



**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 SEPTEMBER 2001**

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**Open-File Report 02-8**

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

**By Mark T. Woodworth and Brooke F. Connor**

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**U.S. GEOLOGICAL SURVEY**

**Open-File Report 02-8**

**Lakewood, Colorado  
2001**

**DEPARTMENT OF THE INTERIOR**

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**U.S. GEOLOGICAL SURVEY**

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## Definition of analytical methods, abbreviations, and symbols

### Abbreviations and figure symbols

C = Celsius
Fσ = F-pseudosigma - nonparametric statistic for deviation
HCl = hydrochloric acid
Hg = mercury sample
HNO <sub>3</sub> = nitric acid
Lh = lower hinge value
L = liter
Lab = laboratory
mg/L = milligrams per liter
mL = milliliter
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, typically <50 μS/cm)
ppm = parts per million
SRS = USGS standard reference sample
T - = trace metal sample
Uh = upper hinge value
USGS = United States Geological Survey
V = number of rated analyses
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 (excluding less than values)
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 = $\frac{(OLR \cdot V_1) + (OLR \cdot V_2) \dots (OLR \cdot V_n)}{(V_1 + V_2 + \dots + V_n)}$ for each SRS type

### 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 SEPTEMBER 2001

By Mark T. Woodworth and Brooke F. Connor

## ABSTRACT

This report presents the results of the U.S. Geological Survey's analytical evaluation program for six standard reference samples -- T-167 (trace constituents), M-160 (major constituents), N-71 (nutrient constituents), N-72 (nutrient constituents), P-37 (low ionic-strength constituents), and Hg-33 (mercury) -- that were distributed in September 2001 to laboratories enrolled in the U.S. Geological Survey sponsored interlaboratory testing program. Analytical data received from 98 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 270 USGS and non-USGS laboratories are enrolled in the program, which can currently provide 5 different types of SRSs:

1. Trace constituents.
2. Major constituents.
3. Nutrient constituents.
4. Low ionic-strength constituents.
5. Mercury.

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 98 laboratories for the September 2001 evaluation (table 1 and table 2). Analytical results for the following are presented in this report:

T-167	Trace constituents	N-72	Nutrient constituents
M-160	Major constituents	P-37	Low ionic-strength constituents
N-71	Nutrient constituents	Hg-33	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 September 2001**

<b>Lab</b>	<b>Participating Laboratory</b>	<b>City</b>	<b>State</b>
1	U.S. Geological Survey - National Water Quality Laboratory	Denver	CO
4	U.S. Geological Survey - Utah District Laboratory	West Valley City	UT
12	Metro Wastewater Reclamation District	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
25	Kentucky Geological Survey	Lexington	KY
33	U.S. Geological Survey - Georgia District Laboratory	Atlanta	GA
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 Laboratory	Trenton	NJ
89	Monroe County Environmental Health Laboratory	Rochester	NY
91	Georgia Department of Natural Resources	Atlanta	GA
93	University of Maine	Orono	ME
102	Heidelberg College	Tiffin	OH
109	North Dakota State Water Commission Laboratory	Bismarck	ND
110	U.S. Geological Survey - New York District Laboratory	Troy	NY
118	Virginia Tech - Occoquan Monitoring Laboratory	Manassas	VA
142	North Dakota Department of Health	Bismarck	ND
147	U.S. Geological Survey - Surface Water Quality Research	Boulder	CO
180	Clean Water Services (formally Unified Sewerage Agency)	Hillsboro	OR
193	Vermont Department of Environmental Conservation Laboratory	Waterbury	VT
198	Maryland Department of Health and Mental Hygiene	Baltimore	MD
205	Olsen Agriculture Laboratory	McCook	NE
208	U.S. Geological Survey - WRD San Diego	San Diego	CA
212	Severn Trent Laboratory	Arvada	CO
224	University of Arkansas - Water Quality Laboratory	Fayetteville	AR
234	City of Wichita Laboratory	Wichita	KS
254	U.S. Geological Survey - NRP	Menlo Park	CA
255	Colorado Springs Utilities - Water Resource Department	Colorado Springs	CO
298	Wisconsin District Mercury Laboratory	Middleton	WI
315	Wisconsin WEBB Laboratory	Middleton	WI
319	Fairfax County Environmental Services	Lorton	VA
330	Kennecott Environmental Laboratory	Magna	UT
332	U.S. Geological Survey - Bullen WEBB Laboratory	Middleton	WI
333	U.S. Geological Survey - WEBB Colorado District Office	Lakewood	CO
334	Acculabs Inc.	Golden	CO
341	Michigan Department of Environmental Quality	Lansing	MI
356	Manchester Environmental Laboratory	Port Orchard	WA
366	TriMatrix Labs	Grand Rapids	MI
370	Guardian Systems, Inc.	Leeds	AL
372	Alabama Power Company	Calera	AL
373	City of Tulsa - Quality Assurance Laboratory	Tulsa	OK



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

<b>Participating Laboratory</b>	<b>City</b>	<b>State</b>
Alaska Department of Fish and Game	Soldotna	AK
Albion Environmental	College Station	TX
Aqua Tech Environmental Laboratory	Marion	OH
Armstrong Forensic Laboratory	Arlington	TX
California Department of Water Resources - Bryte Laboratory	West Sacramento	CA
City of Albuquerque - Water Quality Laboratory	Albuquerque	NM
City of Pueblo - Wastewater Treatment Plant	Pueblo	CO
City of Tallahassee - Water Quality Laboratory	Tallahassee	FL
Columbia Analytical Services	Rochester	NY
DB Environmental Laboratory	Rockledge	FL
Denver Water Department	Denver	CO
Desert Research Institute	Reno	NV
District of Columbia Department of Health	Ft Meade	MD
Florida Department of Environmental Protection	Tallahassee	FL
Frontier Geosciences Inc.	Seattle	WA
High Sierra Water Laboratory	Truckee	CA
Institute of Ecosystem Studies	Millbrook	NY
Kansas Geological Survey	Lawrence	KS
Lower Colorado River Authority - Environmental Laboratory Services	Austin	TX
Madison Public Health Laboratory	Madison	WI
Mecklenburg County - Department of Environmental Protection	Charlotte	NC
Montana Bureau of Mines & Geology	Butte	MT
New Hampshire Department of Environmental Services	Concord	NH
Northern Colorado Water Conservation District	Loveland	CO
Old Dominion University - Applied Marine Research Laboratory	Norfolk	VA
Ouachita Baptist University - Department of Biology	Arkadelphia	AR
Rensselaer Polytechnic Institue	Troy	NY
Severn Trent Savannah Laboratory	Tallahassee	FL
South Dakota State University - Northern Great Plains Water Research	Brookings	SD
South Florida Water Management District	West Palm Beach	FL
Southwest Florida Water Management District	Brooksville	FL
Suffolk County Water Authority	Hauppauge	NY
U.S. Bureau of Reclamation	Denver	CO
U.S. Bureau of Reclamation	Boise	ID
U.S. Department of Agriculture - Cooperative Chemical Analytical Lab	Corvallis	OR
U.S. Department of Agriculture - Forest Service	Ft. Collins	CO
University of Georgia - Soil, Plant, & Water Laboratory	Athens	GA
University of Hawaii - Department of Oceanography	Honolulu	HI
University of Maryland - Chesapeake Biological Laboratory	Solomons	MD
University of Maryland - Horn Point Laboratory	Cambridge	MD
University of Tennessee - Department of Civil & Environmental Engineering	Knoxville	TN
West Coast Analytical Services	Santa Fe Springs	CA
Wyoming Department of Agriculture	Laramie	WY

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

<b>Middle East Participating Laboratory</b>	<b>Location</b>	
College of Science and Technology	Jerusalem	Israel
Geological Survey of Israel Laboratory	Jerusalem	Israel
Mekorot Laboratory	Eylat	Israel
Mekorot Laboratory	Ashqelon	Israel
Mekorot Laboratory, Rosh-Haayn Laboratory	Ramla	Israel
Mekorot Water Co. Ltd. - Central Lab	Nazaret Illit	Israel
Ministry of Agriculture		Israel
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-167 was prepared using water collected from South St. Vrain Creek near Lyons, Colorado. The water was pumped through a 0.2- and 0.1-micrometer ( $\mu\text{m}$ ) filter into a 1325-liter (L) polypropylene drum. The water was continuously circulated and passed through a 0.1- $\mu\text{m}$  filter and ultraviolet sterilizer for 24 hours. The water was then acidified to a  $\text{pH} < 2$  with nitric acid ( $\text{HNO}_3$ ) 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- $\mu\text{m}$  filter and an ultraviolet sterilizer for an additional 24 hours prior and during bottling. The 500-milliliter (mL) polypropylene bottles and caps were acid leached with 0.16N  $\text{HNO}_3$ , deionized-water rinsed, and autoclave sterilized.

Major constituents sample M-160 was prepared using water collected from Chicago Creek near Idaho Springs, Colorado. The water was pumped through a 0.1- $\mu\text{m}$  filter into a 1325-L polypropylene drum. The water was continuously circulated and passed through a 0.1- $\mu\text{m}$  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- $\mu\text{m}$  filter. The 500-mL polypropylene bottles and caps were acid leached with 0.16N  $\text{HNO}_3$ , deionized-water rinsed, and autoclave sterilized.

Nutrient constituents sample N-71 was prepared in a 50-L polypropylene carboy using deionized water. This SRS was prepared the week prior to sample distribution. The water was circulated through a 0.1- $\mu\text{m}$  filter and kept chilled with ice (15 degrees Celsius) during the entire preparation procedure. Ultraviolet sterilization was performed up until the addition of reagent-grade chemicals. The 60-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-72 was prepared in a 190-L polypropylene drum 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- $\mu\text{m}$  filter and kept chilled with ice (15 degrees Celsius) during the entire preparation procedure. Ultraviolet sterilization was performed up until the addition of reagent-grade chemicals. The 250-mL polyethylene bottles were acid leached with 0.1N HCl, deionized-water rinsed, and autoclave sterilized.

Low ionic-strength constituents sample P-37 was prepared in a 600-L polypropylene drum using deionized water that was filtered by a Nanopure system. 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- $\mu\text{m}$  filter and an ultraviolet sterilizer. The 500-mL polypropylene bottles and caps were acid leached with 0.16N  $\text{HNO}_3$ , deionized-water rinsed, and autoclave sterilized.

Mercury sample Hg-33 was prepared using water collected from Chicago Creek near Idaho Springs, Colorado. The sample was prepared in a 190-L polypropylene drum. The water was continuously circulated and passed through a 0.1- $\mu$ m 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 borosilicate 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 range from 28 in T-167 (trace constituents) to 1 in Hg-33 (mercury).

**Table 3. Analytes determined in standard reference samples distributed in September 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-167	M-160	N-71	N-72	P-37	Hg-33
Acidity	Acidity as CaCO <sub>3</sub>	mg/L					X	
Alk	Alkalinity as CaCO <sub>3</sub>	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 <sub>3</sub> as N	Ammonia	mg/L			X	X		
NH <sub>3</sub> + Org N as N	Ammonia + Organic N	mg/L			X	X		
Ni	Nickel	µg/L	X					
NO <sub>3</sub> as N	Nitrate	mg/L			X	X		
Pb	Lead	µg/L	X					
pH	pH	unit		X			X	
PO <sub>4</sub> 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 <sub>2</sub>	Silica	mg/L	X	X				
SO <sub>4</sub>	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-pseudostandard deviation; and the Z-value. The Z-value is equivalent to the Z-score of traditional statistics. The F-pseudostandard deviation approximates the standard deviation ( $\sigma$ ) 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-pseudostandard deviation are reported in the block of data listed for each method.

The median value calculated from the reported results is the MPV. The F-pseudostandard deviation is calculated by dividing the fourth-spread (analogous to interquartile range) by 1.349; therefore the smaller the F-pseudostandard deviation the more precise the determinations. The 1.349 value is derived from the Empirical Rule that defines 1 standard deviation as 67.45% or 0.6745 of the data; 2 standard deviations contains 95% or 1.349. Based on an assessment of analyte data (Keith Long, Branch of Quality Systems, verbal comm., 1998), when the F-pseudostandard deviation 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-167 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-pseudostandard deviation deviations from the median. Reported values are grouped by analytical method in ascending order of value.

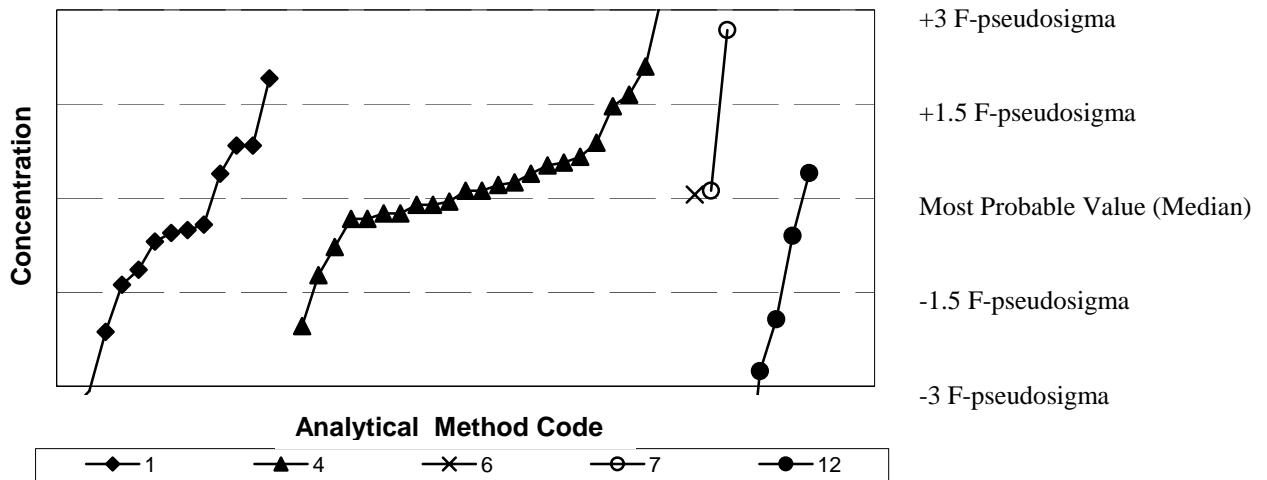
The term "suspect data" is used in the mercury tables because the data are highly variable. It is suspected that the preservation method is inadequate for the sample over 30 days old.

## LABORATORY PERFORMANCE RATINGS

To facilitate laboratory intercomparison, laboratory performance ratings are included in tables 4 - 16 in this report. For each SRS, averages of all the analyte ratings and the number of rated analyses are given for each participating laboratory. 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 and in tables 5 - 10.

Laboratories reporting "less than" values are not performance rated unless their less than value is less than the MPV and has a Z-value greater than 2. In this case, the laboratory would receive a rating of 0 for that analyte.

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 outside  $\pm 3$  F-pseudostigma 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 September 2001**

[SRS, standard reference sample; Lab, laboratory; OWR, overall weighted rating for all sample types; OLR, overall laboratory rating for sample type; V/66, number of rated analyses out of 66 from all sample types; V/28, V/16, V/5, V/5, V/11, and V/1 are number of rated analyses for each sample type (T-167, M-160, N-71, N-72, P-37, HG-33) respectively; --, not reported.]

Lab	SRS=		T-167		M-160		N-71		N-72		P-37		HG-33	
	OWR	V/66	OLR	V/28	OLR	V/16	OLR	V/5	OLR	V/5	OLR	V/11	OLR	V/1
1	3.5	62	3.8	28	3.1	15	3.8	5	3.6	5	3.1	9		0
2	3.8	9	--	--	--	--	--	--	--	--	3.8	9	--	--
4	4.0	1	--	--	4.0	1	--	--	--	--	--	--	--	--
5	1.9	58	1.7	26	2.1	15	3.0	4	1.3	4	2.0	9	--	--
10	3.3	31	2.7	9	3.6	12	3.0	5	3.8	5	--	--		0
12	2.1	33	1.7	12	2.4	11	1.6	5	3.0	5	--	--		0
16	2.8	51	3.1	26	2.6	15	2.0	5	2.6	5	--	--		0
21	3.8	6	4.0	1	--	--	3.8	5	--	--	--	--	--	--
23	3.0	48	3.2	19	3.2	12	0.5	2	2.8	5	3.1	10		0
24	3.2	31	2.8	18	3.7	13	--	--	--	--	--	--	--	--
25	1.7	53	1.5	19	1.8	15	1.8	4	1.6	5	2.0	10	--	--
31	3.8	5	--	--	--	--	3.8	5	--	--	--	--	--	--
32	3.3	43	3.6	27	2.9	16	--	--	--	--	--	--		0
33	2.4	12	--	--	--	--	2.0	3	2.0	3	2.8	6	--	--
38	3.0	27	--	--	3.1	9	2.8	5	2.8	5	3.1	8	--	--
42	2.8	49	2.9	28	2.8	15	1.3	3	3.3	3	--	--	--	--
45	2.4	20	1.7	9	2.9	11	--	--	--	--	--	--	--	--
46	3.5	21	3.5	12	--	--	3.3	4	3.8	5	--	--		0
50	3.3	36	3.4	22	3.2	14	--	--	--	--	--	--		0
51	3.6	5	--	--	--	--	3.6	5	--	--	--	--	--	--
53	2.0	4	--	--	--	--	2.0	2	2.0	2	--	--	--	--
59	3.2	52	3.5	18	3.6	15	3.4	5	3.6	5	1.7	9		0
64	3.4	29	3.6	5	3.3	9	2.0	3	3.7	3	3.8	9	--	--
70	2.9	47	3.3	24	3.2	13	0.6	5	2.2	5	--	--	--	--
72	0.7	10	--	--	--	--	0.4	5	1.0	5	--	--	--	--
76	3.8	19	3.9	15	3.8	4	--	--	--	--	--	--	--	--
84	2.9	17	3.4	7	2.9	7	--	--	2.0	3	--	--	--	--
85	3.4	35	--	--	3.3	15	3.2	5	3.8	5	3.5	10	--	--
86	3.2	36	3.4	19	2.6	9	--	--	2.7	3	4.0	5	--	--
89	2.6	57	2.1	22	3.1	14	3.2	5	3.8	5	2.2	11		0
91	3.0	7	--	--	--	--	2.3	3	3.5	4	--	--	--	--
93	3.1	43	3.1	15	2.8	11	3.3	4	3.5	4	3.3	9	--	--
96	3.3	27	3.4	11	3.0	7	3.0	4	3.6	5	--	--		0
97	2.6	39	2.1	24	3.4	15	--	--	--	--	--	--		0
100	2.0	48	2.4	25	2.1	15	0.5	4	1.3	4	--	--	--	--
102	3.0	5	--	--	--	--	--	--	3.0	5	--	--	--	--
109	2.0	17	1.3	6	2.4	11	--	--	--	--	--	--	--	--
110	3.4	16	3.7	6	--	--	1.0	2	--	--	3.8	8	--	--
113	3.5	52	3.3	20	3.7	14	4.0	4	4.0	5	3.3	9	--	--
118	3.1	15	--	--	3.4	5	2.6	5	3.4	5	--	--	--	--
121	2.7	19	2.5	13	3.2	6	--	--	--	--	--	--	--	--
138	3.6	61	3.6	25	3.7	16	4.0	5	3.8	5	3.3	10		0
142	2.9	52	2.9	26	3.1	16	1.6	5	3.2	5	--	--		0
146	2.8	44	3.0	21	2.8	13	2.0	5	3.0	5	--	--		0
147	4.0	7	4.0	7	--	--	--	--	--	--	--	--	--	0
149	2.7	3	--	--	2.7	3	--	--	--	--	--	--	--	--
155	3.1	21	--	--	3.1	7	4.0	5	3.6	5	1.3	4	--	--
180	3.0	44	3.2	24	--	--	2.8	5	3.8	5	2.2	10		0
190	3.4	49	3.6	16	3.3	13	3.6	5	3.8	5	2.9	10	--	--
193	2.9	34	2.9	13	2.9	7	3.0	4	2.8	4	3.0	6		0

**Table 4. Overall laboratory performance ratings for standard reference samples distributed September 2001  
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[SRS, standard reference sample; Lab, laboratory; OWR, overall weighted rating for all sample types; OLR, overall laboratory rating for sample type; V/66, number of rated analyses out of 66 from all sample types; V/28, V/16, V/5, V/5, V/11, and V/1 are number of rated analyses for each sample type (T-167, M-160, N-71, N-72, P-37, HG-33) respectively; --, not reported.]

Lab	SRS=		T-167		M-160		N-71		N-72		P-37		HG-33	
	OWR	V/66	OLR	V/28	OLR	V/16	OLR	V/5	OLR	V/5	OLR	V/11	OLR	V/1
198	3.2	30	3.2	22	--	--	2.8	4	4.0	4	--	--	--	0
205	2.0	2	--	--	--	--	--	--	2.0	2	--	--	--	--
208	2.5	6	--	--	4.0	2	--	--	2.0	2	1.5	2	--	--
212	3.1	42	3.0	26	3.4	16	--	--	--	--	--	--	--	0
224	2.1	51	1.5	18	2.5	13	0.8	5	2.4	5	3.3	10	--	--
227	2.6	17	3.0	6	3.0	6	--	--	1.6	5	--	--	--	--
228	3.3	8	--	--	--	--	--	--	--	--	3.3	8	--	--
234	3.5	51	3.7	27	3.8	16	1.0	4	3.0	4	--	--	--	0
245	3.5	0	--	--	--	--	--	--	--	--	--	--	--	0
247	2.3	44	2.7	23	--	--	2.8	5	1.2	5	1.7	11	--	0
254	3.1	30	3.1	20	3.2	10	--	--	--	--	--	--	--	--
255	2.5	21	2.6	14	2.6	5	--	--	--	--	2.0	2	--	--
256	2.5	34	2.3	20	2.8	14	--	--	--	--	--	--	--	0
259	3.5	31	3.5	17	3.5	14	--	--	--	--	--	--	--	0
263	3.6	8	--	--	3.6	8	--	--	--	--	--	--	--	--
265	3.4	44	3.3	28	3.7	10	--	--	--	--	3.5	6	--	--
266	3.3	12	--	--	3.3	12	--	--	--	--	--	--	--	--
269	4.0	3	--	--	4.0	3	--	--	--	--	--	--	--	--
270	1.4	8	1.5	2	2.0	4	--	--	--	--	0.0	2	--	--
277	1.3	30	0.6	15	2.2	10	--	--	--	--	1.8	5	--	--
279	2.5	11	3.0	4	2.7	3	--	--	--	--	2.0	4	--	--
298		0	--	--	--	--	--	--	--	--	--	--	--	0
301	1.5	6	2.3	4	--	--	--	--	0.0	2	--	--	--	--
304	3.5	21	3.5	21	--	--	--	--	--	--	--	--	--	0
307	2.2	21	1.5	12	3.5	6	--	--	2.7	3	--	--	--	0
313	3.1	8	--	--	--	--	4.0	3	2.6	5	--	--	--	--
315	1.3	18	1.5	6	1.5	6	--	--	--	--	1.0	6	--	--
316	3.6	5	--	--	--	--	3.6	5	--	--	--	--	--	--
317	1.2	6	--	--	--	--	0.7	3	1.7	3	--	--	--	--
318	3.0	5	--	--	--	--	3.0	5	--	--	--	--	--	--
319	4.0	2	--	--	4.0	2	--	--	--	--	--	--	--	--
320	3.3	9	--	--	--	--	3.5	4	3.2	5	--	--	--	--
326	3.0	33	3.1	17	2.9	10	--	--	--	--	3.2	6	--	--
328	2.0	64	2.1	28	2.3	16	1.5	4	1.4	5	1.7	11	--	0
330	2.8	37	2.7	26	3.1	11	--	--	--	--	--	--	--	--
331	1.7	34	1.0	22	2.8	12	--	--	--	--	--	--	--	0
332	2.1	22	1.8	13	2.8	5	--	--	--	--	2.3	4	--	--
333	3.6	13	--	--	3.7	3	4.0	2	--	--	3.5	8	--	--
334	2.7	44	2.7	28	2.7	16	--	--	--	--	--	--	--	0
336	0.6	21	0.2	5	1.3	9	--	--	--	--	0.0	7	--	--
341	3.1	24	--	--	3.1	14	3.0	5	3.0	5	--	--	--	--
356	3.0	29	3.0	24	--	--	--	--	2.8	5	--	--	--	--
366	2.7	20	--	--	2.9	11	2.3	4	2.4	5	--	--	--	--
368	4.0	2	--	--	--	--	4.0	2	--	--	--	--	--	--
369	1.8	4	--	--	--	--	1.8	4	--	--	--	--	--	--
370	1.8	55	1.5	21	1.7	15	0.5	4	3.0	5	2.6	10	--	0
372	1.3	63	0.3	26	2.2	16	2.0	5	1.8	5	1.8	11	--	0
373	3.4	5	--	--	--	--	3.4	5	--	--	--	--	--	--

**Table 5. Laboratory performance ratings for standard reference sample T-167 (trace constituents)**

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all rated analyses; µg/L, micrograms per liter; mg/L, milligrams per liter; V/28, number of rated analyses out of 28 possible; 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 (Unsatisfactory)	greater than 2.00
2 (Satisfactory)	1.01 - 1.50	NR (Not Rated)	

Lab	Analyte =		Silver		Aluminum		Arsenic		Boron		Barium	
	OLR	V/28	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
			MPV =	6.70 µg/L	21.5 µg/L		22.1 µg/L		24.3 µg/L		20.6 µg/L	
			F-pseudosigma =	0.445	5.89		1.41		3.63		0.85	
1	3.8	28	6.61	4	20.3	4	21.2	3	24.5	4	20.7	4
5	1.7	26	8.91	0	40.6	0	23.9	2	22.4	3	19.4	2
10	2.7	9	--	--	--	--	21.2	3	--	--	--	--
12	1.7	12	5.8	0	--	--	21	3	--	--	--	--
16	3.1	26	7	3	49	0	22	4	21	3	20	3
21	4.0	1	--	--	--	--	--	--	--	--	--	--
23	3.2	19	6.36	3	--	--	12.15	0	--	--	20.45	4
24	2.8	18	--	--	--	--	--	--	24	4	21	4
25	1.5	19	<17	NR	<87	NR	22	4	21	3	17	0
32	3.6	27	6.7	4	20.6	4	23	3	24.3	4	20.4	4
42	2.9	28	6.39	3	21	4	21.2	3	23.1	4	19.8	3
45	1.7	9	--	--	--	--	--	--	--	--	--	--
46	3.5	12	--	--	--	--	21.9	4	--	--	19.9	3
50	3.4	22	5.62	0	23.2	4	22.3	4	22.4	3	21.5	3
59	3.5	18	< 10	NR	< 50	NR	22.6	4	23.1	4	20.5	4
64	3.6	5	--	--	--	--	--	--	--	--	--	--
70	3.3	24	6.47	3	21.4	4	22	4	--	--	21.1	4
76	3.9	15	--	--	--	--	21.98	4	--	--	--	--
84	3.4	7	--	--	--	--	--	--	--	--	--	--
86	3.4	19	6.32	3	26.1	3	--	--	--	--	20.5	4
89	2.1	22	6	1	17.6	3	24.2	2	--	--	< 50	NR
93	3.1	15	--	--	23.2	4	21.1	3	--	--	20.2	4
96	3.4	11	6.65	4	--	--	22.8	4	--	--	<100	NR
97	2.1	24	7.1	3	78.2	0	25.2	0	--	--	20.6	4
100	2.4	25	7.18	2	21.5	4	23.5	3	38.7	0	21.5	3
109	1.3	6	--	--	--	--	--	--	--	--	--	--
110	3.7	6	--	--	20.453	4	--	--	--	--	--	--
113	3.3	20	7.1	3	22.7	4	22.4	4	--	--	20.3	4
121	2.5	13	--	--	--	--	--	--	--	--	22	2
138	3.6	25	6.56	4	22.8	4	23.7	2	24.4	4	20.1	4
142	2.9	26	6.59	4	<30	NR	23.3	3	<30	NR	20.6	4
146	3.0	21	6.88	4	40	0	22.2	4	--	--	21.8	2
147	4.0	7	--	--	21.1	4	21.6	4	--	--	--	--
180	3.2	24	6.71	4	18.4	3	21	3	27.6	3	20.3	4
190	3.6	16	6.3	3	20.4	4	21.4	4	--	--	--	--
193	2.9	13	6.6	4	--	--	21.1	3	--	--	--	--
198	3.2	22	7	3	19.9	4	22.6	4	--	--	21.3	3
212	3.0	26	6.1	2	<100	NR	21.9	4	32.2	0	21.4	3
224	1.5	18	10.1	0	<30	NR	24.8	1	--	--	<18	0
227	3.0	6	--	--	--	--	--	--	--	--	--	--
234	3.7	27	6.58	4	20.3	4	22.6	4	25.8	4	20.9	4
247	2.7	23	6.33	3	21.5	4	25.2	0	<51	NR	20.2	4
254	3.1	20	--	--	<100	NR	22.8	4	23.8	4	--	--
255	2.6	14	7	3	--	--	21	3	29	2	--	--
256	2.3	20	6.95	3	19.1	4	6.83	0	--	--	19.2	2

**Table 5. Laboratory performance ratings for standard reference sample T-167 (trace constituents) -- continued**

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all rated analyses; µg/L, micrograms per liter; mg/L, milligrams per liter; V/28, number of rated analyses out of 28 possible; 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 (Unsatisfactory)	greater than 2.00
2 (Satisfactory)	1.01 - 1.50	NR (Not Rated)	

Lab	Analyte =		Silver		Aluminum		Arsenic		Boron		Barium	
	OLR	V/28	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
	MPV =	F-pseudosigma =										
			6.70 µg/L		21.5 µg/L		22.1 µg/L		24.3 µg/L		20.6 µg/L	
			0.445		5.89		1.41		3.63		0.85	
<b>259</b>	3.5	17	6.9	4	--	--	22.5	4	--	--	21.3	3
<b>265</b>	3.3	28	6.8	4	18	3	22	4	26	4	21.5	3
<b>270</b>	1.5	2	--	--	--	--	--	--	--	--	--	--
<b>277</b>	0.6	15	5.5	0	19.1	4	--	--	--	--	17.2	0
<b>279</b>	3.0	4	--	--	--	--	--	--	--	--	--	--
<b>301</b>	2.3	4	--	--	--	--	--	--	--	--	--	--
<b>304</b>	3.5	21	6.72	4	22.2	4	23.1	3	43.1	0	21	4
<b>307</b>	1.5	12	7.28	2	--	--	20.4	2	--	--	--	--
<b>315</b>	1.5	6	--	--	--	--	--	--	--	--	--	--
<b>326</b>	3.1	17	--	--	--	--	23.7	2	24.6	4	20.9	4
<b>328</b>	2.1	28	6.5	4	51	0	23	3	47	0	23	0
<b>330</b>	2.7	26	6.71	4	19.6	4	23.5	3	11	0	21.3	3
<b>331</b>	1.0	22	4.98	0	35.5	0	--	--	27.3	3	18.5	0
<b>332</b>	1.8	13	--	--	35.92	0	--	--	23.82	4	24.08	0
<b>334</b>	2.7	28	6.9	4	30	2	24	2	20	2	21	4
<b>336</b>	0.2	5	--	--	--	--	--	--	--	--	--	--
<b>356</b>	3.0	24	6.81	4	19.8	4	21.1	3	<50	NR	21.9	2
<b>370</b>	1.5	21	8.54	0	<100	NR	21.4	4	<500	NR	<50	NR
<b>372</b>	0.3	26	<2	0	<6	0	6	0	3	0	16	0

**Table 5. Laboratory performance ratings for standard reference sample T-167 (trace constituents) -- continued**

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all rated analyses; µg/L, micrograms per liter; mg/L, milligrams per liter; V/28, number of rated analyses out of 28 possible; 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 (Unsatisfactory)	greater than 2.00
2 (Satisfactory)	1.01 - 1.50	NR (Not Rated)	

Lab	Beryllium		Calcium		Cadmium		Cobalt		Chromium	
	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
	MPV = 10.8 µg/L		5.15 mg/L		10.4 µg/L		6.80 µg/L		22.6 µg/L	
	F-pseudosigma = 0.59		0.245		0.50		0.282		1.07	
1	11	4	5.17	4	10.4	4	6.83	4	22.6	4
5	9.88	1	4.75	1	10.1	3	10.4	0	22	3
10	--	--	--	--	10.1	3	--	--	21	2
12	--	--	5.1	4	8.6	0	--	--	--	--
16	11	4	4.9	3	10	3	7	3	24	2
21	--	--	--	--	--	--	--	--	--	--
23	10.81	4	5.09	4	10.02	3	--	--	22.63	4
24	--	--	4.96	3	11	2	7.6	0	24	2
25	10	2	2.41	0	11	2	7	3	11	0
32	11.1	4	5.2	4	10.7	3	6.8	4	23	4
42	9.7	1	5.33	3	9.91	3	6.41	2	21.9	3
45	--	--	5.32	3	--	--	--	--	--	--
46	10.4	3	5.24	4	9.64	2	--	--	21.8	3
50	10.8	4	--	--	10.6	4	7.13	3	23.3	3
59	10.9	4	4.72	1	10.5	4	6.67	4	22.5	4
64	--	--	5.01	3	--	--	--	--	--	--
70	10.8	4	5.38	3	10.2	4	6.53	3	22.3	4
76	--	--	5.133	4	10.03	3	6.792	4	23.6	3
84	--	--	5.16	4	--	--	--	--	--	--
86	10.4	3	5.2	4	10.4	4	6.78	4	22.1	4
89	13.9	0	3.72	0	12.4	0	6.9	4	23.9	2
93	10.9	4	5.06	4	9.42	1	--	--	22.8	4
96	10.6	4	--	--	10.6	4	<10	NR	23.8	2
97	11.3	3	5.08	4	10.8	3	5.4	0	24.6	1
100	11	4	5.33	3	8.3	0	6.57	3	14	0
109	--	--	5.88	0	--	--	--	--	--	--
110	--	--	5.09	4	--	--	--	--	--	--
113	11.3	3	5	3	10.6	4	--	--	22.7	4
121	--	--	5.08	4	9	0	--	--	--	--
138	10.5	4	5.06	4	10.7	3	6.9	4	22.4	4
142	11.4	2	4.85	2	11.1	2	6.8	4	22.4	4
146	10.8	4	5.15	4	10.5	4	7.43	1	23.5	3
147	--	--	--	--	10.4	4	--	--	--	--
180	10.4	3	5.25	4	10.5	4	6.38	2	21.3	2
190	--	--	4.82	2	10.7	3	--	--	23	4
193	9.25	0	5.24	4	13.3	0	--	--	21.6	3
198	11.6	2	5.19	4	10.7	3	7.1	3	22.7	4
212	10.2	2	5.23	4	10.5	4	6.3	2	23.3	3
224	9.2	0	4.988	3	8.9	0	<6	0	25.3	0
227	--	--	5.3	3	10.4	4	--	--	--	--
234	10.8	4	5.3	3	10.4	4	6.93	4	23.2	3
247	8.74	0	4.48	0	10.1	3	6.74	4	21.4	2
254	--	--	4.97	3	10.4	4	6.7	4	35.2	0
255	--	--	5.54	1	10.4	4	--	--	23.2	3
256	11.27	3	--	--	10	3	6.72	4	23.07	4

**Table 5. Laboratory performance ratings for standard reference sample T-167 (trace constituents) -- continued**

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all rated analyses; µg/L, micrograms per liter; mg/L, milligrams per liter; V/28, number of rated analyses out of 28 possible; 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 (Unsatisfactory)	greater than 2.00
2 (Satisfactory)	1.01 - 1.50	NR (Not Rated)	

Analyte =			Beryllium		Calcium		Cadmium		Cobalt		Chromium	
MPV =			10.8 µg/L		5.15 mg/L		10.4 µg/L		6.80 µg/L		22.6 µg/L	
F-pseudosigma =			0.59		0.245		0.50		0.282		1.07	
Lab	OLR	V/28	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
259	--	--	--	--	5.13	4	10.6	4	6.9	4	23.2	3
265	--	--	11	4	5.4	3	10	3	7	3	22	3
270	--	--	--	--	--	--	--	--	--	--	--	--
277	--	--	--	--	5.5	2	8.8	0	6.1	0	19.8	0
279	--	--	--	--	4.67	1	--	--	--	--	--	--
301	--	--	--	--	7.14	0	--	--	--	--	--	--
304	--	--	11.4	2	--	--	10.1	3	6.68	4	22.5	4
307	--	--	--	--	--	--	11.2	1	--	--	21.7	3
315	--	--	--	--	6.17	0	--	--	--	--	--	--
326	--	--	--	--	5.02	4	10.8	3	7.7	0	24.2	2
328	--	--	10.8	4	5.4	3	11	2	11	0	29	0
330	--	--	10.6	4	6	0	11.3	1	6.99	3	22.4	4
331	--	--	9.5	0	4.61	0	9.75	2	5.6	0	21.1	2
332	--	--	--	--	5.34	3	--	--	--	--	--	--
334	--	--	10	2	5	3	11	2	6.7	4	22	3
336	--	--	--	--	7.12	0	14.5	0	--	--	--	--
356	--	--	10.4	3	5.29	3	10.2	4	6.49	3	22.1	4
370	--	--	10.8	4	5.36	3	10.23	4	9.33	0	24	2
372	--	--	5	0	4.97	3	<2	0	<2	0	17	0

**Table 5. Laboratory performance ratings for standard reference sample T-167 (trace constituents) -- continued**

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all rated analyses; µg/L, micrograms per liter; mg/L, milligrams per liter; V/28, number of rated analyses out of 28 possible; 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 (Unsatisfactory)	greater than 2.00
2 (Satisfactory)	1.01 - 1.50	NR (Not Rated)	

Lab	Copper		Iron		Potassium		Lithium		Magnesium	
	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
	MPV = 20.6 µg/L		56.1 µg/L		4.76 mg/L		13.6 µg/L		4.80 mg/L	
	F-pseudosigma = 1.00		4.23		0.222		0.82		0.189	
1	20.5	4	56.6	4	4.73	4	12.7	2	4.84	4
5	15.4	0	55.9	4	5.36	0	13.2	4	4.31	0
10	20.1	4	55	4	--	--	--	--	--	--
12	20	3	--	--	3.8	0	--	--	5.5	0
16	20	3	55	4	4.8	4	--	--	4.7	4
21	--	--	56.71	4	--	--	--	--	--	--
23	19.82	3	55.9	4	4.79	4	--	--	4.82	4
24	23	0	60.5	2	4.75	4	--	--	4.63	3
25	20	3	55	4	4.37	1	17	0	2.34	0
32	22.1	2	--	--	4.8	4	14.1	3	5.05	2
42	19.9	3	62.2	2	4.54	3	12.4	2	4.74	4
45	20	3	39	0	4.35	1	--	--	4.22	0
46	20.9	4	--	--	4.81	4	--	--	4.71	4
50	21.1	4	53.1	3	--	--	13.3	4	--	--
59	20.8	4	< 100	NR	4.82	4	--	--	4.66	3
64	--	--	--	--	4.74	4	--	--	4.65	3
70	20.2	4	46.8	0	4.64	4	--	--	4.92	4
76	--	--	--	--	4.85	4	13.59	4	4.72	4
84	19.7	3	59.3	3	--	--	--	--	4.88	4
86	21.6	3	--	--	4.83	4	--	--	4.89	4
89	20.8	4	55.6	4	4.55	3	--	--	4.49	2
93	--	--	53.9	3	--	--	--	--	4.78	4
96	21.5	3	51	2	--	--	--	--	--	--
97	20.8	4	60	3	4.64	4	--	--	4.72	4
100	19.2	2	51.2	2	4.79	4	<50	NR	5.05	2
109	--	--	54.5	4	3.69	0	--	--	4.5	2
110	--	--	--	--	4.93	3	--	--	4.561	3
113	20.6	4	56.9	4	4.6	3	--	--	4.6	3
121	22	2	57	4	--	--	--	--	4.8	4
138	20.5	4	58	4	4.55	3	--	--	4.8	4
142	20.3	4	56	4	5.03	2	14.3	3	4.87	4
146	21.6	3	59	3	4.76	4	--	--	4.83	4
147	20.8	4	56.1	4	--	--	--	--	--	--
180	19.5	2	60.9	2	4.8	4	--	--	4.8	4
190	21.3	3	56.1	4	4.94	3	--	--	4.8	4
193	20.5	4	<125	NR	4.98	3	--	--	4.8	4
198	21.3	3	51	2	4.79	4	--	--	4.85	4
212	21	4	63.7	1	4.83	4	15.9	0	4.81	4
224	19.8	3	53	3	4.939	3	--	--	4.965	3
227	22	2	--	--	--	--	--	--	4.9	4
234	21.3	3	56.4	4	4.72	4	12.8	3	4.93	3
247	19.3	2	53.3	3	4.71	4	<10.2	0	4.49	2
254	20.1	4	56.6	4	4.76	4	15.8	0	4.84	4
255	20.6	4	62	2	--	--	--	--	5	3
256	34.08	0	52.32	3	--	--	<20	NR	--	--

**Table 5. Laboratory performance ratings for standard reference sample T-167 (trace constituents) -- continued**

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all rated analyses; µg/L, micrograms per liter; mg/L, milligrams per liter; V/28, number of rated analyses out of 28 possible; 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 (Unsatisfactory)	greater than 2.00
2 (Satisfactory)	1.01 - 1.50	NR (Not Rated)	

Lab	Copper		Iron		Potassium		Lithium		Magnesium	
	MPV =		MPV =		MPV =		MPV =		MPV =	
	F-pseudosigma =		F-pseudosigma =		F-pseudosigma =		F-pseudosigma =		F-pseudosigma =	
	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
259	21.5	3	49.5	1	4.71	4	--	--	4.8	4
265	21	4	58	4	4.75	4	12	1	4.7	4
270	--	--	--	--	4.6	3	--	--	--	--
277	16.3	0	47	0	4	0	--	--	5.2	1
279	--	--	--	--	4.59	3	--	--	4.7	4
301	--	--	--	--	4.97	3	--	--	4.61	3
304	20.8	4	--	--	--	--	13.3	4	--	--
307	21.8	2	<38.3	0	--	--	--	--	--	--
315	--	--	75.4	0	5.12	1	--	--	4.95	3
326	20.1	4	54.3	4	3.52	0	--	--	4.99	3
328	24	0	53	3	5.2	1	14	4	5	3
330	20.9	4	<300	NR	5.3	0	--	--	5	3
331	17.6	0	53.6	3	--	--	15	1	4.53	2
332	--	--	84.8	0	4.9	3	13.58	4	4.89	4
334	22	2	60	3	4.5	2	14	4	4.6	3
336	--	--	--	--	3.9	0	--	--	12.5	0
356	16.6	0	58.9	3	4.75	4	--	--	4.81	4
370	13.4	0	61.6	2	6.9	0	<500	NR	5.06	2
372	17	0	68	0	5.01	2	<3	0	4.56	3



**Table 5. Laboratory performance ratings for standard reference sample T-167 (trace constituents) -- continued**

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all rated analyses; µg/L, micrograms per liter; mg/L, milligrams per liter; V/28, number of rated analyses out of 28 possible; 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 (Unsatisfactory)	greater than 2.00
2 (Satisfactory)	1.01 - 1.50	NR (Not Rated)	

Lab	Manganese		Molybdenum		Sodium		Nickel		Lead	
	MPV =		20.1 µg/L		7.34 mg/L		12.0 µg/L		21.5 µg/L	
	F-pseudosigma =		1.42		0.345		0.52		1.33	
	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	19	3	20	4	7.36	4	11.6	3	21.4	4
5	16.6	0	12.4	0	7.36	4	<10.0	0	21.2	4
10	19	3	--	--	--	--	--	--	20	2
12	--	--	24	0	7.7	3	--	--	22	4
16	18	4	20	4	6.8	2	12	4	20	2
21	--	--	--	--	--	--	--	--	--	--
23	18.3	4	20.72	4	9.3	0	11.41	3	20.49	3
24	19	3	21	3	7.13	3	12	4	--	--
25	18	4	--	--	6.84	2	14	0	18	0
32	19.1	3	19.8	4	7.5	4	12.2	4	20.9	4
42	17.8	3	19.7	4	7.25	4	11.2	2	20.5	3
45	20	1	--	--	8.47	0	--	--	21.3	4
46	18.2	4	--	--	7.05	3	--	--	21.9	4
50	19	3	19.6	4	--	--	12	4	21.5	4
59	18	4	18.3	2	7.34	4	11.8	4	--	--
64	--	--	--	--	7.3	4	--	--	--	--
70	18.3	4	20.4	4	7.62	3	11.5	3	21.7	4
76	18.25	4	20.25	4	--	--	12.15	4	21.15	4
84	17.9	3	--	--	7.2	4	--	--	22.5	3
86	18.3	4	19.1	3	7.44	4	12.7	2	22.2	3
89	18	4	--	--	7.17	4	11.8	4	19.6	2
93	17.8	3	--	--	6.22	0	11.1	2	20.5	3
96	<20	NR	--	--	--	--	12.3	4	22.4	3
97	22.6	0	21	3	7.12	3	13.8	0	26.6	0
100	18.9	4	13.7	0	7.33	4	23.1	0	23.2	2
109	12.57	0	--	--	7.8	2	--	--	--	--
110	--	--	--	--	7.182	4	--	--	--	--
113	18.4	4	20.7	4	6.7	1	12.8	2	22.7	3
121	19	3	--	--	7.2	4	15	0	--	--
138	18.1	4	21	3	7.18	4	12	4	20.9	4
142	20	1	20.1	4	5.77	0	12	4	20.2	3
146	19.1	3	21.3	3	7.66	3	13.1	1	21.6	4
147	--	--	--	--	--	--	--	--	21.1	4
180	17.7	3	19.8	4	7.5	4	11	1	20.7	3
190	18.6	4	--	--	7.67	3	12	4	20.8	4
193	--	--	--	--	7.47	4	12.8	2	22.3	3
198	18.9	4	22.8	1	7.55	3	11.7	4	21.8	4
212	18.8	4	20.3	4	7.73	2	11.9	4	21.9	4
224	14.9	0	19.9	4	7.101	3	--	--	38.3	0
227	--	--	--	--	--	--	--	--	23.1	2
234	18.6	4	20.1	4	7.3	4	12	4	20.4	3
247	19.2	3	18.2	2	7.22	4	11.7	4	21.7	4
254	17.7	3	17.6	1	7.28	4	12.2	4	20.3	3
255	20	1	--	--	--	--	12.2	4	22.5	3
256	19.78	2	20.94	3	--	--	12.11	4	22.93	2

**Table 5. Laboratory performance ratings for standard reference sample T-167 (trace constituents) -- continued**

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all rated analyses; µg/L, micrograms per liter; mg/L, milligrams per liter; V/28, number of rated analyses out of 28 possible; 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 (Unsatisfactory)	greater than 2.00
2 (Satisfactory)	1.01 - 1.50	NR (Not Rated)	

Lab	Manganese		Molybdenum		Sodium		Nickel		Lead	
	MPV = 18.5 µg/L		20.1 µg/L		7.34 mg/L		12.0 µg/L		21.5 µg/L	
	F-pseudosigma = 0.78		1.42		0.345		0.52		1.33	
	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
259	19	3	19.9	4	--	--	12.5	3	21.7	4
265	19	3	19	3	7.25	4	11	1	21	4
270	--	--	--	--	10.5	0	--	--	--	--
277	15.7	0	--	--	--	--	10.1	0	16.7	0
279	--	--	--	--	7.29	4	--	--	--	--
301	--	--	--	--	7.54	3	--	--	--	--
304	18.1	4	20.4	4	--	--	11.8	4	21.7	4
307	9	0	--	--	7.35	4	9.28	0	22.2	3
315	18	4	--	--	8.06	1	--	--	--	--
326	18.8	4	--	--	7.32	4	12.1	4	21.2	4
328	22	0	30	0	7.7	3	23	0	21	4
330	18.5	4	10.9	0	8	1	12.2	4	22.3	3
331	16.9	1	23.7	0	6.8	2	10.1	0	20	2
332	15.3	0	--	--	7.6	3	--	--	24.47	0
334	20	1	21	3	6.7	1	13	1	23	2
336	--	--	--	--	8	1	--	--	--	--
356	19.7	2	18.8	3	7.51	4	12	4	22.7	3
370	19.4	2	18	2	8.35	0	11.9	4	17.9	0
372	7	0	<2	0	4.53	0	<2	0	12	0

**Table 5. Laboratory performance ratings for standard reference sample T-167 (trace constituents) -- continued**

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all rated analyses; µg/L, micrograms per liter; mg/L, milligrams per liter; V/28, number of rated analyses out of 28 possible; 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 (Unsatisfactory)	greater than 2.00
2 (Satisfactory)	1.01 - 1.50	NR (Not Rated)	

