.087
5	2	1.16	--	--	0.091
10	3	0.93	--	--	0.09
12	3	0.70	--	--	0.089
16	3	-0.70	--	--	0.083
21	4	0.02	--	--	0.086
23	4	0.47	--	--	0.088
25	2	-1.40	--	--	0.08
31	4	0.02	--	--	0.086
38	4	0.00	--	--	0.086
42	0	2.63	--	0.097	--
55	2	-1.14	--	--	0.081
59	4	-0.47	--	--	0.084
64	2	1.40	--	--	0.092
70	3	-0.93	--	--	0.082
72	0	-2.09	--	--	0.077
89	4	0.00	--	--	0.086
93	4	0.47	--	--	0.088
105	0	3.72	--	--	0.102
113	4	0.00	--	--	0.086
118	4	0.00	--	--	0.086
134	4	-0.23	--	--	0.085
138	2	-1.02	--	--	0.082
142	4	0.00	--	--	0.086
180	0	2.79	--	--	0.098
183	4	0.47	--	--	0.088
190	4	0.47	--	--	0.088
193	4	0.47	--	--	0.088
198	4	-0.14	--	--	0.085
212	0	-4.88	--	--	0.065
224	0	2.09	--	--	0.095
234	3	-0.70	--	--	0.083
246	0	-2.79	--	0.074	--
247	0	-5.86	--	--	0.061
305	4	0.47	--	--	0.088
313	1	1.51	--	--	0.093
316	3	-0.74	--	--	0.083
318	4	0.00	0.086	--	--
331	2	-1.40	0.08	--	--
341	4	0.23	--	--	0.087
356	3	-0.79	--	--	0.083
366	2	-1.16	--	--	0.081

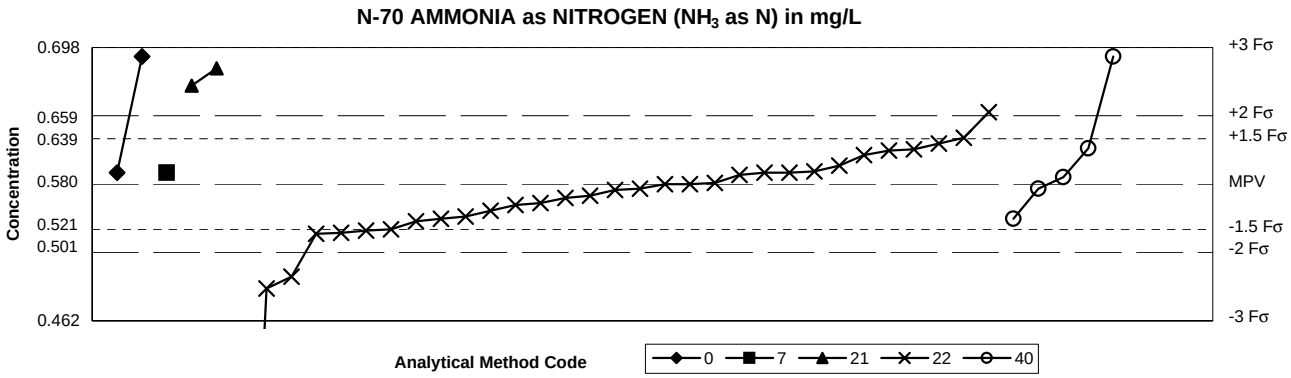
Table 13. ***Statistical summary of reported data for standard reference sample N-69 (nutrient constituents) -- continued***



SUMMARY	Methods			Statistics	
	7	22	Method Codes		
n =	5	36	07 Ion chromatography	**MPV =**	**0.086 mg/L**
Minimum =	0.074	0.07	22 Colorimetric	F-pseudosigma =	0.0031
Maximum =	0.104	0.095		Rating criterion =	0.0043
Median =	0.090	0.086		n =	41
F-pseudosigma =	0.008	0.003		Uh =	0.088
				Lh =	0.084

			Methods	
Lab	Rating	Z-value	7	22
1	4	0.47	--	0.088
5	3	0.93	--	0.09
10	2	1.40	--	0.092
12	4	0.47	--	0.088
16	1	-1.63	--	0.079
21	4	0.00	--	0.086
23	4	0.23	--	0.087
25	4	-0.23	--	0.085
31	4	0.00	--	0.086
38	4	0.00	--	0.086
42	0	4.19	0.104	--
59	4	0.00	--	0.086
64	4	0.23	--	0.087
70	4	-0.47	--	0.084
72	0	-3.72	--	0.07
89	4	0.00	--	0.086
93	4	0.23	--	0.087
105	4	0.00	--	0.086
113	3	0.93	--	0.09
118	4	-0.23	--	0.085
134	4	0.47	--	0.088
138	3	-0.72	--	0.083
142	4	0.23	--	0.087
180	2	1.40	--	0.092
183	4	0.47	--	0.088
190	4	-0.23	--	0.085
198	1	-1.79	--	0.078
212	3	-0.70	--	0.083
224	3	0.70	--	0.089
234	2	1.40	0.092	--
246	3	0.93	0.09	--
247	2	-1.16	0.081	--
305	4	0.47	--	0.088
313	3	-0.70	--	0.083
316	3	-0.60	--	0.083
318	4	0.47	--	0.088
331	0	2.09	--	0.095
333	0	-2.79	0.074	--
341	0	-3.26	--	0.072
356	4	-0.50	--	0.084
366	4	0.47	--	0.088

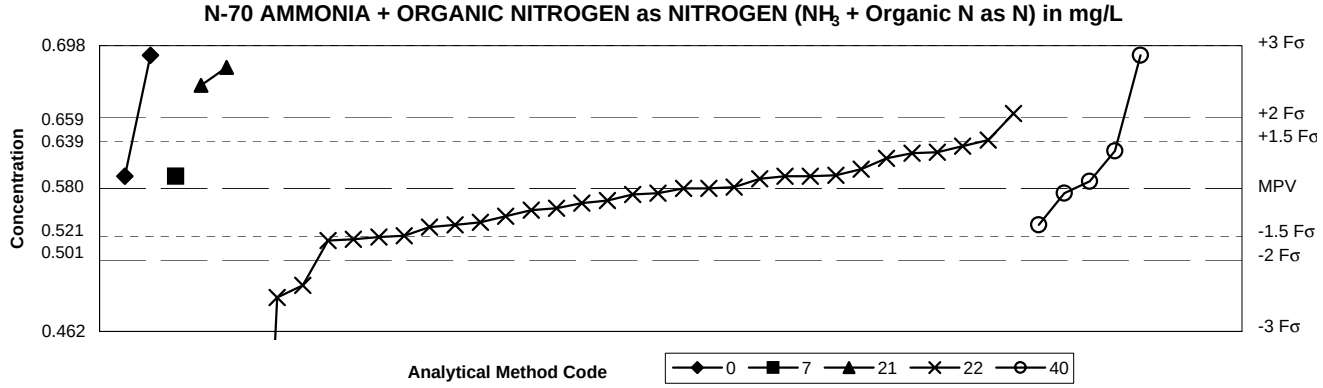
Table 14. ***Statistical summary of reported data for standard reference sample N-70 (nutrient constituents)***



SUMMARY	Methods						Statistics	
	0	7	21	22	40	Method Codes		
n =	2	1	2	31	5	00 Other	**MPV =**	**0.580 mg/L**
Minimum =	0.59	0.59	0.665	0.056	0.55	07 Ion chromatography	F-pseudosigma =	0.0393
Maximum =	0.69		0.68	0.642	0.69	21 Titration: electrometric	n =	41
Median =				0.575	0.586	22 Colorimetric	Uh =	0.605
F-pseudosigma =				0.031	0.026	40 Ion selective electrode	Lh =	0.552

			Methods				
Lab	Rating	Z-value	0	7	21	22	40
1	2	-1.09	--	--	--	0.537	--
5	3	0.76	--	--	--	0.61	--
10	3	-0.76	--	--	--	--	0.55
12	4	0.28	--	--	--	0.591	--
16	2	1.02	--	--	--	0.62	--
23	4	0.00	--	--	--	0.58	--
25	0	2.55	--	--	0.68	--	--
26	4	0.25	--	0.59	--	--	--
38	0	2.16	--	--	0.665	--	--
46	3	-0.59	--	--	--	0.557	--
55	4	0.41	--	--	--	0.596	--
59	4	0.15	--	--	--	--	0.586
64	4	0.25	--	--	--	0.59	--
70	0	-2.04	--	--	--	0.5	--
72	3	-0.76	--	--	--	0.55	--
89	3	-0.81	--	--	--	0.548	--
93	3	0.89	--	--	--	0.615	--
97	3	0.74	--	--	--	0.609	--
105	0	-13.34	--	--	--	0.056	--
113	4	-0.46	--	--	--	0.562	--
118	4	-0.25	--	--	--	0.57	--
134	4	-0.10	--	--	--	0.576	--
138	4	-0.13	--	--	--	0.575	--
142	3	-0.71	--	--	--	0.552	--
180	3	-0.99	--	--	--	0.541	--
190	4	0.20	--	--	--	0.588	--
193	4	0.00	--	--	--	0.58	--
198	3	0.64	--	--	--	0.605	--
212	0	-2.29	--	--	--	0.49	--
224	1	1.58	--	--	--	0.642	--
227	4	-0.31	--	--	--	0.568	--
234	4	-0.10	--	--	--	--	0.576
246	4	0.25	0.59	--	--	--	--
247	2	-1.07	--	--	--	0.538	--
305	3	0.79	--	--	--	--	0.611
307	0	2.80	--	--	--	--	0.69
313	4	0.03	--	--	--	0.581	--
316	4	-0.42	--	--	--	0.564	--
331	0	2.80	0.69	--	--	--	--
341	2	-1.02	--	--	--	0.54	--
366	4	0.25	--	--	--	0.59	--