Lab	Antimony		Selenium		Silica		Strontium		Thallium	
	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	21.7	4	3.53	4	5.92	4	42.1	4	21.8	4
5	31.9	0	3.67	4	5.65	3	39	2	--	--
10	--	--	3	2	--	--	--	--	--	--
12	--	--	2	0	--	--	--	--	--	--
16	21	3	3	2	--	--	40	3	21	3
21	--	--	--	--	--	--	--	--	--	--
23	22.71	4	4.35	2	--	--	--	--	22.77	3
24	--	--	--	--	6.05	4	41.1	4	--	--
25	--	--	<16	NR	5.11	0	<39	NR	19.6	0
32	21.3	4	4	3	5.95	4	41	4	21.8	4
42	20.6	3	3.29	3	5.64	3	47.5	0	21.1	3
45	--	--	4.12	3	--	--	--	--	--	--
46	--	--	--	--	--	--	--	--	--	--
50	23	3	3.82	4	--	--	40.6	4	23.2	2
59	25	1	< 10	NR	--	--	41.2	4	--	--
64	--	--	--	--	5.9	4	--	--	--	--
70	22.2	4	5	0	5.93	4	--	--	22	4
76	--	--	--	--	--	--	41.03	4	21.74	4
84	--	--	--	--	--	--	--	--	--	--
86	--	--	--	--	--	--	40.4	4	--	--
89	33.3	0	2.78	2	5.9	4	--	--	26.3	0
93	--	--	--	--	--	--	--	--	--	--
96	22.3	4	<5	NR	--	--	--	--	21.4	3
97	21	3	5.12	0	6.3	2	40.3	4	24.3	0
100	23.1	3	3.86	4	7.07	0	42.8	3	22.2	4
109	--	--	--	--	--	--	--	--	--	--
110	--	--	--	--	5.763	4	--	--	--	--
113	21.6	4	--	--	--	--	40.6	4	20.2	1
121	--	--	--	--	5.9	4	40	3	--	--
138	21.2	3	3.92	4	--	--	38.7	2	22.8	3
142	23.9	2	4.27	3	6.4	1	41.5	4	21.1	3
146	25.9	0	<10.0	NR	--	--	--	--	22.3	4
147	--	--	--	--	--	--	--	--	--	--
180	21.2	3	3.57	4	--	--	--	--	21.5	4
190	--	--	3.6	4	5.9	4	--	--	--	--
193	22.5	4	<5	NR	--	--	--	--	--	--
198	23	3	4.21	3	--	--	--	--	23.3	2
212	20.7	3	<5.0	NR	6.02	4	42.1	4	22.5	4
224	--	--	--	--	5.779	4	--	--	--	--
227	--	--	--	--	--	--	--	--	--	--
234	21.5	4	3.24	3	5.94	4	41.7	4	21.9	4
247	20.3	2	<4.08	NR	--	--	40.6	4	22.5	4
254	--	--	--	--	6.27	2	43.1	3	--	--
255	--	--	3.2	3	--	--	--	--	--	--
256	24.04	2	3.14	3	5.45	1	45.7	0	28.9	0

**Table 5. Laboratory performance ratings for standard reference sample T-167 (trace constituents) -- continued**

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all rated analyses; µg/L, micrograms per liter; mg/L, milligrams per liter; V/28, number of rated analyses out of 28 possible; 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 (Unsatisfactory)	greater than 2.00
2 (Satisfactory)	1.01 - 1.50	NR (Not Rated)	

Lab	Antimony		Selenium		Silica		Strontium		Thallium	
	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
	259	--	--	--	--	5.8	4	42.2	4	--
265	22	4	4	3	5.6	2	42	4	21	3
270	--	--	--	--	--	--	--	--	--	--
277	--	--	--	--	--	--	--	--	--	--
279	--	--	--	--	--	--	--	--	--	--
301	--	--	--	--	--	--	--	--	--	--
304	22.1	4	3.63	4	--	--	39.5	3	21.9	4
307	--	--	4.9	1	--	--	--	--	--	--
315	--	--	--	--	--	--	--	--	--	--
326	--	--	--	--	--	--	42.4	3	--	--
328	22	4	3.5	4	6.11	3	43	3	22	4
330	23.5	3	4.21	3	6.3	2	42.8	3	22.9	3
331	21.6	4	--	--	--	--	36.3	0	--	--
332	--	--	--	--	--	--	47.86	0	--	--
334	25	1	3.8	4	5.78	4	38	1	22	4
336	--	--	--	--	--	--	--	--	--	--
356	21.3	4	3.55	4	--	--	47.6	0	22.4	4
370	20.9	3	<5	NR	2.9	0	49.4	0	27.3	0
372	<2	0	<5	NR	5.16	0	31	0	5	0

**Table 5. Laboratory performance ratings for standard reference sample T-167 (trace constituents) -- continued**

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all rated analyses; µg/L, micrograms per liter; mg/L, milligrams per liter; V/28, number of rated analyses out of 28 possible; 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 (Unsatisfactory)	greater than 2.00
2 (Satisfactory)	1.01 - 1.50	NR (Not Rated)	

Lab	Uranium		Vanadium		Zinc	
	RV	Rating	RV	Rating	RV	Rating
	Analyte =		Analyte =		Analyte =	
	MPV =		MPV =		MPV =	
	F-pseudosigma =		F-pseudosigma =		F-pseudosigma =	
	4.00 µg/L		16.8 µg/L		3.90 µg/L	
	0.222		1.19		0.600	
1	3.75	2	16.8	4	3.61	4
5	--	--	19.3	0	4.28	3
10	--	--	--	--	5	1
12	--	--	--	--	3.4	3
16	4	4	17	4	3	2
21	--	--	--	--	--	--
23	--	--	--	--	--	--
24	--	--	17.5	3	3.4	3
25	--	--	<19	NR	<3	NR
32	3.7	2	17.8	3	4	4
42	3.84	3	15.9	3	3.59	3
45	--	--	--	--	--	--
46	--	--	--	--	--	--
50	--	--	17.3	4	3.76	4
59	--	--	16.4	4	< 10	NR
64	--	--	--	--	--	--
70	4.76	0	16.4	4	<20.0	NR
76	--	--	16.91	4	--	--
84	--	--	--	--	--	--
86	--	--	17	4	5.08	1
89	--	--	25.3	0	3.1	2
93	--	--	16.4	4	3.35	3
96	--	--	<40	NR	<10	NR
97	--	--	15.6	3	<5.0	NR
100	--	--	16	3	<5	NR
109	--	--	--	--	--	--
110	--	--	--	--	--	--
113	--	--	--	--	--	--
121	--	--	18	2	10	0
138	--	--	16.4	4	4.01	4
142	3.73	2	16.8	4	4.24	3
146	--	--	17.2	4	<20.0	NR
147	--	--	--	--	3.71	4
180	--	--	15.6	3	3.8	4
190	--	--	--	--	--	--
193	--	--	--	--	<25	NR
198	--	--	17.7	3	--	--
212	4.2	3	16.5	4	5.2	0
224	--	--	12.7	0	<7	NR
227	--	--	--	--	3.58	3
234	--	--	16.6	4	3.78	4
247	--	--	15.7	3	<5.1	NR
254	3.9	4	17.8	3	<5	NR
255	--	--	--	--	2.5	0
256	--	--	18.36	2	--	--

**Table 5. Laboratory performance ratings for standard reference sample T-167 (trace constituents) -- continued**

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all rated analyses; µg/L, micrograms per liter; mg/L, milligrams per liter; V/28, number of rated analyses out of 28 possible; 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 (Unsatisfactory)	greater than 2.00
2 (Satisfactory)	1.01 - 1.50	NR (Not Rated)	

Lab	Analyte = Uranium		Analyte = Vanadium		Analyte = Zinc	
	RV	Rating	RV	Rating	RV	Rating
	MPV =	4.00 µg/L		16.8 µg/L		3.90 µg/L
F-pseudosigma =	0.222		1.19		0.600	
259	--	--	--	--	--	--
265	3.8	3	17	4	4	4
270	--	--	--	--	--	--
277	--	--	--	--	3	2
279	--	--	--	--	--	--
301	--	--	--	--	--	--
304	--	--	16.3	4	3.38	3
307	--	--	--	--	8	0
315	--	--	--	--	--	--
326	--	--	--	--	4.3	3
328	4	4	16	3	5	1
330	4.03	4	16.7	4	3.94	4
331	--	--	14.9	1	6	0
332	4.24	2	--	--	--	--
334	4.1	4	16	3	3.9	4
336	--	--	--	--	--	--
356	--	--	18.7	1	4.3	3
370	--	--	29.3	0	<30	NR
372	--	--	5	0	<2	0

**Table 6. Laboratory performance ratings for standard reference sample M-160 (major constituents)**

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all rated analyses; mg/L, micrograms per liter; mg/L, milligrams per liter; mS/cm, microsiemens per centimeter at 25 degrees Celsius; V/16, number of rated analyses out of 16 possible; 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 (Unsatisfactory)	greater than 2.00
2 (Satisfactory)	1.01 - 1.50	NR (Not Rated)	

Analyte =			Alkalinity		Boron		Calcium		Chloride		Fluoride	
MPV =			74.0 mg/L		89.0 µg/L		13.7 mg/L		74.7 mg/L		0.240 mg/L	
F-pseudosigma =			2.93		5.11		0.94		2.34		0.0237	
Lab	OLR	V/16	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	3.1	15	78.4	2	102	0	14	4	73.2	4	0.215	2
4	4.0	1	74	4	--	--	--	--	--	--	--	--
5	2.1	15	71.57	3	78.3	0	12.8	3	74.7	4	0.13	0
10	3.6	12	74.6	4	--	--	13.6	4	69.2	2	0.25	4
12	2.4	11	70	2	--	--	14	4	76	4	--	--
16	2.6	15	71	3	92	3	13	3	78.9	2	0.19	0
23	3.2	12	70	2	--	--	14.4	3	75	4	0.252	4
24	3.7	13	75	4	89	4	13.7	4	72.9	4	0.247	4
25	1.8	15	160	0	80	1	10.1	0	67.5	1	0.28	1
32	2.9	16	72.3	4	85	3	14	4	76.6	4	0.249	4
38	3.1	9	36.04	0	--	--	14.53	3	--	--	--	--
42	2.8	15	74	4	88.3	4	14.3	3	77.1	3	0.25	4
45	2.9	11	72	3	--	--	13.5	4	75.1	4	0.2	1
50	3.2	14	84.4	0	84.6	3	13.8	4	75	4	0.164	0
59	3.6	15	72.1	3	82.3	2	13.5	4	76	4	0.24	4
64	3.3	9	--	--	--	--	13.7	4	74.4	4	--	--
70	3.2	13	73	4	--	--	13	3	73.3	4	0.43	0
76	3.8	4	--	--	--	--	13.65	4	74.57	4	--	--
84	2.9	7	--	--	--	--	13.5	4	79	2	0.19	0
85	3.3	15	73.4	4	90	4	13.7	4	73.5	4	0.27	2
86	2.6	9	--	--	100	0	13.71	4	--	--	--	--
89	3.1	14	74.9	4	--	--	12.8	3	74.7	4	0.27	2
93	2.8	11	75.9	3	--	--	13.4	4	76.7	3	--	--
96	3.0	7	73	4	--	--	--	--	76.7	3	0.196	1
97	3.4	15	74.1	4	--	--	13.1	3	74.7	4	0.242	4
100	2.1	15	91.8	0	85.2	3	10.3	0	75.1	4	0.22	3
109	2.4	11	105.75	0	--	--	14	4	58.5	0	0.22	3
113	3.7	14	72.6	4	--	--	13.4	4	74.5	4	0.246	4
118	3.4	5	75.4	4	--	--	--	--	--	--	--	--
121	3.2	6	--	--	--	--	12.5	2	--	--	--	--
138	3.7	16	75.1	4	84.4	3	13.2	3	74.1	4	0.235	4
142	3.1	16	81	1	89.3	4	14.1	4	77.7	3	0.26	3
146	2.8	13	72.7	4	--	--	12.9	3	78.9	2	0.236	4
149	2.7	3	72	3	--	--	--	--	--	--	--	--
155	3.1	7	72	3	--	--	15.1405	1	--	--	--	--
190	3.3	13	73	4	--	--	12.6	2	74.1	4	0.225	3
193	2.9	7	77.5	3	--	--	14.3	3	--	--	--	--
208	4.0	2	--	--	--	--	--	--	74.1	4	--	--
212	3.4	16	71.7	3	93.8	3	13.6	4	73.2	4	0.22	3
224	2.5	13	68	1	--	--	74.649	0	74.49	4	0.338	0
227	3.0	6	73.5	4	--	--	--	--	69.48	2	--	--
234	3.8	16	76	3	90	4	13.8	4	73.5	4	0.27	2
254	3.2	10	--	--	87.4	4	14.44	3	74	4	--	--
255	2.6	5	--	--	92	3	15	2	--	--	0.231	4
256	2.8	14	75	4	--	--	13.03	3	75.57	4	0.4	0

**Table 6. Laboratory performance ratings for standard reference sample M-160 (major constituents) -- continued**

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all rated analyses; mg/L, micrograms per liter; mg/L, milligrams per liter; mS/cm, microsiemens per centimeter at 25 degrees Celsius; V/16, number of rated analyses out of 16 possible; 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 (Unsatisfactory)	greater than 2.00
2 (Satisfactory)	1.01 - 1.50	NR (Not Rated)	

Lab	Analyte =		Alkalinity		Boron		Calcium		Chloride		Fluoride	
	OLR	V/16	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
	MPV =	F-pseudostigma =	74.0 mg/L		89.0 µg/L		13.7 mg/L		74.7 mg/L		0.240 mg/L	
			2.93		5.11		0.94		2.34		0.0237	
<b>259</b>	3.5	14	73	4	92.5	3	14.1	4	74	4	0.22	3
<b>263</b>	3.6	8	--	--	--	--	14.3	3	74.7	4	0.23	4
<b>265</b>	3.7	10	--	--	90	4	14.3	3	72.9	4	--	--
<b>266</b>	3.3	12	78	2	--	--	16	0	74	4	0.22	3
<b>269</b>	4.0	3	--	--	--	--	--	--	74	4	0.25	4
<b>270</b>	2.0	4	105	0	--	--	--	--	120	0	--	--
<b>277</b>	2.2	10	--	--	--	--	15	2	74	4	0.14	0
<b>279</b>	2.7	3	--	--	--	--	13.03	3	--	--	--	--
<b>307</b>	3.5	6	73.9	4	--	--	--	--	75.8	4	--	--
<b>315</b>	1.5	6	--	--	--	--	11	0	2.45	0	--	--
<b>319</b>	4.0	2	--	--	87	4	--	--	76.5	4	--	--
<b>326</b>	2.9	10	77.8	2	88	4	13.4	4	78.5	2	--	--
<b>328</b>	2.3	16	76	3	109	0	15	2	71	3	0.33	0
<b>330</b>	3.1	11	76	3	--	--	13	3	71	3	0.26	3
<b>331</b>	2.8	12	74.1	4	98.3	1	14.3	3	79.2	2	0.23	4
<b>332</b>	2.8	5	--	--	--	--	13.99	4	--	--	--	--
<b>333</b>	3.7	3	74	4	--	--	--	--	--	--	--	--
<b>334</b>	2.7	16	72	3	92	3	13	3	64	0	0.21	2
<b>336</b>	1.3	9	95.8	0	--	--	14.98	2	81.54	1	--	--
<b>341</b>	3.1	14	67	1	89	4	13.8	4	75.5	4	--	--
<b>366</b>	2.9	11	74.4	4	--	--	13.2	3	78.8	2	--	--
<b>370</b>	1.7	15	71	3	<500	NR	12.2	1	82.7	0	0.24	4
<b>372</b>	2.2	16	72.9	4	65	0	13.7	4	89	0	0.24	4



**Table 6. Laboratory performance ratings for standard reference sample M-160 (major constituents) -- continued**

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all rated analyses; mg/L, micrograms per liter; mg/L, milligrams per liter; mS/cm, microsiemens per centimeter at 25 degrees Celsius; V/16, number of rated analyses out of 16 possible; RV, reported value; <, less than; NR, not rated; --, not reported.]

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

Lab	Potassium		Magnesium		Sodium		pH		Residue on Evaporation	
	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
	MPV =	2.20 mg/L		15.0 mg/L		72.5 mg/L		10.2		299 mg/L
	F-pseudosigma =	0.156		0.59		2.48		0.24		8.9
1	1.88	0	15.6	3	73.7	4	10.1	4	299	4
4	--	--	--	--	--	--	--	--	--	--
5	1.96	1	13.6	1	73.1	4	9.89	3	256	0
10	2.23	4	15.3	4	71.7	4	10.14	4	289	3
12	1.9	1	17.4	0	74.2	4	10.5	3	296	4
16	2.2	4	15	4	72	4	10.23	4	265	0
23	2.3	3	15.1	4	73	4	10.32	4	--	--
24	2.14	4	15.5	3	74.6	3	10.05	4	--	--
25	2.2	4	12.1	0	67.5	2	10.4	4	398	0
32	2.2	4	16.3	1	82	0	10.42	4	311	3
38	2.29	3	14.558	3	71.98	4	10	4	296	4
42	2.03	2	14.6	3	70.5	3	8.49	0	--	--
45	1.61	0	13.9	2	73.7	4	10.49	3	312	3
50	2.09	3	15	4	70.7	4	10.1	4	294	4
59	2.16	4	14.9	4	73.3	4	10.25	4	290	3
64	2.11	3	15.4	3	69.1	3	10.5	3	--	--
70	2.18	4	14.8	4	75.1	3	10.3	4	306	4
76	--	--	--	--	--	--	--	--	--	--
84	--	--	14.3	3	72.3	4	10.36	4	--	--
85	2.29	3	14.8	4	71.7	4	10.3	4	298	4
86	2.22	4	15.28	4	72.78	4	--	--	--	--
89	2.07	3	15.5	3	74.6	3	10.35	4	296	4
93	2.42	2	14.6	3	69.2	3	10.3	4	--	--
96	--	--	--	--	--	--	10.1	4	296	4
97	2.1	3	14.9	4	70.2	3	10.15	4	292	4
100	2.24	4	13.4	0	76.9	2	10.26	4	323	1
109	2.45	1	14.38	3	72.5	4	10.21	4	317	2
113	2.2	4	14.9	4	69.5	3	9.98	4	300	4
118	--	--	--	--	--	--	9.9	3	276	2
121	--	--	15.1	4	72	4	--	--	--	--
138	2.05	3	15	4	70.9	4	10.2	4	292	4
142	2.22	4	16.4	1	75.7	3	10.3	4	294	4
146	2.27	4	14.4	3	74.2	4	10.5	3	286	3
149	--	--	--	--	--	--	10.5	3	--	--
155	--	--	15.0412	4	--	--	9.81	3	--	--
190	2.35	3	15.3	4	74.1	4	9.91	3	317	2
193	2.36	2	15.2	4	70.5	3	--	--	--	--
208	--	--	--	--	--	--	--	--	--	--
212	2.14	4	14.9	4	71.5	4	10.4	4	298	4
224	1.857	0	15.408	3	74.648	3	9.94	3	299.5	4
227	--	--	--	--	--	--	10	4	319	2
234	2.17	4	15.1	4	73.6	4	10.4	4	299	4
254	2.22	4	15.57	3	73.96	4	--	--	--	--
255	--	--	15.6	3	--	--	--	--	--	--
256	2.35	3	--	--	73.8	4	10.22	4	280	2

**Table 6. Laboratory performance ratings for standard reference sample M-160 (major constituents) -- continued**

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all rated analyses; mg/L, micrograms per liter; mg/L, milligrams per liter; mS/cm, microsiemens per centimeter at 25 degrees Celsius; V/16, number of rated analyses out of 16 possible; RV, reported value; <, less than; NR, not rated; --, not reported.]

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

Analyte =			Potassium		Magnesium		Sodium		pH		Residue on Evaporation	
MPV =			2.20 mg/L		15.0 mg/L		72.5 mg/L		10.2		299 mg/L	
F-pseudosigma =			0.156		0.59		2.48		0.24		8.9	
Lab	OLR	V/16	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
259	--	--	2.28	3	15.7	3	75.1	3	10.17	4	300	4
263	--	--	--	--	14.8	4	--	--	10.2	4	300	4
265	--	--	2.1	3	14.9	4	72.5	4	--	--	--	--
266	--	--	2.2	4	14.1	2	73	4	10.23	4	305	4
269	--	--	--	--	--	--	--	--	--	--	--	--
270	--	--	2.2	4	--	--	73.4	4	--	--	--	--
277	--	--	2.7	0	15.8	2	67.5	2	10.05	4	305	4
279	--	--	2.44	1	--	--	72.4	4	--	--	--	--
307	--	--	--	--	--	--	74.3	4	10.38	4	--	--
315	--	--	2.48	1	15.1	4	71.2	4	--	--	--	--
319	--	--	--	--	--	--	--	--	--	--	--	--
326	--	--	2.72	0	15.54	3	71.97	4	10.32	4	--	--
328	--	--	1.8	0	16	2	71	4	10.2	4	296	4
330	--	--	2.3	3	15	4	79	1	10.3	4	296	4
331	--	--	--	--	14.7	4	69.8	3	9.71	3	318	2
332	--	--	2.06	3	14.82	4	75.72	3	--	--	--	--
333	--	--	--	--	--	--	--	--	--	--	--	--
334	--	--	2	2	15	4	69	3	10.52	3	310	3
336	--	--	1.83	0	21.82	0	73.5	4	9.35	1	297	4
341	--	--	2.06	3	14.6	3	69.3	3	10.39	4	300	4
366	--	--	2.1	3	14.5	3	68.8	2	9.96	3	284	3
370	--	--	3.96	0	15.7	3	81.8	0	10.2	4	398	0
372	--	--	2.23	4	14.8	4	58.7	0	10.5	3	304	4

**Table 6. Laboratory performance ratings for standard reference sample M-160 (major constituents) -- continued**

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all rated analyses; mg/L, micrograms per liter; mg/L, milligrams per liter; mS/cm, microsiemens per centimeter at 25 degrees Celsius; V/16, number of rated analyses out of 16 possible; RV, reported value; <, less than; NR, not rated; --, not reported.]

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

Lab	Silica		Sulfate		Specific Conductance		Strontium		Phosphorus as P	
	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
	3.96 mg/L		73.3 mg/L		560 µS/cm		43.9 µg/L		0.152 mg/L	
	F-pseudosigma = 0.274		3.59		22.2		2.08		0.0148	
1	3.93	4	72	4	559	4	45.5	3	--	--
4	--	--	--	--	--	--	--	--	--	--
5	3.68	2	68.9	2	508	1	42.1	3	--	--
10	3.8	3	72	4	575	3	--	--	--	--
12	--	--	60	0	510	1	--	--	0.16	3
16	--	--	66.5	1	443	0	44	4	0.144	3
23	3.8	3	74.8	4	586	3	--	--	0.28	0
24	4.14	3	74.6	4	572	4	45.4	3	--	--
25	3.08	0	75.7	3	574	4	43	4	0.14	3
32	4.25	2	73.5	4	609	1	44	4	0.525	0
38	--	--	--	--	540.1	3	--	--	0.152	4
42	3.66	2	76.8	3	549	4	51.5	0	0.147	4
45	--	--	74	4	560	4	--	--	--	--
50	3.94	4	76.5	3	560	4	--	--	0.151	4
59	--	--	74.5	4	540	3	43	4	0.142	3
64	4.09	4	75.5	3	577	3	--	--	--	--
70	4.14	3	75.5	3	569	4	--	--	0.179	1
76	--	--	75.66	3	--	--	--	--	--	--
84	--	--	71.1	3	--	--	--	--	--	--
85	4.2	3	78.2	2	536	3	--	--	0.157	4
86	--	--	--	--	582	3	41.6	2	0.134	2
89	4.4	1	73.4	4	552	4	--	--	0.15	4
93	4.55	0	76	3	544.5	3	--	--	0.144	3
96	--	--	71	3	600	2	--	--	--	--
97	3.99	4	66.3	1	553	4	43.8	4	0.14	3
100	4.64	0	75.6	3	529	2	42.7	3	--	--
109	--	--	67	1	545.8	4	--	--	--	--
113	3.597	2	72.6	4	575	3	43.2	4	0.152	4
118	3.87	4	--	--	570	4	--	--	--	--
121	3.72	3	--	--	--	--	42	3	--	--
138	3.89	4	73.9	4	542	3	43.3	4	0.15	4
142	4.26	2	77.9	2	582	3	44	4	0.161	3
146	--	--	78.5	2	523	2	--	--	0.199	0
149	--	--	--	--	600	2	--	--	--	--
155	3.9861	4	--	--	545	3	--	--	0.153	4
190	3.8	3	73.8	4	587	3	--	--	0.152	4
193	4.3	2	--	--	578	3	--	--	--	--
208	--	--	73	4	--	--	--	--	--	--
212	3.9	4	73.2	4	532	3	45.1	3	0.089	0
224	4.024	4	72.556	4	549	4	--	--	0.17	2
227	--	--	70.63	3	--	--	--	--	0.141	3
234	4	4	72.3	4	567	4	43.3	4	0.16	3
254	4.19	3	74	4	--	--	50.1	0	--	--
255	--	--	67.1	1	--	--	--	--	--	--
256	3.63	2	75.42	3	586	3	45.58	3	0.227	0

**Table 6. Laboratory performance ratings for standard reference sample M-160 (major constituents) -- continued**

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all rated analyses; mg/L, micrograms per liter; mg/L, milligrams per liter; mS/cm, microsiemens per centimeter at 25 degrees Celsius; V/16, number of rated analyses out of 16 possible; RV, reported value; <, less than; NR, not rated; --, not reported.]

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

Lab	Analyte =		Silica		Sulfate		Specific Conductance		Strontium		Phosphorus as P	
	MPV =		3.96 mg/L		73.3 mg/L		560 µS/cm		43.9 µg/L		0.152 mg/L	
	F-pseudosigma =		0.274		3.59		22.2		2.08		0.0148	
	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
259	4.03	4	74	4	575	3	45.2	3	--	--	--	--
263	--	--	75.6	3	574.5	3	--	--	--	--	--	--
265	3.7	3	72	4	--	--	44	4	--	--	--	--
266	3.9	4	74.5	4	570	4	--	--	--	--	--	--
269	--	--	--	--	571	4	--	--	--	--	--	--
270	--	--	--	--	--	--	--	--	--	--	--	--
277	--	--	72.1	4	644	0	--	--	--	--	--	--
279	--	--	--	--	--	--	--	--	--	--	--	--
307	--	--	68.2	2	--	--	--	--	--	--	0.141	3
315	--	--	5.36	0	--	--	--	--	--	--	--	--
319	--	--	--	--	--	--	--	--	--	--	--	--
326	--	--	70.66	3	--	--	42.7	3	--	--	--	--
328	4.11	3	68	2	565	4	47	2	0.14	3	--	--
330	4.2	3	76	3	--	--	--	--	--	--	--	--
331	--	--	72.3	4	546	4	452	0	--	--	--	--
332	--	--	--	--	--	--	50.98	0	--	--	--	--
333	4.17	3	--	--	--	--	43.5	4	--	--	--	--
334	3.83	4	66	1	550	4	41	2	0.14	3	--	--
336	--	--	58.58	0	--	--	--	--	--	--	--	--
341	--	--	77	3	555	4	39	0	0.154	4	--	--
366	--	--	72.2	4	542	3	--	--	0.133	2	--	--
370	1.91	0	74.9	4	560	4	54.7	0	0.17	2	--	--
372	3.81	3	67.2	1	580	3	34	0	0.181	1	--	--

**Table 6. Laboratory performance ratings for standard reference sample M-160 (major constituents) -- continued**

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all rated analyses; mg/L, micrograms per liter; mg/L, milligrams per liter; mS/cm, microsiemens per centimeter at 25 degrees Celsius; V/16, number of rated analyses out of 16 possible; 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 (Unsatisfactory)	greater than 2.00
2 (Satisfactory)	1.01 - 1.50	NR (Not Rated)	

Analyte = Vanadium		RV	Rating
MPV = 14.1 µg/L			
F-pseudostigma = 1.26			
Lab		RV	Rating
1		14.7	4
4		--	--
5		14.5	4
10		--	--
12		--	--
16		14	4
23		--	--
24		--	--
25		<19	NR
32		14.4	4
38		--	--
42		13.2	3
45		--	--
50		--	--
59		13.9	4
64		--	--
70		--	--
76		14.26	4
84		--	--
85		11	0
86		17.9	0
89		20.7	0
93		--	--
96		--	--
97		12.5	2
100		15	3
109		--	--
113		--	--
118		--	--
121		15	3
138		13.3	3
142		14.7	4
146		12.8	2
149		--	--
155		--	--
190		--	--
193		--	--
208		--	--
212		13.8	4
224		--	--
227		--	--
234		14.6	4
254		14.9	3
255		--	--
256		14.48	4

Analyte = Vanadium		RV	Rating
MPV = 14.1 µg/L			
F-pseudostigma = 1.26			
Lab		RV	Rating
259		--	--
263		--	--
265		14	4
266		--	--
269		--	--
270		--	--
277		--	--
279		--	--
307		--	--
315		--	--
319		--	--
326		--	--
328		7	0
330		--	--
331		--	--
332		--	--
333		--	--
334		13	3
336		--	--
341		13	3
366		--	--
370		50.8	0
372		2	0

**Table 7. Laboratory performance ratings for standard reference sample N-71 (nutrient constituents)**

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

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

Lab	Analyte =		Ammonia as N		Ammonia + Organic N as N		Nitrate as N		Phosphorus as P		Orthophosphate as P	
	OLR	V/5	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
	MPV =	F-pseudosigma =	0.063 mg/L	0.0074	0.091 mg/L	0.0715	0.067 mg/L	0.0052	0.068 mg/L	0.0037	0.064 mg/L	0.0037
1	3.8	5	0.057	3	0.069	4	0.065	4	0.069	4	0.065	4
5	3.0	4	0.073	2	--	--	0.069	4	0.064	2	0.063	4
10	3.0	5	0.06	4	0.08	4	0.08	0	0.068	4	0.067	3
12	1.6	5	0.355	0	0.34	0	0.068	4	0.06	0	0.064	4
16	2.0	5	0.11	0	0.053	3	0.08	0	0.069	4	0.067	3
21	3.8	5	0.0625	4	0.0729	4	0.0643	3	0.0679	4	0.0637	4
23	0.5	2	0.133	0	<0.50	NR	0.077	1	<0.10	NR	<0.10	NR
25	1.8	4	<0.02	0	<0.07	NR	0.068	4	0.07	3	0.08	0
31	3.8	5	0.0625	4	0.0729	4	0.0643	3	0.0679	4	0.0637	4
33	2.0	3	0.061	4	--	--	0.073	2	--	--	0.056	0
38	2.8	5	0.091	0	0.11	4	0.063	3	0.07	3	0.063	4
42	1.3	3	--	--	--	--	0.07	3	0.0744	1	0.053	0
46	3.3	4	0.06	4	--	--	0.06	2	0.067	4	0.066	3
51	3.6	5	0.06	4	0.063	4	0.06	2	0.067	4	0.065	4
53	2.0	2	--	--	--	--	0.067	4	--	--	0.106	0
59	3.4	5	0.06	4	0.096	4	0.07	3	0.064	2	0.064	4
64	2.0	3	0.08	0	--	--	0.07	3	--	--	0.067	3
70	0.6	5	0.17	0	0.178	2	0.059	1	0.124	0	0.03	0
72	0.4	5	0.03	0	0.19	2	0.24	0	0.035	0	0.05	0
85	3.2	5	0.064	4	0.07	4	0.063	3	0.073	2	0.062	3
89	3.2	5	0.06	4	0.156	3	0.061	2	0.066	3	0.064	4
91	2.3	3	0.059	3	<0.1	NR	0.067	4	0.059	0		
93	3.3	4	0.066	4	--	--	0.066	4	0.067	4	0.058	1
96	3.0	4	0.064	4	<0.150	NR	0.068	4	0.07	3	0.058	1
100	0.5	4	0.28	0	0.89	0	0.06	2	--	--	<0.05	0
110	1.0	2	0.041	0	--	--	0.061	2	--	--		
113	4.0	4	0.063	4	<0.5	NR	0.068	4	0.069	4	0.065	4
118	2.6	5	0.055	2	0.061	4	0.06	2	0.065	3	0.06	2
138	4.0	5	0.061	4	0.0712	4	0.0666	4	0.0692	4	0.0645	4
142	1.6	5	0.0897	0	0.0836	4	0.0654	4	0.088	0	0.0716	0
146	2.0	5	0.067	3	0.143	3	0.0698	3	0.0621	1	0.094	0
155	4.0	5	0.06065	4	0.06507	4	0.064694	4	0.06806	4	0.06506	4
180	2.8	5	0.064	4	0.059	4	0.056	0	0.07	3	0.062	3
190	3.6	5	0.066	4	0.104	4	0.067	4	0.064	2	0.064	4
193	3.0	4	0.06	4	0.11	4	0.05	0	0.069	4		
198	2.8	4	0.063	4	--	--	0.063	3	0.0665	4	0.0539	0
224	0.8	5	0.18	0	0.205	1	0.076	1	0.085	0	0.068	2
234	1.0	4	0.104	0	--	--	0.073	2	0.073	2	0.074	0
247	2.8	5	0.0634	4	0.124	4	0.0708	3	0.0709	3	0.0805	0
313	4.0	3	--	--	--	--	0.0675	4	0.0697	4	0.0642	4
316	3.6	5	0.0654	4	0.0919	4	0.0631	3	0.065	3	0.0636	4
317	0.7	3	0.053	2	--	--	0.117	0	--	--	0.095	0
318	3.0	5	0.042	0	0.0723	4	0.0677	4	0.0669	4	0.0669	3
320	3.5	4	0.067	3	--	--	0.065	4	0.065	3	0.065	4
328	1.5	4	0.07	3	0.78	0	--	--	0.07	3	0.21	0

**Table 7. Laboratory performance ratings for standard reference sample N-71 (nutrient constituents) -- continued**

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all rated analyses; mg/L, milligrams per liter; V/5, number of rated analyses out of 5 possible; 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 (Unsatisfactory)	greater than 2.00
2 (Satisfactory)	1.01 - 1.50	NR (Not Rated)	

Lab	OLR	V/5	Ammonia as N		Ammonia + Organic N as N		Nitrate as N		Phosphorus as P		Orthophosphate as P	
			RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
			MPV =	F-pseudostigma =	MPV =	F-pseudostigma =	MPV =	F-pseudostigma =	MPV =	F-pseudostigma =	MPV =	F-pseudostigma =
			0.063 mg/L	0.0074	0.091 mg/L	0.0715	0.067 mg/L	0.0052	0.068 mg/L	0.0037	0.064 mg/L	0.0037
<b>333</b>	4.0	2	0.065	4	--	--	0.067	4	--	--		
<b>341</b>	3.0	5	0.062	4	0.08	4	0.062	3	0.071	3	0.057	1
<b>366</b>	2.3	4	0.053	2	<0.10	NR	0.072	3	0.056	0	0.065	4
<b>368</b>	4.0	2	--	--	--	--	--	--	0.067	4	0.063	4
<b>369</b>	1.8	4	<0.1	NR	0.2	1	0.06	2	0.076	0	0.063	4
<b>370</b>	0.5	4	<0.1	NR	0.46	0	0.09	0	0.08	0	0.06	2
<b>372</b>	2.0	5	0.06	4	0.09	4	0.04	0	0.093	0	0.06	2
<b>373</b>	3.4	5	0.066	4	0.051	3	0.066	4	0.063	2	0.064	4

**Table 8. Laboratory performance ratings for standard reference sample N-72 (nutrient constituents)**

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

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

Lab	Analyte =		Ammonia as N		Ammonia + Organic N as N		Nitrate as N		Phosphorus as P		Orthophosphate as P	
	OLR	V/5	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
	MPV =	F-pseudosigma =	0.740 mg/L	0.0510	0.780 mg/L	0.0600	0.630 mg/L	0.0226	0.749 mg/L	0.0293	0.711 mg/L	0.0208
1	3.6	5	0.707	3	0.769	4	0.609	3	0.748	4	0.707	4
5	1.3	4	0.73	4	--	--	0.688	1	0.883	0	0.794	0
10	3.8	5	0.72	4	0.78	4	0.64	4	0.764	4	0.738	3
12	3.0	5	0.766	3	0.92	0	0.623	4	0.749	4	0.703	4
16	2.6	5	0.76	4	0.66	1	0.58	1	0.724	3	0.711	4
23	2.8	5	0.69	3	0.784	4	0.568	1	0.799	2	0.701	4
25	1.6	5	0.65	1	1.46	0	0.63	4	0.59	0	0.69	3
33	2.0	3	0.811	2	--	--	0.624	4	--	--	0.591	0
38	2.8	5	0.837	1	0.76	4	0.638	4	0.685	1	0.693	4
42	3.3	3	--	--	--	--	0.613	3	0.753	4	0.744	3
46	3.8	5	0.722	4	0.804	4	0.635	4	0.762	4	0.746	3
53	2.0	2	--	--	--	--	0.747	0	--	--	0.717	4
59	3.6	5	0.735	4	0.805	4	0.652	3	0.715	3	0.712	4
64	3.7	3	0.74	4	--	--	0.65	3	--	--	0.72	4
70	2.2	5	0.84	1	0.782	4	0.59	2	0.886	0	0.71	4
72	1.0	5	0.67	2	0.95	0	0.94	0	0.66	0	0.68	3
84	2.0	3	0.79	3	--	--	0.6	3	--	--	0.81	0
85	3.8	5	0.744	4	0.79	4	0.63	4	0.78	3	0.7	4
86	2.7	3	0.619	0	--	--	0.629	4	0.758	4		
89	3.8	5	0.706	3	0.803	4	0.64	4	0.748	4	0.704	4
91	3.5	4	0.69	3	0.73	3	0.633	4	0.766	4		
93	3.5	4	0.708	3	--	--	0.645	4	0.74	4	0.689	3
96	3.6	5	0.739	4	0.725	3	0.658	3	0.757	4	0.717	4
100	1.3	4	0.53	0	2.02	0	0.57	1	--	--	0.7	4
102	3.0	5	0.801	2	0.78	4	0.62	4	0.734	4	0.653	1
113	4.0	5	0.718	4	0.78	4	0.645	4	0.745	4	0.7	4
118	3.4	5	0.74	4	0.752	4	0.686	1	0.736	4	0.711	4
138	3.8	5	0.715	4	0.813	3	0.634	4	0.731	4	0.711	4
142	3.2	5	0.716	4	0.842	2	0.61	3	0.781	3	0.716	4
146	3.0	5	0.765	4	0.832	3	0.625	4	1.01	0	0.697	4
155	3.6	5	0.7706	3	0.7905	4	0.64426	4	0.75781	4	0.74287	3
180	3.8	5	0.74	4	0.762	4	0.63	4	0.755	4	0.73	3
190	3.8	5	0.732	4	0.774	4	0.645	4	0.726	3	0.723	4
193	2.8	4	0.7	3	0.6	0	0.63	4	0.741	4		
198	4.0	4	0.764	4	--	--	0.636	4	0.749	4	0.726	4
205	2.0	2	0.8033	2	--	--	0.672	2	--	--		
208	2.0	2	--	--	--	--	0.7	0	--	--	0.7	4
224	2.4	5	0.919	0	0.685	1	0.629	4	0.74	4	0.73	3
227	1.6	5	0.948	0	0.66	1	0.625	4	2.9	0	0.73	3
234	3.0	4	0.76	4	--	--	0.6	3	0.816	1	0.724	4
247	1.2	5	0.883	0	0.886	1	0.653	3	0.593	0	0.749	2
301	0.0	2	--	--	--	--	0.348	0	--	--	0.587	0
307	2.7	3	0.848	0	--	--	0.616	4	0.744	4		
313	2.6	5	0.665	2	0.522	0	0.617	4	0.769	3	0.715	4
317	1.7	3	0.65	1	--	--	0.662	2	--	--	0.762	2



**Table 8. Laboratory performance ratings for standard reference sample N-72 (nutrient constituents) -- continued**

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all rated analyses; mg/L, milligrams per liter; V/5, number of rated analyses out of 5 possible; 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 (Unsatisfactory)	greater than 2.00
2 (Satisfactory)	1.01 - 1.50	NR (Not Rated)	

Lab	Analyte =		Ammonia as N		Ammonia + Organic N as N		Nitrate as N		Phosphorus as P		Orthophosphate as P	
	OLR	V/5	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
	MPV =	F-pseudostigma =										
			0.740 mg/L		0.780 mg/L		0.630 mg/L		0.749 mg/L		0.711 mg/L	
			0.0510		0.0600		0.0226		0.0293		0.0208	
<b>320</b>	3.2	5	0.76	4	0.751	4	0.63	4	0.786	3	0.652	1
<b>328</b>	1.4	5	0.79	3	1.42	0	0.59	2	0.7	2	2.15	0
<b>341</b>	3.0	5	0.698	3	0.78	4	0.63	4	0.744	4	0.61	0
<b>356</b>	2.8	5	0.691	3	0.651	0	0.649	3	0.749	4	0.719	4
<b>366</b>	2.4	5	0.773	3	0.721	3	0.589	2	0.663	0	0.721	4
<b>370</b>	3.0	5	0.76	4	1.2	0	0.64	4	0.78	3	0.7	4
<b>372</b>	1.8	5	0.68	2	0.95	0	0.59	2	0.809	1	0.7	4

**Table 9. Laboratory performance ratings for standard reference sample P-37 (low-ionic strength constituents)**

[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all rated analyses; mg/L, milligrams per liter; mS/cm, microsiemens per centimeter at 25 degrees Celsius; V/11, number of rated analyses out of 11 possible; RV, reported value; <, less than; NR, not rated; --, not reported.]

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

Analyte =			Acidity		Calcium		Chloride		Fluoride		Potassium	
MPV =			9.01 mg/L		1.03 mg/L		3.10 mg/L		0.103 mg/L		0.500 mg/L	
F-pseudosigma =			4.744		0.116		0.148		0.0297		0.0385	
Lab	OLR	V/11	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	3.1	9	--	--	1.03	4	3.24	3	0.098	4	0.479	3
2	3.8	9	--	--	1.029	4	3.167	4	0.102	4	0.516	4
5	2.0	9	--	--	0.927	3	3.14	4	0.09	4	<1.00	NR
23	3.1	10	--	--	1.6	0	3.1	4	0.102	4	0.56	1
25	2.0	10	9.01	4	0.98	4	2.6	0	0.14	2	0.59	0
33	2.8	6	--	--	--	--	3.08	4	0.078	3	--	--
38	3.1	8	0.1	1	1.08	4	--	--	--	--	0.5	4
59	1.7	9	--	--	0.74	0	2.52	0	0.11	4	0.41	0
64	3.8	9	--	--	1.02	4	3.18	3	--	--	0.48	3
85	3.5	10	--	--	0.92	3	3.2	3	0.13	3	0.49	4
86	4.0	5	--	--	0.998	4	--	--	--	--	0.504	4
89	2.2	11	3.2	2	0.79	0	2.97	3	0.155	1	0.5	4
93	3.3	9	--	--	1.01	4	3.2	3	--	--	0.47	3
110	3.8	8	--	--	1	4	3.255	3	--	--	0.5	4
113	3.3	9	--	--	1.048	4	3.05	4	0.09	4	0.525	3
138	3.3	10	--	--	1.01	4	2.66	0	0.086	3	0.479	3
155	1.3	4	--	--	1.2249	1	--	--	--	--	--	--
180	2.2	10	--	--	1.11	3	3.27	2	0.382	0	0.665	0
190	2.9	10	--	--	0.685	0	3.05	4	0.09	4	0.537	3
193	3.0	6	--	--	1.24	1	--	--	--	--	0.524	3
208	1.5	2	--	--	--	--	3.2	3	--	--	--	--
224	3.3	10	--	--	0.943	3	3.04	4	0.103	4	0.4944	4
228	3.3	8	--	--	1.01	4	3.1	4	--	--	0.452	2
247	1.7	11	4	2	0.343	0	2.82	1	0.0779	3	0.523	3
255	2.0	2	--	--	1.11	3	--	--	<0.17	NR	--	--
265	3.5	6	--	--	1.05	4	3	3	--	--	0.5	4
270	0.0	2	--	--	--	--	--	--	--	--	0.4	0
277	1.8	5	--	--	--	--	2.8	1	0.11	4	--	--
279	2.0	4	--	--	0.88	2	--	--	--	--	0.44	1
315	1.0	6	--	--	1.14	3	3	3	--	--	0.62	0
326	3.2	6	--	--	1.09	3	2.88	2	--	--	0.473	3
328	1.7	11	10	4	1.1	3	4.8	0	0.12	3	0.7	0
332	2.3	4	--	--	1.08	4	--	--	--	--	0.74	0
333	3.5	8	--	--	1.07	4	3.19	3	--	--	0.52	3
336	0.0	7	--	--	2.62	0	8.51	0	--	--	0.402	0
370	2.6	10	10	4	1.26	1	3.16	4	0.13	3	<1	NR
372	1.8	11	10	4	0.894	2	3.29	2	0.17	0	0.376	0

**Table 9. Laboratory performance ratings for standard reference sample P-37 (low-ionic strength constituents)**

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[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all rated analyses; mg/L, milligrams per liter; mS/cm, microsiemens per centimeter at 25 degrees Celsius; V/11, number of rated analyses out of 11 possible; RV, reported value; <, less than; NR, not rated; --, not reported.]

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

Lab	Analyte =		Magnesium		Sodium		pH		Orthophosphate as P		Sulfate	
	MPV =		0.506 mg/L		0.800 mg/L		4.61		0.101 mg/L		1.44 mg/L	
	F-pseudosigma =		0.0289		0.0660		0.152		0.0084		0.193	
	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	0.507	4	0.865	3	4.97	1	--	--	1.46	4		
2	0.509	4	0.857	3	4.441	3	--	--	1.467	4		
5	0.441	0	0.763	3	6.45	0	0.13	0	1.63	3		
23	0.51	4	0.78	4	4.66	4	0.103	4	1.72	2		
25	0.49	3	0.84	3	5.12	0	0.113	2	<5	NR		
33	--	--	--	--	4.52	4	0.082	0	1.41	4		
38	0.484	3	0.77	4	4.6	4	0.1	4	--	--		
59	0.42	0	2	0	4.64	4	--	--	1.28	3		
64	0.5	4	0.79	4	4.68	4	0.103	4	1.49	4		
85	0.5	4	0.82	4	4.59	4	0.1	4	1.5	4		
86	0.502	4	0.785	4	--	--	--	--	--	--		
89	0.55	1	0.73	2	4.46	3	0.101	4	0.14	0		
93	0.5	4	0.75	3	4.67	4	0.1	4	1.44	4		
110	0.477	3	0.777	4	4.61	4	--	--	1.436	4		
113	0.524	3	--	--	4.56	4	0.102	4	1.94	0		
138	0.506	4	0.778	4	4.7	4	0.101	4	1.4	4		
155	<0.581	NR	--	--	4.1	0	0.1097	2	--	--		
180	0.519	4	0.89	2	4.47	3	0.1	4	1.92	0		
190	0.571	0	0.826	4	4.36	2	0.099	4	1.43	4		
193	0.492	4	0.79	4	--	--	--	--	1.24	2		
208	--	--	--	--	--	--	--	--	2.1	0		
224	0.492	4	0.742	3	4.38	3	0.456	0	1.444	4		
228	0.471	2	0.82	4	4.58	4	--	--	1.23	2		
247	<0.204	0	1.05	0	4.66	4	0.128	0	1.62	3		
255	0.553	1	--	--	--	--	--	--	<20	NR		
265	0.53	3	0.8	4	--	--	--	--	1.34	3		
270	--	--	1.3	0	--	--	--	--	--	--		
277	--	--	--	--	6.09	0	--	--	1.37	4		
279	0.46	1	0.8	4	--	--	--	--	--	--		
315	0.87	0	1.1	0	--	--	--	--	0.1	0		
326	0.506	4	0.736	3	--	--	--	--	1.38	4		
328	0.5	4	0.9	1	7.29	0	0.25	0	4.1	0		
332	0.54	2	0.86	3	--	--	--	--	--	--		
333	0.53	3	0.83	4	4.57	4	--	--	1.49	4		
336	8.64	0	0.56	0	3.86	0	--	--	0.77	0		
370	0.54	2	1.14	0	4.73	3	0.1	4	1.66	2		
372	0.393	0	0.272	0	4.7	4	0.1	4	3.11	0		

**Table 9. Laboratory performance ratings for standard reference sample P-37 (low-ionic strength constituents)**

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[MPV, most probable value; Lab, laboratory number; OLR, overall laboratory rating for all rated analyses; mg/L, milligrams per liter; mS/cm, microsiemens per centimeter at 25 degrees Celsius; V/11, number of rated analyses out of 11 possible; 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 (Unsatisfactory)	greater than 2.00
2 (Satisfactory)	1.01 - 1.50	NR (Not Rated)	

Lab	Specific	
	Analyte =	Conductance
	MPV =	RV Rating
	F-pseudosigma =	1.87
1		26 2
2		28.04 4
5		25 1
23		28.9 4
25		31 2
33		30.6 2
38		25.2 1
59		27.6 4
64		27.8 4
85		26 2
86		28.31 4
89		28.9 4
93		25.2 1
110		27.7 4
113		29.2 4
138		27 3
155		26.25 2
180		28.9 4
190		29.1 4
193		28.3 4
208		-- --
224		29.2 4
228		28.28 4
247		30.1 3
255		-- --
265		-- --
270		-- --
277		23.6 0
279		-- --
315		-- --
326		-- --
328		29 4
332		-- --
333		30 3
336		-- --
370		30 3
372		28 4

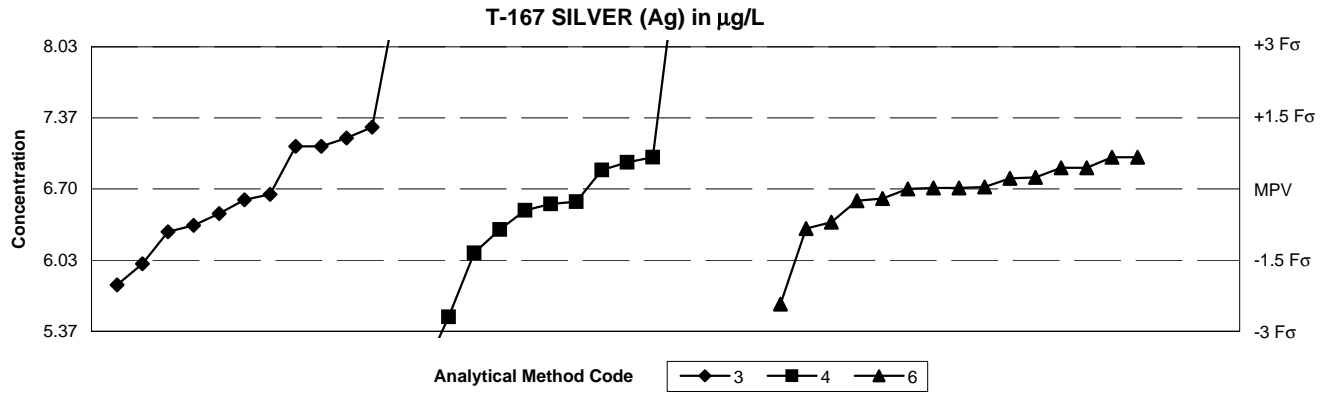
**Table 10. Laboratory performance ratings for standard reference sample HG-33 (Mercury)**

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

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

<b>Analyte =</b>		<b>Mercury</b>		
MPV =		suspect data		
F-pseudosigma =				
<b>Lab</b>	<b>OLR</b>	<b>V/1</b>	<b>RV</b>	<b>Rating</b>
1		0	1.53	NR
10		0	0.48	NR
12		0	0.8	NR
16		0	0.85	NR
23		0	0.5	NR
32		0	<0.1	NR
46		0	0.314	NR
50		0	0.54	NR
59		0	0.25	NR
89		0	0.258	NR
96		0	0.747	NR
97		0	0.98	NR
138		0	0.332	NR
142		0	0.41	NR
146		0	0.511	NR
147		0	1.49	NR
180		0	0.699	NR
193		0	0.362	NR
198		0	2.13	NR
212		0	0.25	NR
234		0	0.88	NR
245		0	1.14	NR
247		0	0.291	NR
256		0	0.935	NR
259		0	0.59	NR
298		0	1.22	NR
304		0	0.285	NR
307		0	1.15	NR
328		0	0.77	NR
331		0	0.38	NR
334		0	0.41	NR
370		0	1.04	NR
372		0	0.37	NR

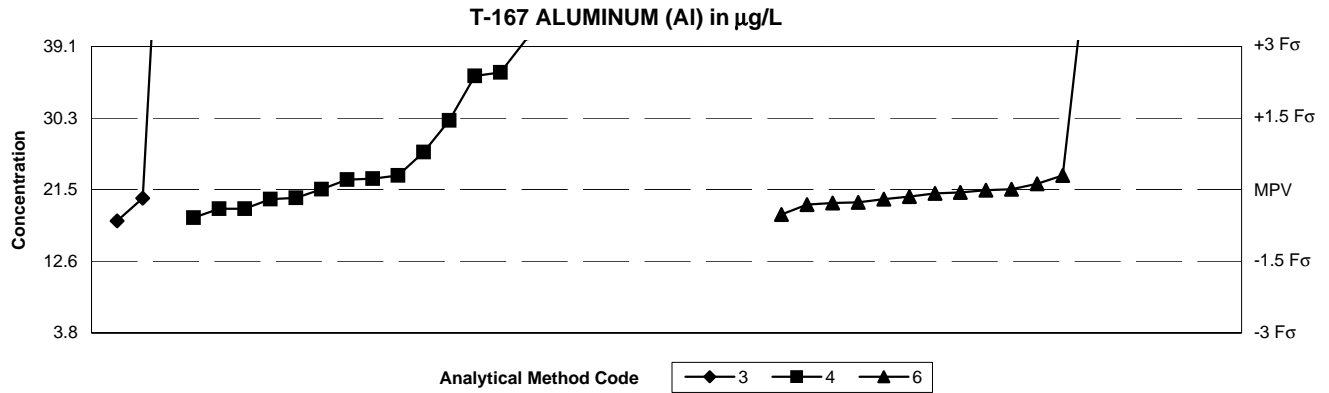
**Table 11. Statistical summary of reported data for standard reference sample T-167 (trace constituents)**



SUMMARY	Methods			Statistics
	3	4	6	
n =	12	12	15	<b>MPV = 6.70 µg/L</b>
Minimum =	5.8	4.98	5.62	F-pseudsigma = 0.445
Maximum =	8.54	10.1	7	n = 39
Median =	6.63	6.57	6.71	Uh = 6.98
F-pseudsigma =	0.600	0.567	0.189	Lh = 6.38
	Method Codes 03 Atomic absorption: graphite furnace 04 Inductively coupled plasma 06 Inductively coupled plasma/mass spectrometry			

Lab	Rating	Z-value	Method Codes			Lab	Rating	Z-value	Method Codes		
			3	4	6				3	4	6
1	4	-0.20	--	--	6.61	370	0	4.14	8.54	--	--
5	0	4.97	--	8.91	--	372	0	-10.57	--	<2	--
12	0	-2.02	5.8	--	--						
16	3	0.67	--	7	--						
23	3	-0.76	6.36	--	--						
25	NR	--	--	<17	--						
32	4	0.00	--	--	6.7						
42	3	-0.70	--	--	6.39						
50	0	-2.43	--	--	5.62						
59	NR	--	--	--	<10						
70	3	-0.52	6.47	--	--						
86	3	-0.85	--	6.32	--						
89	1	-1.57	6	--	--						
96	4	-0.11	6.65	--	--						
97	3	0.90	7.1	--	--						
100	2	1.08	7.18	--	--						
113	3	0.90	7.1	--	--						
138	4	-0.31	--	6.56	--						
142	4	-0.25	--	--	6.59						
146	4	0.40	--	6.88	--						
180	4	0.02	--	--	6.71						
190	3	-0.90	6.3	--	--						
193	4	-0.22	6.6	--	--						
198	3	0.67	--	--	7						
212	2	-1.35	--	6.1	--						
224	0	7.64	--	10.1	--						
234	4	-0.27	--	6.58	--						
247	3	-0.83	--	--	6.33						
255	3	0.67	--	--	7						
256	3	0.56	--	6.95	--						
259	4	0.45	--	--	6.9						
265	4	0.22	--	--	6.8						
277	0	-2.70	--	5.5	--						
304	4	0.04	--	--	6.72						
307	2	1.30	7.28	--	--						
328	4	-0.45	--	6.5	--						
330	4	0.02	--	--	6.71						
331	0	-3.87	--	4.98	--						
334	4	0.45	--	--	6.9						
356	4	0.25	--	--	6.81						

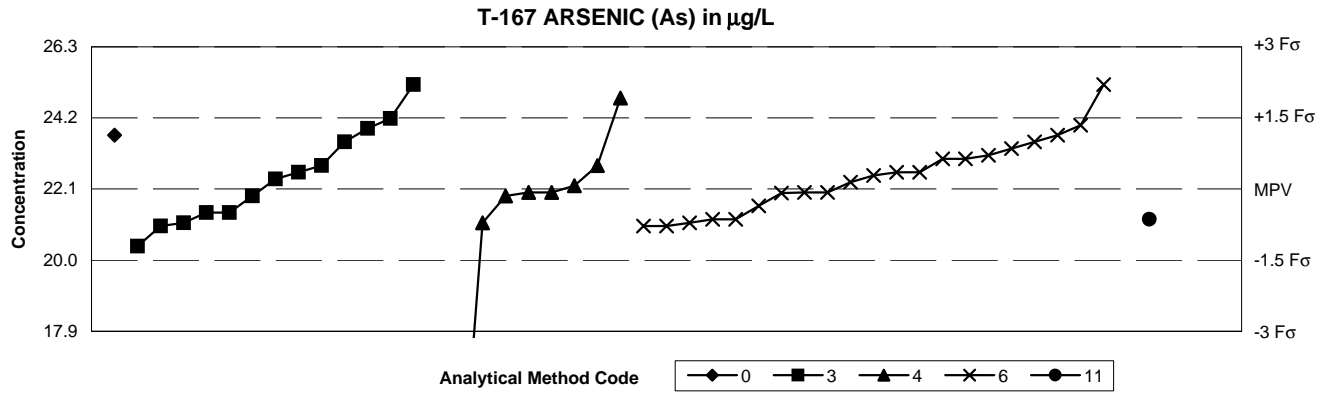
**Table 11. Statistical summary of reported data for standard reference sample T-167 (trace constituents) -- continued**



SUMMARY	Methods			Method Codes	Statistics	
	3	4	6			
n =	3	16	13	03 Atomic absorption: graphite furnace	MPV = 21.5 µg/L	
Minimum =	17.6	18	18.4	04 Inductively coupled plasma	F-pseudosigma = 5.89	
Maximum =	78.2	49	51	06 Inductively coupled plasma/mass spectrometry	n = 32	
Median =		23.0	21.0		Uh = 28.1	
F-pseudosigma =		11.4	1.19		Lh = 20.1	

Lab	Rating	Z-value	Method Codes		
			3	4	6
1	4	-0.20	--	--	20.3
5	0	3.25	--	40.6	--
16	0	4.67	--	49	--
25	NR	--	--	<87	--
32	4	-0.14	--	--	20.6
42	4	-0.08	--	--	21
50	4	0.30	--	--	23.2
59	NR	--	--	--	< 50
70	4	-0.01	--	--	21.4
86	3	0.79	--	26.1	--
89	3	-0.65	17.6	--	--
93	4	0.30	--	23.2	--
97	0	9.63	78.2	--	--
100	4	0.01	--	21.5	--
110	4	-0.17	--	20.45	--
113	4	0.21	--	22.7	--
138	4	0.23	--	22.8	--
142	NR	--	--	<30	--
146	0	3.15	--	40	--
147	4	-0.06	--	--	21.1
180	3	-0.52	--	--	18.4
190	4	-0.18	20.4	--	--
198	4	-0.26	--	--	19.9
212	NR	--	--	<100	--
224	NR	--	--	<30	--
234	4	-0.20	--	20.3	--
247	4	0.01	--	--	21.5
254	NR	--	--	<100	--
256	4	-0.40	--	19.1	--
265	3	-0.59	--	18	--
277	4	-0.40	--	19.1	--
304	4	0.13	--	--	22.2
328	0	5.01	--	--	51
330	4	-0.31	--	--	19.6
331	0	2.38	--	35.5	--
332	0	2.46	--	35.92	--
334	2	1.45	--	30	--
356	4	-0.28	--	--	19.8
370	NR	--	--	<100	--
372	0	-2.62	--	<6	--

**Table 11. Statistical summary of reported data for standard reference sample T-167 (trace constituents) -- continued**

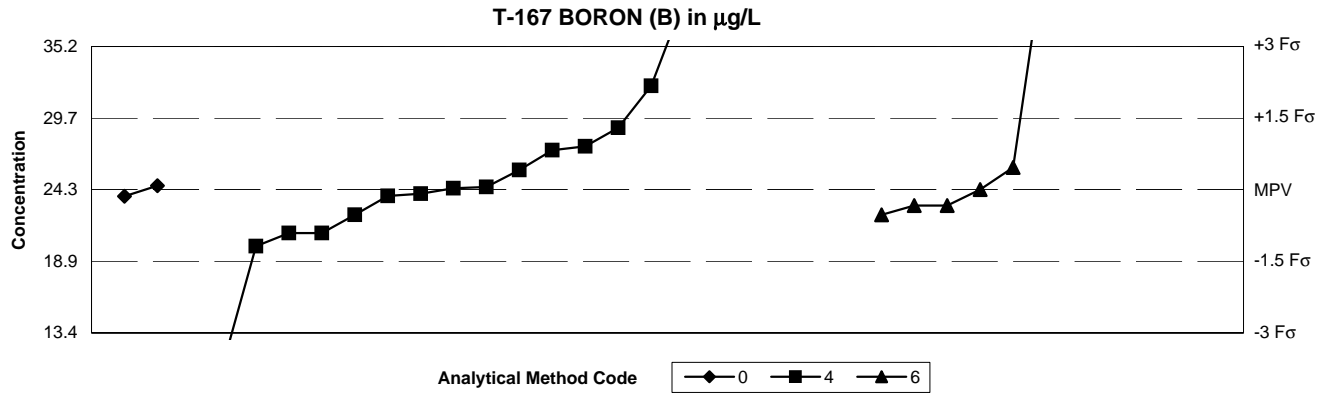


SUMMARY	Methods						Statistics	
	0	3	4	6	10	11	Method Codes	
n =	1	13	9	21	1	1	00 Other	<b>MPV = 22.1 µg/L</b>
Minimum =	23.7	20.4	6	21	6.83	21.2	03 Atomic absorption: graphite furnace	F-pseudosigma = 1.41
Maximum =		25.2	24.8	25.2			04 Inductively coupled plasma	n = 46
Median =		22.4	22.0	22.5			06 Inductively coupled plasma/mass spectrometry	Uh = 23.1
F-pseudosigma =		1.56	0.815	1.11			10 Atomic absorption: extraction	Lh = 21.2
							11 Atomic absorption: hydride	

Lab	Rating	Z-value	Method Codes						Lab	Rating	Z-value	Method Codes					
			0	3	4	6	10	11				0	3	4	6	10	11
1	3	-0.64	--	--	--	21.2	--	--	328	3	0.64	--	--	--	23	--	--
5	2	1.28	--	23.9	--	--	--	--	330	3	0.99	--	--	--	23.5	--	--
10	3	-0.64	--	--	--	--	--	21.2	334	2	1.35	--	--	--	24	--	--
12	3	-0.78	--	21	--	--	--	--	356	3	-0.71	--	--	--	21.1	--	--
16	4	-0.07	--	--	22	--	--	--	370	4	-0.50	--	21.4	--	--	--	--
23	0	-7.06	--	--	12.15	--	--	--	372	0	-11.43	--	--	6	--	--	--
25	4	-0.07	--	--	22	--	--	--									
32	3	0.64	--	--	--	23	--	--									
42	3	-0.64	--	--	--	21.2	--	--									
46	4	-0.14	--	21.9	--	--	--	--									
50	4	0.14	--	--	--	22.3	--	--									
59	4	0.36	--	--	--	22.6	--	--									
70	4	-0.07	--	--	--	22	--	--									
76	4	-0.09	--	--	--	21.98	--	--									
89	2	1.49	--	24.2	--	--	--	--									
93	3	-0.71	--	--	21.1	--	--	--									
96	4	0.50	--	22.8	--	--	--	--									
97	0	2.20	--	--	--	--	--	--									
100	3	0.99	--	23.5	--	--	--	--									
113	4	0.21	--	22.4	--	--	--	--									
138	2	1.14	--	--	--	23.7	--	--									
142	3	0.85	--	--	--	23.3	--	--									
146	4	0.07	--	--	22.2	--	--	--									
147	4	-0.36	--	--	--	21.6	--	--									
180	3	-0.78	--	--	--	21	--	--									
190	4	-0.50	--	21.4	--	--	--	--									
193	3	-0.71	--	21.1	--	--	--	--									
198	4	0.36	--	--	--	22.6	--	--									
212	4	-0.14	--	--	21.9	--	--	--									
224	1	1.92	--	--	24.8	--	--	--									
234	4	0.36	--	22.6	--	--	--	--									
247	0	2.20	--	--	--	25.2	--	--									
254	4	0.50	--	--	22.8	--	--	--									
255	3	-0.78	--	--	--	21	--	--									
256	0	-10.84	--	--	--	6.83	--	--									
259	4	0.28	--	--	--	22.5	--	--									
265	4	-0.07	--	--	--	22	--	--									
304	3	0.71	--	--	--	23.1	--	--									
307	2	-1.21	--	20.4	--	--	--	--									
326	2	1.14	23.7	--	--	--	--	--									



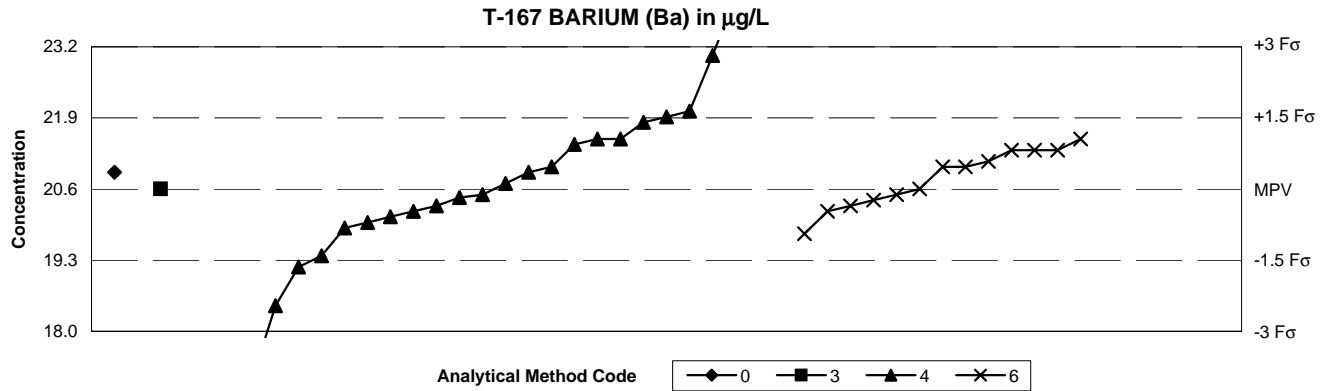
**Table 11. Statistical summary of reported data for standard reference sample T-167 (trace constituents) -- continued**



SUMMARY	Methods			Method Codes	Statistics	
	0	4	6			
n =	2	17	6	00 Other	<b>MPV = 24.3 µg/L</b>	
Minimum =	23.8	3	22.4	04 Inductively coupled plasma	F-pseudosigma = 3.63	
Maximum =	24.6	47	43.1	06 Inductively coupled plasma/mass spectrometry	n = 25	
Median =	24.4	23.7			Uh = 27.3	
F-pseudosigma =	4.89	2.15			Lh = 22.4	

Lab	Rating	Z-value	Method Codes		
			0	4	6
1	4	0.06	--	24.5	--
5	3	-0.52	--	22.4	--
16	3	-0.91	--	21	--
24	4	-0.08	--	24	--
25	3	-0.91	--	21	--
32	4	0.00	--	24.3	--
42	4	-0.33	--	23.1	--
50	3	-0.52	--	22.4	--
59	4	-0.33	--	23.1	--
100	0	3.96	--	38.7	--
138	4	0.03	--	24.4	--
142	NR	--	--	<30	--
180	3	0.91	--	27.6	--
212	0	2.17	--	32.2	--
234	4	0.41	--	25.8	--
247	NR	--	--	<51	--
254	4	-0.14	23.8	--	--
255	2	1.29	--	29	--
265	4	0.47	--	26	--
304	0	5.18	--	43.1	--
326	4	0.08	24.6	--	--
328	0	6.25	--	47	--
330	0	-3.66	--	11	--
331	3	0.83	--	27.3	--
332	4	-0.13	--	23.82	--
334	2	-1.18	--	20	--
356	NR	--	--	<50	--
370	NR	--	--	<500	--
372	0	-5.86	--	3	--

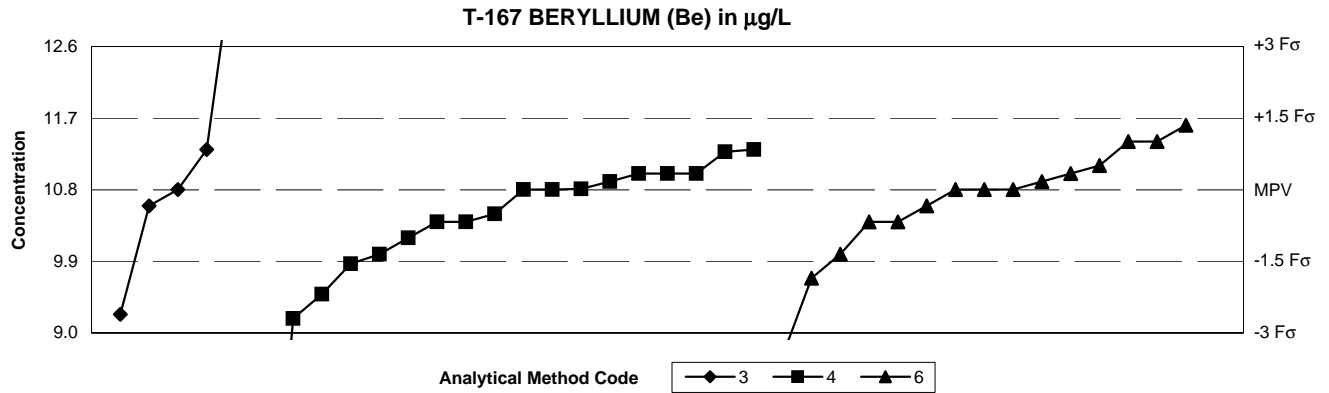
**Table 11. Statistical summary of reported data for standard reference sample T-167 (trace constituents) -- continued**



SUMMARY	Methods					Statistics	
	0	2	3	4	6	Method Codes	
n =	1	0	1	24	13	00 Other	<b>MPV = 20.6 µg/L</b>
Minimum =	20.9	0	20.6	16	19.8	02 Atomic absorption: direct, nitrous oxide	F-pseudosigma = 0.85
Maximum =				24.08	21.5	03 Atomic absorption: graphite furnace	Rating criterion= 1.03
Median =				20.5	21.0	04 Inductively coupled plasma	n = 39
F-pseudosigma =				1.37	0.667	06 Inductively coupled plasma/mass spectrometry	Uh = 21.3
							Lh = 20.2

Lab	Rating	Z-value	Method Codes					Lab	Rating	Z-value	Method Codes				
			0	2	3	4	6				0	2	3	4	6
1	4	0.10	--	--	--	20.7	--	356	2	1.26	--	--	--	21.9	--
5	2	-1.17	--	--	--	19.4	--	370	NR	--	--	--	<50	--	
16	3	-0.58	--	--	--	20	--	372	0	-4.47	--	--	--	16	--
23	4	-0.15	--	--	--	20.45	--								
24	4	0.39	--	--	--	21	--								
25	0	-3.50	--	--	--	17	--								
32	4	-0.19	--	--	--	20.4	--								
42	3	-0.78	--	--	--	19.8	--								
46	3	-0.68	--	--	--	19.9	--								
50	3	0.87	--	--	--	21.5	--								
59	4	-0.10	--	--	--	20.5	--								
70	4	0.49	--	--	--	21.1	--								
86	4	-0.10	--	--	--	20.5	--								
89	NR	--	--	--	< 50	--	--								
93	4	-0.39	--	--	--	20.2	--								
96	NR	--	--	<100	--	--	--								
97	4	0.00	--	--	20.6	--	--								
100	3	0.87	--	--	--	21.5	--								
113	4	-0.29	--	--	--	20.3	--								
121	2	1.36	--	--	--	22	--								
138	4	-0.49	--	--	--	20.1	--								
142	4	0.00	--	--	--	20.6	--								
146	2	1.17	--	--	--	21.8	--								
180	4	-0.29	--	--	--	20.3	--								
198	3	0.68	--	--	--	21.3	--								
212	3	0.78	--	--	--	21.4	--								
224	0	-2.52	--	--	--	<18	--								
234	4	0.29	--	--	--	20.9	--								
247	4	-0.39	--	--	--	20.2	--								
256	2	-1.36	--	--	--	19.2	--								
259	3	0.68	--	--	--	21.3	--								
265	3	0.87	--	--	--	21.5	--								
277	0	-3.30	--	--	--	17.2	--								
304	4	0.39	--	--	--	21	--								
326	4	0.29	20.9	--	--	--	--								
328	0	2.33	--	--	--	23	--								
330	3	0.68	--	--	--	21.3	--								
331	0	-2.04	--	--	--	18.5	--								
332	0	3.38	--	--	--	24.08	--								
334	4	0.39	--	--	--	21	--								

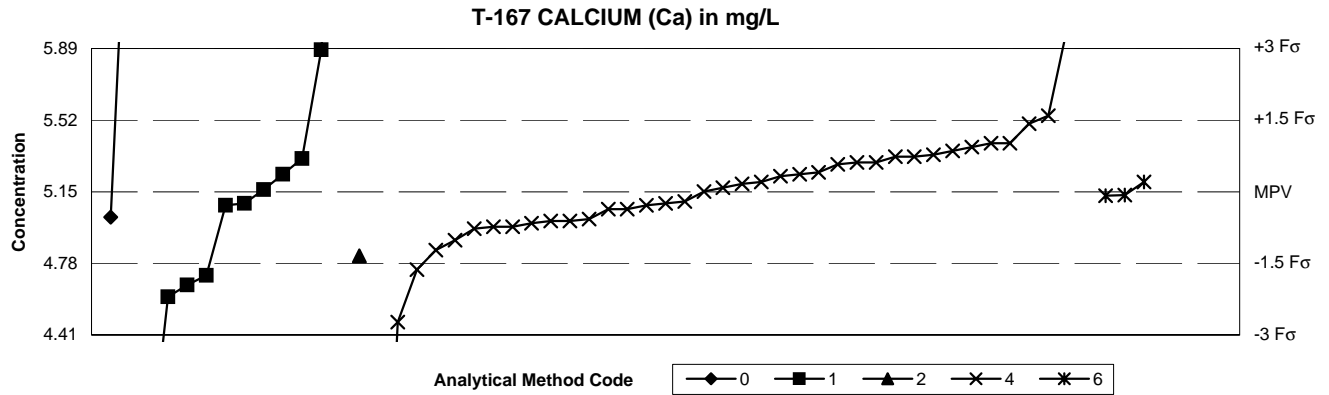
Table 11. Statistical summary of reported data for standard reference sample T-167 (trace constituents) -- continued



SUMMARY	Methods			Statistics
	3	4	6	
n =	5	18	15	<b>MPV = 10.8 µg/L</b> F-pseudosigma = 0.59 n = 38 Uh = 11.0 Lh = 10.2
Minimum =	9.25	5	8.74	
Maximum =	13.9	11.3	11.6	
Median =	10.8	10.7	10.8	
F-pseudosigma =	0.519	0.741	0.482	
	Method Codes 03 Atomic absorption: graphite furnace 04 Inductively coupled plasma 06 Inductively coupled plasma/mass spectrometry			

Lab	Rating	Z-value	Method Codes		
			3	4	6
1	4	0.34	--	--	11
5	1	-1.55	--	9.88	--
16	4	0.34	--	11	--
23	4	0.02	--	10.81	--
25	2	-1.35	--	10	--
32	4	0.51	--	--	11.1
42	1	-1.85	--	--	9.7
46	3	-0.67	--	10.4	--
50	4	0.00	--	--	10.8
59	4	0.17	--	--	10.9
70	4	0.00	--	--	10.8
86	3	-0.67	--	10.4	--
89	0	5.23	13.9	--	--
93	4	0.17	--	10.9	--
96	4	-0.34	10.6	--	--
97	3	0.84	11.3	--	--
100	4	0.34	--	11	--
113	3	0.84	--	11.3	--
138	4	-0.51	--	10.5	--
142	2	1.01	--	--	11.4
146	4	0.00	--	10.8	--
180	3	-0.67	--	--	10.4
193	0	-2.61	9.25	--	--
198	2	1.35	--	--	11.6
212	2	-1.01	--	10.2	--
224	0	-2.70	--	9.2	--
234	4	0.00	--	10.8	--
247	0	-3.47	--	--	8.74
256	3	0.79	--	11.27	--
265	4	0.34	--	11	--
304	2	1.01	--	--	11.4
328	4	0.00	--	--	10.8
330	4	-0.34	--	--	10.6
331	0	-2.19	--	9.5	--
334	2	-1.35	--	--	10
356	3	-0.67	--	--	10.4
370	4	0.00	10.8	--	--
372	0	-9.78	--	5	--

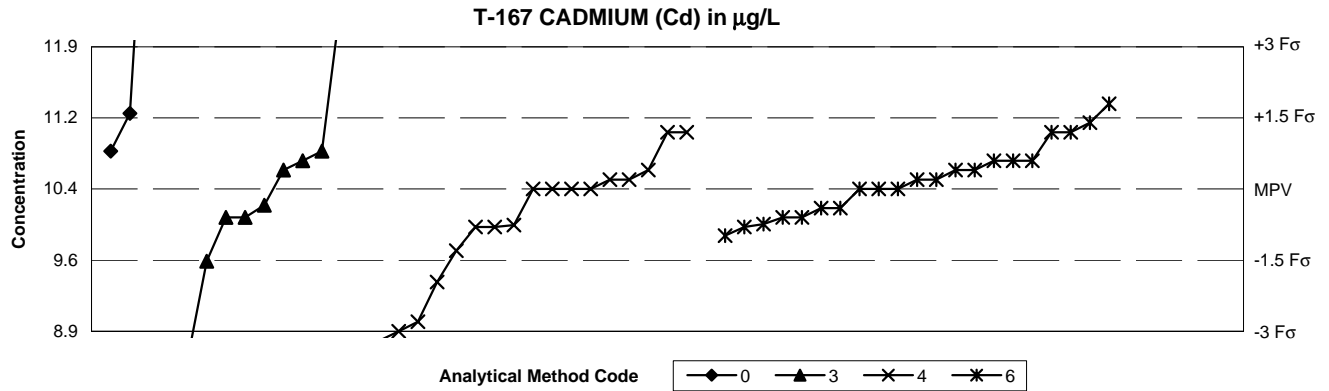
Table 11. Statistical summary of reported data for standard reference sample T-167 (trace constituents) -- continued



SUMMARY	Methods					Method Codes	Statistics	
	0	1	2	4	6			
n =	2	11	1	38	3	00 Other	<b>MPV = 5.15 mg/L</b>	
Minimum =	5.02	3.72	4.82	2.41	5.13	01 Atomic absorption: direct, air	F-pseudosigma = 0.245	
Maximum =	7.12	7.14	6.17	5.2		02 Atomic absorption: direct, nitrous oxide	Rating criterion= 0.258	
Median =		5.09	5.18			04 Inductively coupled plasma	n = 55	
F-pseudosigma =		0.434	0.245			06 Inductively coupled plasma/mass spectrometry	Uh = 5.33	
							Lh = 4.99	

Lab	Rating	Z-value	Method Codes					Lab	Rating	Z-value	Method Codes				
			0	1	2	4	6				0	1	2	4	6
1	4	0.08	--	--	--	5.17	--	265	3	0.97	--	--	--	5.4	--
5	1	-1.55	--	--	--	4.75	--	277	2	1.36	--	--	--	5.5	--
12	4	-0.19	--	--	--	5.1	--	279	1	-1.86	--	4.67	--	--	--
16	3	-0.97	--	--	--	4.9	--	301	0	7.73	--	7.14	--	--	--
23	4	-0.23	--	5.09	--	--	--	315	0	3.96	--	--	--	6.17	--
24	3	-0.74	--	--	--	4.96	--	326	4	-0.50	5.02	--	--	--	--
25	0	-10.64	--	--	--	2.41	--	328	3	0.97	--	--	--	5.4	--
32	4	0.19	--	--	--	--	5.2	330	0	3.30	--	--	--	6	--
42	3	0.70	--	--	--	5.33	--	331	0	-2.10	--	4.61	--	--	--
45	3	0.66	--	5.32	--	--	--	332	3	0.74	--	--	--	5.34	--
46	4	0.35	--	--	--	5.24	--	334	3	-0.58	--	--	--	5	--
59	1	-1.67	--	4.72	--	--	--	336	0	7.65	7.12	--	--	--	--
64	3	-0.54	--	--	--	5.01	--	356	3	0.54	--	--	--	5.29	--
70	3	0.89	--	--	--	5.38	--	370	3	0.82	--	--	--	5.36	--
76	4	-0.07	--	--	--	--	5.133	372	3	-0.70	--	--	--	4.97	--
84	4	0.04	--	5.16	--	--	--								
86	4	0.19	--	--	--	5.2	--								
89	0	-5.55	--	3.72	--	--	--								
93	4	-0.35	--	--	--	5.06	--								
97	4	-0.27	--	5.08	--	--	--								
100	3	0.70	--	--	--	5.33	--								
109	0	2.83	--	5.88	--	--	--								
110	4	-0.23	--	--	--	5.09	--								
113	3	-0.58	--	--	--	5	--								
121	4	-0.27	--	--	--	5.08	--								
138	4	-0.35	--	--	--	5.06	--								
142	2	-1.17	--	--	--	4.85	--								
146	4	0.00	--	--	--	5.15	--								
180	4	0.39	--	--	--	5.25	--								
190	2	-1.28	--	--	4.82	--	--								
193	4	0.35	--	5.24	--	--	--								
198	4	0.16	--	--	--	5.19	--								
212	4	0.31	--	--	--	5.23	--								
224	3	-0.63	--	--	--	4.988	--								
227	3	0.58	--	--	--	5.3	--								
234	3	0.58	--	--	--	5.3	--								
247	0	-2.60	--	--	--	4.48	--								
254	3	-0.70	--	--	--	4.97	--								
255	1	1.51	--	--	--	5.54	--								
259	4	-0.08	--	--	--	5.13	--								

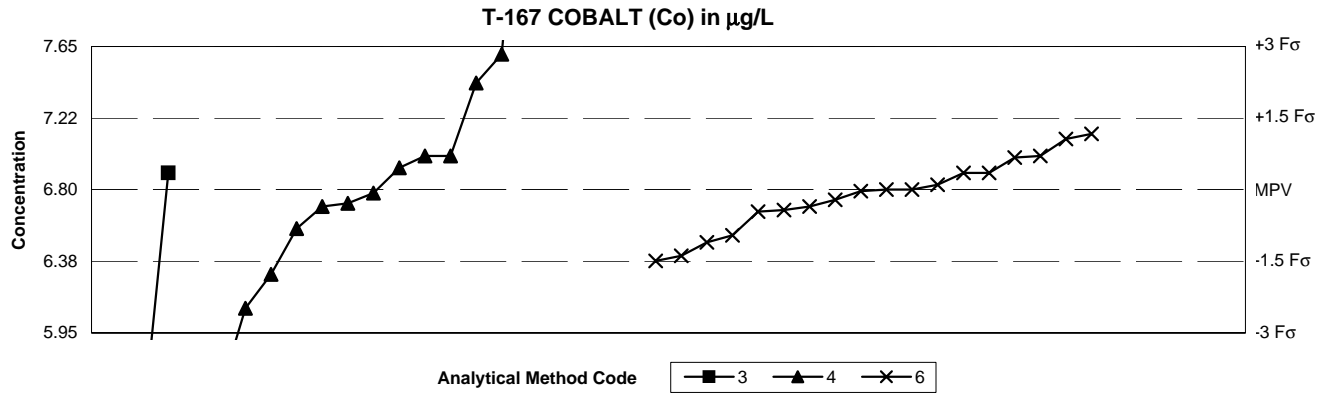
Table 11. Statistical summary of reported data for standard reference sample T-167 (trace constituents) -- continued



SUMMARY	Methods					Method Codes	Statistics	
	0	1	3	4	6			
n =	3	1	10	17	21	00 Other	<b>MPV = 10.4 µg/L</b>	
Minimum =	10.8	8.3	8.6	8.8	9.91	01 Atomic absorption: direct, air	F-pseudosigma = 0.50	
Maximum =	14.5		13.3	11	11.3	03 Atomic absorption: graphite furnace	Rating criterion = 0.52	
Median =			10.4	10.4	10.5	04 Inductively coupled plasma	n = 52	
F-pseudosigma =			0.519	0.556	0.371	06 Inductively coupled plasma/mass spectrometry	Uh = 10.7	
							Lh = 10.0	

Lab	Rating	Z-value	Method Codes					Lab	Rating	Z-value	Method Codes				
			0	1	3	4	6				0	1	3	4	6
1	4	0.00	--	--	--	--	10.4								
5	3	-0.58	--	--	10.1	--	--					8.8	--		
10	3	-0.58	--	--	10.1	--	--					--	10.1		
12	0	-3.46	--	--	8.6	--	--					--	--		
16	3	-0.77	--	--	--	10	--					--	--		
23	3	-0.73	--	--	--	10.02	--					--	--		
24	2	1.15	--	--	--	11	--					--	--	11.3	
25	2	1.15	--	--	--	11	--					--	9.75	--	
32	3	0.58	--	--	--	--	10.7					--	--	11	
42	3	-0.94	--	--	--	--	9.91					--	--	--	
46	2	-1.46	--	--	9.64	--	--					--	--	--	
50	4	0.38	--	--	--	--	10.6					--	--	--	
59	4	0.19	--	--	--	--	10.5					--	--	--	
70	4	-0.38	--	--	--	--	10.2					--	--	--	
76	3	-0.71	--	--	--	--	10.03					--	--	--	
86	4	0.00	--	--	--	10.4	--					--	--	--	
89	0	3.85	--	--	12.4	--	--					--	--	--	
93	1	-1.88	--	--	--	9.42	--					--	--	--	
96	4	0.38	--	--	10.6	--	--					--	--	--	
97	3	0.77	--	--	--	10.8	--					--	--	--	
100	0	-4.04	--	8.3	--	--	--					--	--	--	
113	4	0.38	--	--	--	10.6	--					--	--	--	
121	0	-2.69	--	--	--	9	--					--	--	--	
138	3	0.58	--	--	--	--	10.7					--	--	--	
142	2	1.35	--	--	--	--	11.1					--	--	--	
146	4	0.19	--	--	--	10.5	--					--	--	--	
147	4	0.00	--	--	--	--	10.4					--	--	--	
180	4	0.19	--	--	--	--	10.5					--	--	--	
190	3	0.58	--	--	10.7	--	--					--	--	--	
193	0	5.58	--	--	13.3	--	--					--	--	--	
198	3	0.58	--	--	--	--	10.7					--	--	--	
212	4	0.19	--	--	--	10.5	--					--	--	--	
224	0	-2.88	--	--	--	8.9	--					--	--	--	
227	4	0.00	--	--	--	10.4	--					--	--	--	
234	4	0.00	--	--	--	10.4	--					--	--	--	
247	3	-0.58	--	--	--	--	10.1					--	--	--	
254	4	0.00	--	--	--	10.4	--					--	--	--	
255	4	0.00	--	--	--	--	10.4					--	--	--	
256	3	-0.77	--	--	--	10	--					--	--	--	
259	4	0.38	--	--	--	--	10.6					--	--	--	

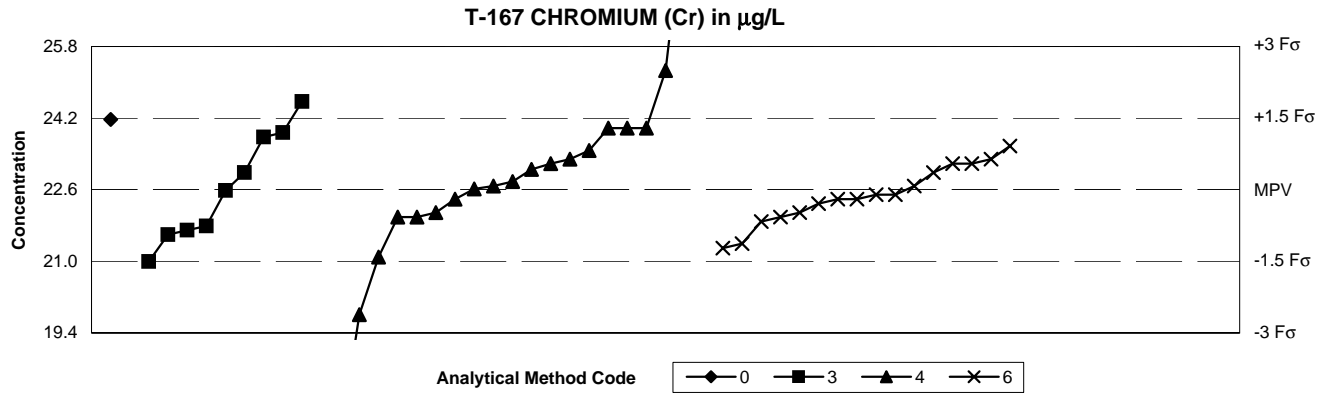
Table 11. Statistical summary of reported data for standard reference sample T-167 (trace constituents) -- continued



SUMMARY	Methods				Method Codes	Statistics	
	0	3	4	6			
n =	1	2	15	18	00 Other	<b>MPV = 6.80 µg/L</b>	
Minimum =	7.7	5.4	5.6	6.38	03 Atomic absorption: graphite furnace	F-pseudosigma = 0.282	
Maximum =		6.9	11	7.13	04 Inductively coupled plasma	Rating criterion= 0.340	
Median =			6.93	6.80	06 Inductively coupled plasma/mass spectrometry	n = 36	
F-pseudosigma =			0.652	0.170		Uh = 7.00	
						Lh = 6.62	

Lab	Rating	Z-value	Method Codes			
			0	3	4	6
1	4	0.09	--	--	--	6.83
5	0	10.59	--	--	10.4	--
16	3	0.59	--	--	7	--
24	0	2.35	--	--	7.6	--
25	3	0.59	--	--	7	--
32	4	0.00	--	--	--	6.8
42	2	-1.15	--	--	--	6.41
50	3	0.97	--	--	--	7.13
59	4	-0.38	--	--	--	6.67
70	3	-0.79	--	--	--	6.53
76	4	-0.02	--	--	--	6.792
86	4	-0.06	--	--	6.78	--
89	4	0.29	--	6.9	--	--
96	NR	--	--	<10	--	--
97	0	-4.12	--	5.4	--	--
100	3	-0.68	--	--	6.57	--
138	4	0.29	--	--	--	6.9
142	4	0.00	--	--	--	6.8
146	1	1.85	--	--	7.43	--
180	2	-1.24	--	--	--	6.38
198	3	0.88	--	--	--	7.1
212	2	-1.47	--	--	6.3	--
224	0	-2.35	--	--	<6	--
234	4	0.38	--	--	6.93	--
247	4	-0.18	--	--	--	6.74
254	4	-0.29	--	--	6.7	--
256	4	-0.24	--	--	6.72	--
259	4	0.29	--	--	--	6.9
265	3	0.59	--	--	--	7
277	0	-2.06	--	--	6.1	--
304	4	-0.35	--	--	--	6.68
326	0	2.65	7.7	--	--	--
328	0	12.35	--	--	11	--
330	3	0.56	--	--	--	6.99
331	0	-3.53	--	--	5.6	--
334	4	-0.29	--	--	--	6.7
356	3	-0.91	--	--	--	6.49
370	0	7.44	--	--	9.33	--
372	0	-14.12	--	--	<2	--

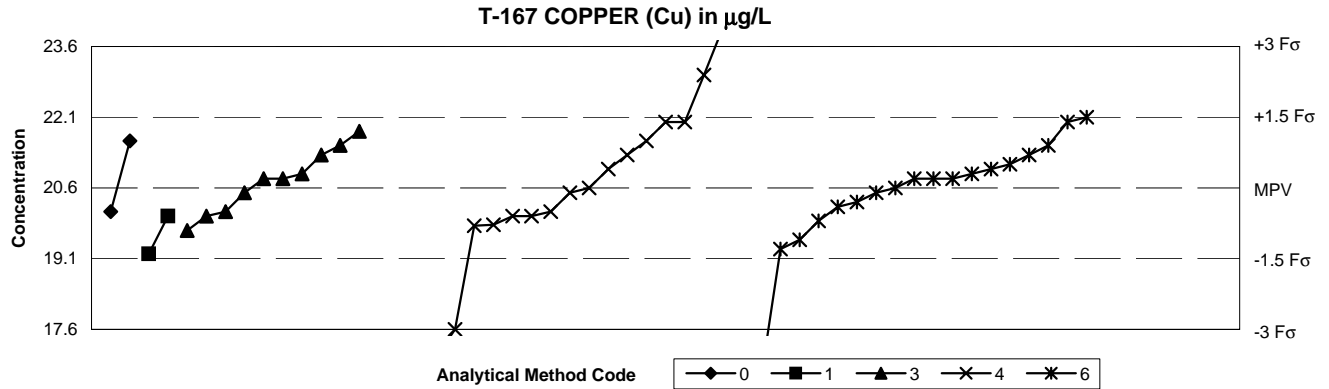
Table 11. Statistical summary of reported data for standard reference sample T-167 (trace constituents) -- continued



SUMMARY	Methods					Method Codes	Statistics	
	0	1	3	4	6			
n =	1	1	9	21	16	00 Other	<b>MPV = 22.6 µg/L</b>	
Minimum =	24.2	14	21	11	21.3	01 Atomic absorption: direct, air	F-pseudosigma = 1.07	
Maximum =			24.6	35.2	23.6	03 Atomic absorption: graphite furnace	Rating criterion = 1.13	
Median =			22.6	22.8	22.5	04 Inductively coupled plasma	n = 48	
F-pseudosigma =			1.56	1.48	0.778	06 Inductively coupled plasma/mass spectrometry	Uh = 23.4	
							Lh = 22.0	

Lab	Rating	Z-value	Method Codes					Lab	Rating	Z-value	Method Codes				
			0	1	3	4	6				0	1	3	4	6
1	4	-0.01	--	--	22.6	--	--	326	2	1.40	24.2	--	--	--	--
5	3	-0.54	--	--	--	22	--	328	0	5.65	--	--	--	29	--
10	2	-1.43	--	--	21	--	--	330	4	-0.19	--	--	--	22.4	--
16	2	1.22	--	--	--	24	--	331	2	-1.34	--	--	--	21.1	--
23	4	0.01	--	--	--	22.63	--	334	3	-0.54	--	--	--	22	--
24	2	1.22	--	--	--	24	--	356	4	-0.46	--	--	--	22.1	--
25	0	-10.27	--	--	--	11	--	370	2	1.22	--	--	--	24	--
32	4	0.34	--	--	--	--	23	372	0	-4.97	--	--	--	17	--
42	3	-0.63	--	--	--	--	21.9								
46	3	-0.72	--	--	21.8	--	--								
50	3	0.61	--	--	--	--	23.3								
59	4	-0.10	--	--	--	--	22.5								
70	4	-0.28	--	--	--	--	22.3								
76	3	0.87	--	--	--	--	23.6								
86	4	-0.46	--	--	--	22.1	--								
89	2	1.14	--	--	23.9	--	--								
93	4	0.16	--	--	--	22.8	--								
96	2	1.05	--	--	23.8	--	--								
97	1	1.76	--	--	24.6	--	--								
100	0	-7.62	--	14	--	--	--								
113	4	0.08	--	--	--	22.7	--								
138	4	-0.19	--	--	--	22.4	--								
142	4	-0.19	--	--	--	--	22.4								
146	3	0.78	--	--	--	23.5	--								
180	2	-1.16	--	--	--	--	21.3								
190	4	0.34	--	--	23	--	--								
193	3	-0.90	--	--	21.6	--	--								
198	4	0.08	--	--	--	--	22.7								
212	3	0.61	--	--	--	23.3	--								
224	0	2.37	--	--	--	--	25.3								
234	3	0.52	--	--	--	23.2	--								
247	2	-1.07	--	--	--	--	21.4								
254	0	11.13	--	--	--	35.2	--								
255	3	0.52	--	--	--	--	23.2								
256	4	0.40	--	--	--	23.07	--								
259	3	0.52	--	--	--	--	23.2								
265	3	-0.54	--	--	--	22	--								
277	0	-2.49	--	--	--	19.8	--								
304	4	-0.10	--	--	--	--	22.5								
307	3	-0.81	--	--	21.7	--	--								

**Table 11. Statistical summary of reported data for standard reference sample T-167 (trace constituents) -- continued**

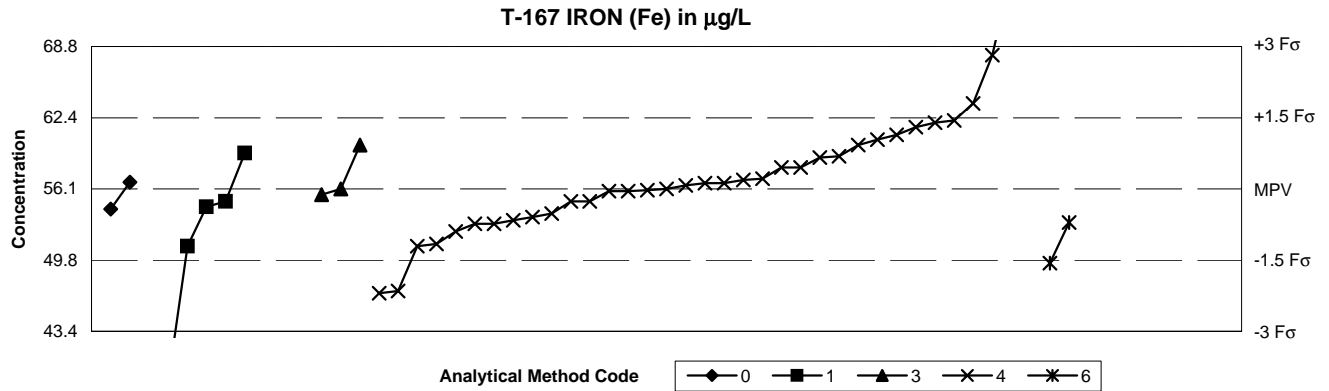


SUMMARY	Methods					Method Codes	Statistics	
	0	1	3	4	6			
n =	2	2	10	20	18	00 Other	<b>MPV = 20.6 µg/L</b>	
Minimum =	20.1	19.2	19.7	13.4	16.6	01 Atomic absorption: direct, air	F-pseudosigma = 1.00	
Maximum =	21.6	20	21.8	34.08	22.1	03 Atomic absorption: graphite furnace	Rating criterion = 1.03	
Median =			20.8	20.3	20.8	04 Inductively coupled plasma	n = 52	
F-pseudosigma =			0.890	2.30	0.667	06 Inductively coupled plasma/mass spectrometry	Uh = 21.3	
							Lh = 20.0	

Lab	Rating	Z-value	Method Codes					Lab	Rating	Z-value	Method Codes				
			0	1	3	4	6				0	1	3	4	6
1	4	-0.10	--	--	--	--	20.5	265	4	0.39	--	--	--	--	21
5	0	-5.05	--	--	--	15.4	--	277	0	-4.17	--	--	--	16.3	--
10	4	-0.49	--	--	20.1	--	--	304	4	0.19	--	--	--	20.8	--
12	3	-0.58	--	--	20	--	--	307	2	1.17	--	--	21.8	--	--
16	3	-0.58	--	--	--	20	--	326	4	-0.49	20.1	--	--	--	--
23	3	-0.76	--	--	--	19.82	--	328	0	3.30	--	--	--	24	--
24	0	2.33	--	--	--	23	--	330	4	0.29	--	--	--	20.9	--
25	3	-0.58	--	--	--	20	--	331	0	-2.91	--	--	--	17.6	--
32	2	1.46	--	--	--	--	22.1	334	2	1.36	--	--	--	22	--
42	3	-0.68	--	--	--	--	19.9	356	0	-3.88	--	--	--	16.6	--
45	3	-0.58	--	20	--	--	--	370	0	-6.99	--	--	--	13.4	--
46	4	0.29	--	--	20.9	--	--	372	0	-3.50	--	--	--	17	--
50	4	0.49	--	--	--	--	21.1								
59	4	0.19	--	--	--	--	20.8								
70	4	-0.39	--	--	--	--	20.2								
84	3	-0.87	--	--	19.7	--	--								
86	3	0.97	21.6	--	--	--	--								
89	4	0.19	--	--	20.8	--	--								
96	3	0.87	--	--	21.5	--	--								
97	4	0.19	--	--	20.8	--	--								
100	2	-1.36	--	19.2	--	--	--								
113	4	0.00	--	--	--	20.6	--								
121	2	1.36	--	--	--	22	--								
138	4	-0.10	--	--	--	20.5	--								
142	4	-0.29	--	--	--	--	20.3								
146	3	0.97	--	--	--	21.6	--								
147	4	0.19	--	--	--	--	20.8								
180	2	-1.07	--	--	--	--	19.5								
190	3	0.68	--	--	21.3	--	--								
193	4	-0.10	--	--	20.5	--	--								
198	3	0.68	--	--	--	--	21.3								
212	4	0.39	--	--	--	21	--								
224	3	-0.78	--	--	--	19.8	--								
227	2	1.36	--	--	--	22	--								
234	3	0.68	--	--	--	21.3	--								
247	2	-1.26	--	--	--	--	19.3								
254	4	-0.49	--	--	--	20.1	--								
255	4	0.00	--	--	--	--	20.6								
256	0	13.09	--	--	--	34.08	--								
259	3	0.87	--	--	--	--	21.5								