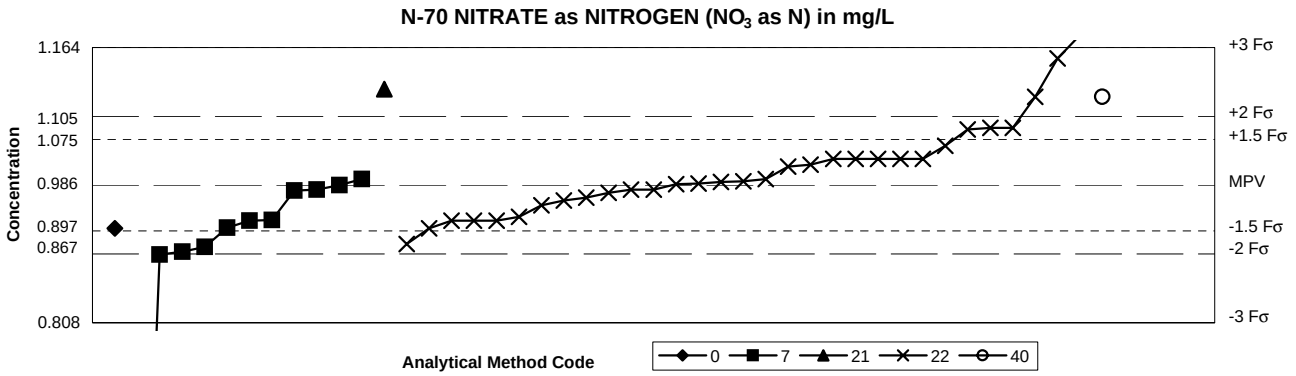
Table 14. ***Statistical summary of reported data for standard reference sample N-70 (nutrient constituents) -- continued***



SUMMARY	Methods					Statistics
	0	20	21	22	Method Codes	
n =	3	1	1	24	00 Other	**MPV = 0.660 mg/L**
Minimum =	0.045	0.64	0.66	0.418	20 Titration: colorimetric	F-pseudosigma = 0.0638
Maximum =	0.774			0.979	21 Titration: electrometric	n = 29
Median =				0.665	22 Colorimetric	Uh = 0.701
F-pseudosigma =				0.079		Lh = 0.615

			Methods			
Lab	Rating	Z-value	0	20	21	22
1	2	1.41	--	--	--	0.75
5	2	-1.10	--	--	--	0.59
10	4	0.31	0.68	--	--	--
12	4	0.16	--	--	--	0.67
16	4	-0.31	--	0.64	--	--
23	2	-1.25	--	--	--	0.58
38	4	0.00	--	--	0.66	--
46	0	5.00	--	--	--	0.979
55	3	-0.71	--	--	--	0.615
59	3	0.64	--	--	--	0.701
70	2	1.24	--	--	--	0.739
72	4	0.27	--	--	--	0.677
89	4	-0.14	--	--	--	0.651
97	4	0.00	--	--	--	0.66
105	NR	--	--	--	--	<1.00
113	2	1.30	--	--	--	0.743
118	4	0.28	--	--	--	0.678
134	2	1.21	--	--	--	0.737
138	3	0.64	--	--	--	0.701
142	1	1.79	0.774	--	--	--
180	4	-0.02	--	--	--	0.659
212	2	1.25	--	--	--	0.74
224	0	-3.80	--	--	--	0.418
227	1	-1.87	--	--	--	0.541
247	4	-0.35	--	--	--	0.638
313	3	-0.78	--	--	--	0.61
316	3	-0.62	--	--	--	0.62
331	0	-9.65	0.045	--	--	--
341	4	0.47	--	--	--	0.69
366	2	-1.25	--	--	--	0.58

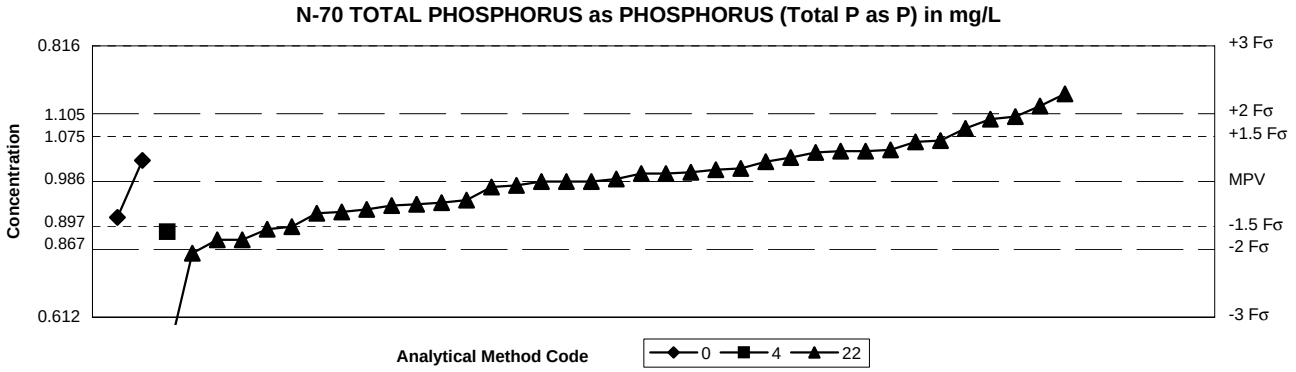
Table 14. ***Statistical summary of reported data for standard reference sample N-70 (nutrient constituents) -- continued***



SUMMARY	Methods					Statistics
	0	7	21	22	40	Method Codes
n =	1	11	1	31	1	00 Other
Minimum =	0.93	0.175	1.11	0.91	1.1	07 Ion chromatography
Maximum =		0.994		1.18		21 Titration: electrometric
Median =		0.940		0.991		22 Colorimetric
F-pseudosigma =		0.057		0.039		40 Ion selective electrode

					Methods		
Lab	Rating	Z-value	0	7	21	22	40
1	3	0.86	--	--	--	1.037	--
5	0	2.77	--	--	--	1.15	--
10	4	-0.10	--	--	--	0.98	--
12	2	1.25	--	--	--	1.06	--
16	3	-0.78	--	--	--	0.94	--
23	3	-0.94	--	--	--	0.93	--
25	4	0.13	--	0.994	--	--	--
26	0	-13.68	--	0.175	--	--	--
38	4	0.08	--	--	--	0.991	--
42	4	-0.12	--	0.979	--	--	--
46	4	0.03	--	--	--	0.988	--
55	2	1.21	--	--	--	1.058	--
59	3	0.57	--	--	--	1.02	--
64	3	0.57	--	--	--	1.02	--
70	4	0.07	--	--	--	0.99	--
72	0	3.27	--	--	--	1.18	--
89	3	0.57	--	--	--	1.02	--
93	3	-0.76	--	0.941	--	--	--
97	4	0.40	--	--	--	1.01	--
105	4	-0.10	--	--	--	0.98	--
113	4	-0.17	--	--	--	0.976	--
118	1	1.92	--	--	--	1.1	--
134	2	1.25	--	--	--	1.06	--
138	4	0.00	--	0.986	--	--	--
142	4	0.02	--	--	--	0.987	--
180	3	0.57	--	--	--	1.02	--
190	4	-0.27	--	--	--	0.97	--
193	3	0.57	--	--	--	1.02	--
198	4	0.13	--	--	--	0.994	--
205	0	2.09	--	--	1.11	--	--
208	3	-0.78	--	0.94	--	--	--
212	2	-1.28	--	--	--	0.91	--
224	3	-0.93	--	0.931	--	--	--
227	2	-1.45	--	0.9	--	--	--
234	2	-1.35	--	0.906	--	--	--
246	4	-0.10	--	0.98	--	--	--
247	1	-1.52	--	0.896	--	--	--
305	3	-0.78	--	--	--	0.94	--
307	3	-0.69	--	--	--	0.945	--
313	4	-0.34	--	--	--	0.966	--
316	4	0.45	--	--	--	1.013	--
331	3	-0.94	0.93	--	--	--	--
341	3	-0.78	--	--	--	0.94	--
353	1	1.92	--	--	--	--	1.1
366	4	-0.44	--	--	--	0.96	--

Table 14. ***Statistical summary of reported data for standard reference sample N-70 (nutrient constituents) -- continued***



SUMMARY	Methods			Statistics
	0	4	22	
n =	2	1	39	
Minimum =	0.687	0.676	0.545	
Maximum =	0.73		0.78	
Median =			0.714	
F-pseudosigma =			0.033	

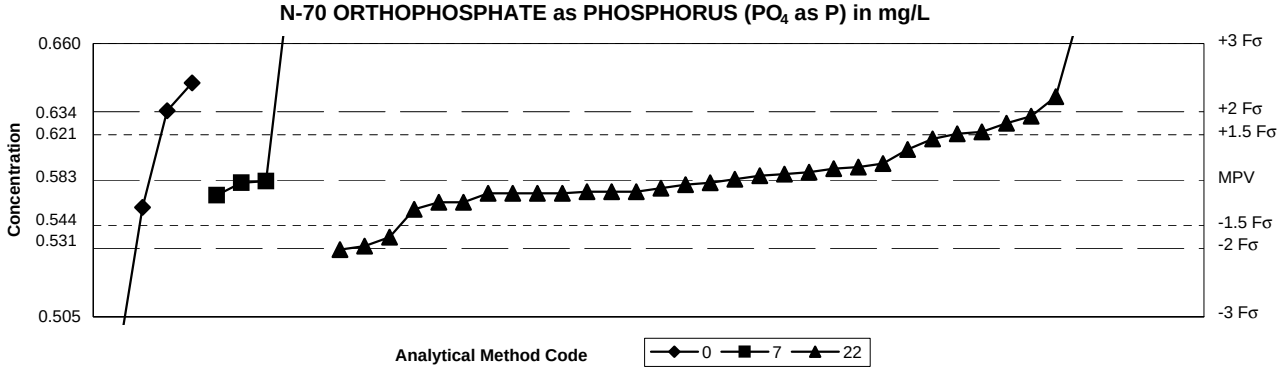
Method Codes

00 Other
04 Inductively coupled plasma
22 Colorimetric

MPV = 0.714 mg/L
F-pseudosigma = 0.0341
Rating criterion = 0.0357
n = 42
Uh = 0.736
Lh = 0.690

			Methods		
Lab	Rating	Z-value	0	4	22
1	2	1.32	--	--	0.761
5	3	0.64	--	--	0.737
10	3	0.84	--	--	0.744
12	4	0.25	--	--	0.723
16	4	-0.50	--	--	0.696
23	2	-1.23	--	--	0.67
25	1	-1.51	--	--	0.66
38	4	0.20	--	--	0.721
42	2	-1.06	--	0.676	--
46	1	1.60	--	--	0.771
55	4	0.17	--	--	0.72
59	3	-1.01	--	--	0.678
64	4	-0.39	--	--	0.7
70	0	-4.73	--	--	0.545
72	2	-1.23	--	--	0.67
89	4	0.17	--	--	0.72
93	3	0.67	--	--	0.738
97	2	1.37	--	--	0.763
105	4	-0.45	--	--	0.698
113	4	0.06	--	--	0.716
118	4	-0.11	--	--	0.71
134	2	1.12	--	--	0.754
138	3	-0.67	--	--	0.69
142	4	0.00	--	--	0.714
180	4	-0.08	--	--	0.711
183	3	-0.59	--	--	0.693
190	4	0.00	--	--	0.714
193	4	0.28	--	--	0.724
198	4	0.00	--	--	0.714
212	0	-3.75	--	--	0.58
224	3	0.87	--	--	0.745
227	0	-3.81	--	--	0.578
234	4	0.42	--	--	0.729
246	3	-0.76	0.687	--	--
247	3	-0.64	--	--	0.691
305	4	0.50	--	--	0.732
307	3	0.62	--	--	0.736
313	1	1.85	--	--	0.78
316	4	-0.48	--	--	0.697
331	4	0.45	0.73	--	--
341	3	0.64	--	--	0.737
366	3	-0.95	--	--	0.68

Table 14. ***Statistical summary of reported data for standard reference sample N-70 (nutrient constituents) -- continued***



SUMMARY	Methods				Statistics	
	0	7	22	Method Codes		
n =	4	5	33	00 Other	**MPV =**	**0.583 mg/L**
Minimum =	0.48	0.574	0.543	07 Ion chromatography	F-pseudosigma =	0.0259
Maximum =	0.638	1.928	0.76	22 Colorimetric	Rating criterion =	0.0291
Median =		0.582	0.583		n =	42
F-pseudosigma =		0.088	0.023		Uh =	0.610
					Lh =	0.575

			Methods		
Lab	Rating	Z-value	0	7	22
1	4	-0.26	--	--	0.575
5	2	1.25	--	--	0.619
10	2	1.12	--	--	0.615
12	0	3.35	--	--	0.68
16	4	-0.43	--	--	0.57
23	2	-1.12	--	--	0.55
25	4	-0.05	--	--	0.581
26	0	46.20	--	1.928	--
38	3	-0.53	0.567	--	--
42	4	-0.05	--	0.581	--
46	4	0.02	--	--	0.583
59	4	0.09	--	--	0.585
64	0	3.69	--	--	0.69
70	2	-1.29	--	--	0.545
72	4	-0.09	--	--	0.58
89	4	-0.15	--	--	0.578
93	4	0.15	--	--	0.587
97	3	-0.57	--	--	0.566
105	4	-0.22	--	--	0.576
113	4	-0.26	--	--	0.575
118	4	-0.22	--	--	0.576
134	3	0.91	--	--	0.609
138	2	-1.36	--	--	0.543
142	1	1.63	--	--	0.63
180	4	0.22	--	--	0.589
183	4	-0.43	--	--	0.57
190	1	1.91	0.638	--	--
198	3	0.81	--	--	0.606
208	0	4.03	--	0.7	--
212	0	6.09	--	--	0.76
224	3	0.94	--	--	0.61
227	4	0.12	--	--	0.586
234	4	-0.29	--	0.574	--
246	0	-3.52	0.48	--	--
247	4	-0.02	--	0.582	--
305	4	0.33	--	--	0.592
307	4	-0.26	--	--	0.575
313	4	-0.22	--	--	0.576
316	4	-0.25	--	--	0.575
331	2	1.36	0.622	--	--
341	3	0.60	--	--	0.6
366	4	0.26	--	--	0.59

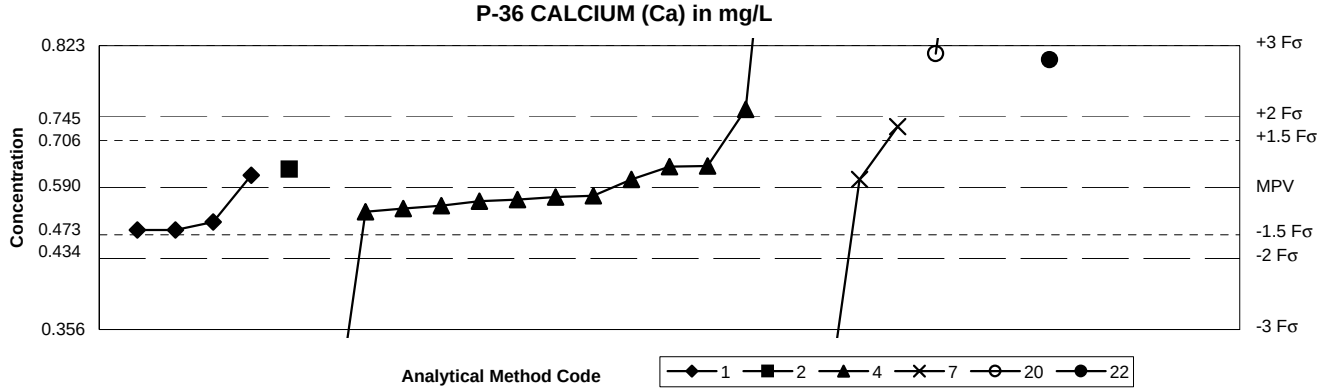
Table 15. ***Statistical summary of reported data for standard reference sample P-36 (low ionic strength constituents)***

P-36 ACIDITY (as CaCO3) in mg/L

SUMMARY	Methods			Statistics
	20	21	Method Codes	
n =	2	5	20 Titration: colorimetric	**MPV = insufficient data**
Minimum =	4.03	4.8	21 Titration: electrometric	
Maximum =	26.1	24.4		
Median =		6.52		
F-pseudosigma =		2.15		

			Methods	
Lab	Rating	Z-value	20	21
25	NR	--	--	<8
59	NR	--	--	6.52
89	NR	--	--	4.8
105	NR	--	--	5.6
247	NR	--	--	8.5
256	NR	--	--	24.4
274	NR	--	4.03	--
336	NR	--	26.1	--

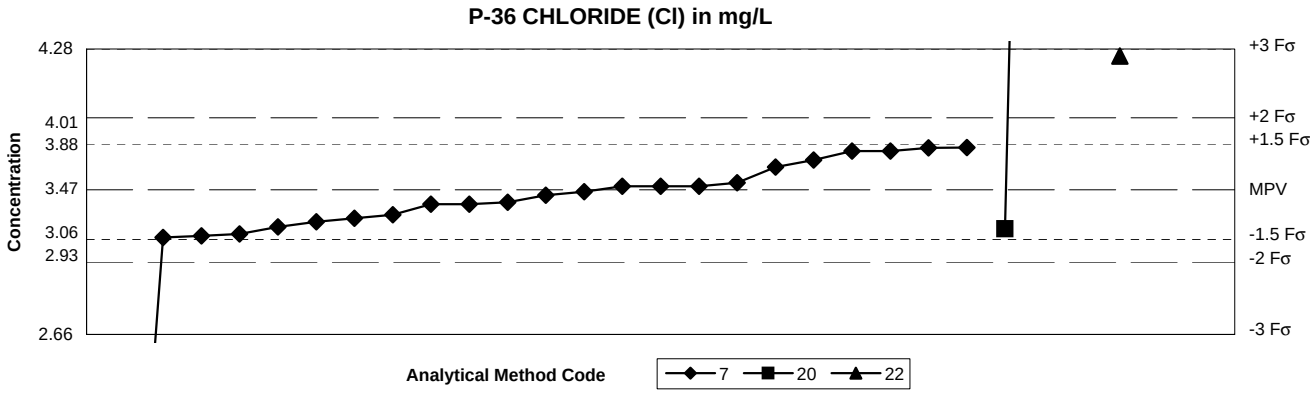
Table 15. ***Statistical summary of reported data for standard reference sample P-36 (low ionic strength constituents)*** **-- continued**