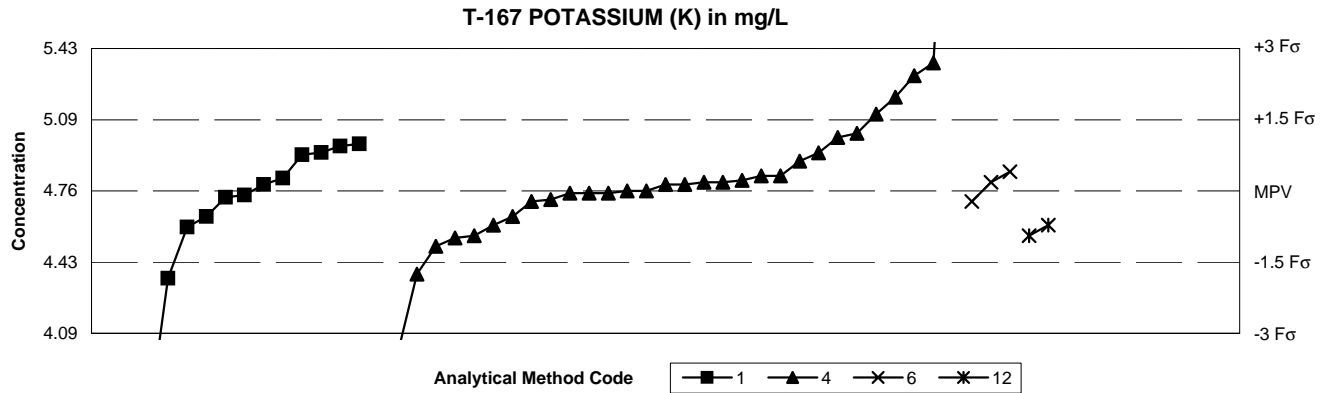
**Table 11. Statistical summary of reported data for standard reference sample T-167 (trace constituents) -- continued**



SUMMARY	Methods						Statistics	
	0	1	2	3	4	6	Method Codes	
n =	2	5	0	3	35	2	00 Other	<b>MPV = 56.1 µg/L</b>
Minimum =	54.3	39	0	55.6	46.8	49.5	01 Atomic absorption: direct, air	F-pseudsigma = 4.23
Maximum =	56.71	59.3		60	84.8	53.1	02 Atomic absorption: direct, nitrous oxide	n = 47
Median =		54.5			56.6		03 Atomic absorption: graphite furnace	Uh = 59.2
F-pseudsigma =		2.97			4.82		04 Inductively coupled plasma	Lh = 53.5
							06 Inductively coupled plasma/mass spectrometry	

Method Codes								Method Codes									
Lab	Rating	Z-value	0	1	2	3	4	6	Lab	Rating	Z-value	0	1	2	3	4	6
1	4	0.12	--	--	--	--	56.6	--	307	0	-4.21	--	<38.3	--	--	--	--
5	4	-0.05	--	--	--	--	55.9	--	315	0	4.57	--	--	--	--	75.4	--
10	4	-0.26	--	55	--	--	--	--	326	4	-0.43	54.3	--	--	--	--	--
16	4	-0.26	--	--	--	--	55	--	328	3	-0.73	--	--	--	--	53	--
21	4	0.14	56.71	--	--	--	--	--	330	NR	--	<300	--	--	--	--	--
23	4	-0.05	--	--	--	--	55.9	--	331	3	-0.59	--	--	--	--	53.6	--
24	2	1.04	--	--	--	--	60.5	--	332	0	6.79	--	--	--	--	84.8	--
25	4	-0.26	--	--	--	--	55	--	334	3	0.92	--	--	--	--	60	--
42	2	1.44	--	--	--	--	62.2	--	356	3	0.66	--	--	--	--	58.9	--
45	0	-4.05	--	39	--	--	--	--	370	2	1.30	--	--	--	--	61.6	--
50	3	-0.71	--	--	--	--	--	53.1	372	0	2.82	--	--	--	--	68	--
59	NR	--	--	<100	--	--	--	--									
70	0	-2.20	--	--	--	--	46.8	--									
84	3	0.76	--	59.3	--	--	--	--									
89	4	-0.12	--	--	--	55.6	--	--									
93	3	-0.52	--	--	--	--	53.9	--									
96	2	-1.21	--	51	--	--	--	--									
97	3	0.92	--	--	--	60	--	--									
100	2	-1.16	--	--	--	--	51.2	--									
109	4	-0.38	--	54.5	--	--	--	--									
113	4	0.19	--	--	--	--	56.9	--									
121	4	0.21	--	--	--	--	57	--									
138	4	0.45	--	--	--	--	58	--									
142	4	-0.02	--	--	--	--	56	--									
146	3	0.69	--	--	--	--	59	--									
147	4	0.00	--	--	--	--	56.1	--									
180	2	1.14	--	--	--	--	60.9	--									
190	4	0.00	--	--	--	56.1	--	--									
193	NR	--	--	--	<125	--	--	--									
198	2	-1.21	--	--	--	--	51	--									
212	1	1.80	--	--	--	--	63.7	--									
224	3	-0.73	--	--	--	--	53	--									
234	4	0.07	--	--	--	--	56.4	--									
247	3	-0.66	--	--	--	--	53.3	--									
254	4	0.12	--	--	--	--	56.6	--									
255	2	1.40	--	--	--	--	62	--									
256	3	-0.89	--	--	--	--	52.32	--									
259	1	-1.56	--	--	--	--	--	49.5									
265	4	0.45	--	--	--	--	58	--									
277	0	-2.15	--	--	--	--	47	--									

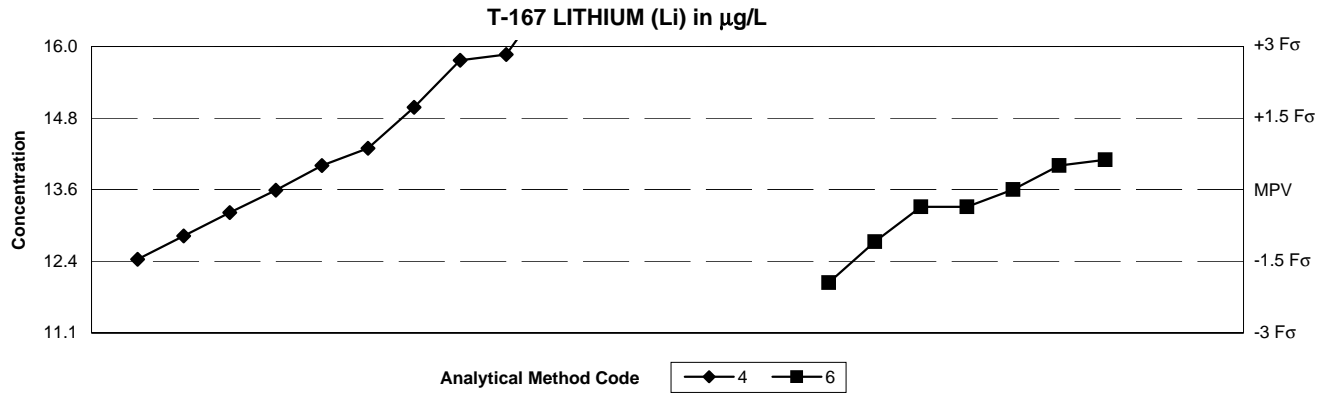
Table 11. Statistical summary of reported data for standard reference sample T-167 (trace constituents) -- continued



SUMMARY	Methods					Method Codes	Statistics	
	0	1	4	6	12			
n =	2	12	31	3	2	00 Other	<b>MPV = 4.76 mg/L</b>	
Minimum =	3.52	3.69	3.8	4.71	4.55	01 Atomic absorption: direct, air	F-pseudosigma = 0.222	
Maximum =	3.9	4.98	6.9	4.85	4.6	04 Inductively coupled plasma	Rating criterion= 0.238	
Median =		4.77	4.79			06 Inductively coupled plasma/mass spectrometry	n = 50	
F-pseudosigma =		0.237	0.181			12 Flame emission	Uh = 4.90	
							Lh = 4.60	

Lab	Rating	Z-value	Method Codes					Lab	Rating	Z-value	Method Codes				
			0	1	4	6	12				0	1	4	6	12
1	4	-0.13	--	4.73	--	--	--	315	1	1.51	--	--	5.12	--	--
5	0	2.52	--	--	5.36	--	--	326	0	-5.21	3.52	--	--	--	--
12	0	-4.03	--	--	3.8	--	--	328	1	1.85	--	--	5.2	--	--
16	4	0.17	--	--	4.8	--	--	330	0	2.27	--	--	5.3	--	--
23	4	0.13	--	4.79	--	--	--	332	3	0.59	--	--	4.9	--	--
24	4	-0.04	--	--	4.75	--	--	334	2	-1.09	--	--	4.5	--	--
25	1	-1.64	--	--	4.37	--	--	336	0	-3.61	3.9	--	--	--	--
32	4	0.17	--	--	--	4.8	--	356	4	-0.04	--	--	4.75	--	--
42	3	-0.92	--	--	4.54	--	--	370	0	8.99	--	--	6.9	--	--
45	1	-1.72	--	4.35	--	--	--	372	2	1.05	--	--	5.01	--	--
46	4	0.21	--	--	4.81	--	--								
59	4	0.25	--	4.82	--	--	--								
64	4	-0.08	--	4.74	--	--	--								
70	4	-0.50	--	--	4.64	--	--								
76	4	0.38	--	--	--	4.85	--								
86	4	0.29	--	--	4.83	--	--								
89	3	-0.88	--	--	--	--	4.55								
97	4	-0.50	--	4.64	--	--	--								
100	4	0.13	--	--	4.79	--	--								
109	0	-4.50	--	3.69	--	--	--								
110	3	0.71	--	4.93	--	--	--								
113	3	-0.67	--	--	4.6	--	--								
138	3	-0.88	--	--	4.55	--	--								
142	2	1.13	--	--	5.03	--	--								
146	4	0.00	--	--	4.76	--	--								
180	4	0.17	--	--	4.8	--	--								
190	3	0.76	--	4.94	--	--	--								
193	3	0.92	--	4.98	--	--	--								
198	4	0.13	--	--	4.79	--	--								
212	4	0.29	--	--	4.83	--	--								
224	3	0.75	--	--	4.939	--	--								
234	4	-0.17	--	--	4.72	--	--								
247	4	-0.21	--	--	4.71	--	--								
254	4	0.00	--	--	4.76	--	--								
259	4	-0.21	--	--	--	4.71	--								
265	4	-0.04	--	--	4.75	--	--								
270	3	-0.67	--	--	--	--	4.6								
277	0	-3.19	--	--	4	--	--								
279	3	-0.71	--	4.59	--	--	--								
301	3	0.88	--	4.97	--	--	--								

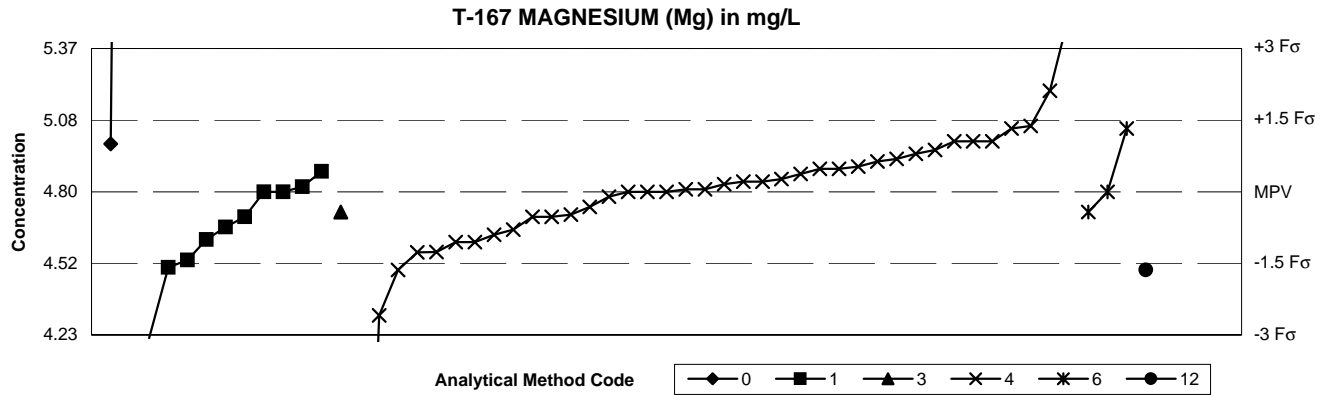
**Table 11. Statistical summary of reported data for standard reference sample T-167 (trace constituents) -- continued**



SUMMARY	Methods		Statistics
	4	6	
n =	10	7	<b>MPV = 13.6 µg/L</b>
Minimum =	12.4	12	F-pseudostigma = 0.82
Maximum =	17	14.1	n = 17
Median =	14.2	13.3	Uh = 14.3
F-pseudostigma =	1.93	0.589	Lh = 13.2

Lab	Rating	Z-value	Method Codes	
			4	6
1	2	-1.09	--	12.7
5	4	-0.48	13.2	--
25	0	4.18	17	--
32	3	0.63	--	14.1
42	2	-1.46	12.4	--
50	4	-0.36	--	13.3
76	4	0.00	--	13.59
100	NR	--	<50	--
142	3	0.87	14.3	--
212	0	2.83	15.9	--
234	3	-0.97	12.8	--
247	0	-4.16	<10.2	--
254	0	2.71	15.8	--
256	NR	--	<20	--
265	1	-1.95	--	12
304	4	-0.36	--	13.3
328	4	0.50	--	14
331	1	1.73	15	--
332	4	-0.01	13.58	--
334	4	0.50	14	--
370	NR	--	<500	--
372	0	-12.99	<3	--

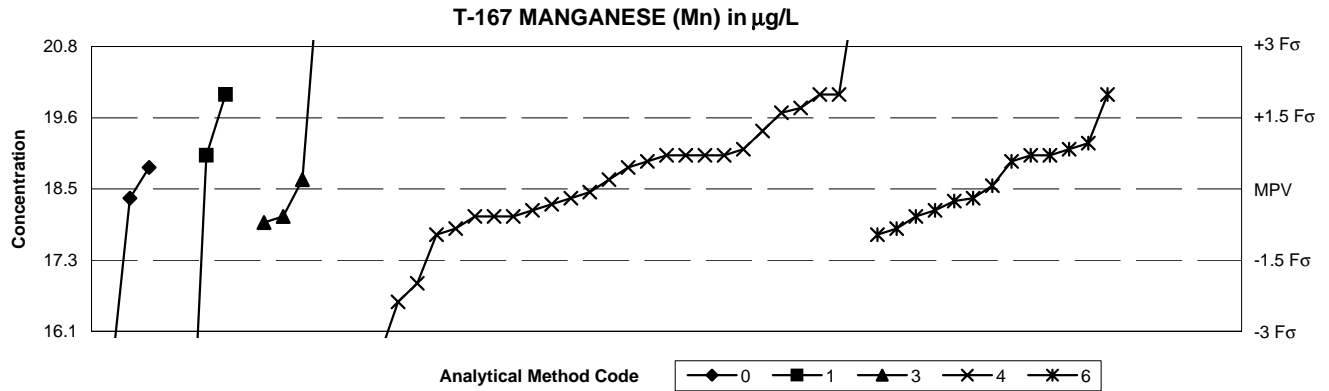
Table 11. Statistical summary of reported data for standard reference sample T-167 (trace constituents) -- continued



SUMMARY	Methods						Statistics	
	0	1	3	4	6	12	Method Codes	
n =	2	10	1	38	3	1	00 Other	<b>MPV = 4.80 mg/L</b>
Minimum =	4.99	4.22	4.72	2.34	4.72	4.49	01 Atomic absorption: direct, air	F-pseudostigma = 0.189
Maximum =	12.5	4.88		5.5	5.05		03 Atomic absorption: graphite furnace	Rating criterion = 0.240
Median =		4.68		4.82			04 Inductively coupled plasma	n = 55
F-pseudostigma =		0.200		0.170			06 Inductively coupled plasma/mass spectrometry	Uh = 4.91
							12 Flame emission	Lh = 4.66

Lab	Rating	Z-value	Method Codes						Lab	Rating	Z-value	Method Codes					
			0	1	3	4	6	12				0	1	3	4	6	12
1	4	0.17	--	--	--	4.84	--	265	4	-0.42	--	--	--	4.7	--	--	
5	0	-2.04	--	--	--	4.31	--	277	1	1.67	--	--	--	5.2	--	--	
12	0	2.92	--	--	--	5.5	--	279	4	-0.42	--	4.7	--	--	--	--	
16	4	-0.42	--	--	--	4.7	--	301	3	-0.79	--	4.61	--	--	--	--	
23	4	0.08	--	4.82	--	--	--	315	3	0.63	--	--	--	4.95	--	--	
24	3	-0.71	--	--	--	4.63	--	326	3	0.79	4.99	--	--	--	--	--	
25	0	-10.25	--	--	--	2.34	--	328	3	0.83	--	--	--	5	--	--	
32	2	1.04	--	--	--	--	5.05	330	3	0.83	--	--	--	5	--	--	
42	4	-0.25	--	--	--	4.74	--	331	2	-1.13	--	4.53	--	--	--	--	
45	0	-2.42	--	4.22	--	--	--	332	4	0.37	--	--	--	4.89	--	--	
46	4	-0.37	--	--	--	4.71	--	334	3	-0.83	--	--	--	4.6	--	--	
59	3	-0.58	--	4.66	--	--	--	336	0	32.08	12.5	--	--	--	--	--	
64	3	-0.62	--	--	--	4.65	--	356	4	0.04	--	--	--	4.81	--	--	
70	4	0.50	--	--	--	4.92	--	370	2	1.08	--	--	--	5.06	--	--	
76	4	-0.33	--	--	--	--	4.72	372	3	-1.00	--	--	--	4.56	--	--	
84	4	0.33	--	4.88	--	--	--										
86	4	0.37	--	--	--	4.89	--										
89	2	-1.29	--	--	--	--	4.49										
93	4	-0.08	--	--	--	4.78	--										
97	4	-0.33	--	--	4.72	--	--										
100	2	1.04	--	--	--	5.05	--										
109	2	-1.25	--	4.5	--	--	--										
110	3	-1.00	--	--	--	4.561	--										
113	3	-0.83	--	--	--	4.6	--										
121	4	0.00	--	--	--	4.8	--										
138	4	0.00	--	--	--	4.8	--										
142	4	0.29	--	--	--	4.87	--										
146	4	0.13	--	--	--	4.83	--										
180	4	0.00	--	--	--	4.8	--										
190	4	0.00	--	4.8	--	--	--										
193	4	0.00	--	4.8	--	--	--										
198	4	0.21	--	--	--	4.85	--										
212	4	0.04	--	--	--	4.81	--										
224	3	0.69	--	--	--	4.965	--										
227	4	0.42	--	--	--	4.9	--										
234	3	0.54	--	--	--	4.93	--										
247	2	-1.29	--	--	--	4.49	--										
254	4	0.17	--	--	--	4.84	--										
255	3	0.83	--	--	--	5	--										
259	4	0.00	--	--	--	4.8	--										

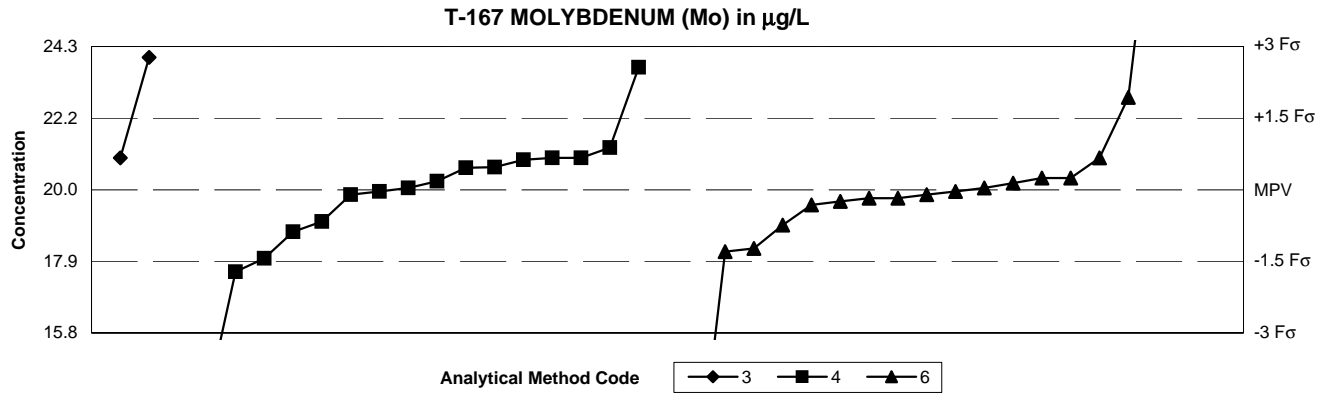
Table 11. Statistical summary of reported data for standard reference sample T-167 (trace constituents) -- continued



SUMMARY	Methods					Method Codes	Statistics	
	0	1	3	4	6			
n =	3	4	4	28	13	00 Other	<b>MPV = 18.5 µg/L</b>	
Minimum =	15.3	9	17.9	7	17.7	01 Atomic absorption: direct, air	F-pseudosigma = 0.78	
Maximum =	18.8	20	22.6	22	20	03 Atomic absorption: graphite furnace	Rating criterion= 0.92	
Median =			18.5	18.5		04 Inductively coupled plasma	n = 52	
F-pseudosigma =			0.852	0.667		06 Inductively coupled plasma/mass spectrometry	Uh = 19.0	
							Lh = 18.0	

Method Codes							Method Codes								
Lab	Rating	Z-value	0	1	3	4	6	Lab	Rating	Z-value	0	1	3	4	6
1	3	0.60	--	--	--	19	--	277	0	-2.98	--	--	--	15.7	--
5	0	-2.01	--	--	--	16.6	--	304	4	-0.38	--	--	--	--	18.1
10	3	0.60	--	19	--	--	--	307	0	-10.24	--	9	--	--	--
16	4	-0.49	--	--	--	18	--	315	4	-0.49	--	--	--	18	--
23	4	-0.16	--	--	--	18.3	--	326	4	0.38	18.8	--	--	--	--
24	3	0.60	--	--	--	19	--	328	0	3.85	--	--	--	22	--
25	4	-0.49	--	--	--	18	--	330	4	0.05	--	--	--	--	18.5
32	3	0.70	--	--	--	--	19.1	331	1	-1.68	--	--	--	16.9	--
42	3	-0.70	--	--	--	--	17.8	332	0	-3.41	15.3	--	--	--	--
45	1	1.68	--	20	--	--	--	334	1	1.68	--	--	--	--	20
46	4	-0.27	--	--	--	18.2	--	356	2	1.36	--	--	--	19.7	--
50	3	0.60	--	--	--	--	19	370	2	1.03	--	--	--	19.4	--
59	4	-0.49	--	--	--	--	18	372	0	-12.41	--	--	--	7	--
70	4	-0.16	--	--	--	--	18.3								
76	4	-0.22	--	--	--	--	18.25								
84	3	-0.60	--	--	17.9	--	--								
86	4	-0.16	18.3	--	--	--	--								
89	4	-0.49	--	--	18	--	--								
93	3	-0.70	--	--	--	17.8	--								
96	NR	--	--	<20	--	--	--								
97	0	4.50	--	--	22.6	--	--								
100	4	0.49	--	--	--	18.9	--								
109	0	-6.37	--	12.57	--	--	--								
113	4	-0.05	--	--	--	18.4	--								
121	3	0.60	--	--	--	19	--								
138	4	-0.38	--	--	--	18.1	--								
142	1	1.68	--	--	--	20	--								
146	3	0.70	--	--	--	19.1	--								
180	3	-0.81	--	--	--	--	17.7								
190	4	0.16	--	--	18.6	--	--								
198	4	0.49	--	--	--	--	18.9								
212	4	0.38	--	--	--	18.8	--								
224	0	-3.85	--	--	--	14.9	--								
234	4	0.16	--	--	--	18.6	--								
247	3	0.81	--	--	--	--	19.2								
254	3	-0.81	--	--	--	17.7	--								
255	1	1.68	--	--	--	20	--								
256	2	1.44	--	--	--	19.78	--								
259	3	0.60	--	--	--	--	19								
265	3	0.60	--	--	--	19	--								

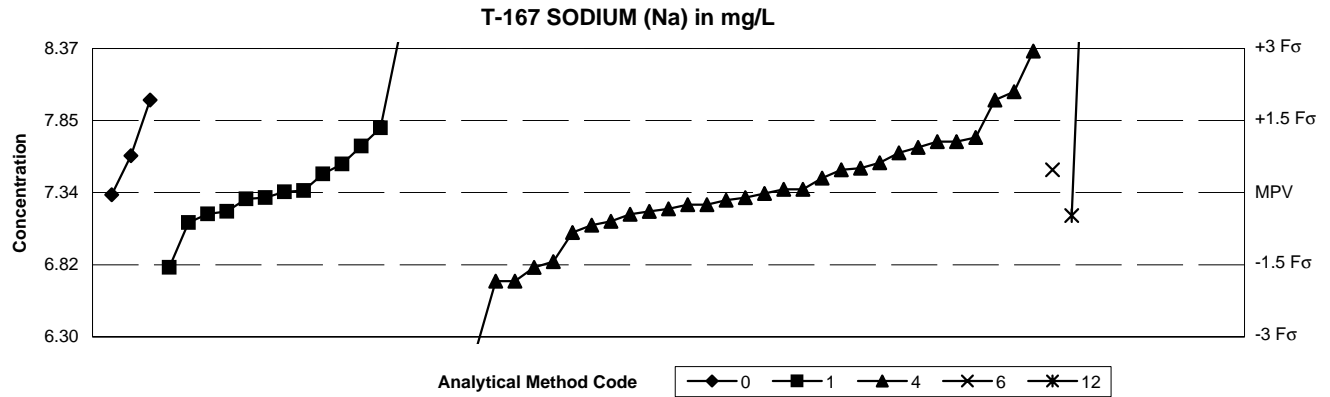
Table 11. Statistical summary of reported data for standard reference sample T-167 (trace constituents) -- continued



SUMMARY	Methods			Statistics
	3	4	6	
n =	2	17	17	<b>MPV = 20.1 µg/L</b> F-pseudsigma = 1.42 n = 36 Uh = 21.0 Lh = 19.1
Minimum =	21	12.4	10.9	
Maximum =	24	23.7	30	
Median =		20.1	19.9	
F-pseudsigma =		1.59	0.593	

Lab	Rating	Z-value	Method Codes		
			3	4	6
1	4	-0.04	--	--	20
5	0	-5.37	--	12.4	--
12	0	2.78	24	--	--
16	4	-0.04	--	20	--
23	4	0.47	--	20.72	--
24	3	0.67	--	21	--
32	4	-0.18	--	--	19.8
42	4	-0.25	--	--	19.7
50	4	-0.32	--	--	19.6
59	2	-1.23	--	--	18.3
70	4	0.25	--	--	20.4
76	4	0.14	--	--	20.25
86	3	-0.67	--	19.1	--
97	3	0.67	21	--	--
100	0	-4.46	--	13.7	--
113	4	0.46	--	20.7	--
138	3	0.67	--	21	--
142	4	0.04	--	--	20.1
146	3	0.88	--	21.3	--
180	4	-0.18	--	--	19.8
198	1	1.93	--	--	22.8
212	4	0.18	--	20.3	--
224	4	-0.11	--	19.9	--
234	4	0.04	--	20.1	--
247	2	-1.30	--	--	18.2
254	1	-1.72	--	17.6	--
256	3	0.63	--	20.94	--
259	4	-0.11	--	--	19.9
265	3	-0.74	--	--	19
304	4	0.25	--	--	20.4
328	0	6.99	--	--	30
330	0	-6.43	--	--	10.9
331	0	2.56	--	23.7	--
334	3	0.67	--	--	21
356	3	-0.88	--	18.8	--
370	2	-1.44	--	18	--
372	0	-12.68	--	<2	--

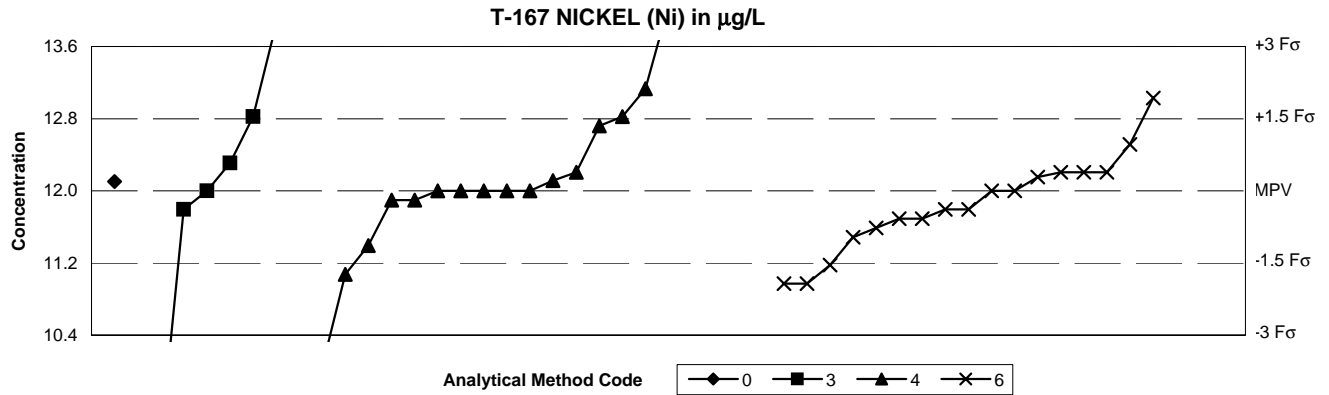
Table 11. Statistical summary of reported data for standard reference sample T-167 (trace constituents) -- continued



SUMMARY	Methods					Method Codes	Statistics	
	0	1	4	6	12			
n =	3	14	32	1	2	00 Other	<b>MPV = 7.34 mg/L</b>	
Minimum =	7.32	6.8	4.53	7.5	7.17	01 Atomic absorption: direct, air	F-pseudosigma = 0.345	
Maximum =	8	9.3	8.35		10.5	04 Inductively coupled plasma	Rating criterion= 0.367	
Median =		7.35	7.29			06 Inductively coupled plasma/mass spectrometry	n = 52	
F-pseudosigma =		0.348	0.378			12 Flame emission	Uh = 7.64	
							Lh = 7.18	

Lab	Rating	Z-value	Method Codes					Lab	Rating	Z-value	Method Codes				
			0	1	4	6	12				0	1	4	6	12
1	4	0.07	--	--	7.36	--	--	307	4	0.04	--	7.35	--	--	
5	4	0.07	--	--	7.36	--	--	315	1	1.98	--	--	8.06	--	
12	3	1.00	--	--	7.7	--	--	326	4	-0.04	7.32	--	--	--	
16	2	-1.46	--	--	6.8	--	--	328	3	1.00	--	--	7.7	--	
23	0	5.36	--	9.3	--	--	--	330	1	1.81	--	--	8	--	
24	3	-0.56	--	--	7.13	--	--	331	2	-1.46	--	6.8	--	--	
25	2	-1.35	--	--	6.84	--	--	332	3	0.72	7.6	--	--	--	
32	4	0.45	--	--	--	7.5	--	334	1	-1.73	--	--	6.7	--	
42	4	-0.23	--	--	7.25	--	--	336	1	1.81	8	--	--	--	
45	0	3.09	--	8.47	--	--	--	356	4	0.48	--	--	7.51	--	
46	3	-0.78	--	--	7.05	--	--	370	0	2.77	--	--	8.35	--	
59	4	0.01	--	7.34	--	--	--	372	0	-7.65	--	--	4.53	--	
64	4	-0.10	--	7.3	--	--	--								
70	3	0.78	--	--	7.62	--	--								
84	4	-0.37	--	7.2	--	--	--								
86	4	0.29	--	--	7.44	--	--								
89	4	-0.45	--	--	--	--	7.17								
93	0	-3.04	--	--	6.22	--	--								
97	3	-0.59	--	7.12	--	--	--								
100	4	-0.01	--	--	7.33	--	--								
109	2	1.27	--	7.8	--	--	--								
110	4	-0.42	--	7.182	--	--	--								
113	1	-1.73	--	--	6.7	--	--								
121	4	-0.37	--	--	7.2	--	--								
138	4	-0.42	--	--	7.18	--	--								
142	0	-4.27	--	--	5.77	--	--								
146	3	0.89	--	--	7.66	--	--								
180	4	0.45	--	--	7.5	--	--								
190	3	0.91	--	7.67	--	--	--								
193	4	0.37	--	7.47	--	--	--								
198	3	0.59	--	--	7.55	--	--								
212	2	1.08	--	--	7.73	--	--								
224	3	-0.64	--	--	7.101	--	--								
234	4	-0.10	--	--	7.3	--	--								
247	4	-0.31	--	--	7.22	--	--								
254	4	-0.15	--	--	7.28	--	--								
265	4	-0.23	--	--	7.25	--	--								
270	0	8.63	--	--	--	--	10.5								
279	4	-0.12	--	7.29	--	--	--								
301	3	0.56	--	7.54	--	--	--								

**Table 11. Statistical summary of reported data for standard reference sample T-167 (trace constituents) -- continued**

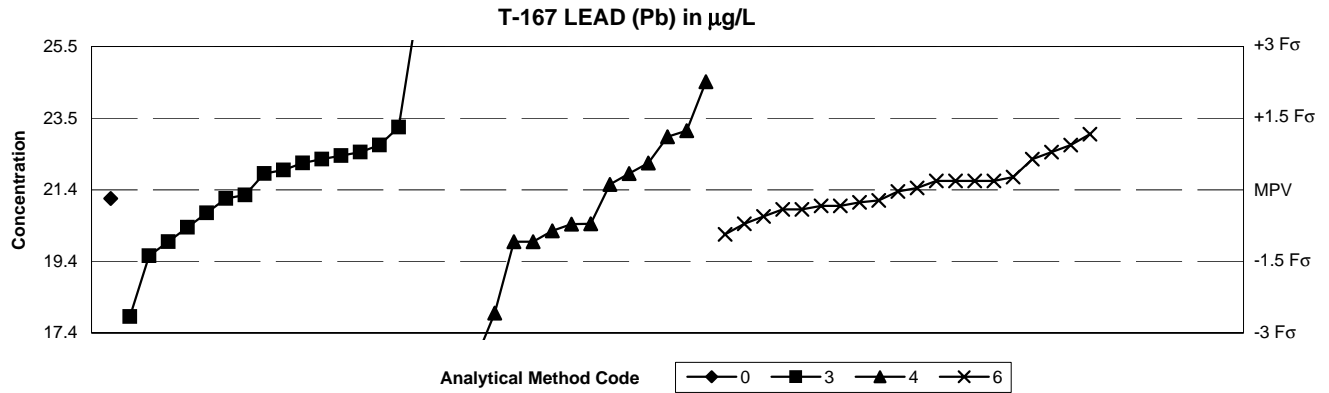


SUMMARY	Methods					Statistics	
	0	1	3	4	6	Method Codes	
n =	1	1	6	19	17	00 Other	<b>MPV = 12.0 µg/L</b>
Minimum =	12.1	23.1	9.28	10.1	11	01 Atomic absorption: direct, air	F-pseudosigma = 0.52
Maximum =			13.8	23	13	03 Atomic absorption: graphite furnace	Rating criterion = 0.60
Median =			12.2	12.0	11.8	04 Inductively coupled plasma	n = 44
F-pseudosigma =			0.741	0.630	0.445	06 Inductively coupled plasma/mass spectrometry	Uh = 12.4
							Lh = 11.7

Lab	Rating	Z-value	Method Codes					Lab	Rating	Z-value	Method Codes				
			0	1	3	4	6				0	1	3	4	6
1	3	-0.67	--	--	--	--	11.6	330	4	0.33	--	--	--	--	12.2
5	0	-3.33	--	--	--	<10.0	--	331	0	-3.17	--	--	--	10.1	--
16	4	0.00	--	--	--	12	--	334	1	1.67	--	--	--	13	--
23	3	-0.98	--	--	--	11.41	--	356	4	0.00	--	--	--	12	--
24	4	0.00	--	--	--	12	--	370	4	-0.17	--	--	--	11.9	--
25	0	3.33	--	--	--	14	--	372	0	-16.67	--	--	--	<2	--
32	4	0.33	--	--	--	--	12.2								
42	2	-1.33	--	--	--	--	11.2								
50	4	0.00	--	--	--	--	12								
59	4	-0.33	--	--	--	--	11.8								
70	3	-0.83	--	--	--	--	11.5								
76	4	0.25	--	--	--	--	12.15								
86	2	1.17	--	--	--	12.7	--								
89	4	-0.33	--	--	11.8	--	--								
93	2	-1.50	--	--	--	11.1	--								
96	4	0.50	--	--	12.3	--	--								
97	0	3.00	--	--	13.8	--	--								
100	0	18.50	--	23.1	--	--	--								
113	2	1.33	--	--	--	12.8	--								
121	0	5.00	--	--	--	15	--								
138	4	0.00	--	--	--	12	--								
142	4	0.00	--	--	--	--	12								
146	1	1.83	--	--	--	13.1	--								
180	1	-1.67	--	--	--	--	11								
190	4	0.00	--	--	12	--	--								
193	2	1.33	--	--	12.8	--	--								
198	4	-0.50	--	--	--	--	11.7								
212	4	-0.17	--	--	--	11.9	--								
234	4	0.00	--	--	--	12	--								
247	4	-0.50	--	--	--	--	11.7								
254	4	0.33	--	--	--	12.2	--								
255	4	0.33	--	--	--	--	12.2								
256	4	0.18	--	--	--	12.11	--								
259	3	0.83	--	--	--	--	12.5								
265	1	-1.67	--	--	--	--	11								
277	0	-3.17	--	--	--	10.1	--								
304	4	-0.33	--	--	--	--	11.8								
307	0	-4.53	--	--	9.28	--	--								
326	4	0.17	12.1	--	--	--	--								
328	0	18.33	--	--	--	23	--								



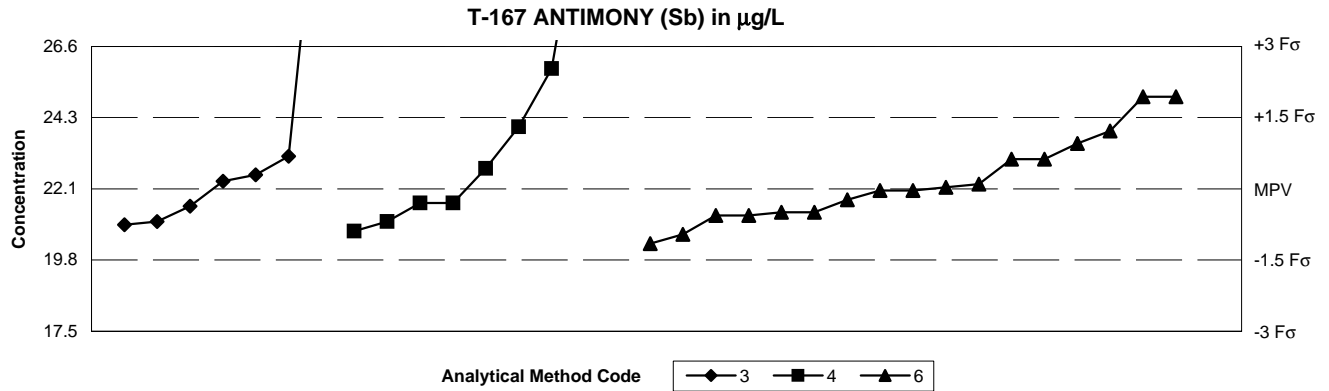
Table 11. Statistical summary of reported data for standard reference sample T-167 (trace constituents) -- continued



SUMMARY	Methods				Statistics
	0	3	4	6	
n =	1	17	14	20	MPV = 21.5 µg/L
Minimum =	21.2	17.9	12	20.2	F-pseudostandard = 1.33
Maximum =	38.3	24.47	23		n = 52
Median =	22.0	20.5	21.5		U <sub>h</sub> = 22.3
F-pseudostandard =	1.26	1.63	0.593		L <sub>h</sub> = 20.5
	Method Codes				
	00 Other				
	03 Atomic absorption: graphite furnace				
	04 Inductively coupled plasma				
	06 Inductively coupled plasma/mass spectrometry				

Lab	Rating	Z-value	Method Codes				Lab	Rating	Z-value	Method Codes			
			0	3	4	6				0	3	4	6
1	4	-0.04	--	--	--	21.4	277	0	-3.56	--	--	16.7	--
5	4	-0.19	--	21.2	--	--	304	4	0.19	--	--	--	21.7
10	2	-1.09	--	20	--	--	307	3	0.56	--	22.2	--	--
12	4	0.41	--	22	--	--	326	4	-0.19	21.2	--	--	--
16	2	-1.09	--	--	20	--	328	4	-0.34	--	--	--	21
23	3	-0.72	--	--	20.49	--	330	3	0.64	--	--	--	22.3
25	0	-2.59	--	--	18	--	331	2	-1.09	--	--	20	--
32	4	-0.41	--	--	--	20.9	332	0	2.26	--	--	24.47	--
42	3	-0.71	--	--	--	20.5	334	2	1.16	--	--	--	23
45	4	-0.11	--	21.3	--	--	356	3	0.94	--	--	--	22.7
46	4	0.34	--	21.9	--	--	370	0	-2.66	--	17.9	--	--
50	4	0.04	--	--	--	21.5	372	0	-7.08	--	--	12	--
70	4	0.19	--	--	--	21.7							
76	4	-0.22	--	--	--	21.15							
84	3	0.79	--	22.5	--	--							
86	3	0.56	--	--	22.2	--							
89	2	-1.39	--	19.6	--	--							
93	3	-0.71	--	--	20.5	--							
96	3	0.71	--	22.4	--	--							
97	0	3.86	--	26.6	--	--							
100	2	1.31	--	23.2	--	--							
113	3	0.94	--	22.7	--	--							
138	4	-0.41	--	--	--	20.9							
142	3	-0.94	--	--	--	20.2							
146	4	0.11	--	--	21.6	--							
147	4	-0.26	--	--	--	21.1							
180	3	-0.56	--	--	--	20.7							
190	4	-0.49	--	20.8	--	--							
193	3	0.64	--	22.3	--	--							
198	4	0.26	--	--	--	21.8							
212	4	0.34	--	--	21.9	--							
224	0	12.63	--	38.3	--	--							
227	2	1.24	--	--	23.1	--							
234	3	-0.79	--	20.4	--	--							
247	4	0.19	--	--	--	21.7							
254	3	-0.86	--	--	20.3	--							
255	3	0.79	--	--	--	22.5							
256	2	1.11	--	--	22.93	--							
259	4	0.19	--	--	--	21.7							
265	4	-0.34	--	--	--	21							

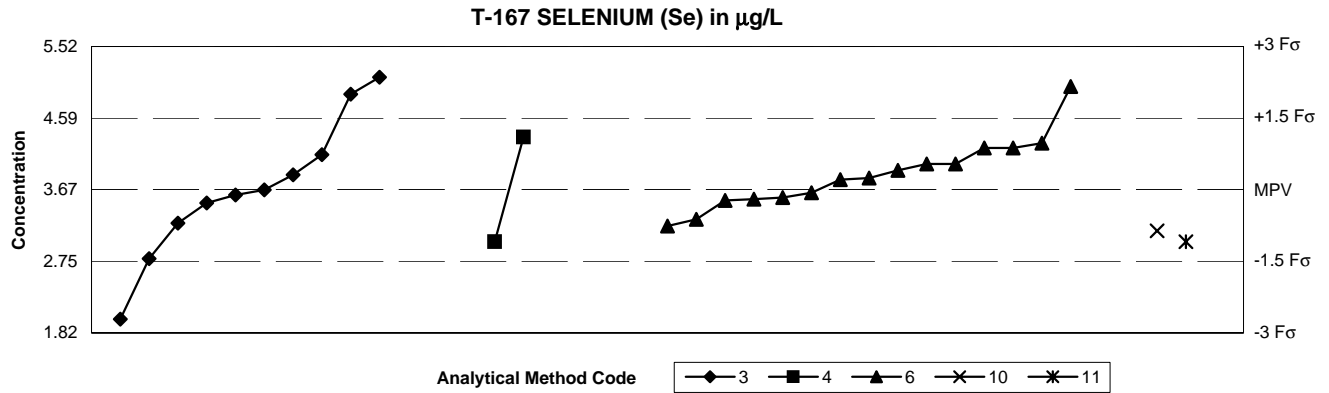
**Table 11. Statistical summary of reported data for standard reference sample T-167 (trace constituents) -- continued**



SUMMARY	Methods			Method Codes	Statistics	
	3	4	6			
n =	7	8	17			
Minimum =	20.9	20.7	20.3	03 Atomic absorption: graphite furnace		<b>MPV = 22.1 µg/L</b>
Maximum =	33.3	31.9	25	04 Inductively coupled plasma		F-pseudosigma = 1.52
Median =	22.3	22.2	22.0	06 Inductively coupled plasma/mass spectrometry		n = 32
F-pseudosigma =	1.15	2.72	1.26			Uh = 23.3
						Lh = 21.3

Lab	Rating	Z-value	Method Codes		
			3	4	6
1	4	-0.23	--	--	21.7
5	0	6.48	--	31.9	--
16	3	-0.69	--	21	--
23	4	0.43	--	22.71	--
32	4	-0.49	--	--	21.3
42	3	-0.95	--	--	20.6
50	3	0.63	--	--	23
59	1	1.94	--	--	25
70	4	0.10	--	--	22.2
89	0	7.40	33.3	--	--
96	4	0.16	22.3	--	--
97	3	-0.69	21	--	--
100	3	0.69	23.1	--	--
113	4	-0.30	--	21.6	--
138	3	-0.56	--	--	21.2
142	2	1.22	--	--	23.9
146	0	2.53	--	25.9	--
180	3	-0.56	--	--	21.2
193	4	0.30	22.5	--	--
198	3	0.63	--	--	23
212	3	-0.89	--	20.7	--
234	4	-0.36	21.5	--	--
247	2	-1.15	--	--	20.3
256	2	1.31	--	24.04	--
265	4	-0.03	--	--	22
304	4	0.03	--	--	22.1
328	4	-0.03	--	--	22
330	3	0.95	--	--	23.5
331	4	-0.30	--	21.6	--
334	1	1.94	--	--	25
356	4	-0.49	--	--	21.3
370	3	-0.76	20.9	--	--
372	0	-13.19	--	<2	--

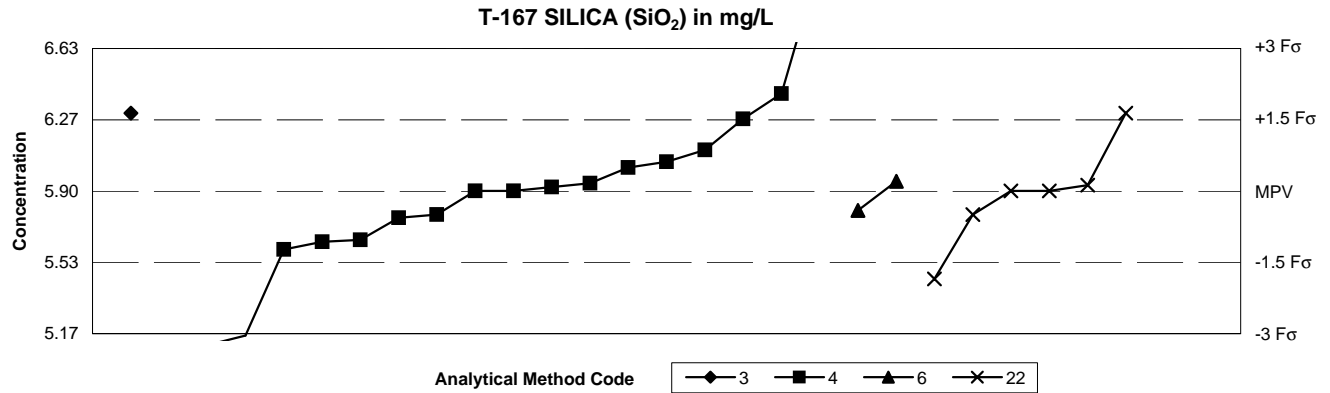
**Table 11. Statistical summary of reported data for standard reference sample T-167 (trace constituents) -- continued**



SUMMARY	Methods					Method Codes	Statistics	
	3	4	6	10	11			
n =	10	2	15	1	1	03 Atomic absorption: graphite furnace	<b>MPV = 3.67 µg/L</b>	
Minimum =	2	3	3.2	3.14	3	04 Inductively coupled plasma	F-pseudosigma = 0.615	
Maximum =	5.12	4.35	5			06 Inductively coupled plasma/mass spectrometry	n = 29	
Median =	3.64		3.82			10 Atomic absorption: extraction	Uh = 4.12	
F-pseudosigma =	0.652		0.404			11 Atomic absorption: hydride	Lh = 3.29	