SUMMARY	Methods							Statistics
	1	2	4	7	20	21	22	Method Codes
n =	4	1	13	3	2	0	1	01 Atomic absorption: direct, air
Minimum =	0.52	0.62	0.11	0.16	0.81	0	0.8	02 Atomic absorption: direct, nitrous oxide
Maximum =	0.61		1.32	0.69	1.27			04 Inductively coupled plasma
Median =			0.574					07 Ion chromatography
F-pseudosigma =			0.047					20 Titration: colorimetric
								21 Titration: electrometric
								22 Colorimetric

			Methods						
Lab	Rating	Z-value	1	2	4	7	20	21	22
1	4	-0.17	--	--	0.576	--	--	--	--
2	4	0.17	--	--	--	0.603	--	--	--
5	4	-0.38	--	--	0.56	--	--	--	--
23	0	2.70	--	--	--	--	--	--	0.8
25	0	-6.16	--	--	0.11	--	--	--	--
38	4	0.39	--	0.62	--	--	--	--	--
59	0	-5.52	--	--	--	0.16	--	--	--
64	4	0.26	0.61	--	--	--	--	--	--
89	3	-0.89	0.52	--	--	--	--	--	--
93	4	-0.44	--	--	0.555	--	--	--	--
105	4	-0.20	--	--	0.574	--	--	--	--
134	4	-0.29	--	--	0.567	--	--	--	--
138	4	0.44	--	--	0.624	--	--	--	--
180	4	0.46	--	--	0.625	--	--	--	--
220	0	9.39	--	--	1.32	--	--	--	--
247	1	1.65	--	--	0.718	--	--	--	--
255	4	0.17	--	--	0.603	--	--	--	--
256	NR	--	--	--	--	--	--	<1.0	--
265	4	-0.51	--	--	0.55	--	--	--	--
268	3	-0.73	0.533	--	--	--	--	--	--
270	2	1.29	--	--	--	0.69	--	--	--
274	0	2.83	--	--	--	--	0.81	--	--
279	3	-0.89	0.52	--	--	--	--	--	--
333	4	-0.25	--	--	0.57	--	--	--	--
336	0	8.74	--	--	--	--	1.27	--	--

Table 15. ***Statistical summary of reported data for standard reference sample P-36 (low ionic strength constituents)*** **-- continued**



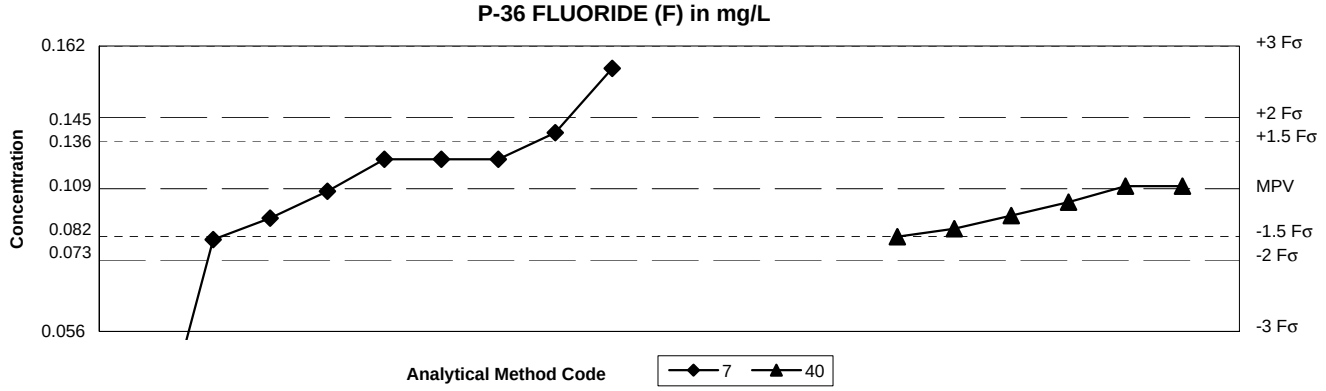
SUMMARY	Methods			Statistics
	7	20	22	
n =	23	3	1	
Minimum =	0.35	3.26	4.24	
Maximum =	3.72	13.78		
Median =	3.45			
F-pseudosigma =	0.189			

Method Codes	
07	Ion chromatography
20	Titration: colorimetric
22	Colorimetric

Statistics		
MPV =	**3.47**	**mg/L**
F-pseudosigma =	0.271	
n =	27	
Uh =	3.68	
Lh =	3.31	

			Methods		
Lab	Rating	Z-value	7	20	22
1	0	-11.53	0.35	--	--
2	3	0.92	3.719	--	--
5	3	0.67	3.65	--	--
23	4	0.18	3.52	--	--
25	4	0.11	3.5	--	--
59	4	0.11	3.5	--	--
64	3	0.92	3.72	--	--
89	3	-0.55	3.32	--	--
93	3	0.52	3.61	--	--
105	4	-0.26	3.4	--	--
113	4	-0.07	3.45	--	--
134	3	0.85	3.7	--	--
138	3	-0.96	3.21	--	--
180	3	-0.74	3.27	--	--
183	3	-0.78	--	3.26	--
190	4	-0.48	3.34	--	--
208	3	0.85	3.7	--	--
220	0	2.85	--	--	4.24
247	3	-0.92	3.22	--	--
256	4	-0.22	3.41	--	--
265	4	-0.26	3.4	--	--
268	4	0.00	3.47	--	--
270	3	-0.89	3.23	--	--
274	0	38.10	--	13.78	--
277	4	0.11	3.5	--	--
333	3	-0.63	3.3	--	--
336	0	32.15	--	12.17	--

Table 15. ***Statistical summary of reported data for standard reference sample P-36 (low ionic strength constituents)*** **-- continued**



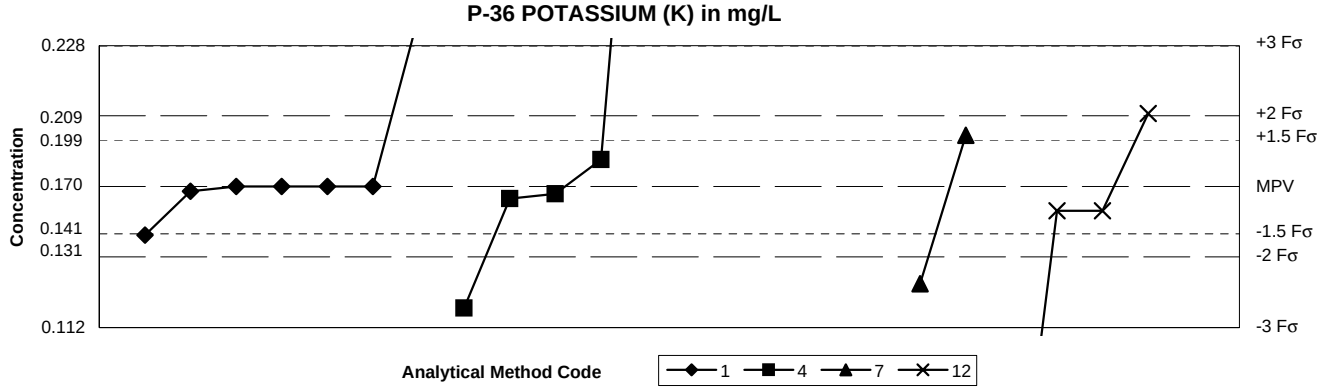
SUMMARY	Methods			Statistics
	7	22	40	
n =	9	1	6	
Minimum =	0.01	0.78	0.091	
Maximum =	0.154		0.11	
Median =	0.120		0.102	
F-pseudosigma =	0.016		0.012	

Method Codes	
07	Ion chromatography
22	Colorimetric
40	Ion selective electrode

Statistics		
MPV =	**0.109**	**mg/L**
F-pseudosigma =	0.0178	
n =	16	
Uh =	0.120	
Lh =	0.096	

			Methods		
Lab	Rating	Z-value	7	22	40
1	2	-1.07	0.09	--	--
2	3	-0.62	0.098	--	--
5	3	0.62	0.12	--	--
23	3	0.62	0.12	--	--
25	2	1.18	0.13	--	--
89	4	0.06	--	--	0.11
105	NR	--	< 0.20	--	--
113	4	-0.28	--	--	0.104
134	4	0.06	--	--	0.11
138	3	-0.84	--	--	0.094
180	0	2.53	0.154	--	--
183	3	-0.56	--	--	0.099
190	2	-1.01	--	--	0.091
247	4	-0.06	0.108	--	--
255	NR	--	--	--	<0.458
256	NR	--	<0.1	--	--
270	0	-5.56	0.01	--	--
274	NR	--	--	<1	--
277	3	0.62	0.12	--	--
336	0	37.72	--	0.78	--

Table 15. ***Statistical summary of reported data for standard reference sample P-36 (low ionic strength constituents)*** **-- continued**



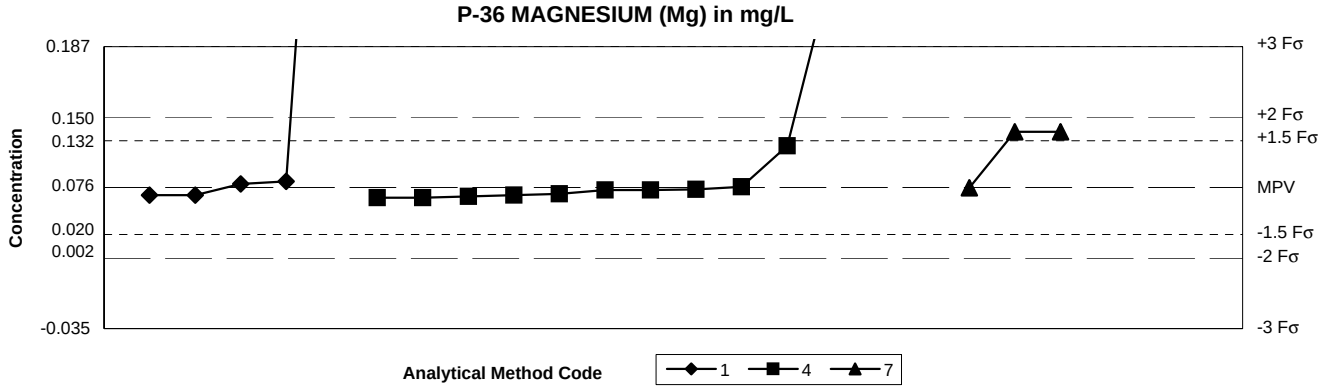
SUMMARY	Methods				Statistics
	1	4	7	12	
n =	7	6	2	4	
Minimum =	0.15	0.12	0.13	0.01	
Maximum =	0.24	2.29	0.191	0.2	
Median =	0.170	0.174			
F-pseudosigma =	0.001	0.174			

Method Codes	
01	Atomic absorption: direct, air
04	Inductively coupled plasma
07	Ion chromatography
12	Flame emission

Statistics	
MPV =	**0.170 mg/L**
F-pseudosigma =	0.0193
n =	19
Uh =	0.186
Lh =	0.160

			Methods			
Lab	Rating	Z-value	1	4	7	12
1	4	0.00	0.17	--	--	--
2	2	1.09	--	--	0.191	--
5	NR	--	--	<1.00	--	--
25	0	11.93	--	0.4	--	--
38	4	0.00	0.17	--	--	--
59	0	-2.08	--	--	0.13	--
64	4	0.00	0.17	--	--	--
89	3	-0.52	--	--	--	0.16
93	4	-0.26	--	0.165	--	--
105	NR	--	--	< 1.0	--	--
134	4	-0.10	0.168	--	--	--
138	3	0.57	--	0.181	--	--
180	NR	--	--	<0.621	--	--
190	4	0.00	0.17	--	--	--
220	0	110.00	--	2.29	--	--
247	NR	--	--	<0.204	--	--
256	NR	--	--	--	--	<1.0
265	0	-2.59	--	0.12	--	--
268	0	3.63	0.24	--	--	--
270	0	-8.30	--	--	--	0.01
274	3	-0.52	--	--	--	0.16
279	2	-1.04	0.15	--	--	--
333	4	-0.16	--	0.167	--	--
336	1	1.56	--	--	--	0.2

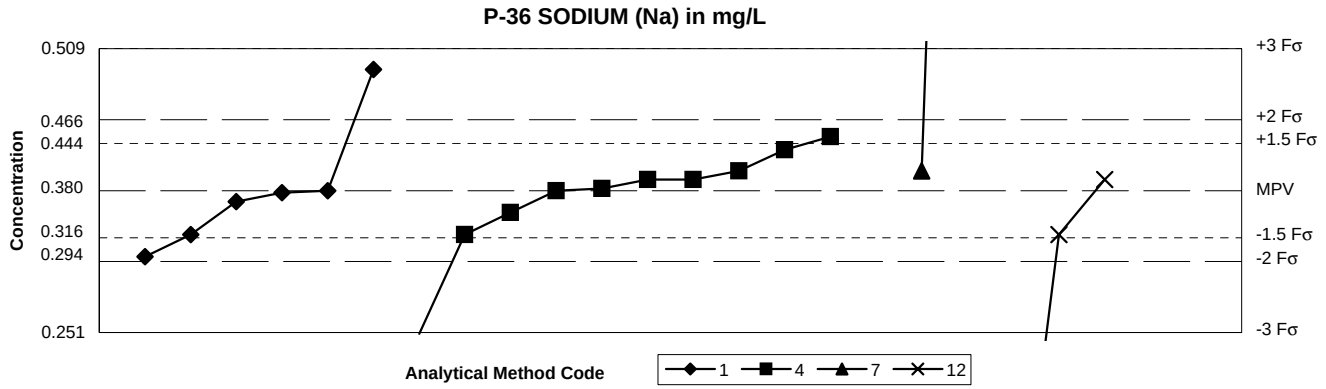
Table 15. ***Statistical summary of reported data for standard reference sample P-36 (low ionic strength constituents)*** **-- continued**



SUMMARY	Methods					Statistics
	1	4	7	20	Method Codes	
n =	5	11	3	2	01 Atomic absorption: direct, air	**MPV = 0.076 mg/L**
Minimum =	0.07	0.068	0.076	0.48	04 Inductively coupled plasma	F-pseudosigma = 0.0371
Maximum =	0.59	0.25	0.12	4.89	07 Ion chromatography	n = 21
Median =	0.079	0.074			20 Titration: colorimetric	Uh = 0.120
F-pseudosigma =	0.008	0.005				Lh = 0.070

			Methods			
Lab	Rating	Z-value	1	4	7	20
1	4	-0.05	--	0.074	--	--
2	4	0.00	--	--	0.076	--
5	4	-0.16	--	0.07	--	--
25	NR	--	--	<0.005	--	--
38	4	0.08	0.079	--	--	--
59	2	1.19	--	--	0.12	--
64	4	-0.16	0.07	--	--	--
89	4	-0.16	0.07	--	--	--
93	4	-0.22	--	0.068	--	--
105	4	-0.19	--	0.069	--	--
134	4	-0.04	--	0.075	--	--
138	4	0.02	--	0.077	--	--
180	3	0.89	--	0.109	--	--
220	0	4.69	--	0.25	--	--
247	NR	--	--	<0.204	--	--
255	4	-0.05	--	0.074	--	--
265	4	-0.13	--	0.071	--	--
268	4	0.13	0.081	--	--	--
270	2	1.19	--	--	0.12	--
274	0	10.90	--	--	--	0.48
279	0	13.87	0.59	--	--	--
333	4	-0.22	--	0.068	--	--
336	0	129.88	--	--	--	4.89

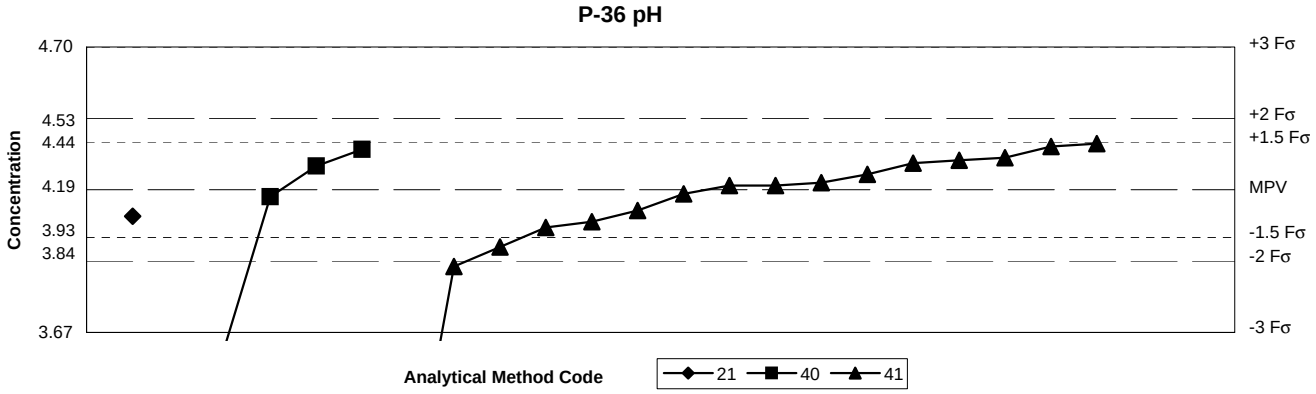
Table 15. ***Statistical summary of reported data for standard reference sample P-36 (low ionic strength constituents)*** **-- continued**



SUMMARY	Methods				Statistics
	1	4	7	12	Method Codes
n =	6	10	2	3	01 Atomic absorption: direct, air
Minimum =	0.32	0.25	0.398	0.01	04 Inductively coupled plasma
Maximum =	0.49	0.429	1.55	0.39	07 Ion chromatography
Median =	0.374	0.386			12 Flame emission
F-pseudosigma =	0.030	0.028			

							Methods
Lab	Rating	Z-value	1	4	7	12	
1	3	-0.93	--	0.34	--	--	
2	4	0.42	--	--	0.398	--	
5	4	0.23	--	0.39	--	--	
25	0	-3.02	--	0.25	--	--	
38	4	-0.23	0.37	--	--	--	
59	0	27.21	--	--	1.55	--	
64	4	0.00	0.38	--	--	--	
89	4	0.23	--	--	--	0.39	
93	4	0.05	--	0.382	--	--	
105	4	0.42	--	0.398	--	--	
134	4	-0.05	0.378	--	--	--	
138	3	0.86	--	0.417	--	--	
180	2	1.14	--	0.429	--	--	
190	2	-1.40	0.32	--	--	--	
220	4	0.23	--	0.39	--	--	
247	NR	--	--	<0.612	--	--	
256	NR	--	--	--	--	<1.0	
265	4	0.00	--	0.38	--	--	
268	0	2.56	0.49	--	--	--	
270	0	-8.61	--	--	--	0.01	
274	3	-0.93	--	--	--	0.34	
279	3	-0.93	0.34	--	--	--	
333	4	-0.47	--	0.36	--	--	