Lab	Rating	Z-value	Method Codes				
			3	4	6	10	11
1	4	-0.23	--	--	3.53	--	--
5	4	0.00	3.67	--	--	--	--
10	2	-1.09	--	--	--	--	3
12	0	-2.71	2	--	--	--	--
16	2	-1.09	--	3	--	--	--
23	2	1.11	--	4.35	--	--	--
25	NR	--	--	<16	--	--	--
32	3	0.54	--	--	4	--	--
42	3	-0.62	--	--	3.29	--	--
45	3	0.73	4.12	--	--	--	--
50	4	0.24	--	--	3.82	--	--
59	NR	--	--	--	< 10	--	--
70	0	2.16	--	--	5	--	--
89	2	-1.45	2.78	--	--	--	--
96	NR	--	<5	--	--	--	--
97	0	2.36	5.12	--	--	--	--
100	4	0.31	3.86	--	--	--	--
138	4	0.41	--	--	3.92	--	--
142	3	0.98	--	--	4.27	--	--
146	NR	--	--	<10.0	--	--	--
180	4	-0.16	--	--	3.57	--	--
190	4	-0.11	3.6	--	--	--	--
193	NR	--	<5	--	--	--	--
198	3	0.88	--	--	4.21	--	--
212	NR	--	--	<5.0	--	--	--
234	3	-0.70	3.24	--	--	--	--
247	NR	--	--	--	<4.08	--	--
255	3	-0.76	--	--	3.2	--	--
256	3	-0.86	--	--	--	3.14	--
265	3	0.54	--	--	4	--	--
304	4	-0.07	--	--	3.63	--	--
307	1	2.00	4.9	--	--	--	--
328	4	-0.28	3.5	--	--	--	--
330	3	0.88	--	--	4.21	--	--
334	4	0.21	--	--	3.8	--	--
356	4	-0.20	--	--	3.55	--	--
370	NR	--	<5	--	--	--	--
372	NR	--	--	<5	--	--	--

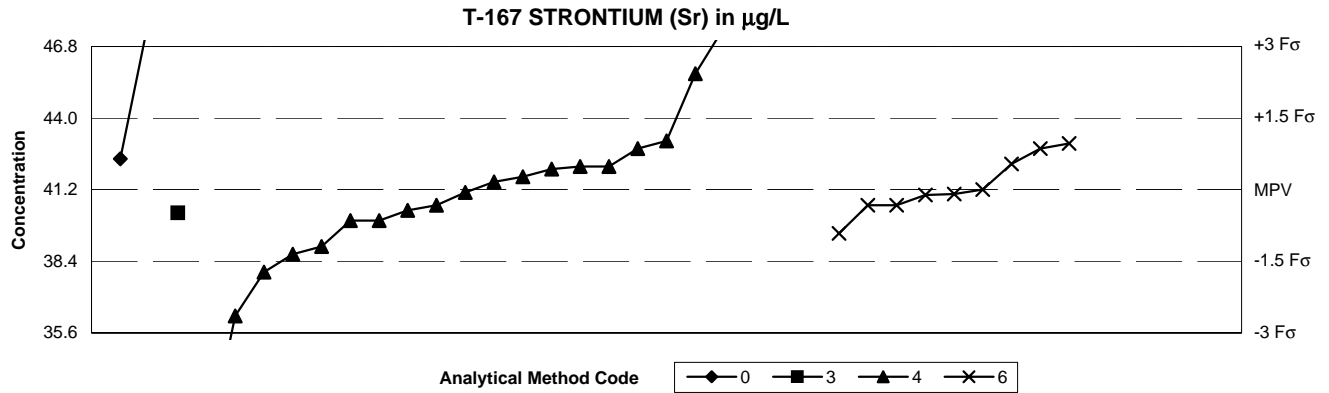
**Table 11. Statistical summary of reported data for standard reference sample T-167 (trace constituents) -- continued**



SUMMARY	Methods				Method Codes	Statistics	
	3	4	6	22			
n =	1	18	2	6	03 Atomic absorption: graphite furnace	<b>MPV = 5.90 mg/L</b>	
Minimum =	6.3	2.9	5.8	5.45	04 Inductively coupled plasma	F-pseudosigma = 0.244	
Maximum =		7.07	5.95	6.3	06 Inductively coupled plasma/mass spectrometry	Rating criterion= 0.295	
Median =		5.90		5.90	22 Colorimetric	n = 27	
F-pseudosigma =		0.304		0.112		Uh = 6.04	
						Lh = 5.71	

Lab	Rating	Z-value	Method Codes			
			3	4	6	22
1	4	0.07	--	5.92	--	--
5	3	-0.85	--	5.65	--	--
24	4	0.51	--	6.05	--	--
25	0	-2.68	--	5.11	--	--
32	4	0.17	--	--	5.95	--
42	3	-0.88	--	5.64	--	--
64	4	0.00	--	5.9	--	--
70	4	0.10	--	--	--	5.93
89	4	0.00	--	--	--	5.9
97	2	1.36	6.3	--	--	--
100	0	3.97	--	7.07	--	--
110	4	-0.46	--	5.763	--	--
121	4	0.00	--	5.9	--	--
142	1	1.69	--	6.4	--	--
190	4	0.00	--	--	--	5.9
212	4	0.41	--	6.02	--	--
224	4	-0.41	--	--	--	5.779
234	4	0.14	--	5.94	--	--
254	2	1.25	--	6.27	--	--
256	1	-1.53	--	--	--	5.45
259	4	-0.34	--	--	5.8	--
265	2	-1.02	--	5.6	--	--
328	3	0.71	--	6.11	--	--
330	2	1.36	--	--	--	6.3
334	4	-0.41	--	5.78	--	--
370	0	-10.17	--	2.9	--	--
372	0	-2.51	--	5.16	--	--

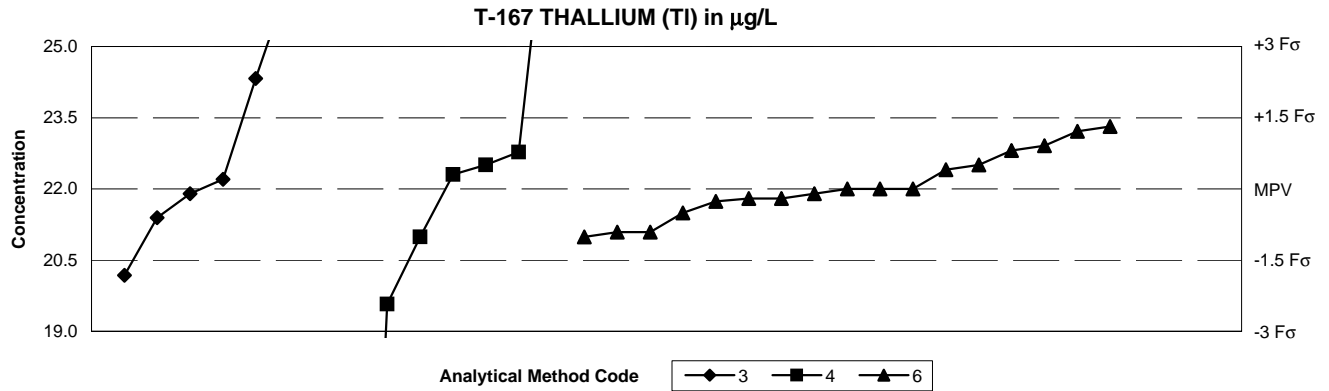
**Table 11. Statistical summary of reported data for standard reference sample T-167 (trace constituents) -- continued**



SUMMARY	Methods				Statistics
	0	3	4	6	
n =	2	1	21	9	<b>MPV = 41.2 µg/L</b>
Minimum =	42.4	40.3	31	39.5	F-pseudostigma = 1.85
Maximum =	47.86		49.4	43	Rating criterion = 2.06
Median =		41.5	41.0		n = 33
F-pseudostigma =		2.08	1.19		Uh = 42.8
					Lh = 40.3

Lab	Rating	Z-value	Method Codes			
			0	3	4	6
1	4	0.44	--	--	42.1	--
5	2	-1.07	--	--	39	--
16	3	-0.58	--	--	40	--
24	4	-0.05	--	--	41.1	--
25	NR	--	--	--	<39	--
32	4	-0.10	--	--	--	41
42	0	3.06	--	--	47.5	--
50	4	-0.29	--	--	--	40.6
59	4	0.00	--	--	--	41.2
76	4	-0.08	--	--	--	41.03
86	4	-0.39	--	--	40.4	--
97	4	-0.44	--	40.3	--	--
100	3	0.78	--	--	42.8	--
113	4	-0.29	--	--	40.6	--
121	3	-0.58	--	--	40	--
138	2	-1.21	--	--	38.7	--
142	4	0.15	--	--	41.5	--
212	4	0.44	--	--	42.1	--
234	4	0.24	--	--	41.7	--
247	4	-0.29	--	--	--	40.6
254	3	0.92	--	--	43.1	--
256	0	2.18	--	--	45.7	--
259	4	0.49	--	--	--	42.2
265	4	0.39	--	--	42	--
304	3	-0.83	--	--	--	39.5
326	3	0.58	42.4	--	--	--
328	3	0.87	--	--	--	43
330	3	0.78	--	--	--	42.8
331	0	-2.38	--	--	36.3	--
332	0	3.23	47.86	--	--	--
334	1	-1.55	--	--	38	--
356	0	3.11	--	--	47.6	--
370	0	3.98	--	--	49.4	--
372	0	-4.95	--	--	31	--

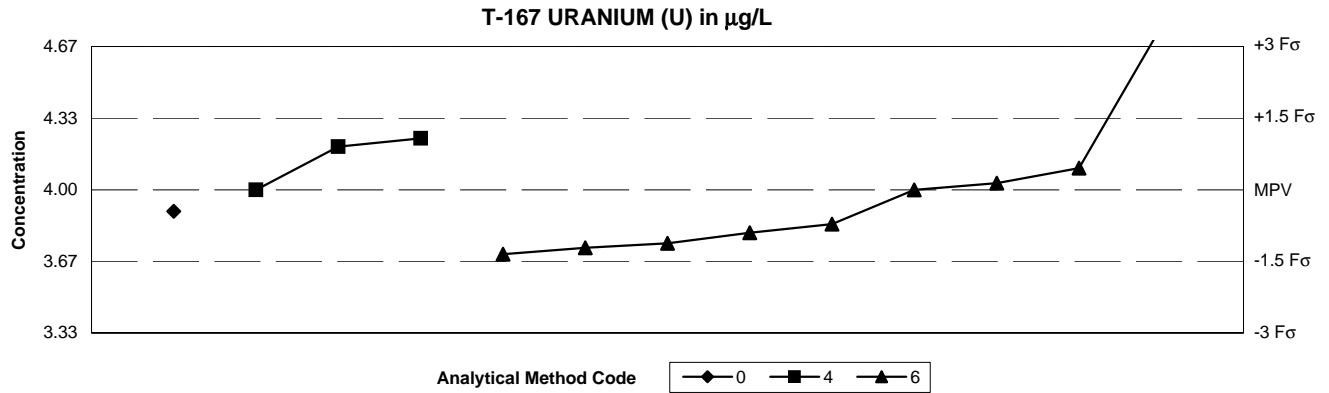
**Table 11. Statistical summary of reported data for standard reference sample T-167 (trace constituents) -- continued**



SUMMARY	Methods			Statistics
	3	4	6	
n =	7	7	17	<b>MPV = 22.0 µg/L</b> F-pseudosigma = 0.99 Rating criterion = 1.10 n = 31 Uh = 22.8 Lh = 21.5
Minimum =	20.2	5	21	
Maximum =	27.3	28.9	23.3	
Median =	22.2	22.3	22.0	
F-pseudosigma =	2.71	1.73	0.563	

Lab	Rating	Z-value	Method Codes		
			3	4	6
1	4	-0.18	--	--	21.8
16	3	-0.91	--	21	--
23	3	0.70	--	22.77	--
25	0	-2.18	--	19.6	--
32	4	-0.18	--	--	21.8
42	3	-0.82	--	--	21.1
50	2	1.09	--	--	23.2
70	4	0.00	--	--	22
76	4	-0.24	--	--	21.74
89	0	3.91	26.3	--	--
96	3	-0.55	21.4	--	--
97	0	2.09	24.3	--	--
100	4	0.18	22.2	--	--
113	1	-1.64	20.2	--	--
138	3	0.73	--	--	22.8
142	3	-0.82	--	--	21.1
146	4	0.27	--	22.3	--
180	4	-0.45	--	--	21.5
198	2	1.18	--	--	23.3
212	4	0.45	--	22.5	--
234	4	-0.09	21.9	--	--
247	4	0.45	--	--	22.5
256	0	6.27	--	28.9	--
265	3	-0.91	--	--	21
304	4	-0.09	--	--	21.9
328	4	0.00	--	--	22
330	3	0.82	--	--	22.9
334	4	0.00	--	--	22
356	4	0.36	--	--	22.4
370	0	4.82	27.3	--	--
372	0	-15.45	--	5	--

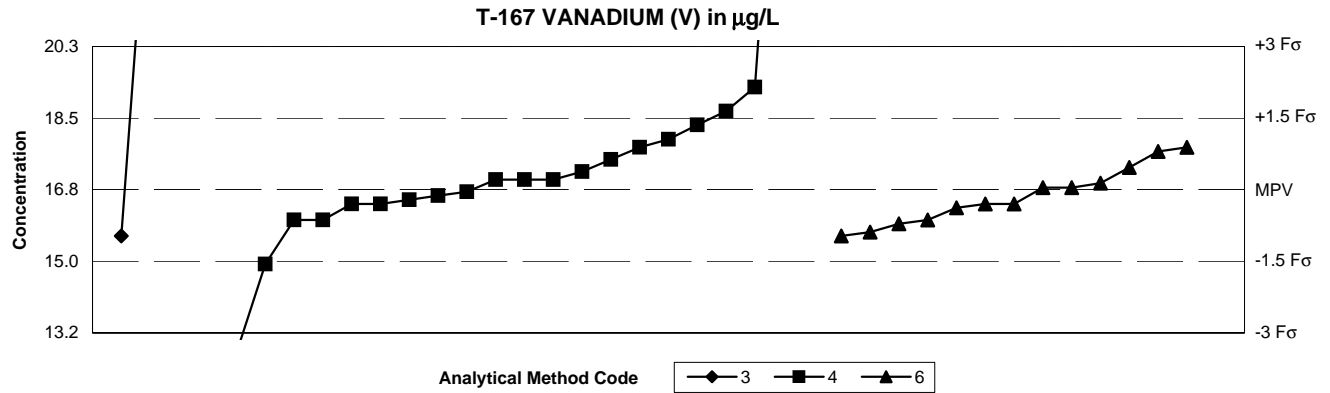
**Table 11. Statistical summary of reported data for standard reference sample T-167 (trace constituents) -- continued**



SUMMARY	Methods			Method Codes	Statistics	
	0	4	6			
n =	1	3	9	00 Other	<b>MPV = 4.00 µg/L</b>	
Minimum =	3.9	4	3.7	04 Inductively coupled plasma	F-pseudostigma = 0.222	
Maximum =		4.24	4.76	06 Inductively coupled plasma/mass spectrometry	n = 13	
Median =			3.84		Uh = 4.10	
F-pseudostigma =			0.208		Lh = 3.80	

Lab	Rating	Z-value	Method Codes		
			0	4	6
1	2	-1.12	--	--	3.75
16	4	0.00	--	4	--
32	2	-1.35	--	--	3.7
42	3	-0.72	--	--	3.84
70	0	3.42	--	--	4.76
142	2	-1.21	--	--	3.73
212	3	0.90	--	4.2	--
254	4	-0.45	3.9	--	--
265	3	-0.90	--	--	3.8
328	4	0.00	--	--	4
330	4	0.13	--	--	4.03
332	2	1.08	--	4.24	--
334	4	0.45	--	--	4.1

**Table 11. Statistical summary of reported data for standard reference sample T-167 (trace constituents) -- continued**

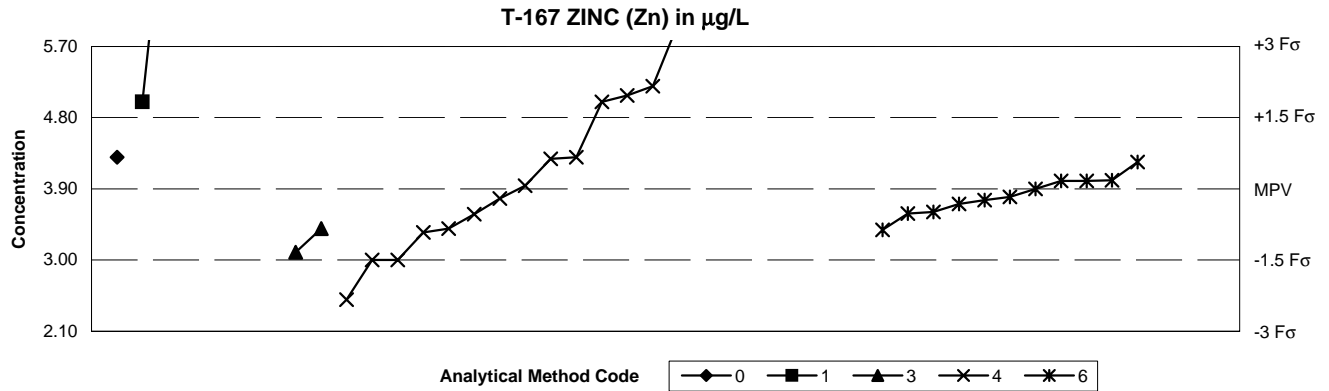


SUMMARY	Methods			Method Codes	Statistics	
	3	4	6			
n =	2	21	13	03 Atomic absorption: graphite furnace	<b>MPV = 16.8 µg/L</b>	
Minimum =	15.6	5	15.6	04 Inductively coupled plasma	F-pseudosigma = 1.19	
Maximum =	25.3	29.3	17.8	06 Inductively coupled plasma/mass spectrometry	n = 36	
Median =		17.0	16.4		Uh = 17.6	
F-pseudosigma =		1.04	0.675		Lh = 16.0	

Lab	Rating	Z-value	Method Codes		
			3	4	6
1	4	0.04	--	--	16.8
5	0	2.15	--	19.3	--
16	4	0.21	--	17	--
24	3	0.63	--	17.5	--
25	NR	--	--	<19	--
32	3	0.89	--	--	17.8
42	3	-0.72	--	--	15.9
50	4	0.46	--	--	17.3
59	4	-0.30	--	--	16.4
70	4	-0.30	--	--	16.4
76	4	0.13	--	--	16.91
86	4	0.21	--	17	--
89	0	7.21	25.3	--	--
93	4	-0.30	--	16.4	--
96	NR	--	<40	--	--
97	3	-0.97	15.6	--	--
100	3	-0.63	--	16	--
121	2	1.05	--	18	--
138	4	-0.30	--	16.4	--
142	4	0.04	--	--	16.8
146	4	0.38	--	17.2	--
180	3	-0.97	--	--	15.6
198	3	0.80	--	--	17.7
212	4	-0.21	--	16.5	--
224	0	-3.41	--	12.7	--
234	4	-0.13	--	16.6	--
247	3	-0.89	--	--	15.7
254	3	0.89	--	17.8	--
256	2	1.36	--	18.36	--
265	4	0.21	--	17	--
304	4	-0.38	--	--	16.3
328	3	-0.63	--	16	--
330	4	-0.04	--	16.7	--
331	1	-1.56	--	14.9	--
334	3	-0.63	--	--	16
356	1	1.64	--	18.7	--
370	0	10.58	--	29.3	--
372	0	-9.91	--	5	--



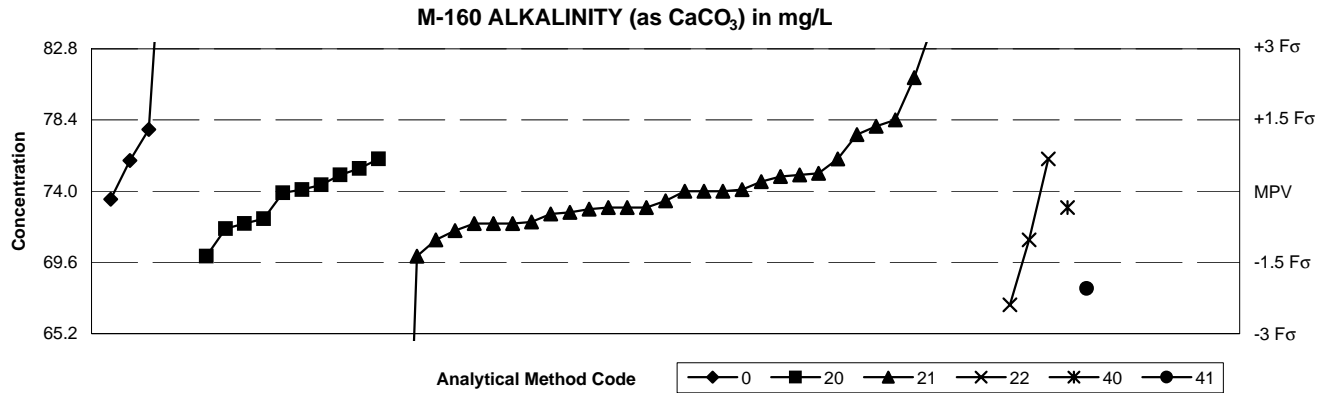
**Table 11. Statistical summary of reported data for standard reference sample T-167 (trace constituents) -- continued**



SUMMARY	Methods					Statistics	
	0	1	3	4	6	Method Codes	
n =	1	2	2	15	11	00 Other	<b>MPV = 3.90 µg/L</b>
Minimum =	4.3	5	3.1	2.5	3.38	01 Atomic absorption: direct, air	F-pseudosigma = 0.600
Maximum =		8	3.4	10	4.24	03 Atomic absorption: graphite furnace	n = 31
Median =				3.94	3.80	04 Inductively coupled plasma	Uh = 4.30
F-pseudosigma =				1.23	0.252	06 Inductively coupled plasma/mass spectrometry	Lh = 3.49

Lab	Rating	Z-value	Method Codes					Lab	Rating	Z-value	Method Codes				
			0	1	3	4	6				0	1	3	4	6
1	4	-0.48	--	--	--	--	3.61	334	4	0.00	--	--	--	--	3.9
5	3	0.63	--	--	--	4.28	--	356	3	0.67	--	--	--	4.3	--
10	1	1.83	--	5	--	--	--	370	NR	--	--	--	--	<30	--
12	3	-0.83	--	--	3.4	--	--	372	0	-3.16	--	--	--	<2	--
16	2	-1.50	--	--	--	3	--								
24	3	-0.83	--	--	--	3.4	--								
25	NR	--	--	--	--	<3	--								
32	4	0.17	--	--	--	--	4								
42	3	-0.52	--	--	--	--	3.59								
50	4	-0.23	--	--	--	--	3.76								
59	NR	--	--	--	--	--	<10								
70	NR	--	--	--	--	--	<20.0								
86	1	1.97	--	--	--	5.08	--								
89	2	-1.33	--	--	3.1	--	--								
93	3	-0.92	--	--	--	3.35	--								
96	NR	--	--	<10	--	--	--								
97	NR	--	--	<5.0	--	--	--								
100	NR	--	--	<5	--	--	--								
121	0	10.16	--	--	--	10	--								
138	4	0.18	--	--	--	--	4.01								
142	3	0.57	--	--	--	--	4.24								
146	NR	--	--	--	--	<20.0	--								
147	4	-0.32	--	--	--	--	3.71								
180	4	-0.17	--	--	--	--	3.8								
193	NR	--	--	<25	--	--	--								
212	0	2.17	--	--	--	5.2	--								
224	NR	--	--	--	--	<7	--								
227	3	-0.53	--	--	--	3.58	--								
234	4	-0.20	--	--	--	3.78	--								
247	NR	--	--	--	--	<5.1	--								
254	NR	--	--	--	--	<5	--								
255	0	-2.33	--	--	--	2.5	--								
265	4	0.17	--	--	--	--	4								
277	2	-1.50	--	--	--	3	--								
304	3	-0.87	--	--	--	--	3.38								
307	0	6.83	--	8	--	--	--								
326	3	0.67	4.3	--	--	--	--								
328	1	1.83	--	--	--	5	--								
330	4	0.07	--	--	--	3.94	--								
331	0	3.50	--	--	--	6	--								

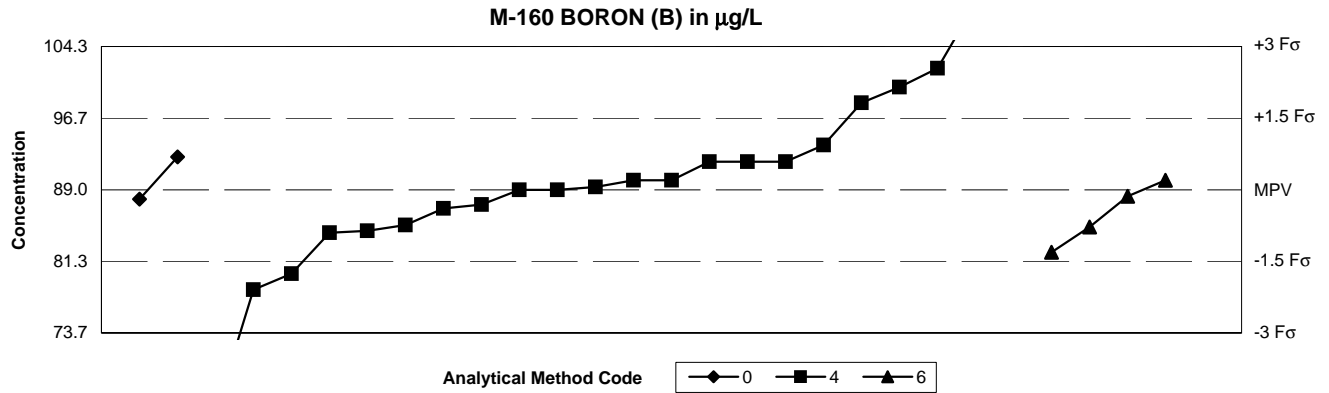
Table 12. Statistical summary of reported data for standard reference sample M-160 (major constituents)



SUMMARY	Methods						Statistics	
	0	20	21	22	40	41	Method Codes	
n =	5	10	32	3	1	1	00 Other	<b>MPV = 74.0 mg/L</b>
Minimum =	73.5	70	36.04	67	73	68	20 Titration: colorimetric	F-pseudosigma = 2.93
Maximum =	105	76	160	76			21 Titration: electrometric	Rating criterion= 3.70
Median =	77.8	74.0	74.0				22 Colorimetric	n = 52
F-pseudosigma =	14.8	2.22	3.26				40 Ion selective electrode	Uh = 76.0
							41 Electrometric	Lh = 72.1

Lab	Rating	Z-value	Method Codes						Lab	Rating	Z-value	Method Codes						
			0	20	21	22	40	41				0	20	21	22	40	41	
1	2	1.19	--	--	78.4	--	--	--	307	4	-0.03	--	--	73.9	--	--	--	--
4	4	0.00	--	--	74	--	--	--	326	2	1.03	77.8	--	--	--	--	--	--
5	3	-0.66	--	--	71.57	--	--	--	328	3	0.54	--	--	76	--	--	--	--
10	4	0.16	--	--	74.6	--	--	--	330	3	0.54	--	--	76	--	--	--	--
12	2	-1.08	--	--	70	--	--	--	331	4	0.03	--	--	74.1	--	--	--	--
16	3	-0.81	--	--	--	71	--	--	333	4	0.00	--	--	74	--	--	--	--
23	2	-1.08	--	70	--	--	--	--	334	3	-0.54	--	--	72	--	--	--	--
24	4	0.27	--	--	75	--	--	--	336	0	5.89	95.8	--	--	--	--	--	--
25	0	23.24	--	--	160	--	--	--	341	1	-1.89	--	--	--	67	--	--	--
32	4	-0.46	--	72.3	--	--	--	--	366	4	0.11	--	--	74.4	--	--	--	--
38	0	-10.26	--	--	36.04	--	--	--	370	3	-0.81	--	--	71	--	--	--	--
42	4	0.00	--	--	74	--	--	--	372	4	-0.30	--	--	72.9	--	--	--	--
45	3	-0.54	--	--	72	--	--	--										
50	0	2.81	--	--	84.4	--	--	--										
59	3	-0.51	--	--	72.1	--	--	--										
70	4	-0.27	--	--	73	--	--	--										
85	4	-0.16	--	--	73.4	--	--	--										
89	4	0.24	--	--	74.9	--	--	--										
93	3	0.51	75.9	--	--	--	--	--										
96	4	-0.27	--	--	73	--	--	--										
97	4	0.03	--	--	74.1	--	--	--										
100	0	4.81	--	--	91.8	--	--	--										
109	0	8.58	--	--	105.8	--	--	--										
113	4	-0.38	--	--	72.6	--	--	--										
118	4	0.38	--	75.4	--	--	--	--										
138	4	0.30	--	--	75.1	--	--	--										
142	1	1.89	--	--	81	--	--	--										
146	4	-0.35	--	--	72.7	--	--	--										
149	3	-0.54	--	72	--	--	--	--										
155	3	-0.54	--	--	72	--	--	--										
190	4	-0.27	--	--	--	--	73	--										
193	3	0.95	--	--	77.5	--	--	--										
212	3	-0.62	--	71.7	--	--	--	--										
224	1	-1.62	--	--	--	--	--	68										
227	4	-0.14	73.5	--	--	--	--	--										
234	3	0.54	--	--	--	76	--	--										
256	4	0.27	--	75	--	--	--	--										
259	4	-0.27	--	--	73	--	--	--										
266	2	1.08	--	--	78	--	--	--										
270	0	8.38	105	--	--	--	--	--										

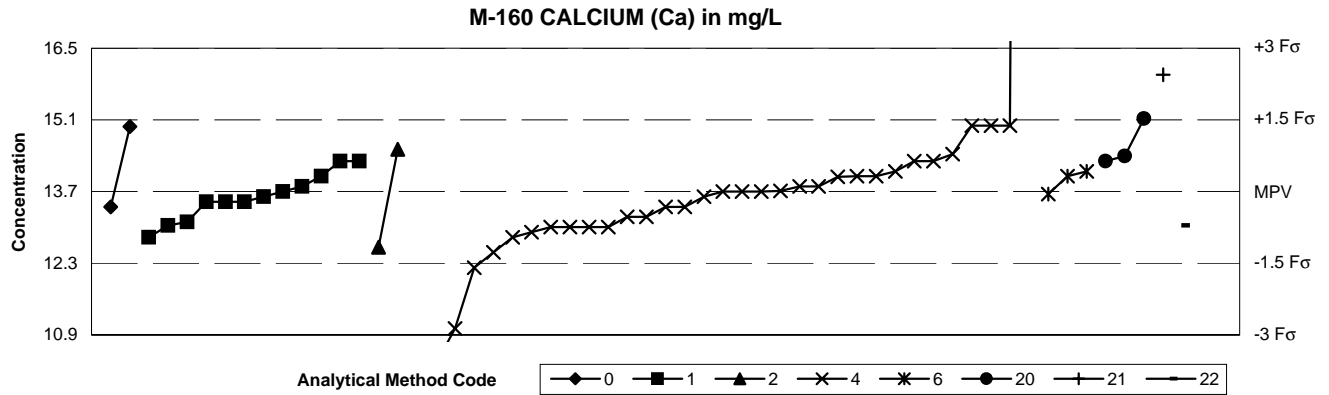
**Table 12. Statistical summary of reported data for standard reference sample M-160 (major constituents) -- continued**



SUMMARY	Methods			Method Codes	Statistics	
	0	4	6			
n =	2	21	4	00 Other	<b>MPV = 89.0 µg/L</b>	
Minimum =	88	65	82.3	04 Inductively coupled plasma	F-pseudosigma = 5.11	
Maximum =	92.5	109	90	06 Inductively coupled plasma/mass spectrometry	n = 27	
Median =		89.3			Uh = 92.0	
F-pseudosigma =		5.04			Lh = 85.1	

Lab	Rating	Z-value	Method Codes		
			0	4	6
1	0	2.54	--	102	--
5	0	-2.09	--	78.3	--
16	3	0.59	--	92	--
24	4	0.00	--	89	--
25	1	-1.76	--	80	--
32	3	-0.78	--	--	85
42	4	-0.14	--	--	88.3
50	3	-0.86	--	84.6	--
59	2	-1.31	--	--	82.3
85	4	0.20	--	90	--
86	0	2.15	--	100	--
100	3	-0.74	--	85.2	--
138	3	-0.90	--	84.4	--
142	4	0.06	--	89.3	--
212	3	0.94	--	93.8	--
234	4	0.20	--	90	--
254	4	-0.31	--	87.4	--
255	3	0.59	--	92	--
259	3	0.68	92.5	--	--
265	4	0.20	--	--	90
319	4	-0.39	--	87	--
326	4	-0.20	88	--	--
328	0	3.91	--	109	--
331	1	1.82	--	98.3	--
334	3	0.59	--	92	--
341	4	0.00	--	89	--
370	NR	--	--	<500	--
372	0	-4.69	--	65	--

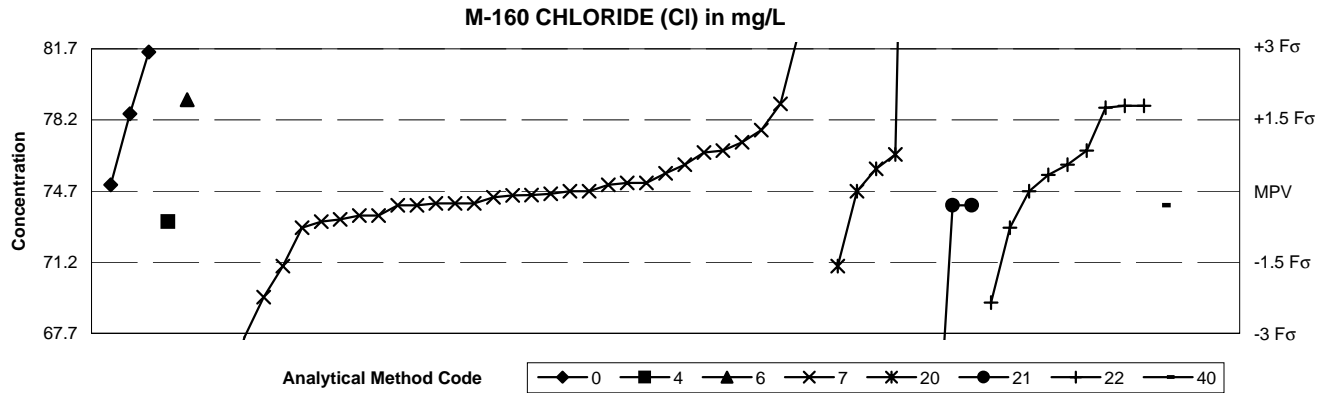
Table 12. Statistical summary of reported data for standard reference sample M-160 (major constituents) -- continued



SUMMARY	Methods								Method Codes		Statistics	
	0	1	2	4	6	20	21	22	00	Other	MPV =	F-pseudsigma =
n =	2	12	2	33	3	3	1	1	00	Other	13.7 mg/L	0.94
Minimum =	13.4	12.8	12.6	10.1	13.65	14.3	16	13.03	01	Atomic absorption: direct, air	n =	57
Maximum =	14.98	14.3	14.53	74.65	14.1	15.14			02	Atomic absorption: direct, nitrous oxide	Uh =	14.3
Median =		13.6		13.7					04	Inductively coupled plasma	Lh =	13.0
F-pseudsigma =		0.445		0.741					06	Inductively coupled plasma/mass spectrometry		
									20	Titration: colorimetric		
									21	Titration: electrometric		
									22	Colorimetric		

Method Codes											Method Codes										
Lab	Rating	Z-value	0	1	2	4	6	20	21	22	Lab	Rating	Z-value	0	1	2	4	6	20	21	22
1	4	0.32	--	--	--	14	--	--	--	--	263	3	0.64	--	--	--	--	14.3	--	--	--
5	3	-0.96	--	--	--	12.8	--	--	--	--	265	3	0.64	--	--	--	14.3	--	--	--	--
10	4	-0.11	--	13.6	--	--	--	--	--	--	266	0	2.44	--	--	--	--	--	--	16	--
12	4	0.32	--	--	--	14	--	--	--	--	277	2	1.38	--	--	--	15	--	--	--	--
16	3	-0.74	--	--	--	13	--	--	--	--	279	3	-0.71	--	13.03	--	--	--	--	--	--
23	3	0.74	--	--	--	--	--	14.4	--	--	315	0	-2.87	--	--	--	11	--	--	--	--
24	4	0.00	--	--	--	13.7	--	--	--	--	326	4	-0.32	13.4	--	--	--	--	--	--	--
25	0	-3.82	--	--	--	10.1	--	--	--	--	328	2	1.38	--	--	--	15	--	--	--	--
32	4	0.32	--	--	--	--	14	--	--	--	330	3	-0.74	--	--	--	13	--	--	--	--
38	3	0.88	--	--	14.53	--	--	--	--	--	331	3	0.64	--	14.3	--	--	--	--	--	--
42	3	0.64	--	--	--	14.3	--	--	--	--	332	4	0.31	--	--	--	13.99	--	--	--	--
45	4	-0.21	--	13.5	--	--	--	--	--	--	334	3	-0.74	--	--	--	13	--	--	--	--
50	4	0.11	--	--	--	13.8	--	--	--	--	336	2	1.36	14.98	--	--	--	--	--	--	--
59	4	-0.21	--	13.5	--	--	--	--	--	--	341	4	0.11	--	13.8	--	--	--	--	--	--
64	4	0.00	--	--	--	13.7	--	--	--	--	366	3	-0.53	--	--	--	13.2	--	--	--	--
70	3	-0.74	--	--	--	13	--	--	--	--	370	1	-1.59	--	--	--	12.2	--	--	--	--
76	4	-0.05	--	--	--	--	13.65	--	--	--	372	4	0.00	--	--	--	13.7	--	--	--	--
84	4	-0.21	--	13.5	--	--	--	--	--	--											
85	4	0.00	--	13.7	--	--	--	--	--	--											
86	4	0.01	--	--	--	13.71	--	--	--	--											
89	3	-0.96	--	12.8	--	--	--	--	--	--											
93	4	-0.32	--	--	--	13.4	--	--	--	--											
97	3	-0.64	--	13.1	--	--	--	--	--	--											
100	0	-3.61	--	--	--	10.3	--	--	--	--											
109	4	0.32	--	14	--	--	--	--	--	--											
113	4	-0.32	--	--	--	13.4	--	--	--	--											
121	2	-1.27	--	--	--	12.5	--	--	--	--											
138	3	-0.53	--	--	--	13.2	--	--	--	--											
142	4	0.42	--	--	--	14.1	--	--	--	--											
146	3	-0.85	--	--	--	12.9	--	--	--	--											
155	1	1.53	--	--	--	--	--	15.14	--	--											
190	2	-1.17	--	--	12.6	--	--	--	--	--											
193	3	0.64	--	14.3	--	--	--	--	--	--											
212	4	-0.11	--	--	--	13.6	--	--	--	--											
224	0	64.74	--	--	--	74.65	--	--	--	--											
234	4	0.11	--	--	--	13.8	--	--	--	--											
254	3	0.79	--	--	--	14.44	--	--	--	--											
255	2	1.38	--	--	--	15	--	--	--	--											
256	3	-0.71	--	--	--	--	--	--	--	13.03											
259	4	0.42	--	--	--	14.1	--	--	--	--											

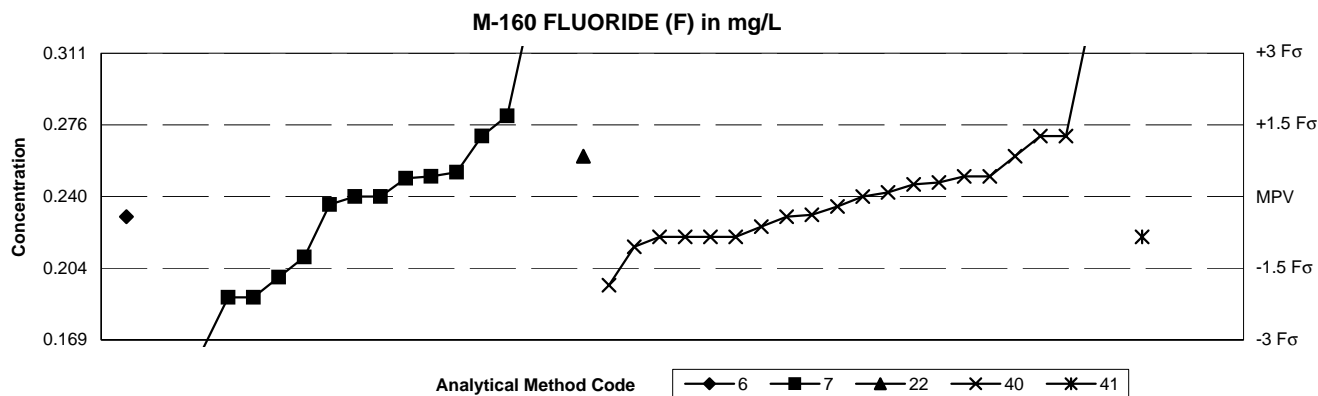
Table 12. Statistical summary of reported data for standard reference sample M-160 (major constituents) -- continued



SUMMARY	Methods								Statistics	
	0	4	6	7	20	21	22	40	Method Codes	
n =	3	1	1	33	5	3	9	1 00	Other	MPV = 74.7 mg/L
Minimum =	75	73.2	79.2	2.45	71	58.5	69.2	74	04 Inductively coupled plasma	F-pseudosigma = 2.34
Maximum =	81.54			89	120	74	78.9		06 Inductively coupled plasma/mass spectrometry	Rating criterion= 3.74
Median =				74.5	75.8		76.0		07 Ion chromatography	n = 56
F-pseudosigma =				1.53	1.33		3.04		20 Titration: colorimetric	Uh = 76.7
									21 Titration: electrometric	Lh = 73.5
									22 Colorimetric	
									40 Ion selective electrode	

Lab	Rating	Z-value	Method Codes								Lab	Rating	Z-value	Method Codes							
			0	4	6	7	20	21	22	40				0	4	6	7	20	21	22	40
1	4	-0.40	--	73.2	--	--	--	--	--	--	269	4	-0.19	--	--	--	--	--	--	74	
5	4	0.00	--	--	--	74.7	--	--	--	--	270	0	12.13	--	--	--	--	120	--	--	
10	2	-1.47	--	--	--	--	--	--	69.2	--	277	4	-0.19	--	--	--	74	--	--	--	
12	4	0.35	--	--	--	--	--	--	76	--	307	4	0.29	--	--	--	--	75.8	--	--	
16	2	1.12	--	--	--	--	--	--	78.9	--	315	0	-19.34	--	--	--	2.45	--	--	--	
23	4	0.08	75	--	--	--	--	--	--	--	319	4	0.48	--	--	--	--	76.5	--	--	
24	4	-0.48	--	--	--	--	--	--	72.9	--	326	2	1.02	78.5	--	--	--	--	--	--	
25	1	-1.93	--	--	--	67.5	--	--	--	--	328	3	-0.99	--	--	--	71	--	--	--	
32	4	0.51	--	--	--	76.6	--	--	--	--	330	3	-0.99	--	--	--	71	--	--	--	
42	3	0.64	--	--	--	77.1	--	--	--	--	331	2	1.20	--	--	79.2	--	--	--	--	
45	4	0.11	--	--	--	75.1	--	--	--	--	334	0	-2.86	--	--	--	64	--	--	--	
50	4	0.08	--	--	--	75	--	--	--	--	336	1	1.83	81.54	--	--	--	--	--	--	
59	4	0.35	--	--	--	76	--	--	--	--	341	4	0.21	--	--	--	--	--	75.5	--	
64	4	-0.08	--	--	--	74.4	--	--	--	--	366	2	1.10	--	--	--	--	--	78.8	--	
70	4	-0.37	--	--	--	73.3	--	--	--	--	370	0	2.14	--	--	--	82.7	--	--	--	
76	4	-0.03	--	--	--	74.57	--	--	--	--	372	0	3.83	--	--	--	89	--	--	--	
84	2	1.15	--	--	--	79	--	--	--	--											
85	4	-0.32	--	--	--	73.5	--	--	--	--											
89	4	0.00	--	--	--	74.7	--	--	--	--											
93	3	0.54	--	--	--	76.7	--	--	--	--											
96	3	0.54	--	--	--	--	--	--	76.7	--											
97	4	0.00	--	--	--	--	--	--	74.7	--											
100	4	0.11	--	--	--	75.1	--	--	--	--											
109	0	-4.34	--	--	--	--	--	58.5	--	--											
113	4	-0.05	--	--	--	74.5	--	--	--	--											
138	4	-0.16	--	--	--	74.1	--	--	--	--											
142	3	0.80	--	--	--	77.7	--	--	--	--											
146	2	1.12	--	--	--	--	--	--	78.9	--											
190	4	-0.16	--	--	--	74.1	--	--	--	--											
208	4	-0.16	--	--	--	74.1	--	--	--	--											
212	4	-0.40	--	--	--	73.2	--	--	--	--											
224	4	-0.06	--	--	--	74.49	--	--	--	--											
227	2	-1.40	--	--	--	69.48	--	--	--	--											
234	4	-0.32	--	--	--	73.5	--	--	--	--											
254	4	-0.19	--	--	--	74	--	--	--	--											
256	4	0.23	--	--	--	75.57	--	--	--	--											
259	4	-0.19	--	--	--	--	--	74	--	--											
263	4	0.00	--	--	--	--	74.7	--	--	--											
265	4	-0.48	--	--	--	72.9	--	--	--	--											
266	4	-0.19	--	--	--	--	--	74	--	--											

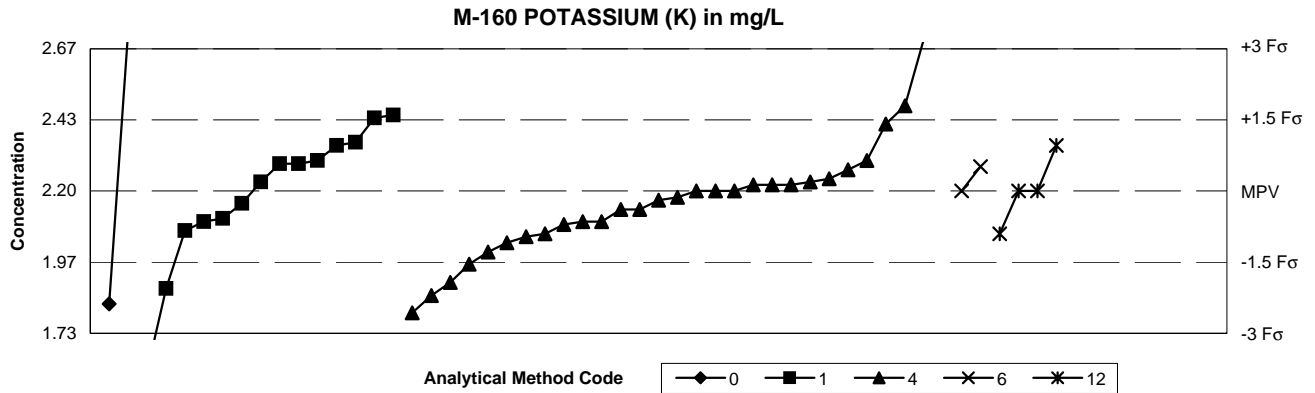
Table 12. Statistical summary of reported data for standard reference sample M-160 (major constituents) -- continued



SUMMARY	Methods					Statistics	
	6	7	22	40	41	Method Codes	
n =	1	17	1	21	1	06 Inductively coupled plasma/mass spectrometry	MPV = 0.240 mg/L
Minimum =	0.23	0.13	0.26	0.196	0.22	07 Ion chromatography	F-pseudosigma = 0.0237
Maximum =		0.4		0.43		22 Colorimetric	n = 41
Median =		0.240		0.240		40 Ion selective electrode	Uh = 0.252
F-pseudosigma =		0.046		0.022		41 Electrometric	Lh = 0.220

Lab	Rating	Z-value	Method Codes					Lab	Rating	Z-value	Method Codes				
			6	7	22	40	41				6	7	22	40	41
1	2	-1.05	--	--	--	0.215	--	372	4	0.00	--	0.24	--	--	--
5	0	-4.64	--	0.13	--	--	--								
10	4	0.42	--	--	--	0.25	--								
16	0	-2.11	--	0.19	--	--	--								
23	4	0.51	--	0.252	--	--	--								
24	4	0.30	--	--	--	0.247	--								
25	1	1.69	--	0.28	--	--	--								
32	4	0.38	--	0.249	--	--	--								
42	4	0.42	--	0.25	--	--	--								
45	1	-1.69	--	0.2	--	--	--								
50	0	-3.20	--	0.164	--	--	--								
59	4	0.00	--	--	--	0.24	--								
70	0	8.01	--	--	--	0.43	--								
84	0	-2.11	--	0.19	--	--	--								
85	2	1.26	--	--	--	0.27	--								
89	2	1.26	--	--	--	0.27	--								
96	1	-1.85	--	--	--	0.196	--								
97	4	0.08	--	--	--	0.242	--								
100	3	-0.84	--	--	--	0.22	--								
109	3	-0.84	--	--	--	0.22	--								
113	4	0.25	--	--	--	0.246	--								
138	4	-0.21	--	--	--	0.235	--								
142	3	0.84	--	--	--	0.26	--								
146	4	-0.17	--	0.236	--	--	--								
190	3	-0.63	--	--	--	0.225	--								
212	3	-0.84	--	--	--	--	0.22								
224	0	4.13	--	0.338	--	--	--								
234	2	1.26	--	0.27	--	--	--								
255	4	-0.38	--	--	--	0.231	--								
256	0	6.75	--	0.4	--	--	--								
259	3	-0.84	--	--	--	0.22	--								
263	4	-0.42	--	--	--	0.23	--								
266	3	-0.84	--	--	--	0.22	--								
269	4	0.42	--	--	--	0.25	--								
277	0	-4.22	--	0.14	--	--	--								
328	0	3.79	--	--	--	0.33	--								
330	3	0.84	--	--	0.26	--	--								
331	4	-0.42	0.23	--	--	--	--								
334	2	-1.26	--	0.21	--	--	--								
370	4	0.00	--	0.24	--	--	--								