Table 15. ***Statistical summary of reported data for standard reference sample P-36 (low ionic strength constituents)*** **-- continued**



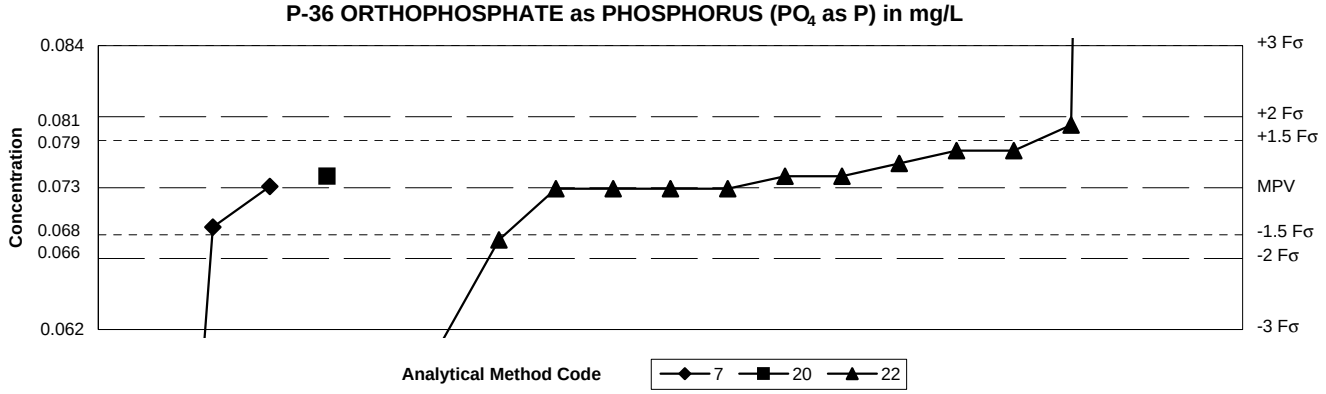
SUMMARY	Methods			Statistics	
	21	40	41		
n =	1	5	16		
Minimum =	4.09	3.43	3.01		
Maximum =		4.33	4.35		
Median =		4.16	4.20		
F-pseudosigma =		0.482	0.167		

Method Codes	
21	Titration: electrometric
40	Ion selective electrode
41	Electrometric

MPV =	**4.19**				
F-pseudosigma =	0.170				
Rating criterion=	0.209				
n =	22				
Uh =	4.28				
Lh =	4.05				

			Methods		
Lab	Rating	Z-value	21	40	41
2	4	-0.45	4.09	--	--
5	0	-2.70	--	3.62	--
23	4	0.26	--	--	4.24
25	3	0.79	--	--	4.35
38	4	0.07	--	--	4.2
59	4	0.50	--	--	4.29
64	4	0.07	--	--	4.2
89	3	-0.65	--	--	4.05
93	4	0.41	--	4.27	--
105	3	0.55	--	--	4.3
113	4	-0.36	--	--	4.11
134	4	-0.12	--	4.16	--
138	3	0.69	--	4.33	--
180	3	0.74	--	--	4.34
190	3	-0.55	--	--	4.07
247	4	0.45	--	--	4.28
256	4	0.12	--	--	4.21
268	3	-0.98	--	--	3.98
274	2	-1.31	--	--	3.91
279	0	-3.61	--	3.43	--
333	4	-0.07	--	--	4.17
336	0	-5.62	--	--	3.01

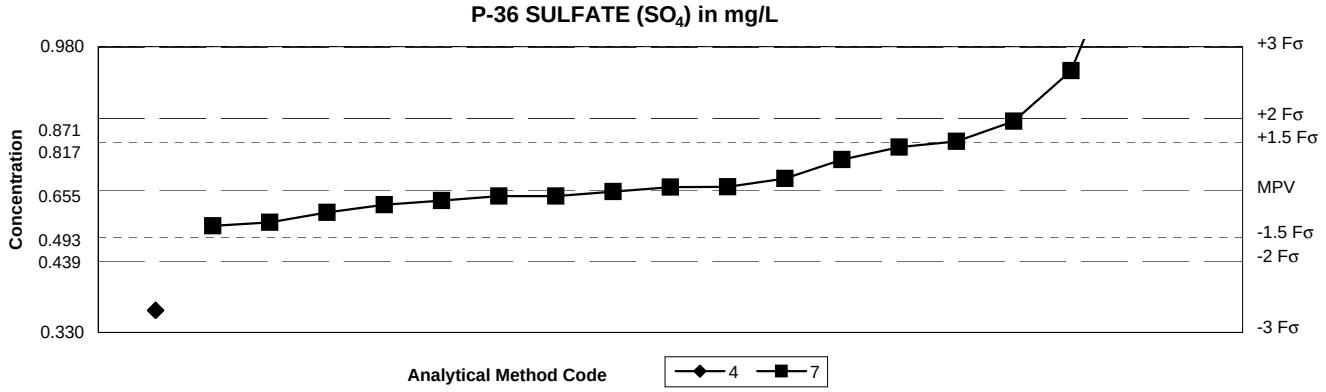
Table 15. ***Statistical summary of reported data for standard reference sample P-36 (low ionic strength constituents)*** **-- continued**



SUMMARY	Methods				Statistics	
	7	20	22	Method Codes		
n =	3	1	14	07 Ion chromatography	**MPV =**	**0.073 mg/L**
Minimum =	0.01	0.074	0.061	20 Titration: colorimetric	F-pseudosigma =	0.0037
Maximum =	0.073		0.32	22 Colorimetric	n =	18
Median =			0.074		Uh =	0.075
F-pseudosigma =			0.002		Lh =	0.070

			Methods		
Lab	Rating	Z-value	7	20	22
23	4	-0.03	--	--	0.073
25	4	0.24	--	0.074	--
38	4	-0.03	--	--	0.073
59	3	-0.84	0.07	--	--
64	4	-0.03	--	--	0.073
89	3	0.51	--	--	0.075
93	3	0.78	--	--	0.076
105	0	-3.26	--	--	0.061
113	2	1.32	--	--	0.078
134	4	0.24	--	--	0.074
138	0	-3.32	--	--	0.061
180	4	-0.03	--	--	0.073
183	4	0.24	--	--	0.074
190	3	0.78	--	--	0.076
247	4	0.03	0.073	--	--
256	2	-1.11	--	--	0.069
270	0	-17.02	0.01	--	--
274	0	66.61	--	--	0.32

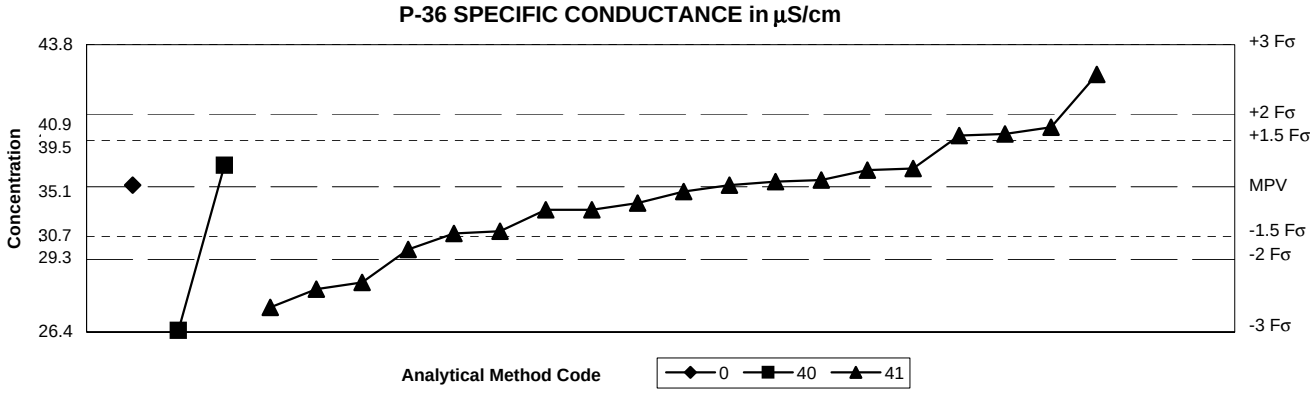
Table 15. ***Statistical summary of reported data for standard reference sample P-36 (low ionic strength constituents)*** **-- continued**



SUMMARY	Methods					Statistics
	4	7	22	51	Method Codes	
n =	1	17	0	2	04 Inductively coupled plasma	**MPV = 0.655 mg/L**
Minimum =	0.38	0.572	0	0.32	07 Ion chromatography	F-pseudosigma = 0.1082
Maximum =		1.24		41.62	22 Colorimetric	n = 20
Median =		0.660			51 Turbidimetric	Uh = 0.758
F-pseudosigma =		0.090				Lh = 0.612

			Methods			
Lab	Rating	Z-value	4	7	22	51
1	4	-0.32	--	0.62	--	--
2	4	0.06	--	0.661	--	--
5	2	1.43	--	0.81	--	--
23	0	5.41	--	1.24	--	--
25	NR	--	--	<5	--	--
59	3	-0.69	--	0.58	--	--
64	4	-0.05	--	0.65	--	--
89	3	0.89	--	0.751	--	--
93	3	0.63	--	0.723	--	--
105	NR	--	--	< 1.0	--	--
113	4	0.05	--	0.66	--	--
134	4	-0.23	--	0.63	--	--
138	3	-0.77	--	0.572	--	--
180	3	1.01	--	0.764	--	--
190	0	2.49	--	0.925	--	--
208	NR	--	--	<2	--	--
247	NR	--	--	<1	--	--
255	NR	--	--	--	<15	--
256	NR	--	--	<1.0	--	--
265	4	-0.14	--	0.64	--	--
268	4	-0.48	--	0.603	--	--
270	0	-2.54	0.38	--	--	--
274	0	-3.10	--	--	--	0.32
277	4	0.23	--	0.68	--	--
333	4	-0.14	--	0.64	--	--
336	0	378.51	--	--	--	41.62

Table 15. ***Statistical summary of reported data for standard reference sample P-36 (low ionic strength constituents)*** **-- continued**



SUMMARY	Methods			Statistics
	0	40	41	
n =	1	2	19	
Minimum =	35.3	26.5	27.9	
Maximum =		36.5	42	
Median =			34.9	
F-pseudosigma =			2.83	

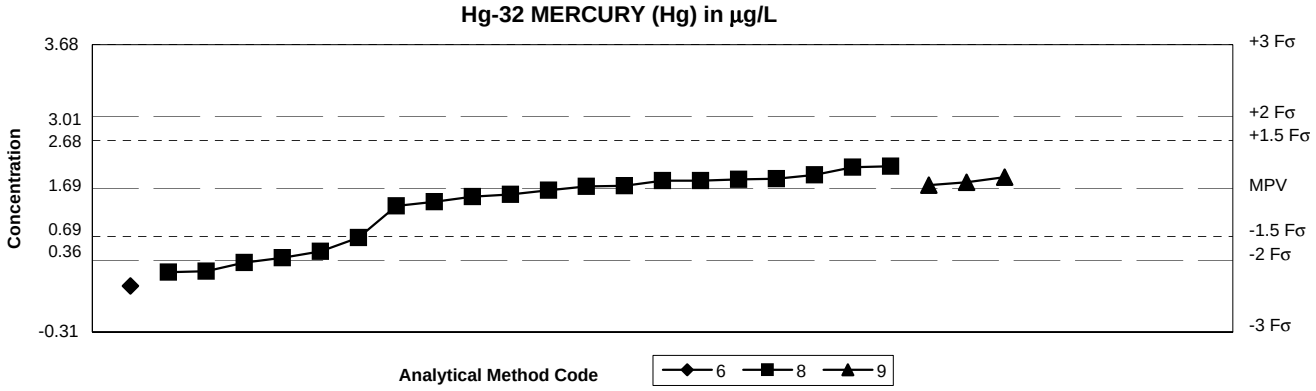
Method Codes

00 Other
40 Ion selective electrode
41 Electrometric

MPV = **35.1** µS/cm
F-pseudosigma = 2.91
n = 22
Uh = 36.3
Lh = 32.4

Lab	Rating	Z-value	Methods 0	40	41
1	0	-2.09	--	--	29
2	4	0.41	--	--	36.3
5	4	0.07	35.3	--	--
23	2	1.10	--	--	38.3
25	0	2.37	--	--	42
38	4	-0.45	--	--	33.8
59	4	0.07	--	--	35.3
64	4	0.38	--	--	36.2
89	4	-0.07	--	--	34.9
93	3	-0.94	--	--	32.37
105	2	1.13	--	--	38.4
113	4	0.14	--	--	35.5
134	4	0.48	--	36.5	--
138	4	-0.45	--	--	33.8
180	0	-2.47	--	--	27.9
190	3	-0.89	--	--	32.5
247	2	1.27	--	--	38.8
256	4	-0.31	--	--	34.2
268	1	-1.96	--	--	29.4
274	4	0.17	--	--	35.6
277	0	-2.95	--	26.5	--
333	2	-1.27	--	--	31.4

Table 16. ***Statistical summary of reported data for standard reference sample HG-32 (mercury)***



SUMMARY	Methods				Statistics	
	6	8	9	Method Codes		
n =	1	20	3	06 Inductively coupled plasma/mass spectrometry	**MPV =**	**1.69 µg/L**
Minimum =	0.33	0.52	1.73	08 Atomic absorption: cold vapor	F-pseudosigma =	0.663
Maximum =		1.99	1.84	09 Atomic fluorescence	n =	24
Median =		1.63			Uh =	1.80
F-pseudosigma =		0.663			Lh =	0.905

			Methods		
Lab	Rating	Z-value	6	8	9
1	4	0.13	--	--	1.77
5	4	0.04	--	1.71	--
23	1	-1.76	--	0.52	--
46	1	-1.55	--	0.654	--
59	4	0.05	--	1.72	--
72	2	-1.03	--	1	--
89	4	0.19	--	1.81	--
105	4	-0.37	--	1.44	--
134	4	0.28	--	1.87	--
138	2	-1.45	--	0.72	--
142	4	0.20	--	1.82	--
144	4	-0.04	--	1.66	--
147	4	0.23	--	--	1.84
198	4	0.16	--	1.79	--
212	4	-0.13	--	1.6	--
220	4	-0.28	--	1.5	--
234	4	-0.17	--	1.57	--
247	1	-1.74	--	0.532	--
265	0	-2.04	0.33	--	--
277	4	0.46	--	1.99	--
304	4	0.07	--	--	1.73
307	4	0.44	--	1.98	--
331	2	-1.32	--	0.81	--
356	4	0.16	--	1.79	--

Table 17. ***Most probable values for constituents and properties in standard reference samples*** **distributed in April 2001**

[MPV, most probable value; n, number of analyses; µg/L, microgram per liter; mg/L, milligram per liter; µS/cm, microsiemens per centimeter at 25 degres Celsius.]

T-165

Analyte=	Silver	Aluminum	Arsenic	Boron	Barium
MPV =	5.85 ug/L	52.0 ug/L	25.9 ug/L	75.9 ug/L	47.0 ug/L
n =	28	27	36	19	32
F-pseudosigma =	0.508	6.53	2.07	5.86	1.78

Analyte=	Beryllium	Calcium	Cadmium	Cobalt	Chromium
MPV =	15.3 ug/L	38.3 mg/L	12.5 ug/L	11.5 ug/L	19.6 ug/L
n =	28	39	41	26	38
F-pseudosigma =	0.738	1.11	0.667	0.815	1.11

Analyte=	Copper	Iron	Potassium	Lithium	Magnesium
MPV =	1.87 ug/L	25.1 ug/L	2.71 mg/L	32.0 ug/L	4.13 mg/L
n =	21	31	38	17	39
F-pseudosigma =	0.222	3.44	0.222	2.68	0.240

Analyte=	Manganese	Molybdenum	Sodium	Nickel	Lead
MPV =	21.0 ug/L	77.3 ug/L	10.7 mg/L	1.70 ug/L	18.8 ug/L
n =	41	25	39	15	36
F-pseudosigma =	0.964	2.74	0.371	0.958	0.927

Analyte=	Antimony	Selenium	Silica	Strontium	Thallium
MPV =	29.4 ug/L	7.60 ug/L	5.71 mg/L	162 ug/L	33.6 ug/L
n =	23	28	20	20	21
F-pseudosigma =	1.05	0.938	0.287	5.19	3.15

Analyte=	Uranium	Vanadium	Zinc
MPV =	1.39 ug/L	15.2 ug/L	22.0 ug/L
n =	7	25	39
F-pseudosigma =	0.048	0.593	2.08

M-158

Analyte=	Alkalinity	Boron	Calcium	Chloride	Fluoride
MPV =	63.6 mg/L	23.4 ug/L	38.1 mg/L	90.7 mg/L	0.350 mg/L
n =	47	16	48	50	36
F-pseudosigma =	2.56	3.45	1.59	2.74	0.045

Analyte=	Potassium	Magnesium	Sodium	pH	Residue on Evaporation
MPV =	1.71 mg/L	11.8 mg/L	71.7 mg/L	9.80 mg/L	376 mg/L
n =	44	44	46	45	31
F-pseudosigma =	0.119	0.482	2.22	0.282	14.1

Analyte=	Silica	Sulfate	Specific Conductance	Strontium	Phosphorus as P
MPV =	15.0 mg/L	105 mg/L	642 mg/L	63.6 ug/L	0.190 ug/L
n =	29	49	41	20	33
F-pseudosigma =	0.667	3.71	18.5	1.85	0.013

Analyte=	Vanadium
MPV =	11.3 ug/L
n =	22
F-pseudosigma =	0.815

Table 17. ***Most probable values for constituents and properties in standard reference samples*** **distributed in April 2001 -- continued**

[MPV, most probable value; n, number of analyses; µg/L, microgram per liter; mg/L, milligram per liter; µS/cm, microsiemens per centimeter at 25 degres Celsius.]