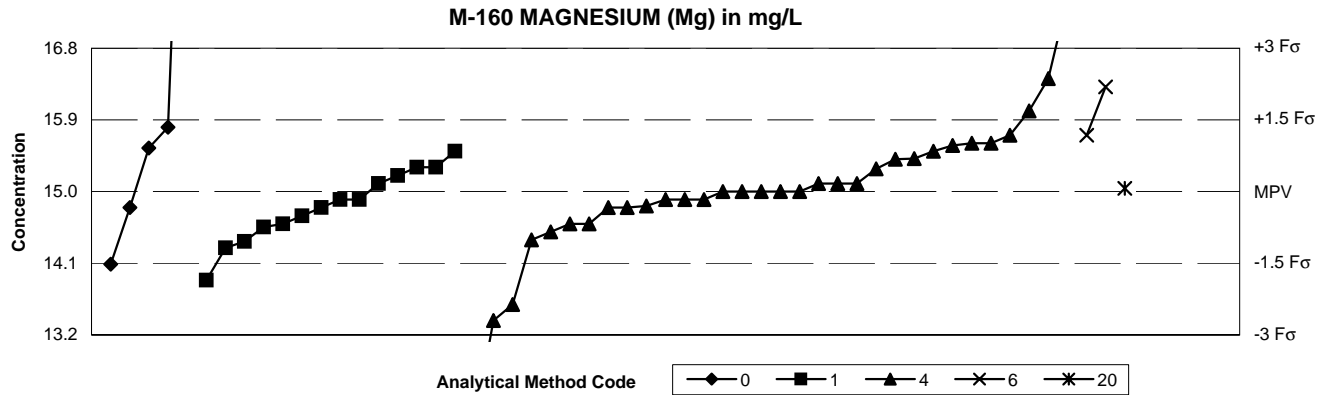
Table 12. Statistical summary of reported data for standard reference sample M-160 (major constituents) -- continued



SUMMARY	Methods					Method Codes	Statistics	
	0	1	4	6	12			
n =	2	14	29	2	4	00 Other	MPV =	2.20 mg/L
Minimum =	1.83	1.61	1.8	2.2	2.06	01 Atomic absorption: direct, air	F-pseudosigma =	0.156
Maximum =	2.72	2.45	3.96	2.28	2.35	04 Inductively coupled plasma	n =	51
Median =	2.26	2.18				06 Inductively coupled plasma/mass spectrometry	Uh =	2.29
F-pseudosigma =	0.185	0.126				12 Flame emission	Lh =	2.08

Lab	Rating	Z-value	Method Codes					Lab	Rating	Z-value	Method Codes				
			0	1	4	6	12				0	1	4	6	12
1	0	-2.06	--	1.88	--	--	--	315	1	1.80	--	--	2.48	--	--
5	1	-1.54	--	--	1.96	--	--	326	0	3.34	2.72	--	--	--	--
10	4	0.19	--	2.23	--	--	--	328	0	-2.57	--	--	1.8	--	--
12	1	-1.93	--	--	1.9	--	--	330	3	0.64	--	--	2.3	--	--
16	4	0.00	--	--	2.2	--	--	332	3	-0.90	--	--	2.06	--	--
23	3	0.64	--	2.3	--	--	--	334	2	-1.28	--	--	2	--	--
24	4	-0.39	--	--	2.14	--	--	336	0	-2.38	1.83	--	--	--	--
25	4	0.00	--	--	2.2	--	--	341	3	-0.90	--	--	--	2.06	--
32	4	0.00	--	--	2.2	--	--	366	3	-0.64	--	--	2.1	--	--
38	3	0.58	--	2.29	--	--	--	370	0	11.31	--	--	3.96	--	--
42	2	-1.09	--	--	2.03	--	--	372	4	0.19	--	--	2.23	--	--
45	0	-3.79	--	1.61	--	--	--								
50	3	-0.71	--	--	2.09	--	--								
59	4	-0.26	--	2.16	--	--	--								
64	3	-0.58	--	2.11	--	--	--								
70	4	-0.13	--	--	2.18	--	--								
85	3	0.58	--	2.29	--	--	--								
86	4	0.13	--	--	2.22	--	--								
89	3	-0.84	--	2.07	--	--	--								
93	2	1.41	--	--	2.42	--	--								
97	3	-0.64	--	2.1	--	--	--								
100	4	0.26	--	--	2.24	--	--								
109	1	1.61	--	2.45	--	--	--								
113	4	0.00	--	--	2.2	--	--								
138	3	-0.96	--	--	2.05	--	--								
142	4	0.13	--	--	2.22	--	--								
146	4	0.45	--	--	2.27	--	--								
190	3	0.96	--	2.35	--	--	--								
193	2	1.03	--	2.36	--	--	--								
212	4	-0.39	--	--	2.14	--	--								
224	0	-2.20	--	--	1.857	--	--								
234	4	-0.19	--	--	2.17	--	--								
254	4	0.13	--	--	2.22	--	--								
256	3	0.96	--	--	--	--	2.35								
259	3	0.51	--	--	--	2.28	--								
265	3	-0.64	--	--	2.1	--	--								
266	4	0.00	--	--	--	--	2.2								
270	4	0.00	--	--	--	--	2.2								
277	0	3.21	--	--	2.7	--	--								
279	1	1.54	--	2.44	--	--	--								

Table 12. Statistical summary of reported data for standard reference sample M-160 (major constituents) -- continued

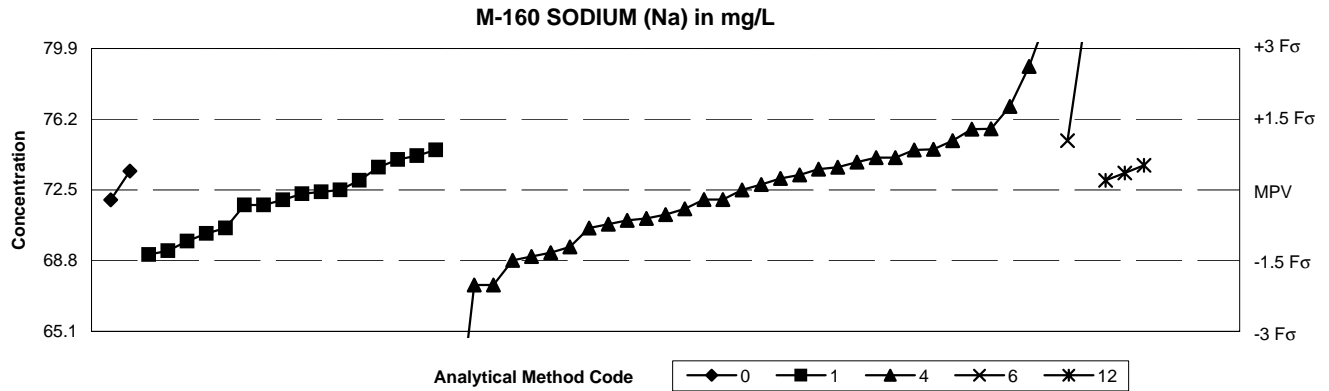


SUMMARY	Methods					Statistics	
	0	1	4	6	20	Method Codes	
n =	5	14	32	2	1	00 Other	<b>MPV = 15.0 mg/L</b>
Minimum =	14.1	13.9	12.1	15.7	15.04	01 Atomic absorption: direct, air	F-pseudosigma = 0.59
Maximum =	21.82	15.5	17.4	16.3		04 Inductively coupled plasma	Rating criterion = 0.75
Median =	15.5	14.9	15.0			06 Inductively coupled plasma/mass spectrometry	n = 54
F-pseudosigma =	0.741	0.476	0.485			20 Titration: colorimetric	Uh = 15.5
							Lh = 14.7

Lab	Rating	Z-value	Method Codes					Lab	Rating	Z-value	Method Codes				
			0	1	4	6	20				0	1	4	6	20
1	3	0.80	--	--	15.6	--	--	266	2	-1.20	14.1	--	--	--	--
5	1	-1.87	--	--	13.6	--	--	277	2	1.07	15.8	--	--	--	--
10	4	0.40	--	15.3	--	--	--	315	4	0.13	--	--	15.1	--	--
12	0	3.20	--	--	17.4	--	--	326	3	0.72	15.54	--	--	--	--
16	4	0.00	--	--	15	--	--	328	2	1.33	--	--	16	--	--
23	4	0.13	--	15.1	--	--	--	330	4	0.00	--	--	15	--	--
24	3	0.67	--	--	15.5	--	--	331	4	-0.40	--	14.7	--	--	--
25	0	-3.87	--	--	12.1	--	--	332	4	-0.24	--	--	14.82	--	--
32	1	1.73	--	--	--	16.3	--	334	4	0.00	--	--	15	--	--
38	3	-0.59	--	14.56	--	--	--	336	0	9.09	21.82	--	--	--	--
42	3	-0.53	--	--	14.6	--	--	341	3	-0.53	--	14.6	--	--	--
45	2	-1.47	--	13.9	--	--	--	366	3	-0.67	--	--	14.5	--	--
50	4	0.00	--	--	15	--	--	370	3	0.93	--	--	15.7	--	--
59	4	-0.13	--	14.9	--	--	--	372	4	-0.27	--	--	14.8	--	--
64	3	0.53	--	--	15.4	--	--								
70	4	-0.27	--	--	14.8	--	--								
84	3	-0.93	--	14.3	--	--	--								
85	4	-0.27	--	14.8	--	--	--								
86	4	0.37	--	--	15.28	--	--								
89	3	0.67	--	15.5	--	--	--								
93	3	-0.53	--	--	14.6	--	--								
97	4	-0.13	--	14.9	--	--	--								
100	0	-2.13	--	--	13.4	--	--								
109	3	-0.83	--	14.38	--	--	--								
113	4	-0.13	--	--	14.9	--	--								
121	4	0.13	--	--	15.1	--	--								
138	4	0.00	--	--	15	--	--								
142	1	1.87	--	--	16.4	--	--								
146	3	-0.80	--	--	14.4	--	--								
155	4	0.05	--	--	--	15.04	--								
190	4	0.40	--	15.3	--	--	--								
193	4	0.27	--	15.2	--	--	--								
212	4	-0.13	--	--	14.9	--	--								
224	3	0.54	--	--	15.41	--	--								
234	4	0.13	--	--	15.1	--	--								
254	3	0.76	--	--	15.57	--	--								
255	3	0.80	--	--	15.6	--	--								
259	3	0.93	--	--	--	15.7	--								
263	4	-0.27	14.8	--	--	--	--								
265	4	-0.13	--	--	14.9	--	--								



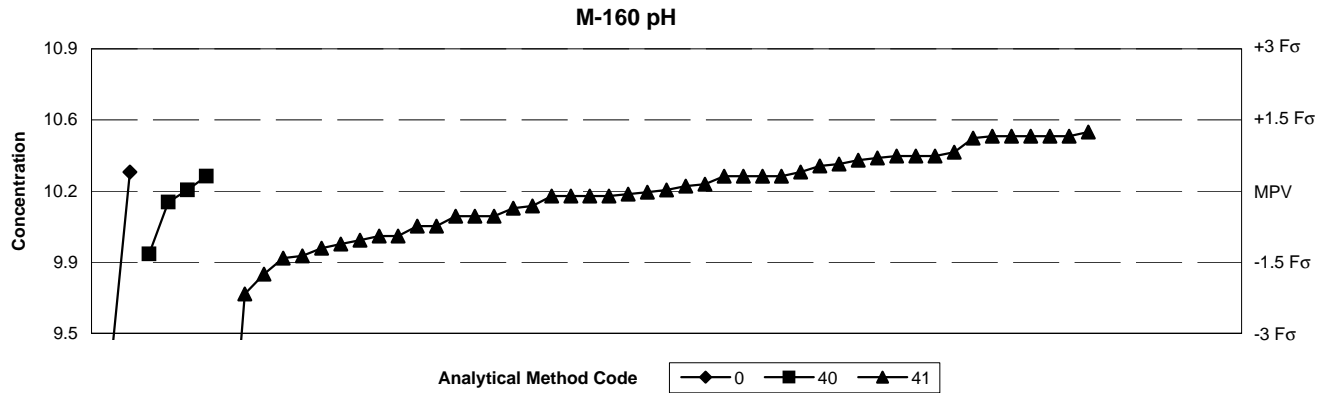
**Table 12. Statistical summary of reported data for standard reference sample M-160 (major constituents) -- continued**



SUMMARY	Methods					Method Codes	Statistics	
	0	1	4	6	12			
n =	2	16	32	2	3	00 Other	<b>MPV = 72.5 mg/L</b>	
Minimum =	71.97	69.1	58.7	75.1	73	01 Atomic absorption: direct, air	F-pseudosigma = 2.48	
Maximum =	73.5	74.6	81.8	82	73.8	04 Inductively coupled plasma	Rating criterion= 3.63	
Median =		72.1	72.6			06 Inductively coupled plasma/mass spectrometry	n = 55	
F-pseudosigma =		2.22	2.82			12 Flame emission	Uh = 74.2	
							Lh = 70.8	

Lab	Rating	Z-value	Method Codes					Lab	Rating	Z-value	Method Codes				
			0	1	4	6	12				0	1	4	6	12
1	4	0.33	--	--	73.7	--	--	277	2	-1.38	--	--	67.5	--	--
5	4	0.17	--	--	73.1	--	--	279	4	-0.03	--	72.4	--	--	
10	4	-0.22	--	71.7	--	--	--	307	4	0.50	--	74.3	--	--	
12	4	0.47	--	--	74.2	--	--	315	4	-0.36	--	--	71.2	--	
16	4	-0.14	--	--	72	--	--	326	4	-0.15	71.97	--	--	--	
23	4	0.14	--	73	--	--	--	328	4	-0.41	--	--	71	--	
24	3	0.58	--	--	74.6	--	--	330	1	1.79	--	--	79	--	
25	2	-1.38	--	--	67.5	--	--	331	3	-0.74	--	69.8	--	--	
32	0	2.62	--	--	--	82	--	332	3	0.89	--	--	75.72	--	
38	4	-0.14	--	71.98	--	--	--	334	3	-0.97	--	--	69	--	
42	3	-0.55	--	--	70.5	--	--	336	4	0.28	73.5	--	--	--	
45	4	0.33	--	73.7	--	--	--	341	3	-0.88	--	69.3	--	--	
50	4	-0.50	--	--	70.7	--	--	366	2	-1.02	--	--	68.8	--	
59	4	0.22	--	--	73.3	--	--	370	0	2.57	--	--	81.8	--	
64	3	-0.94	--	69.1	--	--	--	372	0	-3.81	--	--	58.7	--	
70	3	0.72	--	--	75.1	--	--								
84	4	-0.06	--	72.3	--	--	--								
85	4	-0.22	--	71.7	--	--	--								
86	4	0.08	--	--	72.78	--	--								
89	3	0.58	--	74.6	--	--	--								
93	3	-0.91	--	--	69.2	--	--								
97	3	-0.63	--	70.2	--	--	--								
100	2	1.21	--	--	76.9	--	--								
109	4	0.00	--	72.5	--	--	--								
113	3	-0.83	--	--	69.5	--	--								
121	4	-0.14	--	--	72	--	--								
138	4	-0.44	--	--	70.9	--	--								
142	3	0.88	--	--	75.7	--	--								
146	4	0.47	--	--	74.2	--	--								
190	4	0.44	--	74.1	--	--	--								
193	3	-0.55	--	70.5	--	--	--								
212	4	-0.28	--	--	71.5	--	--								
224	3	0.59	--	--	74.65	--	--								
234	4	0.30	--	--	73.6	--	--								
254	4	0.40	--	--	73.96	--	--								
256	4	0.36	--	--	--	--	73.8								
259	3	0.72	--	--	--	75.1	--								
265	4	0.00	--	--	72.5	--	--								
266	4	0.14	--	--	--	--	73								
270	4	0.25	--	--	--	--	73.4								

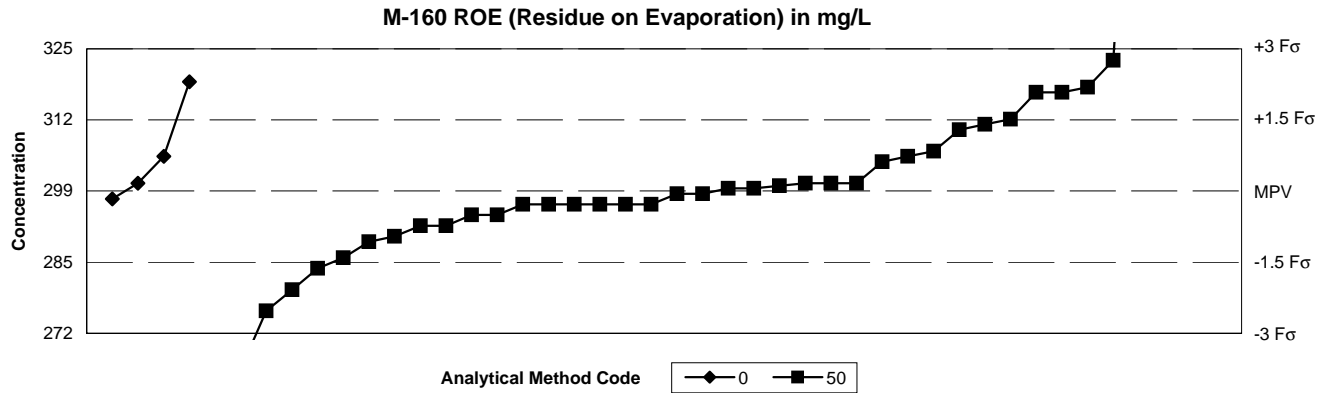
**Table 12. Statistical summary of reported data for standard reference sample M-160 (major constituents) -- continued**



SUMMARY	Methods			Statistics	
	0	40	41	Method Codes	
n =	2	4	46	00 Other	<b>MPV = 10.2</b>
Minimum =	9.35	9.91	8.49	40 Ion selective electrode	F-pseudosigma = 0.24
Maximum =	10.32	10.3	10.52	41 Electrometric	Rating criterion = 0.51
Median =		10.2			n = 52
F-pseudosigma =		0.252			Uh = 10.4
					Lh = 10.1

Method Codes						Method Codes					
Lab	Rating	Z-value	0	40	41	Lab	Rating	Z-value	0	40	41
1	4	-0.24	--	--	10.1	277	4	-0.34	--	--	10.05
5	3	-0.66	--	--	9.89	307	4	0.30	--	--	10.38
10	4	-0.17	--	--	10.14	326	4	0.19	10.32	--	--
12	3	0.54	--	--	10.5	328	4	-0.05	--	--	10.2
16	4	0.01	--	10.23	--	330	4	0.15	--	--	10.3
23	4	0.19	--	--	10.32	331	3	-1.01	--	--	9.71
24	4	-0.34	--	--	10.05	334	3	0.58	--	--	10.52
25	4	0.34	--	--	10.4	336	1	-1.71	9.35	--	--
32	4	0.38	--	--	10.42	341	4	0.32	--	--	10.39
38	4	-0.44	--	--	10	366	3	-0.52	--	--	9.96
42	0	-3.39	--	--	8.49	370	4	-0.05	--	--	10.2
45	3	0.52	--	--	10.49	372	3	0.54	--	--	10.5
50	4	-0.24	--	--	10.1						
59	4	0.05	--	--	10.25						
64	3	0.54	--	--	10.5						
70	4	0.15	--	--	10.3						
84	4	0.26	--	--	10.36						
85	4	0.15	--	--	10.3						
89	4	0.24	--	--	10.35						
93	4	0.15	--	10.3	--						
96	4	-0.24	--	--	10.1						
97	4	-0.15	--	--	10.15						
100	4	0.07	--	--	10.26						
109	4	-0.03	--	--	10.21						
113	4	-0.48	--	--	9.98						
118	3	-0.64	--	--	9.9						
138	4	-0.05	--	--	10.2						
142	4	0.15	--	--	10.3						
146	3	0.54	--	--	10.5						
149	3	0.54	--	--	10.5						
155	3	-0.81	--	--	9.81						
190	3	-0.62	--	9.91	--						
212	4	0.34	--	--	10.4						
224	3	-0.56	--	--	9.94						
227	4	-0.44	--	--	10						
234	4	0.34	--	--	10.4						
256	4	-0.01	--	--	10.22						
259	4	-0.11	--	10.17	--						
263	4	-0.05	--	--	10.2						
266	4	0.01	--	--	10.23						

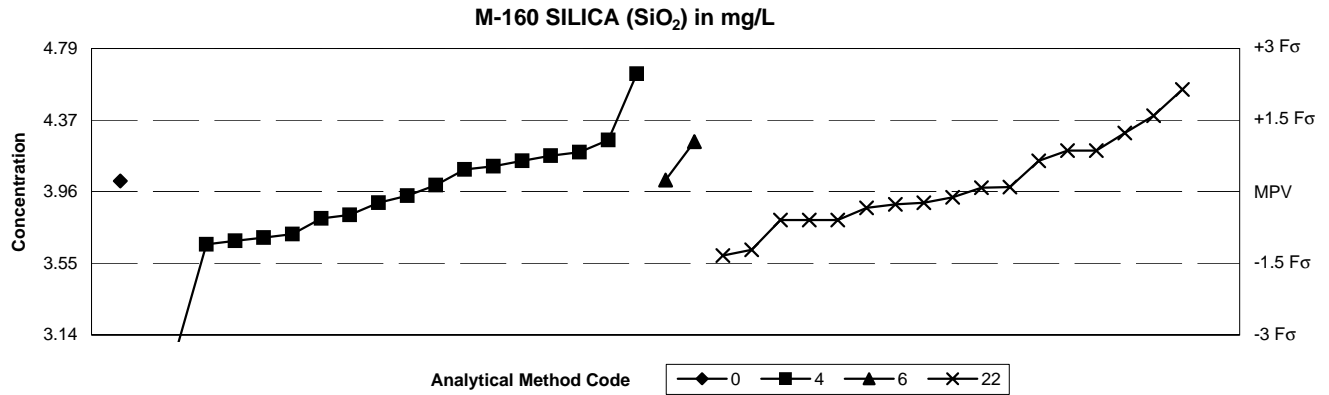
Table 12. Statistical summary of reported data for standard reference sample M-160 (major constituents) -- continued



SUMMARY	Methods		Statistics
	0	50	
n =	4	38	MPV = 299 mg/L
Minimum =	297	256	F-pseudosigma = 8.9
Maximum =	319	398	Rating criterion = 14.9
Median =		298	n = 42
F-pseudosigma =		10.4	Uh = 306
			Lh = 294

Method Codes					Method Codes				
Lab	Rating	Z-value	0	50	Lab	Rating	Z-value	0	50
1	4	0.03	--	299	370	0	6.67	--	398
5	0	-2.85	--	256	372	4	0.37	--	304
10	3	-0.64	--	289					
12	4	-0.17	--	296					
16	0	-2.24	--	265					
25	0	6.67	--	398					
32	3	0.84	--	311					
38	4	-0.17	--	296					
45	3	0.90	--	312					
50	4	-0.30	--	294					
59	3	-0.57	--	290					
70	4	0.50	--	306					
85	4	-0.03	--	298					
89	4	-0.17	--	296					
96	4	-0.17	--	296					
97	4	-0.44	--	292					
100	1	1.64	--	323					
109	2	1.24	--	317					
113	4	0.10	--	300					
118	2	-1.51	--	276					
138	4	-0.44	--	292					
142	4	-0.30	--	294					
146	3	-0.84	--	286					
190	2	1.24	--	317					
212	4	-0.03	--	298					
224	4	0.07	--	299.5					
227	2	1.37	319	--					
234	4	0.03	--	299					
256	2	-1.24	--	280					
259	4	0.10	300	--					
263	4	0.10	--	300					
266	4	0.44	305	--					
277	4	0.44	--	305					
328	4	-0.17	--	296					
330	4	-0.17	--	296					
331	2	1.31	--	318					
334	3	0.77	--	310					
336	4	-0.10	297	--					
341	4	0.10	--	300					
366	3	-0.97	--	284					

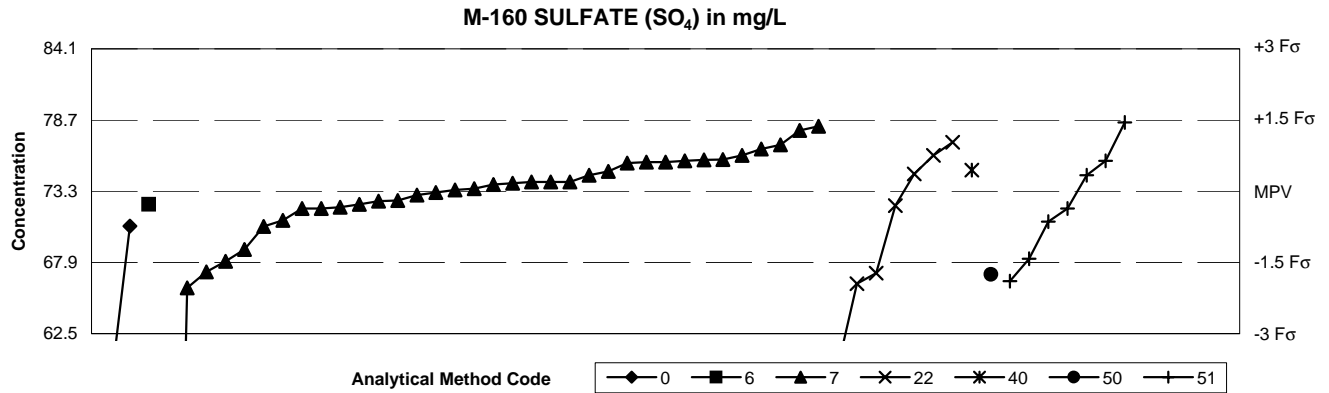
**Table 12. Statistical summary of reported data for standard reference sample M-160 (major constituents) -- continued**



SUMMARY	Methods				Method Codes	Statistics	
	0	4	6	22			
n =	1	18	2	17	00 Other	<b>MPV = 3.96 mg/L</b>	
Minimum =	4.024	1.91	4.03	3.597	04 Inductively coupled plasma	F-pseudosigma = 0.274	
Maximum =		4.64	4.25	4.55	06 Inductively coupled plasma/mass spectrometry	n = 38	
Median =		3.92		3.93	22 Colorimetric	Uh = 4.17	
F-pseudosigma =		0.326		0.297		Lh = 3.80	

Lab	Rating	Z-value	Method Codes			
			0	4	6	22
1	4	-0.12	--	--	--	3.93
5	2	-1.03	--	3.68	--	--
10	3	-0.59	--	--	--	3.8
23	3	-0.59	--	--	--	3.8
24	3	0.65	--	4.14	--	--
25	0	-3.22	--	3.08	--	--
32	2	1.05	--	--	4.25	--
42	2	-1.10	--	3.66	--	--
50	4	-0.08	--	3.94	--	--
64	4	0.46	--	4.09	--	--
70	3	0.65	--	--	--	4.14
85	3	0.86	--	--	--	4.2
89	1	1.59	--	--	--	4.4
93	0	2.14	--	--	--	4.55
97	4	0.10	--	--	--	3.99
100	0	2.47	--	4.64	--	--
113	2	-1.33	--	--	--	3.597
118	4	-0.34	--	--	--	3.87
121	3	-0.89	--	3.72	--	--
138	4	-0.27	--	--	--	3.89
142	2	1.08	--	4.26	--	--
155	4	0.08	--	--	--	3.986
190	3	-0.59	--	--	--	3.8
193	2	1.23	--	--	--	4.3
212	4	-0.23	--	3.9	--	--
224	4	0.22	4.024	--	--	--
234	4	0.13	--	4	--	--
254	3	0.83	--	4.19	--	--
256	2	-1.21	--	--	--	3.63
259	4	0.24	--	--	4.03	--
265	3	-0.96	--	3.7	--	--
266	4	-0.23	--	--	--	3.9
328	3	0.54	--	4.11	--	--
330	3	0.86	--	--	--	4.2
333	3	0.75	--	4.17	--	--
334	4	-0.49	--	3.83	--	--
370	0	-7.49	--	1.91	--	--
372	3	-0.56	--	3.81	--	--

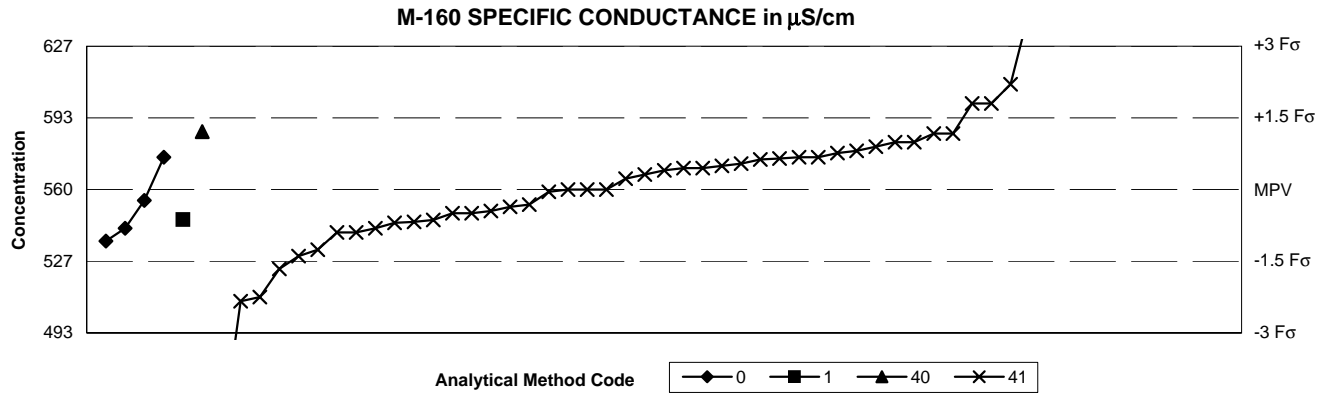
Table 12. Statistical summary of reported data for standard reference sample M-160 (major constituents) -- continued



SUMMARY	Methods							Statistics	
	0	6	7	22	40	50	51	Method Codes	
n =	2	1	35	7	1	1	7	00 Other	MPV = 73.3 mg/L
Minimum =	58.58	72.3	5.36	60	74.9	67	66.5	06 Inductively coupled plasma/mass spectrometry	F-pseudosigma = 3.59
Maximum =	70.66		78.2	77			78.5	07 Ion chromatography	Rating criterion= 3.67
Median =			73.8	72.2			72.0	22 Colorimetric	n = 54
F-pseudosigma =			2.56	6.38			4.04	40 Ion selective electrode	Uh = 75.5
								50 Gravimetric	Lh = 70.7
								51 Turbidimetric	

Lab	Rating	Z-value	Method Codes							Lab	Rating	Z-value	Method Codes						
			0	6	7	22	40	50	51				0	6	7	22	40	50	51
1	4	-0.35	--	--	72	--	--	--	266	4	0.33	--	--	--	--	--	74.5		
5	2	-1.20	--	--	68.9	--	--	--	277	4	-0.33	--	--	72.1	--	--	--		
10	4	-0.35	--	--	--	--	--	72	307	2	-1.39	--	--	--	--	--	68.2		
12	0	-3.63	--	--	--	60	--	--	315	0	-18.54	--	--	5.36	--	--	--		
16	1	-1.86	--	--	--	--	--	66.5	326	3	-0.72	70.66	--	--	--	--	--		
23	4	0.41	--	--	74.8	--	--	--	328	2	-1.45	--	--	68	--	--	--		
24	4	0.35	--	--	--	74.6	--	--	330	3	0.74	--	--	76	--	--	--		
25	3	0.65	--	--	75.7	--	--	--	331	4	-0.27	--	72.3	--	--	--	--		
32	4	0.05	--	--	73.5	--	--	--	334	1	-1.99	--	--	66	--	--	--		
42	3	0.95	--	--	76.8	--	--	--	336	0	-4.02	58.58	--	--	--	--	--		
45	4	0.19	--	--	74	--	--	--	341	3	1.01	--	--	77	--	--	--		
50	3	0.87	--	--	76.5	--	--	--	366	4	-0.30	--	--	72.2	--	--	--		
59	4	0.33	--	--	74.5	--	--	--	370	4	0.44	--	--	--	74.9	--	--		
64	3	0.60	--	--	75.5	--	--	--	372	1	-1.66	--	--	67.2	--	--	--		
70	3	0.60	--	--	75.5	--	--	--											
76	3	0.64	--	--	75.66	--	--	--											
84	3	-0.60	--	--	71.1	--	--	--											
85	2	1.34	--	--	78.2	--	--	--											
89	4	0.03	--	--	73.4	--	--	--											
93	3	0.74	--	--	76	--	--	--											
96	3	-0.63	--	--	--	--	--	71											
97	1	-1.91	--	--	--	66.3	--	--											
100	3	0.63	--	--	75.6	--	--	--											
109	1	-1.72	--	--	--	--	--	67											
113	4	-0.19	--	--	72.6	--	--	--											
138	4	0.16	--	--	73.9	--	--	--											
142	2	1.26	--	--	77.9	--	--	--											
146	2	1.42	--	--	--	--	--	78.5											
190	4	0.14	--	--	73.8	--	--	--											
208	4	-0.08	--	--	73	--	--	--											
212	4	-0.03	--	--	73.2	--	--	--											
224	4	-0.20	--	--	72.56	--	--	--											
227	3	-0.73	--	--	70.63	--	--	--											
234	4	-0.27	--	--	72.3	--	--	--											
254	4	0.19	--	--	74	--	--	--											
255	1	-1.69	--	--	--	67.1	--	--											
256	3	0.58	--	--	75.42	--	--	--											
259	4	0.19	--	--	74	--	--	--											
263	3	0.63	--	--	--	--	--	75.6											
265	4	-0.35	--	--	72	--	--	--											

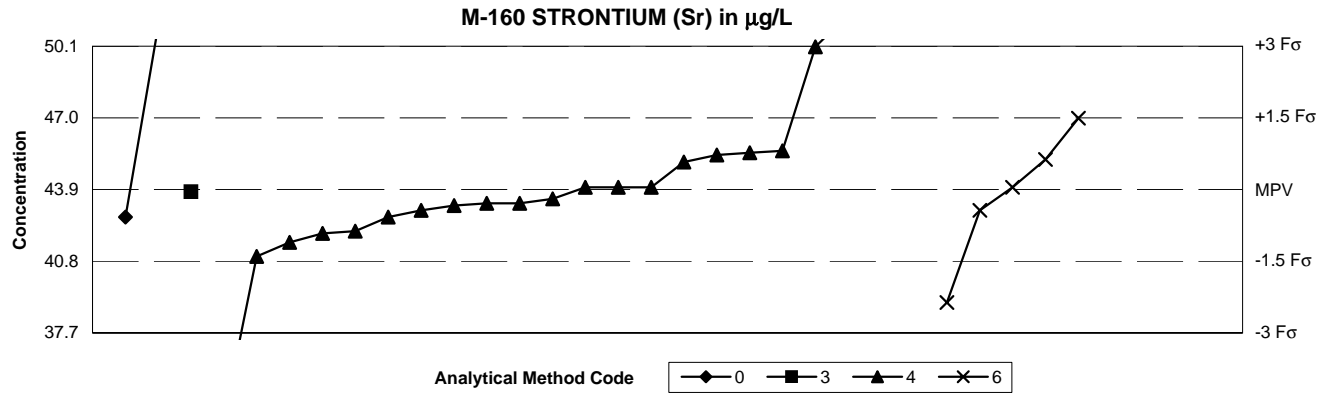
Table 12. Statistical summary of reported data for standard reference sample M-160 (major constituents) -- continued



SUMMARY	Methods				Method Codes	Statistics	
	0	1	40	41			
n =	4	1	1	43	00 Other	<b>MPV = 560 µS/cm</b>	
Minimum =	536	546	587	443	01 Atomic absorption: direct, air	F-pseudosigma = 22.2	
Maximum =	575			644	40 Ion selective electrode	Rating criterion = 28.0	
Median =				565	41 Electrometric	n = 49	
F-pseudosigma =				22.7		Uh = 575	
						Lh = 545	

Lab	Rating	Z-value	Method Codes				Lab	Rating	Z-value	Method Codes			
			0	1	40	41				0	1	40	41
1	4	-0.04	--	--	--	559	269	4	0.39	--	--	--	571
5	1	-1.86	--	--	--	508	277	0	3.00	--	--	--	644
10	3	0.54	--	--	--	575	328	4	0.18	--	--	--	565
12	1	-1.79	--	--	--	510	331	4	-0.50	--	546	--	--
16	0	-4.18	--	--	--	443	334	4	-0.36	--	--	--	550
23	3	0.93	--	--	--	586	341	4	-0.18	555	--	--	--
24	4	0.43	--	--	--	572	366	3	-0.64	542	--	--	--
25	4	0.50	--	--	--	574	370	4	0.00	--	--	--	560
32	1	1.75	--	--	--	609	372	3	0.71	--	--	--	580
38	3	-0.71	--	--	--	540.1							
42	4	-0.39	--	--	--	549							
45	4	0.00	--	--	--	560							
50	4	0.00	--	--	--	560							
59	3	-0.71	--	--	--	540							
64	3	0.61	--	--	--	577							
70	4	0.32	--	--	--	569							
85	3	-0.86	536	--	--	--							
86	3	0.79	--	--	--	582							
89	4	-0.29	--	--	--	552							
93	3	-0.55	--	--	--	544.5							
96	2	1.43	--	--	--	600							
97	4	-0.25	--	--	--	553							
100	2	-1.11	--	--	--	529							
109	4	-0.51	--	--	--	545.8							
113	3	0.54	--	--	--	575							
118	4	0.36	--	--	--	570							
138	3	-0.64	--	--	--	542							
142	3	0.79	--	--	--	582							
146	2	-1.32	--	--	--	523							
149	2	1.43	--	--	--	600							
155	3	-0.54	--	--	--	545							
190	3	0.96	--	--	587	--							
193	3	0.64	--	--	--	578							
212	3	-1.00	--	--	--	532							
224	4	-0.39	--	--	--	549							
234	4	0.25	--	--	--	567							
256	3	0.93	--	--	--	586							
259	3	0.54	575	--	--	--							
263	3	0.52	--	--	--	574.5							
266	4	0.36	--	--	--	570							

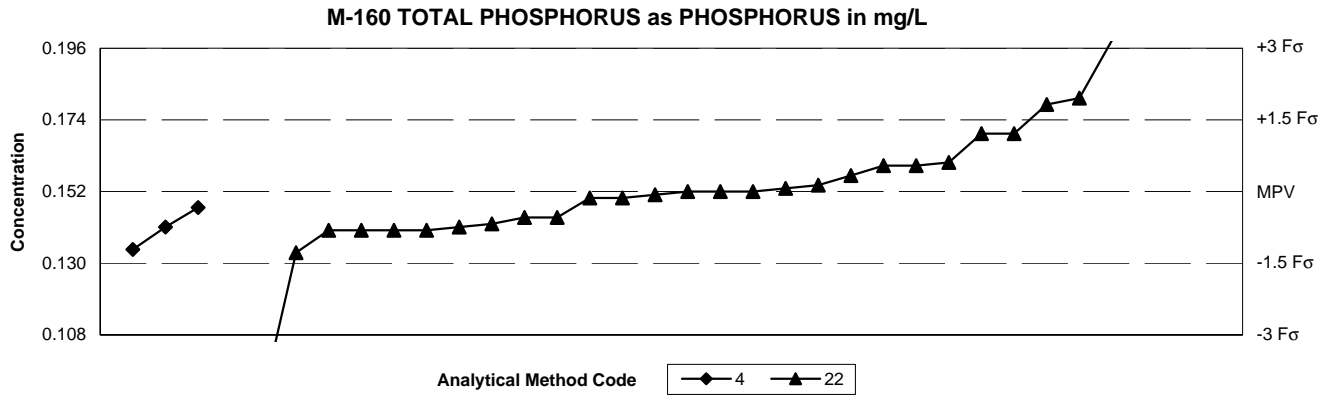
**Table 12. Statistical summary of reported data for standard reference sample M-160 (major constituents) -- continued**



SUMMARY	Methods				Statistics
	0	3	4	6	
n =	2	1	22	5	<b>MPV = 43.9 µg/L</b>
Minimum =	42.7	43.8	34	39	F-pseudosigma = 2.08
Maximum =	50.98		452	47	Rating criterion = 2.20
Median =		43.8	44.0		n = 30
F-pseudosigma =		2.08	1.63		Uh = 45.5
					Lh = 42.7

Lab	Rating	Z-value	Method Codes			
			0	3	4	6
1	3	0.73	--	--	45.5	--
5	3	-0.82	--	--	42.1	--
16	4	0.05	--	--	44	--
24	3	0.68	--	--	45.4	--
25	4	-0.41	--	--	43	--
32	4	0.05	--	--	--	44
42	0	3.46	--	--	51.5	--
59	4	-0.41	--	--	--	43
86	2	-1.05	--	--	41.6	--
97	4	-0.05	--	43.8	--	--
100	3	-0.55	--	--	42.7	--
113	4	-0.32	--	--	43.2	--
121	3	-0.87	--	--	42	--
138	4	-0.27	--	--	43.3	--
142	4	0.05	--	--	44	--
212	3	0.55	--	--	45.1	--
234	4	-0.27	--	--	43.3	--
254	0	2.82	--	--	50.1	--
256	3	0.77	--	--	45.58	--
259	3	0.59	--	--	--	45.2
265	4	0.05	--	--	44	--
326	3	-0.55	42.7	--	--	--
328	2	1.41	--	--	--	47
331	0	185.92	--	--	452	--
332	0	3.23	50.98	--	--	--
333	4	-0.18	--	--	43.5	--
334	2	-1.32	--	--	41	--
341	0	-2.23	--	--	--	39
370	0	4.92	--	--	54.7	--
372	0	-4.51	--	--	34	--

Table 12. Statistical summary of reported data for standard reference sample M-160 (major constituents) -- continued

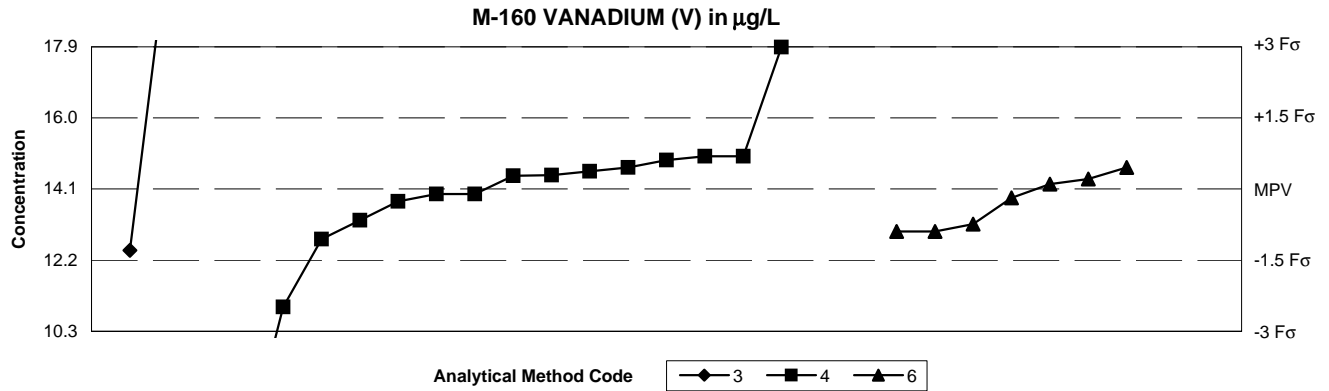


SUMMARY	Methods			Method Codes	Statistics	
	4	7	22			
n =	3	1	29	04 Inductively coupled plasma	<b>MPV = 0.152 mg/L</b>	
Minimum =	0.134	0.525	0.089	07 Ion chromatography	F-pseudosigma = 0.0148	
Maximum =	0.147		0.28	22 Colorimetric	n = 33	
Median =			0.152		Uh = 0.161	
F-pseudosigma =			0.014		Lh = 0.141	

Lab	Rating	Z-value	Method Codes		
			4	7	22
12	3	0.54	--	--	0.16
16	3	-0.54	--	--	0.144
23	0	8.63	--	--	0.28
25	3	-0.81	--	--	0.14
32	0	25.16	--	0.525	--
38	4	0.00	--	--	0.152
42	4	-0.34	0.147	--	--
50	4	-0.07	--	--	0.151
59	3	-0.67	--	--	0.142
70	1	1.82	--	--	0.179
85	4	0.34	--	--	0.157
86	2	-1.21	0.134	--	--
89	4	-0.13	--	--	0.15
93	3	-0.54	--	--	0.144
97	3	-0.81	--	--	0.14
113	4	0.00	--	--	0.152
138	4	-0.13	--	--	0.15
142	3	0.61	--	--	0.161
146	0	3.17	--	--	0.199
155	4	0.07	--	--	0.153
190	4	0.00	--	--	0.152
212	0	-4.25	--	--	0.089
224	2	1.21	--	--	0.17
227	3	-0.74	0.141	--	--
234	3	0.54	--	--	0.16
256	0	5.06	--	--	0.227
307	3	-0.74	--	--	0.141
328	3	-0.81	--	--	0.14
334	3	-0.81	--	--	0.14
341	4	0.13	--	--	0.154
366	2	-1.28	--	--	0.133
370	2	1.21	--	--	0.17
372	1	1.96	--	--	0.181



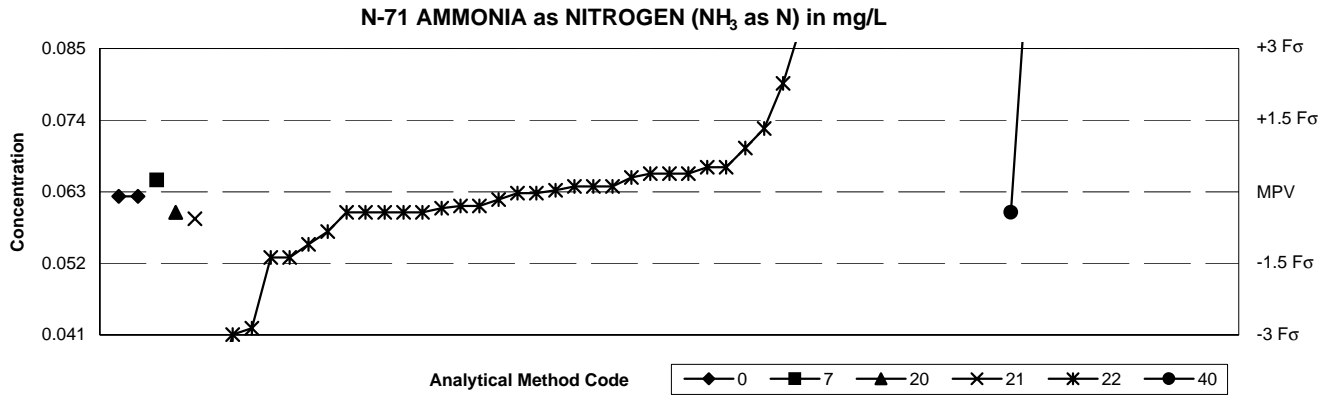
**Table 12. Statistical summary of reported data for standard reference sample M-160 (major constituents) -- continued**



SUMMARY	Methods			Statistics	
	3	4	6	Method Codes	
n =	2	17	7	03 Atomic absorption: graphite furnace	<b>MPV = 14.1 µg/L</b>
Minimum =	12.5	2	13	04 Inductively coupled plasma	F-pseudosigma = 1.26
Maximum =	20.7	50.8	14.7	06 Inductively coupled plasma/mass spectrometry	n = 26
Median =		14.5	13.9		Uh = 14.7
F-pseudosigma =		1.19	0.912		Lh = 13.0

Lab	Rating	Z-value	Method Codes		
			3	4	6
1	4	0.45	--	14.7	--
5	4	0.29	--	14.5	--
16	4	-0.10	--	14	--
25	NR	--	--	<19	--
32	4	0.21	--	--	14.4
42	3	-0.74	--	--	13.2
59	4	-0.18	--	--	13.9
76	4	0.10	--	--	14.26
85	0	-2.48	--	11	--
86	0	2.99	--	17.9	--
89	0	5.21	20.7	--	--
97	2	-1.29	12.5	--	--
100	3	0.69	--	15	--
121	3	0.69	--	15	--
138	3	-0.66	--	13.3	--
142	4	0.45	--	--	14.7
146	2	-1.06	--	12.8	--
212	4	-0.26	--	13.8	--
234	4	0.37	--	14.6	--
254	3	0.61	--	14.9	--
256	4	0.28	--	14.48	--
265	4	-0.10	--	14	--
328	0	-5.66	--	7	--
334	3	-0.90	--	--	13
341	3	-0.90	--	--	13
370	0	29.10	--	50.8	--
372	0	-9.63	--	2	--

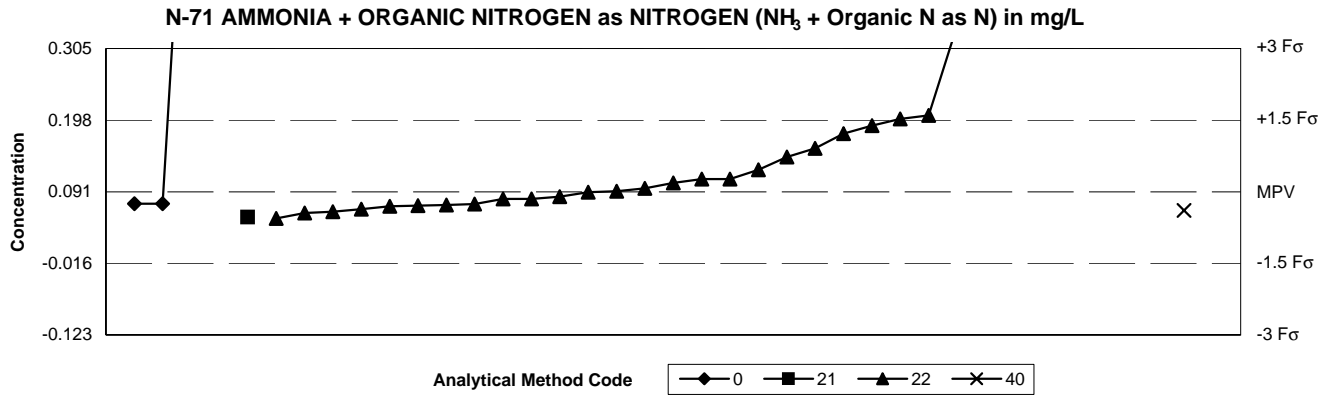
**Table 13. Statistical summary of reported data for standard reference sample N-71 (nutrient constituents)**



SUMMARY	Methods						Statistics	
	0	7	20	21	22	40	Method Codes	
n =	2	1	1	1	39	2	00 Other	<b>MPV = 0.063 mg/L</b>
Minimum =	0.063	0.065	0.06	0.059	0.03	0.06	07 Ion chromatography	F-pseudosigma = 0.0074
Maximum =	0.063				0.355	0.104	20 Titration: colorimetric	n = 46
Median =					0.064		21 Titration: electrometric	Uh = 0.070
F-pseudosigma =					0.009		22 Colorimetric	Lh = 0.060
							40 Ion selective electrode	

Lab	Rating	Z-value	Method Codes						Lab	Rating	Z-value	Method Codes					
			0	7	20	21	22	40				0	7	20	21	22	40
1	3	-0.84	--	--	--	--	0.057	--	320	3	0.51	--	--	--	--	0.067	--
5	2	1.32	--	--	--	--	0.073	--	328	3	0.92	--	--	--	--	0.07	--
10	4	-0.43	--	--	0.06	--	--	--	333	4	0.24	--	0.065	--	--	--	--
12	0	39.36	--	--	--	--	0.355	--	341	4	-0.16	--	--	--	--	0.062	--
16	0	6.31	--	--	--	--	0.11	--	366	2	-1.38	--	--	--	--	0.053	--
21	4	-0.09	0.063	--	--	--	--	--	369	NR	--	--	--	--	--	<0.1	--
23	0	9.42	--	--	--	--	0.133	--	370	NR	--	--	--	--	--	<0.1	--
25	0	-5.83	--	--	--	--	<0.02	--	372	4	-0.43	--	--	--	--	0.06	--
31	4	-0.09	0.063	--	--	--	--	--	373	4	0.38	--	--	--	--	0.066	--
33	4	-0.30	--	--	--	--	0.061	--									
38	0	3.75	--	--	--	--	0.091	--									
46	4	-0.43	--	--	--	--	0.06	--									
51	4	-0.43	--	--	--	--	--	0.06									
59	4	-0.43	--	--	--	--	0.06	--									
64	0	2.27	--	--	--	--	0.08	--									
70	0	14.41	--	--	--	--	0.17	--									
72	0	-4.48	--	--	--	--	0.03	--									
85	4	0.11	--	--	--	--	0.064	--									
89	4	-0.43	--	--	--	--	0.06	--									
91	3	-0.57	--	--	--	0.059	--	--									
93	4	0.38	--	--	--	--	0.066	--									
96	4	0.11	--	--	--	--	0.064	--									
100	0	29.25	--	--	--	--	0.28	--									
110	0	-2.99	--	--	--	--	0.041	--									
113	4	-0.03	--	--	--	--	0.063	--									
118	2	-1.11	--	--	--	--	0.055	--									
138	4	-0.30	--	--	--	--	0.061	--									
142	0	3.57	--	--	--	--	0.09	--									
146	3	0.51	--	--	--	--	0.067	--									
155	4	-0.34	--	--	--	--	0.061	--									
180	4	0.11	--	--	--	--	0.064	--									
190	4	0.38	--	--	--	--	0.066	--									
193	4	-0.43	--	--	--	--	0.06	--									
198	4	-0.03	--	--	--	--	0.063	--									
224	0	15.76	--	--	--	--	0.18	--									
234	0	5.50	--	--	--	--	0.104	--									
247	4	0.03	--	--	--	--	0.063	--									
316	4	0.30	--	--	--	--	0.065	--									
317	2	-1.38	--	--	--	--	0.053	--									
318	0	-2.86	--	--	--	--	0.042	--									

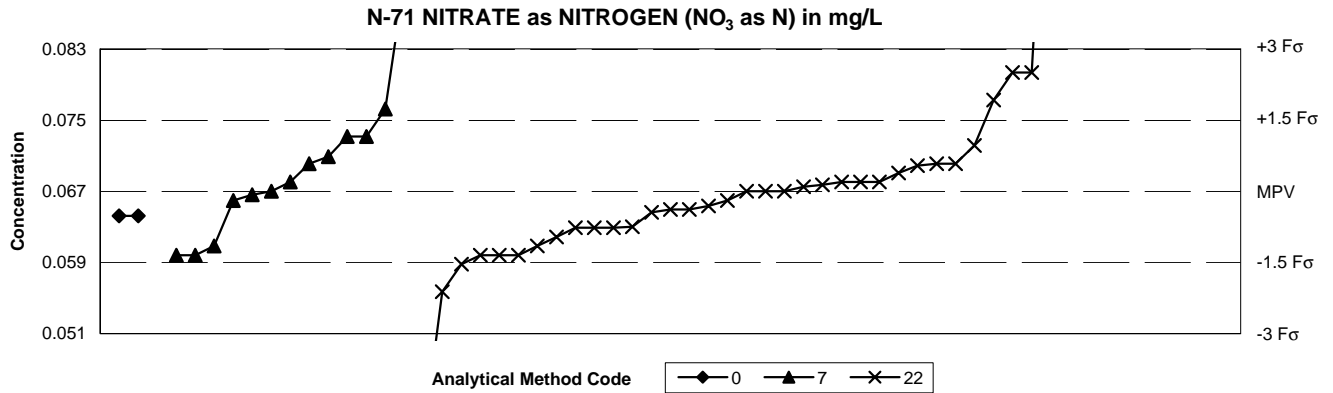
**Table 13. Statistical summary of reported data for standard reference sample N-71 (nutrient constituents) -- continued**



SUMMARY	Methods				Method Codes		Statistics	
	0	21	22	40				
n =	3	1	27	1	00 Other		<b>MPV = 0.091 mg/L</b>	
Minimum =	0.073	0.053	0.051	0.063	21 Titration: electrometric		F-pseudosigma = 0.0715	
Maximum =	0.78		0.89		22 Colorimetric		n = 32	
Median =			0.096		40 Ion selective electrode		Uh = 0.167	
F-pseudosigma =			0.071				Lh = 0.071	

Lab	Rating	Z-value	Method Codes			
			0	21	22	40
1	4	-0.31	--	--	0.069	--
10	4	-0.15	--	--	0.08	--
12	0	3.49	--	--	0.34	--
16	3	-0.53	--	0.053	--	--
21	4	-0.25	0.073	--	--	--
23	NR	--	--	--	<0.50	--
25	NR	--	<0.07	--	--	--
31	4	-0.25	0.073	--	--	--
38	4	0.27	--	--	0.11	--
51	4	-0.39	--	--	--	0.063
59	4	0.07	--	--	0.096	--
70	2	1.22	--	--	0.178	--
72	2	1.39	--	--	0.19	--
85	4	-0.29	--	--	0.07	--
89	3	0.91	--	--	0.156	--
91	NR	--	--	--	<0.1	--
96	NR	--	--	--	<0.150	--
100	0	11.18	--	--	0.89	--
113	NR	--	--	--	<0.5	--
118	4	-0.42	--	--	0.061	--
138	4	-0.28	--	--	0.071	--
142	4	-0.10	--	--	0.084	--
146	3	0.73	--	--	0.143	--
155	4	-0.36	--	--	0.065	--
180	4	-0.45	--	--	0.059	--
190	4	0.18	--	--	0.104	--
193	4	0.27	--	--	0.11	--
224	1	1.60	--	--	0.205	--
247	4	0.46	--	--	0.124	--
316	4	0.01	--	--	0.092	--
318	4	-0.26	--	--	0.072	--
328	0	9.64	0.78	--	--	--
341	4	-0.15	--	--	0.08	--
366	NR	--	--	--	<0.10	--
369	1	1.53	--	--	0.2	--
370	0	5.16	--	--	0.46	--
372	4	-0.01	--	--	0.09	--
373	3	-0.56	--	--	0.051	--

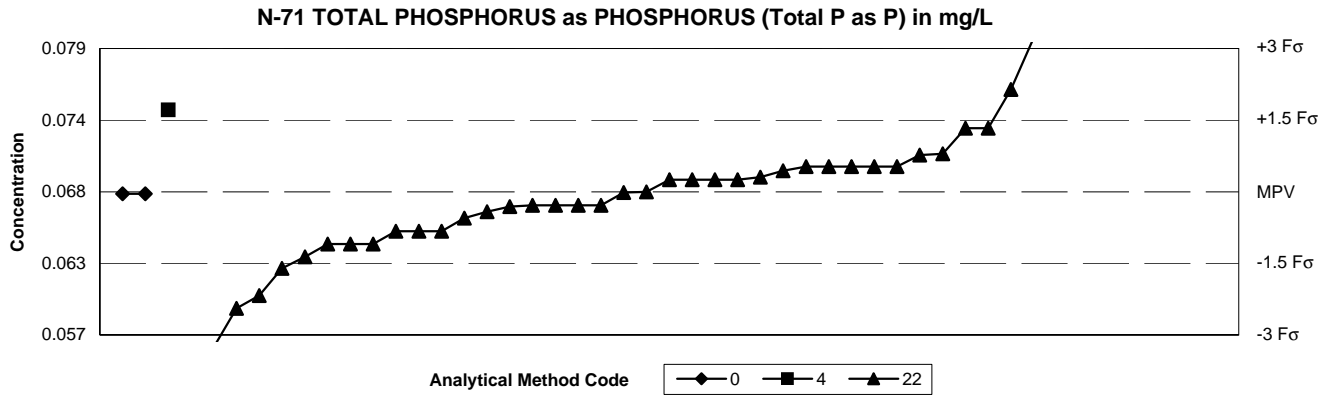
Table 13. Statistical summary of reported data for standard reference sample N-71 (nutrient constituents) -- continued



SUMMARY	Methods				Method Codes	Statistics	
	0	4	7	22			
n =	2	1	13	35	00 Other	<b>MPV = 0.067 mg/L</b>	
Minimum =	0.064	0.05	0.06	0.04	04 Inductively coupled plasma	F-pseudosigma = 0.0052	
Maximum =	0.064		0.09	0.24	07 Ion chromatography	n = 51	
Median =			0.068	0.067	22 Colorimetric	Uh = 0.070	
F-pseudosigma =			0.005	0.005		Lh = 0.063	

Lab	Rating	Z-value	Method Codes				Lab	Rating	Z-value	Method Codes			
			0	4	7	22				0	4	7	22
1	4	-0.39	--	--	--	0.065	316	3	-0.75	--	--	--	0.063
5	4	0.39	--	--	--	0.069	317	0	9.64	--	--	--	0.117
10	0	2.51	--	--	--	0.08	318	4	0.13	--	--	--	0.068
12	4	0.19	--	--	--	0.068	320	4	-0.39	--	--	--	0.065
16	0	2.51	--	--	--	0.08	333	4	0.00	--	--	0.067	--
21	3	-0.52	0.064	--	--	--	341	3	-0.96	--	--	--	0.062
23	1	1.93	--	--	--	0.077	366	3	0.96	--	--	--	0.072
25	4	0.19	--	--	0.068	--	369	2	-1.35	--	--	--	0.06
31	3	-0.52	0.064	--	--	--	370	0	4.43	--	--	0.09	--
33	2	1.16	--	--	0.073	--	372	0	-5.20	--	--	--	0.04
38	3	-0.77	--	--	--	0.063	373	4	-0.19	--	--	--	0.066
42	3	0.58	--	--	0.07	--							
46	2	-1.35	--	--	--	0.06							
51	2	-1.35	--	--	0.06	--							
53	4	0.00	--	--	--	0.067							
59	3	0.58	--	--	--	0.07							
64	3	0.58	--	--	--	0.07							
70	1	-1.54	--	--	--	0.059							
72	0	33.34	--	--	--	0.24							
85	3	-0.77	--	--	--	0.063							
89	2	-1.16	--	--	--	0.061							
91	4	0.00	--	--	--	0.067							
93	4	-0.19	--	--	0.066	--							
96	4	0.19	--	--	--	0.068							
100	2	-1.35	--	--	0.06	--							
110	2	-1.16	--	--	0.061	--							
113	4	0.19	--	--	--	0.068							
118	2	-1.35	--	--	--	0.06							
138	4	-0.08	--	--	0.067	--							
142	4	-0.31	--	--	--	0.065							
146	3	0.54	--	--	--	0.07							
155	4	-0.44	--	--	--	0.065							
180	0	-2.12	--	--	--	0.056							
190	4	0.00	--	--	--	0.067							
193	0	-3.28	--	0.05	--	--							
198	3	-0.77	--	--	--	0.063							
224	1	1.73	--	--	0.076	--							
234	2	1.16	--	--	0.073	--							
247	3	0.73	--	--	0.071	--							
313	4	0.10	--	--	--	0.068							

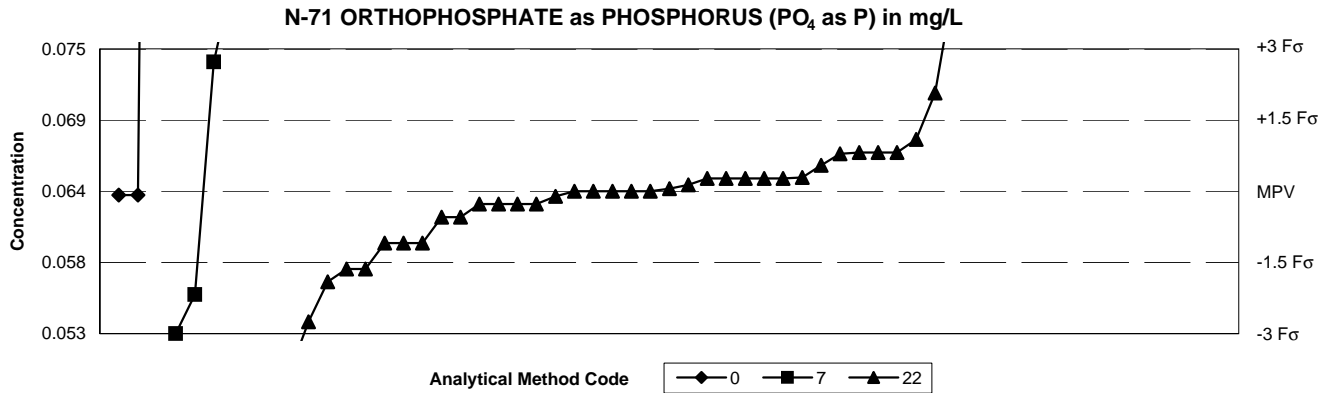
Table 13. Statistical summary of reported data for standard reference sample N-71 (nutrient constituents) -- continued



SUMMARY	Methods			Method Codes	Statistics	
	0	4	22			
n =	2	1	42	00 Other	<b>MPV = 0.068 mg/L</b>	
Minimum =	0.068	0.074	0.035	04 Inductively coupled plasma	F-pseudosigma = 0.0037	
Maximum =	0.068		0.124	22 Colorimetric	n = 45	
Median =			0.069		Uh = 0.070	
F-pseudosigma =			0.004		Lh = 0.065	

Lab	Rating	Z-value	Method Codes			Lab	Rating	Z-value	Method Codes		
			0	4	22				0	4	22
1	4	0.25	--	--	0.069	366	0	-3.25	--	--	0.056
5	2	-1.10	--	--	0.064	368	4	-0.29	--	--	0.067
10	4	-0.02	--	--	0.068	369	0	2.14	--	--	0.076
12	0	-2.17	--	--	0.06	370	0	3.22	--	--	0.08
16	4	0.25	--	--	0.069	372	0	6.73	--	--	0.093
21	4	-0.04	0.068	--	--	373	2	-1.37	--	--	0.063
23	NR	--	--	--	<0.10						
25	3	0.52	--	--	0.07						
31	4	-0.04	0.068	--	--						
38	3	0.52	--	--	0.07						
42	1	1.71	--	0.074	--						
46	4	-0.29	--	--	0.067						
51	4	-0.29	--	--	0.067						
59	2	-1.10	--	--	0.064						
70	0	15.09	--	--	0.124						
72	0	-8.92	--	--	0.035						
85	2	1.33	--	--	0.073						
89	3	-0.56	--	--	0.066						
91	0	-2.44	--	--	0.059						
93	4	-0.29	--	--	0.067						
96	3	0.52	--	--	0.07						
113	4	0.25	--	--	0.069						
118	3	-0.83	--	--	0.065						
138	4	0.31	--	--	0.069						
142	0	5.38	--	--	0.088						
146	1	-1.61	--	--	0.062						
155	4	0.00	--	--	0.068						
180	3	0.52	--	--	0.07						
190	2	-1.10	--	--	0.064						
193	4	0.25	--	--	0.069						
198	4	-0.42	--	--	0.067						
224	0	4.57	--	--	0.085						
234	2	1.33	--	--	0.073						
247	3	0.77	--	--	0.071						
313	4	0.44	--	--	0.07						
316	3	-0.83	--	--	0.065						
318	4	-0.31	--	--	0.067						
320	3	-0.83	--	--	0.065						
328	3	0.52	--	--	0.07						
341	3	0.79	--	--	0.071						

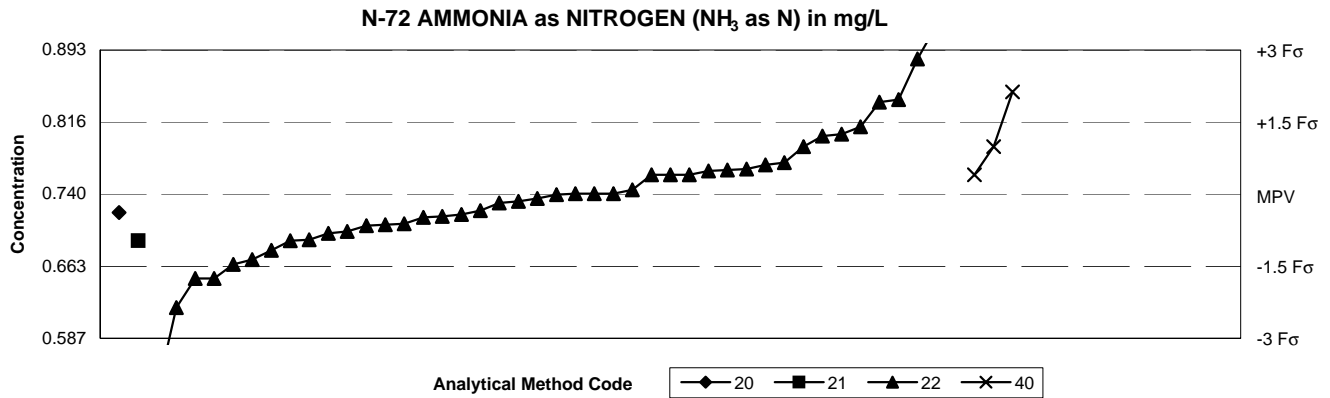
**Table 13. Statistical summary of reported data for standard reference sample N-71 (nutrient constituents) -- continued**



SUMMARY	Methods			Method Codes	Statistics	
	0	7	22			
n =	3	4	40	00 Other	<b>MPV = 0.064 mg/L</b>	
Minimum =	0.064	0.053	0.03	07 Ion chromatography	F-pseudosigma = 0.0037	
Maximum =	0.21	0.081	0.106	22 Colorimetric	n = 47	
Median =	0.064				Uh = 0.067	
F-pseudosigma =	0.003				Lh = 0.062	

Method Codes						Method Codes					
Lab	Rating	Z-value	0	7	22	Lab	Rating	Z-value	0	7	22
1	4	0.27	--	--	0.065	320	4	0.27	--	--	0.065
5	4	-0.27	--	--	0.063	328	0	39.79	0.21	--	--
10	3	0.82	--	--	0.067	341	1	-1.91	--	--	0.057
12	4	0.00	--	--	0.064	366	4	0.27	--	--	0.065
16	3	0.82	--	--	0.067	368	4	-0.27	--	--	0.063
21	4	-0.08	0.064	--	--	369	4	-0.27	--	--	0.063
23	NR	--	--	--	<0.10	370	2	-1.09	--	--	0.06
25	0	4.36	--	--	0.08	372	2	-1.09	--	--	0.06
31	4	-0.08	0.064	--	--	373	4	0.00	--	--	0.064
33	0	-2.18	--	0.056	--						
38	4	-0.27	--	--	0.063						
42	0	-3.00	--	0.053	--						
46	3	0.55	--	--	0.066						
51	4	0.27	--	--	0.065						
53	0	11.45	--	--	0.106						
59	4	0.00	--	--	0.064						
64	3	0.82	--	--	0.067						
70	0	-9.27	--	--	0.03						
72	0	-3.82	--	--	0.05						
85	3	-0.55	--	--	0.062						
89	4	0.00	--	--	0.064						
93	1	-1.64	--	--	0.058						
96	1	-1.64	--	--	0.058						
100	0	-3.82	--	<0.05	--						
113	4	0.27	--	--	0.065						
118	2	-1.09	--	--	0.06						
138	4	0.14	--	--	0.065						
142	0	2.07	--	--	0.072						
146	0	8.18	--	--	0.094						
155	4	0.29	--	--	0.065						
180	3	-0.55	--	--	0.062						
190	4	0.00	--	--	0.064						
198	0	-2.75	--	--	0.054						
224	2	1.09	--	--	0.068						
234	0	2.73	--	0.074	--						
247	0	4.50	--	0.081	--						
313	4	0.05	--	--	0.064						
316	4	-0.11	--	--	0.064						
317	0	8.45	--	--	0.095						
318	3	0.79	--	--	0.067						

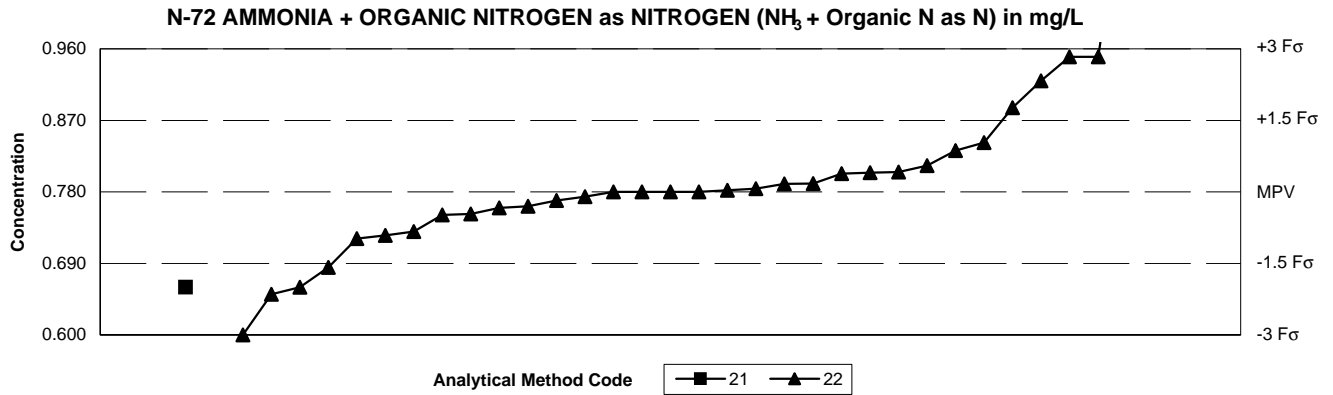
**Table 14. Statistical summary of reported data for standard reference sample N-72 (nutrient constituents)**



SUMMARY	Methods				Method Codes		Statistics	
	20	21	22	40	20	21	22	40
n =	1	1	43	3	20 Titration: colorimetric			
Minimum =	0.72	0.69	0.53	0.76	21 Titration: electrometric			
Maximum =			0.948	0.848	22 Colorimetric			
Median =			0.739		40 Ion selective electrode			
F-pseudsigma =			0.048					
								MPV = 0.740 mg/L
								F-pseudsigma = 0.0510
								n = 48
								Uh = 0.772
								Lh = 0.703

Method Codes							Method Codes						
Lab	Rating	Z-value	20	21	22	40	Lab	Rating	Z-value	20	21	22	40
1	3	-0.64	--	--	0.707	--	317	1	-1.75	--	--	0.65	--
5	4	-0.19	--	--	0.73	--	320	4	0.40	--	--	0.76	--
10	4	-0.38	0.72	--	--	--	328	3	0.99	--	--	0.79	--
12	3	0.52	--	--	0.766	--	341	3	-0.81	--	--	0.698	--
16	4	0.40	--	--	0.76	--	356	3	-0.95	--	--	0.691	--
23	3	-0.97	--	--	0.69	--	366	3	0.66	--	--	0.773	--
25	1	-1.75	--	--	0.65	--	370	4	0.40	--	--	0.76	--
33	2	1.40	--	--	0.811	--	372	2	-1.17	--	--	0.68	--
38	1	1.91	--	--	0.837	--							
46	4	-0.34	--	--	0.722	--							
59	4	-0.09	--	--	0.735	--							
64	4	0.01	--	--	0.74	--							
70	1	1.97	--	--	0.84	--							
72	2	-1.36	--	--	0.67	--							
84	3	0.99	--	--	--	0.79							
85	4	0.09	--	--	0.744	--							
86	0	-2.36	--	--	0.619	--							
89	3	-0.66	--	--	0.706	--							
91	3	-0.97	--	0.69	--	--							
93	3	-0.62	--	--	0.708	--							
96	4	-0.01	--	--	0.739	--							
100	0	-4.11	--	--	0.53	--							
102	2	1.21	--	--	0.801	--							
113	4	-0.42	--	--	0.718	--							
118	4	0.01	--	--	0.74	--							
138	4	-0.48	--	--	0.715	--							
142	4	-0.46	--	--	0.716	--							
146	4	0.50	--	--	0.765	--							
155	3	0.61	--	--	0.771	--							
180	4	0.01	--	--	0.74	--							
190	4	-0.15	--	--	0.732	--							
193	3	-0.77	--	--	0.7	--							
198	4	0.48	--	--	0.764	--							
205	2	1.25	--	--	0.803	--							
224	0	3.52	--	--	0.919	--							
227	0	4.09	--	--	0.948	--							
234	4	0.40	--	--	--	0.76							
247	0	2.81	--	--	0.883	--							
307	0	2.13	--	--	--	0.848							
313	2	-1.46	--	--	0.665	--							

Table 14. Statistical summary of reported data for standard reference sample N-72 (nutrient constituents) -- continued

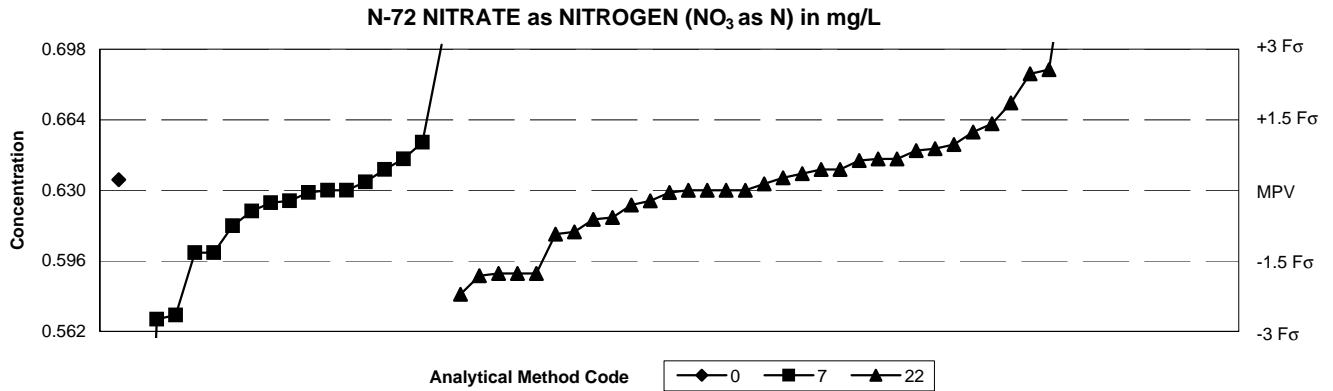


SUMMARY	Methods			Method Codes	Statistics	
	0	21	22			
n =	2	1	34	00 Other	<b>MPV = 0.780 mg/L</b>	
Minimum =	1.42	0.66	0.522	21 Titration: electrometric	F-pseudosigma = 0.0600	
Maximum =	1.46		2.02	22 Colorimetric	n = 37	
Median =			0.780		Uh = 0.832	
F-pseudosigma =			0.046		Lh = 0.751	

Lab	Rating	Z-value	Method Codes		
			0	21	22
1	4	-0.18	--	--	0.769
10	4	0.00	--	--	0.78
12	0	2.33	--	--	0.92
16	1	-2.00	--	0.66	--
23	4	0.07	--	--	0.784
25	0	11.32	1.46	--	--
38	4	-0.33	--	--	0.76
46	4	0.40	--	--	0.804
59	4	0.42	--	--	0.805
70	4	0.03	--	--	0.782
72	0	2.83	--	--	0.95
85	4	0.17	--	--	0.79
89	4	0.38	--	--	0.803
91	3	-0.83	--	--	0.73
96	3	-0.92	--	--	0.725
100	0	20.65	--	--	2.02
102	4	0.00	--	--	0.78
113	4	0.00	--	--	0.78
118	4	-0.47	--	--	0.752
138	3	0.55	--	--	0.813
142	2	1.03	--	--	0.842
146	3	0.87	--	--	0.832
155	4	0.17	--	--	0.791
180	4	-0.30	--	--	0.762
190	4	-0.10	--	--	0.774
193	0	-3.00	--	--	0.6
224	1	-1.58	--	--	0.685
227	1	-2.00	--	--	0.66
247	1	1.77	--	--	0.886
313	0	-4.30	--	--	0.522
320	4	-0.48	--	--	0.751
328	0	10.66	1.42	--	--
341	4	0.00	--	--	0.78
356	0	-2.15	--	--	0.651
366	3	-0.98	--	--	0.721
370	0	6.99	--	--	1.2
372	0	2.83	--	--	0.95



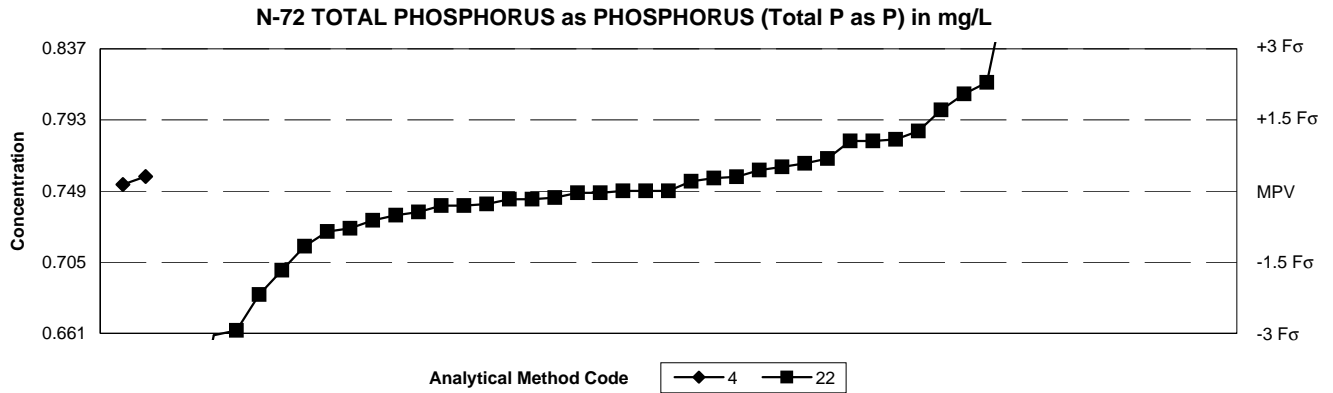
Table 14. Statistical summary of reported data for standard reference sample N-72 (nutrient constituents) -- continued



SUMMARY	Methods			Method Codes	Statistics	
	0	7	22			
n =	1	17	34	00 Other	<b>MPV = 0.630 mg/L</b>	
Minimum =	0.635	0.348	0.58	07 Ion chromatography	F-pseudosigma = 0.0226	
Maximum =		0.7	0.94	22 Colorimetric	Rating criterion = 0.0315	
Median =		0.625	0.635		n = 52	
F-pseudosigma =		0.025	0.024		Uh = 0.645	
					Lh = 0.615	

Lab	Rating	Z-value	Method Codes			Lab	Rating	Z-value	Method Codes		
			0	7	22				0	7	22
1	3	-0.67	--	--	0.609	247	3	0.73	--	0.653	--
5	1	1.84	--	--	0.688	301	0	-8.95	--	0.348	--
10	4	0.32	--	--	0.64	307	4	-0.44	--	0.616	--
12	4	-0.22	--	--	0.623	313	4	-0.41	--	0.617	--
16	1	-1.59	--	--	0.58	317	2	1.02	--	0.662	--
23	1	-1.97	--	0.568	--	320	4	0.00	--	0.63	--
25	4	0.00	--	0.63	--	328	2	-1.27	--	0.59	--
33	4	-0.19	--	0.624	--	341	4	0.00	--	0.63	--
38	4	0.25	--	--	0.638	356	3	0.60	--	0.649	--
42	3	-0.54	--	0.613	--	366	2	-1.30	--	0.589	--
46	4	0.16	0.635	--	--	370	4	0.32	--	0.64	--
53	0	3.71	--	--	0.747	372	2	-1.27	--	0.59	--
59	3	0.70	--	--	0.652						
64	3	0.63	--	--	0.65						
70	2	-1.27	--	--	0.59						
72	0	9.84	--	--	0.94						
84	3	-0.95	--	0.6	--						
85	4	0.00	--	--	0.63						
86	4	-0.03	--	--	0.629						
89	4	0.32	--	--	0.64						
91	4	0.10	--	--	0.633						
93	4	0.48	--	0.645	--						
96	3	0.89	--	--	0.658						
100	1	-1.90	--	0.57	--						
102	4	-0.32	--	0.62	--						
113	4	0.48	--	--	0.645						
118	1	1.78	--	--	0.686						
138	4	0.13	--	0.634	--						
142	3	-0.63	--	--	0.61						
146	4	-0.16	--	--	0.625						
155	4	0.45	--	--	0.644						
180	4	0.00	--	--	0.63						
190	4	0.48	--	--	0.645						
193	4	0.00	--	0.63	--						
198	4	0.19	--	--	0.636						
205	2	1.33	--	--	0.672						
208	0	2.22	--	0.7	--						
224	4	-0.03	--	0.629	--						
227	4	-0.16	--	0.625	--						
234	3	-0.95	--	0.6	--						

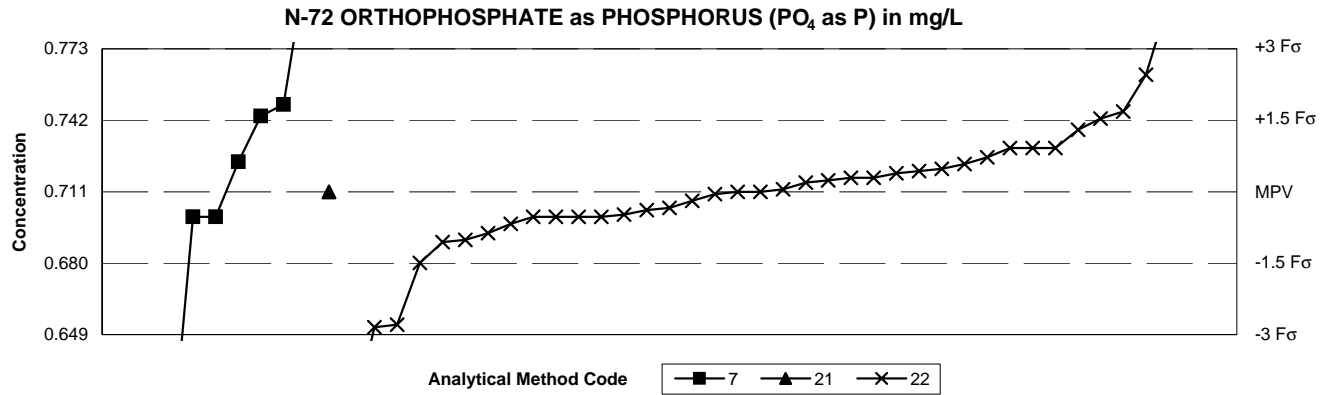
Table 14. Statistical summary of reported data for standard reference sample N-72 (nutrient constituents) -- continued



SUMMARY	Methods		Method Codes		Statistics	
	4	22				
n =	2	41			<b>MPV = 0.749 mg/L</b>	
Minimum =	0.753	0.59	04 Inductively coupled plasma		F-pseudosigma = 0.0293	
Maximum =	0.758	2.9	22 Colorimetric		Rating criterion= 0.0375	
Median =	0.749				n = 43	
F-pseudosigma =	0.034				Uh = 0.775	
					Lh = 0.735	

Method Codes					Method Codes				
Lab	Rating	Z-value	4	22	Lab	Rating	Z-value	4	22
1	4	-0.03	--	0.748	366	0	-2.30	--	0.663
5	0	3.58	--	0.883	370	3	0.83	--	0.78
10	4	0.40	--	0.764	372	1	1.60	--	0.809
12	4	0.00	--	0.749					
16	3	-0.67	--	0.724					
23	2	1.34	--	0.799					
25	0	-4.25	--	0.59					
38	1	-1.71	--	0.685					
42	4	0.11	0.753	--					
46	4	0.35	--	0.762					
59	3	-0.91	--	0.715					
70	0	3.66	--	0.886					
72	0	-2.38	--	0.66					
85	3	0.83	--	0.78					
86	4	0.24	0.758	--					
89	4	-0.03	--	0.748					
91	4	0.45	--	0.766					
93	4	-0.24	--	0.74					
96	4	0.21	--	0.757					
102	4	-0.40	--	0.734					
113	4	-0.11	--	0.745					
118	4	-0.35	--	0.736					
138	4	-0.48	--	0.731					
142	3	0.85	--	0.781					
146	0	6.97	--	1.01					
155	4	0.24	--	0.758					
180	4	0.16	--	0.755					
190	3	-0.61	--	0.726					
193	4	-0.21	--	0.741					
198	4	0.00	--	0.749					
224	4	-0.24	--	0.74					
227	0	57.44	--	2.9					
234	1	1.79	--	0.816					
247	0	-4.17	--	0.593					
307	4	-0.13	--	0.744					
313	3	0.53	--	0.769					
320	3	0.99	--	0.786					
328	2	-1.31	--	0.7					
341	4	-0.13	--	0.744					
356	4	0.00	--	0.749					

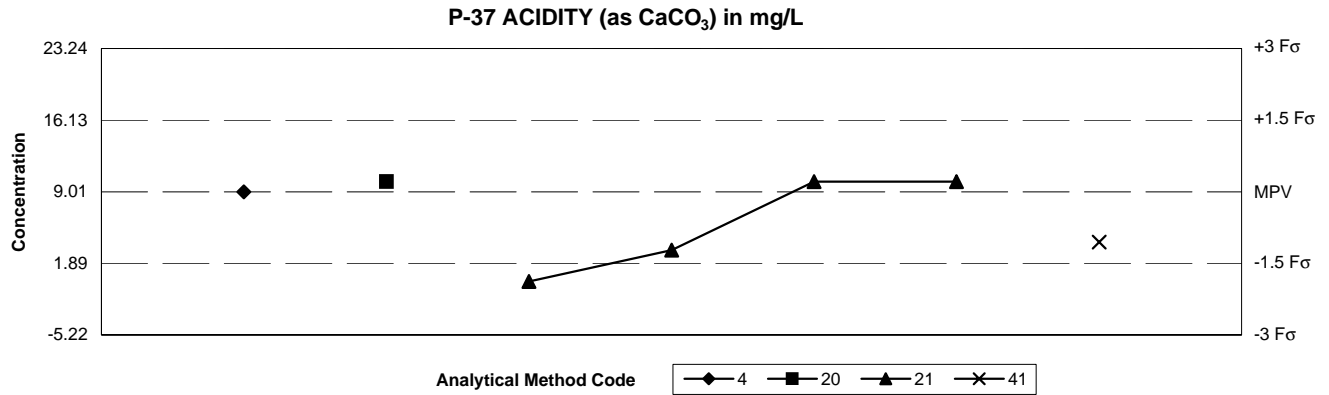
Table 14. Statistical summary of reported data for standard reference sample N-72 (nutrient constituents) -- continued



SUMMARY	Methods				Method Codes	Statistics	
	0	7	21	22			
n =	1	8	1	37	00 Other	<b>MPV = 0.711 mg/L</b>	
Minimum =	2.15	0.587	0.711	0.61	07 Ion chromatography	F-pseudosigma = 0.0208	
Maximum =		0.81		0.794	21 Titration: electrometric	Rating criterion= 0.0356	
Median =		0.712		0.711	22 Colorimetric	n = 47	
F-pseudosigma =		0.075		0.017		Uh = 0.728	
						Lh = 0.700	

Lab	Rating	Z-value	Method Codes				Lab	Rating	Z-value	Method Codes			
			0	7	21	22				0	7	21	22
1	4	-0.11	--	--	--	0.707	320	1	-1.66	--	--	--	0.652
5	0	2.33	--	--	--	0.794	328	0	40.48	2.15	--	--	--
10	3	0.76	--	--	--	0.738	341	0	-2.84	--	--	--	0.61
12	4	-0.23	--	--	--	0.703	356	4	0.23	--	--	--	0.719
16	4	0.00	--	--	0.711	--	366	4	0.28	--	--	--	0.721
23	4	-0.28	--	--	--	0.701	370	4	-0.31	--	--	--	0.7
25	3	-0.59	--	--	--	0.69	372	4	-0.31	--	--	--	0.7
33	0	-3.38	--	0.591	--	--							
38	4	-0.51	--	--	--	0.693							
42	3	0.93	--	0.744	--	--							
46	3	0.98	--	--	--	0.746							
53	4	0.17	--	--	--	0.717							
59	4	0.03	--	--	--	0.712							
64	4	0.25	--	--	--	0.72							
70	4	-0.03	--	--	--	0.71							
72	3	-0.87	--	--	--	0.68							
84	0	2.78	--	0.81	--	--							
85	4	-0.31	--	--	--	0.7							
89	4	-0.20	--	--	--	0.704							
93	3	-0.62	--	--	--	0.689							
96	4	0.17	--	--	--	0.717							
100	4	-0.31	--	0.7	--	--							
102	1	-1.63	--	--	--	0.653							
113	4	-0.31	--	--	--	0.7							
118	4	0.00	--	--	--	0.711							
138	4	0.00	--	--	--	0.711							
142	4	0.14	--	--	--	0.716							
146	4	-0.39	--	--	--	0.697							
155	3	0.90	--	--	--	0.743							
180	3	0.53	--	--	--	0.73							
190	4	0.34	--	--	--	0.723							
198	4	0.42	--	--	--	0.726							
208	4	-0.31	--	0.7	--	--							
224	3	0.53	--	--	--	0.73							
227	3	0.53	--	--	--	0.73							
234	4	0.37	--	0.724	--	--							
247	2	1.07	--	0.749	--	--							
301	0	-3.49	--	0.587	--	--							
313	4	0.11	--	--	--	0.715							
317	2	1.43	--	--	--	0.762							

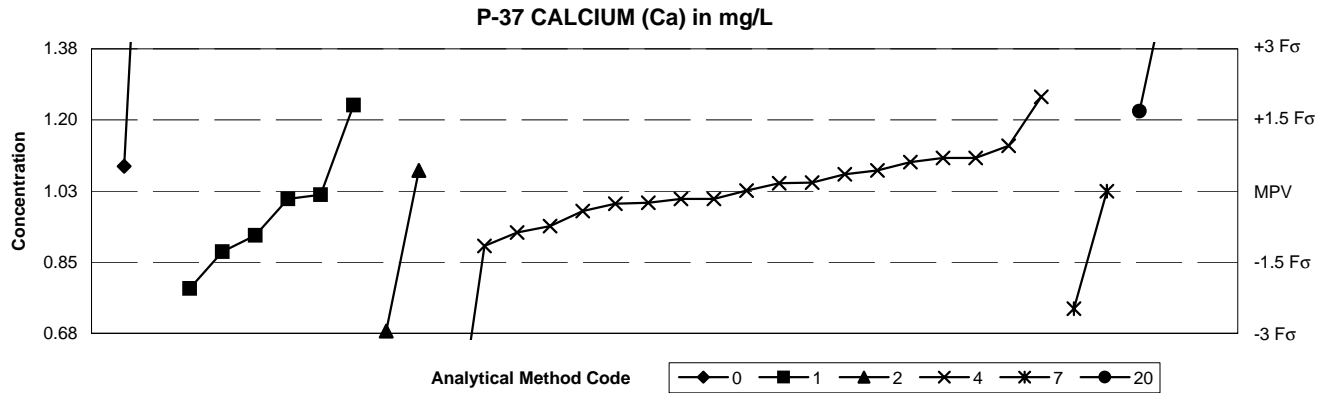
**Table 15. Statistical summary of reported data for standard reference sample P-37 (low ionic strength constituents)**



SUMMARY	Methods				Method Codes	Statistics	
	4	20	21	41			
n =	1	1	4	1	04 Inductively coupled plasma	<b>MPV = 9.01 mg/L</b>	
Minimum =	9.01	10	0.1	4	20 Titration: colorimetric	F-pseudosigma = 4.744	
Maximum =			10		21 Titration: electrometric	n = 7	
Median =					41 Electrometric	U <sub>h</sub> = 10	
F-pseudosigma =						L <sub>h</sub> = 3.60	

Lab	Rating	Z-value	Method Codes			
			4	20	21	41
25	4	0.00	9.01	--	--	--
38	1	-1.88	--	--	0.1	--
89	2	-1.22	--	--	3.2	--
247	2	-1.06	--	--	--	4
328	4	0.21	--	10	--	--
370	4	0.21	--	--	10	--
372	4	0.21	--	--	10	--

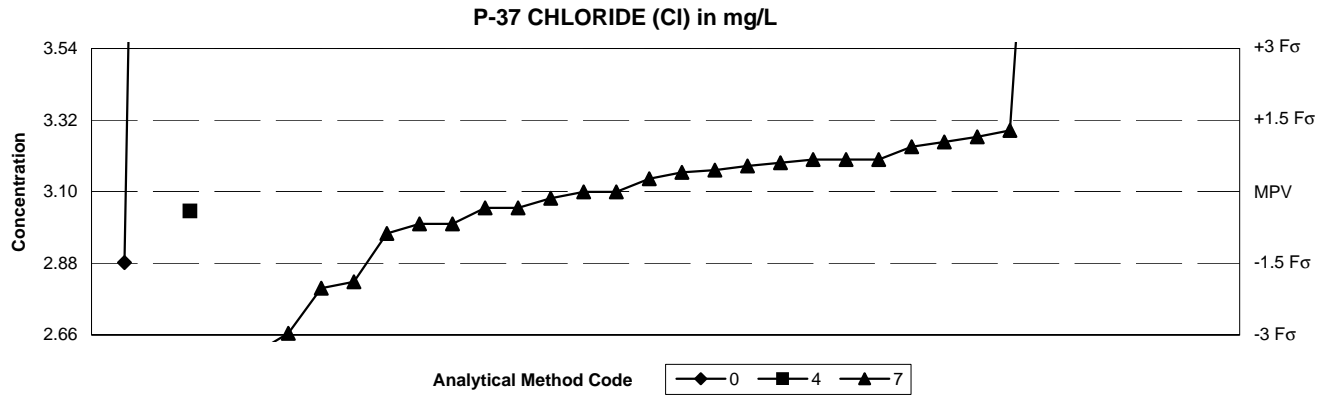
**Table 15. Statistical summary of reported data for standard reference sample P-37 (low ionic strength constituents)**  
 -- continued



SUMMARY	Methods						Statistics	
	0	1	2	4	7	20	Method Codes	
n =	2	6	2	19	2	2	00 Other	<b>MPV = 1.03 mg/L</b>
Minimum =	1.09	0.79	0.685	0.343	0.74	1.225	01 Atomic absorption: direct, air	F-pseudsigma = 0.116
Maximum =	2.62	1.24	1.08	1.26	1.029	1.6	02 Atomic absorption: direct, nitrous oxide	n = 33
Median =		0.965		1.03			04 Inductively coupled plasma	Uh = 1.10
F-pseudsigma =		0.104		0.075			07 Ion chromatography	Lh = 0.943
							20 Titration: colorimetric	

Lab	Rating	Z-value	Method Codes					
			0	1	2	4	7	20
1	4	0.01	--	--	--	1.03	--	--
2	4	0.00	--	--	--	--	1.029	--
5	3	-0.88	--	--	--	0.927	--	--
23	0	4.91	--	--	--	--	--	1.6
25	4	-0.42	--	--	--	0.98	--	--
38	4	0.44	--	--	1.08	--	--	--
59	0	-2.48	--	--	--	--	0.74	--
64	4	-0.08	--	1.02	--	--	--	--
85	3	-0.94	--	0.92	--	--	--	--
86	4	-0.27	--	--	--	0.998	--	--
89	0	-2.05	--	0.79	--	--	--	--
93	4	-0.16	--	--	--	1.01	--	--
110	4	-0.25	--	--	--	1	--	--
113	4	0.16	--	--	--	1.048	--	--
138	4	-0.16	--	--	--	1.01	--	--
155	1	1.68	--	--	--	--	--	1.225
180	3	0.70	--	--	--	1.11	--	--
190	0	-2.96	--	--	0.685	--	--	--
193	1	1.81	--	1.24	--	--	--	--
224	3	-0.74	--	--	--	0.943	--	--
228	4	-0.16	--	1.01	--	--	--	--
247	0	-5.89	--	--	--	0.343	--	--
255	3	0.70	--	--	--	1.11	--	--
265	4	0.18	--	--	--	1.05	--	--
279	2	-1.28	--	0.88	--	--	--	--
315	3	0.95	--	--	--	1.14	--	--
326	3	0.52	1.09	--	--	--	--	--
328	3	0.61	--	--	--	1.1	--	--
332	4	0.44	--	--	--	1.08	--	--
333	4	0.35	--	--	--	1.07	--	--
336	0	13.67	2.62	--	--	--	--	--
370	1	1.98	--	--	--	1.26	--	--
372	2	-1.16	--	--	--	0.894	--	--