N-69

Analyte=	Ammonia as N	Ammonia + Organic N as N	Nitrate as N	Phosphorus as P	Orthophosphate as P
MPV =	0.086 mg/L	0.101 mg/L	0.084 mg/L	0.086 mg/L	0.086 mg/L
n =	40	24	43	42	41
F-pseudosigma =	0.007	0.031	0.010	0.004	0.003

N-70

Analyte=	Ammonia as N	Ammonia + Organic N as N	Nitrate as N	Phosphorus as P	Orthophosphate as P
MPV =	0.580 mg/L	0.660 mg/L	0.986 mg/L	0.714 mg/L	0.583 mg/L
n =	41	29	45	42	42
F-pseudosigma =	0.039	0.064	0.059	0.034	0.026

P-36

Analyte=	Acidity	Calcium	Chloride	Fluoride	Potassium
MPV =	Insufficient data	0.590 mg/L	3.47 mg/L	0.109 mg/L	0.170 mg/L
n =		24	27	16	19
F-pseudosigma =		0.078	0.271	0.018	0.019

Analyte=	Magnesium	Sodium	pH	Orthophosphate as P	Sulfate
MPV =	0.076 mg/L	0.380 mg/L	4.19	0.073 mg/L	0.655 mg/L
n =	21	21	22	18	20
F-pseudosigma =	0.037	0.043	0.170	0.004	0.108

Analyte=	Specific Conductance
MPV =	35.1 uS/cm
n =	22
F-pseudosigma =	2.91

HG-32

Analyte=	Mercury
MPV =	1.69 ug/L
n =	24
F-pseudosigma =	0.663

Table 18. ***Laboratory performance listing percent acceptable analyses and names of unacceptable analytes***

Lab	Number of Rated Analyses out of 66	Percent Acceptable	Unacceptable Analytes T-165	Unacceptable Analytes M-158	Unacceptable Analytes N-69	Unacceptable Analytes N-70	Unacceptable Analytes P-36	Unacceptable Analytes HG-32
1	62	95%		Potassium			Chloride Specific Conductance	
2	9	100%						
4	12	50%	Iron Potassium Lithium Magnesium Sodium	Potassium				
5	58	76%	Silver Aluminum Arsenic Cobalt Vanadium	Fluoride Potassium Magnesium pH Residue on Evaporation Specific Conductance	Ammonia as N	Nitrate as N	pH	
10	31	90%	Copper Manganese Lead					
12	31	74%	Potassium Magnesium	Alkalinity Sulfate Phosphorus as P	Ammonia as N Ammonia + Organic N as N	Orthophosphate as P		
16	50	86%	Aluminum Arsenic Calcium	Boron Vanadium	Nitrate as N Orthophosphate as P			
21	5	100%						
23	45	87%	Silver	Fluoride	Nitrate as N		Calcium Sulfate	Mercury
24	26	100%						
25	44	50%	Boron Barium Beryllium Cobalt Chromium Magnesium Manganese Silica Zinc	Alkalinity Potassium Magnesium Silica Strontium Phosphorus as P	Ammonia as N	Ammonia as N Phosphorus as P	Calcium Potassium Sodium Specific Conductance	
26	25	72%	Potassium Sodium	Calcium Magnesium Sodium		Nitrate as N Orthophosphate as P		
31	6	100%						
38	27	96%				Ammonia as N		
42	47	87%	Strontium	Alkalinity Strontium	Nitrate as N Phosphorus as P Orthophosphate as P			
46	29	79%	Arsenic Chromium	Sulfate		Ammonia + Organic N as N Phosphorus as P		Mercury
55	32	78%	Arsenic Cobalt Magnesium Lead Antimony Thallium	Sulfate				
59	57	88%	Molybdenum Antimony	pH Phosphorus as P			Calcium Potassium Sodium	
64	32	94%		Sodium		Orthophosphate as P		
70	41	83%	Iron Molybdenum Lead	Fluoride Phosphorus as P		Ammonia as N Phosphorus as P		

Table 18. ***Laboratory performance listing percent acceptable analyses and names of unacceptable analytes -- continued***

Lab	Number of Rated Analyses out of 66	Percent Acceptable	Unacceptable Analytes T-165	Unacceptable Analytes M-158	Unacceptable Analytes N-69	Unacceptable Analytes N-70	Unacceptable Analytes P-36	Unacceptable Analytes HG-32
72	11	45%			Ammonia as N Ammonia + Organic N as N Nitrate as N Phosphorus as P Orthophosphate as P	Nitrate as N		
76	19	100%						
89	55	78%	Aluminum Barium Beryllium Cadmium Chromium Magnesium Lead Silica Thallium Vanadium	Silica Vanadium				
93	38	89%	Cadmium Manganese Lead	Silica				
97	5	100%						
105	53	81%	Aluminum Lead	Calcium Magnesium Sodium Residue on Evaporation Phosphorus as P	Phosphorus as P	Ammonia as N	Orthophosphate as P	
113	49	96%	Arsenic Selenium					
118	15	80%		Silica	Nitrate as N	Nitrate as N		
134	64	98%			Ammonia as N			
138	62	97%		Vanadium			Orthophosphate as P	
142	54	85%	Aluminum Copper Silica	Silica Sulfate	Ammonia + Organic N as N	Ammonia + Organic N as N Orthophosphate as P		
144	8	100%						
147	8	100%						
149	25	84%	Aluminum Cadmium Chromium Molybdenum					
180	51	76%	Aluminum Boron Copper Iron Antimony Vanadium	Boron Vanadium	Ammonia + Organic N as N Phosphorus as P		Fluoride Specific Conductance	
183	7	100%						
190	43	91%	Cadmium Manganese			Orthophosphate as P	Sulfate	
193	6	100%						
198	26	69%	Barium Cadmium Manganese Molybdenum Lead Selenium Zinc		Orthophosphate as P			
205	1	0%				Nitrate as N		
208	5	80%				Orthophosphate as P		
212	53	70%	Copper Potassium Molybdenum Lead Antimony Silica Uranium	Residue on Evaporation Silica Phosphorus as P	Ammonia as N Nitrate as N Phosphorus as P	Ammonia as N Phosphorus as P Orthophosphate as P		

Table 18. ***Laboratory performance listing percent acceptable analyses and names of unacceptable analytes -- continued***

Lab	Number of Rated Analyses out of 66	Percent Acceptable	Unacceptable Analytes T-165	Unacceptable Analytes M-158	Unacceptable Analytes N-69	Unacceptable Analytes N-70	Unacceptable Analytes P-36	Unacceptable Analytes HG-32
220	36	72%	Silver Cadmium Copper Thallium Vanadium	Potassium			Calcium Chloride Potassium Magnesium	
224	10	50%			Ammonia as N Ammonia + Organic N as N Phosphorus as P	Ammonia as N Ammonia + Organic N as N		
227	14	79%		Phosphorus as P		Ammonia + Organic N as N Phosphorus as P		
234	51	96%	Copper		Ammonia as N			
246	44	80%	Cadmium Lead Silica Zinc	Boron Silica	Ammonia as N Phosphorus as P	Orthophosphate as P		
247	45	76%	Arsenic Barium Beryllium Cobalt Lithium Manganese	Strontium	Phosphorus as P	Nitrate as N	Calcium	Mercury
254	3	67%	Uranium					
255	20	100%						
256	33	85%	Boron Barium Lithium	Vanadium				
257	12	83%		Fluoride Phosphorus as P				
265	46	93%	Copper				Potassium	Mercury
268	20	65%	Potassium Sodium	Calcium Potassium			Potassium Sodium Specific Conductance	
270	31	55%	Silver Calcium Copper Manganese Sodium Strontium	Calcium Fluoride Sodium			Fluoride Potassium Sodium Orthophosphate as P Sulfate	
274	27	44%	Potassium Sodium Silica	Alkalinity Calcium Chloride Fluoride Magnesium Silica Phosphorus as P			Calcium Chloride Magnesium Orthophosphate as P Sulfate	
276	10	60%		Potassium Magnesium Sodium Phosphorus as P				
277	30	60%	Arsenic Barium Cadmium Magnesium Manganese Sodium Selenium Zinc	Alkalinity Potassium Magnesium			Specific Conductance	
279	14	79%		Potassium			Magnesium pH	
304	11	82%	Chromium Vanadium					
305	43	81%	Aluminum Arsenic Potassium	Potassium Magnesium Sodium Vanadium	Ammonia as N			
307	22	73%	Silver Chromium Iron Lead	Specific Conductance		Ammonia as N		

Table 18. ***Laboratory performance listing percent acceptable analyses and names of unacceptable analytes -- continued***

Lab	Number of Rated Analyses out of 66	Percent Acceptable	Unacceptable Analytes T-165	Unacceptable Analytes M-158	Unacceptable Analytes N-69	Unacceptable Analytes N-70	Unacceptable Analytes P-36	Unacceptable Analytes HG-32
313	10	60%			Ammonia as N Ammonia + Organic N as N Phosphorus as P	Phosphorus as P		
316	10	100%						
318	5	100%						
324	11	64%	Aluminum Calcium Iron	Calcium				
331	46	52%	Boron Beryllium Calcium Iron Magnesium Sodium Selenium Thallium Vanadium Zinc	Alkalinity Calcium Potassium Magnesium Sodium Specific Conductance Phosphorus as P Vanadium	Nitrate as N Orthophosphate as P	Ammonia as N Ammonia + Organic N as N		
333	16	88%		Silica	Orthophosphate as P			
336	26	15%	Cadmium Cobalt Copper Manganese Sodium Nickel Lead Zinc	Alkalinity Fluoride Magnesium Sodium pH Sulfate			Calcium Chloride Fluoride Potassium Magnesium pH Sulfate	
341	21	86%		Alkalinity Strontium	Orthophosphate as P			
353	4	50%			Nitrate as N	Nitrate as N		
356	12	92%		Chloride				
366	20	95%			Ammonia as N			