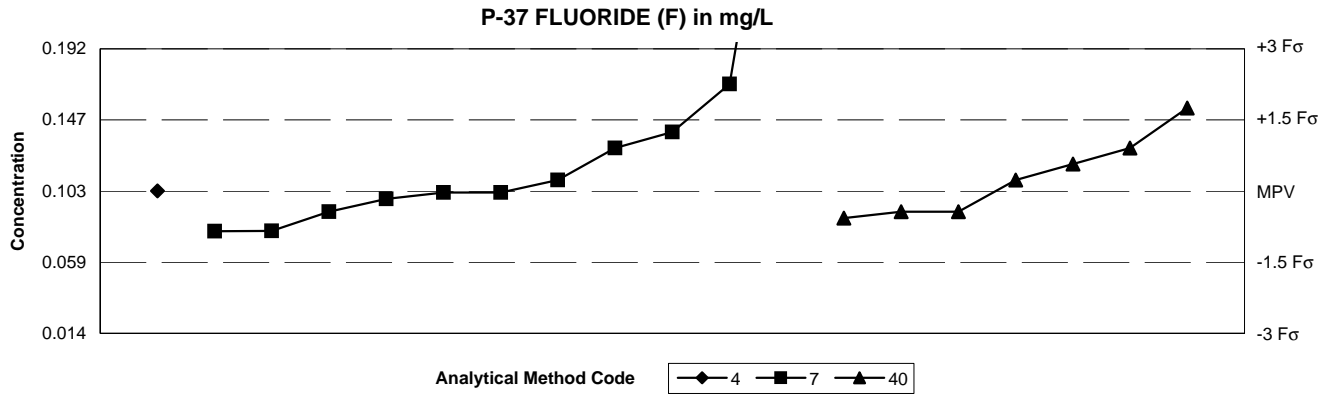
**Table 15. Statistical summary of reported data for standard reference sample P-37 (low ionic strength constituents)**  
 -- continued



SUMMARY	Methods			Method Codes	Statistics	
	0	4	7			
n =	2	1	26	00 Other	<b>MPV = 3.10 mg/L</b>	
Minimum =	2.88	3.04	2.52	04 Inductively coupled plasma	F-pseudosigma = 0.148	
Maximum =	8.51		4.8	07 Ion chromatography	Rating criterion = 0.155	
Median =			3.12		n = 29	
F-pseudosigma =			0.148		Uh = 3.20	
					Lh = 3.00	

Lab	Rating	Z-value	Method Codes		
			0	4	7
1	3	0.90	--	--	3.24
2	4	0.43	--	--	3.167
5	4	0.26	--	--	3.14
23	4	0.00	--	--	3.1
25	0	-3.23	--	--	2.6
33	4	-0.13	--	--	3.08
59	0	-3.74	--	--	2.52
64	3	0.52	--	--	3.18
85	3	0.65	--	--	3.2
89	3	-0.84	--	--	2.97
93	3	0.65	--	--	3.2
110	3	1.00	--	--	3.255
113	4	-0.32	--	--	3.05
138	0	-2.84	--	--	2.66
180	2	1.10	--	--	3.27
190	4	-0.32	--	--	3.05
208	3	0.65	--	--	3.2
224	4	-0.39	--	3.04	--
228	4	0.00	--	--	3.1
247	1	-1.81	--	--	2.82
265	3	-0.65	--	--	3
277	1	-1.94	--	--	2.8
315	3	-0.65	--	--	3
326	2	-1.42	2.88	--	--
328	0	10.97	--	--	4.8
333	3	0.58	--	--	3.19
336	0	34.90	8.51	--	--
370	4	0.39	--	--	3.16
372	2	1.23	--	--	3.29

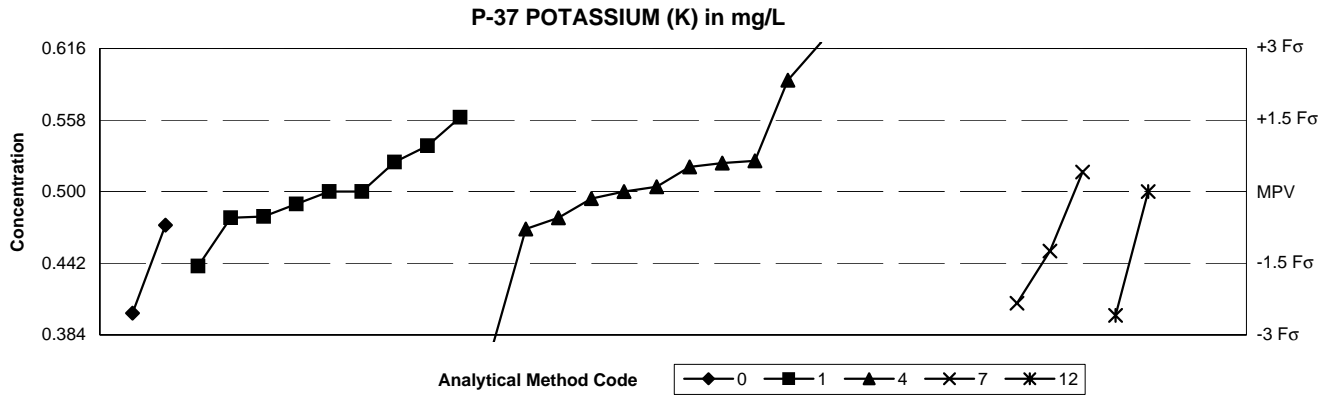
**Table 15. Statistical summary of reported data for standard reference sample P-37 (low ionic strength constituents)**  
**-- continued**



SUMMARY	Methods			Method Codes		Statistics	
	4	7	40	04	07	40	
n =	1	11	7				<b>MPV = 0.103 mg/L</b>
Minimum =	0.103	0.078	0.086				F-pseudsigma = 0.0297
Maximum =		0.382	0.155				n = 19
Median =		0.102	0.110				Uh = 0.130
F-pseudsigma =		0.030	0.026				Lh = 0.090

Lab	Rating	Z-value	Method Codes		
			4	7	40
1	4	-0.17	--	0.098	--
2	4	-0.03	--	0.102	--
5	4	-0.44	--	0.09	--
23	4	-0.03	--	0.102	--
25	2	1.25	--	0.14	--
33	3	-0.84	--	0.078	--
59	4	0.24	--	--	0.11
85	3	0.91	--	--	0.13
89	1	1.75	--	--	0.155
113	4	-0.44	--	--	0.09
138	3	-0.57	--	--	0.086
180	0	9.41	--	0.382	--
190	4	-0.44	--	--	0.09
224	4	0.00	0.103	--	--
247	3	-0.85	--	0.078	--
255	NR	--	--	--	<0.17
277	4	0.24	--	0.11	--
328	3	0.57	--	--	0.12
370	3	0.91	--	0.13	--
372	0	2.26	--	0.17	--

**Table 15. Statistical summary of reported data for standard reference sample P-37 (low ionic strength constituents)**  
 -- continued

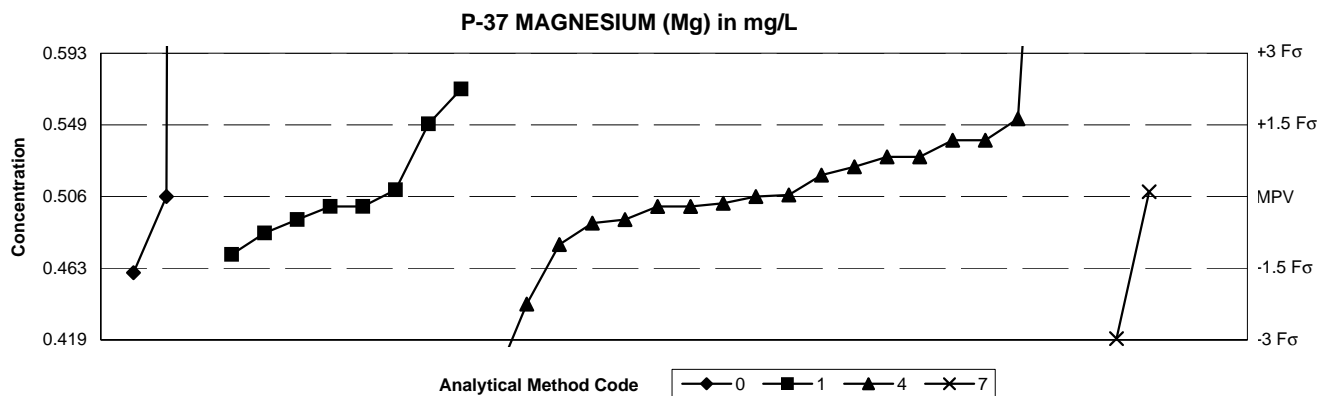


SUMMARY	Methods					Statistics	
	0	1	4	7	12	Method Codes	
n =	2	9	14	3	2	00 Other	<b>MPV = 0.500 mg/L</b>
Minimum =	0.402	0.44	0.376	0.41	0.4	01 Atomic absorption: direct, air	F-pseudosigma = 0.0385
Maximum =	0.473	0.56	0.74	0.516	0.5	04 Inductively coupled plasma	n = 30
Median =		0.500	0.522			07 Ion chromatography	Uh = 0.525
F-pseudosigma =		0.033	0.093			12 Flame emission	Lh = 0.473

Lab	Rating	Z-value	Method Codes				
			0	1	4	7	12
1	3	-0.54	--	0.479	--	--	--
2	4	0.42	--	--	--	0.516	--
5	NR	--	--	--	<1.00	--	--
23	1	1.56	--	0.56	--	--	--
25	0	2.33	--	--	0.59	--	--
38	4	0.00	--	0.5	--	--	--
59	0	-2.33	--	--	--	0.41	--
64	3	-0.52	--	0.48	--	--	--
85	4	-0.26	--	0.49	--	--	--
86	4	0.10	--	--	0.504	--	--
89	4	0.00	--	--	--	--	0.5
93	3	-0.78	--	--	0.47	--	--
110	4	0.00	--	0.5	--	--	--
113	3	0.65	--	--	0.525	--	--
138	3	-0.54	--	--	0.479	--	--
180	0	4.28	--	--	0.665	--	--
190	3	0.96	--	0.537	--	--	--
193	3	0.62	--	0.524	--	--	--
224	4	-0.15	--	--	0.494	--	--
228	2	-1.25	--	--	--	0.452	--
247	3	0.60	--	--	0.523	--	--
265	4	0.00	--	--	0.5	--	--
270	0	-2.59	--	--	--	--	0.4
279	1	-1.56	--	0.44	--	--	--
315	0	3.11	--	--	0.62	--	--
326	3	-0.70	0.473	--	--	--	--
328	0	5.19	--	--	0.7	--	--
332	0	6.23	--	--	0.74	--	--
333	3	0.52	--	--	0.52	--	--
336	0	-2.54	0.402	--	--	--	--
370	NR	--	--	--	<1	--	--
372	0	-3.22	--	--	0.376	--	--



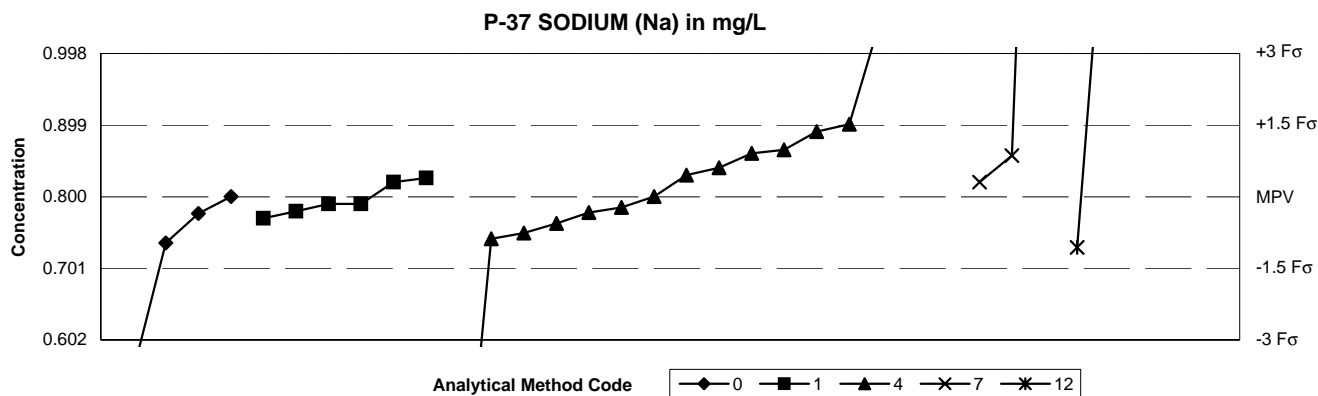
**Table 15. Statistical summary of reported data for standard reference sample P-37 (low ionic strength constituents)**  
 -- continued



SUMMARY	Methods				Method Codes		Statistics	
	0	1	4	7				
n =	3	8	18	2	00 Other		<b>MPV = 0.506 mg/L</b>	
Minimum =	0.46	0.471	0.393	0.42	01 Atomic absorption: direct, air		F-pseudostigma = 0.0289	
Maximum =	8.64	0.571	0.87	0.509	04 Inductively coupled plasma		n = 31	
Median =	0.500	0.507			07 Ion chromatography		Uh = 0.530	
F-pseudostigma =		0.031	0.028		20 Titration: colorimetric		Lh = 0.491	

Lab	Rating	Z-value	Method Codes				
			0	1	4	7	20
1	4	0.03	--	--	0.507	--	--
2	4	0.10	--	--	--	0.509	--
5	0	-2.25	--	--	0.441	--	--
23	4	0.14	--	0.51	--	--	--
25	3	-0.55	--	--	0.49	--	--
38	3	-0.76	--	0.484	--	--	--
59	0	-2.97	--	--	--	0.42	--
64	4	-0.21	--	0.5	--	--	--
85	4	-0.21	--	0.5	--	--	--
86	4	-0.14	--	--	0.502	--	--
89	1	1.52	--	0.55	--	--	--
93	4	-0.21	--	--	0.5	--	--
110	3	-1.00	--	--	0.477	--	--
113	3	0.62	--	--	0.524	--	--
138	4	0.00	--	--	0.506	--	--
155	NR	--	--	--	--	--	<0.581
180	4	0.45	--	--	0.519	--	--
190	0	2.25	--	0.571	--	--	--
193	4	-0.48	--	0.492	--	--	--
224	4	-0.48	--	--	0.492	--	--
228	2	-1.21	--	0.471	--	--	--
247	0	-10.45	--	--	<0.204	--	--
255	1	1.63	--	--	0.553	--	--
265	3	0.83	--	--	0.53	--	--
279	1	-1.59	0.46	--	--	--	--
315	0	12.59	--	--	0.87	--	--
326	4	0.00	0.506	--	--	--	--
328	4	-0.21	--	--	0.5	--	--
332	2	1.18	--	--	0.54	--	--
333	3	0.83	--	--	0.53	--	--
336	0	281.35	8.64	--	--	--	--
370	2	1.18	--	--	0.54	--	--
372	0	-3.91	--	--	0.393	--	--

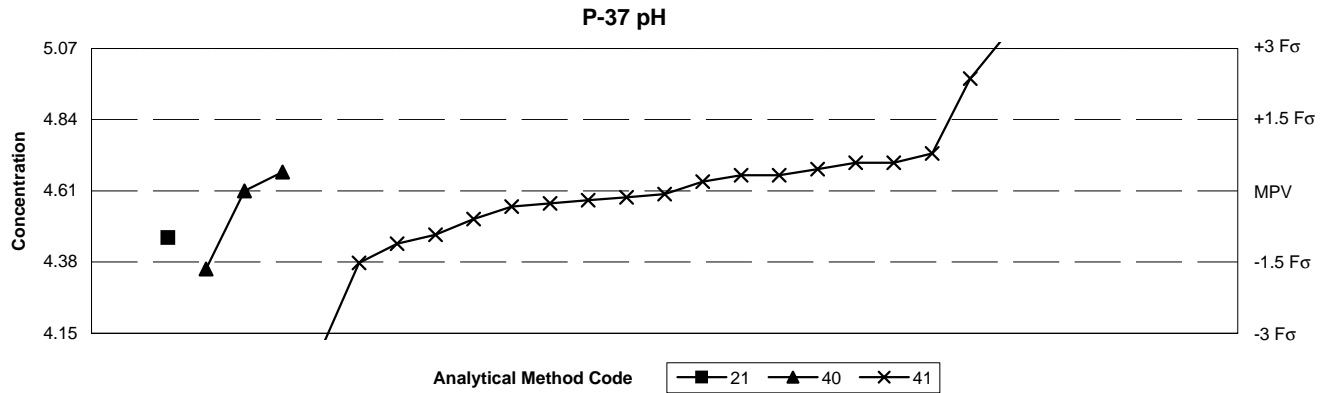
**Table 15. Statistical summary of reported data for standard reference sample P-37 (low ionic strength constituents)**  
 -- continued



SUMMARY	Methods					Method Codes	Statistics	
	0	1	4	7	12			
n =	4	6	16	3	2	00 Other	<b>MPV = 0.800 mg/L</b>	
Minimum =	0.56	0.77	0.272	0.82	0.73	01 Atomic absorption: direct, air	F-pseudsigma = 0.0660	
Maximum =	0.8	0.826	1.14	2	1.3	04 Inductively coupled plasma	n = 31	
Median =		0.790	0.835			07 Ion chromatography	Uh = 0.863	
F-pseudsigma =		0.030	0.092			12 Flame emission	Lh = 0.774	

Lab	Rating	Z-value	Method Codes				
			0	1	4	7	12
1	3	0.99	--	--	0.865	--	--
2	3	0.86	--	--	--	0.857	--
5	3	-0.56	--	--	0.763	--	--
23	4	-0.30	--	0.78	--	--	--
25	3	0.61	--	--	0.84	--	--
38	4	-0.45	--	0.77	--	--	--
59	0	18.19	--	--	--	2	--
64	4	-0.15	--	0.79	--	--	--
85	4	0.30	--	0.82	--	--	--
86	4	-0.23	--	--	0.785	--	--
89	2	-1.06	--	--	--	--	0.73
93	3	-0.76	--	--	0.75	--	--
110	4	-0.35	0.777	--	--	--	--
138	4	-0.33	--	--	0.778	--	--
180	2	1.36	--	--	0.89	--	--
190	4	0.39	--	0.826	--	--	--
193	4	-0.15	--	0.79	--	--	--
224	3	-0.88	--	--	0.742	--	--
228	4	0.30	--	--	--	0.82	--
247	0	3.79	--	--	1.05	--	--
265	4	0.00	--	--	0.8	--	--
270	0	7.58	--	--	--	--	1.3
279	4	0.00	0.8	--	--	--	--
315	0	4.55	--	--	1.1	--	--
326	3	-0.97	0.736	--	--	--	--
328	1	1.52	--	--	0.9	--	--
332	3	0.91	--	--	0.86	--	--
333	4	0.45	--	--	0.83	--	--
336	0	-3.64	0.56	--	--	--	--
370	0	5.15	--	--	1.14	--	--
372	0	-8.00	--	--	0.272	--	--

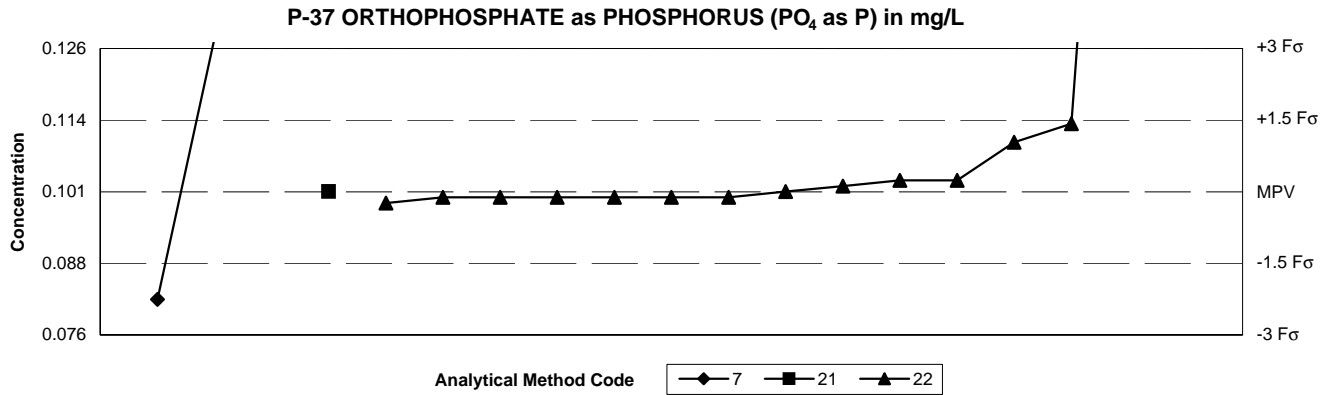
**Table 15. Statistical summary of reported data for standard reference sample P-37 (low ionic strength constituents) -- continued**



SUMMARY	Methods				Method Codes	Statistics	
	0	21	40	41			
n =	1	1	3	22	00 Other	<b>MPV = 4.61</b>	
Minimum =	3.86	4.46	4.36	4.1	21 Titration: electrometric	F-pseudosigma = 0.152	
Maximum =			4.67	7.29	40 Ion selective electrode	Rating criterion= 0.231	
Median =				4.65	41 Electrometric	n = 27	
F-pseudosigma =				0.126		Uh = 4.70	
						Lh = 4.50	

Lab	Rating	Z-value	Method Codes			
			0	21	40	41
1	1	1.56	--	--	--	4.97
2	3	-0.73	--	--	--	4.441
5	0	7.98	--	--	--	6.45
23	4	0.22	--	--	--	4.66
25	0	2.21	--	--	--	5.12
33	4	-0.39	--	--	--	4.52
38	4	-0.04	--	--	--	4.6
59	4	0.13	--	--	--	4.64
64	4	0.30	--	--	--	4.68
85	4	-0.09	--	--	--	4.59
89	3	-0.65	--	4.46	--	--
93	4	0.26	--	--	4.67	--
110	4	0.00	--	--	4.61	--
113	4	-0.22	--	--	--	4.56
138	4	0.39	--	--	--	4.7
155	0	-2.21	--	--	--	4.1
180	3	-0.61	--	--	--	4.47
190	2	-1.08	--	--	4.36	--
224	3	-1.00	--	--	--	4.38
228	4	-0.13	--	--	--	4.58
247	4	0.22	--	--	--	4.66
277	0	6.42	--	--	--	6.09
328	0	11.63	--	--	--	7.29
333	4	-0.17	--	--	--	4.57
336	0	-3.25	3.86	--	--	--
370	3	0.52	--	--	--	4.73
372	4	0.39	--	--	--	4.7

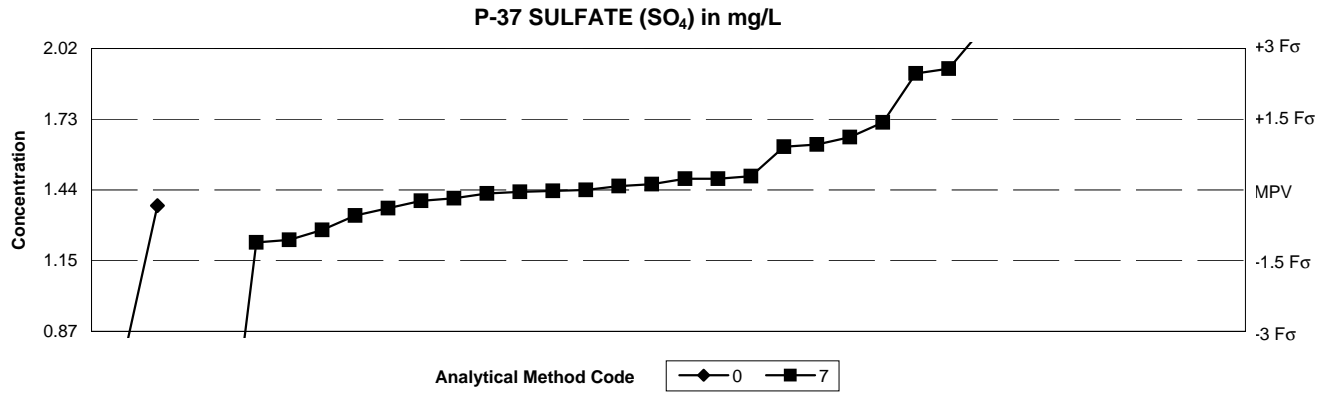
**Table 15. Statistical summary of reported data for standard reference sample P-37 (low ionic strength constituents)**  
 -- continued



SUMMARY	Methods			Method Codes	Statistics	
	7	21	22			
n =	3	1	15	07 Ion chromatography	<b>MPV = 0.101 mg/L</b>	
Minimum =	0.082	0.101	0.099	21 Titration: electrometric	F-pseudosigma = 0.0084	
Maximum =	0.13		0.456	22 Colorimetric	n = 19	
Median =			0.101		Uh = 0.111	
F-pseudosigma =			0.005		Lh = 0.100	

Lab	Rating	Z-value	Method Codes		
			7	21	22
5	0	3.45	0.13	--	--
23	4	0.24	--	--	0.103
25	2	1.43	--	--	0.113
33	0	-2.26	0.082	--	--
38	4	-0.12	--	--	0.1
64	4	0.24	--	--	0.103
85	4	-0.12	--	--	0.1
89	4	0.00	--	0.101	--
93	4	-0.12	--	--	0.1
113	4	0.12	--	--	0.102
138	4	0.00	--	--	0.101
155	2	1.03	--	--	0.11
180	4	-0.12	--	--	0.1
190	4	-0.24	--	--	0.099
224	0	42.19	--	--	0.456
247	0	3.21	0.128	--	--
328	0	17.71	--	--	0.25
370	4	-0.12	--	--	0.1
372	4	-0.12	--	--	0.1

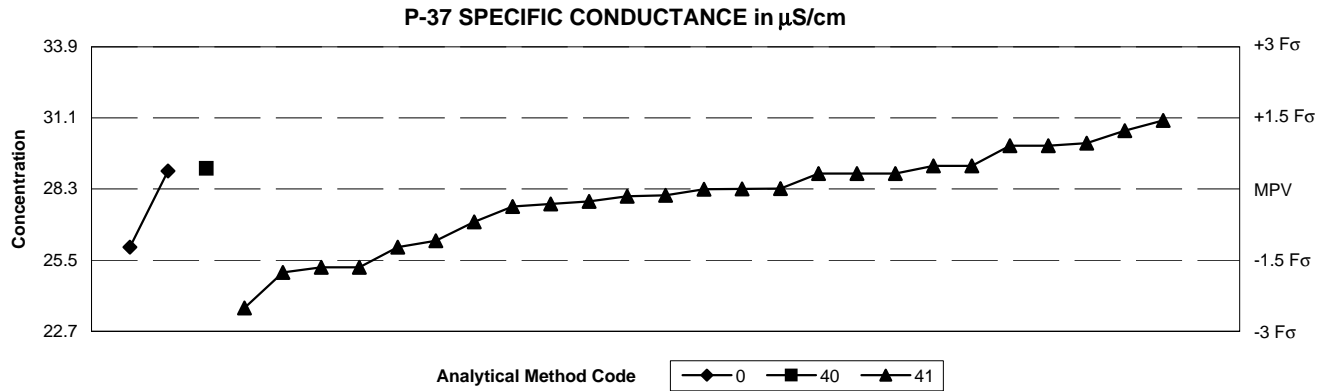
**Table 15. Statistical summary of reported data for standard reference sample P-37 (low ionic strength constituents)**  
 -- continued



SUMMARY	Methods			Method Codes	Statistics	
	0	7	22			
n =	2	27	0	00 Other	<b>MPV = 1.44 mg/L</b>	
Minimum =	0.77	0.1	0	07 Ion chromatography	F-pseudosigma = 0.193	
Maximum =	1.38	4.1		22 Colorimetric	n = 29	
Median =		1.46			U <sub>h</sub> = 1.63	
F-pseudosigma =		0.193			L <sub>h</sub> = 1.37	

Lab	Rating	Z-value	Method Codes		
			0	7	22
1	4	0.08	--	1.46	--
2	4	0.12	--	1.467	--
5	3	0.97	--	1.63	--
23	2	1.43	--	1.72	--
25	NR	--	--	<5	--
33	4	-0.18	--	1.41	--
59	3	-0.85	--	1.28	--
64	4	0.24	--	1.49	--
85	4	0.29	--	1.5	--
89	0	-6.77	--	0.14	--
93	4	-0.02	--	1.44	--
110	4	-0.04	--	1.436	--
113	0	2.57	--	1.94	--
138	4	-0.23	--	1.4	--
180	0	2.47	--	1.92	--
190	4	-0.07	--	1.43	--
193	2	-1.06	--	1.24	--
208	0	3.40	--	2.1	--
224	4	0.00	--	1.444	--
228	2	-1.11	--	1.23	--
247	3	0.91	--	1.62	--
255	NR	--	--	--	<20
265	3	-0.54	--	1.34	--
277	4	-0.38	--	1.37	--
315	0	-6.97	--	0.1	--
326	4	-0.33	1.38	--	--
328	0	13.78	--	4.1	--
333	4	0.24	--	1.49	--
336	0	-3.50	0.77	--	--
370	2	1.12	--	1.66	--
372	0	8.64	--	3.11	--

**Table 15. Statistical summary of reported data for standard reference sample P-37 (low ionic strength constituents)**  
 -- continued



SUMMARY	Methods			Method Codes	Statistics	
	0	40	41			
n =	2	1	25	00 Other	<b>MPV = 28.3 <math>\mu\text{S}/\text{cm}</math></b>	
Minimum =	26	29.1	23.6	40 Ion selective electrode	F-pseudosigma = 1.87	
Maximum =	29		31	41 Electrometric	n = 28	
Median =			28.3		Uh = 29.2	
F-pseudosigma =			1.63		Lh = 26.6	

Lab	Rating	Z-value	Method Codes		
			0	40	41
1	2	-1.22	--	--	26
2	4	-0.13	--	--	28.04
5	1	-1.76	--	--	25
23	4	0.33	--	--	28.9
25	2	1.45	--	--	31
33	2	1.23	--	--	30.6
38	1	-1.65	--	--	25.2
59	4	-0.37	--	--	27.6
64	4	-0.26	--	--	27.8
85	2	-1.22	26	--	--
86	4	0.01	--	--	28.31
89	4	0.33	--	--	28.9
93	1	-1.65	--	--	25.2
110	4	-0.32	--	--	27.7
113	4	0.49	--	--	29.2
138	3	-0.69	--	--	27
155	2	-1.09	--	--	26.25
180	4	0.33	--	--	28.9
190	4	0.43	--	29.1	--
193	4	0.01	--	--	28.3
224	4	0.49	--	--	29.2
228	4	-0.01	--	--	28.28
247	3	0.97	--	--	30.1
277	0	-2.51	--	--	23.6
328	4	0.38	29	--	--
333	3	0.91	--	--	30
370	3	0.91	--	--	30
372	4	-0.15	--	--	28

Table 16. Statistical summary of reported data for standard reference sample HG-33 (mercury)

Hg-33 MERCURY (Hg) in µg/L

SUMMARY	Methods					Method Codes	Statistics
	0	6	8	9	11		
n =	2	1	24	4	1	00 Other	MPV = suspect data
Minimum =	0.935	0.54	0.25	0.285	1.15	06 Inductively coupled plasma/mass spectrometry	
Maximum =	1.22		2.13	1.53		08 Atomic absorption: cold vapor	
Median =			0.490			09 Atomic fluorescence	
F-pseudosigma =			0.325			11 Atomic absorption: hydride	

Lab	Rating	Z-value	Method Codes				
			0	6	8	9	11
1	NR	2.20	--	--	--	1.53	--
10	NR	-0.19	--	--	0.48	--	--
12	NR	0.54	--	--	0.8	--	--
16	NR	0.65	--	--	0.85	--	--
23	NR	-0.15	--	--	0.5	--	--
32	NR	-1.06	--	<0.1	--	--	--
46	NR	-0.57	--	--	0.314	--	--
50	NR	-0.06	--	0.54	--	--	--
59	NR	-0.72	--	--	0.25	--	--
89	NR	-0.70	--	--	0.258	--	--
96	NR	0.42	--	--	0.747	--	--
97	NR	0.95	--	--	0.98	--	--
138	NR	-0.53	--	--	0.332	--	--
142	NR	-0.35	--	--	0.41	--	--
146	NR	-0.12	--	--	0.511	--	--
147	NR	2.11	--	--	--	1.49	--
180	NR	0.31	--	--	0.699	--	--
193	NR	-0.46	--	--	0.362	--	--
198	NR	3.57	--	--	2.13	--	--
212	NR	-0.72	--	--	0.25	--	--
234	NR	0.72	--	--	0.88	--	--
245	NR	1.31	--	--	--	1.14	--
247	NR	-0.62	--	--	0.291	--	--
256	NR	0.84	0.935	--	--	--	--
259	NR	0.06	--	--	0.59	--	--
298	NR	1.49	1.22	--	--	--	--
304	NR	-0.64	--	--	--	0.285	--
307	NR	1.33	--	--	--	--	1.15
328	NR	0.47	--	--	0.77	--	--
331	NR	-0.42	--	--	0.38	--	--
334	NR	-0.35	--	--	0.41	--	--
370	NR	1.08	--	--	1.04	--	--
372	NR	-0.44	--	--	0.37	--	--

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

[MPV, most probable value; n, number of samples; µg/L, microgram per liter; mg/L, milligram per liter; µS/cm, microsiemens per centimeter at 25 degrees Celsius; ( ) rating criterion]

**T-167**

<b>Analyte =</b>	<b>Silver</b>	<b>Aluminum</b>	<b>Arsenic</b>	<b>Boron</b>	<b>Barium</b>
MPV =	6.70 µg/L	21.5 µg/L	22.1 µg/L	24.3 µg/L	20.6 µg/L
F-pseudostigma =	0.445	5.89	1.41	3.63	0.85 (1.03)
n =	39	32	46	25	39
<b>Analyte =</b>	<b>Beryllium</b>	<b>Calcium</b>	<b>Cadmium</b>	<b>Cobalt</b>	<b>Chromium</b>
MPV =	10.8 µg/L	5.15 mg/L	10.4 µg/L	6.80 µg/L	22.6 µg/L
F-pseudostigma =	0.59	0.245 (0.258)	0.50 (0.52)	0.282 (0.340)	1.07 (1.13)
n =	38	55	52	36	48
<b>Analyte =</b>	<b>Copper</b>	<b>Iron</b>	<b>Potassium</b>	<b>Lithium</b>	<b>Magnesium</b>
MPV =	20.6 µg/L	56.1 µg/L	4.76 mg/L	13.6 µg/L	4.80 mg/L
F-pseudostigma =	1.00 (1.03)	4.23	0.222 (0.238)	0.82	0.189 (0.240)
n =	52	47	50	17	55
<b>Analyte =</b>	<b>Manganese</b>	<b>Molybdenum</b>	<b>Sodium</b>	<b>Nickel</b>	<b>Lead</b>
MPV =	18.5 µg/L	20.1 µg/L	7.34 mg/L	12.0 µg/L	21.5 µg/L
F-pseudostigma =	0.78 (0.92)	1.42	0.345 (0.367)	0.52 (0.60)	1.33
n =	52	36	52	44	52
<b>Analyte =</b>	<b>Antimony</b>	<b>Selenium</b>	<b>Silica</b>	<b>Strontium</b>	<b>Thallium</b>
MPV =	22.1 µg/L	3.67 µg/L	5.90 mg/L	41.2 µg/L	22.0 µg/L
F-pseudostigma =	1.52	0.615	0.244 (0.295)	1.85 (2.06)	0.99 (1.10)
n =	32	29	27	33	31
<b>Analyte =</b>	<b>Uranium</b>	<b>Vanadium</b>	<b>Zinc</b>		
MPV =	4.00 µg/L	16.8 µg/L	3.90 µg/L		
F-pseudostigma =	0.222	1.19	0.600		
n =	13	36	31		

**M-160**

<b>Analyte =</b>	<b>Alkalinity</b>	<b>Boron</b>	<b>Calcium</b>	<b>Chloride</b>	<b>Fluoride</b>
MPV =	74.0 mg/L	89.0 µg/L	13.7 mg/L	74.7 mg/L	0.240 mg/L
F-pseudostigma =	2.93 (3.70)	5.11	0.94	2.34 (3.74)	0.0237
n =	52	27	57	56	41
<b>Analyte =</b>	<b>Potassium</b>	<b>Magnesium</b>	<b>Sodium</b>	<b>pH</b>	<b>Residue on Evaporation</b>
MPV =	2.20 mg/L	15.0 mg/L	72.5 mg/L	10.2	299 mg/L
F-pseudostigma =	0.156	0.59 (0.75)	2.48 (3.63)	0.24 (0.51)	8.9 (14.9)
n =	51	54	55	52	42
<b>Analyte =</b>	<b>Silica</b>	<b>Sulfate</b>	<b>Specific Conductance</b>	<b>Strontium</b>	<b>Total Phosphorus as P</b>
MPV =	3.96 mg/L	73.3 mg/L	560 µS/cm	43.9 µg/L	0.152 mg/L
F-pseudostigma =	0.274	3.59 (3.67)	22.2 (28.0)	2.08 (2.20)	0.0148
n =	38	54	49	30	33
<b>Analyte =</b>	<b>Vanadium</b>				
MPV =	14.1 µg/L				
F-pseudostigma =	1.26				
n =	26				



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

[MPV, most probable value; n, number of samples; µg/L, microgram per liter; mg/L, milligram per liter; µS/cm, microsiemens per centimeter at 25 degrees Celsius; ( ) rating criterion]

<b>N-71</b>	<b>Analyte =</b>	<b>Ammonia as N</b>	<b>Ammonia + Organic N as N</b>	<b>Nitrate as N</b>	<b>Total Phosphorus as P</b>	<b>Orthophosphate as P</b>
	MPV =	0.063 mg/L	0.091 mg/L	0.067 mg/L	0.068 mg/L	0.064 mg/L
	F-pseudostigma =	0.0074	0.0715	0.0052	0.0037	0.0037
	n =	46	32	51	45	47

<b>N-72</b>	<b>Analyte =</b>	<b>Ammonia as N</b>	<b>Ammonia + Organic N as N</b>	<b>Nitrate as N</b>	<b>Total Phosphorus as P</b>	<b>Orthophosphate as P</b>
	MPV =	0.740 mg/L	0.780 mg/L	0.630 mg/L	0.749 mg/L	0.711 mg/L
	F-pseudostigma =	0.0510	0.0600	0.0226 (0.0315)	0.0293 (0.0375)	0.0208 (0.0356)
	n =	48	37	52	43	47

<b>P-37</b>	<b>Analyte =</b>	<b>Acidity</b>	<b>Calcium</b>	<b>Chloride</b>	<b>Fluoride</b>	<b>Potassium</b>
	MPV =	9.01 mg/L	1.03 mg/L	3.10 mg/L	0.103 mg/L	0.500 mg/L
	F-pseudostigma =	4.744	0.116	0.148 (0.155)	0.0297	0.0385
	n =	7	33	29	19	30

	<b>Analyte =</b>	<b>Magnesium</b>	<b>Sodium</b>	<b>pH</b>	<b>Orthophosphate as P</b>	<b>Sulfate</b>
	MPV =	0.506 mg/L	0.800 mg/L	4.61	0.101 mg/L	1.44 mg/L
	F-pseudostigma =	0.0289	0.0660	0.152 (0.231)	0.0084	0.193
	n =	31	31	27	19	29

	<b>Analyte =</b>	<b>Specific Conductance</b>
	MPV =	28.3 µS/cm
	F-pseudostigma =	1.87
	n =	28

<b>HG-33</b>	<b>Analyte =</b>	<b>Mercury</b>
	MPV =	suspect data
	F-pseudostigma =	
	n =	

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 for T-167	Unacceptable Analytes for M-160	Unacceptable Analytes for N-71	Unacceptable Analytes for N-72	Unacceptable Analytes for P-37	Unacceptable Analytes for HG-33
1	62	95%		Boron Potassium			pH	
2	9	100%						
4	1	100%						
5	58	55%	Silver Aluminum Beryllium Calcium Cobalt Copper Potassium Magnesium Manganese Molybdenum Nickel Antimony Vanadium	Boron Fluoride Potassium Magnesium Residue on Evaporation Specific Conductance		Nitrate as N Phosphorus as P Orthophosphate as P	Magnesium pH Orthophosphate as P Specific Conductance	
10	31	94%	Zinc		Nitrate as N			
12	33	58%	Silver Cadmium Potassium Magnesium Molybdenum Selenium	Potassium Magnesium Sulfate Specific Conductance	Ammonia as N Ammonia + Organic N as N Phosphorus as P	Ammonia + Organic N as N		
16	51	82%	Aluminum	Fluoride Residue on Evaporation Sulfate Specific Conductance	Ammonia as N Nitrate as N	Ammonia + Organic N as N Nitrate as N		
21	6	100%						
23	48	83%	Arsenic Sodium	Phosphorus as P	Ammonia as N Nitrate as N	Nitrate as N	Calcium Potassium	
24	31	94%	Cobalt Copper					
25	53	51%	Barium Calcium Chromium Potassium Lithium Magnesium Nickel Lead Silica Thallium	Alkalinity Boron Calcium Chloride Fluoride Magnesium Residue on Evaporation Silica	Ammonia as N Orthophosphate as P	Ammonia as N Ammonia + Organic N as N Phosphorus as P	Chloride Potassium pH	
31	5	100%						
32	43	91%		Magnesium Sodium Specific Conductance Phosphorus as P				
33	12	75%			Orthophosphate as P	Orthophosphate as P	Orthophosphate as P	
38	27	78%		Alkalinity	Ammonia as N	Ammonia as N Phosphorus as P	Acidity Specific Conductance	
42	49	88%	Beryllium Strontium	pH Strontium	Phosphorus as P Orthophosphate as P			
45	20	65%	Iron Potassium Magnesium Manganese Sodium	Fluoride Potassium				
46	21	100%						
50	36	92%	Silver	Alkalinity Fluoride				
51	5	100%						
53	4	50%			Orthophosphate as P	Nitrate 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 for T-167	Unacceptable Analytes for M-160	Unacceptable Analytes for N-71	Unacceptable Analytes for N-72	Unacceptable Analytes for P-37	Unacceptable Analytes for HG-33
59	52	87%	Calcium Antimony				Calcium Chloride Potassium Magnesium Sodium	
64	29	97%			Ammonia as N			
70	47	77%	Iron Selenium Uranium	Fluoride Phosphorus as P	Ammonia as N Nitrate as N Phosphorus as P Orthophosphate as P	Ammonia as N Phosphorus as P		
72	10	30%			Ammonia as N Nitrate as N Phosphorus as P Orthophosphate as P	Ammonia + Organic N as N Nitrate as N Phosphorus as P		
76	19	100%						
84	17	88%		Fluoride		Orthophosphate as P		
85	35	97%		Vanadium				
86	36	89%	Zinc	Boron Vanadium		Ammonia as N		
89	57	77%	Silver Beryllium Calcium Cadmium Antimony Thallium Vanadium	Silica Vanadium			Calcium Fluoride Magnesium Sulfate	
91	7	86%			Phosphorus as P			
93	43	88%	Cadmium Sodium	Silica	Orthophosphate as P		Specific Conductance	
96	27	93%		Fluoride	Orthophosphate as P			
97	39	74%	Aluminum Arsenic Cobalt Chromium Manganese Nickel Lead Selenium Thallium	Sulfate				
100	48	65%	Boron Cadmium Chromium Molybdenum Nickel Silica	Alkalinity Calcium Magnesium Residue on Evaporation Silica	Ammonia as N Ammonia + Organic N as N Orthophosphate as P	Ammonia as N Ammonia + Organic N as N Nitrate as N		
102	5	80%				Orthophosphate as P		
109	17	59%	Calcium Potassium Manganese	Alkalinity Chloride Potassium Sulfate				
110	16	94%			Ammonia as N			
113	52	94%	Sodium Thallium				Sulfate	
118	15	93%				Nitrate as N		
121	19	84%	Cadmium Nickel Zinc					
138	61	98%					Chloride	
142	52	85%	Manganese Sodium Silica	Alkalinity Magnesium	Ammonia as N Phosphorus as P Orthophosphate as P			
146	44	82%	Aluminum Cobalt Nickel Antimony	Phosphorus as P	Phosphorus as P Orthophosphate as P	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 for T-167	Unacceptable Analytes for M-160	Unacceptable Analytes for N-71	Unacceptable Analytes for N-72	Unacceptable Analytes for P-37	Unacceptable Analytes for HG-33
147	7	100%						
149	3	100%						
155	21	86%		Calcium			Calcium pH	
180	44	89%	Nickel		Nitrate as N		Fluoride Potassium Sulfate	
190	49	96%					Calcium Magnesium	
193	34	85%	Beryllium Cadmium		Nitrate as N	Ammonia + Organic N as N	Calcium	
198	30	93%	Molybdenum		Orthophosphate as P			
205	2	100%						
208	6	67%				Nitrate as N	Sulfate	
212	42	88%	Boron Iron Lithium Zinc	Phosphorus as P				
224	51	59%	Silver Arsenic Barium Beryllium Cadmium Cobalt Chromium Manganese Lead Vanadium	Alkalinity Calcium Fluoride Potassium	Ammonia as N Ammonia + Organic N as N Nitrate as N Phosphorus as P	Ammonia as N Ammonia + Organic N as N	Orthophosphate as P	
227	17	82%				Ammonia as N Ammonia + Organic N as N Phosphorus as P		
228	8	100%						
234	51	94%			Ammonia as N Orthophosphate as P	Phosphorus as P		
247	44	70%	Arsenic Beryllium Calcium Lithium		Orthophosphate as P	Ammonia as N Ammonia + Organic N as N Phosphorus as P	Calcium Chloride Magnesium Sodium Orthophosphate as P	
254	30	87%	Chromium Lithium Molybdenum	Strontium				
255	21	76%	Calcium Manganese Zinc	Sulfate			Magnesium	
256	34	79%	Arsenic Copper Silica Strontium Thallium	Fluoride Phosphorus as P				
259	31	97%	Iron					
263	8	100%						
265	44	95%	Lithium Nickel					
266	12	92%		Calcium				
269	3	100%						
270	8	38%	Sodium	Alkalinity Chloride			Potassium Sodium	

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 for T-167	Unacceptable Analytes for M-160	Unacceptable Analytes for N-71	Unacceptable Analytes for N-72	Unacceptable Analytes for P-37	Unacceptable Analytes for HG-33
277	30	40%	Silver Barium Cadmium Cobalt Chromium Copper Iron Potassium Magnesium Manganese Nickel Lead	Fluoride Potassium Specific Conductance			Chloride pH Specific Conductance	
279	11	64%	Calcium	Potassium			Potassium Magnesium	
301	6	50%	Calcium			Nitrate as N Orthophosphate as P		
304	21	95%	Boron					
307	21	67%	Cadmium Iron Manganese Nickel Selenium Zinc			Ammonia as N		
313	8	88%				Ammonia + Organic N as N		
315	18	33%	Calcium Iron Potassium Sodium	Calcium Chloride Potassium Sulfate			Potassium Magnesium Sodium Sulfate	
316	5	100%						
317	6	50%			Nitrate as N Orthophosphate as P	Ammonia as N		
318	5	80%			Ammonia as N			
319	2	100%						
320	9	89%				Orthophosphate as P		
326	33	91%	Cobalt Potassium	Potassium				
328	64	61%	Aluminum Boron Barium Cobalt Chromium Copper Potassium Manganese Molybdenum Nickel Zinc	Boron Fluoride Potassium Vanadium	Ammonia + Organic N as N Orthophosphate as P	Ammonia + Organic N as N Orthophosphate as P	Chloride Potassium Sodium pH Orthophosphate as P Sulfate	
330	37	81%	Boron Calcium Cadmium Potassium Molybdenum Sodium	Sodium				
331	34	53%	Silver Aluminum Barium Beryllium Calcium Cobalt Copper Lithium Manganese Molybdenum Nickel Strontium Vanadium Zinc	Boron Strontium				

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 for T-167	Unacceptable Analytes for M-160	Unacceptable Analytes for N-71	Unacceptable Analytes for N-72	Unacceptable Analytes for P-37	Unacceptable Analytes for HG-33
332	22	64%	Aluminum Barium Iron Manganese Lead Strontium	Strontium			Potassium	
333	13	100%						
334	44	84%	Manganese Sodium Nickel Antimony Strontium	Chloride Sulfate				
336	21	14%	Calcium Cadmium Potassium Magnesium Sodium	Alkalinity Chloride Potassium Magnesium pH Sulfate			Calcium Chloride Potassium Magnesium Sodium pH Sulfate	
341	24	83%		Alkalinity Strontium	Orthophosphate as P	Orthophosphate as P		
356	29	86%	Copper Strontium Vanadium			Ammonia + Organic N as N		
366	20	90%			Phosphorus as P	Phosphorus as P		
368	2	100%						
369	4	50%			Ammonia + Organic N as N Phosphorus as P			
370	55	56%	Silver Cobalt Copper Potassium Sodium Lead Silica Strontium Thallium Vanadium	Calcium Chloride Potassium Sodium Residue on Evaporation Silica Strontium Vanadium	Ammonia + Organic N as N Nitrate as N Phosphorus as P	Ammonia + Organic N as N	Calcium Sodium	
372	63	38%	Silver Aluminum Arsenic Boron Barium Beryllium Cadmium Cobalt Chromium Copper Iron Lithium Manganese Molybdenum Sodium Nickel Lead Antimony Silica Strontium Thallium Vanadium Zinc	Boron Chloride Sodium Sulfate Strontium Phosphorus as P Vanadium	Nitrate as N Phosphorus as P	Ammonia + Organic N as N Phosphorus as P	Fluoride Potassium Magnesium Sodium Sulfate	
373	5	100%						